

Form Name	Attachment No	# Pages
Invitation for Bid- Cover Letter		
Invitation for Bid		
Bid Proposal, ADM 1412	1	1
Bidder Declaration form GSPD-05-105	2	
Contractor Certification Clauses, CCC 307	3	4
Non-Collusion Affidavit for Public Works	4	1
Bid/Bidder Certification Sheet	5	2
Bidder's Acknowledgement of Prevailing Wages	6	1
Darfur Contracting Act	7	1
Required Attachment Checklist	8	1
Quotes from SB or DVBE Subcontractors listed in form GSPD-05-105 (Attachment 2)	9	1
Proposed Standard Agreement, STD 213, Attachment 10	10	32
Controlled Environmental Vault Manual	Appendix 1	32
Work Authorization and Completion Form	Appendix 2	1
Hub Maintenance Activity Report and Instructions	Appendix 3 & 3a	2

YOUR RETURN ADDRESS

Agreement No. 56A0356

Bid Due Date: June 6, 2013

Postage

Department of Transportation
Division of Procurement and Contracts
ATTN: Bid Unit
1727 30th Street, 4th Floor, MS 65
Sacramento, CA 95816-7006

BID SUBMITTAL DO NOT OPEN

DEPARTMENT OF TRANSPORTATION

ADMINISTRATION

DIVISION OF PROCUREMENT AND CONTRACTS MS-67

1727 30th STREET

SACRAMENTO, CA 95816-7006

PHONE (916) 227-6048 or 6000

FAX (916) 227-6007

TTY (800) 735-0193 or (916) 227-2857

INTERNET <http://caltrans-opac.ca.gov>Flex your power!
Be energy efficient

May 20, 2013

INVITATION FOR BID (IFB)
IFB # 56A0356
Notice to Prospective Contractors

You are invited to review and respond to this IFB #56A0356, entitled, "On-Call", as needed maintenance service work for the communications Controlled Environmental Vaults (CEV's) or Hubs in Orange County, Caltrans District 12. In submitting your bid, you shall comply with the instructions found herein. In addition to those programs and preferences that are specified in this solicitation, Prospective Contractors are encouraged to consider programs and preferences that are available, such as those for the use of small businesses, disadvantaged businesses, disabled veteran businesses, and other businesses covered by State and Federal programs and preferences.

As required by Executive Order S-02-06, Department of Transportation (Caltrans) is committed to meeting the State's 25 percent (25%) Small Business (SB) participation goal. Certified SBs, Microbusinesses (MB), and contractors willing to commit to subcontracting a minimum of 25 percent (25%) of their net bid price to certified SBs or MBs, are encouraged to submit bids. See Section D, Special Programs, Item 1, in this IFB for requirements.

A Disabled Veteran Business Enterprise (DVBE) goal is not required, but DVBE participation is encouraged, and a DVBE incentive may apply to this IFB. See Section D, Item 2, in this IFB for requirements.

Note that all contracts entered into with Caltrans will include, by reference, General Terms and Conditions (GTC) and Contractor Certification Clauses (CCC) that may be viewed and downloaded at Internet site <http://www.ols.dgs.ca.gov/Standard+Language>.

This contract requires Prevailing Wages. Refer to attached Proposed Standard Agreement, STD 213, Attachment 10, Exhibit B for requirement details.

The designated contact person for this IFB is:

Betty Graham, Acquisition Analyst
Department of Transportation
(916) 227-6048/Telephone Number
(916) 227-6007/Fax Number

Please note that no *verbal* information given will be binding upon Caltrans unless such information is issued in writing as an official addendum.

*Technical questions regarding this solicitation will be addressed, in writing, and in accordance with the Questions and Answers portion of this IFB. See **Section C Item 1, Time Schedule** for more details.

Sincerely,

BETTY GRAHAM
Acquisition Analyst

Table of Contents

SECTION	PAGE
A) Purpose and Description of Service	1
B) Bidder Minimum Qualifications	1
C) Bid Requirements and Information	1
1. Time Schedule	1
2. Questions and Answers	1
3. Costs Included in Bid Rates	2
4. Employment of Undocumented Workers	2
5. Small Business Preference	2
6. State Prevailing Wages	2
7. Contractor License	3
8. Subcontractor	3
9. Non-Collusion Affidavit for Public Works	3
10. Bonds	3
11. Insurance	3
12. Darfur Contracting Act	4
13. Bid Submittal	4
14. Evaluation and Selection	6
15. Award and Protest	7
16. Standard Conditions of Service	8
D) Special Programs	9
1. Small Business Preference	9
2. Disabled Veteran Business Enterprise (DVBE) Programs	10
Attachments	
1. Bid Proposal, ADM 1412	
2. Bidder Declaration, GSPD 05-105	
3. Contractor Certification Clauses, CCC 307	
4. Non-Collusion Affidavit for Public Works	
5. Bid/Bidder Certification Sheet	
6. Bidder's Acknowledgement of Prevailing Wages Requirements	
7. Darfur Contracting Act	
8. Required Attachment Checklist	
9. Quotes from SB or DVBE Subcontractors listed in form GSPD-05-105 (Attachment 2).	
10. Proposed Standard Agreement, STD 213	
Exhibit A, Scope of Work	
Exhibit B, Budget Detail and Payment Provisions	
Exhibit C, General Terms and Conditions	
Exhibit D, Special Terms and Conditions	
Exhibit E, Additional Provisions	
Appendix 1, Controlled Environmental Vault Manual	
Appendix 2, Work Authorization and Completion Form	
Appendix 3 & 3a Hub Maintenance Activity Report and Instructions	

A) Purpose and Description of Services

Refer to the **Proposed Standard Agreement, STD 213, Exhibit A**, which is attached to this IFB as **Attachment 10** for a more complete description of services.

Contractor agrees to provide "On-Call", as needed maintenance service work for the communications Controlled Environmental Vaults (CEV's) or Hubs for the Department of Transportation (Caltrans), as described in the **Proposed Standard Agreement, STD 213, Exhibit A, Attachment 10**.

B) Bidder's Minimum Qualifications

Bidder must have, at time of bid submittal and for the duration of the contract, have a valid, current **Class A**, General Engineering Contractor License **or a Class B**, General Building Contractors license **with a C-10**, Electrical Contractors license issued by the California Contractors State License Board (CSLB). Anyone who performs work as an electrician for a C-10 Electrical Contractor shall hold an electrical certification card issued by the California Division Apprenticeship Standards (DAS) as required by Labor Code Section 3099.2. C-10 Contractor is required to submit a copy of employee's DAS electrical certification card(s) with its bid for all employees who would provide services under this Agreement. If the Contractor does not submit the DAS electrical certification, The Contractors bid will be rejected.

Subcontracting is allowed for any work other than work that requires a C-10 Electrical license, any work that required a C-10 Electrical license cannot be subcontracted.

The license and certification is a requirement in the **Proposed Standard Agreement, STD 213, Exhibit E**. Attachment 10.

C) Bid Requirements and Information

1. Time Schedule

It is recognized that time is of the essence. All bidders are hereby advised of the following schedule and will be expected to adhere to the required dates and times.

EVENT	DATE	TIME (Pacific Time)
IFB available to prospective bidders	May 20, 2013	
Written Question Submittal	May 27, 2013	
Final Date and Time for Bid Submission	June 6, 2013	2:15 PM
Bid Opening	June 6, 2013	3:00 PM

2. Questions and Answers

- A. Questions regarding this IFB must be submitted in writing. Bidders are encouraged to submit their written questions via Bid Sync by May 27, 2013.

- B. Written questions must include: the individual's name, firm name, complete address and must reference IFB No. 56A0356. Questions must be sent to the following

MAIL OR FAX TO:

Department of Transportation
Division of Procurement and Contracts
Attention: Betty Graham, Acquisition Analyst
1727 - 30th Street, MS-65
Sacramento, CA 95816

Fax No.: (916) 227-6007

- C. Written responses to all questions will be collectively compiled and posted, as an Addendum, to the BidSync website (see below). It is the responsibility of the Bidder to access the website for any changes or addenda that may be posted. Refer to this **IFB, Section C 1, Time Schedule**, for the schedule of events and dates/times. It is the responsibility of the bidder to check BidSync for all addenda. Bidder can contact the Acquisition Analyst named above:

<http://www.bidsync.com/>

3. Costs Included in Bid Rates

Bid prices/rates shall include the cost of employer payments to or on behalf of employees, subsistence, travel, compensation insurance premiums, unemployment contributions, social security taxes, contract bond premiums, and any other taxes or assessments, **including but not limited to, sales and use taxes** required by law or otherwise and no additional allowance will be paid unless separate payment provisions in the Agreement should specifically provide otherwise.

4. Employment of Undocumented Workers

No state agency or department, as defined in California Public Contract Code (PCC) section 10335.7, that is subject to this code, shall award a public works contract to a bidder or contractor, nor shall a bidder or contractor be eligible to bid for or receive a Public Works Agreement, who has, in the preceding five years, been convicted of violating a State or Federal law regarding the employment of undocumented workers (PCC section 6101).

5. Small Business Preference: <http://www.pd.dgs.ca.gov/smbus>

SB Preference will be granted on this IFB. Only firms certified as a "Small Business" or "Microbusiness" with the Department of General Services (DGS), Office of Small Business and DVBE Service (OSDS) or contractors who commit to subcontracting a minimum of 25 percent (25%) of their net bid price to SB or MB, in the categories most appropriate to accomplish the prescribed services, will be granted this preference.

6. State General Prevailing Wage Rates

State General Prevailing Wage Rates will apply for the County(ies) of Orange as described in the attached **Proposed Standard Agreement, STD 213, Attachment 10**. The predetermined general prevailing wage rates published by the Director of Industrial Relations may be obtained via the Internet: <http://www.dir.ca.gov> or from the District or Region Labor Compliance Officer available at the following website address:

<http://www.dot.ca.gov/h56q/construc/LaborCompliance/contactaddress.pdf>. It is the bidder's responsibility to use the correct classification determination published by the Department of Industrial Relations.

7. Contractor License

Bidder must have, at time of bid submittal and for the duration of the contract, have a valid, current **Class A**, General Engineering Contractor License **or a Class B**, General Building Contractors license **with a C-10**, Electrical Contractors license issued by the California Contractors State License Board (CSLB), for the type of work to be performed.

Subcontracting is allowed for any work other than work that requires a C-10 Electrical license, any work that required a C-10 Electrical license cannot be subcontracted.

Bidder shall obtain, pay for and maintain, in good standing, all necessary licenses and permits to accomplish the work. Bidders will be considered non-responsive unless proper licensing requirements are met. An invalid license will result in rejection of the bid. Positive verification of a valid license issued by the CSLB will be performed by Caltrans (reference Business & Professions Code section 7028.15).

Anyone who performs work as an electrician for a C-10 Electrical Contractor shall hold an electrical certification card issued by the California Division Apprenticeship Standards (DAS) as required by Labor Code Section 3099.2. C-10 Contractor is required to submit a copy of employee's DAS electrical certification card(s) with its bid for all employees who would provide services under this Agreement. If the Contractor does not submit the DAS electrical certification, The Contractors bid will be rejected.

8. Subcontractors

Bidder may subcontract portions of the work as defined in the attached Proposed Standard Agreement, STD 213, Attachment 10. If a subcontractor(s) is/are used, complete the Bidder Declaration form GSPD-05-105 (Attachment 2). Subcontracting is allowed for any work other than work that requires a C-10 Electrical license, any work that required a C-10 Electrical license cannot be subcontracted.

Bidder must ensure that the subcontractor(s) will have all necessary licenses, permits, and/or certifications to accomplish its portion of the work. Failure of a subcontractor(s) to have the proper licenses, permits, and/or certifications, shall be cause for rejection of bid.

9. Non-Collusion Affidavit for Public Works

Bidder must submit, as described herein, a notarized Non-Collusion Affidavit for Public Works. The Non-Collusion Affidavit is attached to this IFB as attachment 4. Failure to submit a complete notarized affidavit shall rejection of bid.

10. Bonds

Payment Bond Requirement: The successful bidder will be required to provide, prior to commencement of work under a Task Order, a Payment Bond for 100 percent (100%) of the Task Order price, if the Task Order price is over \$25,000. The Payment Bond is not required at the time of bid submittal; however, it is required, as applicable, prior to the start date of the Task Order. Refer to Bonds in Exhibit D of the Proposed Standard Agreement, STD 213, Attachment 10.

11. Insurance

- A. The bidder, who receives the Agreement award, must provide a Certificate of Insurance providing proof of insurance to the Division of Procurement and Contracts within ten (10) working days from the date of notification of award. The State's Office of Risk and Insurance Management will review insurance certificates and/or proof of self-insurance documentation before execution of the Agreement. Refer to Exhibit E in the attached Proposed Standard Agreement, STD 213, Attachment 10 for the applicable and specific Insurance requirements and coverage limits.
- B. The insurance carrier shall provide an endorsement for the additional insured statement as follows:

The State of California, its officers, agents, employees, and servants shall be included as additional insured, but only with respect to work performed for the State of California under this Agreement.

12. Darfur Contracting Act

- A. The Darfur Contracting Act, PCC section 10475-10481, applies to any company that currently or within the previous three years has had business activities or other operations outside of the United States. The Act was passed by the California Legislature and signed into law by the Governor to preclude State agencies generally from contracting with "scrutinized" companies that do business in the African nation of Sudan (of which the Darfur region is a part), for the reasons described in PCC section, 10475. All bidders shall complete the Darfur Contracting Act Certification form, Attachment 7, and submit with bid.
- B. If your company has not, within the previous three years, had any business activities or other operations outside of the United States, complete Option 1 on the Darfur Contracting Act Certification form, Attachment 7.
- C. A scrutinized company is a company doing business in Sudan as defined in PCC section 10476. Scrutinized companies are ineligible to, and cannot bid on, or submit a proposal for an Agreement with a State agency for goods or services. (PCC section 10477(a)).
- D. Therefore, PCC section 10478 (a) requires a company that currently has (or within the previous three (3) years has had business activities or other operations outside of the United States to certify that it is not a "scrutinized" company when it submits a bid or proposal to a State agency.
- E. A scrutinized company may still; however, submit a bid or proposal for an Agreement with a State agency for goods or services if the company first obtains permission from the Department of General Services (DGS) according to the criteria set forth in PCC section 10477(b).

13. Bid Submittal

- A. All bids must be submitted and received by Caltrans Division of Procurement and Contracts, Bid Unit by dates and times shown in the IFB, Section C) Bid Requirements and Information, Item 1) Time Schedule.
- B. The mailing package/envelope should be labeled as follows:

Note: All packages not clearly or properly labeled as indicated below, including overnight mail and hand delivered packages may be rejected.

YOUR RETURN ADDRESS	Agreement No. 56A0356	postage
	Bid Due Date: June 6, 2013 Bid Due Time: 2:15 P.M. Bid Opening: 3:00 P.M. Attention: Betty Graham	
	Department of Transportation Division of Procurement and Contracts ATTN: BID UNIT 1727 30th Street, 4 TH Floor, MS-65 Sacramento, CA 95816-7006	
BID SUBMITTAL DO NOT OPEN		

- C. **Late bids will not be considered.**
- D. All bids shall include the documents identified on the IFB's Required Attachment Checklist (Attachment 8). Bids not including the required attachment(s) shall be deemed non-responsive. A non-responsive bid is one that does not meet the basic bid requirements.
- E. Only an individual who is legally authorized to bind the proposing firm contractually shall sign all documents requiring a signature, and each document must bear an original ink signature.
- F. If your bid is hand delivered, you must date and time stamp the sealed envelope/package immediately upon arrival. The date/time stamp machine is located in the lobby on the first floor to the right of the security guard station at the address noted above. After date/time stamping, the bid should be placed in the locked bid cabinet located below the time stamp. If the bid package is too large to be electronically stamped, date/time stamp one of the labels provided and attach it to the proposal package. When the bid package is too large for the locked bid cabinet, ask the security guard to call the Division of Procurement and Contracts reception desk at 227-6000 to have your bid package picked up.
- G. Bid opening will be held at the above address at **3:00 PM** on the date specified in Section C - Bid Requirements and Information, Item 1 - Time Schedule. Bidders may participate in person or via teleconference by calling **1-866-700-7952** and entering the pass code **7089821#**. Calls will be accepted beginning at **2:50 PM** until the conclusion of the bid opening. Bids will be read in Agreement numeric order; questions will not be allowed; and information will not be repeated. Bid opening results will be posted online on the Division of Procurement and Contracts web site at <http://caltrans-opac.ca.gov/contracts/bidresults.htm> by 12:00 P.M. on the day

following the bid opening. The Agreement will be awarded to the lowest responsible bidder meeting the requirements outlined in the IFB.

- H. Bids must include the performance of all the services described herein. Any attempt to modify the bid document to deviate from the work specifications will not be considered and will cause a bid to be rejected.
- I. A bid may be rejected if it is conditional, incomplete, or if it contains any alterations of form or other irregularities of any kind. Caltrans may reject any bid on the basis that it is not responsive or from a non-responsible bidder, and may waive any immaterial deviation in a bid. Caltrans waiver of an immaterial defect shall in no way modify the IFB document or excuse the bidder from full compliance with all requirements if awarded the agreement.
- J. Costs for developing bids and in anticipation of award of an Agreement is entirely the responsibility of the bidder and shall not be charged to the State.
- K. Only an individual who is authorized to bind the bidding firm contractually shall sign the Bid/Bidder Certification Sheet (Attachment 5). The signature must also indicate the title or position that the individual holds in the firm. **An unsigned bid may be rejected.**
- L. A bidder may modify a bid after its submission by first withdrawing the original bid and then by resubmitting a new bid prior to the bid submittal deadline. Bidder modifications offered in any other manner, oral or written, will not be considered.
- M. A bidder may withdraw a bid by, prior to bid opening, submitting a written withdrawal request to Caltrans, signed by the bidder or an agent authorized in accordance with Section K above. A bidder may thereafter submit a new bid prior to the bid submittal deadline. Bids may not be withdrawn without cause subsequent to bid submittal deadline.
- N. Caltrans may modify the IFB prior to the date fixed for submission of bids by the issuance of an addendum sent to all parties who received a bid package.
- O. Caltrans reserves the right to reject all bids for reasonable cause.
- P. Bidders are cautioned not to rely on Caltrans during its evaluation process to discover and report to the bidder any defects and/or errors in the submitted documents. Before submitting their documents, bidders should carefully proof them for errors and full adherence to the IFB requirements.
- Q. Where applicable, the bidder should carefully examine work sites and specifications. Bidder shall investigate conditions, character, and quality of surface or subsurface materials or obstacles that might be encountered. No additions or increases to the Agreement amount will be made due to a lack of careful examination of work sites and specifications.
- R. Caltrans does not accept alternate Agreement language from a bidder. A bid with such language will be considered a counter proposal and will be rejected. The State's GTC are not negotiable. The GTC 610 may be viewed at <http://www.ols.dgs.ca.gov/Standard+Language/default.htm>

14. Evaluation and Selection

- A. At the time of bid opening, each bid proposal's total and any small business and/or micro business information (if applicable) will be read aloud. Bids are considered preliminary pending review and verification of applicable bid requirements such as: small business preference, DVBE, DBE, licensing, bonding, qualifications, or other requirements as stated in the IFB. Agreements will be awarded to the lowest responsive responsible bidder.
- B. Each bid will be checked for the presence or absence of required information in conformance with the submission requirements of this IFB. Caltrans will check the bid submittal package to verify it received all required documents. Positive verification of required documents will be performed to determine its responsiveness to the State's needs.
- C. Bids that contain false or misleading statements, or which provide references, which do not support an attribute or condition claimed by the bidder, shall be rejected.
- D. The Agreement, if awarded, shall be awarded to the lowest responsible bidder meeting the specifications. A bid meets the specifications if it complies with all of the requirements in this solicitation. In the event of a tie bid, Caltrans will draw lots to determine the successful bidder. Only one proposal or bid may be submitted by an entity: individual, firm, partnership, corporation, joint venture or combination thereof. Receipt of more than one bid from an entity will result in all bids from that entity being rejected and returned to the bidder.

