

**SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**



**ITEM: 12.1
(ID # 14150)**

MEETING DATE:

Tuesday, January 12, 2021

FROM: DEPARTMENT OF WASTE RESOURCES:

SUBJECT: DEPARTMENT OF WASTE RESOURCES: Approval of Contract Documents for the Construction of Landfill Gas Collection System Components at the Badlands, Lamb Canyon, Corona, and Mecca II Landfills and as Needed Perimeter Probe Installation at any Riverside County Owned or Maintained Landfill, All Districts. [\$0 – Department of Waste Resources Enterprise Funds] (CEQA Exempt)

RECOMMENDED MOTION: That the Board of Supervisors:

1. Find that the Project is exempt from the California Environmental Quality Act (CEQA) pursuant to State CEQA Guidelines Section 15061(b)(3) (General Rule for Exemption), and categorically exempt pursuant to Sections 15301 (Existing Facilities), 15303 (New Construction or Conversion of Small Structures), and 15304 (Minor Alterations of Land); and
2. Approve the Contract Documents, including the plans and specifications, for the construction of Landfill Gas Collection System Components at the Badlands, Lamb Canyon, Corona and Mecca II Landfills and as needed perimeter probe installation at any Riverside County owned or maintained landfill; and
3. Authorize the General Manager-Chief Engineer of the Riverside County Department of Waste Resources (Department) to advertise for bids to be received by the Department up to 11:00 a.m. on Thursday, February 18, 2021 at which time the bids will be opened, and
4. Direct the Department to file the Notice of Exemption with the County Clerk upon approval of the Project.

ACTION:

Hans Kemkamp, General Manager - Chief Engineer 12/22/2020

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Jeffries, seconded by Supervisor Hewitt and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Jeffries, Spiegel, Washington, Perez and Hewitt
Nays: None
Absent: None
Date: January 12, 2021
xc: Waste Resources, Recorder

Kecia R. Harper
Clerk of the Board
By:
Deputy

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA**

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	\$ 0	\$ 0	\$ 0	\$ 0
NET COUNTY COST	\$ 0	\$ 0	\$ 0	\$ 0
SOURCE OF FUNDS: Department of Waste Resources Enterprise Fund			Budget Adjustment: No	
			For Fiscal Year: 20/21 - 23/24	

C.E.O. RECOMMENDATION: Approve

BACKGROUND:

Summary

As part of the Department's ongoing compliance with air quality regulations and efficient operation of the landfill gas collection systems at multiple landfills throughout the County, additional landfill gas collection wells, collection piping, and perimeter monitoring probes are required.

Consistent with past contract awards for similar work, the construction performed under this contract is structured as a three-year award with multiple call outs (up to thirty (30) mobilizations through the duration of the contract). This allows staff to respond quickly to field conditions at our two regional landfills, Badlands and Lamb Canyon. This contract also allows for additional work to be done at the closed Corona and Mecca II landfills and install perimeter gas detection probes as needed at any active or inactive County owned or maintained landfill. Time of completion for each call-out will be specific and based upon a mobilization and scope of work formula for each item of work, as defined in the special provisions.

CEQA Findings

The Project is exempt from CEQA pursuant to the State CEQA Guidelines Section 15061(b)(3) (General Rule for Exemption), and categorically exempt from CEQA pursuant to Sections 15301 (Existing Facilities), 15303 (New Construction or Conversion of Small Structures), and 15304 (Minor Alterations of Land).

The Project contemplated in this Form 11 involves approval of contract documents, including plans and specifications, for the construction of landfill gas collection systems at the Badlands, Lamb Canyon, Corona, and Mecca II landfills. In addition, it will allow for the installation of perimeter gas probes at any active or inactive County owned or maintained landfill on an as needed basis. The Contract Documents, including Specifications, will be advertised, and ultimately, a contractor will be selected to complete the work (under a separate Board action). Project activities will consist of the approval of contract documents for the installation and maintenance of landfill gas collection system components, and as-needed perimeter probe installation, maintenance, and monitoring at Riverside County owned or maintained landfills, and will not affect any sensitive species, protected habitat, or archaeological/cultural resources since installation will occur on previously graded land and an existing disturbed areas. This work will not have a direct, indirect, or cumulatively significant effect on the environment. A Notice of Exemption (NOE) to this effect will be filed by the Department with the County Clerk upon Project approval.

Impact on Residents and Businesses

This contract ensures that landfill gas generated within the landfills will be collected and controlled in the most cost effective manner and in compliance with various local, state, and federal environmental regulations.

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA**

Additional Fiscal Information

The proposed motion in this Form-11 merely approves contract documents identifying proposed work at Riverside County Landfill sites, as well as authorizes the Department to advertise said contract documents. No expenses will be incurred as a result of this action.

Contract History and Price Reasonableness

The Engineer's estimate for this project, broken down by fiscal year, is shown in the table below:

Fiscal Year	Engineer's Estimate
FY 20/21	\$ 152,346
FY 21/22	\$ 708,713
FY 22/23	\$ 694,783
FY 23/24	\$ 457,038
Total	\$ 2,012,880

The action today, if approved, will authorize the Department to pursue competitive bids through the California Public Works Contract process. The Department will then return to the Board of Supervisors to seek approval to award the Contract to the lowest responsible bidder.

ATTACHMENTS:

- ATTACHMENT A.** Contract Documents
- ATTACHMENT B.** Appendix A: Project Drawings
- ATTACHMENT C.** Appendix B
- ATTACHMENT D.** Appendix C
- ATTACHMENT E.** Appendix D
- ATTACHMENT F.** Appendix E
- ATTACHMENT G.** CEQA Notice of Exemption


Scott Bruckner 1/4/2021


Gregory J. Priamos, Director County Counsel 12/30/2020



Hans W. Kernkamp, General Manager-Chief Engineer

Original Negative Declaration/Notice of Determination was routed to County Clerks for posting on...

1/14/21
Date

AK
Initial

NOTICE OF EXEMPTION

DATE: January 12, 2021

TO: County Clerk, County of Riverside

PROJECT CASE NO/TITLE: NOE 20-06/Contract Documents for the Construction and Maintenance of Landfill Gas Collection System Components, and as Needed Perimeter Probe Installation, Maintenance and Monitoring, at Riverside County Owned or Maintained Landfills

PROJECT LOCATION: Riverside County Owned or Maintained Landfills

PROJECT DESCRIPTION: Contract for the construction and maintenance of landfill gas collection system components, and as-needed perimeter probe installation, maintenance, and monitoring at Riverside County owned or maintained landfills. Additional Project activities may include execution of right of entry agreements and real property easements with adjacent property owners, as well as other minor administrative actions.

PUBLIC AGENCY APPROVING PROJECT: County of Riverside (County)

PROJECT SPONSOR: Riverside County Department of Waste Resources (RCDWR)

The Project is exempt from the provisions of CEQA, specifically by the State CEQA Guidelines as identified below. The Project will not result in any specific or general exceptions to the use of categorical exemptions as detailed under State CEQA Guidelines section 15300.2. The Project will not cause any impacts to scenic resources, historic resources, or unique sensitive environments and instead will improve the environment once the Project is completed. Further, no unusual circumstances or potential cumulative impacts would occur that may reasonably create a direct or reasonably foreseeable indirect physical environmental impact.

EXEMPT STATUS:

- Ministerial
- Declared Emergency
- Emergency Project
- Statutory Exemption
- Categorical Exemption: **Sections 15301, 15303 & 15304**
- Other Exemption: **Section 15061 (b)(3)**

REASONS FOR EXEMPTION:

Section 15061(b)(3) - General Rule Exemption

The activity is covered by the general rule that CEQA applies only to projects, which have the potential for causing a significant effect on the environment. Where it can be seen with certainty

**Contract for the Construction and Maintenance of Landfill Gas Collection System
Components at Riverside County Owned and Maintained Landfills**

January 12, 2021

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that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.

This project is exempt under Section 15061(b)(3) because:

The Project involves securing a construction contract with a qualified contractor to install, maintain, and monitor landfill gas collection systems at multiple landfills throughout the County. This work includes the installation and maintenance of additional landfill gas collection wells, collection piping, perimeter monitoring probes, and related components. Additional Project activities may include execution of right of entry agreements and real property easements with adjacent property owners, routine monitoring, as well as other minor administrative actions.

Construction related Project activities are not anticipated to significantly affect any sensitive species, protected habitat, or archaeological/cultural resources since installation will occur on previously graded land and existing disturbed areas.

The Project would not result in the potential for any significant effect on the environment. This determination is an issue of fact and sufficient evidence exists in the record that the activity will not have a significant effect on the environment. As such, the exemption applies and no further evaluation under CEQA is required. See *Muzzy Ranch Co. v. Solano County Airport Land Use Comm'n* (2007) 41 Cal. 4th 372.

Section 15301, Class 1 Existing Facilities

This exemption covers the operation, repair, maintenance, permitting, leasing, licensing, minor alteration, or demolition and removal of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible, or no expansion of use beyond that existing at the time of lead agency's determination.

This project is exempt under Section 15301 because:

The Project involves securing a construction contract with a qualified contractor to install, maintain, and monitor landfill gas collection systems at multiple landfills throughout the County. This work includes the installation and maintenance of additional landfill gas collection wells, collection piping, perimeter monitoring probes, and related components.

No significant environmental impacts will occur during Project construction as construction will occur in previously disturbed areas (active/closed landfills), and once completed, the Project will improve environmental conditions by ensuring compliance with environmental regulations thereby reducing the potential for negative impacts. Therefore, the Project meets the scope and intent of the Class 1 Categorical Exemption.

Section 15303, Class 3 New Construction or Conversion of Small Structures

This exemption covers construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure.

Contract for the Construction and Maintenance of Landfill Gas Collection System Components at Riverside County Owned and Maintained Landfills

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The project is exempt under Section 15303 because:

The Project involves securing a construction contract with a qualified contractor to carry out the installation and maintenance of landfill gas collection system components, as-needed perimeter probes, and routine monitoring at Riverside County owned and maintained landfills. The Project as proposed meets the scope and intent of the Class 3 Categorical Exemption.

Section 15304, Minor Alterations of Land

Class 4 consists of minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes. Examples include but are not limited to:

(c) Filling of earth into previously excavated land with material compatible with the natural features of the site.

(f) Minor trenching or backfilling where the surface is restored.

This project is exempt under Section 15304 because:

The Project involves securing a construction contract with a qualified contractor to carry out the installation and maintenance of landfill gas collection system components, as-needed perimeter probes, and routine monitoring at Riverside County owned and maintained landfills.

Project activities will occur in previously disturbed areas and does not involve the removal of healthy, mature, scenic trees, and is compatible with the natural features and existing conditions of the respective sites. Therefore the Project, as proposed, meets the scope and intent of the Class 4 Categorical Exemption.

FINDINGS:

- 1) Based upon the identified exemptions and justification above, the RCDWR, on behalf of the County, hereby concludes that no physical environmental impacts are anticipated to occur and the Project is exempt under CEQA. No further environmental analysis is warranted.
- 2) As demonstrated in the preceding section (Reasons for Exemption), the Project is exempt from CEQA pursuant to State CEQA Guidelines Sections 15061(b)(3), 15301, 15303 and 15304.

If there are any questions regarding the above matter, I can be reached at (951) 486-3200.

**Hans Kernkamp, General Manager - Chief Engineer
Riverside County Department of Waste Resources**

By: 
Kinika Hesterly

Title: Urban/Regional Planner IV

Date: January 12, 2021



CONTRACT DOCUMENTS

FOR

THE CONSTRUCTION OF

LANDFILL GAS COLLECTION SYSTEM

COMPONENTS

AT THE

BADLANDS, CORONA, LAMB CANYON, AND

MECCA II SANITARY LANDFILLS

AND

AS NEEDED

PERIMETER PROBE INSTALLATION

2021 TO 2024

FORM APPROVED COUNTY COUNSEL
BY Synthia M. Gunzel 12/29/2020
SYNTHIA M. GUNZEL DATE

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ADMINISTRATIVE PROVISIONS

FOR

THE CONSTRUCTION OF

LANDFILL GAS COLLECTION SYSTEM

COMPONENTS

AT THE

BADLANDS, CORONA, LAMB CANYON, AND

MECCA II SANITARY LANDFILLS

AND

AS NEEDED

PERIMETER PROBE INSTALLATION

2021 TO 2024

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NOTICE INVITING BIDS TO CONTRACTORS

The Riverside County Department of Waste Resources, hereinafter called "County," invites sealed bids for:

THE CONSTRUCTION OF LANDFILL GAS COLLECTION SYSTEM COMPONENTS
AT THE
BADLANDS, CORONA, LAMB CANYON, AND MECCA II SANITARY LANDFILLS
AND AS NEEDED PERIMETER PROBE INSTALLATION AT ANY RIVERSIDE COUNTY
OWNED AND MAINTAINED LANDFILL

On or after January 13, 2021, Contract Documents may be obtained upon payment to the County of \$70 per set if mailed by U.S. mail (mailing cost does not apply when using recipient's mailing account number). No refund will be made.

A digital copy of the Contract Documents and Project Drawings in PDF format will be available on the Department's website <http://www.rcwaste.org>. This digital data is to be used at the Contractor's own discretion. The County is not responsible for the manner in which the Contractor chooses to use the digital data. The County is not responsible for how this digital data might be converted by the Contractor to another format. The Contractor is solely responsible for its use of this digital data.

Each Bid Proposal must be accompanied by a Bid Security, in the form of cash, a certified check, cashier's check or Bid Bond, equal to ten percent (10%) of the amount Bid, payable to the County of Riverside as a guarantee that the Contractor will, if awarded the Contract, execute a satisfactory Contract and furnish the required bonds and provide the required certificates of insurance.

Bid Proposals must be placed in a sealed envelope clearly marked "Bid Proposal". Bid Proposals must be in accordance with the instructions and other Contract Documents and filed with the County by **11:00 AM on Thursday, February 18, 2021** at 14310 Frederick Street, Moreno Valley, CA 92553 which time and place are fixed for the public opening of bids. A **mandatory** pre-bid site review will be conducted at the Lamb Canyon Landfill on **Tuesday, January 26, 2021 at 10:00 AM**. The Lamb Canyon Landfill site address is 16411 Lamb Canyon Road, Beaumont, California. All questions and requests for clarification or interpretation of the Contract Documents must be submitted in writing by **5:00 PM on Tuesday, February 2, 2021** to Noah Rau via [emailto:nrau@rivco.org](mailto:nrau@rivco.org) or fax no. (951) 486-3250.

Pursuant to Labor Code Section 1771.1, any Contractor bidding and subcontractors to be listed on a Bid Proposal are subject to Public Contract Code Section 4104 and shall not be eligible to bid unless currently registered with the Department of Industrial Relations and qualified to perform public works pursuant to Labor Code section 1725.5. No Contractor or subcontractor

ADMINISTRATIVE PROVISIONS

may be awarded a public works project or enter into a Contract without proof of current registration to perform public works.

General prevailing rate of per diem wages and general prevailing rate of per diem wages for holiday and overtime work, including employer payments for health and welfare, pension, vacation, apprentices and similar purposes for each craft, classification or type of workman needed for execution of Contracts under the jurisdiction of the County have been obtained by the County from the Director of Industrial Relations of the State of California for the area where the Work is to be done. These are on file at the County's office, and will be made available to any interested person upon request. THIS PROJECT IS SUBJECT TO COMPLIANCE MONITORING AND ENFORCEMENT BY THE DEPARTMENT OF INDUSTRIAL RELATIONS. The awarded prime Contractor shall post job site notices, including a copy of the prevailing rate of per diem wages determinations made by the Director for the Department of Industrial Relations and other notices prescribed by regulations and comply with the provisions of the California Labor Code, including, without limitation, Sections 1771.4, 1773.1, 1773.2, 1774, 1775, 1776, and 1777.5.

Contractor shall furnish the records specified in Labor Code Section 1776, including but limited to the certified payroll records, directly to the Labor Commissioner for the Department of Industrial Relations.

Substitution of securities for any moneys withheld by County shall be permitted as provided for by Section 22300 of the California Public Contract Code.

Contractors submitting Bid Proposals for this Project shall have an active and in good standing Class A or C-34 Contractors license from the State of California in order to be considered eligible for the Contract award. The license(s) shall remain active and in good standing throughout the entire duration of the Project.

BIDDER QUALIFICATIONS:

A Bidder must satisfy the following requirements to bid on this Project:

1. The Contractor shall have successfully installed a minimum of ten thousand (10,000) linear feet of HDPE header pipe in a landfill for the collection of landfill gas, constructed five thousand (5,000) linear feet of horizontal landfill gas collection well, and constructed two thousand (2,000) linear feet of vertical landfill gas collection well.
2. The aforementioned qualification requirements shall also apply to either the Contractor's superintendent or its subcontractor's superintendent.

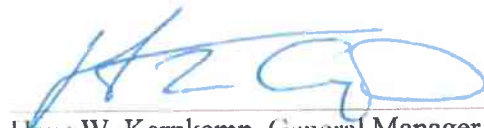
Bidders shall provide all the reference information requested on the Project Reference Form for the Bidder and for any and all subcontractor(s) listed to perform any work that requires the above qualifications.

SUBMITTAL REQUIREMENTS:

With the submittal of the Bid Proposal, the Contractor shall submit for approval by the County documented evidence of satisfaction of all of the Bidder Qualifications listed above, including the name and experience of the superintendent and lead personnel that will be responsible for each category of Work listed under the preceding paragraph "Bidder Qualifications". As part of this submittal, Project Reference Forms shall be completed indicating at a minimum, the name, address, and phone number of the project owner and owner's representative, the location of the project, the amount of material installed, and completion date.

Dated: 12/29/20

RIVERSIDE COUNTY
DEPARTMENT OF WASTE RESOURCES



Hans W. Kernkamp, General Manager - Chief Engineer

INSTRUCTIONS TO BIDDERS

ARTICLE 1 - GENERAL CONDITIONS

1.1 DEFINITIONS

Capitalized terms used on the Contract Documents shall have the meanings assigned to them in the Construction Agreement, Bonds, other Forms, General Provisions, and Special Provisions that are included in the Contract Documents. Capitalized terms not so defined shall have the meanings assigned to them in, or if none is assigned as reasonably interpreted according to the context of, the portion of the Contract Documents where such terms are used.

1.2 QUANTITIES

The amount of work to be done or materials to be furnished by the Contractor as stated in the Bid Proposal (except for lump sum items) are only estimates and are not to be taken as an expressed or implied statement that the actual amount of work or materials will correspond to the estimate. The County reserves the right to increase or decrease or to entirely eliminate certain items from the work or materials if found desirable or expedient. The Contractor will be allowed no claims for anticipated profits, loss of profits or for any damages of any sort because of any difference between the estimated and the actual amounts of work done, or materials furnished or used in the completed project.

1.3 AGREEMENT OF FIGURES

If the unit prices and the total amounts named by the Bidder in the Bid Proposal do not agree, the unit prices alone will be considered as representing the Bidder's intention.

1.4 "OR EQUAL"

Pursuant to Division 2, Chapter 3, Article 5, commencing at Section 3400 of the Public Contract Code, all specifications shall be deemed to include the words "or equal," provided, however, that permissible exceptions or other requirements shall be specifically noted in the specifications. Any "equal" proposed by the Contractor must be described in the Contractor's Proposal.

1.5 INSPECTION OF SITE AND UNDERSTANDING OF CONTRACT PROVISIONS

Prior to submission of a Bid, Bidders must have examined the site and fully acquainted themselves with all conditions affecting the Work. Information derived from maps, plans or specifications, or from the County, will not relieve the successful Bidder from properly carrying out all the terms of the written Contract. By the submittal of a Bid Proposal, the Bidder will be held to have personally examined the site and the drawings, to have carefully read all of the specifications and other Contract Documents, and to have satisfied itself as to its ability to meet all the difficulties attending

the execution of the Work. The Bidder agrees that if it is awarded the Contract it will make no claim against the County based on ignorance or misunderstanding of the Contract provisions; and that the Bidder fully understands the payment method for the Work.

1.6 QUALIFICATIONS OF BIDDERS

No Bid Proposal will be accepted from a Contractor who is not licensed under laws of California, as evidenced by the submittal of the Statement of Licensure by Contractor with the Bid Proposal. No award will be made to any Bidder who cannot give satisfactory assurance to the County as to its ability to carry out the Contract, both from its financial standing and by reason of its previous experience as a Contractor on work of the nature contemplated in the Contract. If a Bidder is a corporation, limited partnership or limited liability company, such entity shall be 1) duly incorporated, formed, or organized; 2) authorized to transact and do business in the State of California; and 3) is current, active and in good standing under the laws of the State of California.

1.7 VENDOR REGISTRATION

Contractors must be registered with the County in order to be considered eligible for the Contract award. To register, Contractors may utilize "Vendor Self-Registration" web site at <http://www.purchasing.co.riverside.ca.us> and complete the on-line registration form.

Information needed in order to register:

1. User name (This person will be responsible for original registration and any future change.)
2. User Password
3. Company information including:
 - a. All Addresses (Corporate, Remit to, Sales, etc.)
 - b. Company type (Corporation, partnership, sole proprietorship, etc.)
 - c. Tax Identification Number (or social security number for individuals)
 - d. Banking Information for future electronic payment processes
4. Contact Information including:
 - a. Names
 - b. Titles/Positions
 - c. Contact Numbers (Phone, Fax, Cell phone, etc.)
 - d. E-Mail address for future correspondences
5. List of items/services you wish to provide to the County.

1.8 BALANCE BID

The Contractor is cautioned against unbalancing of its Bid by including its overhead and profit into one or two items only when there are a number of items on the schedule. The overhead and indirect charges should be prorated on all items in the schedule.

1.9 ANTI-DISCRIMINATION

It is the policy of the County that, in connection with all work performed under this Contract, there be no discrimination against any prospective or active employee engaged in the Work because of race, color, ancestry, national origin, religious creed, sex, age, marital status, or sexual preference. The Contractor agrees to comply with applicable Federal and California laws including, but not limited to, the California Fair Employment Practice Act, beginning with Labor Code Section 1410, and Labor Code Section 1735. In addition, the Contractor agrees to require like compliance by any subcontractors employed on the Work.

1.10 REQUIRED SUBMITTALS

There are a number of forms and other documents required as submittals by the Bidder during the various stages of the Project. Table 1 provides a checklist of submittals required by the Bidder as requested in the Administrative and General Provisions. Bidders shall be made aware that the documents listed in the following table do not guarantee a complete submittal package.

Table 1: Required Submittal Checklist

	BID DOCUMENT	SUBMITTAL TIMEFRAME	CONTRACT DOCUMENT REFERENCE
<input type="checkbox"/>	Contractor's Proposal	with Bid Proposal	Administrative Provisions
<input type="checkbox"/>	List of Subcontractors	with Bid Proposal	Administrative Provisions: Instructions to Bidders, Article 2, Section 2.8
<input type="checkbox"/>	Contractor's Statement of Licensure	with Bid Proposal	Administrative Provisions: Instructions to Bidders, Article 1, Section 1.6
<input type="checkbox"/>	Non-Collusion Declaration	with Bid Proposal	Administrative Provisions, under Section "Bid Proposal"
<input type="checkbox"/>	Iran Contracting Act Certification	with Bid Proposal	Administrative Provisions, under Section "Bid Proposal"
<input type="checkbox"/>	Bid Bond (10% of Contract Price)	with Bid Proposal	Administrative Provisions: Instructions to Bidders, Article 2, Section 2.7
<input type="checkbox"/>	Project Reference Form(s) (Minimum of 5 References) Must provide all the information described on the Project Reference Form.	with Bid Proposal	Administrative Provisions: Notice Inviting Bids to Contractors, Submittal Requirements
<input type="checkbox"/>	Contractor's Statement of Qualifications Form(s)	with Bid Proposal	Administrative Provisions: Required Submittal Checklist (Table 1) and Article 3
<input type="checkbox"/>	Construction Agreement	within 5 days of Notice of Intent to Award	Administrative Provisions
<input type="checkbox"/>	Performance Bond (100% of Contract Price)	within 5 days of Notice of Intent to Award	Administrative Provisions: Instructions to Bidders, Article 4, Section 4.2
<input type="checkbox"/>	Payment Bond (100% of Contract Price)	within 5 days of Notice of Intent to Award	Administrative Provisions: Instructions to Bidders, Article 4, Section 4.2

<input type="checkbox"/>	Workers' Compensation Contractor Certificate	within 5 days of Notice of Intent to Award	Administrative Provisions, under Section "Construction Agreement, Bonds, and Other Forms"
<input type="checkbox"/>	Declaration of Sufficiency of Funds	within 5 days of Notice of Intent to Award	Administrative Provisions, under Section "Construction Agreement, Bonds, and Other Forms"
<input type="checkbox"/>	Certificates of Insurance	within 5 days of Notice of Intent to Award	Administrative Provisions: Article 4, Section 4.1.1
<input type="checkbox"/>	Construction Schedule	within 14 days of Notice of Intent to Award	Administrative Provisions: Article 4, Section 4.1.2
<input type="checkbox"/>	Schedule of Values	within 14 days of Notice of Intent to Award	Administrative Provisions: Article 4, Section 4.1.2
<input type="checkbox"/>	Affirmative Action Compliance Program (for Contractors with 50+ Employees)	within 30 days of Award of Contract	General Provisions: Section 5, Subsection 5.1.1

ARTICLE 2 - BIDDING PROCEDURES

2.1 PUBLIC OPENING OF BID PROPOSALS

Bid Proposals will be opened and read publicly at the time and place indicated in the Notice Inviting Bids to Contractors. Bidders or their authorized agents are invited to be present. Without limitation to the County's right to reject all bids received, if two or more responsive bids from bidders determined to be responsible are the same and the lowest bid received, then the successful bidder may be chosen by the County.

2.2 BID PROPOSAL FORMS

Attention of all Bidders is called to all Bid Proposal forms attached hereto and Bidders are cautioned that all Bid Proposals submitted must be accompanied by the proper declaration, properly executed and proof of acknowledgement. Bid Proposals must be made on the forms furnished by the County.

2.3 SUBMISSION OF BID PROPOSALS

All copies of the Contractor's Proposal, Bid Security, and other Bid Proposal Submittals shall be enclosed by the Bidder in a sealed opaque envelope. Said envelope, as well as any other, outer envelope or packaging in which said envelope may have been placed by Bidder or the carrier for delivery, shall be addressed and delivered as provided in the Notice Inviting Bids to Contractors.

2.4 TIMELY RECEIPT

The Bidder assumes full and sole responsibility for timely receipt of its Bid Proposal, including its Bid Security and all other Bid Submittals, at the location designated in the Notice Inviting Bids to Contractors.

2.5 DELIVERY METHOD

Submittal of Bid Proposals shall be by hand delivery or mail, only. Oral, telephonic, telegraphic, facsimile or other electronic transmission is not permitted.

2.6 INVALID BID PROPOSALS

Bid Proposals submitted by fax or e-mail and those which fail to reach the place fixed for opening of Bid Proposals prior to the date and hour set for opening same will not be considered.

2.7 BID SECURITY: BIDDER'S CASH, CHECK OR BOND

Each Bid Proposal must be accompanied by a Bid Security, in the form of cash, certified check, cashier's check, or by a Bid Bond only on the form supplied by the County, drawn in favor of the

County in an amount not less than ten percent (10%) of the Total Bid. This Bid Security shall be given as a guarantee that the Bidder, if identified on the Notice of Intent to Award, will execute and deliver the Agreement, the required Payment and Performance Bonds, and the required certificates of insurance in accordance with the Bid Proposal accepted by the County. In default of execution of the Agreement and/or delivery of said Payment and Performance Bonds and certificates of insurance, such Bid Security, the cash, Bid Bond or check, shall be held subject to payment to the County for the difference in money between the amount of the Contract with another party to perform the Work, together with the cost to the County of redrafting, redrawing and publishing documents and papers necessary to obtain new bids on said Work. The Bid Security, the cash, check or bond, shall, in addition, be held subject to all other actual damages suffered by the County. The Bid Security will be returned upon the close of the period mentioned in these instructions below and to the successful Bidder upon execution of the Agreement. NO BONDS WILL BE ACCEPTED UNLESS SUBMITTED ON THE FORM SUPPLIED BY THE COUNTY.

2.8 SUBLETTING AND SUBCONTRACTING

Bidders are required, pursuant to the Subletting and Subcontracting Fair Practices Act (commencing with Section 4100 of the Public Contract Code), to list in their Bid Proposal the name and location of place of business of each subcontractor who will perform work or labor or render services in or about the construction of the Work or improvement or a subcontractor who specially fabricates and installs a portion of the Work or improvement, in excess of one-half ($\frac{1}{2}$) of one percent (1%) of the prime Contractor's Total Bid. Failure to list a subcontractor for a portion of the Work means that the prime Contractor will do that portion of the Work.

2.9 DISCREPANCIES AND OMISSIONS

Discrepancies, omissions, ambiguities, or requirements likely to cause disputes shall be immediately brought to the attention of the County. When appropriate, Addenda will be issued by the County. No communication by anyone except by an Addendum affects the meaning or requirements of the Contract Documents. If at any time (before or after submittal of its Bid Proposal) the Contractor is of the opinion that there is or may be a discrepancy or inconsistency in the plans, drawings, specifications or other Contract Documents, it shall immediately report this in writing to the County and shall not proceed with any related work until ordered so to do.

2.10 ADDENDA

Interpretations, corrections, clarifications and changes to the Contract Documents will be made by Addenda. County reserves the right to issue Addenda to the Contract Documents at any time prior to the time set to open bids. Addenda will be transmitted by County to all prospective Bidders who (1) attended and signed in at the Mandatory Pre-Bid Site Review meeting (if any) or (2) have submitted a written request to County for notice of Addenda at [name and location where to be posted], including in such request the Bidder's name and address for mailing. Each potential Bidder shall leave with the County its name, address, and fax number for the purpose of receiving

Addenda. To be considered, a Contractor's Proposal must list and take into account all issued Addenda. Failure of the Bidder to receive any Addendum shall not relieve the Bidder from any of its obligations under its Contractor's Proposal. The costs of performance by Bidder of all items of Work and other obligations contained in all Addenda issued by the County shall be deemed included in the amount of the Contractor's Proposal. The Bidder shall identify and list in its Contractor's Proposal all Addenda received and included by the County as a basis for determining its Bid Proposal non-responsive.

2.11 POSTPONEMENT

The County reserves the right to postpone the time and date for the public opening of bids as specified in the Notice Inviting Bids to Contractors by issuance of an Addendum to the Contract Documents at any time prior to the specified time and date for public opening of bids.

2.12 REJECTION OF BID PROPOSALS CONTAINING ALTERATIONS, ERASURES OR IRREGULARITIES

Bid Proposals may be rejected if they show any alterations of form, additions not called for, conditional Bid Proposals, incomplete Bid Proposals, erasures, or irregularities of any kind. Erasures or interlineations in the Bid Proposal must be explained or noted over the signature of the Bidder. The County may determine as unresponsive any Bid Proposal in which any statement or representation made or incorporated by reference in the Contractor's Proposal, including any Bid submittal comprising the Bid Proposal, is false, incorrect or materially incomplete and misleading.

2.13 DISQUALIFICATION OF BIDDERS

More than one Bid Proposal from an individual, a firm or partnership, a corporation or an association under the same or different names will not be considered. Reasonable ground for believing that any Bidder is interested in more than one Bid Proposal for the Work contemplated will cause the rejection of all Bid Proposals in which such Bidder is interested. If there is any reason for believing that collusion exists among the Bidders, none of the participants in such collusion will be considered in awarding the Contract. Bid Proposals in which the prices appear to be unbalanced may be rejected.

2.14 WITHDRAWAL OF BID PROPOSALS

Any Bid Proposal may be withdrawn at any time prior to the hour fixed in the Notice Inviting Bids to Contractors for the opening of Bid Proposals, provided that a request in writing, executed by the Bidder or its duly authorized representative, for the withdrawal of such Bid Proposal, is filed with the County. The withdrawal of a Bid Proposal shall not prejudice the right of a Bidder to file a new Bid Proposal.

ARTICLE 3 - CONSIDERATION OF BIDS

3.1 BASIS OF AWARD

It is the intent of the County to award the Contract, if it be awarded, to the lowest, responsible and qualified Bidder submitting a Bid in accordance with the requirements of the bidding documents based upon all Bid items.

A responsible Bidder is a bidder who has demonstrated the attributes of trustworthiness, as well as quality, fitness, capacity and experience of the bidder to satisfactorily perform the proposed work and satisfy the requirements of the contract. The County may determine a Bidder to be non-responsible for purposes of this proposed work, if the Board of Supervisors for the County, in its discretion, finds that the Bidder has done any such acts or omissions, including without limitation, that: (1) violated a term of a contract for any public works project, including one with the County; (2) reflects negatively on the Bidder's quality, fitness or capacity to perform a contract with the County or any public entity; (3) made any false statements or claims against the County or any public entity; (4) demonstrates or indicates a lack of business integrity or honesty including such acts or omissions that would demonstrate a pattern or practice of such negative business practices; or (5) has violated any law or regulation required of a contractor in the submission of bids to or performance under any contracts with any public entity.

3.2 NOTICE OF INTENT TO AWARD

Within five (5) to thirty (30) days following public opening and reading of Bids, the County will issue a Notice of Intent to Award identifying the name of the Bidder to whom the County intends to Award the Construction Contract. Such notice will be mailed to all Bidders submitting a Bid Proposal. The County may, in its sole and absolute discretion, elect to extend the time for its issuance of its Notice of Intent to Award.

3.3 BID PROTESTS

Any Bidder submitting a Bid Proposal to the County may file a protest of the County's proposed Award of the Construction Contract provided that each and all of the following are complied with:

1. The bid protest is in writing.
2. The bid protest is both filed with and received by Hans W. Kernkamp, General Manager – Chief Engineer at the following address, 14310 Frederick Street, Moreno Valley, CA 92553, not more than five (5) business days following the date of issuance of the Notice of Intent to Award. Failure to timely file and serve the bid protest as aforesaid shall constitute grounds for the County's denial of the bid protest without consideration of the grounds stated therein.

3. The written bid protest sets forth, in detail, all grounds for the bid protest, including without limitation all facts, supporting documentation, legal authorities and argument in support of the grounds for the bid protest. Any grounds not set forth in the bid protest shall be deemed waived. All factual contentions must be supported by competent, admissible and credible evidence. Any bid protest not conforming to the foregoing shall be rejected as invalid.
4. Provided that a bid protest is filed in conformity with the foregoing, the General Manager – Chief Engineer, or such individual(s) as may be designated by the General Manager – Chief Engineer in his/her discretion, shall review and evaluate the basis of the bid protest, and shall provide a written decision to the Bidder submitting the bid protest, either concurring with or denying the bid protest. The written decision of the General Manager -Chief Engineer or his/her designee shall be final, unless overturned by the Board of Supervisors.

3.4 AWARD OF CONTRACT

The County reserves the right to reject any and all Bid Proposals or to waive any irregularities. Prior to award of the Contract, and if requested by County, the Contractor agrees to meet with the County to review the details and calculations of the Contractor's Proposal and the Contractor's understanding of any aspect of the Work.

3.5 RETURN OF BID SECURITY

Upon an award of the Contract, the County will return the Bid Security accompanying those Bid Proposals that are not considered in making the award within a reasonable period of time, but not to exceed beyond 60 days from the time the award of the Contract is made by the County. All other Bid Securities will be held until the Contract has been fully executed and the required bonds and certificates of insurance have been provided by the successful Bidder, after which such Bid Securities will be returned to the respective Bidders whose Bid Proposal they accompany.

ARTICLE 4 - POST NOTICE OF INTENT TO AWARD

4.1 POST-NOTICE OF INTENT TO AWARD SUBMITTALS

Within the time periods set forth below, the successful Bidder identified in the Notice of Intent to Award as the successful Bidder shall submit the following additional Post-Notice of Intent to Award submittals, completed and signed in the manner required by the Contract Documents, to the County at 14310 Frederick Street, Moreno Valley, CA 92553:

4.1.1 Within **five (5) days** after issuance by County to Bidder of the Notice of Intent to Award and prior to contract award, such Bidder shall submit to the County the following:

- (1) Construction Agreement duly executed by the authorized delegate of the contractor;
- (2) Performance Bond and Payment Bond (issued by Surety), as set forth in Section 4.2 below;
- (3) Evidence of Insurance, as specified by the Contract Documents;
- (4) Workers' Compensation Certificate, in the form specified by the Contract Documents; and
- (5) Declaration of Sufficiency of Funds (required only if the Bidder has not entered into a collective bargaining agreement covering the workers to be employed for performance of the Work), in the form specified by the Contract Documents.

4.1.2 Within **fourteen (14) days** after issuance by County to Bidder of the Notice of Intent to Award and prior to commencement of the Work, such Bidder shall submit to the County the following:

- (1) Construction Schedule, prepared by Bidder in the manner required by the Special Provisions; and
- (2) Schedule of Values, prepared by Bidder in the manner required by the Special Provisions.

4.2 CONTRACT SECURITY - PERFORMANCE AND PAYMENT BONDS

The Contractor shall furnish two (2) surety bonds in duplicate, one as a security for the faithful performance of the Contract in the amount equal to one hundred percent (100%) of the Contract price, and one as security for the payment of all persons performing labor and furnishing materials in connection with the Contract in an amount equal to one hundred percent (100%) of the Contract price. Both the Performance Bond and Payment Bond shall be issued by an admitted surety. The

surety on the Performance Bond shall have an A.M. Best's Insurance Rating of A:VIII (A:8) or better. All bonds must be submitted on forms provided by the County. Notary acknowledgements of the signatures of the Contractor and Surety(ies) is required. The attorney-in-fact who executes the required Performance Bond and Payment Bond on behalf of the Surety shall affix thereto a certified and current copy of the power of attorney authorizing such attorney-in-fact to execute same on behalf of such Surety. Bonds submitted in any other form will not be accepted. Should any surety on the Payment Bond or Performance Bond be deemed unsatisfactory by the County, Contractor shall upon notice promptly substitute new bonds satisfactory to the County. All bonds must be issued by sureties which are licensed by the State of California to issue such bonds.

4.3 FORFEITURE FOR FAILURE TO POST SECURITY AND EXECUTE AGREEMENT

In the event the Bidder, to whom an award is made, fails or refuses to post the required bonds and provide the required certificates of insurance and fails to return executed copies of the Agreement within five (5) calendar days after the prescribed forms are presented to it for signature, the County may declare the Bidder's Bid deposit or bond forfeited as damages caused by the failure of the Bidder to post such security and execute such copies of the Agreement and may award the Work to the next lowest responsible Bidder, or may call for new bids.

BID PROPOSAL

CONTRACTOR'S PROPOSAL

TO THE BOARD OF SUPERVISORS OF THE COUNTY OF RIVERSIDE:

The undersigned hereby declares:

- (a) That the only persons or parties interested in this Bid Proposal as principals are the following:

(If the Contractor is a corporation, give the name of the corporation and the name of its president, secretary, treasurer, and manager. If a co-partnership, give the name under which the copartnership does business, and the names and addresses of all copartners. If an individual, state the name and address under which the Contract is to be drawn.)

- (b) That this Bid Proposal is made without collusion with any other person, firm or corporation.
- (c) That the Contractor has carefully examined the location of the proposed Work, and has familiarized itself with all of the physical, climatic or other conditions related to the Work.
- (d) That the Contractor has carefully examined all of the specifications, plans, and other Contract Documents, and makes this Bid Proposal in accordance therewith.
- (e) That, if this Bid Proposal is accepted, the Contractor will enter into a written Contract with the County of Riverside.
- (f) That the Contractor proposes to enter into such Contract and to accept in full payment for the Work actually done the prices shown in the attached schedule. It is understood that the quantities listed (except for those shown as "Final" or "Lump Sum (L.S.)") are but estimates only and final payment will be based on actual quantities whatever they may be, subject to such adjustments and alterations as elsewhere provided for in the Contract Documents.

