# WILLOWS-GLENN COUNTY AIRPORT

# WASH RACK AND CONTAINMENT/EVAPORATION POND CONSTRUCTION PROJECT

**AIP PROJECT NO. 3-06-0279-04**

**Contract No. _____**

**Bid Opening: Monday, August 27 at 3:00 PM**

# CONTRACT DOCUMENTS AND SPECIFICATIONS


**Prepared for:**
**County of Glenn**
**125 S. Murdock Ave**
**Willows, California 95988**
**(530) 934-6541**

**Prepared by:**
**Mead & Hunt, Inc.**
**133 Aviation Boulevard Suite 100**
**Santa Rosa, California 95403**
**(707) 526-5010**


REGISTERED PROFESSIONAL ENGINEER
LEE B. MOEN
No. 30686
Exp. 03/31/14
CIVIL
STATE OF CALIFORNIA

7-30-12

## DIVISION I – BIDDING AND CONTRACT DOCUMENTS



## DIVISION II – FAA REQUIRED PROVISIONS



## DIVISION III – GENERAL PROVISIONS



## DIVISION IV – SPECIAL PROVISIONS

## DIVISION V – TECHNICAL SPECIFICATIONS



**PROPOSAL PACKET IN ENVELOPE (Inside Back Cover)**

# DIVISION I

## Bidding and Contract Documents

## ADVERTISEMENT FOR BIDS

Sealed proposals for the construction of airport improvements at Willows-Glenn County Airport will be received at the office of Planning and Public Works, located at County Of Glenn, 777 N. Colusa Street, Willows, CA 95988, 530-934-6530 until Monday, August 27, 2012, at 3:00 p.m., and then will be publicly opened and read by the City Clerk at the time and place specified, in a public meeting called for that purpose. The work contemplated consists of the following:

- **Construction of an Aircraft Wash Rack and Containment/Evaporation Pond**

Each bid shall be in accordance with the Plans and Specifications and other Contract Documents now on file with the office of Planning and Public Works. A copy of plans, specifications, and bid documents may be secured from the County upon payment of a non-refundable $ 100.00 per set.

Each bidder must supply all the information required by the Bid Documents and Specifications. All proposals sent by mail must be posted so as to be in the hands of the County Administrator by the hour and date set forth above for the bid opening. All proposals shall be addressed to:

**Mr. John F. Linhart**
**Agency Director**
**Glenn County Planning and Public Works Agency**
**777 North Colusa Street**
**Willows, CA 95988**

and marked: **Aircraft Wash Rack and Containment/Evaporation Pond**
**AIP No. 3-06-0279-04**

The proposed contract is under and subject to Executive Order 11246, as amended, of September 24, 1965, and to the Equal Employment Opportunity (EEO) and Federal Labor Provisions. All labor on the Project shall be paid not less than the prevailing State wage rates established by the Director of the State of California, Department of Industrial Relations, or the prevailing Federal wage rates established by the U.S. Secretary of Labor, whichever is higher.

The EEO requirements, labor provisions, and wage rates are included in the Specifications and Bid Documents. Each bidder must complete, sign, and furnish with his bid the "Bidder's Statement on Previous Contracts Subject to EEO Clause", a "Certification of Nonsegregated Facilities", and the "Assurance of Disadvantaged Business Enterprise Participation" as contained in the Bid Proposal.

To be eligible for award, each bidder must comply with the affirmative action requirements which are contained in the Specifications. A contractor having 50 or more employees and his subcontractors having 50 or more employees and who may be awarded a contract of $50,000 or more will be required to maintain an affirmative action program; the standards for which are contained in the Specifications.

The requirements of 49 CFR Part 26, Regulations of the U.S. Department of Transportation, apply to this contract. It is the policy of Glenn County to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. All firms qualifying under this solicitation are encouraged to submit bids/proposals. Award of this contract will be conditioned upon satisfying the

requirements of this bid specification. These requirements apply to all bidders, including those who qualify as a DBE. A race/gender neutral DBE contract goal of 4% percent has been established for this contract. The bidder shall make good faith efforts, as defined in 49 CFR Part 26, to meet the contract goal for DBE participation in the performance of this contract.