15. Award and Protest

- A. Bid results may be viewed on the internet at 12:00 P.M. (Noon) on the first business day following the bid due date at <http://caltrans-opac.ca.gov>.
- B. Whenever an Agreement is awarded under a procedure that provides for competitive bidding, but the Agreement is not to be awarded to the low bidder, the low bidder shall be given notice five (5) working days prior to the award of the Agreement by telegram, electronic facsimile transmission, overnight courier, Internet transmission, or personal delivery.
- C. Upon written request by any bidder, notice of the proposed award shall be posted in a public place in the office of the awarding agency at least five (5) working days prior to awarding the Agreement.
- D. Grounds for Filing a Protest: After the issuance of the applicable Agreement award notices as specified in this IFB, the right to protest the proposed award of an Agreement is afforded any bidder who claims it should have been awarded the Agreement because it was the lowest responsible bidder meeting the specifications.
- E. Filing a Protest: The initial protest must be submitted to the Caltrans, Protest Unit prior to the award of the Agreement. When a protest has been submitted, the Agreement shall not be awarded until either the protest has been withdrawn or Caltrans has decided the matter.
- F. Within five (5) days after filing the initial protest, the protesting bidder shall file with Caltrans, Protest Unit with a full and complete written statement specifying the grounds for the protest. The written protest must be sent to the addresses below:

Department of Transportation
Division of Procurement & Contracts
Attention: Bid, Protest, & Dispute Branch Chief
1727 30th Street, MS 65
Sacramento, CA 95816
Phone Number: (916) 227-6096
Fax Number: (916) 227-1950

It is suggested that you submit any protest by certified or registered mail.

- G. Upon award of the Agreement contractor shall complete and submit to Caltrans, the Payee Data Record form (STD 204), to determine if the contractor is subject to State income tax withholding pursuant to California Revenue and Taxation Code section 18662 et seq. This form can be found on the Internet at www.osp.dgs.ca.gov under the heading STANDARD FORMS. No payment shall be made unless a completed STD 204 has been returned to Caltrans.
- H. Prior to the award of the contract, the awarded bidder(s) must sign and submit to Caltrans, page one (1) of the Contractor Certification Clauses (CCC), Attachment 3, or this form can be obtained via the Internet at <http://www.ols.dgs.ca.gov/Standard+Language/default.htm> Bidder may also, as an option, submit the CCC with bid package.

16. Standard Conditions of Service

- A. After award of the Agreement and execution of the Agreement, should the Contractor fail to commence work within five (5) working days after notification of the starting date, or suspend work for a period of five (5) continuous working days after work has begun, Caltrans may provide five (5) calendar days written notice, posted at the job site or mailed to the Contractor, to timely prosecute and complete the work or the Agreement may be terminated and liquidated damages of \$500.00 assessed for administrative costs for re-bidding the work or awarding the work to another Contractor. In addition, that Contractor shall be liable to Caltrans for the difference between the Contractor's bid price and the actual cost of performing the work by the second low bidder or by another Contractor.
- B. All performance under the Agreement shall be completed on or before the termination date of the Agreement.
- C. Antitrust Provisions
 - 1) The Contractor offers and agrees and will require all of his other subcontractors and suppliers to agree to assign to the awarding body all rights, title, and interest in and to all causes of action they may have under Section 4 of the Clayton Act (15 USC 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 (BPC)] arising from purchases of goods, services, or materials pursuant to the public works contract or subcontract. The assignment made by the contractor and all additional assignments made by the subcontractors and suppliers shall be deemed to have been made and will become effective at the time the awarding

body tenders final payment to the Contractor without further acknowledgment or the necessity of tendering to the awarding body any written assignments.

- 2) If an awarding body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under GC sections 4550 - 4554, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, on demand, recover from the public body any portion of the recovery, including treble damages, and attributable overcharges that were paid by the assignor but were not paid by the public body as a part of the bid price, less the expenses incurred in obtaining that portion of the recovery. On demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under GC sections 4550 - 4554 if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action.
- D. If the bidder is awarded the Agreement and refuses to sign the Agreement presented for signature within the time and manner required, the bidder will be liable to Caltrans for actual damages resulting to Caltrans therefrom or ten percent (10%) of the amount bid, whichever is less.
 - E. Loss Leader usage is prohibited in this solicitation: It is unlawful for any person engaged in business within this State to sell or use any article or product as a "loss leader" as defined in Section 17030 of the California Business and Professions Code. "Loss Leader" means any article or product sold at less than cost: a) where the purpose is to induce, promote or encourage the purchase of other merchandise; or b) where the effect is a tendency or capacity to mislead or deceive purchasers of prospective purchasers; or c) where the effect is to divert trade from or otherwise injure competitors.
 - F. No oral understanding or agreement shall be binding on either party.

D) Special Programs

The following Special Programs are applicable to this IFB.

1. Small Business (SB) or Microbusiness (MB) Preference

- A. GC section 14835 *et seq.* requires that a five percent (5%) preference be given to contractors who qualify as a certified SB or MB. References to a SB shall also include MB. The rules and regulations of this law, including the definition of a SB for the delivery of services, are contained in Title 2, California Code of Regulations (2 CCR) 1896 *et seq.*
- B. To claim the SB preference, your firm must have its principal place of business located in California and be certified by the California Department of General Services (DGS), Office of Small Business and DVBE Services (OSDS). The preference amount may not exceed fifty thousand dollars (\$50,000) for any bid. If prospective Contractor is claiming the five percent (5%) SB preference, complete Section 16 of the Bid/Bidder Certification Sheet (Attachment 5).
- C. Pursuant to GC section 14838 and 2 CCR 1896, if a bidder is not a certified SB, but wishes to be eligible for the five percent (5%) non-small business (NSB) preference,

the bidder must subcontract at least 25 percent (25%) of its net bid price to one or more certified SBs. If bidder is claiming the five percent (5%) NSB preference, complete Section 17 of the Bid/Bidder Certification Sheet (Attachment 5), and Bidder Declaration, GSPD-05-105 (Attachment 2). Bidder shall list the names of all certified SB firms being claimed for credit on the GSPD-05-105 form. For each certified SB subcontractor listed, the bidder shall submit a copy of the quotes from each SB as Attachment 9, titled "Quotes from SB Subcontractors." This preference shall not be awarded to a noncompliant bidder and shall not be used to achieve any applicable minimum requirements.

- D. Certified SB bidder(s) shall have precedence over NSB bidders in the application of SB preference(s).
- E. SB preferences may not be applied to any bid deemed non-responsive with the solicitation instructions or from a non-responsible bidder.
- F. Questions regarding the certification approval process or SB program should be directed to OSDS at (800) 559-5529 or (916) 375-4940. For the 24-Hour Recording & Mail Request call (916) 322-5060, or E-mail: osdshelp@dgs.ca.gov.
- G. Additional references are at <http://www.dgs.ca.gov/pd/Programs/OSDS.aspx>.

2. Disabled Veteran Business Enterprise (DVBE) Programs

A. DVBE Participation Program with NO Goals

A DVBE goal is not required, but DVBE participation is encouraged, and a DVBE incentive will apply to this IFB as described below.

B. DVBE Incentive Program

- 1) The DVBE Incentive Program applies to this solicitation. It is separate from the DVBE Participation Program and was established in MVC §999 et seq., and 2 CCR §1896.99 et seq., to encourage bidders to partner with DVBE subcontractors. A dollar cap of \$100,000 is set for all combined incentives and preferences. The incentive is used only for evaluation purposes to arrive at the successful bidder and does not alter the amounts of the actual bid. Any responsive and responsible bidder with the confirmed DVBE participation per the Tables in paragraph 3) below is eligible to receive the incentive. Bidders who are not responsive and responsible regardless of the amount of DVBE participation are not eligible to receive the incentive.
- 2) Caltrans will apply an incentive to bids proposing the utilization of DGS Certified DVBE firms identified on the Bidder Declaration, GSPD-05-105. Information provided on the Bidder Declaration, GSPD-05-105 shall be verified by Caltrans prior to the award of the Agreement. The incentive amount is equal to a percentage of the lowest responsive and responsible bid based on the amount of DVBE participation in the bid being evaluated per the Tables below.

3) Tables for IFB (Low Price Method)

Goal Not Required

Verified DVBE Participation	DVBE Incentive Amount
5% or more	5%
4% - 4.99%	4%
3% - 3.99%	3%
2% - 2.99%	2%
0.1% - 1.99%	1%

- 4) When applying the DVBE Incentive, a NSB shall not displace an award to a DGS Certified Small Business.
- 5) Additional information: <http://www.dgs.ca.gov/pd/Programs/OSDS.aspx>.

BID PROPOSAL

ATTACHMENT 1

CONTRACTOR'S NAME (Please Print):				CONTRACT NO. 56A0356	
ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM	UNIT PRICE PER HOUR (In Figures)	TOTAL (In Figures)
			District 12		
1	1728	Hours	Perform CEV/Hub repair and maintenance Prevailing wage rate shall apply and cover the county of Orange. This rate shall cover labor, all test equipment, office space, vehicle, and equipment for the Contractor's staff	\$ _____	\$ _____
2			Material*	No Bid	\$18,000.00**

(1) THE ABOVE QUANTITIES ARE ESTIMATES ONLY AND ARE GIVEN AS A BASIS FOR COMPARISON OF BIDS. NO GUARANTEE IS MADE OR IMPLIED AS TO THE EXACT QUANTITY THAT WILL BE NEEDED.	TOTAL THIS PROPOSAL	\$ _____
--	---------------------	----------

(2) IN CASE OF DISCREPANCY BETWEEN THE UNIT PRICE AND THE TOTAL SET FORTH FOR A UNIT BASIS ITEM, THE UNIT PRICE SHALL PREVAIL.

(3) THE ESTIMATED QUANTITIES GIVEN ARE FOR THE ENTIRE THREE(3) YEAR CONTRACT PERIOD

- (*) THIS IS NON-BIDDABLE ITEM. THE AMOUNT SHOWN WILL BE ADDED TO THE PROPOSAL FOR BUDGETING PURPOSES AND WILL BE USED TO REIMBURSE THE CONTRACTOR FOR THE ACTUAL COST OF MATERIALS/SUPPLIES PURCHASED TO BE CONSUMED OR INSTALLED AT THE WORKSITE IN PERFORMANCE OF THE AGREEMENT. THIS INCLUDES APPLICABLE SALES TAX AND FREIGHT CHARGES WITHOUT ADDITIONAL ALLOWANCE FOR MARKUP.
- (**) THESE DOLLAR AMOUNTS ARE ESTIMATES ONLY. NO GUARANTEE IS MADE OR IMPLIED AS TO THE EXACT DOLLAR THAT WILL BE EXPENDED. THE AMOUNT EXPENDED FOR MATERIALS SHALL NOT EXCEED THIS AMOUNT.

BIDDER DECLARATION

1. Prime bidder information (Review attached Bidder Declaration Instructions prior to completion of this form):

- a. Identify current California certification(s) (MB, SB, SB/NVSA, DVBE): _____ or None ____** (If "None," go to Item #2)
- b. Will subcontractors be used for this contract? Yes ___ No ___** (If yes, indicate the distinct element of work your firm will perform in this contract e.g., list the proposed products produced by your firm, state if your firm owns the transportation vehicles that will deliver the products to the State, identify which solicited services your firm will perform, etc.). Use additional sheets, as necessary.

- c. If you are a California certified DVBE:**
 - (1) Are you a broker or agent? **Yes ___ No ___**
 - (2) If the contract includes equipment rental, does your company own at least 51% of the equipment provided in this contract (quantity and value)? **Yes ___ No ___ N/A ___**

2. If no subcontractors will be used, skip to certification below. Otherwise, list all subcontractors for this contract. (Attach additional pages if necessary):

Subcontractor Name, Contact Person, Phone Number & Fax Number	Subcontractor Address & Email Address	CA Certification (MB, SB, DVBE or None)	Work performed or goods provided for this contract	Corresponding % of bid price	Good Standing?	51% Rental?

CERTIFICATION: By signing the bid response, I certify under penalty of perjury that the information provided is true and correct.

BIDDER DECLARATION Instructions

All prime bidders (the firm submitting the bid) must complete the Bidder Declaration.

1.a. Identify all current certifications issued by the State of California. If the prime bidder has no California certification(s), check the line labeled “None” and proceed to Item #2. If the prime bidder possesses one or more of the following certifications, enter the applicable certification(s) on the line:

- Microbusiness (MB)
- Small Business (SB)
- Small Business Nonprofit Veteran Service Agency (SB/NVSA)
- Disabled Veteran Business Enterprise (DVBE)

1.b. Mark either “Yes” or “No” to identify whether subcontractors will be used for the contract. If the response is “No”, proceed to Item #1.c. If “Yes”, enter on the line the distinct element of work contained in the contract to be performed or the goods to be provided by the prime bidder. Do not include goods or services to be provided by subcontractors.

Bidders certified as MB, SB, SB/NVSA, and/or DVBE must provide a commercially useful function as defined in Military and Veterans Code Section 999(e)(2)(A) for DVBEs and Government Code Section 14837(d)(4)(A) for small/microbusinesses. For questions regarding commercially useful function determinations made in conjunction with certification approval, contact the Department of General Services, Procurement Division, Office of Small Business and DVBE Certification (OSDC), OSDC Certification and Compliance Unit via email at: osdchelp@dgs.ca.gov

Bids must propose that certified bidders provide a commercially useful function for the resulting contract or the bid will be deemed non-responsive and rejected by the State. For questions regarding the solicitation, contact the procurement official identified in the solicitation.

Note: A subcontractor is any person, firm, corporation, or organization contracting to perform part of the prime’s contract.

1.c. This item is only to be completed by businesses certified by California as a DVBE.

(1) Declare whether the prime bidder is a broker or agent by marking either “Yes” or “No”. The Military and Veterans Code Section 999.2 (b) defines “broker” or “agent” as a certified DVBE contractor or subcontractor that does not have title, possession, control, and risk of loss of materials, supplies, services, or equipment provided to an awarding department, unless one or more of the disabled veteran owners has at least 51-percent ownership of the quantity and value of the materials, supplies, services, and of each piece of equipment provided under the contract.

(2) If bidding rental equipment, mark either “Yes” or “No” to identify if the prime bidder owns at least 51% of the equipment provided (quantity and value). If **not** bidding rental equipment, mark “N/A” for “not applicable.”

2. If no subcontractors are proposed, do not complete the table. Read the certification at the bottom of the form and complete “Page ____ of ____” on the form.

If subcontractors will be used, complete the table listing all subcontractors. If necessary, attach additional pages and complete the “Page ____ of ____” accordingly.

2. (continued) Column Labels

Subcontractor Name, Contact Person, Phone Number & Fax Number—List each element for all subcontractors.

Subcontractor Address & Email Address—Enter the address and if available, an Email address.

CA Certification (MB, SB, DVBE or None)—If the subcontractor possesses a current State of California certification(s), verify on the OSDC website (www.pd.dgs.ca.gov/smbus) that it is still valid and list all current certifications here. Otherwise, enter “None”. [Note: A SB/NVSA should not be participating as a subcontractor]

Work performed or goods provided for this contract—Identify the distinct element of work contained in the contract to be performed or the goods to be provided by each subcontractor. Certified subcontractors must provide a commercially useful function for the contract. (See paragraph 1.b above for code citations regarding the definition of commercially useful function.) If a certified subcontractor is further subcontracting a greater portion of the work or goods provided for the resulting contract than would be expected by normal industry practices, attach a separate sheet of paper explaining the situation.

Corresponding % of bid price—Enter the corresponding percentage of the total bid price for the goods and/or services to be provided by each subcontractor. Do not enter a dollar amount.

Good Standing?—Provide a response for each subcontractor listed. Enter either “Yes” or “No” to indicate that the prime bidder has verified that the subcontractor(s) is in good standing for all of the following:

- Possesses valid license(s) for any license(s) or permits required by the solicitation or by law
- If a corporation, the company is qualified to do business in California and designated by the State of California Secretary of State to be in good standing
- Possesses valid State of California certification(s) if claiming MB, SB, and/or DVBE status
- Is **not** listed on the OSDC website as ineligible to transact business with the State

51% Rental?—This pertains to the applicability of rental equipment. Based on the following parameters, enter either “N/A” (not applicable), “Yes” or “No” for each subcontractor listed.

Enter “N/A” if the:

- Subcontractor is NOT a DVBE (regardless of whether or not rental equipment is provided by the subcontractor) or
- Subcontractor is NOT providing rental equipment (regardless of whether or not subcontractor is a DVBE)

Enter “Yes” if the subcontractor is a California certified DVBE providing rental equipment and the subcontractor owns at least 51% of the rental equipment (quantity and value) it will be providing for the contract.

Enter “No” if the subcontractor is a California certified DVBE providing rental equipment but the subcontractor does NOT own at least 51% of the rental equipment (quantity and value) it will be providing.

Read the certification at the bottom of the page and complete the “Page ____ of ____” accordingly.

ATTACHMENT 3

CONTRACTOR CERTIFICATION CLAUSES

CCC-307

CERTIFICATION

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY that I am duly authorized to legally bind the prospective Contractor to the clause(s) listed below. This certification is made under the laws of the State of California.

<i>Contractor/Bidder Firm Name (Printed)</i>		<i>Federal ID Number</i>
<i>By (Authorized Signature)</i>		
<i>Printed Name and Title of Person Signing</i>		
<i>Date Executed</i>	<i>Executed in the County of</i>	

CONTRACTOR CERTIFICATION CLAUSES

1. STATEMENT OF COMPLIANCE: Contractor has, unless exempted, complied with the nondiscrimination program requirements. (Gov. Code §12990 (a-f) and CCR, Title 2, Section 8103) (Not applicable to public entities.)
 2. DRUG-FREE WORKPLACE REQUIREMENTS: Contractor will comply with the requirements of the Drug-Free Workplace Act of 1990 and will provide a drug-free workplace by taking the following actions:
 - a. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.
 - b. Establish a Drug-Free Awareness Program to inform employees about:
 - 1) the dangers of drug abuse in the workplace;
 - 2) the person's or organization's policy of maintaining a drug-free workplace;
 - 3) any available counseling, rehabilitation and employee assistance programs; and,
 - 4) penalties that may be imposed upon employees for drug abuse violations.
 - c. Every employee who works on the proposed Agreement will:
 - 1) receive a copy of the company's drug-free workplace policy statement; and,
 - 2) agree to abide by the terms of the company's statement as a condition of employment on the Agreement.
- Failure to comply with these requirements may result in suspension of payments under the Agreement or termination of the Agreement or both and Contractor may be ineligible for award of any future State agreements if the department determines that any of the following has occurred: the Contractor has made false certification, or violated the certification by failing to carry out the requirements as noted above. (Gov. Code §8350 et seq.)

ATTACHMENT 3

CONTRACTOR CERTIFICATION CLAUSES

3. NATIONAL LABOR RELATIONS BOARD CERTIFICATION: Contractor certifies that no more than one (1) final unappealable finding of contempt of court by a Federal court has been issued against Contractor within the immediately preceding two-year period because of Contractor's failure to comply with an order of a Federal court, which orders Contractor to comply with an order of the National Labor Relations Board. (Pub. Contract Code §10296) (Not applicable to public entities.)