As Bid Security, accompanying this Bid Proposal is cash, a certified check, cashier's check or Bid Bond payable to the order of the County of Riverside in the sum of:

_____ Dollars (\$_____).
 [Write Out in Words Total Amount of Bid Security] [Numerical Value in Figures]

THE REQUIRED REFERENCES AND OTHER REQUIRED DOCUMENTS MUST BE ATTACHED TO THIS BID PROPOSAL

Contractor bids as follows for Landfill Gas Collection System Components at the Badlands, Corona, Lamb Canyon, and Mecca II Sanitary Landfills and as needed Perimeter Probe Construction at any Riverside County owned and maintained landfills:

ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
1.1	Mobilization for Horizontal Well Construction	EA	12		
1.2	Mobilization for Vertical Well Construction	EA	7		
1.3	Mobilization for Header and Lateral Pipe Install	EA	14		
1.4	Mobilization for Relocating Header and Lateral Pipe	EA	8		
1.5	Mobilization for Multi-level Probe Install	EA	6		
2.	Trenching & Earthwork	LF	46,475		
3.	Install Horizontal Well	LF	38,700		
4.	Install Aggregate Pit	EA	54		
5.	Drill and Install Vertical Gas Wells up to 135 Feet	LF	5,310		
6.	Drill and Install Vertical Gas Wells From 136 Feet up to 220 Feet	LF	1,200		
7.	Install 2" HDPE Pipe	LF	600		
8.	Install 3" HDPE Lateral Pipe	LF	5,200		
9.	Install 4" HDPE Lateral Pipe	LF	2,300		
10.	Install 6" HDPE Lateral Pipe	LF	6,000		
11.	Install 8" HDPE Header Pipe	LF	3,500		
12.	Install 10" HDPE Header Pipe	LF	600		
13.	Install 12" HDPE Header Pipe	LF	4,200		
14.	Install 16" HDPE Header Pipe	LF	2,400		
15.	Install 18" HDPE Header Pipe	LF	600		
16.	Install 20" HDPE Header Pipe	LF	400		
17.	Install 24" HDPE Header Pipe	LF	400		
18.	Relocate 2" HDPE Pipe	LF	400		
19.	Relocate 3" HDPE Lateral Pipe	LF	640		
20.	Relocate 4" HDPE Lateral Pipe	LF	160		
21.	Relocate 6" HDPE Header Pipe	LF	600		
22.	Relocate 8" HDPE Header Pipe	LF	1,600		
23.	Relocate 10" HDPE Header Pipe	LF	400		

24.	Relocate 12" HDPE Header Pipe	LF	2,400		
25.	Relocate 16" HDPE Header Pipe	LF	800		
26.	Relocate 18" HDPE Header Pipe	LF	100		
27.	Relocate 20" HDPE Header Pipe	LF	100		
28.	Relocate 24" HDPE Header Pipe	LF	100		
29.1	Install Well Monitoring Assembly	EA	71		
29.2	Relocate Well Monitoring Assembly	EA	32		
30.1	Drill Probe Boreholes Using Air Rotary Drill Rig up to 100 Feet	LF	700		
30.2	Drill Probe Boreholes Using Air Rotary Drill Rig from 101 Feet up to 200 Feet	LF	300		
30.3	Drill Probe Boreholes Using Air Rotary Drill Rig from 201 Feet up to 300 Feet	LF	200		
31.	Install Multi-level Probe	LF	2,000		
32.	Install Steel Multi-level Probe Protector	EA	20		
33.1	Demobilization For New Construction	EA	38		
33.2	Demobilization For Relocation	EA	8		
34.	Removal and Recycle/Disposal of PVC Pipe from Corona Landfill	LF	5,800		
35.	Disposal of Refuse from Mecca II Landfill	TON	50		
36.1	Mecca II Compound- Supply and Install Concrete Pad	LS	1		
36.2	Mecca II Compound- Supply and Install Metal Roof Structure	LS	1		
36.3	Mecca II Compound- Supply and Install Chain Link Fence	LS	1		
36.4	Mecca II Compound- Supply and Install 2,000-Gallon HDPE Condensate Tank	LS	1		
36.5	Mecca II Compound- Supply and Install Moisture Separator	LS	1		
37.	Authorized Time and Materials Work	LS	1	\$150,000	\$150,000

For the Total Bid Proposal of: **TOTAL COST (State in Figures)** \$ _____

(Write out Total Bid Amount in Words)

Contractor Acknowledges Receipt of Addenda No(s): _____

Name of Contractor: _____

ADMINISTRATIVE PROVISIONS

Address: _____

Telephone: _____

Contractor's License No. and Classification: _____

Department of Industrial Relations (DIR) Registration Number: _____

Signature: _____

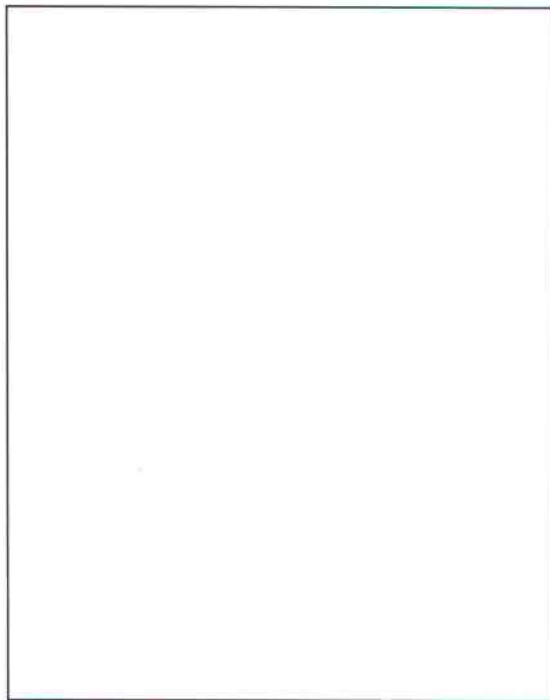
Name: _____

Title: _____

Dated: _____

If Bidder is a corporation, corporate seal and attestation shall be provided.

Space for Corporate Seal and Attestation:



LIST OF SUBCONTRACTORS

The name and the location of the place of business of each subcontractor who will perform work or labor or render service to the Prime Contractor in or about the construction of the Work or improvement, or a subcontractor who specially fabricates and installs a portion of the Work or improvement, in an amount in excess of one-half (½) of one percent (1%) of the Prime Contractor's Total Bid and the portion of the Work by indicating the Item No. of the Work which will be done by each such subcontractor is as follows:

Item No. (s): _____

Name of Subcontractor: _____

Phone and Fax Numbers: _____

Address: _____

Subcontractor's License No. and Classification: _____

Department of Industrial Relations (DIR) Registration Number: _____

Item No. (s): _____

Name of Subcontractor: _____

Phone and Fax Numbers: _____

Address: _____

Subcontractor's License No. and Classification: _____

Department of Industrial Relations (DIR) Registration Number: _____

Item No. (s): _____

Name of Subcontractor: _____

Phone and Fax Numbers: _____

Address: _____

Subcontractor's License No. and Classification: _____

Department of Industrial Relations (DIR) Registration Number: _____

Item No. (s): _____

Name of Subcontractor: _____

Phone and Fax Numbers: _____

Address: _____

Subcontractor's License No. and Classification: _____

Department of Industrial Relations (DIR) Registration Number: _____

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Address: _____

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Name of Subcontractor: _____

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Address: _____

Subcontractor's License No. and Classification: _____

Department of Industrial Relations (DIR) Registration Number: _____

Item No. (s): _____

Name of Subcontractor: _____

Phone and Fax Numbers: _____

Address: _____

Subcontractor's License No. and Classification: _____

Department of Industrial Relations (DIR) Registration Number: _____

PROJECT REFERENCE FORM

Project Reference No. _____	
Project Name:	
Project Location:	
Scheduled Completion Date:	
Actual Completion Date:	
Contracted Project Cost: Final Project Cost: Reason for Difference:	
Did change orders exceed 10% of original contract sum? If yes, explain.	
Were any liquidated damages assessed against the Bidder on this project? If yes, explain.	
Project Owner:	
Owner's Mailing Address:	
Name of Owner's Representative:	
Representative's Email Address:	
Representative's Telephone Number:	
Name of Contractor's Superintendent/Lead:	
Brief Description of Work Performed (Describe how the Scope of Work met the Experience Criteria):	

Bidder shall provide all the project reference information requested on the Project Reference Form for the Bidder and also for any and all subcontractor(s) listed to perform any work that requires the qualifications described for this project in the Bidders Qualifications Section on page III of the Notice Inviting Bids to Contractors.

CONTRACTOR'S STATEMENT OF QUALIFICATIONS FORM

Bidder shall complete the entire Statement of Qualifications Form and submit it with its Bid Proposal for the Project in accordance with the Instructions to Bidders. Failure to complete this Form would be grounds for immediate disqualification for this proposed work. Any explanation requested by a Bidder regarding the meaning or interpretation of this Statement of Qualification must be requested in writing and with sufficient time allowed for a written reply to reach Bidder before the submission of its Bid Proposal. Oral explanations or instructions will not be provided. Any information provided to any prospective Bidder concerning this Statement of Qualification will be furnished to all prospective Bidders as an Addendum to the Bidding Documents.

1	Has Bidder's Contractor's License been revoked or suspended by any governmental agency at any time in the last five (5) years?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
2	In the last five (5) years has the Bidder been denied an award of a public works contract based on a finding by a public agency that your company was not a responsible bidder? If YES, attach description of each instance including details and owner's name and phone number.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
3	Has the Bidder defaulted on a contract or been terminated for cause by any public agency on any project in California within the past five (5) years?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
4	In the last five (5) years has the Bidder, or any firm with which any of your company's owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any government agency or public works project for any reason? If YES, attach description of each instance including details and owner's name and phone number.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
5	Has the Bidder been assessed and paid liquidated damages pursuant to a contract for a project with a public owner within the past five (5) years? If YES, explain and indicate on a separate signed sheet(s) the project name(s), damage(s), and date(s).	<input type="checkbox"/> YES	<input type="checkbox"/> NO
6	Has a Surety completed a contract for Bidder on a public works project with any public agency within the last five (5) years?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
7	Has any insurer had to pay amounts to third parties that were in any way related to construction activities of the Bidder on a public works project for any public agency within the past five (5) years? If YES, explain and indicate on a separate signed sheet(s) the project name(s), damage(s), and date(s).	<input type="checkbox"/> YES	<input type="checkbox"/> NO
8	Has Bidder had any claims, litigation, or disputes ending in judgments, settlement, mediation or arbitration, or termination for cause associated with any project in the past five (5) years? If yes, attach description of each instance including details of total claim amount, settlement amount, and owner's name and phone number.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
9	Has Bidder been cited, fined, penalized or otherwise found to have violated any prevailing wage or labor code provision within the past five (5) years? If YES, attach description of each occurrence.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
10	In the past five (5) years, Has the Bidder or any of its owners or officers been charged and convicted of a crime under federal, state, or local law involving: (1) Bidding for awarding of, or performance of a contract with a public entity; (2) Making a false claim(s) to any public entity or government agency; or (3) Fraud, theft, or other acts of dishonesty to any contracting party within the past ten (10) years?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

CONTRACTOR'S STATEMENT OF LICENSURE

The undersigned does certify under oath that the information provided herein is true and sufficiently complete as not to be misleading

1. Full Legal Name of Bidder: _____
2. Legal Capacity: Corporation Partnership Individual Joint Venture Other _____
3. Address of Bidder: _____
4. How many years has the Bidder been in business as a contractor? _____
5. How many years has the Bidder been in business under its present name? _____
6. Under what other or former name have you operated? _____
7. Bidder certifies that the pocket license/certificate of licensure presented to the County as of this date is my/its own license, being State of California Contractors License No. _____; said Contractors License is current and valid; and is of a classification appropriate to the Work to be undertaken for the County, a Class _____ license.
8. List other contractors license classifications in which the Bidder holds in California _____

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Dated: _____

Signature: _____

Name: _____

Title: _____

**NON-COLLUSION DECLARATION
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
(Public Contract Code Section 7106)**

The undersigned declares:

I am the _____ (Title) of _____ (Company),
the party making the foregoing Bid.

The Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The Bid is genuine and not collusive or sham. The Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid. The Bidder has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham Bid, or to refrain from bidding. The Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Bid price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the Bid price, or of that of any other Bidder. All statements contained in the Bid are true. The Bidder has not, directly or indirectly, submitted his or her Bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, Bid depository, or to any member or agent thereof, to effectuate a collusive or sham Bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a Bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the Bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on

_____ [Date], at _____ [City], _____ [State].

Signature of Declarant: _____

Printed/Typed Name of Declarant: _____

Name of Bidder: (Company): _____

Note: Notarization of signature is required
___ Check here if attachment is included

IRAN CONTRACTING ACT CERTIFICATION
(Public Contract Code sections 2200-2208)

In accordance with Public Contract Code Section 2204(a), prior to bidding on, submitting a Bid Proposal or executing a Contract or renewal for a County of Riverside Contract for goods or services of \$1,000,000 or more, a CONTRACTOR must either:

a) Certification:

Certify it is not on the current list of persons engaged in investment activities in Iran created by the California Department of General Services (“DGS”) pursuant to Public Contract Code section 2203(b) and is not a financial institution extending twenty million dollars (\$20,000,000) or more in credit to another person, for 45 calendar days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS;

OR

b) Exemption:

Demonstrate it has been exempted from the certification requirement for that solicitation or Contract pursuant to Public Contract Code section 2203(c) or (d).

To comply with this requirement, please insert your Contractor or financial institution name and Federal ID Number (if available) and complete one of the options below. Please note: California law establishes penalties for providing false certifications, including civil penalties equal to the greater of \$250,000 or twice the amount of the Contract for which the false certification was made; Contract termination; and three-year ineligibility to bid on Contracts. (Public Contract Code section 2205.)

Option #1 – Certification

I, the official named below, certify I am duly authorized to execute this certification on behalf of the Contractor/financial institution identified below, and the Contractor/financial institution identified below is **not** on the current list of persons engaged in investment activities in Iran created by DGS and is not a financial institution extending twenty million dollars (\$20,000,000) or more in credit to another person/vendor, for 45 calendar days or more, if that other person/vendor will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.

<i>Contractor Name/Financial Institution (Printed)</i>		<i>Federal ID Number (or n/a)</i>
<i>By (Authorized Signature)</i>		
<i>Printed Name and Title of Person Signing</i>		
<i>Date Executed</i>	<i>Executed in</i>	

Option #2 – Exemption

Pursuant to Public Contract Code sections 2203(c) and (d), a public entity may permit a Contractor/financial institution engaged in investment activities in Iran, on a case-by-case basis, to be eligible for, or to bid on, submit a Bid Proposal for, or enters into or renews, a Contract for goods and services.

If you have obtained an exemption from the certification requirement under the Iran Contracting Act, please fill out the information below, and attach documentation demonstrating the exemption approval.

<i>Contractor Name/Financial Institution (Printed)</i>		<i>Federal ID Number (or n/a)</i>
<i>By (Authorized Signature)</i>		
<i>Printed Name and Title of Person Signing</i>		
<i>Date Executed</i>	<i>Executed in</i>	

BID BOND
(Public Work – Public Contract Code Section 20129(a))

Recitals:

1. _____ (Contractor) has submitted its Contractor's Proposal to the County of Riverside, by and for the Department of Waste Resources, for the construction of the public work known as The Construction of Landfill Gas Collection System Components at the Badlands, Corona, Lamb Canyon, and Mecca II Sanitary Landfills and as needed Perimeter Probe Construction, 2021 to 2024, in accordance with a Notice Inviting Bids to Contractors dated _____.

2. _____ a _____ corporation, hereafter called Surety, is the surety, an Admitted surety insurer pursuant to Code of Civil Procedure Section 995.120, on this Bond. The Contractor is obligated as a condition of submittal of a Bid Proposal shall submit a Bid Security pursuant to Public Contract Code §20129 in the amount of ten percent (10%) of the Bid amount, which security may be in the form of a Bid Bond issued by an Admitted surety insurer pursuant to Code of Civil Procedure Section 995.120.

Agreement: We, Contractor as principal and Surety as surety, jointly and severally agree and state as follows:

1. The amount of the obligation of this Bond is 10% of the amount of the Contractor's Proposal and inures to the benefit of County.
2. This Bond is exonerated by (1) County rejecting said Bid Proposal or, in the alternate, (2) if said Bid Proposal is accepted, Contractor executes the Agreement and furnishes the Bonds and certificates of insurance as agreed to in its Bid Proposal, otherwise it remains in full force and effect for the recovery of loss, damage and expense of County resulting from failure of Contractor to act as agreed to in its Bid Proposal.
3. Surety, for value received, stipulates and agrees that its obligations hereunder shall in no way be impaired or affected by any extension of time within which County may accept the Bid Proposal and waives notice of any such extension.
4. This Bond is binding on our heirs, executors, administrators, successors and assigns.

Dated: _____

By: _____

By: _____

Title: _____
(Surety)

Title: _____
(Contractor)

NOTE: This Bond must be executed by both parties with corporate seal affixed. All signatures must be acknowledged by a notary (attach acknowledgments).

A power of attorney for the attorney-in-fact of the Surety must be attached.

ADMINISTRATIVE PROVISIONS

**CONSTRUCTION AGREEMENT, BONDS,
AND OTHER FORMS**

CONSTRUCTION AGREEMENT

THIS CONSTRUCTION AGREEMENT (“Agreement”) is made as of _____ and is by and between the COUNTY OF RIVERSIDE, on behalf of its Department of Waste Resources, a political subdivision of the State of California, (County) and _____, (Contractor).

IT IS AGREED BY THE PARTIES AS FOLLOWS:

1. The Work. Contractor shall furnish all tools, equipment, apparatus, facilities, labor, supervision, services, transportation, materials and other required items necessary to perform the Work for the project, The Construction of Landfill Gas Collection System Components at the Badlands, Corona, Lamb Canyon, and Mecca II Sanitary Landfills and as needed Perimeter Probe Installation at any Riverside County owned and maintained landfill, and Contractor shall do all things necessary to accomplish and complete the Work described in and in exact conformity with the Contract Documents, subject to such inspection as County deems appropriate.

2. Contract Documents. The Contract Documents for the project are:
 - (a) Notice Inviting Bids to Contractors;
 - (b) Instructions to Bidders;
 - (c) Contractor's Proposal, including List of Subcontractors, Contractor's Statement of Licensure, Contractor's Statement of Qualifications, Non-Collusion Declaration, Iran Contracting Act Certification;
 - (d) Bid Bond;
 - (e) Construction Agreement, including Exhibit A, Workers' Compensation Contractor Certificate, Declaration of Sufficiency of Funds, and Evidence of Insurance;
 - (f) Performance Bond;
 - (g) Payment Bond;
 - (h) General Provisions;
 - (i) Special Provisions;
 - (j) Appendix A – Project Drawings;
 - (k) Appendix B – SCAQMD Permits to Construct/Operate (Digital) ;
 - (l) Appendix C – Stormwater Pollution Prevention Plan (Digital);
 - (m) Appendix D – Riverside County Emergency Action Plans (EAP) (Digital);
 - (n) Appendix E – Riverside County Spill Prevention, Control, and Countermeasure (SPCC) Plans (Digital);
 - (o) Standard Specifications for Public Works Construction, Latest Edition, with Amendments;
 - (p) Any other documents included in or incorporated into the Contract Documents;
 - (q) Addenda Nos. _____;
 - (r) Orders, instructions, drawings and plans issued by County during the course of the Work in accordance with the provisions of the Contract Documents.

Each of the above-mentioned documents presently in existence are by this reference incorporated into this Agreement and each of these documents not now in existence are incorporated herein as of the time of their issuance.

3. Contract Time for Completion – The Work shall be commenced on a date to be specified in a written “Notice To Proceed” to be issued by the County and shall be completed within the duration specified in the Special Provisions. It is expressly agreed that except for extensions of time duly granted in the manner and for the reasons specified in the General Provisions, time shall be of the essence.

4. Contract Price –

(a) Compensation to be paid to Contractor – The County agrees to pay and the Contractor agrees to accept in full consideration for the performance of the Agreement, the sum of:

(\$ _____), subject to additions and deductions as provided in this Agreement.

(b) Payment. Exhibit A is attached to and incorporated into this Agreement and states the basis for full payment to Contractor. Contractor represents that it fully understands the payment method for the Work.

RIVERSIDE COUNTY DEPARTMENT OF
WASTE RESOURCES
14310 Frederick Street
Moreno Valley, CA 92553

By: _____
Hans W. Kernkamp
General Manager – Chief Engineer

Date: _____

COUNTY OF RIVERSIDE

By: _____
Chairman, Board of Supervisors

Date: _____

ATTEST:

By: _____
Kecia R. Harper, Clerk of the Board

By: _____
Deputy

Date: _____

(Seal)

CONTRACTOR

By: _____

Date: _____

Name: _____

Title: _____

(If corporation, attach corporate seal)

EXHIBIT A

(Construction Agreement for the Riverside County Department of Waste Resources, Landfill Gas Collection System Components at the Badlands, Corona, Lamb Canyon, and Mecca II Sanitary Landfills, and as needed Perimeter Probe construction at any Riverside County owned and maintained landfills.)

It is understood that the quantities listed (except for those shown as “Final” or “Lump Sum (L.S.)”) are but estimates only and final payment will be based on actual quantities whatever they may be, subject to such adjustments and alterations as elsewhere provided for in the Contract Documents.

ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
1.1	Mobilization for Horizontal Well Construction	EA	12		
1.2	Mobilization for Vertical Well Construction	EA	7		
1.3	Mobilization for Header and Lateral Pipe Install	EA	14		
1.4	Mobilization for Relocating Header and Lateral Pipe	EA	8		
1.5	Mobilization for Multi-level Probe Install	EA	6		
2.	Trenching & Earthwork	LF	46,475		
3.	Install Horizontal Well	LF	38,700		
4.	Install Aggregate Pit	EA	54		
5.	Drill and Install Vertical Gas Wells up to 135 Feet	LF	5,310		
6.	Drill and Install Vertical Gas Wells From 136 Feet up to 220 Feet	LF	1,200		
7.	Install 2” HDPE Pipe	LF	600		
8.	Install 3” HDPE Lateral Pipe	LF	5,200		
9.	Install 4” HDPE Lateral Pipe	LF	2,300		
10.	Install 6” HDPE Lateral Pipe	LF	6,000		
11.	Install 8” HDPE Header Pipe	LF	3,500		
12.	Install 10” HDPE Header Pipe	LF	600		
13.	Install 12” HDPE Header Pipe	LF	4,200		
14.	Install 16” HDPE Header Pipe	LF	2,400		
15.	Install 18” HDPE Header Pipe	LF	600		
16.	Install 20” HDPE Header Pipe	LF	400		
17.	Install 24” HDPE Header Pipe	LF	400		
18.	Relocate 2” HDPE Pipe	LF	400		
19.	Relocate 3” HDPE Lateral Pipe	LF	640		
20.	Relocate 4” HDPE Lateral Pipe	LF	160		

21.	Relocate 6" HDPE Header Pipe	LF	600		
22.	Relocate 8" HDPE Header Pipe	LF	1,600		
23.	Relocate 10" HDPE Header Pipe	LF	400		
24.	Relocate 12" HDPE Header Pipe	LF	2,400		
25.	Relocate 16" HDPE Header Pipe	LF	800		
26.	Relocate 18" HDPE Header Pipe	LF	100		
27.	Relocate 20" HDPE Header Pipe	LF	100		
28.	Relocate 24" HDPE Header Pipe	LF	100		
29.1	Install Well Monitoring Assembly	EA	71		
29.2	Relocate Well Monitoring Assembly	EA	32		
30.1	Drill Probe Boreholes Using Air Rotary Drill Rig up to 100 Feet	LF	700		
30.2	Drill Probe Boreholes Using Air Rotary Drill Rig from 101 Feet up to 200 Feet	LF	300		
30.3	Drill Probe Boreholes Using Air Rotary Drill Rig from 201 Feet up to 300 Feet	LF	200		
31.	Install Multi-level Probe	LF	2,000		
32.	Install Steel Multi-level Probe Protector	EA	20		
33.1	Demobilization For New Construction	EA	38		
33.2	Demobilization For Relocation	EA	8		
34.	Removal and Recycle/Disposal of PVC Pipe from Corona Landfill	LF	5,800		
35.	Disposal of Refuse from Mecca II Landfill	TON	50		
36.1	Mecca II Compound- Supply and Install Concrete Pad	LS	1		
36.2	Mecca II Compound- Supply and Install Metal Roof Structure	LS	1		
36.3	Mecca II Compound- Supply and Install Chain Link Fence	LS	1		
36.4	Mecca II Compound- Supply and Install 2,000-Gallon HDPE Condensate Tank	LS	1		
36.5	Mecca II Compound- Supply and Install Moisture Separator	LS	1		
37.	Authorized Time and Materials Work	LS	1	\$150,000	\$150,000

For the Total Bid Proposal of: **TOTAL COST (State in Figures) \$ _____**

(Write out Total Bid Amount in Words)

PERFORMANCE BOND

(Public Work – Public Contract Code Section 20129 (b))

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the Board of Supervisors (“Board”) for the County of Riverside, (“County”) and _____, (“Contractor”) have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

Construction of Landfill Gas Collection System Components at the Badlands, Corona, Lamb Canyon, and Mecca II Sanitary Landfills and as needed Perimeter Probe Installation, 2021 to 2024

(“Contract”) which Contract dated as of the date of the last signature on the signature page and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof;

AND, WHEREAS, said Contractor, as Principal on this Bond, is required by the Contract and/or by California Public Contract Code, Section 20129 (b) to furnish a performance bond for the faithful performance of the Contract;

NOW THEREFORE, we, the Contractor and _____ (“Surety”), an admitted surety insurer pursuant to Code of Civil Procedure, Section 995.120, are held and firmly bound unto County in the penal sum of _____

Dollars (\$ _____), this amount being not less than one hundred percent (100%) of the total sum payable by County under the Contract at the time the Contract is awarded by County to the Contractor, lawful money of the United States of America, for the payment of which sum well and truly to be made, we, Contractor and Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents, to:

1. Perform all the work required to complete the Project; and
2. Pay to the County all damages the County incurs as a result of the Contractor’s failure to perform all the Work required to complete the Project.

THE CONDITION OF THIS OBLIGATION IS SUCH that if Contractor, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by and well and truly keep and perform all the undertakings, terms, covenants, conditions and agreements in the Contract, including, without limitation, all obligations during the original term and any extensions thereof as may be granted by County, with or without notice to Surety thereof (including, without limitation, the obligation for Contractor to pay liquidated damages), all obligations during the period of any warranties and guarantees of materials and workmanship

required under the Contract and all other obligations otherwise arising under the terms of the Contract (such as, but not limited to, obligations of indemnification), all within the time and in the manner therein designated in all respects according to their true intent and meaning, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

As a condition precedent to the satisfactory completion of the Contract, the above obligation shall hold good for a period equal to the warranty and/or guarantee period of the Contract, during which time Surety's obligation shall continue if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the County from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the County's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

Whenever Contractor shall be, and is declared by County to be, in default under the Contract, the Surety shall promptly either remedy the default, or, if the Contract is terminated by County or the Contractor's performance of the Work is discontinued, Surety shall promptly complete the Contract through its agents or independent contractors, subject to acceptance of such agents or independent contractors by County as hereinafter set forth, in accordance with its terms and conditions and to pay and perform all obligations of Contractor under the Contract (including without limitation, all obligations with respect to payment of liquidated damages) less the "Balance of the Contract Price" (as hereinafter defined); subject to the penal amount of this bond as set forth above. The term "Balance of the Contract Price," as used in this paragraph, shall mean the total amount payable to Contractor by County under the Contract and any modifications thereto, less the amount previously paid by County to the Contractor and less amounts that County is authorized to withhold under the terms of the Contract.

If County determines that completion of the Contract by Surety or its agents or independent contractors must be performed by a lowest responsible bidder selected pursuant to a competitive bidding process, then Surety shall comply with such processes in accordance with the requirements of County and applicable laws. Unless otherwise approved by District, in the exercise of its sole and absolute discretion, Surety shall not utilize Contractor in completing performance of the Work.

No right of action shall accrue on this bond to or for the use of any person or entity other than County or its successors or assigns.

In the event any legal proceeding or arbitration is brought upon this bond by County and judgment or award is entered in favor of County as the prevailing party, Surety shall pay all costs and attorney's fees incurred by the County.

Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

Surety, for value received, agrees that no change, extension of time, alteration or addition to the terms of the Contract, or to the work to be performed thereunder, shall in any way impair or affect Surety's obligation under this bond, and Surety does hereby waive notice of any such changes, extensions of time, alterations or additions.

Surety's obligations hereunder are independent of the obligations of any other surety for the performance of the Contract, and suit may be brought against Surety and such other sureties, joint and severally, or against any one or more of them or against less than all of them, without impairing County's rights against the others.

Signature provisions on following page:

Affix Seal if Corporation

(Firm Name – Contractor)

(Business Address)

By _____
(Original Signature)

(Title)

(Corporation Name – Surety)

Affix Corporate Seal

(Business Address)

By _____
(Signature – Attached Notary’s Acknowledgment)

ATTORNEY-IN-FACT
(Title-Attach Power of Attorney)

Note: Notary acknowledgment of signatures of Bidder and Surety, and Surety’s Power of Attorney, must be included or attached

PAYMENT BOND

(Public Work - Civil Code Sections 9550 et seq.)

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the Board of Supervisors (“Board”) for the County of Riverside, (“County”) and _____ (“Contractor”) have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

Construction of Landfill Gas Collection System Components at the Badlands, Corona, Lamb Canyon, and Mecca II Sanitary Landfills and as needed Perimeter Probe Installation, 2021 to 2024

(“Contract”) which Contract dated as of the date of the last signature on the signature page and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, pursuant to law and the Contract, said Contractor is required by the Contract and/or by Division 3, Part IV, Title XV, Chapter 7 (commencing at Section 9550 et seq.) of the California Civil Code to furnish a payment bond in connection with the Contract;

NOW THEREFORE, we, the Contractor and _____ (“Surety”), an admitted surety insurer pursuant to Code of Civil Procedure, Section 995.120, are held and firmly bound unto County in the penal sum of _____

Dollars (\$ _____), this amount being not less than one hundred percent (100%) of the total sum payable by County under the Contract at the time the Contract is awarded by County to the Contractor, lawful money of the United States of America, for the payment of which sum well and truly to be made, we, Contractor and Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if Contractor, its heirs, executors, administrators, successors, or assigns approved by County, or its subcontractors, of any contracting tier, shall fail to pay any person or persons named in California Civil Code, Section 9554, then Surety will pay for the same, in or to an amount not exceeding the penal amount hereinabove set forth, and also will pay to the prevailing party if suit is brought upon this bond, reasonable attorney's fees as provided in California Civil Code, Section 9564.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under section 9100 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Surety, for value received, agrees that no change, extension of time, alteration or addition to the terms of the Contract, or to the Work to be performed thereunder, nor any rescission or attempted rescission of the Contract or this bond, nor any conditions precedent or subsequent in the bond or Contract attempting to limit the right of recovery of any claimant otherwise entitled to recover under the Contract or this bond shall in any way impair or affect Surety's obligation under this bond, and Surety does hereby waive notice of any such changes, extensions of time, alterations or additions.

Surety is not released from liability to those for whose benefit this bond has been given, by reason of any breach of the Contract by County or Contractor

Surety's obligations hereunder are independent of the obligations of any other surety for the performance of the Contract, and suit may be brought against Surety and such other sureties, joint and severally, or against any one or more of them or against less than all of them, without impairing County's rights against the others.

Signature provisions on following page:

Affix Seal if Corporation

(Firm Name – Contractor)

(Business Address)

By _____
(Original Signature)

(Title)

(Corporation Name – Surety)

Affix Corporate Seal

(Business Address)

By _____
(Signature – Attached Notary’s Acknowledgment)

ATTORNEY-IN-FACT
(Title-Attach Power of Attorney)

Note: Notary acknowledgment of signatures of Bidder and Surety, and Surety’s Power of Attorney, must be included or attached

WORKERS' COMPENSATION CONTRACTOR CERTIFICATE
(Labor Code Sections 1860, 1861 & 3700)

In accordance with the provisions of Section 3700 of the Labor Code, every Contractor shall secure compensation in one or more of the following ways:

- (a) By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this state.
- (b) By securing from the Director of Industrial Relations a certificate of consent to self-insure either as an individual employer, or as one employer in a group of employers, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employees.
- (c) I For any county, city, city and county, municipal corporation, public district, public agency, or any political subdivision of the state, including each member of a pooling arrangement under a joint exercise of powers agreement (but not the state itself), by securing from the Director of Industrial Relations a certificate of consent to self-insure against workers' compensation claims, which certificate may be given upon furnishing proof satisfactory to the director of ability to administer workers' compensation claims properly, and to pay workers' compensation claims that may become due to its employees. On or before March 31, 1979, a political subdivision of the state which, on December 31, 1978, was uninsured for its liability to pay compensation, shall file a properly completed and executed application for a certificate of consent to self-insure against workers' compensation claims. The certificate shall be issued and be subject to the provisions of Section 3702.

Labor Code Section 1861 requires each Contractor to whom a public works Contract is awarded shall sign and file with the County the following certification prior to performing the Work of the public works construction Contract:

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract.

By signing this certification, the Contractor understands the requirements of and agrees to comply with the aforementioned requirements.

Name of Contractor: _____

By: _____

Title: _____

**DECLARATION OF SUFFICIENCY OF FUNDS
(California Labor Code Section 2810)**

I, the undersigned, an authorized representative of _____ (“Bidder”) with authority to make the statements contained in this Declaration on behalf of Bidder, hereby declare the following:

1. The Bidder’s employer identification number for state tax purposes is:

_____.

2. The Bidder’s workers’ compensation insurance policy number is:

_____.

and the name, address, and telephone number of the insurance carrier providing said insurance is:

_____.

3. The following information is provided concerning any and all vehicles that are owned by the Bidder and that will be used for transportation in connection with any service provided for the performance of the Work that is the subject of the Bidder’s Bid [Insert information requested. Attach additional sheets, if needed.]:

<i>Vehicle</i>	<i>Vehicle ID #</i>	<i>Vehicle Liability Insurance Policy Number (of policy covering vehicle)</i>	<i>Name, Address and Telephone Number of Vehicle Liability Insurance Carrier (issuing policy covering vehicle)</i>

4. The following is the address of any real property that will be used to house workers in connection with the performance of the Work that is the subject of the Bidder’s Bid [If no such housing will be provided, enter “none”]:

_____.

5. The actual or estimated number of workers that will be employed to perform the Work that is the subject of the Bidder's Bid, the total amount of wages to be paid to said workers, and the dates on which said wages will be paid are as follows [Attach additional sheets, if needed.]:

<i>Total Number of Workers</i>	<i>Total Amount of Wages</i>	<i>Date(s) for Payment of Wages</i>

6. Check only one of the following boxes, as applicable:

- The statement of number of workers declared in Paragraph 5, above, is a statement of the actual number of workers that will be employed.
- The actual number of workers requested in Paragraph 5, above, is unknown and therefore the statement of number of workers declared therein is based on the Bidder's best estimate available at the time of submitting its Bid, rather than the actual number of workers that will be employed and if and when the actual number of workers and the other information requested above is available, it will be reported to the County of Riverside by Bidder in writing.

7. The actual or estimated total number of persons who will be utilized as independent Contractors to perform the Work of the Project that is the subject of the Bidder's Bid (together with their known, current local, state, and federal Contractor license identification numbers that each is required to have under local, state or federal laws or regulations) are as follows [Attach additional sheets, if needed.]:

<i>List of Independent Contractors</i>	<i>Current Local, State and Federal Contractor License Identification Number</i>

8. Check only one of the following boxes, as applicable:

- The statement of number of independent Contractors declared in Paragraph 7, above, is a statement of the actual number of independent Contractors that will be utilized.
- The actual number of independent Contractors requested in Paragraph 7, above, is unknown and therefore the statement of number of independent Contractors declared therein is based on the Bidder's best estimate available at the time of submitting its Bid, rather than the actual number of independent Contractors that will be utilized, and if and when the actual number of independent Contractors and the other information requested above is available, it will be reported to the County of Riverside by Bidder in writing.

I, the undersigned, declare under penalty of perjury that the foregoing statements are within my personal knowledge and are true and correct. Executed on this _____ day of _____, in the year 20__ at _____, California.

(Signature)

Type Name of Signer:

Type Name of Bidder:



GENERAL PROVISIONS

FOR

THE CONSTRUCTION OF

LANDFILL GAS COLLECTION SYSTEM

COMPONENTS

AT THE

BADLANDS, CORONA, LAMB CANYON, AND

MECCA II SANITARY LANDFILLS

AND

AS NEEDED

PERIMETER PROBE INSTALLATION

2021 TO 2024

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SECTION 1 - DEFINITION OF TERMS

1.1. TERMS

Whenever in these specifications, or in any documents or instruments where these specifications govern, the following terms or pronouns in place of them are used, the intent and meaning shall be interpreted as follows:

- a) **AGENCY:** Whenever used in the Standard Specifications shall refer to County.
- b) **BOARD OF SUPERVISORS:** The Board of Supervisors of the County, also sometimes referred to as the Board.
- c) **CONTRACT DOCUMENTS.** The Contract Documents shall mean to contain and include all the documents listed in the Construction Agreement entered into between the County and the Contractor.
- d) **DEPARTMENT, COUNTY, OR OWNER:** The County of Riverside, by and for the Department Of Waste Resources.
- e) **ENGINEER:** The General Manager - Chief Engineer of the Riverside County Department of Waste Resources, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.
- f) **LABORATORY:** The laboratories authorized by the County to test materials and work involved in the contract.
- g) **BIDDER:** Any individual, firm or corporation submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.
- h) **CONTRACTOR:** The person or persons, co-partnership or corporation, private or municipal, who have entered into the Agreement with the County, or his or their legal representatives.
- i) **SUPERINTENDENT:** The executive representative of the Contractor, present on the work at all times during progress, authorized to receive and execute instruction from the County.
- j) **PLANS or PROJECT DRAWINGS:** The official plans, profiles, typical cross sections, general cross sections, working drawings, and supplemental drawings, or exact reproductions thereof, approved by the County, which show the location, character, dimension and details of the work to be done, and which are to be considered a part of the Contract Documents.
- k) **SPECIFICATIONS:** The directions, provisions, and requirements contained in the Contract Documents as to the method and manner of performing the work or to the quantities and qualities of materials to be furnished under the contract.
- l) **CONTRACT:** The written Agreement covering the work.
- m) **CONTRACT PRICE:** Shall mean either the lump sum, unit price, or unit prices named in the Agreement, or the total of all payments under the contract at the lump sum, unit price, or unit prices, as the case may be.

- n) SURETY OR SURETIES: The bondsmen or party or parties, approved by the County, who may guarantee the fulfillment of the contract by bond, and whose signatures are attached to said bond.
- o) RIGHT OF WAY: The whole right of way which is reserved for and secured for use in constructing the improvement.
- p) THE WORK: All the work specified in the Contract Documents.