The bidder will be required to submit the following information: (1) the names and addresses of DBE firms that will participate in the contract; (2) a description of the work that each DBE firm will perform; (3) the dollar amount of the participation of each DBE firm participating; (4) written documentation of the bidder commitment to use a DBE subcontractor whose participation it submits to meet the contract goal; (5) written confirmation from the DBE that it is participating in the contract as provided in the commitment made under (4); and (5) if the contract goal is not met, evidence of good faith efforts. The bidder shall submit the information prior to a commitment by Glenn County to award the contract to the apparent successful competitor, as a condition of responsibility, within ten (10) days of Glenn County's request.

DBE participation in this contract may be in the form of a prime contract, subcontract, joint venture, or another arrangement that qualifies under 49 CFR Sections 26.55, "How is DBE participation counted toward goals?" or 26.53(g )"What are the good faith efforts procedures recipients follow in situations where there are contract goals"?

All solicitations, contracts, and subcontracts resulting from projects funded under this contract are subject to the foreign trade restriction required by 49 CFR Part 30, Denial of Public Works Contracts to Suppliers of Goods and Services of Countries That Deny Procurement Market Access to U.S. Contractors. The Aviation Safety and Capacity Expansion Act of 1990 provides that preference be given to steel and manufactured products produced in the United States when funds are expended pursuant to a grant issued under the Airport Improvement Program.

Each proposal must be accompanied by a certified check, cashier's check, or bid bond in an amount not less than ten percent (10%) of the amount bid. The successful bidder shall submit at the time of execution of the Contract a Performance Bond along with a Payment Bond (Labor and Material), each for 100% of the Contract price.

Glenn County shall have the right to reject any bids presented in accordance with Section 20150.9 of the California Public Contracts Code. Each bidder must have a Class A California License, as required under Provisions of the California Business and Professions Code.

| | |
|---|---|
| Engineer's Estimate: | $ 175,530.00 |
| Bid Bond: | 10% |
| Performance Bond: | 100% |
| Payment Bond: | 100% |
| Working Days | 40 |

By _____ Date_____

Mr. John F. Linhart
Agency Director
Glenn County Planning and Public Works Agency

# INSTRUCTIONS TO BIDDERS

1. **Proposal Requirements**:

   A. **General Requirements**. The Contractor's attention is directed to Division III, Section 20, "Proposal Requirements and Conditions," for general details on the preparation of proposals for this Project.

   B. **Federal Requirements**. This Project is funded by the FAA and as such is subject to extensive Federal requirements in the areas of labor, wage rates, notices for Contracts, and bidding provisions. The Contractor's attention is directed to Division II, Sections 1 through 5 for detailed information on FAA required provisions.

2. **Description of Work**: The scope of work for this Project consists of the following elements:

   - **Construction of an Aircraft Wash Rack and Containment/Evaporation Pond**

3. **Award of Contract**: The COUNTY reserves the right to reject any and all bids in conformance with Section 20150.9 of the California Public Contracts Code. Each Contractor shall provide prices for the Bid Schedule included in the Proposal Form. The award, if made, will be pending FAA review and confirmation of availability of funds. All bids shall be valid for a period of thirty (30) working days from the opening date.

4. **Bid Evaluation**: Bids will be evaluated for price (see paragraph 43 regarding unbalanced pricing), conformance to the Specifications, Terms and Conditions, Instructions to Bidders, Special Conditions, experience, and other factors as appropriate. The award, if made, will be to the BIDDER deemed of greatest advantage to the COUNTY.

   Each Bid Schedule and Alternates (if applicable) will be evaluated separately. The bid price for each Contract item shall include all costs associated with completing the work included in the item and only those costs. Profit and overhead shall be factored into each item.

5. **Time and Place of Receiving Proposals**: Sealed bids will be received by the Administrative Office for Public Works, located at County Of Glenn, 125 S. Murdock Ave, Willows, CA 95988 until 3:00 p.m. Pacific Daylight time, Monday August 27, 2012, at which time the bids will be publicly opened and read.

6. **Pre-Bid Meeting**: No pre-bid meeting is scheduled. Bidders are encouraged to examine the construction site at their own convenience.

7. **Time of Completion**: The time of completion for the Project is forty (40) working days. Detailed information regarding Contract time and other limitations on construction is contained in Division IV, Miscellaneous Provisions for Airport Construction.