4. CONTRACTS FOR LEGAL SERVICES \$50,000 OR MORE- PRO BONO REQUIREMENT: Contractor hereby certifies that contractor will comply with the requirements of Section 6072 of the Business and Professions Code, effective January 1, 2003.

Contractor agrees to make a good faith effort to provide a minimum number of hours of pro bono legal services during each year of the contract equal to the lessor of 30 multiplied by the number of full time attorneys in the firm's offices in the State, with the number of hours prorated on an actual day basis for any contract period of less than a full year or 10% of its contract with the State.

Failure to make a good faith effort may be cause for non-renewal of a state contract for legal services, and may be taken into account when determining the award of future contracts with the State for legal services.

5. EXPATRIATE CORPORATIONS: Contractor hereby declares that it is not an expatriate corporation or subsidiary of an expatriate corporation within the meaning of Public Contract Code Section 10286 and 10286.1, and is eligible to contract with the State of California.

6. SWEATFREE CODE OF CONDUCT:

a. All Contractors contracting for the procurement or laundering of apparel, garments or corresponding accessories, or the procurement of equipment, materials, or supplies, other than procurement related to a public works contract, declare under penalty of perjury that no apparel, garments or corresponding accessories, equipment, materials, or supplies furnished to the state pursuant to the contract have been laundered or produced in whole or in part by sweatshop labor, forced labor, convict labor, indentured labor under penal sanction, abusive forms of child labor or exploitation of children in sweatshop labor, or with the benefit of sweatshop labor, forced labor, convict labor, indentured labor under penal sanction, abusive forms of child labor or exploitation of children in sweatshop labor. The contractor further declares under penalty of perjury that they adhere to the Sweatfree Code of Conduct as set forth on the California Department of Industrial Relations website located at www.dir.ca.gov, and Public Contract Code Section 6108.

b. The contractor agrees to cooperate fully in providing reasonable access to the contractor's records, documents, agents or employees, or premises if reasonably required by authorized officials of the contracting agency, the Department of Industrial Relations, or the Department of Justice to determine the contractor's compliance with the requirements under paragraph (a).

7. DOMESTIC PARTNERS: For contracts over \$100,000 executed or amended after January 1, 2007, the contractor certifies that contractor is in compliance with Public Contract Code Section 10295.3.

ATTACHMENT 3

CONTRACTOR CERTIFICATION CLAUSES

DOING BUSINESS WITH THE STATE OF CALIFORNIA

The following laws apply to persons or entities doing business with the State of California.

1. CONFLICT OF INTEREST: Contractor needs to be aware of the following provisions regarding current or former state employees. If Contractor has any questions on the status of any person rendering services or involved with the Agreement, the awarding agency must be contacted immediately for clarification.

Current State Employees (Pub. Contract Code §10410):

- 1). No officer or employee shall engage in any employment, activity or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any state agency, unless the employment, activity or enterprise is required as a condition of regular state employment.
- 2). No officer or employee shall contract on his or her own behalf as an independent contractor with any state agency to provide goods or services.

Former State Employees (Pub. Contract Code §10411):

- 1). For the two-year period from the date he or she left state employment, no former state officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any state agency.
- 2). For the twelve-month period from the date he or she left state employment, no former state officer or employee may enter into a contract with any state agency if he or she was employed by that state agency in a policy-making position in the same general subject area as the proposed contract within the 12-month period prior to his or her leaving state service.

If Contractor violates any provisions of above paragraphs, such action by Contractor shall render this Agreement void. (Pub. Contract Code §10420)

Members of boards and commissions are exempt from this section if they do not receive payment other than payment of each meeting of the board or commission, payment for preparatory time and payment for per diem. (Pub. Contract Code §10430 (e))

2. LABOR CODE/WORKERS' COMPENSATION: Contractor needs to be aware of the provisions which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions, and Contractor affirms to comply with such provisions before commencing the performance of the work of this Agreement. (Labor Code Section 3700)

3. AMERICANS WITH DISABILITIES ACT: Contractor assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990, which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA. (42 U.S.C. 12101 et seq.)

4. CONTRACTOR NAME CHANGE: An amendment is required to change the Contractor's name as listed on this Agreement. Upon receipt of legal documentation of the name change the State will process the amendment. Payment of invoices presented with a new name cannot be paid prior to approval of said amendment.

ATTACHMENT 3

CONTRACTOR CERTIFICATION CLAUSES

5. CORPORATE QUALIFICATIONS TO DO BUSINESS IN CALIFORNIA:

- a. When agreements are to be performed in the state by corporations, the contracting agencies will be verifying that the contractor is currently qualified to do business in California in order to ensure that all obligations due to the state are fulfilled.
- b. "Doing business" is defined in R&TC Section 23101 as actively engaging in any transaction for the purpose of financial or pecuniary gain or profit. Although there are some statutory exceptions to taxation, rarely will a corporate contractor performing within the state not be subject to the franchise tax.
- c. Both domestic and foreign corporations (those incorporated outside of California) must be in good standing in order to be qualified to do business in California. Agencies will determine whether a corporation is in good standing by calling the Office of the Secretary of State.

6. RESOLUTION: A county, city, district, or other local public body must provide the State with a copy of a resolution, order, motion, or ordinance of the local governing body which by law has authority to enter into an agreement, authorizing execution of the agreement.

7. AIR OR WATER POLLUTION VIOLATION: Under the State laws, the Contractor shall not be: (1) in violation of any order or resolution not subject to review promulgated by the State Air Resources Board or an air pollution control district; (2) subject to cease and desist order not subject to review issued pursuant to Section 13301 of the Water Code for violation of waste discharge requirements or discharge prohibitions; or (3) finally determined to be in violation of provisions of federal law relating to air or water pollution.

8. PAYEE DATA RECORD FORM STD. 204: This form must be completed by all contractors that are not another state agency or other governmental entity.

ATTACHMENT 5
BID/BIDDER CERTIFICATION SHEET

Only an individual who is authorized to bind the bidding firm contractually shall sign the Bid/Bidder Certification Sheet. The signature must indicate the title or position that the individual holds in the firm. This Bid/Bidder Certification Sheet must be signed and returned along with all "required attachments" as an entire package with original signatures. The bid must be transmitted in a sealed envelope in accordance with IFB instructions.

- A. Our all-inclusive bid is submitted in a sealed envelope marked "**Bid Submittal - Do Not Open**".
- B. All required attachments are included with this certification sheet.
- C. The signature affixed hereon and dated certifies compliance with all the requirements of this bid document. The signature below authorizes the verification of this certification.
- D. The signature and date affixed hereon certifies that this bid is a firm offer for a 90-day period.

An Unsigned Bid/Bidder Certification Sheet May Be Cause for Bid Rejection

1. Company Name	2. Telephone Number ()	2a. Fax Number ()
3. Address		
Indicate your organization type:		
4. <input type="checkbox"/> Sole Proprietorship	5. <input type="checkbox"/> Partnership	6. <input type="checkbox"/> Corporation
Indicate the applicable employee and/or corporation number:		
7. Federal Employee ID No. (FEIN)	8. California Corporation No.	
Indicate applicable license and/or certification information:		
9. Contractor's State Licensing Board Number	10. PUC License Number CAL-T-	11. Required
11(a) Are the vehicles being used for this Agreement subject to DMV/CHP Motor Carrier Permit laws? <input type="checkbox"/> Yes No <input type="checkbox"/> If yes (If required by law), the lowest responsive responsible bidder must provide evidence, before contract award.		
12. Bidder' Name (Print)	13. Title	
14. Signature	15. Date	
16. Are you certified with the Department of General Services, Office of Small Business and Disabled Veteran Business Enterprise Services (OSDS) as:		
a. Small Business Enterprise Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, enter certification number: _____	b. Disabled Veteran Business Enterprise Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, enter your service code below: _____	
NOTE: A copy of your Certification is required to be included if either of the above items is checked " Yes ". Date application was submitted to OSDS, if an application is pending: _____		
17. Are you a Non-Small Business committing to the use of 25% Certified Small Business Subcontractor Participation? Yes <input type="checkbox"/> No <input type="checkbox"/>		
If Yes, complete and return the Bidder Declaration form, GSPD-05-105 with your bid.		

ATTACHMENT 5
Completion Instructions for Bid/Bidder Certification Sheet

Complete the numbered items on the Bid/Bidder Certification Sheet by following the instructions below.

Item Numbers	Instructions
1, 2, 2a, 3	Must be completed. These items are self-explanatory.
4	Check if your firm is a sole proprietorship. A sole proprietorship is a form of business in which one person owns all the assets of the business in contrast to a partnership and corporation. The sole proprietor is solely liable for all the debts of the business.
5	Check if your firm is a partnership. A partnership is a voluntary agreement between two or more competent persons to place their money, effects, labor, and skill, or some or all of them in lawful commerce or business, with the understanding that there shall be a proportional sharing of the profits and losses between them. An association of two or more persons to carry on, as co-owners, a business for profit.
6	Check if your firm is a corporation. A corporation is an artificial person or legal entity created by or under the authority of the laws of a state or nation, composed, in some rare instances, of a single person and his successors, being the incumbents of a particular office, but ordinarily consisting of an association of numerous individuals.
7	Enter your federal employee tax identification number.
8	Enter your corporation number assigned by the California Secretary of State's Office. This information is used for checking if a corporation is in good standing and qualified to conduct business in California.
9	Complete if your firm holds a California contractor's license. This information will be used to verify possession of a contractor's license for public works agreements.
10	Complete if your firm holds a PUC license. This information will be used to verify possession of a PUC license for public works agreements.
11	Complete, if applicable, by indicating the type of license and/or certification that your firm possesses and that is required for the type of services being procured.
11a	Bidder has read the required scope of services for this Agreement and is certifying whether or not the vehicles the bidder will use for this Agreement are subject to DMV/CHP Motor Carrier Permit laws.
12, 13, 14, 15	Must be completed. These items are self-explanatory.
16	If certified as a Small Business Enterprise, place a check in the "yes" box, and enter your certification number on the line. If certified as a Disabled Veterans Business Enterprise, place a check in the "Yes" box and enter your service code on the line. If you are not certified to one or both, place a check in the "No" box. If your certification is pending, enter the date your application was submitted to the Department of General Services, Office Small Business and DVBE Services. To get certified, go to http://www.pd.dgs.ca.gov/smbus/default.htm
17	Check the applicable box. Complete and return GSPD-05-105 with your Bid.

ATTACHMENT 6

Invitation for Bid 56A0356

BIDDER'S ACKNOWLEDGEMENT OF PREVAILING WAGES REQUIREMENTS

_____ acknowledges that State General Prevailing Wage Rates will
Print Name of Bidder
apply for the County(ies) of Orange. If awarded this Agreement, I
acknowledge it will be my responsibility to ensure the payment of appropriate prevailing wages
rates to all employees who participate on this Agreement throughout the duration of this
Agreement.

Bidder's Signature

Date

**Attachment 7
Darfur Contracting Act**

Instructions: Complete, as applicable, and submit with bid.

Public Contract Code Sections 10475 -10481 applies to any company that currently or within the previous three years has had business activities or other operations outside of the United States. For such a company to bid on or submit a proposal for a State of California contract, the company must certify that it is either a) not a scrutinized company; or b) a scrutinized company that has been granted permission by the Department of General Services to submit a proposal.

OPTION #1 - CERTIFICATION

If your company has not, within the previous three years, had any business activities or other operations outside of the United States, complete and sign this section and submit with bid package.

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY that a) the prospective proposer/bidder named below has not, within the previous three years, had any business activities or other operations outside of the United States. b) I am duly authorized to legally bind the prospective proposer/bidder named below. This certification is made under the laws of the State of California.

Company/Vendor Name (Printed)	Federal ID Number
-------------------------------	-------------------

By (Authorized Signature)

Printed Name and Title of Person Signing

OPTION #2 - CERTIFICATION

If your company, within the previous three years, has had business activities or other operations outside of the United States, in order to be eligible to submit a bid or proposal, please insert your company name and Federal ID Number and complete the certification below.

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY that a) the prospective proposer/bidder named below is not a scrutinized company per Public Contract Code 10476; and b) I am duly authorized to legally bind the prospective proposer/bidder named below. This certification is made under the laws of the State of California.

Company/Vendor Name (Printed)	Federal ID Number
-------------------------------	-------------------

By (Authorized Signature)

Printed Name and Title of Person Signing

Date Executed	Executed in the County and State of
---------------	-------------------------------------

OPTION #3 – WRITTEN PERMISSION FROM DGS

Pursuant to Public Contract Code section 10477(b), the Director of the Department of General Services may permit a scrutinized company, on a case-by-case basis, to bid on or submit a proposal for a contract with a state agency for goods or services, if it is in the best interests of the state. If you are a scrutinized company that has obtained written permission from the DGS to submit a bid or proposal, complete the information below.

We are a scrutinized company as defined in Public Contract Code section 10476, but we have received written permission from the Department of General Services to submit a bid or proposal pursuant to Public Contract Code section 10477(b). **A copy of the written permission from DGS is included with our bid or proposal.**

Company/Vendor Name (Printed)	Federal ID Number
-------------------------------	-------------------

By (Authorized Signature)

Printed Name and Title of Person Signing

Date Executed	Executed in the County and State of
---------------	-------------------------------------

ATTACHMENT 8
Invitation for Bid No. 56A0356

REQUIRED ATTACHMENT CHECKLIST

A complete bid or bid package will consist of the items identified below.

Complete this checklist to confirm the items in your bid package. Place a check mark or “X” next to each item that you are submitting to Caltrans. All attachments identified below (unless noted otherwise) are required and must be returned as instructed or your bid may be considered non-responsive. **Return the Required Attachment Checklist with your bid package.**

Do NOT submit the attached Proposed Standard Agreement, STD 213, Attachment 10, company advertisements, brochures, informational pamphlets or any other document unless specifically noted in the IFB Requirements and/or as listed below.

<u>X</u>	<u>Attachments</u>	<u>Attachment Name/Description</u>
	Attachment 1	Bid Proposal, ADM 1412 (Contractor Name must be on bid sheet)
	Attachment 2	Bidders Declaration, GSPD-05-105 (All subcontractor’s are required to be identified on this form).
	Attachment 3	Contractor Certification Clauses (CCC 307). The CCC 307 can also be found on the Internet at http://www.dgs.ca.gov/ols/home.aspx . Page one (1) must be signed and submitted prior to the award of the contract.
	Attachment 4	Non-Collusion Affidavit for Public Works (must be notarized)
	Attachment 5	Bid/Bidder Certification Sheet
	Attachment 6	Bidder’s Acknowledgement of Prevailing Wage Requirements
	Attachment 7	Darfur Contracting Act
	Attachment 8	Required Attachment Checklist
	Attachment 9	Quote from SB or DVBE Subcontractors listed on the Form GSPD-05-105.
	Copy	Anyone who performs work as an electrician for a C-10 Electrical Contractor shall hold an electrical certification card issued the California Division of Apprenticeship Standards (DAS) as required by Labor Code Section 3099.2. C-10 Contractor is required to submit a copy of their employee’s electrical certification card(s) issued by DAS with its bid. If the Contractor does not submit the cards, The Contractor bid will be rejected. Subcontracting is allowed for any work other than work that requires a C-10 Electrical license, any work that required a C-10 Electrical license cannot be subcontracted.
	Copy	General Engineering Contractor License, Class A or General Building Contractors license, Class B with a Electrical Contractors license, C-10 .

ATTACHMENT 9
Invitation for Bid No. 56A0356

QUOTES FROM SB OR DVBE SUBCONTRACTORS LISTED IN FORM gspd-05-105
(ATTACHMENT 2).

Bidder shall attach copies of **SB OR DVBE SUBCONTRACTORS** quotes from any SB or DVBE subcontractors listed in the form GSPD-05-105. Refer to instructions in IFB Section D), Items 1 C and 2 A 2).

ATTACHMENT # 10
Public Works (State)

AGREEMENT NUMBER

Note to Bidders:
 The following 32 pages represent a sample of the Agreement that will be awarded, if any, from this IFB. Please review it carefully and present any questions in writing to the contact identified for this IFB.

1 This Agreement is entered into between the State Agency and the Contractor
 STATE AGENCY'S NAME
Department of Transportation (Caltrans)

CONTRACTOR'S NAME
(Contractor to be determined)

2 The term of this Agreement is: **June 23, 2013** or Caltrans approval, whichever is later through **June 22, 2015**

3 The maximum amount of this Agreement is: **(To be determined)**

4 The parties agree to comply with the terms and conditions of the following exhibits/attachments, which are by this reference made a part of the Agreement.

Exhibit A – Scope of Work	15 Pages
Exhibit B – Budget Detail and Payment Provisions	9 Pages
Exhibit C* – General Terms and Conditions (Electronic File: GTC 610)	
Exhibit D - Special Terms and Conditions	4 Pages
Exhibit E – Additional Provisions	4 Pages
Attachment 1 - Bid Proposal (to be attached to the STD 213 upon award)	1 Page
Attachment 2 – Bidder Declaration Form, GSPD-05-105 (to be attached to the STD 213 upon award)	1 Page
Appendix 1 – Controlled Environmental Vault Manual	32 Pages
Appendix 2 – Work Authorization and Completion Form/Task Order	1 Page
Appendix 3 – Hub Maintenance Activity Report and Instructions	2 Pages

Items shown with an Asterisk (*), are hereby incorporated by reference and made part of this Agreement as if attached hereto. *These documents can be viewed at <http://www.dgs.ca.gov/ols/Home.aspx>.*

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

CONTRACTOR		California Department of General Services Use Only <input checked="" type="checkbox"/> Exempt per: Public Contract Code 10295 (c) (2) Public Contract Code 10107 State Contract Manual 10.00
CONTRACTOR'S NAME (if other than an individual, state whether a corporation, partnership, etc.) (Contractor to be determined)		
BY (Authorized Signature) 	DATE SIGNED (Do not type)	
PRINTED NAME AND TITLE OF PERSON SIGNING		
ADDRESS		
STATE OF CALIFORNIA		
AGENCY NAME Department of Transportation		
BY (Authorized Signature) 	DATE SIGNED (Do not type)	
PRINTED NAME AND TITLE OF PERSON SIGNING		
ADDRESS 1727 30 th Street, (MS 65) Sacramento, CA 95816		

EXHIBIT A
Public Works (State)

SCOPE OF WORK

1. Contractor agrees to provide "On-Call", as needed maintenance service work for the communications Controlled Environmental Vaults (CEV's) or Hubs for the Department of Transportation (Caltrans), as described herein:
2. The services shall be performed throughout Caltrans District 12, in Orange County at the following hub locations:
 - a) Hub 1 I-5 SB at La Veta
 - b) Hub 2 SR-91 EB at 55 fwy
 - c) Hub 3 I-5 NB at Avery
 - d) Hub 4 I-405 NB at Euclid
 - e) Hub 5 SR-241 NB at Portola (Irvine)
 - f) Hub 6 SR-261 NB at Santiago Cyn
 - g) Hub 7 SR-55 NB at 73 fwy
 - h) Hub 8 SR-22 WB at Valley View
 - i) Hub 9 I-5 NB at Sand Cyn
 - j) Hub 19 I-5 NB at SR-55
3. The Caltrans District 12 Maintenance office building is located at 6685 Marine Way, Irvine, CA 92618.
4. This Agreement will commence on **June 23, 2013 (estimate)** as presented herein or upon approval by Caltrans, whichever is later and no work shall begin before that time. This Agreement is of no effect unless approved by the Caltrans. The Contractor shall not receive payment for work performed prior to approval of the Agreement and before receipt of notice to proceed by the Caltrans Contract Manager. This Agreement shall expire on **June 22, 2015 (estimate)**. The services shall be provided during Monday through Sunday, on an "On-Call" as needed, 24 hours per day, seven (7) days per week basis, including holidays. The parties may amend this Agreement as permitted by law.