1.2. SIMILARITY OF WORDS

Wherever in the specifications or upon the plans the words directed, required, permitted, ordered, designated, prescribed, or words of like import are used, it will be understood that the direction, requirements, permission, order, designation, or prescription of the County is intended, and similarly the words approved, acceptable, satisfactory, or words of like import, shall mean approved by, or acceptable to, or satisfactory to, the County, unless otherwise expressly stated.

SECTION 2 - SCOPE OF WORK

2.1. WORK TO BE DONE

The Contractor shall provide all labor, power, light, water, materials, equipment, tools, scaffolding, machinery, transportation, insurance, permits, bonds, temporary protection, watchmen, and superintendence necessary to construct and complete all work, and to furnish all materials included in the contract, except those furnished by the County as specifically stated in the Contract Documents.

The Contract Documents are complementary, and the work called for by any one shall be as binding as if called for by all.

2.2. CONSTRUCTION SCHEDULE

The Contractor shall submit to the County at least monthly, or at such times as may be requested by the County, a schedule which shall show the order and dates in which the Contractor proposes to carry on the various parts of the work, including estimated completion dates. The County's receipt of such schedule(s) shall not indicate any concurrence by the County in the items or dates described in the schedule(s).

2.3. DRAWINGS AND SPECIFICATIONS ON THE WORK

The Contractor shall keep one copy of all drawings and specifications on the work, in good order, available to the County and its representatives.

2.4. ESTIMATE OF QUANTITIES

It is understood that the quantities listed (except for those shown as "Final" or "Lump Sum") are but estimates only and final payment will be based on actual quantities for the work whatever they may be, subject to such adjustments and alterations as elsewhere provided for in the Contract Documents. The County is not to be held responsible for the accuracy of the estimate of quantities. The Contractor shall judge for himself, after considering all circumstances and conditions, the costs and quantities of materials involved in the work.

The Contractor shall not at any time assert that there was any misunderstanding in regard to the nature of the work or the kind or amount of materials to be furnished for the work. The Contractor shall not ask, demand, sue for, or seek to recover compensation in excess of the costs or charges for the work as stated in the Agreement.

2.5. PROTESTS

If the Contractor considers any work demanded of it to be outside of the requirements of the contract, the Contractor shall immediately and before the start of such work state this in writing to the County. In such writing, the Contractor shall clearly and in detail state the basis of its protest. Except for such protests as are made of record in the manner herein specified, the records, rulings, instruction, or decisions of the County shall be final and conclusive. Written protest by the Contractor shall not in any way relieve the Contractor from proceeding with the work as directed by the County.

2.6. ALTERATIONS

The Contractor agrees that reasonable alterations and modifications may be made by the County and that this may be done without notice to the sureties on the Contractor's bonds. If such changes result in increased or decreased quantities under the items specified in the Agreement, the Contractor will be paid on the basis of actual quantities as measured by the County; and such changes shall not affect the unit prices bid by the Contractor.

2.7. EXTRA WORK

2.7.1. General

The County reserves and shall have the right to revise the details of the contemplated work, or to add work of a different character or function, and have the Contractor perform such revised or added work as "Extra Work", when such extra work is considered by the County to be appurtenant to the satisfactory completion of the project. "Extra Work" is defined as added work of a different character or function and for which no basis for payment is prescribed; or that work which is indeterminate at the time of advertising and is specifically designated as extra work. The signing of the contract by the Contractor will be deemed to be an agreement on his part to perform extra work, as and when ordered by the County. If required extra work results in delay to the work, the Contractor will be given an appropriate extension of time.

The General Manager – Chief Engineer shall have the authority to approve changes or additions in the work in accordance with Public Contract Code 20142 without Board of Supervisors approval.

2.7.2. Procedure for Extra Work

Extra work may not be done by the Contractor without prior request and proper written approval by the County. Upon decision of the County to have extra work performed, the County will so inform the Contractor, acquainting it with the details of the new work. The Contractor shall thereupon present in writing a price for said work to the County, whose written approval shall be secured before work is started; except that the County may order the Contractor to proceed with extra work in advance of the submission of such prices provided that preliminary estimates show that the cost will not exceed \$1,000.

Prices for extra work shall be prepared by the Contractor on one or both of the following methods, as requested by the County, and submitted to the County for approval:

For a stated unit price or lump sum amount based upon current prevailing fair prices for materials, labor, plant, overhead and profit.

On a cost plus 15 percent basis (force account by the Contractor). The cost of all work done by the Contractor on a cost plus 15 percent basis will be computed in the manner described in Section 7, and the compensation thus provided shall be full payment to the Contractor related to the extra work.

Upon receipt of the Contractor's price, the County will make an analysis thereof and in its discretion adopt one of the following procedures:

Accept the Contractor's price for lump sum or unit price amount in the original or amended form and direct it to proceed with the work; or direct it to perform the work on a cost plus 15 percent basis.

Have the work performed by County's forces or by separate contract.

Direct the Contractor to proceed with the work and accept payment therefore in the amount as adjudicated later in a court of law.

The price agreed to by the Contractor for the extra work shall be full compensation to the Contractor for all labor, materials, equipment or other costs related to the extra work.

2.8. PAYMENT FOR EXTRA WORK

At the end of each month the Contractor shall make and deliver to the County a statement of the cost of the extra work completed during the current month, itemized and in a form satisfactory to the County. Payment for extra work shall be added to the monthly partial payment made in accordance with Section 7.5 of the General Provisions.

2.9. RIGHTS OF WAY

The County shall provide the rights of way as specifically described in the Contract Documents upon which the work under this contract is to be done, except that the Contractor shall provide land required for the erection of temporary construction facilities and storage of his material, together with right of access to same.

2.10. CLEANING UP

The Contractor shall, as directed by the County, remove from the County's right of way and from all public and private property, at its own expense, all temporary structures, rubbish and waste materials resulting from its operations.

SECTION 3 - CONTROL OF THE WORK

3.1. AUTHORITY OF THE COUNTY

The County shall have general supervision of the contract under authority of the Board of Supervisors. The County has the authority to stop the work whenever such stoppage may be necessary to ensure the proper execution of the contract. The County shall decide all questions which may arise as to the quality or acceptability of materials furnished, work performed, and rate or progress of the work; all questions which may arise as to the interpretation of the plans and specifications; all questions as to the acceptable fulfillment of the contract on the part of the Contractor; and all questions as to compensation. The County's determination and decision thereon shall be final and conclusive.

3.2. DETAIL DRAWINGS

The approved plans shall be supplemented by such working drawings as are necessary to control the work adequately. All authorized alterations affecting the requirement and information given on the approved plans shall be in writing. No changes shall be made to any plan or drawing after the same has been approved by the County, except by its written direction.

Approval by the County of the Contractor's working drawings (or other documents) does not relieve the Contractor of responsibility for accuracy of dimensions, details or other requirements of the Contract Documents. It is mutually agreed that the Contractor shall be responsible for agreement and conformity of his working drawings with the approved plans and specifications. Full compensation for furnishing all working drawings shall be considered as included in the prices paid for the various contract items of work, and no additional allowance will be made therefore.

3.3. CONFORMITY WITH PLANS AND ALL ALLOWABLE DEVIATIONS

Except as otherwise specifically stated in the Contract Documents, finished surfaces in all cases shall conform exactly to the elevations, lines, grades, cross-sections, and dimensions shown or described in the Contract Documents. Any deviations must be authorized in advance in writing by the County.

3.4. INTERPRETATION OF PLANS AND SPECIFICATIONS

Should it appear that the work to be done is not sufficiently detailed or explained in the Contract Documents, the Contractor must bring this to the County's attention in writing prior to submittal of the Contractor's Proposal.

In the event of any discrepancy between any drawings and the figures written thereon, the figures shall be taken as correct. The Contractor will not be allowed to take advantage of errors and omissions in the drawings and specifications. When errors or omissions are found, they shall immediately be brought to the attention of the other party in writing.

3.5. SUPERINTENDENCE

The Contractor shall keep on his work, continually during its progress, a competent Superintendent responsible for the construction of the work, as well as any necessary assistants. All such persons shall be acceptable to the County continuously throughout the duration of the project. The

Superintendent shall represent the Contractor in his absence and all directions given to him shall be as binding as if given to the Contractor.

3.6. LINES AND GRADES

The Contractor shall provide opportunities and facilities for setting points and making measurements as requested by the County or otherwise as reasonably required. The Contractor shall not proceed until it has made timely demand upon the County for, and has received from the County, such lines and grades as may be necessary as the work progresses. The work shall be done in strict conformity with such lines and grades.

The Contractor shall carefully preserve benchmarks, reference points and stakes, and in case of willful or careless destruction, the Contractor shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their loss or disturbance.

3.7. INSPECTION OF WORK

The County and its representatives shall at all times have access to the work and shall be furnished with every reasonable opportunity for ascertaining that the materials and workmanship are in accordance with the requirements of the Contract Documents. All work done and all materials furnished shall be subject to the County's inspection and approval.

The inspection of the work by any County representatives shall not relieve the Contractor of any of its obligations to fulfill the requirements of the Contract Documents. Defective work or unsuitable materials may be rejected, notwithstanding that such work or materials may have been previously overlooked by County representatives, accepted, or estimated for payment.

3.8. REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

All work which has been rejected shall be remedied or removed and replaced by the Contractor in an acceptable manner; and no compensation will be allowed for such removal or replacement. Any work done beyond the lines and grades as described by the Contract Documents, or any extra work done without proper written authority, will be considered as unauthorized and will not be paid for. Work so done may be ordered removed at the Contractor's expense. Upon failure on the part of the Contractor to comply, the County shall have authority to cause defective or unauthorized work to be remedied, or removed and replaced, and to deduct the costs for this work from any monies due or to become due the Contractor.

3.9. EQUIPMENT AND PLANT

Equipment not suitable to produce the quality of work required will not be permitted to operate on the project. Plants shall be designed and constructed in accordance with general practice for such equipment and shall be of sufficient material to carry the work to completion within the time limit. The Contractor shall provide adequate and suitable equipment and plant to meet these requirements and, when ordered by the County, shall immediately remove unsuitable equipment from the work and discontinue the operation of unsatisfactory plants. No worn or obsolete equipment shall be used, and in no case shall the maker's rating of the capacity for any equipment be exceeded. All vehicles used to haul materials over existing highways shall be equipped with pneumatic tires.

3.10. FINAL INSPECTION

The County will not make the final inspection until all the work provided for and contemplated by the contract has been fully completed and the final clean up has been performed.

SECTION 4 - CONTROL OF MATERIAL

4.1. COUNTY FURNISHED MATERIALS

The Contractor shall furnish all materials required to complete the work, except those specified in the Contract Documents to be furnished by the County. Any materials furnished by the County will be delivered to the Contractor at the points specified in the Contract Documents. The Contractor will be held responsible for all materials so delivered to him, and deductions will be made from any monies due Contractor to make good any shortages and deficiencies, from any cause whatsoever, which may occur after such delivery, or for any demurrage charges due to delinquency in unloading.

4.2. SOURCE OF SUPPLY AND QUALITY OF MATERIALS

At the option of the County the source of supply of any materials shall be approved by the County before the delivery is started. Only materials conforming to the exact requirements of the Contract Documents and approved by the County shall be used in the work. All materials proposed for use may be inspected or tested by the County at any time during their preparation and use. If it is found that sources of supply which have been approved do not furnish a uniform product, or if the product from any source proves unacceptable at any time, the Contractor shall furnish approved material from other approved sources. No material which, after approval, subsequently becomes unfit for use shall be used in the work.

Wherever the name, or brand, or manufacturer of an item is specified, it is used as a measure of quality and utility or a standard. Except in those instances where the product is designated to match others presently in use, or as otherwise stated in the Contract Documents, specifications calling for a designated material, product, thing or service by specific brand or trade name shall be deemed to be followed by the words "or equal" so that the Contractor may propose in the Contractor's bid any equal material, product, thing or service. If the Contractor desires to use any other brand or manufacturer of equal quality or utility to that specified, he shall list definite particulars of that which it considers equivalent to the specified item in its bid. The County will then determine whether or not the proposed name brand or article is equal in quality and utility to that specified, and the County's determination in that regard shall be final and binding upon the Contractor.

4.3. SAMPLES AND TESTS

All tests of materials furnished by the Contractor shall be made by the County in accordance with commonly recognized standards of national organizations for this type of landfill project, and such special methods and tests as are in use at the County's approved laboratory or otherwise determined by the County to be needed. The County shall determine what testing is needed.

Field tests of materials will be made by the County or its representative when deemed necessary as determined by the County; and these tests shall be made in accordance with standard practices of the County or as otherwise needed.

The Contractor shall furnish samples of all materials as requested by the County without charge. No material shall be used until it has been approved by the County. Samples will be secured and tested whenever necessary as determined by the County to determine the quality of the material.

Promptly after the approval of the contract, the Contractor shall notify the County of the proposed sources of supply of all materials to be furnished by it, using a form which will be supplied by the County upon request.

Whenever reference is made to standard tests or requirements of the County, the American Society for Testing Materials, the American Railway Engineering Association or the American Association of State Highway Officials, the reference shall be construed to mean the standards that are in effect at the date the Agreement is signed with subsequent amendments, changes, or additions as thereafter adopted and published by the organization referred to.

None of the provisions stated in this section shall relieve the Contractor of its obligations as stated elsewhere in the Contract Documents.

4.4. DIGGING TRENCHES OR OTHER EXCAVATIONS

Any Work that involves digging trenches or other excavations extending deeper than four feet below the surface, then the following terms shall apply:

4.4.1. Contractor shall promptly, and before the following conditions are disturbed, notify the County, in writing, of any:

4.4.1.1. Material that the contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.

4.4.1.2. Subsurface or latent physical conditions at the site differing from those indicated by information about the site made available to bidders prior to the deadline for submitting bids.

4.4.1.3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.

4.4.2. The County shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the work shall issue a change order under the procedures described in the Contract.

4.4.3. In the event that a dispute arises between the County and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the contractor's cost of, or time required for, performance of any part of the work, the contractor shall not be excused from any scheduled completion date provided for by the contract, but shall proceed with all work to be performed under the contract. The contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the contracting parties.

4.4.4. Contractor shall submit to County, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or

trenches. Prior to any excavation is commenced, County shall accept said plan. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.

4.4.5. Nothing in this section shall be deemed to allow the use of a shoring, sloping, or protective system less effective than that required by the Construction Safety Orders.

4.4.6. Nothing in this section shall be construed to impose tort liability on the awarding body or any of its employees.

4.5. STORAGE OF MATERIALS

Materials shall be so stored as to ensure the preservation of their quality and fitness for the work. When considered necessary by the County, they shall be placed on wooden platforms or other hard, clean surfaces and not on the ground. They shall be placed under cover when so directed by the County. Stored materials shall be so located as to facilitate prompt inspection.

4.6. DEFECTIVE MATERIALS

All materials not conforming to the exact requirements of the Contract Documents shall be considered as defective; and all such materials, whether in place or not, shall be rejected and shall be removed immediately from the site of the work. No rejected materials, the defects of which have been subsequently corrected, shall be used until approval in writing has been given by the County. Upon failure on the part of the Contractor to comply forthwith with any order of the County made under the provisions of this article, the County shall have authority to remove and replace defective material and to deduct the cost of removal and replacement from any monies due or to become due the Contractor.

4.7. ASSIGNMENT OF CLAIMS

In submitting a bid on this public works project, or any subcontractor agreeing to supply goods, services, or materials, and entering a contract pursuant thereto, the Contractor and/or subcontractors do offer and agree to assign to the County all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

SECTION 5 - LEGAL RELATIONS AND RESPONSIBILITY

5.1. LAWS TO BE OBSERVED

5.1.1. Compliance with Applicable Law

Reference to and/or incorporation into the Contract Documents of a particular law, statute, ordinance, rule or regulation is not, nor is it intended to be, a definitive statement of the law applicable to the Contract Documents and the accomplishment of the work. Contractor must keep informed as to all such applicable laws - Federal, State, County, Municipal - as they affect the conduct of the work and comply with such law, including, but not limited to, having requisite licenses, obtaining necessary permits, paying necessary fees and taxes, posting notices and installing, operating and maintaining safety precautions and facilities. It is likewise Contractor's responsibility to see to it that its subcontractors also fully comply with such applicable laws. Contractor shall protect and defend County, its officers, agents, employees and contractors against any claim or liability arising from or based upon any alleged violation of such applicable law.

5.1.2. Labor Code

The Contractor shall comply with all applicable requirements of the California Labor Code including but not limited to Labor Code, Chapter 2, Subchapter 1, Article 10, Required Apprentices on Public Works Contracts. Reference is made to Chapter 1, Part 7, Division 2 of the California Labor Code (commencing with Section 1720). By this reference said Chapter 1 is incorporated herein with like effect as if it were here set forth in full. The parties recognize that said Chapter 1 deals with, among other things, discrimination, penalties and forfeitures, their disposition and enforcement, wages, working hours and securing workers' compensation insurance and directly affect the method of prosecution of the work by Contractor and subject it under certain conditions to penalties and forfeitures. Execution of the Agreement by the parties constitutes their agreement to abide by said Chapter 1. Their stipulation as to all matters which they are required to stipulate to by the provisions of said Chapter 1, constitutes Contractor's certification that he is aware of the provisions of said Chapter 1 and will comply with them and further constitutes Contractor's certification as follows: "I am aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this contract." Contractor and his subcontractors shall comply with the provisions of the Labor Code regarding apprentices. Contractor shall post at each job site during the course of the work a copy of County's "Determination of Prevailing Wage Rate". Copies of this Determination are available from County and at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>.

5.1.3. Equal Employment Opportunity

The Contractor shall comply with all applicable non-discrimination and equal employment laws. The Contractor shall not discriminate in his recruiting, hiring, promotion, demotion or termination practices on the basis of race, religious creed, color, national origin, ancestry, sex, age or physical handicap in the performance of this contract and shall comply with the provisions of the California Fair Employment Practice Act (commencing with

S1410 of the Labor Code), the Federal Civil Rights Act of 1964 (P.L. 88-352) and all amendments thereto, Executive Order No. 11246 (30 Federal Register 12319), as amended, and all administrative rules and regulations issued pursuant to said Acts and Order. See particularly 41 Code of Federal Regulation (CFR) Chapter 60.

Contractor shall require each of its subcontractors to comply with the preceding paragraph and shall include in each subcontract language similar to the preceding paragraph.

Contractor shall permit access to its records of employment, employment advertisement, application forms and other pertinent data and records (including but not limited to certified payroll information) by County and any state or federal agency having jurisdiction for the purpose of investigation to ascertain compliance with this Section.

County may assign an affirmative action representative to monitor Contractor and his subcontractor(s) conduct required by this section, including the right of entry to the construction site for the purpose of obtaining information from persons performing work on the project providing such inspection does not interfere with the progress of the work.

Elsewhere in the Contract Documents more specific requirements may be contained covering the same subject matter of this Section. If so, such more specific requirements prevail over this section in case of conflict.

Transactions of \$10,000 or under - Contracts and subcontracts not exceeding \$10,000 are exempt from the requirements of this section. No Contractor or subcontractor shall procure supplies and/or services in less than usual quantities to avoid applicability of this section. With respect to contract and subcontracts for indefinite quantities, this section applies unless the amount required in any one year under such contract will reasonably be expected not to exceed \$10,000.

Transactions in Excess of \$10,000, but less than \$50,000 - At County's request, Contractor shall certify that he has in effect an affirmative action plan and agrees to comply with all state and federal laws and regulations regarding Fair Employment Practices. Contractor shall maintain a written copy of his affirmative action plan and furnish County a copy of the Plan upon request. County may require Contractor to complete an Affirmative Action Compliance Report, on a form furnished by County, setting forth definite goals during the term of this contract.

Transactions of \$50,000 or more - If Contractor has 50 or more employees and a contract for \$50,000 or more, he shall develop and submit to County within 30 days after award, a written affirmative action compliance program providing in detail specific steps to guarantee equal employment opportunity. Contractor shall include in his affirmative action program a table of job classifications, which table shall include but need not be limited to job titles, duties and rates of pay.

Contractor shall in each subcontract let to do a portion of the work covered hereunder, where the subcontractor involved has 50 or more employees and the subcontract is for \$50,000 or more, impose in the subcontract the above requirements.

For the purpose of determining the number of employees, the average of the Contractor's or his subcontractor's employees from the 12 month period immediately prior to award, or the total number of employees contractor or its subcontractor will have when performing this contract, whichever is higher, shall be used.

Federally Assisted Construction - If this project is a federally assisted construction project, then the contract provisions contained 41 CFR S60-1.4(b) are incorporated herein and Contractor shall likewise incorporate said provisions in each subcontract entered into by Contractor to perform the work. Federally assisted construction is identified as such in the Notice Inviting Bids.

5.1.4. Registration of Contractors

In order to be considered, a prospective bidder must be licensed in accordance with Division 3, Chapter 9 (commencing with Section 7000) of the Business and Professions Code.

5.1.5. Accident Prevention

Particular attention shall be given to relevant Division of Industrial Safety Construction and Electrical Safety Orders. Said Orders are contained in Title 8 of the California Code of Regulations, Chapter 4, Subchapters 4 and 5. Specific attention shall be taken of the California Occupational Safety and Health Act of 1973 (commencing with Section 6300 of the Labor Code) and the Federal Occupational Safety and Health Act of 1970 (P.L. 91-596) and rules and regulations issued pursuant to said Acts. Specific reference is made to Article 6 of said Construction Safety Orders. Contractor shall submit to County, in advance of excavation a detailed plan showing the design of shoring, bracing, sloping of the sides of trenches, or other provisions to be made for protection of personnel during earthwork operations. In event the Contractor's plan does not conform to the shoring system requirement of Article 6, the contractor's proposed shoring design shall be prepared and signed by a civil or structural engineer registered in the State of California. The Contractor shall also impose these requirements on all subcontractors involved and enforce compliance therewith. The duties here set forth are nondelegable by Contractor.

5.2. CONTRACTOR'S RESPONSIBILITY

Contractor is under the absolute duty in fulfilling his contractual obligations hereunder to proceed, and cause his subcontractors to proceed, in a safe, workmanlike manner, with adequate safeguards for the protection of the public, the workmen and persons from time to time inspecting the work. If at any time Contractor finds any of his subcontractors are allowing work to proceed in an unsafe manner or contrary to the terms of the Contract Documents, Contractor shall immediately cause such action to stop and immediately take all action necessary to protect workmen, inspectors and the general public and cause the work to proceed in a safe manner or in accordance with the terms of the Contract Documents.

5.3. CONTRACTOR'S RESPONSIBILITY FOR WORK

Until the formal final acceptance of the completed work by the County, the Contractor shall have the charge and care of the work and shall bear the risk of injury or damage to any part of the work by the action of the weather or from any other cause, whether or not arising from the execution of

the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work.

5.4. PROPERTY RIGHTS IN MATERIALS

Nothing in the contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the work or the soil. All such materials shall become the property of the County upon being so attached or affixed.

5.5. PERMITS AND LICENSES

The Contractor shall procure all permits and licenses (including but not limited to: National Pollution Discharge Elimination System (NPDES) and South Coast Air Quality Management District (AQMD) permit requirements), pay all charges and fees, and give all notices necessary and incident to prosecution of the work.

5.6. ROYALTIES AND PATENTS

The Contractor shall assume all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated in the work, and agrees to indemnify and save harmless the County and its duly authorized representatives, from all suits at law, or actions of every nature for, or on account of, the use of any patented materials, equipment, devices, or processes.

5.7. SANITARY PROVISIONS

Necessary conveniences, properly secluded from public observation, shall be provided by the Contractor where needed for the use of laborers on the work. Their location, construction and maintenance shall be subject to the approval of the County. The Contractor shall obey and enforce such sanitary regulations as may be prescribed by the State Department of Health or other authorities having jurisdiction.

5.8. PUBLIC SAFETY

The Contractor at its own expense shall furnish, erect, and maintain such fences, barriers, lights, and signs as are necessary to give adequate warning to the public at all times that the work is under construction; and the Contractor shall erect such warning and directional signs and employ such flagmen as are required and shall maintain same throughout the construction period. Full compensation for the work involved in carrying out the precautionary measures above specified shall be considered as included in the prices paid for the various contract items of work and no additional payment will be made therefore.

5.9. USE OF EXPLOSIVES

When the use of explosives is necessary for the prosecution of the work, the Contractor shall use the utmost care not to endanger life or property. All explosives shall be stored in accordance with the provisions of Division II Part I, Chapter 3, of the Health and Safety Code of the State of California and other applicable laws or regulations.

5.10. PROVISIONS FOR EMERGENCIES

Unusual conditions may arise on the work which will require that immediate and unusual provisions be made to protect the public from danger or loss or damage to life or property, and it

is part of the service required of the Contractor to make such provisions and to furnish such protection.

The Contractor shall use such foresight and shall take such steps and precautions as its operations make necessary to protect the public from danger or damage, or loss of life or property.

Whenever work is undertaken pursuant to this Section, Contractor shall promptly file with County a verified report setting forth the nature of the emergency and the action taken by the Contractor by reason of the emergency.

Whenever, in the opinion of the County, an emergency exists against which the Contractor has not taken sufficient precaution for the safety of the public or the protection of utilities or of adjacent structures or property which may be injured or damaged because of the Contractor's work; and, in the opinion of the County, immediate action shall be considered necessary in order to protect public or private, personal or real property interests, or prevent likely loss of human life or damage; then the County may provide suitable protection to said interests by causing such work to be done and material to be furnished as, in the opinion of the County, may seem reasonable and necessary. The cost and expense of all such emergency work shall be borne by the Contractor, and if he shall not pay said cost and expense upon presentation of the bills therefore, duly certified by the County, then said cost and expense will be paid by the County and shall thereafter be deducted from any amounts due or which may become due said Contractor. Failure of the County, however, to take such precautionary measures, shall not relieve the Contractor of its full responsibility for public safety.

5.11. UNFORESEEN DIFFICULTIES

The risk of all loss or damage, except as noted in Section 8.4, arising out of the work, or from any unforeseen obstructions or difficulties which may be encountered during the progress of the work, or from the action of the weather, or from encumbrances in the line of work, shall be the responsibility of the Contractor.

5.12. ACCESS TO THE WORK

Unless provided for in the Special Provisions, access to the work from existing roads shall be provided by the Contractor at its expense and maintained in a manner so as not to create a public nuisance. The County assumes no responsibility for the condition or maintenance of any existing road or structure thereon that may be used by the Contractor for performing the work or for traveling to and from the site of the work. No additional payment will be made to the Contractor for constructing any temporary road used for construction operations or for improving, repairing, or maintaining any existing road or structure thereon that may be used by the Contractor for performance of the work under these specifications. The cost of all work described in this paragraph shall be included in the prices bid in the schedule for other items of construction work.

5.13. GUARANTEE OF WORK

All work shall be guaranteed by Contractor for a period of two (2) years from the recordation of the Notice of Completion against any defects, including but not limited to those resulting from the use of inferior materials, equipment, or workmanship. Upon notice from County, Contractor shall promptly remedy such defects at its expense, including payment to County of its expenses in

connection with such defects; otherwise County shall proceed to remedy such defects and Contractor shall reimburse County for its expenses.

This guarantee is in addition to any specific guarantee(s) provided for elsewhere in the Contract Documents or provided by manufacturers or suppliers.

5.14. SURETY OF GUARANTEE

The performance of guarantee and conditions specified in Section 5.13., shall be secured by a surety bond which shall be delivered by the Contractor to the County prior to the date on which final payment is made to the Contractor. Said bond shall be in an approved form and executed by a surety company or companies satisfactory to the County, in the amount of 10 percent of the final contract price. Said bond shall remain in force for the duration of the guarantee period specified in Section 5.13. Instead of providing such a bond as described above, the Contractor may, at its option, provide for the performance bond furnished under the contract to remain in force for said amount until the expiration of said guarantee period; and the amount of said performance bond may be reduced to 10 percent of the final contract price beginning at the time of recordation of the Notice of Completion.

5.15. DAMAGES BY ACT OF GOD

If the construction of the project herein is damaged, which damage is determined to have been proximately caused by an act of God, in excess of 5% of the contract amount, provided that the work damaged is built in accordance with applicable building standards and the plans and specifications, then the County may, without prejudice to any other right or remedy, terminate the contract.

SECTION 6 - PROSECUTION AND PROGRESS

6.1. PROGRESS OF THE WORK

The Contractor shall begin the work within ten (10) calendar days after the date of receipt by Contractor of notice to proceed from the County and shall diligently and continuously prosecute the same to completion within the time limit provided in the Special Provisions.

6.2. OVERTIME WORK AND WORK AT NIGHT

The Contractor shall conduct the work on a five (5) day, forty (40) hour work week with no work on legal holidays (as further described in the Special Provisions). If the Contractor feels it is necessary to work more than the normal 40 hour work week, he will make a written request for permission from the County, outlining the reasons for such request. The decision of granting permission for overtime work shall be in the sole discretion of the County; and the decision of the County shall be final. If granted, a condition will be imposed requiring the Contractor to pay the County the cost incurred at overtime rates for additional inspection and engineering time required in connection with the overtime work.

When any work is performed at night, only such classes of work shall be done as can be properly inspected. Adequate light must be provided for the safety of the workers and for proper inspection.

6.3. SUBCONTRACTING

Reference is made to the Subletting and Subcontracting Fair Practice Act contained in the California Public Contract Code (commencing with Section 4100). By this reference, said Act is incorporated herein with like effect as if it were here set forth in full and the parties shall abide by its terms and substitution shall be only as allowed by that Act. County reserves the right to approve all subcontractors whether or not they are required to be listed in the Contractor's Proposal.

Contractor shall be responsible for the acts and omissions of its subcontractors and shall make certain that at all times its subcontractors comply with the terms of the Contract Documents and applicable law. Where a portion of the work which has been subcontracted by the Contractor is not being prosecuted in a manner satisfactory to the County, the subcontractor shall be removed immediately on the request of the County and shall not again be employed on the work.

The Contractor shall give its personal attention to the fulfillment of the contract and shall keep the work under its control. The Contractor shall perform with its own organization work of a value amounting to not less than 50 percent of the remainder obtained by subtracting from the total original contract value the sum of any item designated herein or in the Special Provisions as Specialty Items. The furnishing and placing of reinforcing steel, when placing is performed by the supplier, will be considered as a Specialty Item for this purpose; however, he shall be designated in the list of subcontractors. The value of the work subcontracted will be based on the contract item bid price, if any subdivision of a contract unit is subcontracted, the entire unit shall be considered as subcontracted.

6.4. CHARACTER OF WORKMEN

If any subcontractor or person employed by the Contractor shall fail or refuse to carry out the directions of the County or shall appear to the County to be incompetent or to act in a disorderly

or improper manner, he/she shall be discharged immediately upon the request of the County and such person shall not again be employed on this work.

6.5. TEMPORARY SUSPENSION OF THE WORK

The County shall have the authority to suspend the work wholly or in part, for such period as the County may deem necessary, due to unsuitable weather, or to such other conditions as are considered unfavorable for the suitable prosecution of the work, or for such time as the County may deem necessary due to the failure on the part of the Contractor to properly perform the work. The Contractor shall immediately comply with the order of the County to suspend the work wholly or in part. The work shall be resumed when conditions are favorable or methods are corrected, as ordered or approved by the County.

6.6. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

The Contractor shall complete the work called for under the contract in all parts and requirements within the number of working days specified in the Special Provisions. Liquidated damages shall apply as stated in the Special Provisions.

A working day is hereby defined as any day (except Saturdays, Sundays, legal holidays, and days on which the Contractor is specifically required by the Special Provisions to suspend construction operations) on which the Contractor is not prevented by inclement weather or resulting conditions from proceeding with at least 60 percent of the normal labor and equipment force engaged in the controlling operation or operations for at least five hours.

The County will furnish the Contractor a weekly statement showing the number of working days charged to the contract for the preceding week, the number of working days specified for completion of the contract, and the number of working days remaining to complete the contract. The Contractor will be allowed one week in which to file a written protest setting forth in what respects the weekly statement is incorrect, otherwise the statement shall be deemed to have been accepted by the Contractor as correct.

The following holidays will be considered as legal holidays: New Year's Day; Martin Luther King Jr. Birthday, Lincoln's Birthday; Washington's Birthday (observed); Memorial Day; Independence Day; Labor Day; Columbus Day; Veteran's Day; Thanksgiving Day; Christmas; and such other days as are declared County holidays by ordinance passed by the Board of Supervisors. Please refer to specific holiday dates listed in the Special Provisions.

Contractor acknowledges that failure to perform in strict accordance with the Contract Documents and within the time limits specified in the Special Provisions will cause County to suffer special damages in addition to cost of completion of the work in accordance with the provisions of the Contract Documents. Such special damage could include, but is not limited to, lease and rental cost, additional salaries and overhead, interest during construction, attorney expense, additional engineering, inspection expense, cost of maintaining or constructing alternate facilities, and injury to the property of the County or others. Such special damage could also include penalties assessed against the County by other governmental agencies for failure to have the project completed in a timely manner or as required by law. The County may withhold from any money due or that may become due the Contractor under the contract such amount as the County may elect to offset the

damages incurred. Any withholding or failure to withhold shall not in any way limit recovery for damages actually incurred.

It is further agreed that in case the work called for under the contract is not finished and completed in all parts and requirements within the time specified, the County (in its sole discretion) shall have the right to extend the time for completion or not. If the County decides to extend the time limit for the completion of the contract, the County shall further have the right to charge to the Contractor and to deduct from the Contractor's payment all or any part of the actual cost of engineering, inspection, superintendence, and other related expenses caused by the Contractor's failure to complete the project as required. Liquidated damages shall apply as stated in the Special Provisions.

6.7. DELAYS AND EXTENSION OF TIME

If delays are caused by unforeseen causes beyond the control of either the Contractor or the County, such as war, strikes, fire, floods, or other action of the elements that are unreasonable under the circumstances involved and not within the contemplation of the parties, such delays will entitle the Contractor to an equivalent extension of time for the completion of the contract but not damages or additional payments over the contract price. Furthermore, if the Contractor suffers any delay caused by the failure of the County to furnish the necessary right of way or materials agreed to be furnished by it, or by failure to supply necessary plans or instructions concerning the work to be done after written request therefore has been made, the Contractor shall be entitled to an extension of time equivalent to the time lost for any of the above-mentioned reasons herein this Section 6.7 but shall not be entitled to any damages for such delay.

6.8. ASSIGNMENT

The contract may be assigned only upon prior written consent of the County. Such written consent to sublet, assign or otherwise dispose of any portion of the contract, shall not be construed to relieve the Contractor of any responsibility for the fulfillment of the contract.

6.9. TERMINATION OF CONTRACT

If the Contractor fails to begin delivery of material and equipment or to commence work within the time specified herein, or to maintain the rates of delivery of materials, or to execute the work in the proper manner, written notice by the County may be served upon the Contractor demanding compliance with the contract. If the Contractor refuses or neglects to comply with such notice within five (5) working days after receipt of the notice, then the County may take possession of the work, together with all material and equipment thereon, and may complete the work itself in the manner the County determines to be appropriate. The cost of the completion of the work shall be charged against the Contractor and its surety and may be deducted from any money due to the Contractor; and if the sums due under the contract are insufficient, the Contractor and/or its surety shall pay to the County within five (5) working days after the completion of the work all of such cost in excess of the contract price.

SECTION 7 - PAYMENT

7.1. SCOPE OF PAYMENTS

The compensation described in the Agreement shall be complete and full payment to the Contractor for furnishing all materials, labor, tools, equipment and related items necessary to complete the work; and for all obligations imposed upon the Contractor pursuant to the Contract Documents. Neither the payment of any estimate nor of any retained percentage shall relieve the Contractor of any obligation to make good any defective work or material.

7.1.1. Measurement and Computation of Quantities

Unless otherwise stated, all items of the work to be paid for at a contract price per unit of measurement will be measured by the County in accordance with United States Standard Measures. A ton shall mean 2,000 pounds, avoirdupois. Except as otherwise expressly provided in the specifications, the methods of measurement and computation of quantities will be determined by the County.

The weights of metalwork, and other metal parts to be paid for by weight will be determined by the County on the basis of handbook weights, scale weights, or manufacturer's catalog weights, or in the absence of any of the foregoing, on the basis of estimated weights; provided, that weights of nonmetallic coatings will be excluded.

7.1.2. Payment at Contract Prices

The contract price for an item of the work shall include full compensation for all costs of that item, including the costs of any work, materials and equipment incidental to the item but not specifically shown or described in the Contract Documents.

The contract prices shall include full compensation for all costs of any work, materials, and equipment required by the Contract Documents, but not covered by a contract price or otherwise expressly made the subject of direct payment.

7.2. PAYMENT AND COMPENSATION FOR ALTERED QUANTITIES

When alterations in plans or quantities of work are ordered and performed, the Contractor agrees to accept payment in full at the contract unit price for the actual quantities of work done; and no additional payment will be made for anticipated profits.

7.3. FORCE ACCOUNT PAYMENT

When extra work is to be paid for on a force account basis, compensation will be determined as follows:

7.3.1. Work Performed by Contractor

The Contractor will be paid for labor, materials, and equipment rental as hereinafter provided, except where agreement has been reached to pay in accordance with Section

7.3.2. Only materials incorporated in the work will be paid for.

To the total computed as provided in Section 7.3.1.1, 7.3.1.2 and 7.3.1.3 will be added the following percentages:

Labor -- 24 percent
Materials -- 15 percent
Equipment Rental -- 15 percent

It is understood labor, materials, and equipment may be furnished by the Contractor or by the subcontractor or by others on behalf of the Contractor.

When extra work paid for on a force account basis is performed by forces other than the Contractor's organization, the Contractor shall reach agreement with such other forces as to the distribution of the payment made by the County for such work and no additional payment therefore will be made by the County.

7.3.1.1. Labor

The Contractor will be paid the cost of labor for the workmen (including foremen when authorized by the County), used in the actual and direct performance of the work. The cost of labor, whether the employer is the Contractor, subcontractor, or other forces, will be the sum of the following:

7.3.1.1.1. Actual Wages

The actual wages paid shall include any employer payments to or on behalf of the workmen for health and welfare, pension, vacation, and similar purposes.

7.3.1.1.2. Labor Surcharge

To the actual wages as defined in Section 7.3.1.1.1., will be added a labor surcharge set forth in the Special Provisions, which labor surcharge shall constitute full compensation for all payments imposed by State and Federal laws and for all other payments made to, or on behalf of, the workmen, other than actual wages as defined in Section 7.3.1.1.1 and subsistence and travel allowance as specified in Section 7.3.1.1.3.

7.3.1.1.3. Subsistence and Travel Allowance

Subsistence and travel allowance paid to such workmen as required by collective bargaining agreements.

7.3.1.2. Materials

The cost of materials incorporated in the work will be the cost to the purchaser, whether Contractor, subcontractor or other forces, from the supplier thereof, except as the following are applicable:

- (a) If a cash or trade discount by the actual supplier is offered or available to the purchaser, it shall be credited to the County notwithstanding the fact that such discount may not have been taken.

- (b) If the materials are procured by the purchaser by any method which is not a direct purchase from and a direct billing by the actual supplier to such purchaser, the cost of such materials shall be deemed to be the price paid to the actual supplier as determined by the County. No markup except for actual costs incurred in the handling of such materials will be permitted.
- (c) If the materials are obtained from a supply or source owned wholly or in part by the purchaser, payment therefore will not exceed the price paid by the purchaser for similar materials furnished from said source on contract items or on the current wholesale price for such materials delivered to the job site whichever price is lower.
- (d) If the cost of such materials is, in the opinion of the County, excessive, then the cost of such materials shall be deemed to be the lowest current wholesale price at which such materials are available in the quantities concerned delivered to the job site, less any discounts as provided in Section 7.3.1.2(a).
- (e) If the Contractor does not furnish satisfactory evidence of the cost of such materials from the actual supplier thereof, the cost shall then be determined in accordance with Section 7.3.1.2(d).