8. **Liquidated Damages**: The Contract is subject to liquidated damages which are described in Division IV, Miscellaneous Provisions for Airport Construction.

9. **Interpretation of Drawings and Documents**: If any Bidder is in doubt as to the true meaning of any part of the Plans, Specifications, or other Contract Documents, or finds discrepancies in or omissions from the Plans and Specifications, he may submit his questions or request for clarification in writing to the Engineer not later than five (5) working days before the date set for receipt of bids. The person submitting the request will be responsible for its prompt delivery. Any interpretation or correction of the Contract Documents will be made only by Addendum and will be e-mailed, faxed, mailed or delivered to each person receiving a set of such documents.

10. **Bid Bond**: Each proposal shall be accompanied by a bid guarantee equivalent to ten percent (10%) of the bid price. The "bid guarantee" shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the Bidder will, upon acceptance of his bid, execute such Contractual documents as may be required within the time specified.

11. **Performance and Payment Bonds**:

    A. The Contractor agrees to furnish a performance bond for 100 percent of the Contract price. This bond is one that is executed in connection with a Contract to secure fulfillment of all the Contractor's obligations under such Contract.

    B. The Contractor agrees to furnish a payment bond for 100 percent of the Contract price. This bond is one that is executed in connection with a Contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the Contract.

12. **Disadvantaged Business Enterprise (DBE)**: A race/gender neutral DBE goal of 4% has been established for this contract. For credit to be allowed toward the DBE goal for this Project, prospective DBEs must be certified by Caltrans, or other agency acceptable to the COUNTY, on the date bids for the Project are opened (see Division II, Section 4).

13. **Minimum Wage**: Labor on this Project shall be paid no less than the greater of the minimum wage rates established by the U .S. Secretary of Labor or by the State of California's Director of the Department of Industrial Relations. The Contractor shall comply with Division II, Section 2-4 and Division II, Section 5 of these Specifications.

14. **Project Information**: General and technical information can be obtained from the office of Mead & Hunt, 133 Aviation Blvd., Suite 100, Santa Rosa, California 95403; phone (707) 526-5010 attention Lee Moen or Tad Thurston.

15. **Certified Payroll.** The Contractor shall submit two (2) copies of all certified payroll, including subcontractors, to the COUNTY each month. Failure to submit complete certified payroll in a timely manner may delay progress payments. For certified payroll to be considered for review, the submittal must contain the following information in a clear, logical manner:

    A. A weekly payroll record showing the name, address, social security number, appropriate work classification (title and group number indicated in the applicable wage rates; see Division II, Section 5), straight time and overtime hours worked, and the actual wages paid. Optional Form WH-347 is available for this purpose.

**B.** Each payroll submitted shall be accompanied by a "Statement of Compliance", signed by the agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
". . . that each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the Contract."

**C.** A fringe benefit statement showing appropriate fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

**D.** For additional information on payroll records and reporting requirements, refer to Division II, "FAA Required Provisions" pages 2-5 through 2-11, of the Project Specifications.

**16.** **Contractor's License**. Each Bidder must have a Class "A" California Contractor's License as required under provisions of the California Business and Professions Code.

**17.** **Plans and Specifications**. The Contractor will be provided five (5) sets of Plans and Specifications at the Preconstruction Conference. Additional sets will be available from the COUNTY at their reproduction costs. Quantities stated in the Contract Documents are approximate only and are subject to correction upon final measurement of the work accomplished and subject further to right reserved by the COUNTY to increase or diminish the amount of work under any classification, as the design or construction needs require.

**18.** **Proposal Packet**. A loose-bound Proposal Packet is attached to the back of the Specifications. Bids shall be made upon the forms in this packet. The Bidder must supply all information required by the Bid Documents. See Division II, Sections 1 through 5 and Division III, Section 20 for details on the preparation of proposals for this Project.

**19.** **Addenda**: Any irregularities or lack of clarity in the Invitation and Bid must be brought to the attention of Mead & Hunt, Inc. in writing no less than five (5) business days prior to the Bid opening. Unless so noted, subject matters shall be interpreted to favor the COUNTY. If deemed necessary, written addenda shall be issued to all holders of Bid Documents, with said documents considered modified or amended by addenda so issued. All addenda must be acknowledged by signature where provided and returned, either with the bid submission or under separate cover clearly marked with the Bid number and date of opening, prior to the close of the bid receiving period. Verbal interpretations are not to be relied upon. FAILURE OF THE BIDDER TO CALL ATTENTION TO IRREGULARITIES OR LACK OF CLARITY WILL NOT RELIEVE THE BIDDER OF PERFORMANCE UNDER THE CONTRACT.