**EXHIBIT A
 Public Works (State)**

Department of Transportation		Contractor: TBD	
Section/Unit:		Section/Unit	
Contract Manager TBD		Project Manager	
Address (Street Address, City, State, Zip Code)		Address (Street Address, City, State, Zip Code)	
Business Phone Number ()	Facsimile Number ()	Business Phone Number ()	Facsimile Number ()

5. Description of Work

A. CONTRACTOR'S RESPONSIBILITIES

- 1) Contractor shall provide preventive, corrective and emergency maintenance services including, but not limited to, inventory, testing and verification of the referenced CEVs or Hubs and CEV components, equipment and systems inside the CEVs per this agreement and as directed by the Caltrans Contract Manager in a Task Order (See Sample Appendix 2).
- 2) Subcontracting is allowed for any work other than work that requires a C-10 Electrical license, any work that required a C-10 Electrical license cannot be subcontracted.
- 3) Contractor shall provide labor and parts to maintain and repair the various CEV systems and to keep all CEV equipment in good operating condition.
- 4) Contactor shall ensure that all repaired safety equipment shall, at a minimum, meet California Occupational Safety Health Administration (Cal OSHA) requirements.
- 5) Contractor shall provide services to Caltrans on an "On-Call" as-needed basis, as requested by the Caltrans Contract Manager or designee within the designated service area through a Work Authorization and Completion Form/Task Order (Appendix 2).
- 6) Contractor shall perform trouble shooting work as assigned per the Work Authorization and Completion Form/Task Order (Appendix 2) and record all activities on the Hub Maintenance Activity Report (Appendix 3).
- 7) Contractor shall report to the designated work location within eight (8) hours of being notified via the Work Authorization and Completion Form/Task Order (Appendix 2) for all service calls issued by the Caltrans Contract Manager.

EXHIBIT A
Public Works (State)

- 8) Contractor shall attend a kick off meeting prior to beginning any work under this Agreement. Upon receipt of a 48-hour advance notice from the Caltrans Contract Manager or designee, the Contractor shall confirm its attendance at the meeting within 24 hours of receipt of notice.
- 9) Contractor shall conduct a mandatory initial field inspection for each hub location listed above to assess the current conditions of the CEVs or Hubs and the status of the CEV components, equipment and systems inside the CEVs.
- 10) Contractor's shall perform all mandatory site inspections to become familiar with the hub facilities listed above and perform an assessment for the "Initial Corrective Maintenance Plan and Schedule".
- 11) Contractors' Initial Corrective Maintenance Plan and Schedule shall include, but not be limited to, a list of repair tasks, materials and the estimated number of man-hours per hub location.
- 12) After the mandatory field inspection of CEVs/Hubs/Mini Hubs, the Contractor shall submit an Initial Corrective Maintenance Plan and Schedule to the Caltrans Contract Manager for review. The Caltrans Contract Manager shall review and notify the Contractor of his/her approval within seven (7) working days upon completion. Any items not getting the Caltrans Contract Managers approval shall be changed or revised as required by the Caltrans Contract Managers.
- 13) Contractor shall be allowed eight (8) hours to complete the work for each hub location from the initial field inspection, which shall include the travel time necessary between the designated Caltrans Contract Manager's maintenance office and the hub location.
- 14) Upon approval by the Caltrans Contract Manager of the Initial Corrective Maintenance Plan and Schedule, the Contractor shall perform and complete the initial corrective maintenance within 45 days and shall document all completed tasks on the Hub Maintenance Activity Report (Appendix 3).
- 15) Contractor shall include the initial corrective maintenance rate according the Bid Proposal, Attachment 1.
- 16) Contractor shall be capable of identifying, researching and requesting documented technical information needed to implement the Contract.

EXHIBIT A
Public Works (State)

- 17) Contractor personnel are expected to be knowledgeable enough to perform initial and routine maintenance in the absence of specific hub documentation and manuals.
- 18) Work Authorization and Completion Form/Task Order (Appendix 2) herein after referred to as Task Order.
 - a) Specific work will be requested by the Caltrans Contract Manager by issuance of the Work Authorization and Completion Form/Task Order (Appendix 2) and will be faxed or sent in an email to the Contractor.
 - b) Contractor shall respond by reporting to the work site within four (4) hours of receiving a Work Authorization and Completion form/Task Order (Appendix 2) from the Caltrans Contract Manager.
 - c) Contractor shall complete Section B on the Work Authorization and Completion Form/Task Order (Appendix 2) and return it to the Caltrans Contract Manager via email or fax.
 - d) Contractor shall submit the signed Work Authorization and Completion Form/Task Order (Appendix 2) to the Caltrans Contract Manager with the invoices on a monthly basis per the Exhibit B, Section 1.C.
- 19) Contractor shall provide preventative and corrective maintenance service, including replacement materials, for the Controlled Environment Vault (CEV) and/or Hubs/Mini Hubs.
 - a) Equipment to be maintained by the Contractor is listed in the Controlled Environmental Vault (CEV) Manual (Appendix 1) and this scope of work, Exhibit A.
- 20) Contractor shall follow a preventive maintenance schedule listed in the CEV Manual, Appendix 1, and as directed by the Caltrans Contract Manager in the Task Order.
- 21) Contractor shall follow the Caltrans Contract Manager's direction with respect to problem resolution.
- 22) Contractor shall provide paid parking spaces and toll expenses for all Contractor's employees.

EXHIBIT A
Public Works (State)

- 23) Contractor shall be responsible for maintaining a clean environment inside the CEVs/Hubs and shall conform to all applicable work standards.
- 24) Contractor shall clean, remove and legally dispose of all debris and clutter after performing a task, but before leaving the worksite each day.
- 25) Contractor shall provide all office facilities and equipment within Caltrans District 12, Orange County necessary for the Contractor's performance under this Agreement.
 - a) The cost for the office facility and equipment are included in the hourly labor rate in the Bid Proposal, Attachment 1.
 - b) Any relocation of the Contractor's office facilities must be approved by the Caltrans Contract Manager, prior to the relocation of the Contractor's office facilities shall be located in Caltrans District 12, Orange County.
- 26) Contractor's hourly rate shall also include labor, all test equipment, cost of vehicles used by the Contractor staff, fuel, insurance, tools, repair and maintenance vehicles, travel time, as well as, office and storage space and supplies for Contractor's staff, parking fees and all other Administrative costs associated with this Agreement.
- 27) Contractor's billable time begins at the start time and location as directed by the Caltrans Contract Manager in the Task Order.
 - a) Billable time does not include Contractors Administration time, unless specifically requested and approved by the Caltrans Contract Manager.
- 28) Contractor shall have the capability to handle multiple preventive and corrective maintenance service requests concurrently when needed and as directed by the Caltrans Contract Manager in the Task Order.
- 29) Contractor shall exercise due care and diligence in protecting sensitive electronic equipment from damage.
 - a) Damaged by the Contractor while performing any task shall be replaced at the Contractor's expense.

EXHIBIT A
Public Works (State)

- b) If identical replacements are not available due to obsolescence, it will be the Contractor's responsibility to procure and install at the Contractor's expense, replacements having identical or better functionality.
 - c) Replacements shall be fully compatible and integrated with other sub-systems of TOSNET.
 - d) Contractor shall obtain the Caltrans Contract Manager's approval on all replacements parts prior to work being performed.
- 30) Contractor shall be temporarily excused from its contractual obligations when it is determined by the Caltrans Contract Manager or designee that dangerous or hazardous conditions exist at the CEV location or job site that make performance under this Agreement temporarily impractical.
- 31) Contractor shall provide electronic and hard copy documentation to the Caltrans Contract Manager, which shall include:
- a) A report of monthly preventative and corrective maintenance work performed on individual CEVs or hubs, by type and by date using the Hub Maintenance Activity Report.
 - b) A monthly inventory, verification and inspection of Hubs and hub equipment.
 - c) A weekly Hub Maintenance Activity Report (**Appendix 3**), which shall track all Caltrans Contract Manager's service requests and associated corrective and preventive work performed by the Contractor, as well as the status of all Hub jobs pending work.
- 32) Points of Contact
- a) Prior to commencing work, Contractor shall provide a list of the Contractor's management team, including names, titles, work phone numbers, and cellular numbers, as well as primary and secondary points of contacts on a 24 hour seven (7) -day per week basis.
 - b) Any changes in the composition or structure of the team shall promptly be communicated to the Caltrans Contract Manager no later than seven (7) working days after the change.

EXHIBIT A
Public Works (State)

- c) Contractor shall designate a Project Manager to serve as the Contractor's point of contact for billing and administrative issues and be responsible for the activities of all Contractor employees.
- d) When the Contractor has more than one (1) employee assigned to work on this Agreement, the Contractor shall designate one (1) employee as lead worker over the Contractor's crew. This lead worker shall report to the Caltrans Contract Manager and the Contractor's Project Manager.
- e) Contact information for the Contractors designated lead person shall include: Office telephone number, email address, and location address. This information shall be provided to the Caltrans Contract Manager at the start of the Agreement by the Contractor.
- f) If the Contractor has one (1) employee, then that employee shall be the lead worker and the Contractor shall assume the roles of the Project Manager. If the Contractor is a Corporation the Contractor shall designate a lead person and provide the Caltrans Contract Manager with his/her contact information within 24-hours.

33) Safety

- a) Contractor shall provide safety training to all Contractor's and any Sub-Contractors' staff in compliance with Cal/OSHA and Caltrans Maintenance Manual, Chapter 8.
- b) Contractor shall provide monthly report of the content and list of all staff attended the safety meeting.
- c) Contractor shall conform to and follow all applicable occupational safety and health standards, rules, regulations and orders established by Caltrans and the State of California, including, but not limited to:
 - i. Caltrans Maintenance Manual Chapter 8, Protection of Workers at: <http://www.dot.ca.gov/hq/maint/manual/maintman.htm>
 - ii. Cal-OSHA Regulations: <http://www.dir.ca.gov/dosh/Laws and Regulations.htm>.

EXHIBIT A
Public Works (State)

34) Traffic Control and Shoulder Closures

- a) The Contractor shall be responsible for providing any necessary shoulder closures.
- b) Shoulder closures shall be in accordance with the Caltrans Maintenance Manual, Volume 1, July 2006, Chapter 8, Section 8.2.1.

35) Response Time

- a) Contractor shall respond to trouble calls by the Caltrans Contract Manager via receipt of the Work Authorization and Completion Form/Task Order (Appendix 2) via emails, faxes and phone messages within four (4) hours for hub trouble calls by reporting to the problem site.
- b) Contractor shall respond to emergency calls by the Caltrans Contract Manager via receipt of the Work Authorization and Completion Form/Task Order (Appendix 2) via emails, faxes and phone messages within four (4) hours for hub emergency calls by reporting to the problem site.
- c) The Caltrans Contract Manager will determine the reporting date(s), time(s) and location via the Work Authorization and Completion Form/Task Order (Appendix 2).
- d) Contractor shall respond with a minimum of one (1) certified Electrician to the work site unless directed otherwise by the Caltrans Contract Manager or his/her designee.
- e) Contractor shall respond to corrective maintenance requests within four (4) hours, or shorter response time to assist with unforeseen emergency repairs or maintenance.
- f) Contractor shall submit an estimated time of completion for all repair work within two (2) working days.
- g) Contractor shall respond to and repair air conditioning unit failures within four (4) hours. When the required replacement parts to bring an air conditioning unit back in service are not immediately available the, Contractor shall implement temporary measures, approved by the Caltrans Contract Manager, within four (4) hours to provide necessary temporary cooling to the Hub or CEV until permanent repairs can be implemented.

EXHIBIT A
Public Works (State)

- 36) The Point of Demarcation and coverage area for maintenance purposes shall be as shown in the CEV Manual (See Appendix 1).
- 37) Contractor shall identify and purchase hub repair and replacement material and equipment for Caltrans and shall include them in an itemized list with receipts with the monthly invoice to Caltrans for the actual costs for reimbursement.
- a) The Caltrans Contract Manager's approval is required for expenditures over \$100.00, either per item or purchase.
- 38) Contractor Qualifications
- a) Contractor shall ensure that all employees can competently maintain and repair different types of CEV electronic and electrical devices, HVAC, control systems, security systems, fire prevention and control systems, power distribution system, lighting systems and communication systems prior to working on any Caltrans facility and maintain competency of its employees.
- b) Throughout the duration of this Agreement the Contractor shall ensure that anyone who performs work as an electrician for a C-10 Electrical Contractor shall hold an electrical certification card issued by the California Division Apprenticeship Standards (DAS) as required by Labor Code Section 3099.2. C-10 Contractor is required to submit a copy of employee's DAS electrical certification card(s) for all its employees who provide services under this Agreement. If the Contractor does not provide and maintain the DAS electrical certification for its each employee, the Agreement shall be terminated as directed in the Exhibit E. #2, Termination section.
- c) Each technician/electrician shall be journeymen level and shall show proof of holding a DAS Electrician certification upon request of Caltrans Contract Manager.
- d) Contractor shall ensure that employees doing the technical work are DAS certified electricians and properly trained at all times.
- e) Contractor and any Sub-Contractor shall provide training to its staff who performs work on this Agreement.

EXHIBIT A
Public Works (State)

B. REQUIRED CORRECTIVE AND PREVENTIVE MAINTENANCE SERVICES:

- Typical corrective and preventive maintenance for the existing systems within CEVs/Hubs at the District locations referenced in various portions of this Agreement are identified below (Items 5.B.1 - 21).
- The list below is a guideline:
- Contractor shall use replacement materials that are the most current technology in the industry or equivalent to the existing part/materials.
- Failure to provide any of the items in Section 5.B.1 – 21 shall be grounds for termination of this Agreement as directed in the Exhibit D. Termination Section #2.
- Contractor personnel are expected to have the knowledge to perform the initial and routine maintenance in the absence of specific hub documentation and manuals.
- Contractor is responsible for the following:
 - 1) Maintaining and repairing all CEV equipment and systems identified in this Scope of Work, Exhibit A and everything inside the fenced perimeter of the CEV/Hub/Mini Hubs and the area within ten (10) feet of the hub external structure.
 - 2) Furnishing materials, supplies or accessories, painting or refinishing the equipment or performing services connected with relocation of equipment or adding/removing accessories, attachments or other CEV devices.
 - 3) Maintaining and repairing by the Contractor that is required per this Agreement, per the Caltrans Contract Manager's recommendation, to restore CEV equipment to proper operating condition after any person other than the Contractor's employee had performed maintenance or otherwise repaired an item of equipment.
 - a) Contractor shall properly identify the defect, propose corrective action and estimate the time needed to repair the equipment.

EXHIBIT A
Public Works (State)

- b) Contractor shall promptly commence work upon approval of the repair by the Caltrans Contract Manager.
- 4) Trouble shooting, repairing and replacing parts for the access doors and alarm systems at the hubs. This typically consists of two (2) type of services:
 - a) Trouble shooting, repairing and replacing parts or materials for the access control system.
 - b) Providing repair service and replacement parts or materials for all the access doors and their locking mechanism including card activated door locks and key entry such as door handles.
- 5) Repairing all battery banks or replacing any that cannot be repaired.
- 6) Repairing smoke detectors or replacing any that cannot be repaired.
- 7) Replacing and certifying the Gas Monitor Sensor.
- 8) Servicing and certifying the Fire extinguisher.
- 9) Replacing any missing hardware such as "K" relays and contact front covers in all CEVs and hubs contact front covers in all CEVs and hubs.
- 10) Repairing the Air-conditioning system and its components.
- 11) AC generator maintenance and repair.
- 12) Repairing the heater and dehumidifier as required.
- 13) Checking and repairing as necessary the control panel and system control.
- 14) Replacing light bulbs as needed or replacing light fixtures when broken.
- 15) Resealing the leaking fiber duct plug to eliminate water intrusion into CEVs/Hubs.
- 16) Repairing the fan and blower duct door latch at CEVs collar.
- 17) Repairing all uninterruptable power supply (UPS) systems, or replacing as needed.

EXHIBIT A
Public Works (State)

18) Repairing or replacing rectifiers as needed.

19) Corrosion control.

a) This shall typically include treatment of rust and paint wherever applicable.

b) Items requiring this service to include metal doors, hinges, Air Condition Ducting ladders and CEV/Hub exterior and door ladders.

20) Installing and activating voice communications system from District 12 Transportation Management Center (TMC) to the corresponding CEVs and/or hubs as referenced in the Agreement.

21) Repairing entry doors and locking mechanisms including electronic/electrical card entry systems.

C. The program of corrective and preventive maintenance shall be conducted on all systems within the CEVs/Hubs, which shall include, but not limited to:

1) Air Conditioning Systems

2) Ventilation Equipment and Filtration

3) Heater and Dehumidifier

4) Smoke Alarm

5) Intrusion Alarm

6) Gas Monitoring System

7) Waste Water Sump Pump

8) Control Panel and Systems Control

9) Annual Fire Extinguisher Certification and Testing

10) Lighting

11) Lighting Fixtures

12) Uninterruptible Power System (UPS) including battery backup system

13) Security door locks including electronic control circuitry, card entry systems, and other components (detailed inspection and necessary repair).

EXHIBIT A
Public Works (State)

- 14) Any other items identified in the mandatory initial site inspection.
- 15) Corrective and preventive maintenance shall be comprehensive to ensure a fully functional CEV/Hub/Mini hub(s).

D. CALTRANS RESPONSIBILITIES

The Caltrans Contract Manager or designee will:

1. Complete Section A of the Work Authorization and Completion Form/Task Order (Appendix 2) and notify the Contractor with the start date(s), time(s) and location of the work by sending the Task Order to the Contractor via email, fax or in person.
2. Approve the Contractor's office facilities location and equipment necessary for the Contractor's performance under this Agreement and any relocation during the term of this Agreement prior to the change.
3. Request work assignments for Contractor's employees through the issuance of the Work Authorization and Completion Form/Task Order (Appendix 2) by sending a Task Order to the Contractor in an email or fax.
4. Respond to all questions that may arise, such as the quality or acceptability of materials and work performed and rate of work progress. The Caltrans Contract Manager's decision will be final. Caltrans will have authority to enforce and make effective such decisions.
5. Notify the Contractor if at any time the Caltrans Contract Manager or designee determines the Contractor's operation to be a problem for environmental or safety reasons.
6. Pay all invoices in accordance with this Agreement and upon approval of the work authorizations and timesheets.
7. Approve or disapprove the storage location and or office space should the Contractor identify the need for either in order to perform work.
8. Review replacement materials and/or devices that are proposed and submitted by the Contractor in performing tasks as described in this Agreement.

EXHIBIT A
Public Works (State)

9. Caltrans Contract Manager will provide a signed copy of the Work Authorization and Completion Form/Task Order (Appendix 2) to the Contractor once the Caltrans Contract Manager has inspected the work completed by the Contractor.

10. Approve Contractor's replacement employees, should the Contractor hire new workers to perform under this Agreement.

EXHIBIT A
Public Works (State)

E. MISCELLANEOUS PROVISIONS

1. Inspection and Approval

- a) All work for each Task Order is subject to monitoring and inspection by Caltrans.
- b) The Contractor shall request a final inspection for acceptance and approval by Caltrans within 24 hours of completion of work under a Work Authorization and Completion Form/Task Order (Appendix 2).