The County reserves the right to furnish such materials as it deems advisable, and the Contractor shall have no claims for costs and profit on such materials.

7.3.1.3. Equipment Rental

The Contractor will be paid for the use of equipment at the rental rates listed for such equipment in the Special Provisions regardless of ownership and any rental or other agreement, if such may exist, for the use of such equipment entered into by the Contractor. If it is deemed necessary by the County to use equipment not listed in the Special Provisions, a suitable rental rate for such equipment will be established by the County. The Contractor may furnish any cost data which might assist the County in the establishment of such rental rate.

The rental rates paid as above provided shall include the cost of fuel, oil, lubrication, supplies, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.

Operators of rented equipment will be paid for as provided under Section 7.3.1.1

All equipment shall, in the opinion of the County, be in good working condition and suitable for the purpose for which the equipment is to be used.

Unless otherwise specified, manufacturer's ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

Individual pieces of equipment or tools having a replacement value of \$25.00 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefore.

Rental time will not be allowed while equipment is inoperative due to breakdowns.

In computing the rental time of equipment, less than 30 minutes shall be considered ½ hour.

7.3.1.3.1. Equipment on the Work

The rental time to be paid for equipment on the work shall be the time the equipment is in operation on the extra work being performed, and in addition, shall include the time required to move the equipment to location of the extra work and return it to the original location or to another location requiring no more time than that required to return it to its original location, except that moving time will not be paid for if the equipment is used at the site of the extra work on other than such extra work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made if the equipment is used at the site of the extra work on other than such extra work.

7.3.1.3.2. Equipment not on the Work

For the use of equipment moved in on the work and used exclusively for extra work paid for on a force account basis, the Contractor will be paid the rental rates listed in the Special Provisions or as agreed to as provided in Section 7.3.1.3 and for the cost of transporting the equipment to the location of the work and its return to its original locations, all in accordance with the following provisions:

- (i) The original location of the equipment to be hauled to the location of the work shall be agreed to by the County in advance.
- (ii) The County will pay the costs of loading and unloading such equipment.
- (iii) The cost of transporting equipment on low bed trailers shall not exceed the hourly rates charged by established haulers.
- (iv) The cost of transporting equipment shall not exceed the applicable minimum established rates of the Public Utilities Commission.
- (v) The rental period shall begin at the time the equipment is unloaded at the site of the extra work, shall include each day that the equipment is at the site of the extra work, excluding Saturdays, Sundays, and legal holidays unless the extra work is performed on such days, and shall terminate at the end of the day on which the County directs the Contractor to discontinue the use of such equipment. The rental time to be paid per day will be in accordance with the following:

Hours In	Hours to be Paid
0	4
0.5	4.25
1	4.5
1.5	4.75
2	5
2.5	5.25
3	5.5
3.5	5.75
4	6
4.5	6.25
5	6.5
5.5	6.75
6	7
6.5	7.25
7	7.75
8	8
Over 8	Hours in operation

When hourly rates are listed, less than 30 minutes of operation shall be considered to be ½ hour of operation.

When daily rates are listed, payment for ½ day will be made if the equipment is not used. If the equipment is used, payment will be made for one day.

The minimum rental time to be paid for the entire rental period on an hourly basis shall not be less than 8 hours or if on a daily basis shall not be less than one day.

- (i) Should the Contractor desire the return of the equipment to a location other than its original location, the County will pay the cost of transportation in accordance with the above provisions, provided such payment shall not exceed the cost of moving the equipment to the work.
- (ii) Payment for transporting, loading and unloading equipment, as above provided, will not be made if the equipment is used on the work in any other way than upon extra work paid for on a force account basis.

7.3.2. Work Performed by Special Forces or Other Special Services

When the County and the Contractor, by advance agreement, determine that a special service or an item of extra work cannot be performed by the forces of the Contractor or those of any of his subcontractors, such service or extra work item may be performed by a specialist. Invoices for such service or item of extra work on the basis of the current market price thereof may be accepted without complete itemization of labor, material, and equipment rental costs when it is impracticable and not in accordance with the established practice of the special service industry to provide such complete itemization. In those

instances wherein a Contractor is required to perform extra work necessitating a fabrication or machining process in a fabrication or machine shop facility away from the job site, the charges for that portion of the extra work performed in such facility may, by agreement, be accepted as a specialist billing.

To the specialist invoice price, less a credit to the County for any cash or trade discount offered or available, whether or not such discount may have been taken, will be added 15 percent in lieu of the percentages provided in Section 7.3.1.

7.3.3. Records

The Contractor shall maintain his records in such manner as to provide a clear distinction between the direct costs of extra work paid for on a force account basis and the costs of other operations.

The Contractor shall furnish the County (on a form provided by the County) report sheets in duplicate of each day's extra work paid for on a force account basis no later than the working day following the performance of said work. The daily report sheets shall itemize the materials used, and shall cover the direct costs of labor and the charges for equipment rental, whether furnished by the Contractor, subcontractor, or other forces, except for charges described in Section 7.3.2. The daily report sheets shall provide names or identifications and classifications of workmen, the hourly rate of pay and hours worked, and also the size, type and identification number of equipment, and hours operated.

Materials charges shall be substantiated by valid copies of vendor's invoices. Such invoices shall be submitted with the daily report sheets, or if not available, they shall be submitted with subsequent daily report sheets. Should said vendor's invoices not be submitted within 15 days after acceptance of the work, the County reserves the right to establish the cost of such materials at the lowest current wholesale prices at which said materials are available in the quantities concerned delivered to the location or the work, less any discounts provided in Section 7.3.1.2 (a).

Daily report sheets shall be signed by the Contractor or its authorized agent.

The County will compare its records with the daily report sheets furnished by the Contractor, make any necessary adjustments, and compile the costs of work paid for on a force account basis on daily extra work report forms furnished by the County. When these daily extra work reports are agreed upon and signed by both parties, they shall become the basis of payment for the work performed, but shall not preclude subsequent adjustment based on a later audit.

The Contractor's cost records pertaining to work paid for on a force account basis shall be open to inspection or audit by representatives of the County, during the life of the contract and for a period of not less than 18 months after the date of acceptance thereof, and the Contractor shall retain such records for that period. Where payment for materials or labor is based on the cost thereof to forces other than the Contractor, the Contractor expressly guarantees that the cost records of such other forces shall be open to inspection and audit by representatives of the County on the same terms and conditions as the cost records of

the Contractor. If an audit is to be commenced more than 60 days after the acceptance date of the contract, the Contractor will be given a reasonable notice of the time when such audit is to begin.

7.3.4. Payment

Payment as provided above in Sections 7.3.1 and 7.3.2 shall constitute full compensation to the Contractor for performance of work paid for on a force account basis and no additional compensation will be allowed therefore.

7.4. ACCEPTANCE

The work shall be inspected for final acceptance by the County promptly upon receipt of notice in writing from the Contractor that the completed work is ready for such inspection.

7.5. PARTIAL PAYMENTS

On or about the last day of each month, the County shall make an estimate in writing of the total amount of work done by the Contractor to the time of such estimate and the value thereof. The County shall retain 5 percent (5%) of such estimated value of the work or partial payment for the fulfillment of the contract by the Contractor.

After deducting all previous payments and all sums to be kept or retained under the provisions of the contract or applicable law, the County shall make monthly progress payments to the Contractor. No such estimate or payment shall be required to be made when, in the judgment of the County, the work is not proceeding properly. No payment shall be required to be made by the County unless and until all required submittals have been delivered to the County, including but not limited to the following: certified payroll information (at a frequency specified in the Special Provisions, if project is a prevailing wage contract), construction schedule updates as listed in Section 2.2, and National Pollution Discharge and Elimination System permit requirements and frequencies as stated in Special Provisions.

In accordance with Public Contract Code Section 22300 and other applicable law, the Contractor may substitute securities for any monies withheld to ensure performance under the contract. Such substitution shall be made only upon a separate agreement between the County Board of Supervisors and the Contractor which contains terms and conditions in compliance with all laws applicable to monies withheld under the contract.

7.6. DELAYED PAYMENTS

All the monies due the Contractor under the contract will be paid by the Treasurer of the County of Riverside, prepared and approved as required by law; and it is understood that any delay in the preparation, approval and payment of these demands will not constitute a breach of the County's obligations.

7.7. FINAL PAYMENT

The County, after completion of the work, and submittal of any final documents or reports required by the Special Provisions, shall make a final estimate in writing to the County Board of Supervisors of the amount of work done and the value of such work; and pursuant to order of the Board of Supervisors the County shall pay the sum found to be due after deducting therefrom all previous payments and all amounts to be kept and retained under the provisions of the contract or applicable

law. All prior partial estimates and payments shall be subject to correction in the final estimate and payment. The withheld retention funds shall not be due and payable to the Contractor until the expiration of thirty-five (35) days after the date of approval by the Board of Supervisors and recordation of the notice of completion.

The Contractor agrees that no certificate given or payments made under the contract except the final payment and approval by the Board of Supervisors shall be conclusive evidence of the performance of the contract. No payment shall be construed to be an acceptance of any defective work or improper materials.

The Contractor agrees that payment of the final amount due under the contract will be withheld until the guarantee of work as required in Section 5.13 herein is accepted by the County in approved form.

The Contractor's agreement to the final payment shall release the County, including its officers, employees, agents and contractors, from any and all claims from the Contractor for further or additional compensation related to the work.

7.8. CLAIMS RESOLUTION – CLAIMS UP TO \$375,000

In accordance with Public Contract Code Section 20104 - 20104.8 and other applicable law, public works claims of \$375,000 or less which arise between the Contractor and the County shall be resolved following the statutory procedure.

7.8.1. Submission of Claims

All claims shall be submitted in writing and accompanied by substantiating documentation. Claims must be filed before processing of the final payment unless other notice requirements are provided in the contract. "Claim" means a separate demand by the claimant for (1) a time extension, (2) payment of money or damages arising from work done by or on behalf of the claimant and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled, or (3) an amount the payment of which is disputed by the County.

7.8.1.1. Claims under \$50,000.00

The County shall respond in writing to the claim within 45 days of receipt of the claim, or, the County may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the County may have against the claimant. If additional information is needed thereafter, it shall be requested and provided upon mutual agreement of the County and the claimant. The County's written response shall be submitted 15 days after receiving the additional documentation, or within the same period of time taken by the claimant to produce the additional information, whichever is greater.

7.8.1.2. Claims over \$50,000.00 but less than or equal to \$375,000.00

The County shall respond in writing within 60 days of receipt, or, may request in writing within 30 days of receipt of the claim, any additional documents supporting the claim or relating to defenses or claims the County may have against the claimant. If

additional information is needed thereafter, it shall be requested and provided pursuant to mutual agreement between the County and the claimant. The County's response shall be submitted within 30 days after receipt of the further documents, or within the same period of time taken by the claimant to produce the additional information or documents, whichever is greater.

7.8.2. Meet and Confer

If the claimant disputes the County's response, or if the County fails to respond within the statutory time period, the claimant may so notify the County within 15 days of the receipt of the County's response or within fifteen (15) days of the County's failure to respond within the time prescribed, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon such demand, the County shall schedule a meet and confer conference within 30 days for settlement of the dispute.

7.8.3. Filing of Claims

If following the meet and confer conference, the claim or any portion thereof remains in dispute, the claimant may file a claim pursuant to Government Code 900 et seq. and Government Code 910 et seq. For purposes of those provisions, the time within which a claim must be filed shall be tolled from the time the claimant submits the written claim until the time the claim is denied as a result of the meet and confer process, including any time utilized for the meet and confer conference.

7.8.4. Mediation and Judicial Arbitration

If a civil action is filed to resolve any claim, the provisions of Public Contract Code 20104.4 shall be followed providing for nonbinding mediation and judicial arbitration.

7.8.5. Location for Filing of Claims, Jurisdiction

Any legal action related to the performance of the work or the terms of the Contract Documents shall be filed only in the Superior Court of the State of California located in Riverside, California.

7.9. CLAIMS RESOLUTION – ALL CLAIMS (PUBLIC CONTRACT CODE SECTION 9204)

This section is intended to help resolve disputes between the parties related to this project. Such disputes shall be brought to the attention of the County at the earliest possible time, so that such disputes may be promptly resolved, if possible, or other appropriate action or investigation may be promptly undertaken. Claims must be filed on or before the date of final payment as required in Public Contract Code Section 20104.2. Public works claims which arise between the Contractor and the County shall be resolved using the following procedure:

7.9.1. Claim

A "claim" means a separate demand by the Contractor sent by registered mail or certified mail return receipt requested for one or more of the following: (a) a time extension including, without limitation, for relief from damages or penalties for delay assessed by the County; (b) payment by the County of money or damages arising from work done by or on behalf of the Contractor and payment for which is not otherwise expressly provided or to which the Contractor is not otherwise entitled; (c) payment of an amount that is

disputed by the County. The Contractor shall furnish reasonable documentation to support the claim.

7.9.2. Form and Contents of Claim(s)

The Contractor shall furnish reasonable documentation to support the Claim, which shall be sent by registered mail or certified mail with return receipt requested to the Department at the address provided herein this Section 7.10. The Contractor's written Claim must include, but not limited to, the following:

- 1) A statement to identify that it is a Claim under this Section 7.10, on a company letterhead, and a request for a decision on the Claim;
- 2) A detailed description or narrative of pertinent events, act, error, omission, unforeseen condition, event or other circumstance giving rise to the Claim;
- 3) Citation to contract provisions;
- 4) Theory of entitlement that provides a detailed justification for any remedy or relief sought by the Claim. This includes, but not limited to: a detailed cost breakdown, invoices, material tickets, staff logged time, summary of quantities, other cost records and total cost calculations;
- 5) Complete pricing of all cost impacts;
- 6) A time impact analysis of all time delays that shows actual time impact on the critical path; and
- 7) Documentation, Department letters, notifications, related drawings and photos supporting items (1) through (6).

The Claim must be verified under penalty of perjury by Contractor's project superintendent as to the Claim's accuracy, and shall be priced like a Change Order, and must be updated at regular intervals as to cost and entitlement if a continuing Claim. Routine contract materials, for example, correspondence, RFI, Change Order requests, or payment requests shall not constitute a Claim. Contractor shall bear all costs incurred in the preparation and submission of a Claim.

Claims and support documentation related must be sent to:

Hans W. Kernkamp, General Manager – Chief Engineer
14310 Frederick St., Moreno Valley, CA 92553

7.9.3. Claims Procedure

- 1) Upon receipt of a Claim and the supporting documentation, the Department shall conduct a reasonable review of the Claim and within forty-five (45) days, or an extended period as may be set by mutual agreement of the Department and Contractor, provide the Contractor with a written statement identifying what portion of the Claim is still disputed and what portion is undisputed.

- 2) Notwithstanding the time period set forth in C. 1) above, if the Department needs approval from the Board of Supervisors to provide the Contractor with a written statement identifying the disputed portion and the undisputed portion of the Claim, and the Board of Supervisors does not meet within the forty-five (45) days or within the mutually agreed to extension of time following receipt of the Claim, the Department shall have up to three (3) days following the next duly publicly noticed meeting of the Board of Supervisors after the forty-five (45) day period, or extension, expires to provide Contractor a written statement identifying the disputed portion and the undisputed portion of the Claim.
- 3) Any payment due on the undisputed portion of the Claim under this section shall be processed and made within sixty (60) days after the Department issues its written statement. Amounts not paid in a timely manner as required by this Section 7.10 shall bear interest at 7 percent per annum. If the Department fails to issue a written statement, the Claim shall be deemed rejected in its entirety. Failure by the Department to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A Claim that is denied by reason of the Department's failure to have responded to the Claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the Claim or the responsibility or qualifications of the Contractor.
- 4) If the Contractor disputes the Department's written response, or if the Department fails to respond within the time prescribed, the Contractor may demand in writing, sent by registered mail or certified mail return receipt requested, an informal meet and confer conference for settlement of the portion of the Claim in dispute. Upon receipt of the demand, the Department shall schedule a meet and confer conference within thirty (30) days.
- 5) Within ten (10) business days following the conclusion of the meet and confer conference, if the Claim or any portion thereof remains in dispute, the Department shall provide the Contractor a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion shall be processed and made within sixty (60) days after the Department issues its written statement. Any disputed portion of the Claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with the Department and Contractor sharing the associated costs equally. The Department and Contractor shall mutually agree to a mediator within ten (10) business days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.

- 6) For purposes of this section, mediation includes any nonbinding process, including but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute with resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section. Unless otherwise agreed to by the Department and the Contractor in writing, the mediation conducted pursuant to this Section 7.10 shall excuse any further obligation under Section 20104.4 of the Public Contract Code to mediate after litigation has been commenced.
- 7) If mediation is unsuccessful to resolve all issues, the parts of the Claim remaining in dispute shall be subject to applicable procedures outside of this section and the requirements of Public Contract Code § 9204. The Claim resolution procedures in this Section do not preclude the Department from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this Article does not resolve the parties' dispute.
- 8) Following the procedures set forth in this Section 7.10, including the mediation, if the Claim or any portion of it remains in dispute, the Contractor may file a Claim as provided in Chapter 1 (commencing with § 900) and Chapter 2 (commencing with § 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.
- 9) If the Government Code claim is denied, Contractor may file an action in court. If a civil action is filed to resolve any claim, such action shall be subject to the provisions of Public Contract Code Sections 9204 or 20104.4 and shall be followed, providing for non-binding mediation and judicial arbitration. This Section applies only to claims subject to Public Contract Code Sections 9204 or 20104. If a claim is not subject to Public Contract Code Sections 9204 or 20104, the Contractor's right to file a civil action shall be as otherwise provided by law.

7.9.4. Subcontractor Claim(s)

If a subcontractor or a lower tier subcontractor has a Claim, the Contractor may present to the Department a Claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the Contractor present a Claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the Claim be presented to the Department shall furnish reasonable documentation as set forth in Section 7.10 to support the Claim. Within forty-five (45) days of receipt of this written request, the Contractor shall notify the subcontractor in writing as to whether the Contractor presented the Claim to the Department, and if the Contractor did not present the Claim, provide the subcontractor with a statement of the reasons for not having done so

7.9.5. Venue

Any legal action related to the performance of the work or the terms of the Contract Documents shall be filed only in the Superior Court of the State of California located in Riverside, California.

7.9.6. Consistency with Public Contract Code Sections 9204 and 20104

If any Claim(s) arising under this Contract is subject to the provisions of Public Contract Code Sections 9204 or 20104 et seq. (Div. 2, Part 3, Chapter 1, Article 1.5), and if provisions of those statutory sections require a procedure or procedural element different from that established in this Contract, then the provisions of those statutory sections shall apply in place of the conflicting procedure or procedural element established herein.

SECTION 8 - GENERAL

8.1. COOPERATION BETWEEN CONTRACTORS

The Contractor shall fully cooperate and coordinate its work with all utility and public agency representatives engaged in construction, relocation, altering or otherwise rearranging any facilities interfering with the progress of the work, and with any other contractors working at or near the project site. Full compensation for any delay or inconvenience to the Contractor's operation due to such operations shall be considered included in the prices for the other items of work and no additional allowance will be made therefore.

8.2. HOLD HARMLESS / INDEMNIFICATION

CONTRACTOR shall indemnify and hold harmless the County of Riverside, its Agencies, Districts, Special Districts and Departments, their respective directors, officers, Board of Supervisors, elected and appointed officials, employees, agents and representatives from any liability claim, action, or damages whatsoever, based or asserted upon any services of CONTRACTOR, its officers, employees, subcontractors, agents or representatives arising out of or in any way relating to this Agreement, including but not limited to property damage, bodily injury, or death or any other element of any kind or nature whatsoever arising from the performance of CONTRACTOR, its officers, agents, employees, subcontractors, agents or representatives relating to this Agreement. CONTRACTOR shall defend, at its sole expense and pay all costs and fees including, but not limited to attorney fees cost of investigation, defense and settlements or awards, the County of Riverside, its Agencies, Districts, Special Districts and Departments, their respective directors, officers, Board of Supervisors, elected and appointed officials, employees, agents and representatives in any claim or action to which this indemnification and hold harmless obligation applies.

With respect to any action or claim subject to indemnification herein by CONTRACTOR, CONTRACTOR shall, at their sole cost, have the right to use counsel of their own choice and shall have the right to adjust, settle, or compromise any such action or claim without the prior consent of COUNTY; provided, however, that any such adjustment, settlement or compromise in no manner whatsoever limits or circumscribes CONTRACTOR'S indemnification to COUNTY as set forth herein.

CONTRACTOR'S obligation hereunder shall be satisfied when CONTRACTOR has provided to COUNTY the appropriate form of dismissal relieving COUNTY from any liability for the action or claim involved.

The specified insurance limits required in this Agreement shall in no way limit or circumscribe CONTRACTOR'S obligations to indemnify and hold harmless the COUNTY herein from third party claims.

In the event there is conflict between this clause and California Civil Code Section 2782, this clause shall be interpreted to comply with Civil Code 2782. Such interpretation shall not relieve the CONTRACTOR from indemnifying the COUNTY to the fullest extent allowed by law.

8.3. INSURANCE

Without limiting or diminishing the CONTRACTOR'S obligation to indemnify or hold the COUNTY harmless, CONTRACTOR shall procure and maintain or cause to be maintained, at its sole cost and expense, the following insurance coverage's during the term of this Agreement.

8.3.1. Workers' Compensation:

If the CONTRACTOR has employees as defined by the State of California, the CONTRACTOR shall maintain statutory Workers' Compensation Insurance (Coverage A) as prescribed by the laws of the State of California. Policy shall include Employers' Liability (Coverage B) including Occupational Disease with limits not less than \$1,000,000 per person per accident. The policy shall be endorsed to waive subrogation in favor of The County of Riverside.

8.3.2. Commercial General Liability:

Commercial General Liability insurance coverage, including but not limited to, premises liability, contractual liability, products and completed operations liability, personal and advertising injury, cross liability coverage, covering claims which may arise from or out of CONTRACTOR'S performance of its obligations hereunder. Policy shall name the County of Riverside, its Agencies, Districts, Special Districts, and Departments, their respective directors, officers, Board of Supervisors, employees, elected or appointed officials, agents or representatives as Additional Insureds. Policy's limit of liability shall not be less than \$1,000,000 per occurrence combined single limit and \$2,000,000 annual aggregate. If such insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the occurrence limit.

8.3.3. Vehicle Liability:

If CONTRACTOR'S vehicles or mobile equipment are used in the performance of the obligations under this Agreement, then CONTRACTOR shall maintain liability insurance for all owned, non-owned or hired vehicles so used in an amount not less than \$1,000,000 per occurrence combined single limit. If such insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the occurrence limit. Policy shall name the County of Riverside, its Agencies, Districts, Special Districts, and Departments, their respective directors, officers, Board of Supervisors, employees, elected or appointed officials, agents or representatives as Additional Insureds.

8.3.4. Environmental Impairment Insurance:

Contractor shall maintain Environmental Impairment Insurance providing coverage for the Contractor's performance of work included within this Agreement, with a limit of liability of not less than \$1,000,000 per occurrence and \$1,000,000 annual aggregate.

8.3.5. General Insurance Provisions - All lines:

Any insurance carrier providing insurance coverage hereunder shall be admitted to the State of California and have an A M BEST rating of not less than A: VIII (A:8) unless such requirements are waived, in writing, by the County Risk Manager. If the County's Risk Manager waives a requirement for a particular insurer such waiver is only valid for that specific insurer and only for one policy term.

The CONTRACTOR'S insurance carrier(s) must declare its insurance deductibles or self-insured retentions. If such deductibles or self-insured retentions exceed \$500,000 per occurrence such deductibles and/or retentions shall have the prior written consent of the County Risk Manager before the commencement of operations under this Agreement. Upon notification of deductibles or self-insured retention's unacceptable to the COUNTY, and at the election of the County's Risk Manager, CONTRACTOR'S carriers shall either; 1) reduce or eliminate such deductibles or self-insured retention's as respects this Agreement with the COUNTY, or 2) procure a bond which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses.

CONTRACTOR shall cause CONTRACTOR'S insurance carrier(s) to furnish the County of Riverside with either 1) a properly executed original Certificate(s) of Insurance and certified original copies of Endorsements effecting coverage as required herein, and 2) if requested to do so orally or in writing by the County Risk Manager, provide original Certified copies of policies including all Endorsements and all attachments thereto, showing such insurance is in full force and effect. Further, said Certificate(s) and policies of insurance shall contain the covenant of the insurance carrier(s) that thirty (30) days written notice shall be given to the County of Riverside prior to any material modification, cancellation, expiration or reduction in coverage of such insurance. In the event of a material modification, cancellation, expiration, or reduction in coverage, this Agreement shall terminate forthwith, unless the County of Riverside receives, prior to such effective date, another properly executed original Certificate of Insurance and original copies of endorsements or certified original policies, including all endorsements and attachments thereto evidencing coverage's set forth herein and the insurance required herein is in full force and effect. ***CONTRACTOR shall not commence operations until the COUNTY has been furnished original Certificate (s) of Insurance and certified original copies of endorsements and if requested, certified original policies of insurance including all endorsements and any and all other attachments as required in this Section. An individual authorized by the insurance carrier to do so on its behalf shall sign the original endorsements for each policy and the Certificate of Insurance.***

It is understood and agreed to by the parties hereto and the insurance company(s), that the Certificate(s) of Insurance and policies shall so covenant and shall be construed as primary insurance, and the COUNTY'S insurance and/or deductibles and/or self-insured retention's or self-insured programs shall not be construed as contributory.

The COUNTY'S Reserved Rights--Insurance. If, during the term of this Agreement or any extension thereof, there is a material change in the scope of services; or, there is a material change in the equipment to be used in the performance of the scope of work which will add to additional exposures (such as the use of aircraft, watercraft, cranes, etc.); or, the term of this Agreement including any extensions thereof exceeds five (5) years the COUNTY reserves the right to adjust the types of insurance required under this Agreement and the monetary limits of liability for the insurance coverage's currently required herein, if, in the County Risk Manager's reasonable judgment, the amount or type of insurance carried by the CONTRACTOR has become inadequate.

CONTRACTOR shall pass down the insurance obligations contained herein to all tiers of subcontractors working under this Agreement.

The insurance requirements contained in this Agreement may be met with a program(s) of self-insurance acceptable to the COUNTY.

CONTRACTOR agrees to notify COUNTY of any claim by a third party or any incident or event that may give rise to a claim arising from the performance of this Agreement.

8.4. PUBLIC UTILITIES

The locations of all pipelines, power lines, communication lines and other utility components known to County to exist within the limits of the work, are indicated on the drawings and may be the subject of a specific section in the Special Provisions. Size, location and characteristics of such utilities are based upon information made available to County, generally from the owner of the utility in question. The exactness of such information is not guaranteed but may be assumed to have been accomplished with reasonable accuracy.

In addition to the drawings and any such provision regarding utilities, Contractor is under a duty to take into account the location of service laterals or other appurtenances which can be inferred from the presence of facilities such as buildings, meter, junction boxes or similar items in or about the limits of the work.

Unless otherwise directed by the Contract Documents, all existing utilities, whether shown or described or not, shall be left in place and Contractor must conduct its operations so that such utilities are protected from damage at all times during the course of the work; and the work must be accomplished so as to give such utilities proper protection and support upon completion of the work by Contractor.

If during the course of the work, Contractor discovers underground utility components not indicated in the drawings or elsewhere in the Contract Documents, Contractor must immediately notify, in writing, the County and the utility company (public or private) involved, stating with exactness the condition found.

If Contractor encounters a utility not shown or described in the Contract Documents, Contractor shall cease all work which would disturb such utility and its support until given specific instructions as to how to proceed regarding such utility by County.

All work needed to protect existing utilities shown or described in the Contract Documents, or which can be reasonably inferred from the presence of other visible facilities, is to be done at Contractor's expense.

Contractor's cost of locating and repairing damage not due to the failure of Contractor to exercise reasonable care, and removing or relocating utility components and facilities not indicated in the drawings or elsewhere in the Contract Documents, and for equipment on the project necessarily idled during such work shall be paid Contractor as Extra Work.

County may direct the Contractor to do such repair or relocation work as required. When such repair or relocation work is not elsewhere provided for in these Contract Documents, or reasonably inferred therefrom, Contractor shall be compensated for such work as Extra Work.

8.5. PROTECTION OF EXISTING STREET FACILITIES

The Contractor shall be responsible for the protection of existing signs, fences, concrete curbs, gutters and other facilities or structures. The Contractor shall be responsible to repair or replace any such items which are damaged.

Excavation within the street right of way shall be conducted in a manner to cause the least interruption to traffic. Where traffic must cross open trenches, the Contractor shall provide suitable bridges at street intersections and driveways. Hydrants under pressure, valve pipe covers, valve boxes, curb stop boxes, fire or police call boxes, or other utility controls shall be left unobstructed and accessible during construction.

8.6. DIVERSION AND CONTROL OF WATER

Unless otherwise provided in the Agreement, no separate or additional payment will be made for diversion or control of surface or groundwater. All costs incidental to maintaining dry working areas shall be the responsibility of the Contractor and shall be included in the unit prices paid for other items of work.

8.7. DUST ABATEMENT

During the performance of all work, the Contractor shall take the necessary precautions to avoid any loss or damage resulting from its operations that raise or produce dust. The Contractor will be required to have a positive and continuous method of dust control which is satisfactory to the County. The methods to be used for controlling dust in the construction area and along haul roads shall be approved by the County prior to starting any of the work. All costs incidental to dust control shall be included in the unit prices paid for other items of work.

8.8. PROJECT SIGNS

The Contractor shall erect a maximum of two project signs at the locations designated by the County. The signs will be furnished by the County. The signs shall be erected as soon as possible and within 15 days after date of Notice to Proceed. The signs are 4 feet by 8 feet in size, with two 4" x 4" x 12' posts. The sign posts shall be set 5.0 feet in good solid ground and the backfill carefully tamped into place.

8.9. EXAMINATION OF PLANS, SPECIFICATIONS, CONTRACT, AND SITE OF WORK

The Contractor shall examine fully and carefully the site(s) of the work, the plans, the specifications, and any other Contract Documents prior to submitting its bid. The submission of a bid shall be conclusive evidence that the Contractor has investigated the site(s) and is satisfied as to the conditions and requirements of the work to be performed.

Where the County has made investigations of subsurface conditions in areas where work is to be performed, or in other areas, such investigations are made only for the purpose of study and design. Where such investigations have been made, bidders may, upon request, inspect the records of the County as to such investigations. The records of such investigations are not a part of the contract

and are solely for the convenience of the bidders. It is expressly understood and agreed that the County assumes no responsibility whatsoever in respect to the sufficiency or accuracy of the investigations thus made, the records thereof; or of the interpretations set forth therein or made by the County in its use thereof and there is no warranty or guarantee, either express or implied, that the conditions indicated by such investigations or records thereof are representative of those existing throughout such areas, or any part thereof, or that unlooked-for developments may not occur, or that materials other than, or in proportions different from those indicated, may not be encountered. No information derived from inspection of such records will in any way relieve the Contractor from its obligations under the Contract Documents.

SECTION 9 - WATERING

9.1. DESCRIPTION

This work shall include providing a water supply for all water required for the work. The application of the water shall be subject to the approval of the County at all times and shall be applied in the necessary amounts and at the necessary locations subject to the approval of the County.

At least one mobile unit of at least 1,000-gallon capacity for applying water shall be available on the project at all times.

Water for compacting embankment material and for dust control shall be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses with nozzles that will ensure a uniform application of water.

SECTION 10 - PUBLIC CONVENIENCE, TRAFFIC CONTROL AND DETOURS

10.1. GENERAL

The Contractor shall so conduct its operations as to offer the least possible obstruction and inconvenience to the public and it shall have under construction no greater length or amount of work than it can prosecute properly with due regard to the rights of the public.

Unless otherwise provided in the Special Provisions, all public traffic shall be permitted to pass through or near the work with as little inconvenience and delay as possible.

Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately at the Contractor's expense.

Construction operations shall be conducted in such a manner as to cause as little inconvenience and annoyance as possible to abutting and nearby property owners.

Convenient access to driveways, houses and buildings along or near the work shall be maintained and temporary approaches to crossings or intersecting highways shall be provided and kept in good condition.

10.2. SIGNS

It shall be the responsibility of the Contractor to provide and maintain all traffic control, lights, barricades and signs, both on and off the site of work, subject to approval of the County; and all such devices shall be of a type approved by the County.

If, in any case, the County finds it necessary to replace, add to or erect said barricades, signs, or lights when the Contractor fails to do so, the Contractor shall be billed for all costs thereof.

10.3. MATERIALS STORAGE

Storing or stockpiling of excavated material, imported backfill material or construction materials on any street or highway will not be permitted except as approved in advance in writing by the County.



SPECIAL PROVISIONS

FOR

THE CONSTRUCTION OF

LANDFILL GAS COLLECTION SYSTEM
COMPONENTS

AT THE

BADLANDS, CORONA, LAMB CANYON, AND
MECCA II SANITARY LANDFILLS
AND

AS NEEDED

PERIMETER PROBE INSTALLATION

2021 TO 2024

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SECTION 1 GENERAL

1.1 INTRODUCTION

These Special Provisions are for the construction of gas collection system components at the Badlands Sanitary Landfill located at 31125 Ironwood Ave, Moreno Valley, California, the Corona Sanitary Landfill located at 1300 Magnolia Ave. Corona, California, the Lamb Canyon Sanitary Landfill located at 16411 Lamb Canyon Rd., Beaumont, California, and the Mecca II Sanitary landfill located at 95250 66th Ave, Mecca, Ca 92254. The project is designated as “Construction of Landfill Gas Collection System Components at the Badlands, Corona, Lamb Canyon, and Mecca II Sanitary Landfills and As Needed Perimeter Probe Installation 2021 to 2024” and is hereinafter referred to as the “Project”. The Badlands, Corona, Lamb Canyon, and Mecca II landfills are owned and operated by the Riverside County Department of Waste Resources (County) and referred to in these provisions as the County. Information on any Riverside County Landfill requiring probe installation shall be provided along with the notice to proceed.

The work to be performed under this contract shall consist of furnishing all equipment, tools, superintendence, labor, skills, and all other items necessary for the construction of gas collection system components as described in these provisions and shown on the project drawings and at the locations staked by the County at the site. The County shall provide all pipe, fittings, valves, gravel, bentonite, geotextile, bolts, pipe anchors, rebar, pipe stands, posts, and base stands to the Contractor. The Contractor shall supply and install all concrete for probe installation. The major features of the work to be performed shall include but are not limited to: installation of header pipes, laterals, condensate drain pipes, well assemblies, valves, vertical gas collection wells, horizontal collection wells and perimeter LFG detection probes. The perimeter LFG detection probe installation may be needed at any Riverside County landfill and the need will depend on development situations, existing perimeter probe compliance issues, and existing perimeter probes that get damaged. The bid items reflect the work that is currently expected to be done during the entire three-year duration in different mobilization phases. As reflected in the bid items, there will be several mobilizations required during the contract duration for each site. It is possible that there will be more or less work required of the Contractor during the contract duration than what is stated in the bid items. Regardless of the actual work done during the contract duration, the Contractor will be paid at the bid item prices. There will be a separate “Notice to Proceed” issued by the County for each mobilization. The contractor will be compensated to mobilize per site, per occurrence. The contractor shall devise a construction schedule within 5 working days once the “Notice to Proceed” is issued that will meet all regulatory requirements of the SCAQMD, RWQCB, and Cal Recycle.

The Contractor shall be aware that the Badlands and Lamb Canyon landfill are active landfill sites. The Contractor’s work relating to the project shall not impede or interrupt daily landfill operations. Full cooperation of the Contractor and its forces is required to assure safe working conditions. Therefore, it is necessary to emphasize that the County will have full authority to eject any of the Contractor’s employees or subcontractors who do not immediately abide by the landfill site rules or the directions of the County.

1.2 ABBREVIATIONS

AASHTO	American Association of State Highway and Transportation Officials (formerly AASHO)
ACP	Asbestos - Concrete Pipe
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute

AQMD	Air Quality Management District
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
AWS	American Welding Society
BFBO	Blind Flange Bolted On
BOP	Bottom of Pipe
CalRecycle	California Department of Resources Recycling and Recovery
CD	Condensate Drain
CI	Cast Iron
CL	Center Line
CMP	Corrugated Metal Pipe
COND	Condensate
CPE	Chlorinated Polyethylene Reinforced
CS	Carbon Steel
CT	Condensate Trap
DIA	Diameter
DISCH	Discharge
ELEV	Elevation
FML	Flexible Membrane Liner
GB	Grade Break
HDPE	High Density Polyethylene
HDR	Header
IEEE	Institute of Electrical and Electronics Engineers
LAT	Lateral
LEL	Lower Explosive Limit

LFG	Landfill Gas
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NIC	Not in Contract
NMHC	Non-Methane Hydrocarbons
NMOC	Non-Methane Organic Compounds
NPT	National Pipe Thread
NTS	Not to Scale
O&M	Operation and Maintenance
OSHA	Occupational Safety and Health Administration
P&ID	Piping and Instrumentation Diagram
PC	Printed Circuit
PE	Polyethylene
PI	Point of Intersection
PPM	Parts per Million
PVC	Polyvinyl Chloride
RWQCB	Regional Water Quality Control Board
SCAQMD	South Coast Air Quality Management District
SCH	Schedule
SDR	Standard Dimension Ratio
SRB&W	Service Roads, Bridges and Walkways
SS	Stainless Steel
STA	Station
STL	Steel
SWANA	Solid Waste Association of North America

TEFC	Totally Enclosed Fan Cooled
TP	Top of Pipe
TYP	Typical
UL	Underwriter's Laboratories, Inc.

1.3 DEFINITION OF TERMS

Calendar Year

The period of time from January first (1st) to December thirty-first (31st).

Cubic Yard

Unless otherwise specified in these specifications, where the term cubic yard appears it shall mean bank (bulk) volume in the case of excavation; and compacted volume yielding the specified relative compaction, moisture content, and hydraulic conductivity, if required, in the case of engineered fill.

Fiscal Year

The period of time for the County's business year from July first (1st) through June thirtieth (30th).

Geosynthetics

Geosynthetics is a generic classification given to synthetic (man-made plastic and/or liner) materials that are used for geotechnical engineering applications. Materials included are: drainage mats, flexible membrane linings (FML), geotextiles, geonets, geogrids, geocomposites, geosynthetic clay liners (GCL) and geocells. For this project, Geosynthetics refers to FML, GCL, and geotextile.

Geotextile

A permeable synthetic textile used with soil, rock, sand, gravel or any other similar materials as an integral part of the lining system.

HDPE

HDPE is the high-density polyethylene material used in the manufacturing of piping and flexible membrane liners.

Manufacturer

A manufacturer is the firm or firms responsible for the production of Geosynthetics or the maker, fabricator, or producer of a product and/or material.

Moisture Content

This term is defined as the percentage of water contained in a soil, clay or bentonite mixture in relation to its dry weight, using ASTM D2216 or ASTM D4643.

Optimum Moisture Content (OMC)

This term is defined as the moisture content that corresponds to the maximum dry density, as determined by the specified laboratory Moisture Density Relationship Test, ASTM D1557.

Relative Compaction

This term is defined as the ratio of field compacted dry density to the maximum dry density as determined by the Moisture Density Relationship Test, ASTM D1557.

Sieve Sizes

These are defined as U.S. Standard sieve sizes.