**20.** **Examination of the Job Site**: Prior to the submission of a bid, the Bidder shall examine the job site to become familiar with the existing conditions. Although public property, job site visits must be arranged with and approved by the COUNTY prior to the visit. Any discrepancy between the Bid Documents and actual site conditions shall immediately be brought to the attention of the Owner in writing. Failure to examine the job site or call attention to discrepancies shall not relieve the Contractor of performance under any Contract issued as a result of his bid. Any pre-bid conference shall be specified elsewhere in these documents, if required.

21. **Collusion**: Any agreement or collusion among Bidders or prospective Bidders to bid a fixed price or restrict the competitive bid process in any way shall render the bids of such Bidders void.

22. **Interest in More Than One Bid**: No person, firm, or corporation, under the same or a different name, shall make, file, or be interested in more than one (1) bid for the same work unless alternate bids are requested; however, submitting a subcontractor's bid or material quotation to more than one (1) Bidder will not disqualify the subcontractor or material supplier.

23. **Independent Contractor Status**: The parties agree that the Contractor shall have the status of and shall perform all work under this Contract as an independent Contractor, maintaining control over all its consultants, subconsultants, Contractors, or subcontractors. The only Contractual relationship created by this Contract is between the COUNTY and the Contractor, and nothing in this Contract shall create any Contractual relationship between the COUNTY's and Contractor's consultants, subconsultants, Contractors, or subcontractors. The parties also agree that by explicit agreement of the parties, the Contractor is not a COUNTY employee and that there shall be no:

    **A.** Withholding of income taxes by the COUNTY;

    **B.** Industrial insurance coverage provided by the COUNTY;

    **C.** Participation in group insurance plans which may be available to employees of the COUNTY;

    **D.** Participation or contributions by either the independent Contractor or the COUNTY to the public employees' retirement system;

    **E.** Accumulation of vacation leave or sick leave.

24. **Permits, Fees, Licenses, and Taxes**: The Contractor shall be responsible for securing all required permits, for all approvals or reviews, and for any required licenses. The Contractor shall pay all fees.

25. **Pre-Construction Meeting**: The Contractor and subcontractors shall attend a pre-construction meeting with representatives of the COUNTY to discuss specific Project procedures. The pre-construction meeting may be waived by mutual agreement of the Contractor and the COUNTY.

26. **Construction Schedule**: The Contractor shall submit a construction schedule to the COUNTY and Engineer not less than 5 working days prior to or during the pre-construction meeting. The construction schedule shall establish the start and completion dates for each phase of the Project in sufficient detail to relate to the progress payment schedule of values. The COUNTY shall review and approve the schedule prior to commencement of work.

27. **Temporary Construction Facilities**: The CONTRACTOR shall provide temporary on-site restroom facilities and, if required, a construction office. The construction office shall be large enough for plan review and small meetings and shall provide heat, air conditioning, lights, and telephone service. The construction office and restroom facilities are to be provided at no cost to the COUNTY. Portable restrooms are to be emptied daily. Upon substantial completion, the temporary facilities are to be promptly removed and the site restored to the conditions existing prior to installation or as specified in the Scope of Work. The COUNTY may waive the requirement for temporary construction facilities.

28. **Construction Utilities**: The Contractor shall arrange for and bear the cost of all temporary construction utilities including water for dust control.

29. **Compliance**: The Contractor shall be responsible for complying with all COUNTY, State, and Federal Codes, Laws, Statutes, Regulations, Ordinances, and Policies, as applicable, in the performance of the Contract.

30. **Access to the Work Site**: The Contractor, in the performance of the Contract, shall not be unduly denied access to the worksite provided that such access does not interfere with normal airport operations, unless prior arrangements have been made with the COUNTY.