2. Cooperation

- a) Should construction or other work be under way by other parties within the area or adjacent to the Contractor's operations under this Agreement, the Contractor shall cooperate with all the other parties so that any delay or hindrance to their work shall be avoided.
- b) Caltrans reserves the right to perform other or additional work at or near the site at any time.
- c) Damaged items caused by the Contractor while performing any task shall be replaced at Contractor's expense. If identical replacements are not available due to obsolescence, it will be Contractor's responsibility to procure and install an equivalent item at the Contractor's sole cost, replacements must identical or better functionality and be approved in advance by the Caltrans Contract Manager.

F. DEFINITION OF TERMS

The following are definition of the terms that are used in this Agreement:

- 1. **Corrective Maintenance:** As opposed to preventive maintenance, this is the type of support service performed by the Contractor on short lead-time unscheduled basis, at a time agreed by the Caltrans Contract Manager and the Contractor.
- 2. **Emergency Service:** Support services that occur during non-business hours. This includes after hours, weekends, and State holidays. Only corrective maintenance will be performed during emergency service hours

EXHIBIT A
Public Works (State)

3. **ITS:** Intelligent Transportation Systems.
4. **Outage Time:** The time in which the system is inoperable.
5. **Preventative Maintenance:** Type of support service performed on a scheduled basis on communications equipment designed to keep the equipment in proper condition and prevent premature equipment failure.
6. **Repair Time:** The time interval between the arrival of Contractor's service personnel at the maintenance site to the time of restored operation.
7. **Response time:** The time interval between the Caltrans Contract Manager's or his/her district designee's request to the Contractor for service to the time Contractor service personnel arrives at the maintenance site.
8. **Standard Service:** Service that occurs during business hours of 7-8 a.m. to 4-5 p.m. (eight (8) working hours), Monday through Friday, excluding State holidays, as directed by the Caltrans Contract Manager.
9. **TMC:** Transportation Management Center.
10. **TMS:** Traffic Monitoring Station.
11. **ATMS:** Advanced Transportation Management System .
12. **Traffic Operations System Network (TOSNET)**
The total Caltrans-owned communications system's and/or network system's associated equipment, which operates as an integrated group.
13. **Trouble Call:** Support services that occur during normal business hours.

EXHIBIT B
Public Works - State

BUDGET DETAIL AND PAYMENT PROVISIONS

1. Invoicing and Payment

- A. For Work Authorization and Completion Form/Task Order Appendix 2 orders satisfactorily rendered and approved by the Caltrans Contract Manager, and upon receipt and approval of the invoices and Hub Maintenance Activity Report, Appendix 3, Caltrans agrees to compensate the Contractor in accordance with the Bid Proposal, Attachment 1 and this Exhibit B. Incomplete or disputed invoices shall be returned to the Contractor, unpaid, for correction.
- B. Invoices shall be itemized in accordance with Bid Proposal, Attachment 1, and shall be signed and submitted in triplicate not more frequently than monthly in arrears of the service and no later than 10 working days from the end of the billing month.
- C. Each invoice shall include:
 - 1. Agreement Number
 - 2. Dates of Service
 - 3. Location of Service
 - 4. Number of Hours
 - 5. Hourly Rates
 - 6. Receipts for Material and Supplies (Replacement parts)
 - 7. Signed Work Authorization and Completion Form/Task Order Appendix 2
 - 8. Signed Hub Maintenance Activity Report, Appendix 3
 - 9. Description of On-Call or Task Order
- D. Each invoice shall be submitted in triplicate to:

Department of Transportation
Caltrans Maintenance Office
Attention: TBD
District 12 TMC MS-58
7183 Opportunity Road
San Diego, CA 92111

One copy to:

Caltrans Electrical Supervisor
Attention: TBD
Electrical Area Superintendent

EXHIBIT B
Public Works - State

6685 Marine Way
Irvine, CA 92618

- E. The Contractor shall submit a certified copy of all payroll records for verification by the Caltrans Contract Manager and/or designee with each invoice. Delinquent or inadequate certified payrolls or other required documents will result in the withholding of payment until such documents are submitted by the Contractor.

2. Budget Contingency Clause

- A. It is mutually understood between the parties that this Agreement may have been written before ascertaining the availability of congressional or legislative appropriation of funds, for the mutual benefit of both parties in order to avoid program and fiscal delays that would occur if the Agreement were executed after that determination was made.
- B. This Agreement is valid and enforceable only if sufficient funds are made available to the State of California by the United States Government or the California State Legislature for the purpose of this program. In addition, this Agreement is subject to any additional restrictions, limitations, conditions, or any statute enacted by the Congress or the State Legislature that may affect the provisions, terms or funding of this Agreement in any manner.
- C. It is mutually agreed that if the Congress or the California State Legislature does not appropriate sufficient funds for the program, this Agreement shall be amended to reflect any reduction in funds.
- D. Pursuant to Government Code (GC), Section 927.13, no late payment penalty shall accrue during any time period for which there is no Budget Act in effect, nor on any payment or refund that is the result of a federally mandated program or that is directly dependent upon the receipt of federal funds by a state agency.
- E. Caltrans has the option to terminate the Agreement under the 30-day termination clause or to amend the Agreement to reflect any reduction of funds. Refer to Exhibit D, 2. B. Termination.

3. Prompt Payment Clause

Payment will be made in accordance with, and within the time specified in, GC, Section 927.

4. Cost Limitation

- A. Total amount of this Agreement shall not exceed **TBD.**

EXHIBIT B
Public Works - State

- B. It is understood and agreed that this total is an estimate and that Caltrans will pay only for those services actually rendered as authorized by the Caltrans Contract Manager or its designee up to the maximum.

5. Materials/Supplies

The Contractor will be reimbursed for the actual cost of materials/supplies purchased to be consumed or installed at the work site in performance of the Agreement (including applicable sales tax), without additional allowance for markup. Contractor costs associated with the purchase and installation of materials/supplies are considered as a component of the Contractor's hourly rate for services that include wages, overhead, general and administrative expenses and profit. The cost of materials/supplies are to be substantiated by a copy of the appropriately signed original invoice verifying the actual cost and delivery of the material/supplies to Caltrans.

6. Costs Included in Bid Rates

- A. The cost of employer payments to or on behalf of employees, subsistence, travel, compensation insurance premiums, unemployment contributions, social security taxes, Agreement bond premiums, and any other taxes or assessments including sales and use taxes required by law or otherwise shall be included in the Agreement rates and no additional allowance will be made thereof, unless separate payment provision should specifically so provide.
- B. Contractor shall make travel and subsistence payments to each worker in compliance with Labor Code sections 1773.1 and 1773.9. Travel and subsistence requirements are available on the of Industrial Relations website at <http://www.dir.ca.gov/DLSR/PWD/>.

7. Cost Principles

- A. The Contractor agrees that the Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31 *et seq.*, shall be used to determine the allowable individual items of cost.
- B. The Contractor also agrees to comply with Federal procedures in accordance with Title 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.
- C. Any costs for which payment has been made to Contractor that are determined by subsequent audit to be unallowable under Title 48 CFR, Part 31 *et seq.*, or Title 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments are subject to repayment by Contractor to State.
- D. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this article.

EXHIBIT B
Public Works - State

8. Payroll Records

- A. The Contractor and each Subcontractor shall comply with the following provisions. The Contractor shall be responsible for compliance by its Subcontractors.
- 1) Each Contractor and Subcontractor shall keep accurate payroll records and supporting documents as mandated by Section 1776 of the California Labor Code (LC) and as defined in Section 16000 of Title 8 of the California Code of Regulations, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor or Subcontractor in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:
 - a) The information contained in the payroll record is true and correct.
 - b) The employer has complied with the requirements of LABOR CODE Sections 1771, 1811, and 1815 for any work performed by its employees on the public works project.
 - 2) The payroll records enumerated under paragraph (1) above shall be certified. The certified payrolls and records related to employee wages, fringe benefits, payroll tax and deductions shall be available for inspection and copying by Caltrans representative at all reasonable hours at the Contractor's principal office. Certified payrolls shall be made available as follows:
 - a) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or the employee's authorized representative on request.
 - b) A certified copy of all payroll records enumerated in paragraph (1) above, shall be made available for inspection or furnished upon request to a representative of Caltrans, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the of Industrial Relations. Certified payrolls submitted to Caltrans, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards shall not be altered or obliterated by the Contractor.
 - c) The public shall not be given access to certified payroll records by the Contractor. The Contractor is required to forward any requests for certified payrolls to the Caltrans Contract Manager by both facsimile and regular mail on the business day following receipt of the request.
 - 3) Each Contractor shall submit a certified copy of the records enumerated in paragraph (1) above, to the entity that requested the records within ten (10) days after receipt of a written request.

EXHIBIT B
Public Works - State

- 4) Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by Caltrans shall be marked or obliterated in such a manner as to prevent disclosure of each individual's name, address and social security number. The name and address of the Contractor awarded the Agreement or performing the Agreement shall not be marked or obliterated.
 - 5) The Contractor shall inform Caltrans of the location of the records enumerated under paragraph (1) above, including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.
 - 6) The Contractor or Subcontractor shall have ten (10) days in which to comply subsequent to receipt of written notice requesting the records enumerated in paragraph (1) above. In the event the Contractor or Subcontractor fails to comply within the ten-day period, it shall, as a penalty to Caltrans, forfeit twenty-five dollars (\$25) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Such penalties shall be withheld by Caltrans from payments then due. A Contractor is not subject to a penalty assessment pursuant to this section due to the failure of a Subcontractor to comply with this section.
- B. The penalties specified in paragraph 6 above for noncompliance with the provisions of said LABOR CODE Section 1776 will be deducted from any monies due or which may become due to the Contractor. Penalties assessed for failure to submit certified payrolls are forfeitures and not retentions that will be returned to the Contractor.
 - C. Payrolls shall contain the full name, address and social security number of each employee, the correct work classification (including apprentices, if applicable), rate of pay, daily and weekly number of hours worked, itemized deductions made and actual wages paid. The employee's address and social security number need only appear on the first payroll on which his name appears. The payroll shall be accompanied by a "Statement of Compliance" signed by the employer or employer's agent indicating that the payrolls are correct and complete and that the wage rates contained therein are not less than those required by the Agreement. The "Statement of Compliance" shall be on forms furnished by Caltrans or on any form with identical wording. Any payroll that does not include the required "Statement of Compliance" will be deemed inadequate and unacceptable. The Contractor shall be responsible for the submission of copies of payrolls of all Subcontractors.
 - D. The Contractor and each Subcontractor shall preserve their payroll records for a period of three (3) years from the date of completion of the Agreement.
 - E. The Contractor shall submit a certified copy of all payroll records for verification by the Caltrans Contract Manager and/or designee with each invoice. When progress payments are called for, the Contractor shall submit a certified copy of all payroll

EXHIBIT B
Public Works - State

records for verification for the work completed to date with each invoice. Delinquent or inadequate certified payrolls or other required documents will result in the withholding of payment until such documents are submitted by the Contractor.

- F. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this clause.

9. Penalty

- A. The Contractor and any Subcontractor under the Contractor shall comply with Labor Code (LC) Sections 1774 and 1775. In accordance with said LABOR CODE Section 1775, the Contractor shall forfeit, as a penalty to Caltrans, not more than fifty dollars (\$50) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates for such work or craft in which such worker is employed for any public work done under the Agreement by him or her, or by any Subcontractor under him/her, in violation of the provisions of the Labor Code and, in particular, Labor Code Sections 1775 to 1780, inclusively.
- B. The amount of this forfeiture shall be determined by the Labor Commissioner and shall be based on consideration of the mistake, inadvertence, or neglect of the Contractor or Subcontractor in failing to pay the correct rate of prevailing wages, or the previous record of the Contractor or Subcontractor in meeting his or her prevailing wage obligations, or a Contractor's willful failure to pay the correct rates of prevailing wages. A mistake, inadvertence, or neglect in failing to pay the correct rate of prevailing wages is not excusable if the Contractor or Subcontractor had knowledge of the obligations under the Labor Code. Any Contractor that executes and receives a copy of this Agreement is deemed to have knowledge of his or her obligations regarding the Labor Code's prevailing wage requirements. In addition to the penalty and pursuant to Labor Code Section 1775, the difference between the prevailing wage rates and the amount paid to each worker for each calendar day, or portion thereof, for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor or Subcontractor.
- C. If a worker employed by a Subcontractor on a public works project is not paid the general prevailing per diem wages by the Subcontractor, the prime Contractor of the project is not liable for any penalties described above unless the prime Contractor had knowledge of that failure of the Subcontractor to pay the specified prevailing rate of wages to those workers or unless the prime Contractor fails to comply with all of the following requirements:
 - 1) The Agreement executed between the Contractor and the Subcontractor for the performance of work on the public works project shall include a copy of the provisions of Sections 1771, 1775, 1775.5, 1776, 1813 and 1815 of the Labor Code.

EXHIBIT B
Public Works - State

- 2) The Contractor shall monitor the payment of the specified general prevailing rate of per diem wages by the Subcontractor to the employees by periodic review of the certified payroll records of the Subcontractor.
 - 3) Upon becoming aware of the failure of the Subcontractor to pay his or her workers the specific prevailing rate of wage, the Contractor shall diligently take corrective action to halt or rectify the failure, including, but not limited, to retaining sufficient funds due the Subcontractor for work performed on the public works project.
 - 4) Prior to making final payment to the Subcontractor for work performed on the public works project, the Contractor shall obtain an affidavit signed under penalty of perjury for the Subcontractor that the Subcontractor has paid the specified general prevailing rate of per diem wages to his or her employees on the public works project and any amounts due pursuant to LABOR CODE Section 1813.
- D. Pursuant to LABOR CODE Section 1775, Caltrans shall notify the Contractor on a public works project within 15 days of receipt of a complaint that a Subcontractor has failed to pay workers the general prevailing rate of per diem wages.
- E. If Caltrans determines that employees of a Subcontractor were not paid the general prevailing rate of per diem wages and if Caltrans did not retain sufficient money under the Agreement to pay those employees the balance of wages owed under the general prevailing rate of per diem wages, the Contractor shall withhold an amount of moneys due the Subcontractor sufficient to pay those employees the general prevailing rate of per diem wages if requested by Caltrans.
- F. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this clause.

10. State General Prevailing Wage Rates

- A. The Contractor agrees to comply with all of the applicable provisions of the Labor Code including those provisions requiring the payment of not less than the general prevailing rate of wages. The Contractor further agrees to the penalties and forfeitures provided in said Code in the event a violation of any of the provisions occurs in the execution of this Agreement.
- B. Pursuant to LABOR CODE Section 1771.5, not less than the general prevailing wage rate of per diem wages and the general prevailing rate of per diem wages for holiday and overtime work for work of a similar character in the county in which the work is to be performed shall be paid to all workers employed on this Agreement, if this Agreement is for:
 - 1) More than \$25,000 for public works construction or,
 - 2) More than \$15,000 for the alteration, demolition, installation, repair, or maintenance of public works.

EXHIBIT B
Public Works - State

- C. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this clause.

11. State Prevailing Wage Rate Determinations

- A. The General Prevailing Wage Rate Determinations applicable to the project are available and on file with Caltrans Regional/District Labor Compliance Office. These wage rate determinations are made a specific part of this Agreement by reference pursuant to Labor Code Section 1773.2. Any special wage rate determinations applicable to this project are attached.
- B. General Prevailing Wage Rate Determinations applicable to this project may also be obtained from the Department of Industrial Relations Internet site at:
<http://www.dir.ca.gov/>.
- C. After award of the Agreement, and prior to commencing work, all applicable General Prevailing Wage Rate Determinations are to be obtained by the Contractor from Caltrans District/Regional Labor Compliance Officer. These wage rate determinations are to be posted by the Contractor at the job site in accordance with Section 1773.2 of the California Labor Code.
- D. Questions pertaining to predetermined wage rates should be directed to Caltrans Regional or District Labor Compliance Office. Please reference the following website address for a list of local Labor Compliance Offices:
<http://www.dot.ca.gov/hq/construc/LaborCompliance/contactaddress.pdf>

12. Hours of Labor

- A. Eight (8) hours labor constitutes a legal day's work. The Contractor shall forfeit, as a penalty to Caltrans, twenty-five dollars (\$25.00) for each worker employed in the execution of the Agreement by the Contractor or any Subcontractor under the Contractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of the Labor Code (LC), and in particular LABOR CODE Sections 1810 to 1815 thereof, inclusive, except that work performed by employees in excess of eight (8) hours per day, and forty (40) hours during any one week, shall be permitted upon compensation for all hours worked in excess of eight (8) hours per day and forty (40) hours in any week, at not less than one and one-half times the basic rate of pay, as provided in Section 1815.
- B. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this clause.

13. Employment of Apprentices

- A. Where either the prime contract the subcontract exceeds \$30,000, the Contractor and any Subcontractors under him or her shall comply with all applicable

EXHIBIT B
Public Works - State

requirements of Labor Code Sections 1777.5, 1777.6 and 1777.7 in the employment of apprentices.

- B. Contractors and Subcontractors are required to comply with all Labor Code requirements regarding the employment of apprentices, including mandatory ratios of journey level to apprentice workers. Prior to commencement of work, Contractors and Subcontractors are advised to contact the State Division of Apprenticeship Standards, P. O. Box 420603, San Francisco, California 94142-0603, or one of its branch offices, for additional information regarding the employment of apprentices and for the specific journey-to-apprentice ratios for the Agreement work. The prime Contractor is responsible for all Subcontractors' compliance with these requirements Penalties are specified in Labor Code Section 1777.7.
- C. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this article.

EXHIBIT D
Public Works - State

SPECIAL TERMS AND CONDITIONS

1. Settlement of Disputes

- A. Any dispute concerning a question of fact arising under this Agreement that is not disposed of by Agreement shall be decided by the Caltrans Contract Officer, who may consider any written or verbal evidence submitted by the Contractor. The decision of the Caltrans Contract Officer, issued in writing, shall be Caltrans' final decision on the dispute.
- B. Neither the pendency of a dispute nor its consideration by the Caltrans Contract Officer will excuse the Contractor from full and timely performance in accordance with the terms of the Agreement.

2. Termination

- A. If, after award and execution of the Agreement, the Contractor's performance is unsatisfactory, the Agreement may be terminated for default. Additionally, the Contractor may be liable to Caltrans for damages including the difference between the Contractor's original bid price and the actual cost of performing the work by another Contractor. Default is defined as the Contractor failing to perform services required by the Agreement in a satisfactory manner.
- B. Caltrans reserves the right to terminate this Agreement without cause upon thirty (30) days written notice to the Contractor or immediately in the event of default or material breach by the Contractor.
- C. The State may terminate this Agreement immediately for good cause. The term "good cause" may be defined as "impossibility of performance" or "frustration of purpose," but does not include material breach, default, or termination without cause. In this instance, the Agreement termination shall be effective as of the date indicated on the State's notification to the Contractor.
- D. In the event that the total Agreement amount is expended prior to the expiration date, Caltrans may, at its discretion, terminate this Agreement with 30 days notice to Contractor.