Slope

Slope is described in terms of horizontal distance to vertical distance (H:V) where V is generally fixed as unity. It is also expressed as a percent (%) equal to the vertical distance divided by the horizontal distance, and multiplied by 100.

Quality Assurance (QA) Monitors

The QA Monitors are the individuals working under the direction of the QA/QC Consultant. Such personnel include Field Engineers, Field Geologists, and Technicians.

Project Manager

The Project Manager is the designated representative of the County responsible for the project.

Construction Manager

The Construction Manager will serve as the Project Manager's on-site representative. All coordination, reporting, and issues related to non-compliance will be directed to the Project Manager through the Construction Manager. In addition, the Construction Manager will participate with the Project Manager and QA/QC Manager in all decisions related to design and QA/QC issues which arise during the course of construction.

Contractor's Surveyor

The Contractor's Surveyor is responsible to perform horizontal and vertical control of the actual construction, based on benchmarks established by County's Surveyor.

County's Surveyor

Surveyor representing the County shall establish reference benchmarks for construction. County's Surveyor shall also perform surveys to check line, grade, and calculate volumes, as required.

Calendar Days

Each day of the year.

Night Hours

Thirty minutes after sunset to 30 minutes prior to sunrise.

Confined Space

Is large enough and so configured that a worker can bodily enter and perform assigned work, has limited or restricted means for entry or exit (for example: tanks, vessels, silos, storage bins, vaults, and pits are spaces that may have limited means of entry or exit), is not designed for continuous occupancy by an employee, and any excavation or trench greater than five (5) feet in depth is by definition a confined space.

Acceptable Entry Conditions

The conditions that must exist in a confined space to allow entry and to ensure that employees involved with a confined space entry can safely enter into and work within the space.

Blanking or Blinding

The absolute closure of a pipe, line or duct by the fastening of a solid plate (such as a blind flange, spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line or duct with no leakage beyond the plate.

Hazardous Atmosphere

An atmosphere that may expose employees to the risk of death, incapacitation, impairment or ability to self-rescue (that is, escape unaided from a permit space), injury or acute illness from one or more of the following causes: flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL), airborne combustible dust at a concentration that meets or exceeds its LFL (This concentration may be approximated as a condition in which the dust obscures vision at a distance of 5 feet); Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent; Atmospheric concentration of any substance for which a dose or a Permissible Exposure Limit or a Threshold Limit Value is published and which could result in employee exposure in excess of the dose or Permissible Exposure Limit or Threshold Limit Value. Any other atmospheric conditions that is immediately dangerous to life or health.

Immediately Dangerous to Life or Health (IDLH)

Any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

Oxygen Deficient Atmosphere

An atmosphere containing less than 19.5 percent oxygen by volume.

Oxygen Enriched Atmosphere

An atmosphere containing more than 23.5 percent oxygen by volume.

Permit-required Confined Space (Permit Space)

A confined space that has one or more of the following characteristics: Contains or has a potential to contain a hazardous atmosphere; Contains a material that has the potential for engulfing an entrant; Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or Contains any other recognized serious safety or health hazard.

1.4 SUMMARY OF WORK

The work to be performed by the contractor under this contract includes furnishing all labor, vehicles, tools, equipment, power, and incidentals necessary for the construction of the Project. The County will provide all pipe, fittings, pipe anchors, valves, bolts, rebar, bentonite, TDA, and rock. For each mobilization, the County will give the Contractor a "Notice to Proceed", location drawings, and supply a list which will include the quantity of items to construct. The Contractor will give the County a construction schedule for the work to be performed within 5 working days of the "Notice to Proceed". The contractor must start construction within 15 working days from the "Notice to Proceed". Bonds, insurance, safety plan, and other required submittals will all be approved after award of the Contract, and annually thereafter for the duration of the contract. The items of work to be performed shall conform to all of the Contract Documents, including but not limited to the General Provisions, Project Drawings, Referenced Specifications and Documents, and these Special Provisions.

The major features of the work to be performed shall include, but are not limited to:

- 1) Mobilization (multiple types)
- 2) Trenching & Earthwork
- 3) Install Horizontal Well
- 4) Install Aggregate Pit
- 5) Drill and Install Vertical Gas Wells up to 135 Feet

- 6) Drill and Install Gas Wells from 136 Feet up to 220 Feet
- 7) Install 2" HDPE Pipe
- 8) Install 3" HDPE Pipe
- 9) Install 4" HDPE Pipe
- 10) Install 6" HDPE Pipe
- 11) Install 8" HDPE Pipe
- 12) Install 10" HDPE Pipe
- 13) Install 12" HDPE Pipe
- 14) Install 16" HDPE Pipe
- 15) Install 18" HDPE Pipe
- 16) Install 20" HDPE Pipe
- 17) Install 24" HDPE Pipe
- 18) Relocate 2" HDPE Pipe
- 19) Relocate 3" HDPE Pipe
- 20) Relocate 4" HDPE Pipe
- 21) Relocate 6" HDPE Pipe
- 22) Relocate 8" HDPE Pipe
- 23) Relocate 10" HDPE Pipe
- 24) Relocate 12" HDPE Pipe
- 25) Relocate 16" HDPE Pipe
- 26) Relocate 18" HDPE Pipe
- 27) Relocate 20" HDPE Pipe
- 28) Relocate 24" HDPE Pipe
- 29) Install or Relocate Monitoring Assembly
- 30) Drill Probe Boreholes Using Air Rotary Drill Rig
- 31) Install Multi-level Probe
- 32) Install Steel Multi-level Probe Protector
- 33) Disposal of Refuse and Construction Debris
- 34) Demobilization
- 35) Remove and Recycle PVC Pipe
- 36) Build Mecca II LFG Control System Infrastructure

1.5 REFERENCED SPECIFICATIONS AND DOCUMENTS

The following specifications and documents shall apply as specifically referenced in the Contract Documents:

1.5.1 Standard Specifications

The term Standard Specifications is a direct reference to the publication entitled "Standard Specifications for Public Works Construction" (2018 edition, and all subsequent amendments, supplements, and additions) written and promulgated by the Joint Cooperative Committee of the Southern California Chapter American Public Works Association and Southern California Departments Associated General Contractors of California. This publication is also known as the "Green book."

1.5.2 State Standard Specifications

The "State Standard Specifications" are the Standard Specifications of the State of California, Department of Transportation, dated 2018 edition.

1.5.3 ASTM Specifications

The latest revised specifications or tentative specifications of the American Society for Testing and Materials.

1.5.4 Standard Drawings

Unless otherwise noted on the Project Drawings, the Standard Drawings shall be those of the Riverside County Flood Control and Water Conservation District, the Riverside County Transportation Department and Standard Plans of the State Department of Transportation (Caltrans).

1.5.5 Plans or Project Drawings

The Plans or Drawings are the contract Project Drawings specifically prepared for this project.

1.6 PRECEDENCE OF CONTRACT DOCUMENTS

In case of conflict between the Contract Documents, the following order of governing documents shall be followed (with the first listed document controlling):

- 1) Permits from other agencies as may be required by law
- 2) Special Provisions
- 3) General Provisions
- 4) Project Drawings (specific details supersede general plans)
- 5) Standard Drawings
- 6) Standard Specifications
- 7) State Standard Specifications

1.7 WORKING DAY DEFINITION

The working day shall be as set forth in Section 6.6 of the General Provisions. The length of each working day shall be from 7:30 AM to 4:00 PM, including half hour for lunch break, unless otherwise approved in writing by the County.

1.8 HOLIDAYS

The Contractor shall not be permitted to work on the following days designated by the County as holidays:

January 1, 2021	New Year's Day
January 18, 2021	Martin Luther King, Jr. Day
February 12, 2021	Lincoln's Day
February 15, 2021	Washington's Day
May 31, 2021	Memorial Day
July 5, 2021	Monday after Independence Day
September 6, 2021	Labor Day
October 11, 2021	Columbus Day
November 11, 2021	Veteran's Day
November 25, 2021	Thanksgiving Day
November 26, 2021	Friday following Thanksgiving Day
December 24, 2021	Friday before Christmas Day
December 31, 2021	Friday before New Year's Day
January 17, 2022	Martin Luther King, Jr. Day
February 11, 2022	Friday before Lincoln's Day
February 21, 2022	Washington's Day
May 30, 2022	Memorial Day
July 4, 2022	Independence Day
September 5, 2022	Labor Day
October 10, 2022	Columbus Day
November 11, 2022	Veteran's Day
November 24, 2022	Thanksgiving Day
November 25, 2022	Friday following Thanksgiving Day
December 26, 2022	Monday after Christmas Day
January 2, 2023	Monday after New Year's Day
January 16, 2023	Martin Luther King, Jr. Day
February 13, 2023	Monday after Lincoln's Day
February 20, 2023	Washington's Day
May 29, 2023	Memorial Day
July 4, 2023	Independence Day
September 4, 2023	Labor Day
October 9, 2023	Columbus Day
November 10, 2023	Friday before Veteran's Day
November 23, 2023	Thanksgiving Day
November 24, 2023	Friday following Thanksgiving Day
December 25, 2023	Christmas Day
January 1, 2024	New Year's Day
January 15, 2024	Martin Luther King, Jr. Day
February 12, 2024	Lincoln's Day
February 19, 2024	Washington's Day
May 27, 2024	Memorial Day
July 4, 2024	Independence Day

1.9 TIME OF COMPLETION AND LIQUIDATED DAMAGES

The County will give the Contractor "Notice to Proceed", location drawings, and supply a list which will include the quantity of items to construct. **Working days shall be calculated using the information**

provided in Section 1.9.1 of these Provisions. The Contractor shall diligently and continuously develop the entire project to final completion before the expiration of submitted construction schedule. In case all the work called for and all the conditions and requirements of the Contract Documents are not completed within the number of working days specified, liquidated damages of One Thousand Dollars (\$1,000) per day for each additional working day required to properly complete the project in excess of the allowed number of working days shall be paid by the Contractor to the County. The County may also deduct this amount from payments due to the Contractor.

1.9.1 Working Days

1. Fifteen (15) working days shall be allowed for mobilization (from date of Notice to Proceed).
2. One (1) working day shall be allowed for the following:
 - For each five-hundred (500) linear feet of trenching and earthwork installed
 - For each four-hundred (400) linear feet of horizontal well installed
 - For four (4) aggregate pits installed
 - For each seventy five (75) linear feet of drilling & vertical gas well installed
 - For each one-thousand two-hundred (1,200) linear feet of 2" HDPE pipe installed
 - For each one-thousand (1,000) linear feet of 3" or 4" HDPE installed
 - For each eight-hundred (800) linear feet of 6" HDPE lateral pipe installed
 - For each six-hundred (600) linear feet of 8" header pipe installed
 - For each four-hundred (400) linear feet of 10" header pipe installed
 - For each three-hundred (300) linear feet of 12" header pipe installed
 - For each two-hundred (200) linear feet of 16" or 18" header pipe installed
 - For each one-hundred and fifty (150) linear feet of 20" or 24" header pipe installed
 - For each one-thousand two-hundred (1,200) linear feet of 2" HDPE pipe relocated
 - For each one-thousand (1,000) linear feet of 3" or 4" HDPE lateral pipe relocated
 - For each eight-hundred (800) linear feet of 6" HDPE header pipe relocated
 - For each six-hundred (600) linear feet of 8" HDPE header pipe relocated
 - For each five-hundred (500) linear feet of 10" HDPE header pipe relocated
 - For each three-hundred (300) linear feet of 12" HDPE header pipe relocated
 - For each two-hundred (200) linear feet of 16" or 18" header pipe relocated
 - For each one-hundred and fifty (150) linear feet of 20" or 24" header pipe relocated
 - For each one-thousand (1,000) linear feet of PVC pipe removed
 - For ten (10) well assembly installation or re-location
 - For each fifty (50) linear feet of probe bore-hole drilled
 - For each one-hundred feet (100) multi-level probe installed
 - For each three (3) steel multi-level probe protector installed
3. Two (2) working days shall be allowed for demobilization.
4. Twenty (20) working days shall be allowed for the construction of the Mecca II LFG Control System Infrastructure

1.10 CONTROL OF WORK

1.10.1 Inspection

The Contractor shall fully cooperate with the County in providing safe access during the County's periodic inspections of the work.

Any work covered before acceptance or approval of the County shall be uncovered if required by the County, for examination at the Contractor's expense.

1.10.2 Construction Staking

1.10.2.1 Staking

The County will indicate the location of the vertical landfill gas extraction wells, horizontal well trenches, and all well field piping by field staking. The Contractor shall offset the stakes as required and perform any other staking or surveying required to complete the project including grade staking.

1.10.2.2 Re-staking

Any re-staking required due to Contractor's destruction of existing stakes will be charged to Contractor. Charges will include hourly rates of surveying personnel including travel time, vehicle and equipment usage, materials, and any other charges associated with the re-staking work.

1.10.2.3 Contractor's Staking

The County may check Contractor's stakes, alignments and grades at any time. All work dependent on the Contractor's stakes shall be postponed until checking is completed.

1.11 TESTING AND INSPECTIONS

The Contractor shall comply with requests by the County to alter the work sequence or uncover materials to facilitate testing, inspection, observation, or the collection of samples and data. The Contractor shall provide the County with safe and suitable access to the work area for testing, inspection, or observation.

It is understood that observation and testing of a material at the time of its incorporation into the work shall in no way be considered as a guarantee of continued acceptance of material presumed to be similar to that upon which observations and tests have been made, and that observation and testing performed by the County shall not relieve the Contractor or its suppliers of the responsibility for quality control or to fully comply with the requirements of the Contract Documents.

Material or equipment shall be inspected by the County in accordance with:

- 1) Material or equipment shall be subject to the following tests and examinations.
- 2) Visual inspection witnessed by the County:
 - a. Satisfactory workmanship and assembly.
 - b. Freedom from surface defects.
 - c. Checking components.
 - d. Checking dimension.
 - e. Compliance with:
 1. Specifications
 2. Project Drawings
- 3) Performance test on each unit to insure that operation is in accordance with the specifications.

- 4) All testing and inspection must be witnessed by the County's representatives unless other arrangements have been made in advance and in writing.

1.11.1 Pipe Backfill

1. The County, or its representative, at its option, may perform compaction and/or moisture testing for all backfilled materials to verify the compaction requirements of these Specifications.
2. Installations that fail to meet the compaction or moisture requirements shall be removed and reinstalled until the specifications are met. All costs associated with rework or retesting shall be borne by the Contractor.
3. The County shall witness all slopes prior to backfill and compaction. Witness by the County does not relieve the Contractor from the requirements of this section.

1.11.2 Piping System Pressure Test

4. All HDPE pipes, (24" 20", 18", 16", 12", 10", 8" and 6" HDPE header pipes, 3", 4", and 6" HDPE laterals, and 2" condensate line), fittings and valves shall be subject to a pressure test per ANSIB31.8 performed by the Contractor with a representative of the County present.
5. Extreme caution should be used when working around the pipe being pressure tested due to the high energy content of compressed air. Adequate protection and safety precautions must be used to protect the people and property.
6. The pipe network may be tested in sections or as an entire assembly at the Contractor's option. The test pressure shall be equal to the maximum rated pressure of the weakest part in the pipe system or 3 PSIG, whichever is lower. Contractor shall provide all temporary plugs, flanges or other sealing devices needed for the air testing. The County recommends conducting the pressure test before well assemblies are connected and also recommends butt fusing temporary HDPE caps on to connections.
7. The system shall hold pressure for at least 2 hours with no more than a 0.2 PSIG loss in pressure. Should the pressure decrease, all joints shall be soap bubble tested to determine the source of the leak. Repairs shall be made and the system shall be retested. All cost associated with the testing shall be included in the bid price. No separate payment will be made.
8. No pipe installation will be accepted unless, and until, it meets the pressure test requirements.
9. The County, or its designated representative, shall witness all pressure testing and repair work that may be required.

1.11.3 HDPE Pipe Welds

1. One HDPE joint may be selected daily at random by the County and cut from the piping joint to verify its integrity. Testing will be performed by the County according to Plexco's "Qualification Procedures for PE 3408 Extra High Molecular Weight High Density Polyethylene Bulletin No. 105Y or 106.
2. If the joint fails to pass inspection, it shall be re-welded and retested until the weld passes and a minimum of 10% of the previously welded joints done during the day will be randomly cut from the pipe and inspected. If these joints pass inspection, then welding can proceed.

3. If any of the 10 percent fail, all weld joints made during that day shall be removed from the pipe and re-welded. These welds are also subject to the above procedure. All costs associated with re-welding shall be borne by the Contractor.

1.11.4 HDPE Branch Saddle Welds

All 3", 4", and 6" HDPE branch saddles shall be welded to the HDPE header pipe using a McElroy Sidewinder Chain Clamp Fusion Unit or equivalent. Under no circumstance will saddles be welded to the header pipes using "free hand" techniques. The header pipe and branch saddle shall be properly cleaned and scuffed per industry standards.

1.11.5 HDPE Electrofusion Couplings

All electrofusion couplings shall be installed in accordance with the manufacturer's recommended specifications. A representative from the County shall be present to witness the installation of the electrofusion couplings. The pipe shall be properly scuffed and new fittings shall be no less than ½" shorter than the piece of pipe removed from the existing pipe. A representative from the County will also verify that the electrofusion amperage and manufacturer's recommended fusion time are met.

1.12 LABOR SURCHARGE

Attention is directed to the provisions of Section 7.3.1.1.2 of the General Provisions. The labor surcharge percentage to be applied to the regular hourly wages paid as defined in Section 7.3.1.1. of the General Provisions shall be eleven percent (11%). The labor surcharge percentage to be applied to the overtime hourly wages paid as defined in Section 7.3.1.1 shall be eleven percent (11%).

1.13 EQUIPMENT RENTAL

Attention is directed to the provisions of Section 7.3.1.3, of the General Provisions. The equipment rental rates to be applied shall be the rates that are in effect at the time of the award of the contract, as published by the California Department of Transportation. A copy of said equipment rental rates is on file at the County office.

1.14 CONSTRUCTION SCHEDULE

- 1) The Contractor shall submit a construction schedule to the County within five (5) working days of issuance of the "Notice to Proceed" in accordance with Part 1, Section 6-1 "Construction Schedule and Commencement of Work", of the Standard Specifications. Updated construction schedules shall be submitted to the County as required per Section 2.2 of the General Provisions. After being given the "Notice to Proceed" for each phase, the Contractor shall be provided a map from the County showing the proposed landfill gas collection system construction activities. The Schedule shall include as a minimum, the start and finish dates for each tasks or activity. During active phases, the construction schedule shall be updated by the Contractor biweekly and each time a change in work occurs that will delay a critical path item of the project. Each updated schedule shall be submitted to the County for review and acceptance. The updated schedule shall show the actual progress of work and the work remaining. Progress payments will be withheld by the County if the Contractor fails to provide acceptable schedules as required.
- 2) The Contractor shall work diligently to complete those activities or portions of work in a timely manner, so that no delay will be caused to their work activities.
- 3) The County must review and approve the final construction schedule prior to the commencement of work. If the County has concerns and comments on the schedule submitted by the Contractor,

then the Contractor must make the changes to the schedule accordingly until it is approved by the County.

- 4) The schedule must be updated and submitted every two weeks with the following information.
- 5) Activities that are completed or in progress are to be identified on the schedule.
 1. Restraints imposed by material deliveries, precedent activity durations or schedule adjustments, are to be appropriately represented.
 2. The schedule shall indicate the percent of work actually completed and their total value.
 3. All activities that are behind schedule shall be identified and reported with a new revised time of completion.
- 6) The Contractor shall be responsible for the coordination and cooperation of all subcontractors, material suppliers, utilities, and any required testing agencies, so that all components are properly integrated into the construction, and so there are no resulting delays in the progress of the project. The Contractor shall be responsible for cooperating with all County staff. Payment for complying with this section shall be considered as included in the various items of work, and no additional compensation shall be allowed.

1.15 PRE-CONSTRUCTION MEETING

A pre-construction meeting will be scheduled upon the issuance of a Notice to Proceed for each mobilization that takes place. The meeting shall take place within a week of the construction start date. This meeting will be attended by representatives from various sections within the Riverside County Department of Waste Resources and the Contractor's superintendent for the project. The current site conditions, scope of work, landfill rules, and any other pertinent project specific details will be discussed at this meeting.

1.16 CONTRACTOR QUALIFICATIONS

The Contractor shall be licensed by the State of California to do the type of work required under the terms of these Contract Documents at the time of bidding and throughout the period of the Contract.

The Contractor's superintendent shall have successfully installed a minimum of ten (10) thousand linear feet of HDPE header pipe in a landfill for the collection of landfill gas, constructed five (5) thousand linear feet of horizontal landfill gas collection well trench, and drilled and constructed one (1) thousand linear feet of vertical landfill gas collection well.

The Contractor shall have, or be able to obtain, all the personnel, equipment, and materials necessary to perform the work specified in the scope of work, and be able to keep the needed equipment at the job site for the duration of the work. The bidder may meet these requirements by using subcontractors, or forming a partnership, joint venture, or other legal arrangement. If the qualifications are met by the formation of a partnership, joint venture or other legal arrangement; then each separate legal entity shall be required to sign the contract and accept joint and several liabilities. The Contractor, or the Contractor's personnel shall hold appropriate certificates, licenses, and permits necessary to perform the work described in the scope of work, including excavation of and moving solid waste between points within the landfill property.

The Contractor shall present all licenses held, the certificate numbers, and in whose name the license is issued in his bid response. The Contractor shall demonstrate prior experience in performing and completing gas collection system construction projects in his bid response. In the Contractor Proposal, the Contractor shall present specific projects, dates, locations, clients, project costs, a project summary

description, and the Contractor's role in each project. The Contractor shall present a reference list of clients that includes a contact person and phone number. The Contractor shall also possess a Class A or C-34 Contractor's License.

The Contractor shall demonstrate that his project manager, equipment operators, and other responsible individuals performing work on site have appropriate experience and capability. The Contractor shall present personal resumes that document education, training, work experience, and licenses and certificates held in his bid response.

1.17 CONTRACTOR RESPONSIBILITIES

- 1) The Contractor shall identify to the County, in writing, the name of the representative who shall have complete authority to act for each mobilization included in this project, including, but not limited to: implementation and enforcement of the Public/Site Safety Plan, the maintenance of barricades, signs, traffic control, lights, fencing, erosion, and dust control. The representative shall be present at the job site during all working hours. The Contractor shall also furnish to the County a telephone number where the Contractor or his representative may be contacted 24 hours a day. The Contractor shall examine the Contract Documents, and shall be aware of conditions at the site that may affect execution of the work. These conditions include, but are not limited to, the following:
 1. Transportation and access conditions.
 2. Availability of utilities.
 3. Surface and subsurface conditions.
 4. Location, availability, and condition of construction materials.
 5. Climate
 6. On-site soil characteristics of soil to be used in construction, including but not limited to size and type variation, location of excavation and stockpile areas, etc.
 7. General construction conditions at the site.
- 2) Applicable health and safety regulations.
- 3) The Contractor shall assume full responsibility for any theft or vandalism occurring to the Contractor's equipment, tools, materials, supplies, and construction (prior to final acceptance of the entire project by the County), and shall take appropriate measures necessary to eliminate their occurrences.
- 4) Until County's final acceptance of the entire project, the Contractor shall retain full responsibility for the work.
- 5) Payment for complying with this section shall be considered as included in the various items of work, and no additional compensation shall be allowed.
- 6) The Contractor shall review shop drawings, product data and samples prior to submitting them to the County. As a minimum, the Contractor shall determine and verify the following:
 1. Field measurements
 2. Field construction criteria
 3. Catalog numbers and similar data
 4. Conformance with the Specifications

- 7) The Contractor shall provide with each drawing, working drawing, sample and catalog data submitted to the County, a signed certificate stating that he has determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data, and has checked and coordinated each item with other applicable approved Shop Drawings and all Contract requirements.
- 8) The Contractor shall notify the County in writing, at the time of submittal, any deviations in the submittals from the requirements of the Contract Documents.
- 9) The review and approval of Shop Drawings, samples or catalog data by the County shall not relieve the Contractor from responsibility to fulfill the terms and conditions of the Contract. All risks of error and omission are assumed by the Contractor and, therefore, the County shall have no responsibility thereof.
- 10) No work requiring a shop drawing, working drawing, sample, or catalog data shall start nor shall any materials be fabricated or installed prior to their approval by the County. Fabrication performed, materials purchased or on-site construction accomplished which does not conform to approved shop drawings and data shall be at the Contractor's risk. The County shall not be liable for any expense or delay due to corrections or remedies required to accomplish conformity.
- 11) All work, materials, fabrication, and installation shall conform to approved shop drawings, working drawings, applicable samples, and catalog data.
- 12) The Contractor shall coordinate with the County to receive and offload material deliveries for material to be used in the project.

1.18 SITE SAFETY PLAN

Within ten (10) working days of execution of the Agreement by both parties, and prior to delivering equipment to the construction site, the Contractor shall submit a Site Safety Plan for each landfill to the County for review and acceptance. Acceptance of the Site Safety Plan does not release the Contractor of liability in the event of an accident or injury, nor does it place any liability on the County or any County employee. The Site Safety Plan must, at a minimum, meet all the requirements of Federal and State regulations regarding all construction activities. The Contractor shall be solely responsible for adherence to the Site Safety Plan at all times.

It is the responsibility of the Contractor to confirm compliance with all relevant health and safety regulations. The Contractor shall take proper safety and health precautions to protect the work, the public, and County employees. The Contractor shall be responsible for providing all items necessary for health and safety, including but not limited to dust control, personal protective equipment, decontamination equipment if required, and collection and disposal of rinse waters, in accordance with applicable Federal and State regulations. The County will reserve the right to direct removal of any of the Contractor's employees or subcontractors who are not adhering to or meeting the requirements of the law and the Site Safety Plan or applicable regulations.

Where necessary, trenches, pits, and other excavations shall be properly sheathed and braced to furnish safe and acceptable working conditions. Any damage occurring from earth pressures, slides, cave-ins, or other causes due to failure to provide proper sheeting or bracing, or through other negligence or fault of the Contractor, shall be repaired at the Contractor's sole expense. The manner of bracing for excavations shall be as set forth in the rules, orders, and regulations of the Division of Industrial Safety of the State of California or OSHA; whichever is more restrictive. Reference is made to Section 5.1.5 "Accident Prevention" of the General Provisions, in which the Contractor is required to submit to the County a detailed plan showing the design of shoring, bracing, sloping of the sides of trenches, or other provisions to be made for the protection of personnel during earthwork operations in advance of any such operation.

The Site Safety Plan shall also include procedures that address clean-up in the event of a spill. Any accidental spills or spills that are produced during routine equipment maintenance shall be cleaned up by removing all the contaminants and the contaminated soil, disposing of it at an approved facility, and replacing the removed contaminated soil volume with clean soil material. The County may require documentation showing proper containment and removal of any toxic materials or contaminated soil that the Contractor has introduced or produced on site.

The Site Safety Plan shall also include procedures that address traffic control for approaching or crossing public access roads internal to the landfill. The most current traffic control plan shall be submitted by the County to the Contractor to include but not limited to delineation of the proposed haul routes, traffic direction, signs, and traffic control devices on a site map. All planned signs and traffic control devices shall be industry standard and conform to the most recent California Manual on Uniform Traffic Control Devices (California MUTCD) published by the State of California Department of Transportation. Signs and traffic control devices along public access or landfill operation routes shall be removed and stored or covered during periods of time when they are not needed (such as at the end of each working day, weekends, and any time when no hauling work operation is being performed).

The Contractor shall be responsible for holding mandatory weekly safety meetings at the site. The Contractor shall notify the County of the time and place of all meetings and allow the County to participate. Meetings shall reiterate all safety measures to be taken and shall discuss any violations committed and preventive measures to avoid subsequent violations. The Contractor shall provide the County with a copy of the minutes and the attendance of the safety meetings.

Payment for complying with this section shall be considered as included in the various items of work, and no additional compensation shall be allowed.

1.19 ENVIRONMENTAL REQUIREMENTS

The Contractor shall at all times keep the site neat, tidy, and free of waste materials or rubbish resulting from work. Toxic materials, including oil, fuel oil, gasoline, coolant, fluid filters, and other contaminants, shall be transported off site and disposed of at an approved facility. The Contractor shall adhere to the Riverside County Hazardous Materials Business Emergency Plan (BEP) located in each site's Emergency Action Plan (EAP) as shown in Appendix "D" of these Contract Documents. Containers temporarily holding these toxic materials shall be covered and have no leaks, and shall be removed from the site as quickly as is reasonably possible.

Any accidental spills or spills that are produced during routine equipment maintenance shall be cleaned up by removing all the contaminants and the contaminated soil, disposing of it at an approved facility, and replacing the removed contaminated soil volume with clean soil material. The Contractor shall also be responsible for any spills caused by any of its subcontractors. The Site Safety Plan shall include the procedure the Contractor shall follow in the event there is a spill.

The Contractor shall comply with and supplement, if necessary, the Riverside County Hazardous Materials Business Emergency Plans for each site (Appendix D). The Contractor shall submit a separate Hazardous Materials Business Emergency Plan to address Contractor activities if work/use includes storage, or potential storage of hazardous materials exceeding the following quantities: 55 gallons of liquids, 500 pounds of solids, or 200 cubic feet of compressed gases. In addition, the Contractor shall comply with the Riverside County Spill Prevention, Control, and Countermeasure (SPCC) Plan for the Badlands and Lamb Canyon Landfill as shown in Appendix E of these Contract Documents, including but not limited to the submittal of a Business Emergency Plan and performance of required inspections, if the Contractor's work requires the onsite storage of petroleum products (as defined in the SPCC Plan) or if the Contractor stores petroleum waste products onsite.

1.20 PERMITS

The Contractor shall obtain and comply with all required permits and licenses related to the work, pay all charges and fees, and give a copy of all required documents to the County prior to commencement of work. Required permits include but are not limited to:

The Contractor shall comply with all applicable CalRecycle and SCAQMD requirements for disposal of waste materials.

The County complies with the State NPDES through regular inspections, monitoring and implementation of best management practices as described in the Badlands and Lamb Canyon Landfills' Storm Water Pollution Prevention Plan (SWPPP). The Contractor shall be responsible for compliance with the SWPPP, including any new regulations during contract period, attached as Appendix C. In addition, after notification of award and prior to start of any work, the Contractor shall prepare and submit to the County project-specific Storm Water Pollution Prevention Plan (SWPPP) outlining procedures to reduce pollutants (directly or indirectly related to the Contractor's activities) in storm water runoff. This will be included as part of the County's NPDES Permit (Appendix C.).

1.21 STORAGE OF MATERIALS

When delivery of material occurs, the Contractor shall promptly observe shipments to assure that the material complies with requirements, that quantities are correct, and that the material is undamaged. For any materials supplied by the Contractor, the Contractor shall take full responsibility for any delay caused by a supplier or manufacturer. The storage area shall be accessible to the County so the County may observe, verify, and document the presence and condition of materials being stored.

The Contractor shall protect County supplied materials, once removed from the County storage area by the Contractor, from sun, rain, mud, soil, and debris, and care shall be taken to protect manufactured materials against damage from misuse, mishandling, or accident. The Contractor shall store materials and maintain construction operations within limits indicated by applicable laws, ordinances, and permits, and as outlined by the County. Care shall be exercised to avoid blocking roads, interfering with County operations, or presenting a hazard to County personnel and equipment, or to the public.

Payment for complying with this section shall be considered as included in the various items of work, and no additional compensation shall be allowed.

1.22 EQUIPMENT STAGING AREA

An area for the storage of the Contractor's equipment will be designated to the Contractor prior to mobilization. The storage area shall be accessible to the County to verify the presence and condition of equipment being stored. The stored equipment shall be placed in accordance with drawings provided by the County to the Contractor with each phase "Notice to Proceed" or as directed by the County. The Contractor shall confine equipment and maintain construction operations within limits indicated by applicable laws, ordinances, and permits, and as outlined by the County. The Contractor shall make certain that the storage of equipment in any area does not interfere with or otherwise disrupt County operations at the site. Care shall be exercised to avoid blocking roads, interfering with County operations, or presenting a hazard to County personnel and equipment, or to the public.

1.23 SUSPENSION AND RESUMPTION OF OPERATION

The Contractor shall suspend construction operations when, in the County's opinion, the conditions for such operations are unsatisfactory due to rain, wind, or any other reason. The Contractor shall not be

compensated monetarily for any such delays caused by the suspension of operations. Working days shall be charged as appropriate in accordance with the Contract Documents.

Whenever operations have been suspended, the effect of rain, wind, or other adverse conditions shall be assessed by the County before approval to resume construction is given. Equipment will not be allowed to travel on fill materials until these materials have dried sufficiently to prevent excessive rutting and to allow the equipment to be operated satisfactorily. If rutting occurs, the Contractor shall re-level, scarify, and re-compact the materials to whatever depth is required to repair the damage in accordance with the appropriate specifications described herein at the Contractor's expense.

1.24 DUST CONTROL

Dust control operations shall be performed by the Contractor at the time, location and in the amount required and as often as necessary to prevent all excavations, stockpiling or fill works, demolition operations, or other activities from producing dust in amounts harmful to persons or causing a nuisance to persons living nearby or occupying buildings in the vicinity of the work. The Contractor is responsible for compliance with Rule 403 Fugitive Dust Regulations, Rule 1150.1, all Permits to Construct issued by the South Coast Air Quality Management District (SCAQMD) and any other applicable regulations.

Control of dust shall include but not be limited to: sprinkling of water, use of approved dust suppressants, modifications of operations or any other means acceptable to the County, the California Regional Water Quality Control Board (CRWQCB), the SCAQMD, and any agency having jurisdiction over the facility. The County shall have the authority to suspend all construction operations if, in the County's opinion, the Contractor fails to adequately provide for dust control.

Payment for complying with this section shall be considered as included in the various items of work, and no additional compensation shall be allowed.

1.25 WATER SUPPLY

Clean water shall be used in construction for moisture conditioning, dust control, flushing pipe, and in all other uses. There is no potable water at any of the landfills. The nearest fire hydrant to the Badlands landfill is located near the intersection of Ironwood Ave. and Theodore and is approximately one mile from the landfill site. The nearest fire hydrant at the Lamb Canyon landfill is located at East 1st St., located approximately 3.3 miles from the landfill. The Contractor may draw water from these hydrants at no cost through the County's meter for the exclusive use of this project. At the County's option, and time permitting, water may at times be provided by the County's water truck to the Contractor's tank on-site. Any other source of water shall be approved by the County.

At any other location where perimeter probe installation takes place, The Contractor shall supply a water trailer with a 300 gallon minimum capacity to provide adequate water needed for the project. The tank may be filled up at either the Badlands or Lamb Canyon water supply tower and will be the Contractor's responsibility to fill.

Payment for complying with this section shall be considered as included in the various items of earthwork, and no additional compensation shall be allowed.

1.26 UNITS OF MEASURE

In lieu of Part 1, Section 9-1.4, "Units of Measurement", in the Standard Specifications, measurements shall be in accordance with U.S. Standard Measures. A pound is an avoirdupois. A ton is 2,000 pounds avoirdupois. The unit of liquid measure is the U.S. Gallon. Length is measured in feet and inches.

1.27 ERRORS IN THE OMISSIONS OF DRAWINGS

The written dimensions on the Project Drawings are presumed to be correct, but the Contractor shall be required to check carefully all dimensions before beginning the Work. If errors or omissions are discovered, the County immediately shall be so advised in writing and will make the proper corrections. No extra work shall be performed on this contract on account of errors and omissions without the express and written authorization by the County.

1.28 WARRANTY OF WORK

1.28.1 Summary

1. The Contractor shall warrant and guarantee the performance of all Work. The Contractor shall be responsible for the correction of all deficiencies of work, including detailed design and fabrication performed by the Contractor, all Subcontractors, vendors, and suppliers.
2. The Contractor's warranty period shall be a minimum of sixty (60) days from the date of final project acceptance by the County, except where longer warranty periods are specifically stated by the manufacturer of individual components or required in the Specifications.
3. The Contractor shall assign all warranties and guarantees of equipment vendors which extend the minimum warranty to the County. Point of sale/purchase and date of purchase of equipment items shall be submitted.
4. The Contractor shall guarantee all materials and workmanship suitable for the service intended and that said materials shall be free from all inherent defects in design and workmanship. All costs to correct defects shall be at the Contractor's expense.
5. The performance of guarantee and conditions specified in this section shall be secured by a surety bond per Section 5.14 of the General Provisions.

1.28.2 Execution

1. All work which has been rejected or defects discovered after project close-out shall be remedied, or removed and replaced, by the Contractor at the Contractor's own expense, with work conforming to the Project Drawings and Specifications. Latent defects which become apparent after lapse of the warranty period shall be corrected by Contractor at its sole cost and expense provided County notifies Contractor of such defect within thirty (30) days after discovery thereof by County. Failure to inspect work at any stage shall not relieve the Contractor from an obligation to perform sound and reliable work as herein described
2. The County will endeavor to locate errors or defective materials of workmanship and call them to the attention of the Contractor prior to subsequent work being performed. However, the County is under no obligation to do so, and neither the County shall be held liable because errors or defective material or workmanship by the Contractor are not discovered by the County prior to subsequent work. Any omission or failure on the part of the County to discover, or notify the Contractor of, or to condemn defective work or material at the time of construction shall not be deemed an acceptance, and the Contractor will be required to correct defective work or material.
3. During the warranty period, should the Contractor fail to remedy defective material or workmanship, or to make replacements within five (5) working days after written notice by the County, it is agreed that the County may (but is not bound to) make such repairs and replacements and the actual cost of the required labor and materials shall be chargeable to and payable by the Contractor.

4. In the event that immediate repairs are required by a regulatory agency due to system failure caused by or due to defective material or workmanship, repairs and/or replacements may be made by County if Contractor does not respond upon notification or cannot be contacted. The actual cost of the required labor and materials shall be chargeable to and payable by the Contractor.
5. The warranty provided herein shall not be in lieu of, but shall be in addition to any warranties or other obligations otherwise imposed by law. The remedies provided herein shall not be exclusive and the County shall be entitled to any and all remedies provided by law.

1.29 MANDATORY PRE-BID MEETING JOB SITE WALK

A mandatory pre-bid meeting will be held on Tuesday, January 26, 2021 at 10:00 a.m. at the Badlands Landfill. An opportunity to review the job site and ask questions will be made available at that time.

1.30 ALLOWANCES

The Contractor shall provide allowances for unforeseen circumstances which may arise from conditions unknown at the time of bidding. These allowances shall be for the purpose of providing necessary time and expense involved in completing the work within the time and budget given in the Contract Documents.

1.31 REGULATORY REQUIREMENTS

- 1) The Contractor shall be familiar with all regulatory requirements associated with the Work including Cal OSHA, South Coast Air Quality Management District (SCAQMD), Regional Water Quality Control Board (RWQCB), CalRecycle, Riverside County Health Service Agency and the Riverside County Department of Waste Resources. All expenses incurred as a result of non-compliance with regulations shall be borne by the Contractor.
- 2) The Contractor shall procure all construction, excavation permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the Work, unless already provided for by the County. All Work is subject to inspection by the governmental agencies that have jurisdiction over the Work. The Contractor and all subcontractor(s) shall be responsible for complying with all of the requirements of the governmental agencies' permit(s), including but not limited to SCAQMD.

1.32 EXISTING CONDITIONS

- 1) The Project Drawings cover typical design in an approximate manner only. The Contractor shall work with the County to construct landfill gas system components to match field conditions.
- 2) Bidder acknowledges that there exist certain peculiar and inherent conditions during construction in and around refuse which may create unsafe conditions hazardous to persons and property.