31. **Worksite Security/Safety**: The Contractor shall provide barricades, fencing, exhaust fans, temporary closures, hoods, drapes, or any other temporary structure required to protect personnel and the general public from accidental injury, illness, or death during the term of the Project. The Contractor shall be responsible for securing the Project to prevent theft, vandalism, or arson of the COUNTY'S or the Contractor's property, materials, equipment, and supplies. The COUNTY shall not be responsible for any property, equipment, materials, or supplies of the Contractor. The Contractor shall be responsible for any theft, vandalism, or arson of COUNTY property, materials, equipment, or supplies if such loss is due to the negligence of the Contractor.

32. **Damage to COUNTY Property**: Any damage to the COUNTY's real or personal property caused by the Contractor, his subcontractors, or agents shall be promptly repaired or replaced to the approval of the COUNTY.

33. **Clean-up**: In the performance of the Contract, the Contractor shall keep the job site cleared of rubbish, debris, and scrap material. Upon completion of the Project all equipment, tools, supplies, and materials which are not the property of the COUNTY shall be promptly removed from the job site. The job site and surrounding areas are to be restored to the conditions existing prior to the commencement of work under the Contract, unless specifically modified by the Scope of Work under the Project.

34. **Utilities**: The location of all known utilities underground, above ground, or enclosed within a structure are indicted in the Bid Documents to the best knowledge of the Engineer. It is the responsibility of the Contractor to verify the location of all known or suspected utilities by contacting the utility owner prior to undertaking any excavation or demolition and to arrange for any interruption or termination of service. Any damage to known or suspected utilities caused by the Contractor's failure to verify the location with the Owner of the utility shall be repaired or replaced at the expense of the Contractor. The Contractor shall notify the COUNTY forty-eight (48) hours in advance of any planned utility interruption. Should utilities not be located as indicated to the Contractor, the Contractor is entitled to compensation for determining the true location of the utility.

35. **Layout**: The Owner shall provide vertical and horizontal construction reference points. Job layout shall be the responsibility of the Contractor and shall be included in the bid price.

36. **Workmanship**: All work shall be performed by competent personnel under the direction of a qualified project superintendent who shall be the representative of the Contractor. Work performed shall meet the workmanship standards for the trade involved. All materials and equipment installed by the Contractor shall be new, of suitable quality, and conform to all Specifications and/or Drawings. The

use of other than new materials or equipment is not acceptable without the written consent of the Owner and will include a mutually agreeable cost reduction.

37. **Schedule of Values**: A schedule of value(s) shall be provided for each lump sum bid item within 5 days of request, but not later than 10 working days before the first progress payment. The schedule of values shall be in the form of a detailed, itemized cost breakdown of the lump sum amount that includes the profit and overhead costs for each item. All work to be performed by subcontractors shall be listed. The schedule of values, once established, will serve as the basis for estimating or evaluating the percentage of lump sum work completed for progress payments. Progress payments on Unit Price Work will be based on the number of units completed. The schedule of values may also be used to evaluate the impact of unbalanced pricing (see paragraph 44 below).

38. **Progress Payments**: Progress payments may be authorized by the COUNTY if the Project duration exceeds thirty (30) calendar days. Progress Payment Requests are to be submitted to the Engineer accompanied by a schedule of values in the form of a Payment Request. Progress payments will be authorized by the COUNTY Project Manager. The COUNTY reserves the right to reduce the Progress Payment amount if, in the opinion of the Engineer, Project Manager, or the Purchasing and Contracts Administrator, the values on the Schedule of Values exceed the amount of work completed or material delivered to the job site. Any such changes will be reviewed with the Contractor.

39. **Retention:** Progress payments shall be subject to ten percent (10%) retention until the Project is at least ninety percent (90%) complete and may be reduced thereafter. Within thirty-five (35) days following publication of the Notice of Completion (Contracts over $20,000) the retention may be reduced to an amount equal to twice the estimated value of any uncompleted work.

40. **Fair Employment Practices**: In connection with the performance of work under this Contract, the Contractor agrees not to discriminate against any employee or applicant for such employment because of race, creed, color, national origin, sex, or age. Such agreement shall include, but not be limited to, the following: Employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

The Contractor acknowledges awareness of and is fully informed of the Contractor's obligations under Executive Order 11246 and, where applicable, shall comply with the requirements of the Order and all other orders, rules, and regulations promulgated under the Order unless exempted therefrom.