3. Retention of Records/Audits

- A. For the purpose of determining compliance with Government Code Section 8546.7, the Contractor, Subcontractors, and Caltrans shall maintain all books, documents, papers, accounting records, and other evidence pertaining to the performance of the Agreement, including but not limited to, the costs of administering the Agreement. All parties shall make such materials available at their respective offices at all reasonable times during the Agreement period and for three years from the date of final payment under the Agreement. Caltrans, the State Auditor, Federal Highway Administration (FHWA), or any duly authorized representative of the Federal government having jurisdiction under Federal laws or regulations (including the basis of Federal funding in

EXHIBIT D
Public Works - State

whole or in part) shall have access to Contractor's books, records, and documents that are pertinent to the Agreement for audits, examinations, excerpts, and transactions, and copies thereof shall be furnished if requested.

- B. Any subcontract entered into as a result of this Agreement shall contain all the provisions of this clause.

4. Subcontractors

- A. Nothing contained in this Agreement or otherwise, shall create any contractual relation between Caltrans and any Subcontractors, and no subcontract shall relieve the Contractor of its responsibilities and obligations hereunder. The Contractor agrees to be as fully responsible to Caltrans for the acts and omissions of its Subcontractors and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by the Contractor. The Contractor's obligation to pay its Subcontractors is an independent obligation from Caltrans obligation to make payments to the Contractor.
- B. Subcontracting is allowed for any work other than work that requires a C-10 Electrical license, any work that required a C-10 Electrical license cannot be subcontracted.
- C. The Contractor shall perform the work contemplated with resources available within its own organization and no portion of the work shall be subcontracted except for Subcontractors listed on the Bidder Declaration, GSPD-05-105, Attachment 2.
- D. Any subcontract in excess of \$25,000, entered into as a result of this Agreement, shall contain all the provisions stipulated in this Agreement to be applicable to Subcontractors.
- E. Any substitution of Subcontractors shall comply with the requirements of Public Contract Code Section 4100 *et seq.*, and must be approved in writing by the Caltrans Contract Manager in advance of assigning work to a substitute Subcontractor.

5. Disabled Veterans Business Enterprise (DVBE) Participation (Without Goals)

Caltrans has established no goals for the DVBE participation for this Agreement. However, the Contractor shall be fully informed respecting the California Public Contract Code Section 10115 *et seq.*, which is incorporated by reference. Contractor is urged to obtain DVBE Subcontractor participation should clearly defined portions of the work become available.

6. Laws to be Observed

The Contractor shall keep fully informed of all existing and future state and federal laws and county and municipal ordinances and regulations which in any manner affect those engaged or employed in the work, the materials used in the work, or which in any way affect the conduct of the work, and of all such orders and decrees of bodies or tribunals

EXHIBIT D
Public Works - State

having any jurisdiction or authority over the same. Contractor shall at all times observe and comply with, and shall cause all agents and employees to observe and comply with all such existing and future laws, ordinances, regulations, orders, and decrees of bodies or tribunals having any jurisdiction or authority over the work. The Contractor shall protect and indemnify the State of California and all officers and employees thereof connected with the work against any claim, injury, or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor, its Subcontractor(s), or an employee(s). If any discrepancy or inconsistency is discovered in the plans, drawings, specifications, or Agreement for the work in relation to any such law, ordinance, regulation, order, or decree, the Contractor shall immediately report the same to the Caltrans Contract Manager in writing.

7. Specific Statutory Reference

Any reference to certain statutes in this Agreement shall not relieve the Contractor from the responsibility of complying with all other statutes applicable to the service, work, or rental to be furnished thereunder.

8. Equipment Indemnification

- A. The Contractor shall indemnify Caltrans for any claims against Caltrans for loss or damage to the Contractor's property or equipment during its use under this Agreement and shall at the Contractor's own expense maintain such fire, theft, liability or other insurance as deemed necessary for this protection. The Contractor assumes all responsibility which may be imposed by law for property damage or personal injuries caused by defective equipment furnished under this Agreement or by operations of the Contractor or the Contractor's employees under this Agreement.
- B. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this clause.

9. Force Majeure

Except for defaults of Subcontractors, neither party shall be responsible for delays or failures in performance resulting from acts beyond the control of the offending party. Such acts shall include, but shall not be limited to, acts of God, fire, flood, earthquake, other natural disaster, nuclear accident, strike, lockout, riot, freight embargo, public regulated utility, or governmental statutes or regulations superimposed after the fact. If a delay or failure in performance by the Contractor arises out of a default of its Subcontractor, and if such default of its Subcontractor, arises out of causes beyond the control of both the Contractor and Subcontractor, and without the fault or negligence of either of them, the Contractor shall not be liable for damages of such delay or failure, unless the supplies or services to be furnished by the Subcontractor were obtainable from other sources in sufficient time to permit the Contractor to meet the required performance schedule.

EXHIBIT D
Public Works - State

10. Employment of Undocumented Workers

By signing this Agreement, the Contractor swears or affirms that it has not, in the preceding five years, been convicted of violating a State or Federal law relative to the employment of undocumented workers.

11. Bonds (Work Authorization and Completion Form), Appendix 2

Prior to commencement of work under this Work Authorization and Completion Form), Appendix 2, the Contractor shall submit a Payment Bond for 100% of the Work Authorization and Completion Form), Appendix 2 , if the Work Authorization and Completion Form), Appendix 2 is over \$25,000. The Payment Bond is due prior to the start date of the Work Authorization and Completion Form), Appendix 2 No work may commence without receipt of a valid Payment Bond as noted herein.

EXHIBIT E
Public Works - State

ADDITIONAL PROVISIONS

1. General Provisions Required in all Insurance Policies

- A. Deductible: Contractor is responsible for any deductible or self-insured retention contained within the insurance program.
- B. Coverage Term: Coverage must be in force for the complete term of this Agreement. If insurance expires during the term of this Agreement, a new certificate must be received by the Caltrans Contract Manager at least ten (10) days prior to the expiration of the insurance. Any new insurance must continue to comply with the original terms of this Agreement **56A0356**.
- C. Policy Cancellation or Termination and Notice of Non-Renewal: Contractor shall provide, to the Caltrans Contract Manager within five (5) business days, following receipt by Contractor, a copy of any cancellation or non-renewal of insurance required by this Agreement. In the event Contractor fails to keep, in effect at all times, the specified insurance coverage, the State may, in addition to any other remedies it may have, terminate this Agreement upon the occurrence of such event, subject to the provisions of this Agreement.
- D. Primary Clause: Any required insurance contained in this Agreement shall be primary, and not excess or contributory, to any other insurance carried by the State.
- E. Inadequate Insurance: Inadequate or lack of insurance does not negate the Contractor's obligations under this Agreement.
- F. Endorsements: Any required endorsements requested by the State must be physically attached to all requested certificates of insurance and not substituted by referring to such coverage on the certificate of insurance.
- G. Insurance Carrier Required Rating: All insurance companies must carry a rating acceptable to the Department of General Services, Office of Risk and Insurance Management (ORIM). If the Contractor is self insured for a portion or all of its insurance, review of financial information including a letter of credit may be required. Department of General Services, ORIM Website:
<http://www.dgs.ca.gov/orim/home.aspx>
- H. Contractor shall include all of its subcontractors as insured's under Contractor's insurance or supply evidence of insurance to the State equal to the policies, coverage's and limits required of Contractor.
- I. The State will not be responsible for any premiums or assessments on the policy.

2. Insurance Requirements

- A. Commercial General Liability
 - 1) Contractor shall maintain general liability on an occurrence form with limits not less than **\$1,000,000** per occurrence and **\$2,000,000** aggregate for bodily injury

EXHIBIT E
Public Works - State

and property damage liability. The policy shall include coverage for liabilities arising out of premises, operations, independent contractors, products, completed operations, personal and advertising injury, and liability assumed under an insured Agreement. This insurance shall apply separately to each insured against whom claim is made or suit is brought subject to the Contractor's limit of liability. The policy must include:

Caltrans, State of California, its officers, agents, employees and servants are included as additional insured but only with respect to work performed under this Agreement.

- 2) This endorsement must be supplied under form acceptable to the Department of General Services, Office of Risk and Insurance Management.

B. Automobile Liability

Contractor shall maintain motor vehicle liability with limits not less than **\$1,000,000** combined single limit per accident. Such insurance shall cover liability arising out of a motor vehicle including owned, hired and non-owned motor vehicles. The same additional insured designation and endorsement required for general liability is to be provided for this coverage.

C. Workers' Compensation and Employer's Liability

Contractor shall maintain statutory worker's compensation and employer's liability coverage for all its employees who will be engaged in the performance of the Agreement. Employer's liability limits of **\$1,000,000** are required. When work is performed on State owned or controlled property the workers' compensation policy shall contain a waiver of subrogation in favor of the State. The waiver of subrogation endorsement shall be provided to the Caltrans' Contract Manager.

3. Licenses and Permits

- A. The Contractor shall be properly licensed in accordance with the laws of the State of California and shall possess a General Engineering Contractor License, **Class A** or General Building Contractors license, **Class B** with a Electrical Contractors license, **C-10**.
- B. Subcontracting is allowed for any work other than work that requires a C-10 Electrical license, any work that required a C-10 Electrical license cannot be subcontracted.
- C. The Contractor shall be an individual or firm licensed to do business in California and shall obtain at its expense all license(s) and permit(s) required by law for accomplishing any work required in connection with this Agreement.
- D. If Contractor is located within the State of California, the Contractor must have a business license from the city/county in which it is headquartered, however, if Contractor is a corporation, a copy of its incorporation documents/letter from the

EXHIBIT E
Public Works - State

Secretary of State's Office may substitute for a business license. If Contractor is located outside the State of California, Contractor must provide a current copy of its business license or incorporation papers for its State of residence showing that the Contractor is in good standing with their State to Caltrans.

- E. In the event any license(s) and/or permit(s) expire at any time during the term of this Agreement, Contractor agrees to provide Caltrans a copy of the renewed license(s) and/or permit(s) within 30 days following the expiration date. In the event the Contractor fails to keep in effect at all times all required license(s) and permit(s), Caltrans may, in addition to any other remedies it may have, terminate this Agreement upon occurrence of such event.

4. Licensed Contractor Standards for Quality of Work

- A. Licensed Contractors must observe professional standards for quality of work or the California Contractors State License Board (CSLB) will invoke disciplinary action.
- B. Notice is hereby given that certain actions by a Contractor, including, but not limited to the following, constitute grounds for disciplinary action by the CSLB once Caltrans has notified the license board of all violations:
 - 1) A willful departure from plans and specifications or disregard of trade standards for good and workmanlike construction in any material respect that might prejudice Caltrans, owner of the property upon which you perform work (Bus. & Prof. Code, 7109).
 - 2) The failure to observe and comply with all of the applicable labor laws (Bus. & Prof. Code 7110).
 - 3) Material failure to complete this Agreement (Bus. & Prof. Code 7113).
- C. Should Caltrans determine that the work or materials provided vary materially from the specifications, or, that defective work when completed was not performed in a workmanlike manner, then the Contractor warrants that it shall perform all necessary repairs, replacement and corrections needed to restore the property according to the Agreement plans and specifications, all at no further or additional cost to Caltrans.

5. Debarment and Suspension Certification

- A. The Contractor's signature affixed herein shall constitute a certification under penalty of perjury under the laws of the State of California, that the Contractor or any person associated therewith in the capacity of owner, partner, director, officer, or manager:
 - 1) is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;
 - 2) has not been suspended, debarred, voluntarily excluded, or determined ineligible by any federal agency within the past three (3) years;

EXHIBIT E
Public Works - State

- 3) does not have a proposed debarment pending; and
 - 4) has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years.
- B. Any exceptions to this certification must be disclosed to Caltrans. Exceptions will not necessarily result in denial of recommendation for award, but will be considered in determining bidder responsibility. Disclosures must indicate the party to whom the exceptions apply, the initiating agency, and the dates of agency action.
- 6. Interfacing with Pedestrian Vehicular Traffic**

Pursuant to the authority contained in the Vehicle Code (VC), Section 591, Caltrans has determined that within such areas as are within the limits of the project and are open to public traffic, the Contractor shall comply with all of the requirements set forth in the Vehicular Code, Divisions 11, 12, 13, 14 and 15. The Contractor shall take all necessary precautions for safe operations of the Contractor's equipment and the protection of the public from injury and damage from such property.

Controlled Environmental Vault (CEV) Manual

-PREFACE-

This manual was prepared by:

UTILITY VAULT COMPANY, INC.
P.O. Box 566
Chandler, AZ 9S244

Its purpose is to provide a general understanding of the operation and maintenance of the Controlled Environment Vault (CEV) manufactured by Utility Vault Company, Inc.

Utility Vault Company, Inc. has a fully staffed engineering department and a CEV project manager who are available to answer or assist you with any problems or questions not covered within the scope of this manual.

For further information, please contact us at (602) 963-2678.

Dave Wadlington
Engineer

Norm Keaster
Project Manager

Mike Flick
Sales

December 13,1989

OPERATIONS MANUAL

Controlled Environment Vault (CEV)

Table of Contents	Page No.
1. General	1
2. Entering and Exiting a CEV	1
3. Normal Operation of a CEV	2
A. Ventilation System	
B. Gas Monitor	
C. Air Conditioning	
D. Dehumidifier	
E. Sump Pump	
F. Heater	
4. Control Panel Settings and Layout	5
5. Test Procedures to Check operation of Electrical System and Environmental Equipment introduction	8
A. Ventilation System	
B. Gas Monitor	
C. Air Conditioning	
D. Dehumidifier	
E. Sump Pump	
F. Heater	
G. Lighting	
6. Test Procedures for Checking the CEV Alarm System Introduction	12
A. High Water Alarm	

B. High Temperature Alarm	
C. High Humidity Alarm	
D. Intrusion Alarm	
E. Gas Alarms	
F. Ventilation Alarm	
G. Power Off Alarm	
H. Smoke Alarm	
7. Emergency Power	15
8. Maintenance Schedule	16
9. Trouble Shooting Guide	18
10. Design Notes and Assumptions	27

1. General

The CEV is a precast concrete structure developed for housing electronic equipment below ground in an environment that permits mounting the equipment in open frames.

The CEV will accommodate subscriber loop carrier system remote terminals or the electronic equipment associated with required lightguide fibers.

The CEV structures are equipped with an AC power distribution panel, ventilation blower, dehumidifier, air conditioner, electric heater, sump pump, fluorescent lights, and gas monitor. Alarms are provided that permit monitoring the CEV environment from a remote location. Included in each CEV are cable racking hardware, bonding and grounding attachments and all hardware necessary for installation of electronic equipment.

2. Entering and Exiting a CEV

The CEV entranceway cover is secured by a key lock. When the cover is unlocked, it can be opened to a full 90 degree position. Compression spring lift mechanisms assist in counterbalancing the cover. A self engaging support arm holds the cover in a fully open position. When closed, the cover can be locked and unlocked from the inside as well as the outside.

When the entranceway is opened, an intrusion alarm located inside the entranceway is activated. This alarm should be wired to transmit a signal to an alarm monitoring center. The craftsperson entering the CEV is required to deactivate the alarm by pulling the shaft of the alarm switch out approximately 1/4 inch. The switch will automatically reset itself when the entrance cover is closed.

Also, when the entranceway cover is opened, a plunger switch located inside the entranceway should turn "ON" the fluorescent lights inside the CEV. If the lights are not "ON", a 3-way light switch located inside the entranceway collar must be reversed to turn the fluorescent lights "ON" and activate the CEV ventilation system.

After the entranceway cover is opened, but before entering the CEV, the craftsperson should check the alarm status indicator. The red light will light for five minutes, then change to green. The blower will run during the five minutes to purge the CEV. The green light indicates that a safe atmospheric condition exists in the CEV.

If after the five minute purge the red light stays "ON" accompanied by an audible alarm, **DO NOT ENTER THE CEV**. A steady audible alarm indicates an explosive or toxic gas condition that could be hazardous. A pulsating audible alarm indicates a malfunction in the ventilation system. If after 10 minutes the alarm(s) has not cleared, use a portable manhole blower to ventilate the CEV and test for toxic or explosive gas before entering.

Before entering the CEV, pull up the stainless steel extender on the ladder and secure it in place with the ladder support arm engaged on the top ladder rung.

Also, before entering, install the guard assembly. The guard assembly, which consists of a stainless steel post and two lengths of chain, is stored on a hook inside entranceway. Remove the assembly from its storage hook and insert the post in the sleeve provided. Connect the longer chain to the bracket on the underside of the entranceway cover and the shorter chain to the stainless steel ladder extender.

Upon entering the CEV notify the local alarm monitoring center in order to maintain security. During inclement weather it may be necessary to lower the entrance way cover while working inside the CEV. Since lowering the cover will automatically turn the lights "OFF", a manually operated light switch located inside the entranceway collar must be reversed to switch the lights "ON".

NOTE: Each time the lights are turned "ON" the CEV blower will be activated again for five minutes.

To close the entranceway cover, remove the guard assembly and store it on the hook inside the entranceway; return the ladder extender to the down position and pull the red handle to disengage the cover support arm and lower the cover. Make sure the cover is closed tightly and the lock is engaged. When leaving the CEV notify the alarm monitoring center in order to maintain security.

3. Normal Operation of a CEV

A. Ventilation System

The CEV ventilation is provided by the automatic cycling of the ventilation blower which is controlled by a clock timer. The periodic operation of the blower (approximately one minute each 15 minutes) provides four air exchanges an hour. This rate of air exchange is sufficient to clear any potential combustible gas problem such as hydrogen generated during battery recharge and is also sufficient to support the needs of two craftspersons working in the CEV. The continuous 15 minute ventilation cycle is blocked when the fluorescent lights are "OFF" (e.g. unoccupied CEV). When the lights are first turned "ON", the blower operates for 5 minutes to purge the CEV. The 15 minute ventilation cycle is resumed after the five minute purge and continues until the fluorescent lights are turned "OFF" (e.g. when the entranceway cover is closed).

If more ventilation is required for personal comfort the blower can be turned "ON" with a manually operated timer switch located on the control panel of the CEV, this switch can be set for continuous blower operation for any period up to one hour. The blower will automatically turn "OFF" at the end of the set period and return to the automatic cycle mode. When exiting the CEV turn the manually operated blower timer switch to the "OFF" position.

The blower will automatically operate continuously when the gas monitor detects a hazardous condition and will continue to operate until the hazardous condition is cleared. The blower will also operate continuously under a high temperature alarm condition (normally 125 degrees F) as possibly caused by an air conditioner failure. The blower will operate for cooling when the "CEV thermostat" control temperature is exceeded. The blower is inhibited from operating for cooling when the relative humidity within the CEV exceeds 75% RH, when the external ambient temperature exceeds 80 degrees F, or when the air conditioner is operating.

NOTE: In CEVs equipped with a smoke detector, the blower will be inhibited from operating in the event of a fire.

B. Gas Monitor

Continuous sampling of the CEV environment is performed by the gas monitor. This instrument is equipped with sensing elements calibrated to detect the presence of a toxic or combustible gas condition. The face of the gas monitor contains two visual indicating lamps to denote whether the alarmed condition is toxic or explosive. Associated with the monitor are a red and green display light located inside the CEV entranceway. These lights denote an unsafe or safe condition respectively inside the CEV. A steady audible alarm is also sounded inside the CEV should an unsafe condition exist.

With the gas monitor properly calibrated and without the presence of toxic or combustible gas, the green display light inside the entranceway will be illuminated when the cover is open. Note that the green light is turned off when the cover is closed.

When a sensing element is exposed to toxic or combustible gas the steady audible alarm should sound in the CEV. In addition, the corresponding indicating lamp on the face of the gas monitor should light. The red display lamp, located inside the entranceway, should also be illuminated.

The gas monitor is wired in such a manner that any indication of a gas being present in the CEV, which causes an alarm, should also start the ventilation blower. This should occur regardless of any other control settings in the CEV with the exception of a smoke condition which causes the CEV smoke detector to operate and the ventilation blower to be inhibited.