1.33 SITE SECURITY

- 1) Damage to construction machinery and installation equipment by accident, vandalism, or acts of nature shall be borne by the Contractor. Due to past episodes of vandalism and theft, the County strongly recommends that the contractor lock up all tools, equipment and parts after working hours and on weekends.
- 2) Damage or loss of materials, parts and components of the construction work, which occur before final acceptance by the County, shall be borne by the Contractor.

- 3) Contractor shall close access to the work area prior to performing other work and shall maintain the closure until construction in that area is complete. In order to assure the effectiveness of the closure, Contractor shall provide at the Contractors expense such means as are necessary, including but not limited to fences, barricades, posting of signs, guard, or any other means deemed prudent by the Contractor.
- 4) The area where work is performed shall be protected daily to prevent access by unauthorized personnel.

1.34 APPROVAL OF MATERIALS

The material used on the work shall correspond to the materials stated in these provisions.

1.35 MEASUREMENT AND PAYMENT

1.35.1 General

The unit prices in the Contractor's Proposal are to cover all expenses incurred in performing the work required under the Contract Documents. The unit prices shall include all labor, taxes, equipment, hauling, excavating, overhead, profit, insurance, permits, bonds, etc. to cover the finished work called for.

1.35.2 Unit Quantities Specified

1. Quantities and measurements indicated in the Contractor's Proposal are for estimates only. Quantities placed in the Work as measured by the County shall determine payment.
2. If the actual Work requires larger quantities than indicated, the Contractor shall provide the required quantities at the unit prices contracted.

1.35.3 Measurement of Quantities

1. Measurement by Depth: Measured by actual depth of completed well.
2. Measurement by Weight: No item in the Contractor's Proposal will be measured by weight.
3. Measurement by Volume: Measured by cubic dimension using mean length, width and height or thickness.
4. Measurement by Area: Measured by square dimension using mean length and width or radius.
5. Linear Measurement: Measured by linear dimension, at the item centerline or mean chord.
6. Unit Price Measurement: Items measured by volume, area, or linear means or combination, as appropriate, as a completed item or unit of the Work.

1.35.4 Payment

1. Payment Includes: Full compensation for all required labor, tools, equipment, plant, transportation, sale taxes, services and incidentals, erection, application or installation of an item of the Work, overhead and profit.
2. Final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities accepted by the County multiplied by the unit price for Work which is incorporated in or made necessary by the Work.

1.35.5 Defect Assessment

1. The County shall decide whether or not the Work, or portions of the Work, needs to be replaced in order to conform to specified requirements.
2. If, in the opinion of the County, it is not practical to remove and replace the Work, the County will direct one of the following remedies:
 - a. The defective Work may remain, but the unit sum/price will be adjusted to a new unit/price at the discretion of the County.
 - b. The defective Work will be repaired in accordance with the instructions of the County, and the unit sum/price will be adjusted to a new unit price at the discretion of the County.
3. The individual specification sections may modify these options or may identify a specific formula or percentage unit price reduction.
4. The authority of the County to assess the defect and identify payment adjustment is final.

1.35.6 Non-Payment for Rejected Products

1. Payment will not be made for any of the following reasons:
 - a. Products wasted or disposed of in a manner that is not acceptable.
 - b. Products determined as unacceptable before or after placement.
 - c. Products not completely unloaded from the transporting vehicle.
 - d. Products placed beyond the lines and levels of the required Work.
 - e. Products remaining on hand after completion of the Work.
 - f. Loading, hauling and disposing of rejected Products.

1.36 CONSTRUCTION SITE MAINTENANCE

- 1) The Contractor shall keep all areas clear of debris, refuse or construction materials that render the construction area an eye-sore or odor source.
- 2) Throughout the period of construction, the Contractor shall keep the work site clean of all rubbish and debris, and shall promptly remove from any portion of the site, or from property adjacent to the site of the Work, all unused materials, surplus earth and debris, excepting select material which may be required for refilling or grading.
- 3) Upon completion of the Work, and prior to final acceptance, the Contractor shall remove from the vicinity of the Work all surplus material and equipment belonging to the Contractor or used under the Contractors direction during construction, shall clean the site, and remove rubbish and debris.

1.37 ODOR CONTROL

- 1) During trenching and/or drilling, if a considerable number of complaints are received, all work shall cease and approved mitigation measure shall be implemented immediately.
- 2) Trenches, excavations and bore holes shall be closed and sealed at the end of each work day.

1.38 CONTACT

For information or technical questions, please contact:

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14310 Frederick Street
Moreno Valley, California 92553
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END OF SECTION

SECTION 2 SAFETY

2.1 SUMMARY

- 1) Contractors shall comply with Provisions of Occupational Safety and Health Administration Regulations for Construction, 29 CFR, 1926/1910 and CFR 1910.120, the California Department of Industrial Relations, Division of Industrial Safety (Safety Orders), with the additional Safety Provisions in the Contractor's Health and Safety Plan, and all other applicable Federal, State, County and local laws, ordinances, codes, the requirements set forth herein, and any regulations that may be specified in other parts of this Contract. If any of these requirements are in conflict, the more stringent requirement shall apply. The Contractor's failure to be thoroughly familiarized with the aforementioned safety and health provisions shall not relieve the Contractor of responsibility for full compliance with the obligations and requirements set forth herein.
- 2) The Contractor is advised that decomposing refuse produces landfill gas which is approximately 50 percent methane (natural gas) by volume. Landfill gas is colorless, can be odorless, may contain hydrogen sulfide, toxic or hazardous material, is combustible, and may contain no oxygen. Landfill gas can also migrate through several thousand feet of soil adjacent to landfills. The Contractor is, therefore, advised of the need for precautions against fire, explosion and asphyxiation when working in or near excavations on the project site.
- 3) The Health and Safety Plan shall have provisions for all aspects of protection against bodily injury from heavy construction equipment, tools and equipment required to construct the system. Additionally provisions shall be made to protect against ingestion, absorption or inhalation of hazardous compounds. The plan shall also have provisions for the excavation of refuse which shall be handled in a safe, sanitary, and proper manner.
- 4) The Contractor shall be responsible for holding mandatory weekly safety meetings on the site. The Contractor shall notify the County of the time and place of all meetings and allow the County to participate. Meetings shall reiterate all safety measures to be taken and shall discuss any violations committed and preventive measures to avoid failure violations. The Contractors shall provide the County with a copy of the minutes and the attendance at the safety meetings.
- 5) The Contractor shall under no circumstances deviate from the Health and Safety Plan requirements and shall be responsible for any violation of the rules and regulations in effect. The County shall issue an order to stop all work and the Contractor shall not be entitled to any extension of the time or any claim for damage or to any compensation for either the directive or the work suspension order.
- 6) Acceptance of the Health and Safety Plan by the County does not release the Contractor of liability in the event of an accident or injury, nor does it place any liability on the County.
- 7) The exact nature of materials and wastes disposed of at the landfill is unknown. The possibility exists of encountering gases and/or other substances during the Work that may be potentially hazardous to the safety and health of personnel, especially those working in the vicinity of open excavations and pipes venting gases.
- 8) The Contractor shall have sole responsibility for the safety, efficiency, and adequacy of the Contractor's equipment and methods, and for any damage or injury resulting from their failure, or improper maintenance, use, or operation. The Contractor shall be solely and completely responsible for the conditions at the Work area arising from the Contractor's execution of the Work, including safety and health of all authorized persons and property involved in the performance of the Work. This requirement shall apply continuously and not be limited to normal working hours. The County's review of the Contractor's performance does not relieve the Contractor of responsibility for compliance with applicable laws, regulations and requirements.

- 9) The Contractor shall observe and comply with all applicable laws, regulations for hazardous waste operations, employee safety and health requirements set forth in these specifications or otherwise applicable to the Work. Such information, interpretation, or representation of laws, regulations or ordinances referenced in the Contract Document shall not take precedence over the laws, regulation or ordinance itself. Information on the types, quantities, and concentrations of contaminants which may be found in the landfill gas can be found in gas test reports available from the County.

2.2 SAFETY PROCEDURES-WELL DRILLING AND CONSTRUCTION

2.2.1 Summary

1. The purpose of this section is to establish responsibilities and guidelines for safe work practices while performing well drilling and construction activities. The Contractor shall be responsible for planning and conducting work as safely and efficiently as possible.
2. It is the responsibility of the Contractor to ensure that all personnel are properly trained in the appropriate safety practices and procedures the work.
3. A safety coordinator, supplied by the Contractor, shall be present at all times during construction work on or within 1,000 feet of the landfill. The safety coordinator will have responsibility to assure observance of all Contractor safety procedures, and shall be trained in the use of all safety equipment.
4. The Contractor shall submit a site-specific safety plan to the County for review and acceptance prior to starting the work. The site-specific safety plan shall be at least as stringent as the guidelines included herein. The Contractor is solely responsible for the site-specific safety plan and its implementation. The County shall have no liability resulting in injury or death to Contractors, Contractor employees or subcontractors and their employees.

2.2.2 Execution

1. Any person working near the edge of a drilling operation (greater than 12 inches in diameter) is required to wear a parachute style body harness with lanyard anchored to an immobilized drill rig or other safe immobilized structure. The area surrounding the bore hole where personnel must wear a safety harness will be identified with barricade tape. The Contractor may propose an alternative safety procedure. Upon its discretion the County may or may not approve alternative safety procedures.

Due to the typically oxygen deficient atmosphere in the subsurface, anyone falling into an excavation well, even a short distance, would probably not survive. For this reason, all personnel working near the hole must be tethered.

2. A minimum of two fire extinguishers shall be provided at the drilling site by the Contractor. (Two, 20: A-80: BC are required). The drilling crew shall be alert for the potential for the drill auger to spark against rock or metal causing a serious fire in the boring. LFG will typically burn almost invisibly under such circumstances. Fires should be extinguished by covering the boring with earth materials using earth moving equipment such as a backhoe.
3. Smoking is prohibited except in designated areas. Designated areas have been established at each landfill. The designated smoking areas for each landfill shall be indicated on maps provided after the "Notice to Proceed" for each phase is issued.
4. No worker shall be allowed to work alone at any time near the edge of the boring under construction. At least one other worker shall be present, beyond the areas considered to be

subject to possible effects of LFG or cave-in. The number of persons working near the boring should be limited to only those required to accomplish the task; however, there should be sufficient workers nearby to remove an injured worker or summon help.

5. During drilling, special consideration must be given to the less stable conditions represented by refuse. Refuse must be considered prone to instability that may cause side wall failure of the boring at any time. If this were to occur, the magnitude of the failure could be substantial. Individuals could be buried in an oxygen deficient environment.
6. It is essential that drilling personnel remain alert at all times to changing subsurface conditions and signs of impending physical failure such as fissures, etc. It is not uncommon to experience a "hollowing out" effect creating a cavity at a depth much larger than the boring due to side wall failure "down-hole". This could cause a sudden collapse to occur at the surface. It should be remembered that the drill rig usually exerts a large vibratory force at the surface in the vicinity of the boring.
7. Drilling personnel shall be alert to the potential for encountering subsurface hazards, particularly in older landfills where screening of disposal materials may have been less controlled. Potential hazards include:
 - a. Unknown hazardous chemicals in drums or containers which could include combustible, explosive, reactive, toxic or corrosive materials.
 - b. Military Munitions
 - c. Asbestos
 - d. Compressed Gas Cylinders
 - e. Biomedical Waste
 - f. Radioactive Waste

If any of these hazardous waste are exposed, drilling or excavation should stop at once and the County and local fire department immediately notified until the extent of the hazard can be determined.

8. The work area shall be periodically monitored by the Contractor for levels of combustible gases, volatile organics and H₂S during drilling and excavation. The Contractor shall determine the safety of continued drilling based on the monitoring results. The Contractor's evaluation is subject (although not required) to review and approval by the County.
9. The Contractor shall attempt to complete each excavated well prior to the end of the working day. A well shall be considered complete if the borehole has been backfilled to the landfill surface. In the event a well is not completed at the end of the working day, procedures detailed in Section 8.4.13) shall be followed.
10. All in-place pipe and well casings shall be capped at the end of each working day.

2.3 SAFETY PROCEDURES - CONFINED SPACE ENTRY

2.3.1 Summary

1. This section emphasizes the Contractor's responsibilities for the procedures involved in obtaining, issuing and complying with OSHA Permit-Required Confined Spaces work permits.

2. OSHA defines permit-required confined spaces as ones which contain any recognized hazard such as: hazardous atmospheres, engulfment hazards, sloping walls where an employee could get trapped, etc. The rule also allows for declassification of Permit-Required Confined Spaces if the space can be made safe to enter through the use of forced ventilation to eliminate a hazardous atmosphere. The County and/or Contractor's Safety Officer will differentiate between permit spaces and non-permit spaces by the use of a Confined Space Check sheet which will be used of every confined space entry. This check sheet shall be used to determine whether the confined space requires a permit prior to entry. The Contractor shall comply with the County's and/or Safety Officer's decision to require a permit for any confined space.

2.3.2 Inspection

The Contractor's Safety Officer shall inspect each confined space prior to entry of any personnel. The Contractor's Safety Officer shall determine the requirement for a confined space entry permit. The requirement for confined spaces shall include the danger posed by the permit space. Hazards shall be evaluated listed as follows:

1. Atmospheric hazards
 - a. Asphyxiating hazards
 - b. Toxic atmosphere
 - c. Flammable or explosive atmosphere
2. Engulfment
3. Mechanical hazards
4. Electrical shock
5. Other, such as burns, heat stress, radiation, noise

2.3.3 Preparation

1. The Contractor shall be responsible for informing all employees or representatives of locations and hazards of all permit-required confined spaces.
2. Permit-required confined spaces where inadvertent entry is feasible shall be posted with a sign reading "DANGER-PERMIT REQUIRED CONFINED SPACE--DO NOT ENTER".
3. Inadvertent entry into permit-required confined spaces being controlled through work permit procedures during periods when active work in the confined space is not taking place shall be controlled at all times by any of the following:
 - a. An attendant positioned near the confined space entrance continuously providing surveillance against unauthorized entry.
 - b. Barricading of the entrance to the confined space to prevent entry and placing a sign in the entrance to the confined space reading "DANGER-PERMIT REQUIRED CONFINED SPACE--DO NOT ENTER".

2.3.4 Procedure

Basic Requirements for permit-required space entry:

1. Identify and evaluate the hazards of a permit-required space and develop a specific entry permit for controlling hazards during entry and work within the permit-required space. The plan shall be included as part of the site-specific Health and Safety Plan required according to Section 1.18. The plan shall at a minimum contain the following:
 - a. Identification of chemical potential and hazards
 - b. Blind/isolation list
 - c. Ventilation to obtain and maintain acceptable entry conditions
 - d. Location of nearest emergency phone/communication
 - e. Special instructions for the attendant, if necessary
2. All lines in and out of the permit-required space must be isolated.
 - a. Internal coils, tubes, etc. are considered part of the permit-required space.
 - b. Pipeline blind flanges, plugs or caps shall have a pressure rating equal to the line source, must be secured and sealed and shall be tagged.
 - c. Physically disconnecting and removing a section of line is acceptable isolation.
 - d. Using a double block and bleed valve assembly.
3. All energy sources must be locked out in accordance with the facility lockout/tag-out policy.
4. The permit-required space shall be purged, flushed or ventilated as necessary to control atmospheric hazards.
5. The permit-required space shall be ventilated if necessary to obtain and maintain acceptable entry conditions.
6. Power sources to ventilation equipment shall be tagged to prevent inadvertent de-energizing.
7. Atmospheric samples within the permit-required space shall be taken as necessary to verify that conditions for entry and work within the permit space are met. It is mandatory to carry out testing before entry is authorized.
 - a. All permit-required spaces shall be tested by the Contractor to assure the following atmospheric conditions are being met. These tests must be carried out in the order indicated using a properly calibrated direct-reading instrument.
 1. Oxygen content must not be below 19.5 percent or above 23.5 percent by volume. If adequate oxygen level is not present no other testing should be done until this oxygen level is established. If the oxygen content differs by more than 0.2 percent from the atmospheric oxygen, the cause should be investigated and continuous monitoring considered.
 2. Explosive gas, vapor, or mist must be below 10 percent of the lower explosive limit.
 3. Atmospheric concentration of any substance for which a dose or a Permissible Exposure Limit (PEL) or a Threshold Limit Value (TLV) has been published and which could result in excess of its dose or PEL or TLV. In lieu of monitoring for all potential substances, a total combustible gas limit of 100 ppm may be used as a guideline by the Contractor's Safety Officer for determining a hazardous atmosphere.
 4. In addition to these tests carried out using calibrated direct-reading instruments, the permit-required space must not contain a hazardous atmosphere as defined previously.

8. Pedestrian, vehicle, or other barriers as necessary to protect entrants from external hazards shall be provided.
9. The Contractor shall use electrical equipment in the permit required confined space that is 12 volts or less or protected by the ground fault circuit interrupter(GFI) located outside the permit-required space.
10. Lighting equipment shall be provided to enable employees to see well enough to work safely and to exit the space quickly in an emergency.
11. Personal protective equipment shall be provided by the Contractor and its use will be required by the Contractor's Safety Officer whenever feasible engineering and work practice controls do not protect entrants.
12. Communications equipment shall be provided as required to allow communication between the attendant and entrants.
13. Testing and monitoring equipment will be provided and testing and monitoring of the permit space carried out as necessary to assure that acceptable entry conditions are being maintained during the course of entry operations.
14. An attendant shall be provided to monitor the permit-required space during the period entrants are in the permit-required space.

2.4 EXCAVATION, TRENCHING, AND PIPE INSTALLATION

2.4.1 Summary

1. The purpose of this Section is to establish responsibilities and guidelines for safe work practices while performing excavation, trenching and pipe installation activities. The Contractor shall be responsible for planning and conducting work on the landfill as safely and efficiently as possible.
2. It is the responsibility of the Contractor to ensure that all personnel are properly trained in the appropriate safety practices and procedures of this operation.
3. A safety coordinator supplied by the Contractor shall be present at all times to assure compliance with all safety procedures during any excavation, trenching or pipe installation work. The safety coordinator shall be trained in the use of all required safety equipment.

2.4.2 Execution

1. Smoking is prohibited except in designated areas. Designated areas have been established at each landfill. The designated smoking areas for each landfill shall be indicated on maps provided after the "Notice to Proceed" for each phase is issued.
2. No worker will be allowed to work alone at any time in or near an excavation or trenching site. Other workers will be stationed beyond the area considered to be subject to the possible effects of LFG to assist in removing an injured or endangered worker or to summon help.
3. No worker may handle excavated solid waste or leachate without wearing appropriate work gloves and clothing, which will provide an adequate barrier to the waste.
4. Any time excavations and trenching exceed five (5) feet in depth; shoring, bracing or sloping of the side walls is required prior to personnel entry. If sloping is the method used to prevent cave-in, slope the side walls of the trench at a 45 degree angle away from the trench. (This is an OSHA requirement).

5. Entry into excavations or trenches greater than four (4) feet in depth shall be considered a confined space. The Contractor's Safety Office shall determine the requirements for a Confined Space Entry Permit according to Section 2.3, of these Provisions.
6. Many gases are heavier than air and settle in low areas such as trenches and excavations, therefore, additional precautions must be observed in these areas. Specifically, the need for constant O₂ monitoring, forced ventilation, combustible gas monitoring, respiratory protective equipment, etc. shall be determined by the Contractor. The County may impose additional requirements when deemed necessary for worker safety.
7. Construction equipment must be equipped with a vertical exhaust at least five (5) feet above grade or with spark arrestors.
8. All electric motors and electric controls used in the excavation area will be explosion proof or non-sparking TEFC and meet the requirements for Class 1, Division 1, Group D (methane), and rated equipment in accordance with the National Electric Code (NEC). If the potential for a hazardous location can be eliminated with the use of forced ventilation, then explosion proof equipment is not required.
9. No welding is permitted in, on, or immediately near the excavation area, unless continuously monitored for methane and other combustible gases. In-trench fusion welding of HDPE pipe should only be done as a last resort and only then with the proper precautions taken.
10. Solvent cleaning, gluing or bonding of pipe should be done, to the extent possible, outside the trench.
11. During piping assembly, all valves should be closed immediately after installation to prevent the migration of landfill gases through the pipeline.
12. All exposed trench or excavation shall be covered with an impermeable membrane and plywood or steel plate prior to the end of the working day barriers and warning signs shall be placed around covered excavations.
13. Whenever refuse is encountered during excavations, the work area will be monitored continuously for level of methane, carcinogenic contaminants, hydrogen sulfide and oxygen deficiency.
14. All newly installed piping tied into a gas source shall be capped as soon as possible following installation and at the end of each working day.

END OF SECTION

SECTION 3 MOBILIZATION

3.1 SUMMARY

This contract item shall consist of expenditures for all preparatory work and operations, including but not limited to: bond and insurance costs; those costs necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site.

3.2 MATERIALS

All materials furnished for the execution of the work and purchases made by the County shall remain the property of the County. Any existing property or installations shall be left in a condition that is at least equivalent to the condition prior to construction. Portable toilets provided by the County are available onsite for the use of the Contractor at the Badlands and Lamb Canyon Landfills.

3.3 EXECUTION

- 1) Upon receipt of the Notice to Proceed, the Contractor shall furnish, mobilize, and install such temporary works, materials, equipment, supplies, and personnel as necessary for the successful completion of the work. The Contractor shall also operate and maintain temporary works, and equipment throughout the duration of construction.
- 2) The Contractor shall obtain all necessary permits and permission to utilize public roads for mobilization, demobilization, and access to the site. Access to the site is available through existing public roads during the hours stated in Section 1.7 of these Special Provisions.

3.4 MEASUREMENT AND PAYMENT

3.4.1 Mobilization

The following schedule will be used to determine measurement of mobilization for Bid Items No. 1.1 through 1.5 and disbursement of the bid price (less retention) for mobilization:

Percent of Contract Work Completed (\$ Expended/\$ total bid price)	Percent of Mobilization Considered to be Complete
More Than 5%	50%
More Than 10%	75%
More Than 15%	95%
More Than 20%	100%

3.4.2 Mobilization for Horizontal Well Construction

Mobilization for horizontal well construction as shown in **Bid item No 1.1** shall consist of all items stated in Section 3.1 of these Special Provisions as well as mobilizing specialized equipment to construct horizontal gas wells. **Horizontal well construction shall be paid per each mobilization basis.**

3.4.3 Mobilization for Vertical Well Construction

Mobilization for vertical well construction as shown in **Bid item No 1.2** shall consist of all items stated in Section 3.1 of these Special Provisions as well as mobilizing specialized equipment to construct vertical gas wells. All work is to be paid for at the contract price per mobilization for

vertical well construction. **Vertical well construction shall be paid per each mobilization basis.**

3.4.4 Mobilization for Header and Lateral Pipe New Installation

Mobilization for header and lateral pipe installation as shown in **Bid item No 1.3** shall consist of all items stated in Section 3.1 of these Special Provisions as well as mobilizing specialized equipment to install header and lateral pipes. All work is to be paid for at a contract price per mobilization header and lateral installation. **Header and lateral pipe installation shall be paid for each mobilization basis.**

3.4.5 Mobilization for Relocating Header and Lateral Pipes

Mobilization for relocating header and lateral pipes as shown in **Bid item No 1.4** shall consist of all items stated in Section 3.1 of these Special Provisions as well as mobilizing specialized equipment to relocate header and lateral pipes. All work is to be paid for at a contract price per mobilization for relocating header and lateral pipe. **Header and lateral pipe relocation shall be paid for each mobilization basis.**

3.4.6 Mobilization for Multi-level Probe Installation

Mobilization for multi-level probe installation in **Bid item No 1.5** shall consist of all items stated in Section 3.1 of these Special Provisions as well as mobilizing specialized equipment to install Multi-level probes. All work is to be paid for at a contract price per mobilization for multi-level probe installation. **Multi-level probe installation shall be paid for each mobilization basis.**

END OF SECTION

SECTION 4 TRENCHING AND EARTHWORK

4.1 GENERAL

4.1.1 Summary

The work in this section shall include the Contractor furnishing all labor, supervision, tools, equipment, and materials necessary to perform all trenching for horizontal LFG collection wells and road crossings and backfill across bench roads for lateral and header piping. This work also includes the excavation of refuse and soil co-mingled with refuse and other unsuitable material, and hauling and disposal at the designated areas as directed by the County.

4.1.2 References

All trenches shall comply with the applicable parts of section 306 of the Standard Specifications for Public Works Construction unless otherwise stated in the Plans and Specifications.

4.1.3 Protection

1. Shoring and Bracing
 - a. The Contractor shall provide materials for shoring and bracing necessary for safety of personnel, protection of work, and in compliance with the requirements of government agencies having jurisdiction.
2. De-watering:
 - a. De-watering equipment shall be provided by the Contractor to remove and dispose of all surface water entering excavation. The Contractor shall take adequate measures to minimize surface water entry into excavation areas.
 - b. The Contractor shall excavate and backfill in a manner and sequence that will provide proper drainage at all times. The Contractor shall remove all water, including runoff and run-on collected from rainwater encountered during excavation, to a location approved by the County, by pumps, drains, and other approved methods. The Contractor shall prevent water from ponding in site excavations and site construction area.
 - c. The Contractor shall take all necessary precautions to preclude the accidental discharge of fuel, oil, etc. and to prevent such accidents that may endanger the environment. The Contractor will be responsible for the cost of remediation the results of any such discharges or accidents.
3. The Contractor shall provide necessary temporary piping materials, equipment and vehicle for spraying and moisture-conditioning of backfill materials. The Contractor shall provide and pay for the temporary water supply used in construction.
4. The Contractor is responsible for contacting dig alert and taking the necessary precautions whenever work around utilities is performed. The County will notify the Contractor with the notice to proceed if work around utility lines is possible for that mobilization.

4.1.4 Final Grading

1. After other outside work has been finished and backfilling completed and settled, all areas which are to be graded shall be brought to grade at the indicated elevations, slopes, and contours.

2. All surfaces shall be graded to secure effective drainage. Unless otherwise indicated, a slope of at least three percent shall be provided.
3. Final grading and surfacing shall be smooth, even, and free from clods and stones larger than one inch in greatest dimension, weeds, brush, and other debris.

4.1.5 Settlement

1. The Contractor shall be responsible for all settlement of backfill, fills, and embankments which may occur within the correction period stipulated in the General Conditions.
2. The Contractor shall make, or cause to be made, all repairs or replacements made necessary by settlement within 30 days after notice from the County.

4.1.6 Construction

1. The Contractor shall excavate and backfill in a manner and sequence that will provide proper drainage at all times. The Contractor shall remove all water, including runoff and run-on collected from rain water encountered during excavation, to a location approved by the County, by pumps, drains, and other approved methods. The Contractor shall prevent water from ponding in site excavation and site construction area. The Contractor shall control drainage in the vicinity of work to prevent water from accumulating or running into adjacent property.
2. The Contractor shall remove all groundwater encountered during excavation, to a location approved by the County, by pumps, drains, and other approved methods.
3. All excavation shall be performed within the limits of the work to the lines, grades, and elevations indicated and specified herein, the Contractor shall not excavate or remove materials beyond indicated sub-grade elevations or dimensions without the approval of the County. The Contractor shall backfill and compact to 90% relative compaction for any unauthorized excavation.
4. The Contractor shall take all necessary precautions to preclude the accidental discharge of fuel, oil, etc. and to prevent such accidents that may endanger the environment. The Contractor will be responsible for the cost of remediation the results of any such discharges or accidents. Spilled diesel fuel or oil will require excavation and soil disposal at a Class 1 landfill at the Contractor's expense.
5. The soil cover shall be compacted to a minimum of 90 percent of the maximum density 3% above optimum moisture content of soil in roadways, and other areas of the site, as determined by ASTM D1557
6. The Contractor shall comply with all applicable regulations and shall protect open excavations, trenches, holes, with fences, covers, or railing as required to maintain safe pedestrian and /or vehicular traffic and against accidental or unauthorized entry until backfilled.
7. The Contractor shall notify the County 24 hours in advance of backfilling operations to permit required testing. Density tests shall be determined by ASTM D1557. Compaction shall be achieved by using sheeps-foot, walk behind whackers, or vibrating rollers. Heavy impact type equipment such as stompers shall not be permitted for compaction use.

4.1.7 Costs

1. The County shall employ and pay for compaction and moisture testing in completed trenches as the County feels necessary.

2. Re-testing required because of failure of compaction density or moisture content shall be reimbursed by the Contractor to the County.

4.1.8 Excavated Soils

Excavated soils from the trenching operation may be used as trench backfill provided the following:

1. The excavated backfill soil is to be clean, odorless, vegetation free, free of refuse and any other deleterious material and to the satisfaction of the County. If the County decides that the excavated material is unsatisfactory, the County will provide backfill material, at no charge to the Contractor, within a reasonable distance of the excavation.

4.2 DISPOSAL OF REFUSE AND CONSTRUCTION DEBRIS

The Contractor shall be responsible for the disposal of all excavated material in accordance with these Special Provisions, including Section 17 "Disposal of Refuse and Construction Debris".

4.3 HORIZONTAL COLLECTION WELL TRENCHING

4.3.1 Scope

Trenching for the horizontal collection wells consists of a trench with dimensions of two feet in width by four feet in depth as shown in the project drawings. The top foot of trench typically will be intermediate cover soil and the remaining three feet consists of refuse. This trenching is located on the current flat working deck of the landfill. All refuse excavated must be hauled to the current dumping area as designated by the County and be in full compliance with section 4.2 of these Provisions.

4.3.2 Trenching in Wet Weather Areas

In the event that trenching is required to take place across a wet weather area with aggregate in place, every attempt shall be made to save the aggregate and replace at the surface after backfill of the trench.

4.3.3 Backfill

Back fill soil will be provided by the County within a reasonable distance of where the soil is needed. The County will often be able to deliver the soil very close to where the backfill is to occur and other times a stockpile within the region will be specified for the Contractor to take from to backfill. The Contractor must give the County enough notice and the quantity needed to allow for the landfill operations to make arrangements to provide soil for backfill. The compaction of the backfill may be packed in using the wheels of the loader or equivalent equipment for the majority of this backfill. In any areas that the landfill operations is using as an access road for incoming traffic, a 90% relative compaction is required based on the laboratory maximum dry density, determined by ASTM D1557.

4.4 ROAD CROSSINGS

4.4.1 Scope

Road crossings must be trenched across the road and maintain a slope of 10% to make sure of proper drainage of the header or lateral piping. The road crossings trench will vary with depth from a minimum of two feet in depth to a maximum of six feet in depth. The width of the trench

for road crossings must be approximately twelve inches greater than the outside diameter of the pipe. The Contractor should plan on encountering refuse when trenching any road crossing and perform all required transportation and disposal in compliance with section 4.2 of these specifications.

4.4.2 Backfill

The Backfill around the pipe shall be clean and free of pebbles, rocks, refuse and debris. Backfill shall be placed in lifts or layers not to exceed one foot in loose thickness before being compacted in compliance with section 4.1.6 of these specifications. All road crossings must be compacted to minimum of 90% relative compaction based on the laboratory maximum dry density, determined by ASTM D1557.

4.4.3 Pipe Bedding

1. The trench bottom shall be continuous, relatively smooth and free of rocks and /or refuse material.
2. Compaction shall be at least 90 percent of maximum density.
3. If the trench bottom is within refuse and is uneven, the contractor will add 4" to 6" of clean cover soil to the bottom of the trench before placing the pipe.

4.5 MEASUREMENT AND PAYMENT

Measurement of the final quantity of for **Bid Item No. 2** "Trenching and Earthwork" shall be based on actual linear feet of completed trench. All work to be paid for at a contract price per unit of measurement will be measured by the County in accordance with United States Standard measures.

This work includes excavation of trenches as described in Section 4 for trenching in native material, refuse, and/or cover soil for all 2", 3", 4", 6", 8", 10", 12", 16", 18", 20" and 24" diameter HDPE pipes including soil backfill and compaction. This work also includes the loading, transfer and dumping of all excavated refuse on the working face at the landfill in the area designated by the County. All trenching shall be bid at the same unit price regardless of trench width, depth, or soil/refuse conditions. **Trenching and Earthwork shall be paid for per linear foot of completed trench basis.**

END OF SECTION

SECTION 5 INSTALL HORIZONTAL WELL

5.1 SUMMARY

The work in this section shall include the Contractor furnishing all labor, supervision, tools, and equipment necessary to construct horizontal LFG collectors. The horizontal collectors must be constructed in strict accordance with these provisions and the project drawings.

5.2 MATERIALS

5.2.1 HDPE Pipe

The HDPE perforated pipe used in the construction of the horizontal wells must be SDR 11 with 1/2" diameter holes, 6" spacing with four holes every 90 degree interval. All perforations must completely penetrate the thickness of the pipe. All perforated pipe will be supplied by the County and will be located at an existing pipe storage area at the landfill site or will be delivered and placed in a strategic location near the installation area.

5.2.2 Geotextile

All geotextile will be supplied by the County and will be located in a strategic location near the installation area. The geotextile used in the construction of the horizontal wells will have all of the following properties:

1. The geotextile shall be of woven needle punched, polyester fabric, Treviria Spunbound type, type II35 or approved equal.
2. The geotextile fabrics shall be uniform in thickness and surface texture.
3. The geotextile shall be free of any chemical treatment or coating that reduces permeability and shall be inert to chemicals commonly found in soils.
4. The geotextile must be a minimum of 125 mils thick and conform to the minimum physical properties listed below:

Property	Value	Test Method
Fabric weight	10 oz/cy	ASTM D-3776
Grab tensile strength	305 lb.	ASTM D-4632
Grab elongation	60 lb.	ASTM D-4632
Mullen burst strength	510 PSI	ASTM D-3786
Trapezoid strength	100 lb.	ASTM D-4553

5.2.3 Aggregate

The aggregate to be used in the construction of horizontal wells will be supplied by the County. The Contractor is to install the aggregate. The County will supply either 2" to 4" crushed washed rock aggregate or type A tire derived aggregate for horizontal collection well back-fill. The Contractor will have to retrieve the aggregate from the location that it is stored at the site and install it in the trench as needed.

5.3 EXECUTION

- 1) The work to be performed under the provision of these Specifications shall be conducted in a manner consistent with standard industry practices for such projects. No portion of this Contract

shall relieve the Contractor from all applicable Federal, State, and local regulations pertaining to construction of this Project.

- 2) All perforated 6" HDPE SDR 11 piping shall be joined by slipping a four (4) foot section of 8" perforated pipe over the 6" perforated pipe with two (2) feet of 8" perforated pipe on each section of 6" perforated pipe, as shown in the project drawings.
- 3) All HDPE pipe shall be cleaned as needed to remove dirt and debris before installing in the trench.
- 4) Pipe must be at 10% slope prior to transitioning to the solid lateral piping.
- 5) Solid lateral piping shall be installed up the slope of the current lift.
- 6) Geotextile must be cut to width by the Contractor and shall be laid down on top of the aggregate across the full width of the trench before any fill dirt is placed in the trench.
- 7) All new horizontal solid pipe well laterals shall be capped with a schedule 40 PVC cap.
- 8) Pipe cutting in or near the trench shall be done only with mechanical cutters.

5.4 MEASUREMENT AND PAYMENT

Measurement of the final quantity of for **Bid Item No. 3 "Install Horizontal Well"** shall be based on actual linear feet of pipe installed based on the 6" and 8" HDPE perforated pipe installed. All work is to be paid for at a contract price per unit of measurement and will be measured by the County in accordance with United States Standard measures. The installation shall be bid at one unit price. **Horizontal well installation shall be paid for on a per linear foot of installed pipe basis.**

END OF SECTION

SECTION 6 INSTALL AGGREGATE PITS

6.1 SUMMARY

The work in this section shall include the Contractor furnishing all labor, supervision, tools, and equipment necessary to construct one aggregate pit in line with the horizontal collection wells. The dimension of the pits are 10' X 10' X 4' with the horizontal well running through the center. The aggregate and geotextile to be used is to be supplied by the County. The aggregate pits must be constructed in strict accordance with these provisions and the Project Drawings.

6.2 MATERIALS

6.2.1 Geotextile

The geotextile supplied by the County used in the construction of the horizontal wells will have all of the following properties:

1. The geotextile shall be of woven needle punched, polyester fabric, Treviria Spunbound type, type II35 or approved equal.
2. The geotextile fabrics shall be uniform in thickness and surface texture.
3. The geotextile shall be free of any chemical treatment or coating that reduces permeability and shall be inert to chemicals commonly found in soils.
4. The geotextile must be a minimum of 125 mils thick and conform to the minimum physical properties listed below:

Property	Value	Test Method
Fabric weight	10 oz/cy	ASTM D-3776
Grab tensile strength	305 lb.	ASTM D-4632
Grab elongation	60 lb.	ASTM D-4632
Mullen burst strength	510 PSI	ASTM D-3786
Trapezoid strength	100 lb.	ASTM D-4553

6.2.2 Aggregate

The aggregate to be used in the construction aggregate pits will be supplied by the County. The Contractor is to install the aggregate. The Contractor will have to retrieve the aggregate from the location at the site that it is stored and install in the pits as needed.

6.3 EXECUTION

- 1) The work to be performed under the provision of these Specifications shall be conducted in a manner consistent with standard industry practices for such projects. No portion of this Contract shall relieve the Contractor from all applicable Federal, State, and local regulations pertaining to construction of this Project.
- 2) The pit shall be constructed so that the perforated piping runs directly through the center of the ten feet (10') by ten feet (10') square pit.
- 3) The aggregate shall be transported from the stock pile and placed in the pit in strict accordance with the Project Drawings.
- 4) Geotextile shall be cut to fit by the Contractor and must cover the entire area of the aggregate before backfill soil is placed.

6.4 MEASUREMENT AND PAYMENT

Measurement of the final quantity of for **Bid Item No. 4** "Install Aggregate Pit" is based on a lump sum basis per pit constructed. All work is to be paid for at a contract price per pit constructed. **Aggregate pit installation shall be paid for on a per each pit constructed basis.**

END OF SECTION

SECTION 7 DRILL & INSTALL VERTICAL GAS WELLS UP TO 135 FEET

7.1 SUMMARY

- 1) Construction of the landfill gas extraction wells shall consist of construction and removal of temporary drill pads if required, drilling vertical boreholes and installing HDPE SDR 17 perforated pipe, fittings, HDPE pipe, bentonite and aggregate, all in accordance with details as indicated on the Project Drawings and as specified herein. The drill rig shall have at least 70,000 foot-pounds of torque and a push down thrust force of 25,000 pounds. The County recommends a track mounted IMT AF 10 or equivalent type drill rig.
- 2) Landfill gas extraction well lengths within each borehole may be changed by the County following drilling. The wells shall then be constructed according to the drilling table shown on the Project Drawings.
- 3) There shall be one well in each borehole. The drilling table on the Project Drawings shows the corresponding borehole depths, and approximate well depths.
- 4) All perforated HDPE pipe and fittings used in the construction of the wells shall be 4" or 6" SDR 17 unless shown otherwise on the Project Drawings. The HDPE shall be perforated as indicated on the well details. All HDPE solid pipe and fittings in the wells shall be SDR 17 unless shown otherwise on the Project Drawings.
- 5) The cost of drill pads, excavation, backfill, and disposal of excavated material in County designated area related to the installation of gas extraction wells shall be included in the extraction wells construction costs.
- 6) The diameter of the hole drilled for the borehole shall be as indicated on the Project Drawings.
- 7) The Contractor shall comply with all safety procedures for LFG well construction included in these Specifications and Contractor's Health and Safety Plan.
- 8) The unit price for installation of vertical landfill extraction well shall be per vertical foot of well installed. The measurement of the well for payment shall be from the bottom of the borehole to existing grade.
- 9) The County must approve the depth measurement procedures used by the Contractor. The County may verify measurements as the County deems appropriate.
- 10) Drilling shall be performed according to the applicable conditions of the SCAQMD Permit to Construct.
- 11) During drilling, an SCAQMD approved emission control box shall be placed over the well hole to collect landfill gas. The collected gas shall be directed to a 55 gallon carbon absorption unit using an explosion-proof exhaust fan/blower (1/3 hp min.) with a minimum capacity of delivering 100 cfm at 1" static pressure. The 55 gallon carbon absorption unit shall be capable of removing vapor phase hydrogen sulfide (H₂S) by impregnation with potassium hydroxide (KOH). A permit for the emission control box, carbon absorption unit, and related equipment has been obtained by the County from the SCAQMD and may be reviewed by the Contractor at the County's main office during regular business hours. A copy of the permit may be provided to the Contractor upon request for no additional cost.
- 12) A spare carbon absorption unit shall be available on site for replacement in the event that excessive odor being released to the atmosphere during drilling.
- 13) The Contractor shall cease drilling if native soil or groundwater is encountered and/or so as directed by the County. The Contractor shall not be compensated for drilling deeper than the indicated depth on the plans or than that specified by the County.