A gas condition should override the air conditioner inhibit function and start the blower. The blower will continue to operate until the gas condition has been cleared and the green light has come "ON". During this ventilation phase the air conditioner may continue to operate.

C. Air Conditioner

In CEVs requiring air conditioning, additional controls are provided for operation of the air conditioner(s) and also for controlling the operation of the ventilation blower when the air conditioner(s) is "ON". The 16-foot CEV is provided with one air conditioner controlled by the A/C thermostat. The 24-foot CEV is provided with two air conditioners, both controlled by the A/C thermostat.

A manual timer switch will turn "ON" the air conditioner in the 16-foot CEV and both of the air conditioners in the 24-foot CEV. The air conditioning units will also be operated automatically by the A/C thermostat.

When the CEV temperature rises to 95 degrees F, the air conditioner (A/C No. 1) will start after approximately 2 minutes. In CEVs with two air conditioners, approximately 1 minute after the first A/C unit has started the second unit (A/C No-2) will start. When the CEV temperature has been lowered to 90 degrees F, both A/C units will shut down.

If the CEV blower is operating in the cooling mode at the time the air conditioner begins operation, a relay in the air conditioning circuit will shut the blower "OFF".

D. Dehumidifier

The operation of the dehumidifier is controlled by a humidistat pre-set to start the unit when the relative humidity in the CEV exceeds 55%.

The operation of the dehumidifier is also controlled by the operation of the ventilation blower. Whenever the blower is running, a relay in the control circuit interrupts the power fed to the dehumidifier and either shuts it down or prevents it from starting. When the blower stops running the normal mode of operation for the dehumidifier, as controlled by the humidistat, is restored.

E. Sump Pump

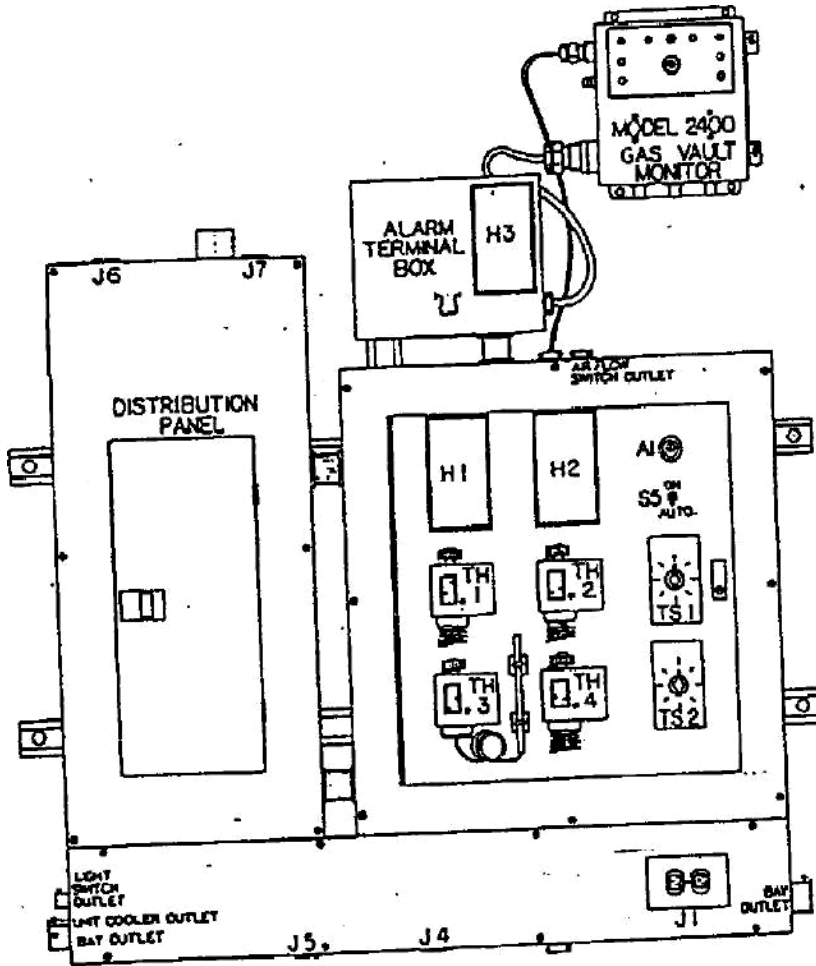
The sump pump is activated by two float switches located in the sump. When the water rises to a level high enough to raise the upper float the sump pump will start. If the sump pump continues to run for 3 minutes or does not turn "ON" at all within 3 minutes an alarm will be activated. After the water level drops below the lower float the sump pump will shut "OFF".

F. Heater

The heater is controlled by a thermostat located on the control panel set to come "ON" at 62 degrees F and go "OFF", at 67 degrees F.

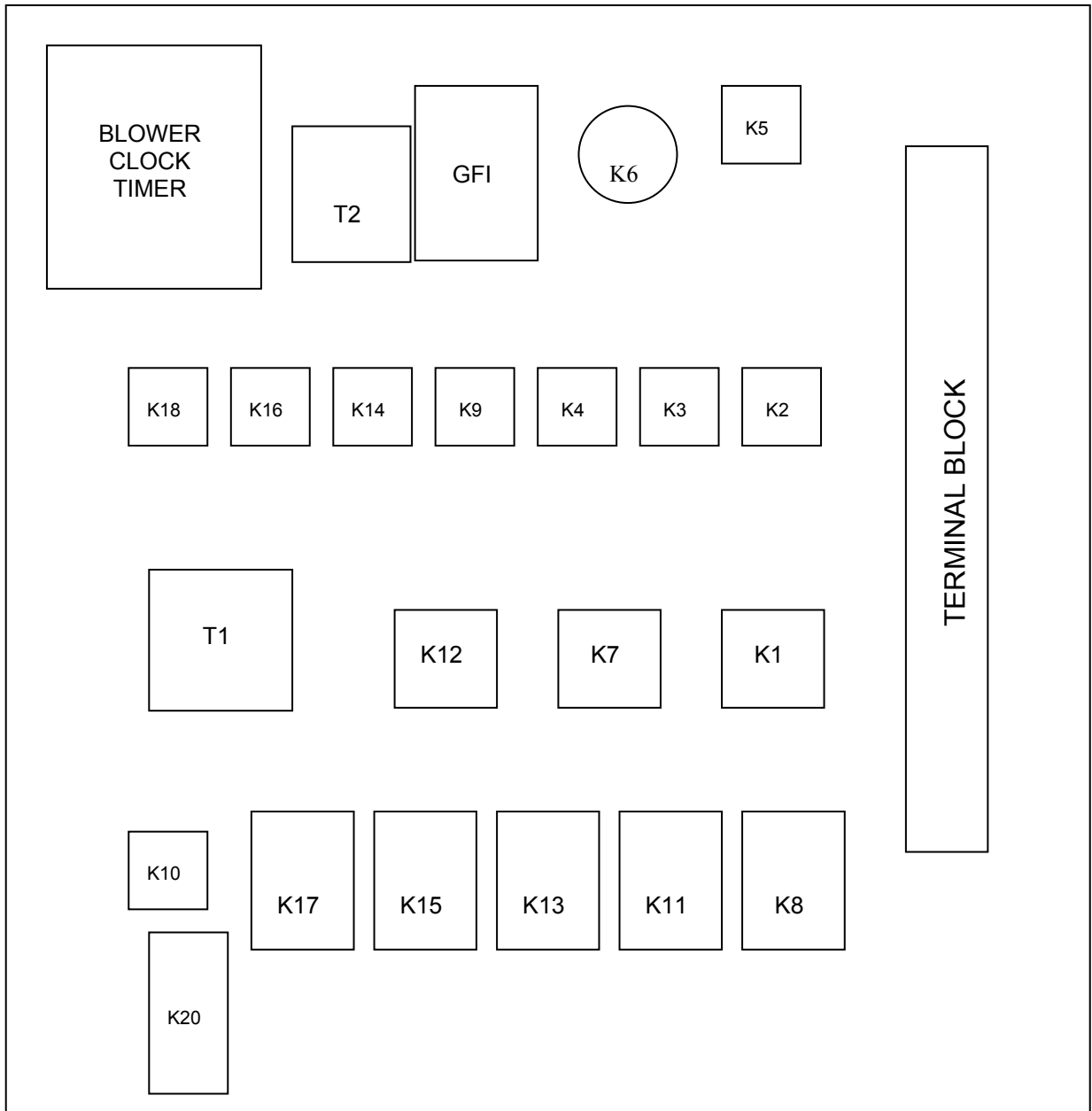
4. Control Panel Settings and Layout

<u>THERMOSTATS</u>	<u>SET POINT</u> (degrees)	<u>DIFFERENTIAL SET POINT</u> (degrees)
TH-1 CEV Thermostat	85	5
TH-2 Heater Thermostat	62	5
TH-3 High Temp. Thermostat	125	5
TH-4 A/C Thermostat	95	5
TH-5 Ambient Air Thermostat	80	0
<u>HUMIDISTATS</u>		
H-1CEV Humidistat	75% RH	
H-2 Dehumidifier Humidistat	55% RH	
H-3 High Humidity Humidistat	85% RH	
<u>EQUIPMENT RELAYS</u>		
K-5 Vent Alarm	20 min.	
K-8 A/C #1 Delay	120 sec.	
K-11 A/C #2 Delay	180 sec.	
K.-13 Blower Purge Delay	300 sec.	
K-15 Sump Pump Alarm Delay	180 sec.	
K-17 Toxic Gas Alarm Delay	300 sec.	



OUTSIDE OF CONTROLLER PANEL

APPENDIX 1



INSIDE OF CONTROLLER PANEL

5. Test Procedures to Check Operation of Electrical System and Environmental Control Equipment

Introduction

Turn on the main 100 AMP circuit breaker and all branch circuit breakers then allow systems to stabilize.

CAUTION: Should the main circuit breaker or any branch circuit breakers trip "OFF" when energized, shut "OFF" all power and consult the electrical schematic to check wiring and connections.

The operation of the environmental control equipment can be checked by simulating the control temperatures or relative humidities that actuate and stop equipment operation. One simulation method is to raise or lower the thermostat or humidistats settings. Other simulation techniques are to heat or cool the thermostat sensors or to raise or lower the relative humidity around the humidistats.

NOTE: Upon completion of the operational check, return all thermostats and humidistats to their specified settings.

A. Ventilation System

To test the ventilation system, proceed in the following order:

1. Turn lights "OFF" and "ON" using 3-way light switch located in the entranceway collar. Verify that the blower operates for 5 minutes accompanied by an illuminated red light in the entranceway. NOTE: This 5 minute cycle is activated each time lights are turned "ON". After 5 minutes, the green display lamp should be illuminated and control of the blower by the clock timer should be activated.
2. Observe that the clock timer operates the blower 40 seconds (16-foot CEV) or 60 seconds (24-foot CEV) every 15 minutes. While the fluorescent lights are "ON" this automatic method of operation should function regardless of any other CEV operational conditions except when the smoke detector has been activated.
3. Turn "OFF" the fluorescent lights. Observe that the 15 minute ventilation cycle is inhibited. Turn the fluorescent lights back "ON".
4. After the 5 minute blower operation is completed simulate a high temperature condition above 125 degrees F by lowering the high temperature thermostat TH-3. The blower should operate. Return the thermostat to its original setting.
5. Turn the blower manual timer switch TS-1 "ON". The blower should again operate.

6. Apply an aerosol smoke mixture to the smoke detector as instructed by the manufacturer. The blower should turn "OFF" and the smoke detector audible alarm should be heard. Manually re-set the smoke detector and observe that the blower resumes operating.
7. Turn "OFF" the manual timer switch.
8. To test the blower operation for cooling proceed with the following steps:
 - a. Simulate a CEV temperature above 95 degrees F by lowering the CEV thermostat TH-1. If the blower does not operate proceed to Step "b".
 - b. Simulate a CEV relative humidity below 75% by raising the "CEV Humidistat" H-1. If the blower does not operate proceed to Step "C".
 - c. Simulate an ambient air temperature below 80 degrees F by raising the ambient air thermostat TH-5 located in the air conditioning enclosure. The blower should now operate.
9. Return all controls to their proper settings. This completes the ventilation systems check.

B. Gas Monitor

The test procedure to verify the gas monitor's interaction with the blower and air conditioning system is as follows:

NOTE: Procedures for checking and calibrating the gas monitor should be in accordance with the manufacturers instructions.

1. Start the air conditioner(s) by means of the A/C manual timer switch TS- 2.

NOTE: There is a two minute time delay before the air conditioning starts.

2. The entranceway cover should be open during this period.
3. Using the gas from the test cylinder obtained from the manufacturer of the gas monitor expose the sensing elements to the test gases.
4. Verify the following:
 - a. Gas monitor audible alarm has been activated.
 - b. The indicating lamps on the face of the monitor are illuminated.

- c. The red display lamp inside the entranceway is illuminated.
 - d. The ventilation blower has started.
 - e. The air conditioner(s) continue operating.
5. When the gas alarm has been cleared the blower should shut "OFF". The red lights on the gas monitor and display lamp inside the entranceway should be extinguished and the green lights associated with a safe environment should be illuminated. This completes the gas monitor interaction check.

C. Air Conditioning

To test the air conditioning system, proceed in the following order:

1. Turn "ON" the blower by lowering the CEV thermostat TH-1 setting. If the blower does not start, it may be necessary to raise the CEV humidistat H-1 and/or outside ambient air thermostat TH- 1 setting.
2. With the blower operating, start the air conditioner(s) using the A/C manual timer switch TS-2. After the 2 minute delay the air conditioner(s) should operate and the blower should shut "OFF".
3. Turning the A/C manual timer switch "OFF," should automatically re-start the blower.
4. With the A/C manual timer switch "OFF simulate a temperature above 95 degrees F by lowering the A/C thermostat TH-4. After a 2 minute delay the air conditioner should start operating and the blower should shut "OFF". The second A/C unit, when applicable, should start about 1 minute after the first unit has started.
5. Simulate a temperature below 90 degrees F by raising the A/C thermostat TH-4. The air conditioners) should shut "OFF and the ventilation blower should resume operation.
6. Turn the air conditioner(s) "ON" with the A/C manual timer switch TS-2. NOTE: There is a 2 minute time delay before A/C starts.
7. With the fluorescent lights "ON," observe that the blower operates for 40 seconds (16-foot CEV) or 60 seconds (24-foot CEV) every 15 minutes even though the air conditioner(s) continue running during this ventilation mode.
8. With the air conditioner(s) still running, turn the blower manual timer switch TS-1 "ON". This should operate the blower at the same time the air conditioner(s) is operating.

9. Turn "OFF" the air conditioning and blower manual timer switches. Re-set all controls to their normal setting. This completes the air conditioning .system check.

D. Dehumidifier

To test the dehumidifier, proceed in the following order:

1. Switch the CB-5 circuit breaker to the "OFF" position.
2. If the relative humidity is above 55%, the dehumidifier should be operating. If the RH is below 55% and the unit is not running, it can be started by lowering the setting on the dehumidifier humidistat H-2.
3. With the dehumidifier operating, switch the CB-5 circuit breaker to the "ON" position. This should start the blowers 5 minute purge cycle and turn "OFF" the dehumidifier.
4. After the 5 minute purge cycle, the blower will stop and the dehumidifier should resume operating.
5. Return the dehumidifier humidistat H-2 setting to 55% RH. This completes the dehumidifier check.

E. Sump Pump

To test the sump pump proceed in the following order:

1. Pour a sufficient amount of water into the sump to activate the upper float.
2. Verify that the sump pump is activated and check for leaks in the plumbing.
3. Verify that the sump pump has turned "OFF". NOTE: Up to 1" of water may be left in the sump. This completes the sump pump check.

F. Heater

To test the heater, proceed in the following order:

1. If the CEV temperature is below 62 degrees F, the heater should be operating.
2. If the CEV temperature is above 62 degrees F, the heater can be started by raising the setting on the heater thermostat TH-2. Verify that the heater begins operating and then return the heater thermostat to its original setting. This completes the heater check.

G. Lighting (For issue IV Vault, see Amendment 1 back page)

To test the fluorescent lights and emergency light proceed in the following order:

1. With the entranceway cover open, the automatic plunger type switch should be in the "ON" position (up) and the fluorescent lights should be "ON". Close the entranceway cover to turn the lights "OFF".
 2. With the cover closed and the lights "OFF," reverse the 3-way light switch located in the collar. This should turn the lights "ON". NOTE: The blower 5 minute purge cycle will be activated.
 3. The emergency light must be tested with the CEV fluorescent lights "ON". Switch CB-2 to the "OFF" position. The fluorescent lights should go "OFF" and the emergency light should go "ON".
 4. Having tested the emergency lighting return circuit breaker CB-2 in the "ON" position, reverse the 3-way light switch and open the entranceway cover. This completes the lighting check.
6. Test Procedures for Checking the CEV Alarm System

Introduction

The alarm system associated with the CEV is designed to operate on central office low voltage DC (probably 48 VDC). It consists of a number of controls and sensing devices which are in turn wired to terminal strips mounted inside the alarm terminal box.

The alarm terminal strips only provide dry contacts from the alarm components. These contacts in turn would normally be connected to alarm pairs in the cable and be fed back to the local alarm monitoring center.

The following are listings of the alarms provided, the condition they are monitoring and a method of testing their operation. Since they only close contacts and no voltage is necessary for checking, a volt-ohm meter can be used to establish their wiring continuity at the alarm terminal strips.

A. High Water Alarm

The high water alarm switch is physically located at the sump to signal water accumulation near the top level of the sump. This is a float type magnetically operated switch. The floats rise with the level of the water thus closing a set of contacts.

1. Connect the ohm meter across terminals TB2-43 and TB2-44 in the alarm terminal box.
2. Manually actuate the upper float which should close the contacts after a 3 minute delay and show a zero resistance reading on the ohm meter.

B. High Temperature Alarm

The high temperature alarm thermostat TH-3 is located on the outside cover of the control panel and should be set at 125 degrees F.

1. Connect the ohm meter across terminals TB2-45 and TB2-46 in the alarm terminal box.
2. Heat the sensor of the thermostat or lower the thermostat setting to simulate a temperature above 125 degrees F. This should show a zero resistance reading on the ohm meter.
3. Re-set the thermostat to its designated setting of 125 degrees F.

C. High Humidity Alarm

The high humidity alarm humidistat H-3 , located on the outside cover of the alarm terminal box, is set at 85% RH.

1. Connect the ohm meter across terminals TB2-47 and TB2-49 in the alarm terminal box.
2. Simulate a relative humidity above 85% by lowering the humidistat H-3 setting. This should show a zero resistance reading on the ohm meter.
3. Re-set the humidistat to its designated setting of 85% RH.

D. Intrusion alarm

The intrusion alarm switch is located inside the entranceway. It is activated whenever the cover is opened. The alarm can be de-activated by pulling the plunger switch out about 1/4 inch further. When the entranceway cover is closed the switch is re-set.

1. Connect the ohm meter to terminals TB2-49 and TB2-50 in the alarm terminal box.
2. Depress the plunger switch - an open circuit should be indicated on the ohm meter.
3. Release the plunger - a zero resistance should be indicated on the ohm meter.
4. Withdraw the plunger another 1/4 inch. This cancels the alarm and the ohm meter should again indicate an open circuit.
5. Check the switch operation with the entranceway cover in its open and closed positions.