7.2 SCOPE OF WORK

- 1) The Contractor shall drill and install vertical landfill gas extraction wells as shown on the Project Drawings.
- 2) Construct County designed slip-joint well casings in accordance with the project drawings. The Contractor may choose to have the fittings for the slip-joints machined prior to construction or use acceptable methods in the field.
- 3) The County will stake the actual extraction well locations.
- 4) The general locations of the extraction wells shall be as shown on the Project Drawings unless otherwise directed by the County.

7.3 MATERIALS

7.3.1 Pipe and Fittings

1. HDPE pipe and fittings in the wells shall be SDR 17 or 11 unless otherwise indicated on the Project Drawings.
2. HDPE pipe and fittings in the wells shall be SDR 17 or 11 as shown on the Project Drawings.
3. The perforation dimension and the length of the perforated pipes in the vertical extraction wells are shown on the Project Drawings. Each extraction well shall be equipped with an identification tag approved by the County.

7.3.2 Aggregate (vertical wells only)

1. The backfill around the perforated pipe shall consist of clean, washed 1"- 2" crushed aggregate with the dimensions indicated in these Specifications and on the Project Drawings. The County shall provide gravel to the Contractor. The Contractor will have to retrieve the aggregate from the location that it is stored and install in the vertical wells as needed.
2. Aggregate Type - Crushed Clean Rock: Natural stone; washed, free of dust, fines, clay, shale, and organic matter; graded in accordance with the following limits: Marble, calcium carbonate or other similar chemically reactive stone shall not be used.
 - a. Minimum Size: 1 inch
 - b. Maximum Size: 2 inch

7.3.3 Bentonite

Bentonite chips shall be used for vertical well seals. Pelletized bentonite may also be used, subject to approval by the County. The bentonite chips shall be hydrated in the bore hole. Bags of bentonite will be provided by the County to the Contractor.

7.4 EXECUTION

- 1) The bore for the extraction well shall be straight and the gas extraction wells shall be installed as shown on the Project Drawings. The Contractor shall take all necessary precautions to maintain the well pipes vertical during the backfill operation of bore. If the pipe installed is out of plumb, the Contractor at its own expense will correct the alignment.
- 2) Proper clamping and strapping of the well casing is required to set the casing into the hole without damaging the slip joint. The casing should never be lifted too close to either side of the

slip joint as this will cause a failure. In the event of a failure, the casing will have to be repaired to the satisfaction of the County before being placed in the hole.

- 3) The backfill shall be compacted periodically during the backfill process to greater than 90 percent of maximum density using a powder puff pneumatic compactor, or equivalent. Soil shall be placed in one (1) foot loose lifts and compacted for all fill above the bentonite seal of the vertical well.
- 4) All extraction well pipes shall be suspended from the surface during backfilling. Pipe shall not be allowed to rest on the bottom of the borehole.
- 5) If during the drilling of extraction well borehole an obstruction is encountered such that the gas well cannot be completed as called for in the Project Drawings, the County shall be consulted whether the borehole has advanced to a sufficient depth. If, in the opinion of the County, the borehole has reached a sufficient depth, the Contractor will be required to complete the gas well, and he will be compensated based on the finished depth actually reached, at the unit price included in the bid. If, in the opinion of the County, the borehole has not reached a sufficient depth to function as an effective gas well, the Contractor will abandon this borehole by backfilling it with compacted soil. A bentonite seal, one foot thick, will be placed in the hole four feet below the surface. If the Contractor can show that the inability to progress the borehole depth (point of refusal) is not caused by the driller's equipment condition, the Contractor shall be compensated at a rate of 75% of unit price for the depth of abandoned hole.
- 6) The top of the gas wells shall be capped immediately following installation.
- 7) Bentonite chips shall be fully hydrated inside of the borehole with approximately 100 gallons of clean water.
- 8) A 6" layer of pea gravel shall be placed on top of the larger crushed gravel before the bentonite is placed in the hole.
- 9) Bentonite seals shall be a minimum of 2 feet thick.
- 10) Landfill bottom and/or groundwater encountered.
 1. If during the drilling of a gas well borehole landfill bottom and/or groundwater is encountered, the Contractor shall stop drilling and immediately alert the County. The Contractor shall backfill and seal the borehole with bentonite clay two (2) feet above the bottom of the landfill or five (5) feet above the groundwater table. The Payment shall be based on the maximum depth reached prior to backfill with bentonite, provided the depth was less than the depth shown on the Project Drawings or as requested by the County.
 2. If the groundwater encountered is determined by the County to be the upper aquifer, the Contractor shall seal the borehole with bentonite to an elevation five (5) feet above the water table and construct the gas extraction well above the seal.
- 11) The Contractor shall re-drill any borehole that caved in due to loose refuse or because it was not completed until the next working day. The Contractor shall not be compensated for caved boring.
- 12) In the event that a well is not completed by the end of the day and is to be left open, the Contractor shall seal the borehole by placing an impermeable membrane and heavy plywood or steel plate over the opening and lowering the auger over the top of the cover. The Contractor shall post warning signs and shall cordon off the area with safety ribbon and barricades. At all times, the Contractor shall be responsible in enforcing the Health and Safety requirement and secure the construction area.

7.5 MEASUREMENT AND PAYMENT

Measurement of the final quantity of for **Bid Item No. 5** “Drill and Install Vertical Gas Wells up to 135 Feet” shall be based on based on actual vertical depth in linear feet of well. The installation shall be bid at one unit price. No payment will be made for depths beyond the depths shown in the project drawings unless directed by the County. **Drilling and installing vertical wells up to 135 feet shall be paid for on a completed vertical foot of depth of vertical well (linear foot of borehole depth) basis.**

END OF SECTION

SECTION 8 DRILL & INSTALL VERTICAL GAS WELLS 136 FEET TO 220 FEET

8.1 SUMMARY

- 1) Construction of the landfill gas extraction wells shall consist of construction and removal of temporary drill pads if required, drilling vertical boreholes and installing HDPE SDR 17 perforated pipe, fittings, HDPE pipe, bentonite and aggregate, all in accordance with details as indicated on the Project Drawings and as specified herein. The drill rig shall have at least 70,000 foot-pounds of torque and a push down thrust force of 25,000 pounds. The County recommends a track mounted IMT AF 15 or equivalent type drill rig.
- 2) Landfill gas extraction well lengths within each borehole may be changed by the County following drilling. The wells shall then be constructed according to the drilling table shown on the Project Drawings.
- 3) There shall be one well in each borehole. The drilling table on the Project Drawings shows the corresponding borehole depths, and approximate well depths.
- 4) All perforated HDPE pipe and fittings used in the construction of the wells shall be 4" and 6" SDR 17 unless shown otherwise on the Project Drawings. The HDPE shall be perforated as indicated on the well details. All HDPE solid pipe and fittings in the wells shall be SDR 17 unless shown otherwise on the Project Drawings.
- 5) The cost of drill pads, excavation, backfill, and disposal of excavated material in County designated area related to the installation of gas extraction wells shall be included in the extraction wells construction costs.
- 6) The minimum diameter of the hole drilled for the borehole shall be as indicated on the Project Drawings.
- 7) The Contractor shall comply with all safety procedures for LFG well construction included in these Specifications and Contractor's Health and Safety Plan.
- 8) The unit price for installation of vertical landfill extraction well shall be per vertical foot of well installed. The measurement of the well for payment shall be from the bottom of the borehole to 135' below existing grade.
- 9) The County must approve the depth measurement procedures used by the Contractor. The County may verify measurements as the County deems appropriate.
- 10) Drilling shall be performed according to the applicable conditions of the SCAQMD Permit to Construct.
- 11) During drilling, an SCAQMD approved emission control box shall be placed over the well hole to collect landfill gas. The collected gas shall be directed to a 55 gallon carbon absorption unit using an explosion-proof exhaust fan/blower (1/3 hp min.) with a minimum capacity of delivering 100 cfm at 1" static pressure. The 55 gallon carbon absorption unit shall be capable of removing vapor phase hydrogen sulfide (H₂S) by impregnation with potassium hydroxide (KOH). A permit for the emission control box, carbon absorption unit, and related equipment has been obtained by the County from the SCAQMD and may be reviewed by the Contractor at the County's main office during regular business hours. A copy of the permit may be provided to the Contractor upon request for no additional cost.
- 12) A spare carbon absorption unit shall be available on site for replacement in the event that excessive odor being released to the atmosphere during drilling.

- 13) The Contractor shall cease drilling if native soil or groundwater is encountered and/or so as directed by the County. The Contractor shall not be compensated for drilling deeper than the indicated depth on the plans or than that specified by the County.

8.2 SCOPE OF WORK

- 1) The Contractor shall drill and install vertical landfill gas extraction wells as shown on the Project Drawings.
- 2) Construct County designed slip-joint well casings in accordance with the project drawings. The Contractor may choose to have the fittings for the slip-joints machined prior to construction or use acceptable methods in the field.
- 3) The County will stake the actual extraction well locations.
- 4) The general locations of the extraction wells shall be as shown on the Project Drawings unless otherwise directed by the County.

8.3 MATERIALS

8.3.1 Pipe and Fittings

1. HDPE pipe and fittings in the wells shall be SDR 17 unless otherwise indicated on the Project Drawings. The County shall provide the pipe and fittings.
2. HDPE pipe and fittings in the wells shall be SDR 17 as shown on the Project Drawings.
3. The perforation dimension and the length of the perforated pipes in the vertical extraction wells are shown on the Project Drawings. Each extraction well shall be equipped with an identification tag approved by the County.

8.3.2 Aggregate (vertical wells only)

1. The backfill around the perforated pipe shall consist of clean, washed 1"- 2" crushed aggregate with the dimensions indicated in these Specifications and on the Project Drawings. The County shall provide gravel to the Contractor. The Contractor will have to retrieve the aggregate from the location that it is stored and install in the vertical wells as needed.
2. Aggregate Type - Crushed **Clean** Rock: Natural stone; washed, free of dust, fines, clay, shale, and organic matter; graded in accordance with the following limits: Marble, calcium carbonate or other similar chemically reactive stone shall not be used.

- a. Minimum Size: 1 inch

- b. Maximum Size: 2 inch

8.3.3 Bentonite

Bentonite chips shall be used for probe seals. Pelletized bentonite may also be used, subject to approval by the County. The bentonite chips shall be hydrated in the bore hole. Bags of bentonite will be provided by the County to the Contractor.

8.4 EXECUTION

- 1) The bore for the extraction well shall be straight and the gas extraction wells shall be installed as shown on the Project Drawings. The Contractor shall take all necessary precautions to maintain the well pipes vertical during the backfill operation of bore. If the pipe installed is out of plumb, the Contractor at its own expense will correct the alignment.

- 2) Proper clamping and strapping of the well casing is required to set the casing into the hole without damaging the slip joint. The casing should never be lifted too close to either side of the slip joint as this will cause a failure. In the event of a failure, the casing will have to be repaired to the satisfaction of the County before being placed in the hole.
- 3) The backfill shall be compacted periodically during the backfill process to greater than 90 percent of maximum density using a powder puff pneumatic compactor, or equivalent. Soil shall be placed in one (1) foot loose lifts and compacted for all fill above the bentonite seal of the vertical well.
- 4) All extraction well pipes shall be suspended from the surface during backfilling. Pipe shall not be allowed to rest on the bottom of the borehole.
- 5) If during the drilling of extraction well borehole an obstruction is encountered such that the gas well cannot be completed as called for in the Project Drawings, the County shall be consulted whether the borehole has advanced to a sufficient depth. If, in the opinion of the County, the borehole has reached a sufficient depth, the Contractor will be required to complete the gas well, and he will be compensated based on the finished depth actually reached, at the unit price included in the bid. If, in the opinion of the County, the borehole has not reached a sufficient depth to function as an effective gas well, the Contractor will abandon this borehole by backfilling it with compacted soil. A bentonite seal, one foot thick, will be placed in the hole four feet below the surface. If the Contractor can show that the inability to progress the borehole depth (point of refusal) is not caused by the driller's equipment condition, the Contractor shall be compensated at a rate of 75% of unit price for the depth of abandoned hole.
- 6) The top of the gas wells shall be capped immediately following installation.
- 7) Bentonite chips shall be fully hydrated inside of the borehole with approximately 100 gallons of clean water.
- 8) 6" of pea gravel shall be placed on top of the larger crushed gravel before the bentonite is placed in the hole.
- 9) Bentonite seals shall be a minimum of 2 feet thick.
- 10) Landfill bottom and/or groundwater encountered.
- 11) If during the drilling of a gas well borehole landfill bottom and/or groundwater is encountered, the Contractor shall stop drilling and immediately alert the County. The Contractor shall backfill and seal the borehole with bentonite clay two (2) feet above the bottom of the landfill or five (5) feet above the groundwater table. The Payment shall be based on the maximum depth reached prior to backfill with bentonite, provided the depth was less than the depth shown on the Project Drawings or as requested by the County.
- 12) If the groundwater encountered is determined by the County to be the upper aquifer, the Contractor shall seal the borehole with bentonite to an elevation five (5) feet above the water table and construct the gas extraction well above the seal.
- 13) The Contractor shall re-drill any borehole that caved in due to loose refuse or because it was not completed until the next working day. The Contractor shall not be compensated for caved boring.
- 14) In the event that a well is not completed by the end of the day and is to be left open, the Contractor shall seal the borehole by placing an impermeable membrane and heavy plywood or steel plate over the opening and lowering the auger over the top of the cover. The Contractor shall post warning signs and shall cordon off the area with safety ribbon and barricades. At all times, the Contractor shall be responsible in enforcing the Health and Safety requirement and secure the construction area.

8.5 MEASUREMENT AND PAYMENT

Measurement of the final quantity of for **Bid Item No. 6** "Drill and Install Vertical Gas Wells from 136 Feet up to 220 Feet" shall be based on based on actual vertical depth in linear feet of well. The installation shall be bid at one unit price. No payment will be made for depth beyond the depths shown in the project drawings unless directed by the County. **Drilling and installing vertical wells from 136 feet up to 220 feet shall be paid for on a completed vertical foot of depth of vertical well (linear foot of borehole depth) basis.**

END OF SECTION

SECTION 9 INSTALL 2" HDPE PIPE

9.1 SUMMARY

The work in this section shall include the Contractor furnishing all labor, supervision, tools, and equipment necessary to install 2" condensate drain pipe. The condensate drain pipe and connections must be constructed in strict accordance with these provisions and the project drawings.

9.2 MATERIALS

9.2.1 HDPE Pipe and Fittings

1. The HDPE pipe supplied in this section shall be 2" diameter SDR 11. The County shall supply the pipe and fittings.
2. HDPE pipe shall conform to the requirements of Section 207-19 of the Standard Specifications unless otherwise indicated on the Plans and Specifications.
3. All landfill gas piping and fittings shall be made from a polyethylene resin Type 3408 except where called out otherwise on the Project Drawings. HDPE pipe shall be protected against U.V. degradation from exposure to the sun.
4. HDPE fittings shall be of material which is compatible with the pipe for the purpose of fusion welding and shall be free from cracks, holes foreign intrusions, voids, or other defects. The minimum "quick-burst" strength of the fittings shall not be less than that of the pipe.

9.2.2 Extra Materials

1. The Contractor shall neatly store for the County, upon verbal request, any extra materials left from the work and paid for in advance by the County. The storage location shall be designated by the County.

9.3 EXECUTION

- 1) The work to be performed under the provision of these Specifications shall be conducted in a manner consistent with standard industry practices for such projects. No portion of this Contract shall relieve the Contractor from all applicable Federal, State, and local regulations pertaining to construction of this Project.
- 2) All HDPE piping shall be joined by butt fusion and in conformance with the manufacturer's recommendations. Laterals shall be joined to the header pipe by fusion welding branch saddles using a McElroy Sidewinder Chain Clamp Fusion Unit or equivalent or with the use of tees.
- 3) Fusion welding of HDPE pipe shall be performed by a qualified person. The pipe supplier shall verify the qualifications of the pipe installer, and the Contractor shall submit a copy of this verification to the County. No pipe shall be installed prior to submittal of the verification.
- 4) Flange alignment shall be perpendicular to pipe center line and shall not exceed plus or minus 1/32 of an inch in tolerance measured at the flange O.D.
- 5) Pipe cutting shall be done only with mechanical cutters.
- 6) All pipes 2 inches and larger shall be flanged at the weld ends and welded with full penetration butt welds.
- 7) When mating to piece of equipment with a flat-face flange, the corresponding pipe flange shall also be flat faced. Otherwise, all flanges shall be raised face.

- 8) Prior to connecting new sections of pipe to the existing collection system, the new pipe shall be flushed with water until only clean water comes out.
- 9) There will be approximately two fittings per one-hundred feet of piping. Fittings are defined as but not limited to: elbows, reducers, flange adapters, tees, and saddles. The cost of this bid item shall include the installation of these fittings.

9.4 MEASUREMENT AND PAYMENT

Measurement of the final quantity of for **Bid Item No. 7** “Install 2” HDPE Pipe” shall be based on actual linear feet of pipe installed. All work is to be paid for at a contract price per unit of measurement and will be measured by the County in accordance with United States Standard measures. The installation shall be bid at one unit price. **Install 2” diameter HDPE pipe shall be paid for on a per linear foot of installed pipe basis.**

END OF SECTION

SECTION 10 INSTALL 3", 4", AND 6" HDPE LATERAL PIPE

10.1 SUMMARY

The work in this section shall include the Contractor furnishing all labor, supervision, tools, and equipment necessary to install lateral piping new vertical LFG collection lateral piping. The 3", 4" and 6" HDPE lateral pipes must be constructed in strict accordance with these specifications and the Project Drawings.

10.2 MATERIALS

10.2.1 HDPE Pipe and Fittings

1. The HDPE pipe supplied in this section shall be 3", 4", and 6" diameter SDR 11 or 17. The County shall supply the pipe and fittings.
2. HDPE pipe shall conform to the requirements of Section 207-19 of the Standard Specifications unless otherwise indicated on the Plans and Specifications.
3. All landfill gas piping and fittings shall be made from a polyethylene resin Type 3408 except where called out otherwise on the Project Drawings. HDPE pipe shall be protected against U.V. degradation from exposure to the sun.
4. HDPE fittings shall be of material which is compatible with the pipe for the purpose of fusion welding and shall be free from cracks, holes foreign intrusions, voids, or other defects. The minimum "quick-burst" strength of the fittings shall not be less than that of the pipe.

10.2.2 Pipe Clamps and Anchors

The Contractor will install one 3", 4", and 6" diameter pipe clamp support for each new lateral pipe near the well head as shown in the Project Drawings. The County shall supply the pipe clamps and anchors. The Contractor shall install pipe or rebar to anchor the pipe clamp support to the ground. A pipe clamp is to be installed only at the end of each lateral to anchor near the existing header and the well head. The project drawings show details of the installation.

10.2.3 Extra Materials

1. The Contractor shall neatly store for the County, upon verbal request, any extra materials left from the work and paid for in advance by the County. The storage location shall be designated by the County

10.2.4 Miscellaneous Parts

All 1 ¼" steel pipe anchors shall be schedule 40 black or galvanized pipe. All rebar shall be billet steel conforming to ASTM A 615 and shall be either Grade 40 or 60.

10.3 EXECUTION

- 1) The work to be performed under the provision of these Specifications shall be conducted in a manner consistent with standard industry practices for such projects. No portion of this Contract shall relieve the Contractor from all applicable Federal, State, and local regulations pertaining to construction of this Project.
- 2) All HDPE piping shall be joined by butt fusion and in conformance with the manufacturer's recommendations. Laterals shall be joined to the header pipe by fusion welding branch saddles using a McElroy Sidewinder Chain Clamp Fusion Unit or equivalent or with the use of tees.

- 3) Fusion welding of HDPE pipe shall be performed by a qualified person. The pipe supplier shall verify the qualifications of the pipe installer, and the Contractor shall submit a copy of this verification to the County. No pipe shall be installed prior to submittal of the verification.
- 4) Flange alignment shall be perpendicular to pipe center line and shall not exceed plus or minus 1/32 of an inch in tolerance measured at the flange O.D.
- 5) Pipe cutting shall be done only with mechanical cutters.
- 6) All pipes two (2) inches and larger shall be flanged at the weld ends and welded with full penetration butt welds.
- 7) When mating to piece of equipment with a flat-face flange, the corresponding pipe flange shall also be flat faced. Otherwise, all flanges shall be raised face.
- 8) Infra-just pipe supports and pipe anchors shall be installed at the end of each lateral near the header pipe. Pipe anchors shall be driven into the ground a minimum of 30". Sharp edges on pipe ends shall be filed down.
- 9) Prior to connecting new sections of pipe to the existing collection system, the new pipe shall be flushed with water until only clean water comes out.
- 10) There will be approximately two fittings per one-hundred feet of piping. Fittings are defined as, but not limited to: elbows, reducers, flange adapters, tees, and saddles. The cost of this bid item shall include the installation of these fittings.

10.4 MEASUREMENT AND PAYMENT

Measurement of the final quantity of for **Bid Items No. 8** "Install 3" HDPE Pipe", **No. 9** "Install 4" HDPE Pipe" and **No. 10** "Install 6" HDPE Pipe" shall be based on actual linear feet of pipe installed. All work is to be paid for at a contract price per unit of measurement and will be measured by the County in accordance with United States Standard measures. The installation shall be bid at one unit price. **Install 3", 4", and 6" diameter HDPE lateral pipe shall be paid for on a per linear foot of installed pipe basis.**

END OF SECTION

SECTION 11 INSTALL 8", 10", 12", 16", 18", 20" AND 24" HEADER PIPE

11.1 SUMMARY

The work in this section shall include the Contractor furnishing all labor, supervision, tools, and equipment necessary to install 8", 10", 12", 16", 18", 20", and 24" diameter HDPE SDR11, 17, or 21 mostly above grade header pipe.

11.2 MATERIALS

11.2.1 HDPE Pipe and Fittings

1. The HDPE pipe supplied in this section shall be 8", 10", 12", 16", 18", 20", and 24" diameter SDR11, 17, or SDR 21. The County shall supply the pipe and fittings.
2. HDPE pipe shall conform to the requirements of Section 207-19 of the Standard Specifications unless otherwise indicated on the Plans and Specifications.
3. All landfill gas piping and fittings shall be made from a polyethylene resin Type 3408 except where called out otherwise on the Project Drawings. HDPE pipe shall be protected against U.V. degradation from exposure to the sun.
4. HDPE fittings shall be of material which is compatible with the pipe for the purpose of fusion welding and shall be free from cracks, holes foreign intrusions, voids, or other defects. The minimum "quick-burst" strength of the fittings shall not be less than that of the pipe.
5. If the butterfly valve's disk interferes with the inside diameter of the pipe, the Contractor has the option to either remove excess material from the ID of the pipe flange adapter by machining, add spacers as recommended by supplier, or use a flange adapter with a thickness that will allow the valve to clear the pipe.

11.2.2 Pipe Clamps and Anchors

The Contractor will install 8", 10", 12", 16", 18", 20" and 24" pipe clamps for anchoring the new 8", 10", 12", 16", 18", 20" and 24" diameter header pipe in place. The county shall supply the pipe clamps and anchors. The Contractor shall install pipe or rebar to anchor the pipe clamps to the ground. The pipe clamps are to be installed every 70' along the new section of header to secure the pipe in place. The project drawings show details of the installation.

11.2.3 Rebar

The Contractor shall install rebar of County approved size on the downhill side of the pipe every 10' along the relocated header pipe. The County shall supply the rebar. The rebar shall be driven into the ground a minimum of 18" and shall extend several inches above the header pipe. The Contractor is to install OSHA approved plastic safety caps on each rebar installed.

11.2.4 Valves

1. Butterfly valves used in the landfill gas collection system, supplied by the County, shall be 150 lb. Full lug cast iron body with stainless steel disk, 316 stainless steel stem, and Viton liner or approved equal. Valve bodies may be painted.
2. All bolting for valves shall be 316 SS.
3. The 8", 10", 12", 16", 18", 20" and 24" butterfly valve shall have a gear operator with a valve position indicator.

4. All butterfly valves shall be installed so that the valve stem is located on the vertical axis and the operator is located at the top of the valve.
5. Valve installation shall be per the manufacturer's specifications.

11.2.5 Extra Materials

1. The Contractor shall neatly store for the County, upon verbal request, any extra materials left from the work and paid for in advance by the County. The storage location shall be designated by the County.

11.2.6 Miscellaneous Part

1. All bolts, washers and nuts shall be 316 stainless steel.
2. All flange gaskets shall be made of Neoprene.
3. Rebar stakes shall be billet steel conforming to ASTM A 615 and shall be either Grade 40 or 60. The rebar shall be three feet long and of appropriate diameter as specified by the County.
4. Plastic rebar safety caps shall be per OSHA approved industrial standards.
5. All 1 ¼" steel pipe anchors shall be schedule 40 black or galvanized pipe. All rebar shall be billet steel conforming to ASTM A 615 and shall be either Grade 40 or 60.

11.3 EXECUTION

- 1) The work to be performed under the provision of these Specifications shall be conducted in a manner consistent with standard industry practices for such projects. No portion of this Contract shall relieve the Contractor from all applicable Federal, State, and local regulations pertaining to construction of this Project.
- 2) All HDPE piping shall be joined by butt fusion and in conformance with the manufacturer's recommendations. Laterals shall be joined to the header pipe by fusion welding branch saddles using a McElroy Sidewinder Chain Clamp Fusion Unit or equivalent or with the use of tees.
- 3) Fusion welding of HDPE pipe shall be performed by a qualified person. The pipe supplier shall verify the qualifications of the pipe installer, and the Contractor shall submit a copy of this verification to the County. No pipe shall be installed prior to submittal of the verification.
- 4) Flange alignment shall be perpendicular to pipe center line and shall not exceed plus or minus 1/32 of an inch in tolerance measured at the flange O.D.
- 5) All bolts and nuts must be easily accessible for installation and tightening. All nuts, washers and bolts shall be 316 stainless steel.
- 6) Pipe cutting shall be done only with mechanical cutters.
- 7) All pipes 2 inches and larger shall be flanged at the weld ends and welded with full penetration butt welds.
- 8) When mating to piece of equipment with a flat-face flange, the corresponding pipe flange shall also be flat faced. Otherwise, all flanges shall be raised face.
- 9) Prior to connecting new sections of pipe to the existing collection system, the new pipe shall be flushed with water until only clean water comes out.
- 10) The 8", 10", 12", 16", 18", 20" and 24" header pipe shall be held horizontally in place by installing rebar stakes as shown in the project drawings. After placement, the rebar shall be capped with OSHA approved plastic safety caps.

- 11) Infra-just pipe supports and pipe anchors shall be installed on the average of every 70 linear feet or as instructed by the engineer. Pipe anchors shall be driven into the ground a minimum of 30". Sharp edges on pipe ends shall be filed down.
- 12) There will be approximately two fittings per one-hundred feet of piping. Fittings are defined as but not limited to: elbows, reducers, flange adapters, tees, valves and saddles. The cost of this bid item shall include the installation of these fittings

11.4 MEASUREMENT AND PAYMENT

Measurement of the final quantity of for **Bid Items No. 11 through 17** "Install 8" HDPE Header Pipe", "Install 10" HDPE Header Pipe", "Install 12" HDPE Header Pipe", "Install 16" HDPE Header Pipe", "Install 18" HDPE Header Pipe", "Install 20" HDPE Header Pipe", and "Install 24" HDPE Header Pipe" shall be based on actual linear feet of pipe installed. All work is to be paid for at a contract price per unit of measurement and will be measured by the County in accordance with United States Standard measures. The installation shall be bid at one unit price. **Install 8", 10", 12", 16", 18", 20" and 24" diameter HDPE header pipe shall be paid for on a per linear foot of installed pipe basis.**

END OF SECTION

SECTION 12 RELOCATE 2", 3", 4", 6", 8", 10", 12", 16", 18", 20" AND 24" HDPE PIPE

12.1 SUMMARY

The work in this section shall include the Contractor furnishing all labor, supervision, tools, and equipment necessary to relocate existing 2", 3", 4", 6", 8", 10", 12", 16", 18", 20" and 24" diameter HDPE SDR 11, 17 or 21 pipe. The contractor shall cut out and remove all existing reducers, and elbows from the pipe. The pipe shall be re-secured in the new location with infra-just supports and rebar that will be supplied by the County. The Contractor shall make an effort to salvage and re-use rebar and infra-just supports. Existing butterfly valves will need to be relocated and re-installed by the Contractor.

12.2 MATERIALS

12.2.1 HDPE Pipe and fittings

1. HDPE pipe shall conform to the requirements of Section 207-19 of the Standard Specifications unless otherwise indicated on the Plans and Specifications.
2. All landfill gas piping and fittings shall be made from a polyethylene resin Type 3408 except where called out otherwise on the Project Drawings. HDPE pipe shall be protected against U.V. degradation from exposure to the sun.
3. HDPE fittings shall be of material which is compatible with the pipe for the purpose of fusion welding and shall be free from cracks, holes foreign intrusions, voids, or other defects. The minimum "quick-burst" strength of the fittings shall not be less than that of the pipe.
4. If the butterfly valve's disk interferes with the inside diameter of the pipe, the Contractor shall remove excess material from the ID of the pipe flange adapter by machining, until the valve is clear from hitting the pipe.

12.2.2 Pipe clamps and anchors

The pipe clamps for the relocation of the 2", 3", 4", 6", 8", 10", 12", 16", 18", 20" and 24" diameter header pipe may be salvaged from the existing location of the pipe and installed with new pipe or rebar supplied by the Contractor. The pipe clamps are to be installed every 70' along the relocated header to secure the pipe in place. The project drawings show details of the installation.

12.2.3 Rebar

The Contractor shall install minimum of #4 (1/2" diameter) rebar on the downhill side of the pipe every 10' along the relocated header pipe. The rebar diameter will depend on the diameter of the pipe being relocated and will be decided by the County. The rebar shall be driven into the ground a minimum of 18" and shall extend several inches above the header pipe. The Contractor is to install plastic safety caps on each rebar installed.

12.3 EXECUTION

- 1) The work to be performed under the provision of these Specifications shall be conducted in a manner consistent with standard industry practices for such projects. No portion of this Contract shall relieve the Contractor from all applicable Federal, State, and local regulations pertaining to construction of this Project.
- 2) All HDPE piping shall be joined by butt fusion and in conformance with the manufacturer's recommendations. Laterals shall be joined to the header pipe by fusion welding branch saddles using a McElroy Sidewinder Chain Clamp Fusion Unit or equivalent or with the use of tees.

- 3) Fusion welding of HDPE pipe shall be performed by a qualified person. The pipe supplier shall verify the qualifications of the pipe installer, and the Contractor shall submit a copy of this verification to the County. No pipe shall be installed prior to submittal of the verification.
- 4) Flange alignment shall be perpendicular to pipe center line and shall not exceed plus or minus 1/32 of an inch in tolerance measured at the flange O.D.
- 5) All bolts and nuts must be easily accessible for installation and tightening. All nuts, washers and bolts shall be 316 stainless steel.
- 6) Pipe cutting shall be done only with mechanical cutters.
- 7) All pipes 2 inches and larger shall be flanged at the weld ends and welded with full penetration butt welds.
- 8) When mating to piece of equipment with a flat-face flange, the corresponding pipe flange shall also be flat faced. Otherwise, all flanges shall be raised face.
- 9) The 6", 8", 10", 12", 16", 18", 20" and 24" header pipe shall be held horizontally in place by installing rebar stakes as shown in the Project Drawings. After placement, the rebar shall be capped with plastic safety caps.
- 10) Infra-just pipe supports and pipe anchors shall be installed on the average of every 70 linear feet or as instructed by the engineer. Pipe anchors shall be driven into the ground a minimum of 30". Sharp edges on pipe ends shall be filed down.
- 11) Prior to connecting relocated sections of pipe to the existing collection system, the new pipe shall be flushed with water until only clean water comes out.
- 12) There will be approximately two fittings per one-hundred feet of piping. Fittings are defined as, but not limited to: elbows, reducers, flange adapters, tees, and saddles. The cost of this bid item shall include the installation of these fittings

12.4 MEASUREMENT AND PAYMENT

Measurement of the final quantity of for **Bid Items No. 18 through 28** "Relocate 2" HDPE Pipe", "Relocate 3" Lateral Pipe", "Relocate 4" Lateral Pipe", "Relocate 6" Header Pipe", "Relocate 8" Header Pipe", "Relocate 10" Header Pipe", "Relocate 12 Header Pipe", "Relocate 16"Header Pipe", "Relocate 18 Header Pipe", "Relocate 20 Header Pipe", and "Relocate 24 Header Pipe", shall be based on actual linear feet of pipe relocated and installed. All work is to be paid for at a contract price per unit of measurement and will be measured by the County in accordance with United States Standard measures. The installation shall be bid at one unit price. **Relocation of 2", 3", 4", 6", 8", 10", 12", 16", 18", 20", and 24" diameter HDPE header pipe shall be paid for on a per linear foot of relocated pipe basis.**

END OF SECTION

SECTION 13 INSTALL OR RELOCATE WELL MONITORING ASSEMBLY

13.1 SUMMARY

The work in this section shall include the Contractor furnishing all labor, supervision, tools, and equipment and necessary to install new or relocate existing monitoring assemblies. The new monitoring assemblies will be provided by the County and installed by the Contractor. The Contractor shall install any saddles, additional elbows, or any other required fittings for this installation. The well monitoring assemblies must be installed in strict accordance with these provisions and the Project Drawings.

13.2 MATERIALS

13.2.1 HDPE Pipe and Fittings

1. HDPE pipe shall conform to the requirements of Section 207-19 of the Standard Specifications unless otherwise indicated on the Plans and Specifications.
2. All landfill gas piping and fittings shall be made from a polyethylene resin Type 3408 except where called out otherwise on the Project Drawings. HDPE pipe shall be protected against U.V. degradation from exposure to the sun.
3. HDPE fittings shall be of material which is compatible with the pipe for the purpose of fusion welding and shall be free from cracks, holes foreign intrusions, voids, or other defects. The minimum "quick-burst" strength of the fittings shall not be less than that of the pipe.

13.3 EXECUTION

- 1) The work to be performed under the provision of these Specifications shall be conducted in a manner consistent with standard industry practices for such projects. No portion of this Contract shall relieve the Contractor from all applicable Federal, State, and local regulations pertaining to construction of this Project.
- 2) All HDPE piping shall be joined by butt fusion and in conformance with the manufacturer's recommendations. Laterals shall be joined to the header pipe by fusion welding branch saddles using a McElroy Sidewinder Chain Clamp Fusion Unit or equivalent or with the use of tees.
- 3) Fusion welding of HDPE pipe shall be performed by a qualified person. The pipe supplier shall verify the qualifications of the pipe installer, and the Contractor shall submit a copy of this verification to the County. No pipe shall be installed prior to submittal of the verification.
- 4) Flange alignment shall be perpendicular to pipe center line and shall not exceed plus or minus 1/32 of an inch in tolerance measured at the flange O.D.
- 5) Pipe cutting shall be done only with mechanical cutters.
- 6) All pipes 2 inches and larger shall be flanged at the weld ends and welded with full penetration butt welds.
- 7) When mating to piece of equipment with a flat-face flange, the corresponding pipe flange shall also be flat faced. Otherwise, all flanges shall be raised face.
- 8) Rubber reducer couplings of the appropriate size with stainless steel clamps are included with the monitoring assemblies and should be properly connected by the Contractor.

13.4 MEASUREMENT AND PAYMENT

Measurement of the final quantity of for **Bid Items No. 29.1 and 29.2**, "Install Monitoring Well Assembly" and "Relocate Monitoring Well Assembly" respectively, shall be based on per each

monitoring assembly installed. The installation shall be bid one per each price. **Install or re-locate well monitoring assemblies shall be paid for on an each basis for each assembly installed.**

END OF SECTION

SECTION 14 DRILL PROBE BORE-HOLES USING AIR ROTARY DRILL RIG

14.1 SUMMARY

The work in this section shall include the Contractor furnishing all labor, supervision, air rotary drill rig tools and equipment necessary to drill eight (8) inch diameter holes into native bedrock material.

14.2 MATERIALS

No materials are needed to drill bore-holes.

14.3 EXECUTION

- 1) The County will stake the actual probe locations.
- 2) If during the drilling of a probe borehole groundwater is encountered, the Contractor shall stop drilling and immediately alert the County. The Contractor shall backfill and seal the borehole with bentonite clay from the bottommost location of the casing to five (5) feet above groundwater table. Payment will be for drilling only on a per foot basis. The Payment shall be based on the maximum depth reached prior to backfill with bentonite, provided the depth was less than the depth shown on the Project Drawings or as requested by the County. The County will reimburse the Contractor upon presentation of invoices documenting the cost, for any extra bentonite used to seal a hole if groundwater is encountered.
- 3) The Contractor shall re-drill any borehole that caved in due to loose material. The Contractor shall not be compensated for caved boring.
- 4) In the event that a well is not completed by the end of the day and is to be left open, the Contractor shall place ¾" thick plywood or steel plate over the opening and put at least 100 pounds of sand or bentonite bags on top of the plate. The Contractor shall post warning signs and shall cordon off the area with safety ribbon and barricades. At all times, the Contractor shall be responsible for enforcing the Health and Safety requirement and secure the construction area.

14.4 MEASUREMENT AND PAYMENT

Measurement of the final quantity of for **Bid Item No. 30** "Drill Probe Boreholes Using Air Rotary Drill Rig" shall be based on per linear foot drilled. All work is to be paid for at a contract price per unit of measurement and will be measured by the County in accordance with United States Standard measures. **Drill Probe Boreholes Using Air Rotary Drill Rig shall be paid for on a per linear foot basis.**

END OF SECTION

SECTION 15 INSTALL MULTI-LEVEL PROBE

15.1 SUMMARY

- 1) Installation of the multi-level probes shall consist of installing solid and screened PVC pipe, fittings, bentonite and sand, all in accordance with details as indicated on the Project Drawings and as specified herein.
- 2) The work in this section shall include the Contractor furnishing all, labor, supervision, tools and equipment necessary to install multi-level probes. The County shall supply one-half inch diameter solid PVC square thread pipe, one-half inch perforated PVC square thread pipe, one-half inch diameter PVC slip caps, sand, bentonite and water.
- 3) Individual lengths of probes within each borehole may be changed by the County following drilling depending on the geologic profile of the borehole. The probes shall then be constructed according to the County Geologist/Civil Engineer.
- 4) There shall be up to four probes in each borehole. The Project Drawings show the corresponding borehole depths, and approximate probe depths.
- 5) All screened casing and solid casing used in the construction of the probes shall be 1/2" diameter flush thread unless otherwise approved by the County. The screened pipe shall be installed as indicated on the well details. All PVC casing and fittings in the probes shall be schedule 40 unless otherwise approved by the County.
- 6) The cost of drilling, backfill, installation, storage of excavated material related to the installation of the probes shall be included in the probe construction costs.
- 7) The minimum diameter of the hole drilled for the borehole shall be 8" as indicated on the Project Drawings.
- 8) The Contractor shall maintain a log for each hole drilled. The minimum information required on the log are:
 1. Probe depth
 2. Probe screen intervals
 3. Sand top and bottom depths
 4. Bentonite seal top and bottom depths
 5. Native backfill top and bottom depths
 6. Time of day, drill information, equipment used, and any problems encountered.
 7. Type of drill rig, and driller's and driller assistant(s) name
 8. Complete and detailed description of materials used in well construction, including; length, diameter, and type of casing; screen interval; screen size and perforation pattern; sand and bentonite size and type; and amount of water added to bentonite seals down hole.
 9. The probe log form shall be completed by the Contractor in its entirety and submitted to the County for review and acceptance. Probe construction shall not be considered complete until the well log has been accepted as complete by the County.
 10. The Contractor shall comply with all safety procedures for probe construction included in these Special Provisions and Contractor's Safety Plan.

11. The unit price for installation of each probe shall be per vertical foot of probe installed. The measurement of the probe for payment shall be from the bottom of the borehole to existing grade.
12. The County must approve the depth measurement procedures used by the Contractor. The County may verify measurements as the County deems appropriate.
13. The Contractor shall submit to the County samples of the bentonite, sand and any other materials requested by the County. The Contractor shall provide the name of the materials suppliers and shall maintain the same sources throughout the work. Change of source shall require the County's approval.
14. The Contractor shall cease drilling if groundwater is encountered as directed by the County. The Contractor shall not be compensated for drilling deeper than the indicated depth on the plans or than that specified by the County.

15.2 MATERIALS

15.2.1 Pipe and Parts

1. The County shall supply one-half inch diameter solid PVC square thread pipe. The County shall supply one-half inch perforated PVC square thread pipe. All screened pipe sections shall be five or ten feet in length and have a slot size of 0.02" and be Johnson or Monoflex brand or approved equivalent.
2. The County shall supply one-half inch diameter PVC slip caps.

15.2.2 Sand, Bentonite and Water

1. The County shall provide fifty (50) or one-hundred (100) pound bags of clean, graded, kiln dried Monterey RMC Lonestar "Lapis Luster" #3 sand or equal. The backfill around the screened section shall consist of No. 3 sand, (8 x 20) Lapis Lustre sand and be RMC Pacific Materials Lonestar Brand or equal.
2. The County shall supply bags of Wyoming Bentonite, Enviroplug Granular Medium sized pellets or equal. Bentonite granular chips shall be used for probe seals.
3. The County shall supply water to fill the Contractor's tank to hydrate the bentonite.

15.3 EXECUTION

15.3.1 Installation

1. The borehole for the probe shall be straight and the probe shall be installed as shown on the Project Drawings. During the backfill operation, the Contractor shall take all necessary precautions to install the probe casings vertically and to keep them from touching or overlapping. If the PVC casing is installed severely out of plumb, the Contractor at its own expense will correct the alignment.
2. If during the drilling of the probe borehole an obstruction is encountered such that the probe well cannot be completed as called for in the Project Drawings, the County shall be consulted whether the borehole has advanced to a sufficient depth. If, in the opinion of the County, the borehole has reached a sufficient depth, the Contractor will be required to complete the probe and he will be compensated based on the finished depth actually reached, at the unit price included in the bid. If, in the opinion of the County, the borehole has not reached a sufficient depth to function as an effective probe, the Contractor will abandon this borehole by

backfilling it with soil. The upper five feet backfill of soil in the borehole shall be compacted. The Contractor will be compensated only for feet drilled in the abandoned hole at the unit price included in the bid.

3. The top of the each probe shall be capped immediately following installation. Each probe will have its depth written on the pipe casing adjacent to the cap with a water proof permanent marker.
4. Bentonite seals shall be a minimum of five (5) feet thick. Ten (10) gallons of clean water shall be poured slowly down the 8" dual wall casing to hydrate each five foot section of bentonite seal.
5. Care will be taken not to bridge any material inside the borehole. Sand, bentonite, native backfill, and any other backfill material utilized in place of native material, shall be poured down the borehole at a slow steady pace. Care must be taken so that no foreign objects, such as paper, weeds, or small rocks enter the borehole. In the event that a borehole casing is not utilized, a tremie must be utilized for all backfill material and material shall not be allowed to freefall more than 20 feet from the bottom of the tremie.
6. Sand shall be placed one foot above the uppermost screen interval so that the bentonite does not accidentally seal the probe.
7. No glue or solvent of any kind shall be used in the drilling or construction of the multi-level probes.
8. Native backfill material can be tailings from the borehole as long as the material is free of debris and is filtered through 1/16" wire mesh screen. If the tailings are too coarse, on-site material can be used instead. The on-site material would have to be screened as well.
9. Ten gallons of clean potable water shall be used to hydrate each minimum five foot level of bentonite plug. The County shall supply potable water to the Contractor.
10. The bentonite granules shall be hydrated in the borehole.

15.3.2 Disposal of Excavation Material

The Contractor shall be responsible for the disposal of all excavated material in accordance with these Special Provisions, including Section 17 "Disposal of Refuse and Construction Debris".

15.4 MEASUREMENT AND PAYMENT

Measurement of the final quantity of for **Bid Item No. 31 "Install Multi-level Probe"** shall be based for each linear foot installed. All levels shall be measured and added together to attain the per-linear foot quantity. The installation shall be bid at per foot unit price. **Install multi-level probe shall be paid for on a per-linear foot of installed probe basis.**

END OF SECTION

SECTION 16 INSTALL STEEL MULTI-LEVEL PROBE PROTECTOR

16.1 SUMMARY

- 1) The County will supply to the Contractor six (6) inch by six (6) inch square by five (5) foot long steel protective sleeves with lockable hinged lid. The protective steel sleeve will have been already painted yellow by the County. The Contractor shall install the steel protective cover over each multi-level probe cluster on each bore-hole as indicated in the Project Drawings and as specified herein.
- 2) The Contractor shall furnish all labor, materials, equipment and incidentals necessary to perform all excavation, backfill, placement of concrete required to complete the work shown on the Project Drawings and specified herein. The work shall include, but not necessarily be limited to excavating soil around the steel protective sleeve, placement of concrete, disposal of waste and surplus materials.

16.2 MATERIALS

16.2.1 Protective Steel Sleeve with Lockable Lid

1. The County will provide to the Contractor six (6) inch by six (6) inch square by five (5) foot long steel protective sleeves with lockable hinged lid.
2. The Contractor will provide sixty (60) or ninety (90) pound bags of ready to use concrete mix. Unless otherwise indicated, Concrete shall have a minimum 28 day compressive strength of 3,000 psi.
3. The Contractor shall supply a thirty (30) inch cardboard column tubing, one-foot in height of White Cap or approved equivalent brand.
4. The County will supply water.

16.3 EXECUTION

- 1) The Contractor shall excavate and/or backfill and compact soil and protect the probes and steel sleeve in a manner to allow the placement of the concrete ring. No concrete is to be placed in the inside of the steel sleeve or in such a manner that the concrete is underneath the steel sleeve or near the probes. The steel sleeve shall be placed over the probes within the 8" diameter bore-hole, on top of the bentonite, before the concrete is poured.
- 2) Concrete shall be poured to fill around the outside of the 6" x 6" square protective steel sleeve and within the 30" cardboard tubing. The steel sleeve shall be adjusted until it is vertical. The area around the sleeve shall be leveled so that the tubing sits level on the ground.
- 3) Contractor shall provide a concrete washout, in compliance with state NPDES requirements. See Digital Appendix 1 for appropriate concrete washout procedures.

16.4 MEASUREMENT AND PAYMENT

Measurement of the final quantity of for **Bid Item No. 32** "Install Steel Multi-level Probe Protector" is based on a lump sum basis per pit constructed. All work is to be paid for at a contract price per pit constructed. Steel Multi-level Probe Protector installation shall be paid for in per each unit constructed basis.

END OF SECTION

SECTION 17 DISPOSAL OF REFUSE AND CONSTRUCTION DEBRIS

17.1 SUMMARY

- 1) During the course of this Contract, excavated refuse, contaminated soil and debris, hereafter referred to as "normal waste material", will require legal disposal and shall not be used as backfill material.
- 2) The County shall determine whether any excavated material should be classified as waste material or hazardous material.
- 3) Hazardous Material
 1. In the event the County or the Contractor suspects any excavation material may be hazardous (as defined by State and Federal Regulations) the Contractor shall stockpile the suspect material in a separate location from the rest of the excavated material. The suspected hazardous material shall not be used as backfill.
 2. The County will make the appropriate analyses to determine if the suspected hazardous material is hazardous by State and Federal Regulations.
 3. If hazardous materials are excavated from the landfill, the County will coordinate proper disposal.
- 4) Normal waste material and soil cuttings not used as backfill shall be disposed of on site at locations designated by the County.
- 5) Disposal operations shall not create unsightly or unsanitary nuisances.

17.2 MATERIALS

The Contractor must provide a dump truck or trailer and qualified operator.

17.3 EXECUTION

- 1) The Contractor shall be responsible for the complete removal and disposal of all waste material and soil cuttings each day.
- 2) The contractor shall load waste material and soil cuttings directly into a truck or trailer upon removal from the trench or drilling operation.
- 3) The Contractor shall ensure that no waste material or soil cuttings shall extend above the sides or rear of the truck or trailer during transport. The Contractor shall provide covers for the truck or trailer during off-site transport and prior to leaving the work area.
- 4) The Contractor shall keep the landfill surface and all roads free of excavated solid materials. Any excavated material dropped during transport shall be immediately picked up and disposed of properly at the designated disposal site.
- 5) All materials that are listed as hazardous by a Federal or State agency shall be considered "Hazardous Materials" and handled accordingly.
- 6) All excavated material suspected of being hazardous shall be stockpiled, covered by the Contractor with plastic sheeting, and protected until the final determination of hazardous classification is made by the County.
- 7) The cost for handling, transporting, and disposal of normal waste materials on site shall be included in the Contractor's unit bid price for the construction of the horizontal and vertical landfill gas extraction wells and trenching for road crossings. However, there shall be no cost to

the Contractor by the County to place excavated material on the working face of the Badlands and Lamb Canyon landfill.

- 8) All normal waste materials must be disposed of on a daily basis on site at locations designated by the County and thirty (30) minutes prior to closing of disposal operations. Normal waste materials disposed of less than 30 minutes prior to closing will be subject to back charges by the County for equipment and overtime costs.

17.4 MEASUREMENT AND PAYMENTS

The disposal of refuse from horizontal collection well trenches, vertical well bore holes, and road crossing trenches is included in the **Bid Items No. 2, 3, 4, 5, and 6.**

END OF SECTION

SECTION 18 DEMOBILIZATION

18.1 SUMMARY

Demobilization shall include but not be limited to cleaning installations and the removal of equipment as required by the County. Throughout all phases of construction, including suspension of work and until final acceptance of the project, the Contractor shall keep the work areas clean and free of refuse generated as a result of the Contractor's operations. Any such refuse shall be disposed of in the designated disposal area or as directed by the County.

18.2 MATERIALS

The final condition of the construction site shall be subject to approval by the County.

18.3 EXECUTION

The Contractor shall remove and properly dispose of all refuse from the construction site. The County shall have the right to determine what is refuse, and to determine the manner and placement of on-site disposal. Any hydrocarbon-impacted soils found at the site as a result of the construction operation, such as equipment maintenance, shall be removed and properly disposed of at the Contractor's expense.

18.4 MEASUREMENT AND PAYMENT

Demobilization as shown in **Bid Item No. 33.1 and 33.2** "Demobilization For New Construction" and "Demobilization For Relocation" respectively, shall be done on a **Lump Sum** basis and shall, at a minimum, consist of placement of excess materials in County designated area, proper cleanup of construction generated debris, and removal of construction equipment. Only one demobilization is to be paid if both new and relocation work has been done under the same mobilization. **Demobilization work shall be paid for in lump sum basis.**

END OF SECTION

SECTION 19 REMOVAL AND RECYCLE/DISPOSAL OF PVC PIPE AT THE CORONA LANDFILL

19.1 SUMMARY

The work planned at the Corona Landfill is to replace approximately 5,800 linear feet of PVC header pipe with HDPE header pipe and reconnect existing HDPE lateral piping. All the existing PVC piping that ranges in size from 4" diameter to 12" diameter will need to be removed from the site and taken for recycling or otherwise properly disposed of.

19.2 EXECUTION

The Contractor shall remove all existing PVC pipe that is replaced with HDPE pipe from the site for proper recycling or disposal. This will include but is not limited to all material handling, cutting, stockpiling, and hauling to another facility for recycling or disposal.

19.3 MEASUREMENT AND PAYMENT

Removal and Recycling/Disposal of PVC pipe at the Corona Landfill as shown in **Bid Item No. 34**, shall be done on a **Linear Foot** basis and shall be based on actual linear feet of PVC pipe removed from the existing collection system. All work is to be paid for at a contract price per unit of measurement and will be measured by the County in accordance with United States Standard measures. **Removal and Recycling/Disposal of PVC Pipe at the Corona Landfill shall be paid for on a per linear foot basis.**

SECTION 20 DISPOSAL OF REFUSE AND CONSTRUCTION DEBRIS

20.1 SUMMARY

- 1) During the course of this Contract, excavated refuse, contaminated soil and debris, hereafter referred to as "normal waste material", will require legal disposal and shall not be used as backfill material.
- 2) The County shall determine whether any excavated material should be classified as waste material or hazardous material.
- 3) Hazardous Material
 1. In the event the County or the Contractor suspects any excavation material may be hazardous (as defined by State and Federal Regulations) the Contractor shall stockpile the suspect material in a separate location from the rest of the excavated material. The suspected hazardous material shall not be used as backfill.
 2. The County will make the appropriate analyses to determine if the suspected hazardous material is hazardous by State and Federal Regulations.
 3. If hazardous materials are excavated from the landfill, they shall be disposed of by the Contractor in the hazardous waste disposal site designated by the County.
- 4) Normal waste material and soil cuttings not used as backfill shall be disposed of on site at locations designated by the County.
- 5) Disposal operations shall not create unsightly or unsanitary nuisances.

20.2 MATERIALS

The Contractor must provide a dump truck or trailer and qualified operator.

20.3 EXECUTION

- 1) The Contractor shall be responsible for the complete removal and disposal of all waste material and soil cuttings each day.
- 2) The contractor shall load waste material and soil cuttings directly into a truck or trailer upon removal from the trench or drilling operation.
- 3) The Contractor shall ensure that no waste material or soil cuttings shall extend above the sides or rear of the truck or trailer during transport. The Contractor shall provide covers for the truck or trailer during off-site transport and prior to leaving the work area.
- 4) The Contractor shall keep the landfill surface and all roads free of excavated solid materials. Any excavated material dropped during transport shall be immediately picked up and disposed of properly at the designated disposal site.
- 5) All materials that are listed as hazardous by a Federal or State agency shall be considered "Hazardous Materials" and handled accordingly.
- 6) All excavated material suspected of being hazardous shall be stockpiled, covered by the Contractor with plastic sheeting, and protected until the final determination of hazardous classification is made by the County.
- 7) The cost for handling, transporting, and disposal of normal waste materials on site shall be included in the Contractor's unit bid price for the construction of the horizontal and vertical landfill gas extraction wells and trenching for road crossings. However, there shall be no cost to

the Contractor by the County to place excavated material on the working face of the Badlands and Lamb Canyon landfill.

- 8) All normal waste materials must be disposed of on a daily basis on site at locations designated by the County and thirty (30) minutes prior to closing of disposal operations. Normal waste materials disposed of less than 30 minutes prior to closing will be subject to back charges by the County for equipment and overtime costs.
- 9) All normal waste from the Mecca II landfill shall be taken to the Coachella Valley Transfer Station located twenty (20) miles North of the Mecca II landfill if hauling away with a dump truck. Utilizing covered roll off containers provided by the area waste hauler is another option. The Coachella Valley Transfer Station is located at 87-011 Landfill Rd., Coachella, CA 92236. The hours of operation are from 8:00 am to 5:00 pm. The Contractor will be reimbursed for each ton of refuse stated on the receipt(s) per **Bid Item No 35** "Disposal of Refuse from Mecca II Landfill".

20.4 MEASUREMENT AND PAYMENTS

Measurement of the final quantity of for Bid Item No. 35 "Dispose of Refuse from Mecca II Landfill" is based on a per ton basis. All work is to be paid for at a contract price per ton disposed refuse. Refuse from Mecca II landfill disposed shall be paid for per each ton basis.

END OF SECTION

SECTION 21 MECCA II COMPOUND- SUPPLY AND INSTALL CONCRETE PAD

21.1 GENERAL

21.1.1 Summary

1. Concrete shall consist of Portland cement, aggregates, water and admixtures when approved for use. Unless otherwise indicated, concrete shall have a 28 day compressive strength of 3500 psi.
2. The Engineer shall approve the use of admixtures, the use of additional cement for higher strength or the use of Rapid-hardening hydraulic cement when not specified.

21.1.2 References

The following references are applicable:

1. ASTM C150, C143, C39, C33
2. ACI
3. Standard Specifications, Section 201-1.

21.1.3 Submittals

1. The Contractor shall submit documents for any material substitution in accordance with Section 7, "Submittals".
2. The Contractor shall furnish a Certificate of Compliance signed by the supplier identifying the cement, the source and quality of concrete aggregates and stating that all comply with the specified requirements.

21.1.4 Quality Assurance

1. The Contractor shall use the specified concrete type, mix, compressive strength and slump. The Contractor shall provide the Engineer with a legible certified weigh master certificate for each load of concrete.
2. Concrete reinforcements shall conform accurately to the dimensions and details as shown on the Drawings or otherwise specified.
3. Concrete delivered shall be subject to slump testing and sample collection for compressive strength verification during placement.

21.2 MATERIALS

21.2.1 General

Materials used in concrete shall conform to Section 201-1.2 of the Standard Specifications.

21.2.2 Reinforcements

Reinforcements shall conform to Section 201-2 of the Standard Specifications.

21.2.3 Concrete Curing Compound

Concrete curing compound shall be used and shall meet Federal Specification TT-C-800, Type I, Class 1 non yellowing with minimum 18 percent solids and a maximum unit moisture loss of

0.039 gm/cm². Approved manufacturer shall be Gifford-Hill "Sealco 800", ProSoCo "Kure and Seal", Protex "Acrychlor", Sonneborn "Kure-N-Seal" or approved equal or the Contractor shall use a 6 mil. polyethylene film for protection during curing.

21.2.4 Strength and Slump

The minimum concrete compressive strength shall be 3000 psi unless otherwise specified. The slump shall not exceed 4 inches at the time it is being placed in conformance with ASTM C150.

21.3 EXECUTION

- 1) Preparation
- 2) The Contractor shall design forms that produce hardened concrete having the shape, lines, and dimensions indicated on the Drawings. Forms shall be substantial and sufficiently tight to prevent leakage and shall be maintained in proper position and accurate alignment. Forms shall be thoroughly cleaned and oiled before concrete is placed.
- 3) The Contractor shall form and position the reinforcements accurately. Reinforcements shall be cleaned thoroughly and maintained in proper position during placement of concrete. Kinked bars shall not be used. Reinforcements shall be cleaned by wire brush or sand blast to remove any dirt.
- 4) When air temperature is above 85 degrees F., the Contractor shall place concrete in compliance with ACI 305 and as specified herein. The Contractor shall cover reinforcements with water-soaked burlap if it becomes too hot and shall fog spray forms, reinforcements and subgrade prior to placing concrete.
- 5) When air temperature is below 40 degrees F, the Contractor shall protect concrete from physical damage or reduced strength in accordance with ACI 306 and as specified herein. The Contractor shall not place concrete on frozen subgrade containing frozen materials. The Contractor shall not use calcium chloride, salt and other materials containing antifreeze agents or chemical accelerators unless otherwise specified by the Engineer.
- 6) The Contractor shall use templates to accurately position anchor bolts and shall use plastic inserts on anchor bolts to provide a clear space around the upper part of the anchor bolt for alignment with pre-drilled holes in equipment.

21.3.1 Application

1. The Contractor shall convey and place concrete by methods which will prevent the separation or loss of the ingredients. The Contractor shall place concrete around all reinforcements and embeds and into the corners of the forms.
2. The Contractor shall place concrete within 1-1/2 hours after mix has been prepared. When the air temperature exceeds 85 degrees F, the time shall be reduced to 45 minutes.
3. The Contractor shall compact concrete thoroughly with immersion-type vibrators. Two vibrators shall be on site during concrete placement. Densification shall be performed within 15 minutes of placement.
4. When using a chute, the Contractor shall provide equipment that will ensure continuous flow. The discharge end of the chute shall have a baffle plate to prevent segregation. The Contractor shall position the chute so that concrete will not need to flow more than 5 feet horizontally.

5. The Contractor shall not drop concrete from the end of the chute at a distance greater than 3 times the horizontal thickness of the layer being placed with a maximum distance of 5 feet. The Contractor shall use a spout (tremie) and maintain the lower end as near to the surface as practicable when these distances are exceeded.
6. Re-tempering of concrete or mortar which shows evidence of initial set shall not be permitted. Such materials are rejected and shall be disposed of.
7. Concrete slabs located outdoors shall have 1/8 inch per foot slope unless specified otherwise on the plans.
8. Epoxy shall be installed per the manufacturer's instructions. Hole size, preparations and set times must be adhered to per the manufacturer's instructions.
9. Concrete slabs shall be placed to avoid water ponding. Ponding in excess of 1/4 inch deep will require the Contractor to re-level the slab using epoxy type material approved by the Engineer at the Contractor's expense.
10. The Contractor shall designate an area for concrete truck clean-up in compliance with the Storm Water Pollution Prevention Plan. The Contractor shall be responsible for safely disposing washed material from the concrete truck.

21.3.2 Curing

1. The Contractor shall apply curing compound in accordance with the manufacturer's recommendations immediately after finishing the concrete.
2. The Contractor shall maintain the concrete moist and protect it from loss of moisture for at least 7 days by either covering it with polyethylene film or using the curing compound.

21.3.3 Finishing

1. The Contractor shall remove fins and other surface projections from all formed surfaces except for surfaces in contact with earth backfill and shall fill with mortar all surface voids and recesses resulting from removal of form ties.
2. The Contractor shall remove the forms without damaging the concrete and only when concrete has hardened sufficiently to support all loads without damage. The Contractor shall fill with mortar all surface voids and recesses resulting from removal of form ties.
3. The Contractor shall provide a "medium broom finish" in the natural direction of drainage.
4. Concrete shall be finished to avoid any localized ponding of water. Low spots are to be built up using a float to provide a uniform finish.

21.3.4 Tests, Inspection

1. The Engineer shall inspect forming and reinforcements prior to placement of concrete. The Contractor shall be responsible for notifying the Engineer 24 hours prior to pouring concrete.
2. All steel shall be free of dirt, loose rust, or foreign materials of any kind at the time of concrete placement.
3. The Concrete Technician will conduct a slump test & mold four test cylinders from each load containing the maximum water content indicated in the design mix. One of the four cylinder shall be test after 7 days of curing. The other three cylinders shall be tested at no more than 28 days after molding. The average compressive strength of the test cylinders shall be at least

the specified minimum compressive strength for the concrete. The minimum strength of any cylinder shall not be less than 85 percent of the specified strength.

21.4 MEASUREMENT AND PAYMENT

Supply and Install Concrete Pad as shown in **Bid Item No. 36.1** shall be paid as per **lump sum** and shall constitute full compensation to the Contractor for all work related to concrete work in the project including but not limited to: furnishing all labor, materials, tools, equipment, subgrade preparation, and incidentals, and for doing all the work involved as shown on the Project Drawings or as directed by the Owner.

END OF SECTION

SECTION 22 MECCA II COMPOUND - SUPPLY AND INSTALL METAL ROOF STRUCTURE

22.1 GENERAL

22.1.1 Summary

4. The Contractor shall furnish all material and labor for installation of two (2) steel 4" c-channel posts (C4 x 5.4), a six foot by six foot 4" steel Cee section (18 gauge 4 x 2.25) frame and six foot by six foot 24 gauge corrugated metal roof panels.
5. Self tapping screws shall be applied through the corrugated roof and into the c-channel. The screws shall be applied every three inches along the top sides, bottom and middle support c-channel. The corrugated roofing panel that are to be place on the vertical 4" c-channel shall be secured with screws every three inches on the sides.
6. An eight inch by eight inch metal plate shall be welded to the bottom of each 4" c-channel post. Four (4) three quarter inch holes shall be drilled through the plate two inches diagonal from each corner.
7. The eight by eight inch plate shall be anchors to the concrete using 5/8" x 6" diameter anchor bolts.
8. The 4" Cee-section shall be welded to the 4" c-channel as shown in the drawing.

22.1.2 Submittals

1. The Roof Contractor shall submit to the Engineer the following information and laboratory test data verifying compliance with the specified design requirements.
 - a. C-channel specifications.
 - b. Data for primer and finish paint materials.
 - c. Roof panel specifications.

22.2 MATERIALS

22.2.1 Roof Panels

1. Roof panels shall be roll-formed panels 24 inch wide with 2 major corrugations, 2 inch high (2 ¾ inch including seam) 24 inch on center. The flat of the panel shall contain cross flutes 6 inch on center perpendicular to the major corrugations the entire length of the panel to reduce wind noise and improve workability.

22.2.2 Structural Steel c-channel

Materials consist of five, 6 foot long 4" Cee section (18 gauge 4 x 2.25) and two 8 1/2 foot long 4" structural c-channel (C4 x 5.4, 5.4lb/ft, and a web of 3/16" thickness).

22.2.3 Painting

Painting of c-channel shall consist of one coat primer and one coat tan paint suitable for steel.

22.3 EXECUTIONS

22.3.1 Roof Panel System Installation

1. All roof panel screws shall be positioned by aligning with underlying steel c-section.

22.3.2 Fasteners

1. All connections of panels to structural members shall be made with self-drilling screws and silicon washers.

22.4 MEASUREMENT AND PAYMENT

Supply and Install Metal Roof Structure as shown in **Bid Item No. 36.2** shall be done on a **lump sum basis** as stated in the Contractor's Proposal and shall constitute full compensation to the Contractor for all work related to Metal Roof Structure work in the project including but not limited to: furnishing all labor, materials, tools, equipment, preparation, and incidentals, and for doing all the work involved as shown on the Project Drawings or as directed by the Owner.

END OF SECTION

SECTION 23 MECCA II COMPOUND - SUPPLY AND INSTALL CHAIN LINK FENCE

23.1 GENERAL

23.1.1 Summary

This section covers the supply and installation sixty-eight linear feet of chain link fence and one four foot wide gate.

23.2 MATERIALS

23.2.1 Materials

1. Post: zinc-coated; Class 1, Grade A or B, steel pipe; Class 3, formed steel sections; or Class 6, steel square sections. Class 4, steel H-section may be used for line posts in lieu of line post shapes specified for the other classes. Line posts shall be of the same class throughout the fence. Terminal (corner, gate, and pull) posts selected shall be of the same class throughout the fence. Gate post shall be either round or square.
2. Rails and Braces: zinc-coated; Class 1, Grade A or B, steel pipe, size SPI Class 3, form steel sections, may be used as braces and rails if Class 3 line posts are furnished.
3. Accessories: Ferrous accessories shall be zinc- or aluminum-coated. Truss rods shall be furnished for each terminal post. Truss rods shall be provided with turnbuckles or other equivalent provisions for adjustment. The wire shall be zinc coated steel wire.
4. Concrete: Use 3/4-inch maximum-size aggregate, and having minimum compressive strength of 2000 psi at 28 days. Grout shall consist of one part Portland cement to three parts clean, well-graded sand and the minimum amount of water to produce a workable mix.
5. Coiled (concertina) Barb Wire: Install around entire length of the fence and the gate on top of the chain link fence.

23.3 INSTALLATION

- 1) Fence shall be installed per manufactures instructions and to the lines and grades indicated. The area on either side of the fence line shall be cleared to the extent indicated. Line post shall be spaced equidistant at intervals not exceeding 10 feet. Terminal (corner, gate, and pull) posts shall be set at abrupt changes in vertical and horizontal alignment. Fabric shall be continuous between terminal posts; however, runs between terminal posts shall not exceed 500 feet.
- 2) POSTS: Posts shall be set plumb and in alignment. Except where solid rock is encountered, line posts shall be set in concrete to the depth of 30 inches and intermediate, corner, end and gate posts shall be set in concrete to the depth of 36 inches. Where solid rock is encountered with no overburden, posts shall be set to a minimum depth of 18 inches in rock. Where solid rock is covered with an overburden of soil or loose rock, posts shall be set to a minimum depth of 36 inches unless a penetration of 18 inches in solid rock is achieved before reaching the 36-inch depth in which case depth of penetration shall terminate. All portions of posts set in rock shall be grouted. Portions of posts not set in rock shall be set in concrete from the rock to ground level. Posts set in concrete shall be set in grouted steel sleeves, approved brackets or in holes not less than 12 inches in diameter for intermediate, corner, end and gate posts and 9 inches in diameter for line posts. Diameters of holes in solid rock shall be at least one inch greater than the largest cross section of the post. Concrete and grout shall be thoroughly consolidated around each post so as to be free of voids and finished to form a dome. Concrete and grout shall be allowed to cure for 72 hours prior to attachment of any item to the posts. Class 3 type line posts may be mechanically

driven provided soil conditions are such that the driven posts develop strengths at least equal to posts set in concrete and rock is not encountered. Driven posts shall be set to a minimum depth of 3 feet and shall be protected with drive caps when being set.

- 3) RAILS, BRACES AND TRUSS RODS: Rails, braces and truss rods shall be installed as required and in conformance with the standard practice for the fence furnished. Rails, braces and truss rods shall extend from terminal posts to line posts. Diagonal braces shall form an angle of approximately 40 to 50 degrees with the horizontal.
- 4) TENSION WIRES: Tension wires shall be installed along the top and bottom of the fence line and attached to the terminal posts of each stretch of the fence. Top tension wires shall be installed within the top 1 foot of the installed fabric. Bottom tension wire shall be installed within the bottom 6 inches of the installed fabric. Tension wire shall be pulled taut and shall be free of sag.
- 5) STEEL CHAIN-LINK FENCE: Chain-link fabric shall be installed on the side of the post indicated. Fence shall be attached to terminal posts with stretcher bars and tension bands. Bands shall be spaced at approximately 15-inch intervals. Fabric shall be pulled taut to provide a smooth uniform appearance free from sag. Fence shall be fastened to line posts at approximately 15-inch intervals and fastened to tension wires at approximately 24-inch intervals. Fence shall be cut by untwisting and removing pickets. Splicing shall be accomplished by weaving a single picket into the ends of the rolls to be joined. The bottom of the installed fabric shall be 2 inches (plus or minus 1/2-inch) above the ground.
- 6) PIPE GATES Pipe gates shall be installed at the location indicated. Hinged gates shall be mounted to swing as indicated. Latches, stops, and keepers shall be installed as required. Pipe gates shall be fabricated with steel pipe and shall be fabricated in the shop. Care shall be taken to deform pipe without breaking the steel. Any pipe deformations that demonstrate visible cracking or weakening may be cause for rejecting the pipe gate or shall be repaired at no additional cost to the Owner. All metal gate components (except grease fittings) shall be galvanized.

23.4 EXECUTION

Not Used

23.5 MEASUREMENT AND PAYMENT

The payment for the Supply and Install Chain Link Fence shall be included **Bid Item No. 36.3** Payment shall be done on a **lump sum basis** as stated in the Contractor's Proposal and shall constitute full compensation to the Contractor for all work related to the Chain Link Fence work in the project including but not limited to: furnishing all labor, materials, tools, equipment, sub-grade preparation, and incidentals, and for doing all the work involved as shown on the Project Drawings or as directed by the Owner.

END OF SECTION

SECTION 24 MECCA II COMPOUND - SUPPLY AND INSTALL 2,000-GALLON HDPE CONDENSATE TANK AND MOISTURE SEPARATOR

24.1 SUMMARY

The work in this section shall include the Contractor furnishing all labor, supervision, tools, equipment, and materials necessary to install a 2,000-gallon HDPE tank, seismic/wind kit, forty foot long 4" HDPE SDR 17 header bridge support system, four 2" diameter PVC bulkhead fittings and 2" HDPE condensate U-trap drain pipe from the 4" HDPE lateral pipe to the tank. The condensate drain pipe and connections must be constructed in strict accordance with these provisions and the project drawings.

24.2 MATERIALS

24.2.1 HDPE Pipe and Fittings

1. The condensate HDPE pipe supplied in this section shall be 2" diameter SDR 11. The suspended lateral pipe shall be 4" diameter HDPE SDR 17 pipe.
2. HDPE pipe shall conform to the requirements of Section 207-19 of the Standard Specifications unless otherwise indicated on the Plans and Specifications.
3. All landfill gas piping and fittings shall be made from a polyethylene resin Type 3408 except where called out otherwise on the Project Drawings. HDPE pipe shall be protected against U.V. degradation from exposure to the sun. A molded or fabricated 4" to 2" reducer shall be fused to the bottom of the 4" molded tee to form the condensate drop out point.
4. HDPE fittings shall be of material which is compatible with the pipe for the purpose of fusion welding and shall be free from cracks, holes foreign intrusions, voids, or other defects. The minimum "quick-burst" strength of the fittings shall not be less than that of the pipe.

24.2.2 Moisture Separator

1. The moisture separator shall be constructed of 16" HDPE.
2. The top shall be a 16" blind flange to allow for access.
3. The moisture separator shall have two 4" flanged gas connections. One on the side of the separator acting as the inlet and one on the top acting as the outlet.
4. The moisture separator shall have a 2" flanged connection acting as the fluid drain.
5. The inlet shall have a 1/2" HDPE sheetstock fused at an angle over the inlet deflecting the flow inside the moisture separator.
6. A 4" perforated HDPE pipe shall extend into the separator from the outlet.
7. An alternate moisture separator may be submitted by contractor for approval.

24.2.3 Condensate Tank

1. The condensate tank shall be 2,000-gallon vertical HDPE tank Snyder brand (part # H5050145) or approved equal. The tank shall be 96" diameter and 84" in height.
2. The tank shall be white in color.
3. The tank shall be equipped with a minimum 18" diameter lid.
4. The tank shall be equipped with a seismic zone 4 and 80 mph wind restraint system designed by a Civil Engineer certified in the state of California.

5. The 2" diameter PVC bulkhead fittings (4 total) shall be installed on the top of the tank as shown in the drawings. The bulkhead fitting shall be female threaded.
6. A 2" diameter male threaded stainless steel to HDPE transition fitting shall be used between the PVC bulkhead fitting and 2" HDPE trap piping.

24.2.4 Header Support System

1. Six 12" diameter by 30" long Sono-tube or approved equal brand shall be used to house concrete pillars.
2. Concrete shall be of at least 3,000 PSI compression strength.
3. Seven 10' long 1 5/8" x 1 5/8' uni-strut channel shall be used as support posts.
4. Seven 4" diameter c-clamps shall be used to hold the pipe in place.
5. Seven Power-strut PS3013 single column post base and anchor bolts
6. One 4" diameter metal tie-down clamp and anchor bolts.
7. Four 2" diameter ninety (90) degree HDPE elbows.
8. One 4" flange adapter with epoxy coated cast iron back up ring and stainless steel bolts, washers and nuts.
9. One 4' PVC blind flange with neoprene gasket.

24.2.5 Extra Materials

1. The Contractor shall be responsible for all extra materials resulting from quantity estimating. The cost of such materials shall be borne by the Contractor.
2. The Contractor shall neatly store for the County, upon verbal request, any extra materials left from the work and paid for in advance by the County. The storage location shall be designated by the County

24.3 EXECUTION

- 1) The work to be performed under the provision of these Specifications shall be conducted in a manner consistent with standard industry practices for such projects. No portion of this Contract shall relieve the Contractor from all applicable Federal, State, and local regulations pertaining to construction of this Project.
- 2) All HDPE piping shall be joined by butt fusion and in conformance with the manufacturer's recommendations.
- 3) Fusion welding of HDPE pipe shall be performed by a qualified person. The pipe supplier shall verify the qualifications of the pipe installer, and the Contractor shall submit a copy of this verification to the County. No pipe shall be installed prior to submittal of the verification.
- 4) Flange alignment shall be perpendicular to pipe center line and shall not exceed plus or minus 1/32 of an inch in tolerance measured at the flange O.D.
- 5) Pipe cutting shall be done only with mechanical cutters.
- 6) All pipes 2 inches and larger shall be flanged at the weld ends and welded with full penetration butt welds.
- 7) When mating to piece of equipment with a flat-face flange, the corresponding pipe flange shall also be flat faced. Otherwise, all flanges shall be raised face.

- 8) Splice plate shall be used to connect uni-strut when lengths longer than 10 feet are needed.
- 9) All laterals to be flushed with water before 4" x 2" HDPE reducer is butt-fused to the 4" HDPE tee.

24.4 MEASUREMENT AND PAYMENT

Measurement of the final quantity for **Bid Item No. 36.4** "Supply and Install 2,000 Gallon Condensate Tank " and 36.5 " Supply and Install Moisture Separator" shall be based on **lump sum basis**. All work is to be paid for at a contract price per unit of measurement and will be measured by the County in accordance with United States Standard measures.

END OF SECTION

SECTION 25 AUTHORIZED TIME & MATERIALS WORK

25.1 GENERAL

The County shall have the right to add work of a different character or function, and have the Contractor perform such added work when such work is considered by the County to be appurtenant to the satisfactory completion of the project. "Authorized Time and Materials" shall be made when prior written authorization and approval has been provided to the Contractor by the County for work of a different character or function and for which no basis for payment is prescribed in the Contract Documents.

The Contractor shall provide a rate schedule for all labor and equipment that may reasonably be anticipated to be utilized by the Contractor during the project. Labor rates shall be consistent with those required by the prevailing wage rate requirements of the Contract and shall reflect all benefits and employer costs. Once the labor and equipment rates have been approved by the Project Manager, they will become the basis for compensation for any Time and Material work requested by the County. The Contractor is advised, however, that there will be no compensation from the Time and Material Allocation unless the work has been authorized in writing by the Project Manager.

The signing of the contract by the Contractor will be deemed to be an agreement on his/her part to perform the added work, as and when ordered by the County. If the required added work results in delay to the project, the Contractor will be given an appropriate extension of time.

For the purpose of bidding this project, the County has allocated a total amount of **\$150,000** for this **Bid Item No. 37**. This amount shall be used by all bidders in their bid proposals, with the understanding that the actual final pay amount to the Contractor shall be determined for the authorized work only as indicated above and based on the method described in Section 7.3. of the General Provisions in the Contract Documents. The compensation thus provided shall be considered full payment to the Contractor for the authorized time and material work. Additionally, use of the Time and Material allocation will be at the sole discretion of the County, and all or any portion of the allocation amount may be deleted from the Contract.

END OF SECTION