E. Gas Alarms

The explosive and toxic gas alarms should be tested with the CB-4 circuit breaker switch "ON" and the internal batteries inside the gas monitor connected. Allow the gas monitor to stabilize. To simulate a toxic or explosive gas condition, depress the test button located on the face of the gas monitor while the ohm meter is connected to the appropriate terminals on the alarm terminal strip.

1. To test the explosive gas alarm, connect the ohm meter across terminals TB2-41 and TB2-42. Depress the test button. A zero resistance reading should be shown immediately on the ohm meter.
2. To test the toxic gas alarm, connect the ohm meter across terminals TB2-51 and TB2-52. Depress the test button for 3 minutes. A zero resistance reading should be shown after the 3 minute delay, on the ohm meter.
3. Disconnect the batteries inside the gas monitor if permanent power is not present.

F. Ventilation Alarm

The ventilation alarm provides an indication that the ventilation blower has not been activated or is not generating an adequate air flow. The alarm can be verified by the following procedure:

1. Verify that the fluorescent lights are "ON" and the entranceway cover is open during this test.
2. Connect an ohm meter across terminals TB3-53 and TB3-54 in the alarm terminal box.
3. After the blower has been activated by the clock timer, switch CB-5 to the "OFF" Position and note the time. After an interval of at least 16 minutes, but less than 25 minutes, the red light should go "ON", the green light should go "OFF" and the ventilation alarm should sound.
4. Switch CB-5 to the "ON" position. The ohm meter should now indicate a zero resistance reading.
5. After the alarm has cleared block 2/3 of the air intake louver. Verify that the air flow switch also activates the alarm.
6. With an operable blower and no air flow obstruction, normal operation is resumed and the alarm will again automatically clear itself.

G. Power Off Alarm

The power off alarm provides an indication of commercial power interruption. To check this alarm, proceed in the following manner:

1. Connect the ohm meter across TB3-55 and TB3-56.
2. With CB-11/13 in the "ON" position and with power to the CEV, an open circuit should be indicated the ohm meter.
3. Switch CB-11/13 to the "OFF" position, the ohm meter should indicate a zero resistance reading or closed contacts (a power ofT condition).

H. Smoke Alarm

The smoke detector is located on the interior ceiling and provides an indication, of smoke or fire in the CEV. A smoke alarm condition should automatically inhibit the ventilation blower.

1. Turn the blower "ON" using the manual timer switch TS- I.
2. Connect the ohm meter across terminals TB3-57 and TB3-58.
3. Apply an aerosol smoke mixture to the detector as instructed by the manufacturer.
4. The smoke alarm should sound and the ohm meter should show a zero resistance reading.
5. Manually re-set the smoke detector per the manufacturers instructions.

7. Emergency Power

In the event of a commercial power failure, the gas monitor will operate for approximately eight hours on its battery, however, the blower, sump pump, heater, dehumidifier and air conditioner will not operate. An emergency light with approximately 60 minutes of battery powered lighting is provided in the CEV.

A 15 kw 120/240 V ac generator is required for powering, the CEV.

When providing emergency power adhere to the following steps:

DANGER: Do not enter the CEV when power is off unless the CEV is ventilated with a portable blower.

1. Unlock the entranceway cover and raise it to the fully opened position.
2. Ventilate the CEV and test for gas.
3. Enter the CEV and switch the air conditioner, blower and dehumidifier circuit breakers to the "OFF" position.

4. Switch the commercial power circuit breaker in the main circuit breaker box to the "OFF" position.
 5. Plug the female connector of the emergency power cord into the auxiliary power connector.
 6. Plug the other end of the cable into the generator and start the generator.
 7. Switch the circuit breaker marked GEN. to the "ON" position. This will lock the commercial power circuit breaker in the "OFF" position. Power is now available in the CEV. The red light on the alarm status indicator will be "ON" indicating that the CEV blower was not operating. Switch the blower, air conditioner and dehumidifier circuit breakers to the "ON" position.
 8. When commercial power becomes available, stop the generator and disconnect the emergency power cord and switch the circuit breaker marked MAIN to the "ON" position.
8. Maintenance Schedule

The following maintenance schedule is recommended:

A. Every 3 Months:

1. Verify visually that all thermostat and humidistat dial settings are correct.
2. Clean the sump and sump pump starting floats.
3. Check the sump pump screen and "check valves" for debris.
4. Test the sump pump operation by adding approximately three gallons of water to the sump.
5. Check the air filter in the filter plenum located inside the entranceway collar. Replace the filter if necessary. NOTE: Certain conditions may require air filter to be changed more frequently.
6. Check the toxic and explosive gas sensors with a gas test kit and adjust as required.
7. Test the emergency light battery by pressing the unit test switch for at least 30 seconds.
8. Do a battery back up test on the gas monitor by disconnecting the main AC power and check that the monitor still functions. This will confirm that batteries are charged and functional.
9. Clean the area around the CEV entrance.

10. Remove leaves and debris from the air intake hood.

B. Every 12 Months

1. Do a complete systems check as outlined in Section 5 and Section 6.
2. For CEVs equipped with air conditioning:
 - a. Turn the air conditioner circuit breaker(s) to "OFF".
 - b. Remove the cover on the air conditioner condenser/compressor housing.
 - c. Clean the condenser by blowing nitrogen or dry air over the coils from the fan side to remove foreign matter. Remove any leaves or other debris.
 - d. Turn the circuit breaker(s) to "ON".
 - e. Turn the air conditioner "ON". Use the manual timer switch if necessary.
 - f. While the air conditioner is running, check the sight glass. If the sight glass is clear or shows a few bubbles there is sufficient refrigerant. If the sight glass shows foam call for air conditioning service to check for leakage and to recharge the system.
 - g. Replace the condenser/compressor housing cover.
3. Replace the battery in the smoke detector.

9. Trouble Shooting Guide

This guide has been designed to help qualified personnel solve common problems associated with the operation of a CEV. It must be pointed out that all possible problems that may occur with a CEV have not been covered within the scope of this guide. If further assistance with any problem is needed, please contact our staff at (602) 963-2678.

-DANGER-

LETHAL VOLTAGES PRESENT IN THIS EQUIPMENT!!

IT MUST BE STRESSED THAT THIS GUIDE HAS BEEN PREPARED FOR QUALIFIED PERSONNEL HAVING A THOROUGH UNDERSTANDING OF ELECTRICAL POWER CIRCUITS AND EQUIPMENT. VOLTAGES FOUND WITHIN THIS EQUIPMENT CAN INFLICT SERIOUS OR FATAL INJURY. UNDER NO CIRCUMSTANCES SHOULD UNQUALIFIED PERSONNEL ATTEMPT TO SERVICE THIS EQUIPMENT!!

CONDITION

Red light in hatch with blower running and a steady audible alarm sounding (gas alarm).

POSSIBLE CAUSE

- 1) Toxic or explosive gas in vault.

REMEDY

- a) Normal operation. Allow blower to clear vault of gas.

POSSIBLE CAUSE

Faulty gas monitor.

REMEDY

Refer to gas monitor manual for calibration and troubleshooting procedures.

- b) Do not enter without green light illuminated.

CONDITION

Red light in hatch with blower operational and a pulsating audible alarm sounding (vent alarm).

POSSIBLE CAUSE

Restricted air flow.

REMEDY

- a) Check for dirty air filter.
- b) Verify that ventilation registers are open.
- c) Check ventilation intake and exhaust ports for blockage.
- d) Verify the motorized damper has opened. If not call for service.

POSSIBLE CAUSE

- 2) Malfunction of sail switch located in duct.

REMEDY

- a) Verify sail switch operation by checking voltage at switch while blower is running.
- b) Adjust sail switch by blocking 2/3's of air intake louver. Turn "ON" blower and set adjusting screw until switch activates.

POSSIBLE CAUSE

Faulty K-6 Relay.

REMEDY

- a) Turn blower "ON" and verify that K-6 relay contacts close within 20 seconds. If contacts do not close replace K-6 relay.

POSSIBLE CAUSE

Faulty K-5 Relay.

REMEDY

- a) If steps 1, 2 and 3 do not correct the problem replace K-5.

POSSIBLE CAUSE

Faulty K-4 Relay.

REMEDY

If, after replacing K-5, the red light remains "ON" replace K-4 with K-3. If light goes out, replace K-4.

CONDITION

C) Red light in hatch without blower operational and a pulsating audible alarm sounding (vent alarm).

NOTE: Fluorescent lights must be "ON".

POSSIBLE CAUSE

- 1) Blower circuit breaker "OFF".

REMEDY

- a) Turn "ON" circuit breaker CB - 5.

POSSIBLE CAUSE

- 2) Faulty K-14 Relay.

REMEDY

- a) Check for 110 volts across pin A & B on K-14 socket. If voltage is present continue. If voltage is not present call for service.
- b) Remove K-I 3 and check for 110 volts across pins No. 2 & 7 on K-13 socket. If voltage is not present replace K-14.

POSSIBLE CAUSE

- 3) Faulty K-13 Relay or K-1 Relay.

REMEDY

- a) Replace K - 13 relay with K-17. Set to minimum. If K-17 activates K-1 relay, replace K - 13 relay. If it does not activate K - I, replace K-1 relay contacts.

CONDITION

- D) No red or green lights in entranceway illuminated.

POSSIBLE CAUSE

- 1) 3-way light switch located in collar reversed, (fluorescent lights "OFF").

REMEDY

- a) Reverse Switch.

POSSIBLE CAUSE

- 2) Red or green light bulb(s) burned out.

REMEDY

- Replace burned out bulb(s).

POSSIBLE CAUSE

- 3) Gas monitor circuit breaker "OFF".

REMEDY

- a) Turn "ON" circuit breaker CB-4.

POSSIBLE CAUSE

GFI tripped.

REMEDY

- a) Re-set GFI located in control panel.

POSSIBLE CAUSE

GFI fuse blown.

REMEDY

Check GFI fuse located on top of terminal block in control panel.

CONDITION

E) Ventilation blower is "ON" and will not go "OFF" with green light "ON" (any alarms).

POSSIBLE CAUSE

- 1) CEV thermostat set too low.

REMEDY

Re-set CEV thermostat (TH- 1) to 85 degrees F.

POSSIBLE CAUSE

- 2) Ambient air thermostat set too high.

REMEDY

- a) Re-set ambient air thermostat (TH- 5) to 80 degrees F.

POSSIBLE CAUSE

- 3) Faulty K-1 Relay.

REMEDY

- a) Turn blower circuit breaker CB-5 "OFF".
- b) Verify that K-1 Relay is open. If not replace K-1 Relay.

CONDITION

- F) No lights illuminated on face of gas monitor.

POSSIBLE CAUSE

GFI tripped.

REMEDY

- a) Re-set GFI located in side of control panel.

POSSIBLE CAUSE

Gas monitor fuse blown.

REMEDY

Check fuse located on side of gas monitor.

POSSIBLE CAUSE

- 3) GFI fuse blown.

REMEDY

- a) Check fuse located on top of terminal block in control panel.

CONDITON

- G) Air conditioner(s) will not start.

POSSIBLE CAUSE

Air conditioning circuit breaker(s) turned "OFF".

REMEDY

Turn "ON" circuit breaker(s) CB-7/9 (A/C No. 1) CB - 12/14 (A/C No. 2) CB-10 (A/C control power).

POSSIBLE CAUSE

- 2) A/C maintenance switches turned "OFF".

REMEDY

- a) Verify that all A/C switches located in A/C compartment are turned "ON".

POSSIBLE CAUSE

- 3) Faulty A/C compressor/condenser.

REMEDY

- a) Turn A/C manual timer switch to "ON".
- b) Check for 220 volts at terminals #18 and #21 for A/C #1 and terminals #26 and #29 for A/C #2. If voltage is present call for A/C service, if not, continue.

POSSIBLE CAUSE

- 4) Faulty A/C thermostat.

REMEDY

Remove K-.8 or K- 11 relay. Check for 120 volts at terminals #2 and #7 with thermostat set at lowest setting. If voltage is not present, replace thermostat.

POSSIBLE CAUSE

- 5) Faulty K-9 A/C and/or K - U (A/C #2) relay(s).

REMEDY

- a) Place A/C thermostat and relays K-9 and K- 11 to their lowest setting. For A/C #1 replace K-8 with K- 15 and verify that K - 7 is activated. If so replace K-8. For A/C #2 replace K-11 with K-15 and verify that K-12 is activated, if so replace K- 11. If K-7 and/or K-12 do not activate then replace K- 7 and/or K- 12 contacts.

CONDITON

H) Air conditioning evaporator fan will not start.

POSSIBLE CAUSE

1) Evaporator fan fuse(s) blown.

REMEDY

a) Check fuse(s) located at bottom of terminal block in control panel.

CONDITION

I) Sump pump will not start.

POSSIBLE CAUSE

1) Sump pump circuit breaker "OFF".

REMEDY

a) Turn "ON" circuit breaker CB- 3.

POSSIBLE CAUSE

2) Floats stuck in "OFF" position,

REMEDY

a) Verify proper float operation.

POSSIBLE CAUSE

3) Faulty pump.

REMEDY

Verify sump pump operation by plugging into convenience outlet.

POSSIBLE CAUSE

4) Faulty sump pump transformer or faulty K-10 relay.

REMEDY

a) Place floats in the UP position. Remove K -10 relay. Check for 24 volts across pins A & B on K -10 socket. If voltage exists replace K-1Q. If no voltage or 240 volts exists, replace transformer.

CONDITION

Sump pump will not shut "OFF".

POSSIBLE CAUSE

1) Float stuck in "ON" position.

REMEDY

a) Verify proper float operation.

POSSIBLE CAUSE

2) Faulty K-10 relay.

REMEDY

a) Remove K-10 relay. If pump shuts "OFF" replace K-10 relay.

CONDITION

K) Sump pump will not pump water.

POSSIBLE CAUSE

Gate valve closed.

REMEDY

a) Verify that gate valve is opened.

POSSIBLE CAUSE

2) Sump pump breather hole plugged.

REMEDY

a) Clean out 1/81, breather hole located on side of pump below motor.

POSSIBLE CAUSE

- 3) Dirty sump.

REMEDY

Clean sump.

CONDITION

- L) Dehumidifier will not start.

POSSIBLE CAUSE

- 1) Dehumidifier circuit breaker "off".

REMEDY

Turn "ON" circuit breaker CB- 1.

POSSIBLE CAUSE

Faulty dehumidifier.

REMEDY

- a) Plug dehumidifier into convenience outlet. Verify operation.

POSSIBLE CAUSE

- 3) Faulty dehumidifier humidistat or K-1 relay.

REMEDY

With the blower turned "OFF", lower the dehumidifier humidistat to its lowest setting. Check for 110 volts between top center contact on relay K-1 and terminal number 38 on terminal block located in control Panel. Then check for 110 volts between bottom center contact on relay K - 1 and terminal 38. If power is present at both locations, replace humidistat. If power is not present at bottom center contact, replace K-1 relay.

CONDITION

Heater will not operate.

POSSIBLE CAUSE

Heater circuit breaker "OFF."

REMEDY

Turn "ON" heater circuit breaker CB-8.

POSSIBLE CAUSE

2) Faulty heater thermostat or faulty, heater.

REMEDY

a) Set heater thermostat to its highest setting. Check for 110 volts across terminals #37 and #38 on terminal block located inside control panel. If voltage is present, replace heater. If voltage is not present replace thermostat TH-2.

CONDITION

N) Emergency light will not operate.

POSSIBLE CAUSE

1) Emergency light battery not plugged in.

REMEDY

Plug in battery located inside emergency light.

POSSIBLE CAUSE

Dead battery.

REMEDY

a) Push test button on side of emergency light. If lights do not come on replace battery.

10. Design Notes and Assumptions

A. Design Notes

1. Concrete - Minimum compressive strength 5000 PSI at 28 days.
2. Reinforcing steel - ASTM A-615-75, grade 60.
3. Concrete cover — 1" minimum inside and outside.

APPENDIX 1

Agreement Number 56A0356

Page 31 of 32

4. Design loading - ASSHTO HS20.
5. Construction joint - sealed with 1-1/2" dia. Butyl rubber.
6. Design specifications - ACI 318-71 and AASHTO load factor design method.

B. Design assumptions

1. Ground water - 3-1/2' below grade.
2. Earth cover-5' max.-0' min.
3. 2' - 0' live load surcharge - applied to 8' - 0 depth.
4. Live load impact - 0" to 1' - 0" cover 1 equals 30%.
5. Coefficient of active earth pressure K_a equals 0.3.

6. Dry earth density - 100 PCF, dry earth lateral pressure - $100 (0.3) = 30$ PSF.
7. Saturated earth density - 120 PCF - 62.4 = 57.6 PCF, 57.6 PCF.
8. (.3) 17.3 PSF, saturated earth lateral pressure = 17.3 +
9. 62.4 equals 80 PSF.

AMENDMENT 1
Lighting Control Test - Issue IV

Vault Entrance

Entrance way hatch opens, floor lights come on, ventilation cycle comes on. (red light, green light).

Normal Operation

Individual inside vault close's entrance way hatch door, floor lights stay on for (3 min), then floor light goes off and emergency light goes off. Push the light switch and the floor lights will resume.

Note: Ventilation continues during floor light usage.

Vault Exit

Individual closes entrance way hatch, floor lights continue for 3 minutes; the floor lights go off, and emergency light comes on (3 minutes). Note: Blower clock time is de-energized while emergency light is on. Emergency light goes off.

Appendix 2 - Work Authorization & Completion Form

Contract Number: 56A0356 **District:** 12 **Orange County**

SECTION A

(This section to be completed by Caltrans Contract Manager)

Assigned / Authorized By: _____ **Date:** _____

Location of Work Site: _____

Known Problem: _____

SECTION B

(This section to be completed by Contractor)

Employee Name: _____

Start Date / Time: _____

Completion Date / Time: _____

SECTION C

Repairs Performed: _____

Status (i.e. closed, open, awaiting material, etc): _____

Billable Materials Used: _____

The information contained on this form is certified to be true and accurate to the best of my knowledge.

Employee Signature: _____

Caltrans Approval: _____

Appendix 3 - Hub Maintenance Activity Report

Contract Number: _____
 Contractor: _____
 District: _____

Employee Name: _____
 Week Beginning Date: _____
 Week Ending Date: _____

Day Date	Hours Billed	Hub No.	Location (include GPS reading)	Repair Task Performed	Equipment, Material, Part Installed, Used	Ticket No.	Status (Open, Closed)
SUNDAY							
MONDAY							
TUESDAY							
WEDNESDAY							
THURSDAY							
FRIDAY							
SATURDAY							
TOTALS:	0						

Employee Signature: _____

Caltrans Approval: _____

Appendix 3a
Instructions

Contractor to fill in Contract Number, District, Employee Name, Week Beginning Date and Week Ending Date .

Work Date – format: MM/DD/YYYY.

Hours Billed – Number of hours charged to Caltrans.

Miles Billed – Number of miles billed to Caltrans.

Hub No. – Letter or Number used to identify Hub.

Route – Freeway or Highway.

Dir – Direction of travel: east (E), west (W), north (N), south (S)

Location – Provide description of location, off-ramp, loop-ramp, street name, post-mile, GPS Reading, Nearest Interchange, etc.

Repair Task Performed – Described repair tasks or work performed.

Equipment, Material, Part Installed, Used – Codec, DSL Modem, Camera Control Unit (CCU), GPRS Modem, Fiber Transceivers, Fiber MUX, etc.

Ticket Number – Number assigned by Caltrans

Status – Current status of the Ticket, repair or work: Open, Closed, Work in Progress, Construction, Maintenance Crew, etc.

Hub Maintenance Activity Report has to be signed by the Employee.

Hub Maintenance Activity Report is to be signed by the District Contract Manager.