Without limitation of the foregoing, Contractor's attention is directed to 41 C.F.R. § 60-1.4, and the clause entitled "Equal Opportunity Clause" which, by reference, is incorporated into this Contract, to 41 C.F.R. § 60-250 et seq. and the clause entitled "Affirmative Action Obligations of Contractors and Subcontractors for Disabled Veterans and Veterans of the Vietnam Era", which, by reference, is incorporated in this Contract, and to 41 C.F.R. § 60-471 and the clause entitled "Affirmative Action Obligations of Contractors and Subcontractors for Handicapped Workers", which, by this reference, is incorporated in this Contract.

Contractor agrees to assist Disadvantaged Business Enterprises in obtaining business opportunities by identifying and encouraging disadvantaged suppliers, consultants, and subconsultants to participate to

the extent possible, consistent with their qualifications, quality of work, and obligation of Contractor under this Contract.

The Contractor further agrees to insert these provisions in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials. Any violation of such provision by a Contractor shall constitute a material breach of Contract.

41. **Appeal by Unsuccessful Bidders**: Any unsuccessful Bidder may appeal a pending bid award prior to award by the COUNTY. The appellant must:

    **A.** Submit a written protest to the COUNTY within five (5) workdays after the bid opening.

    **B.** Describe, in the written protest, the issues to be addressed on appeal.

    **C.** Post, with the written protest, a bond with good and solvent surety authorized to do business in this state or submit other security in a form approved by the COUNTY, who will hold the bond or security until a determination is made on the appeal.

    **D.** Post the bond or other security in the amount of twenty-five (25%) of the total dollar value of appellant's bid, up to a maximum bond or other security amount of $250,000.

    **E.** Not seek any type of judicial intervention until the COUNTY has rendered its final decision on the protest.

42. **Suspension and Debarment Requirements for Federal Contracts**: For Federally-funded Public Works, the Bidder certifies, by submission of this bid or acceptance of this Contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this bid that it will include this clause without modification in all lower tier transactions, solicitations, bids, Contracts, and subcontracts. Where the Bidder/Contractor or any lower tier participant is unable to certify to this statement, it shall attach an explanation to the solicitation/proposal.

43. **Contractor's Employees and Employee Identification**:

    **A.** CONTRACTOR must submit a current list of full names i.e., first, middle, and last (no nicknames), addresses, birth dates, social security numbers, driver's license numbers, and last known address of all employees who perform work in COUNTY facilities under this Contract. Changes in the employment list must be reported to the COUNTY within 24 hours.

    **B.** Laminated type identification badges must be furnished by the Contractor and worn by all Contractor's employees while on COUNTY premises. The badge will have the employee's picture, name, signature, and social security number.

44. **Unbalanced Pricing**. An offer with unbalanced pricing is not acceptable. Unbalanced pricing may increase performance risk and could result in payment of unreasonably high prices or payment for incomplete work, or for work not done. Unbalanced pricing exists when, despite an acceptable total overall price, the price of one or more Contract line items is significantly over or understated, as determined by the Engineer in the application of customary construction industry standard techniques for cost and price analysis.

All offers with separately priced line items or sub-line items will be analyzed to determine if the prices are unbalanced. Bidders shall provide a schedule of values for all lump sum items (see paragraph 36 above) upon request. If an offer is deemed to be unbalanced, the COUNTY will:

1. Consider the risks to the COUNTY associated with the unbalanced pricing in determining the competitive range and in making the award decision; and
2. Consider whether award of the Contract will result in paying unreasonably high prices for Contract performance and whether the award fails to represent the lowest ultimate cost to the COUNTY.

An offer may be rejected if the COUNTY deems that the lack of balances poses an unacceptable risk to the COUNTY. The COUNTY reserves the right to delete all or part of an item that is deemed to be unbalanced, and award the Contract; and to require that item of work to be done by force account or negotiated price.

**45.** **Federal Assurances**: Contractors and subcontractors are advised that this Project requires:

**A.** Payment of Federal Wage Rates,

**B.** Compliance with EEO criteria,

**C.** Certification of Non-Segregated Facilities,

**46.** **Buy American Clause**: A Buy American clause applies to this Project. See Division II, Section 1, Paragraph 1-7 of the FAA-required provisions.

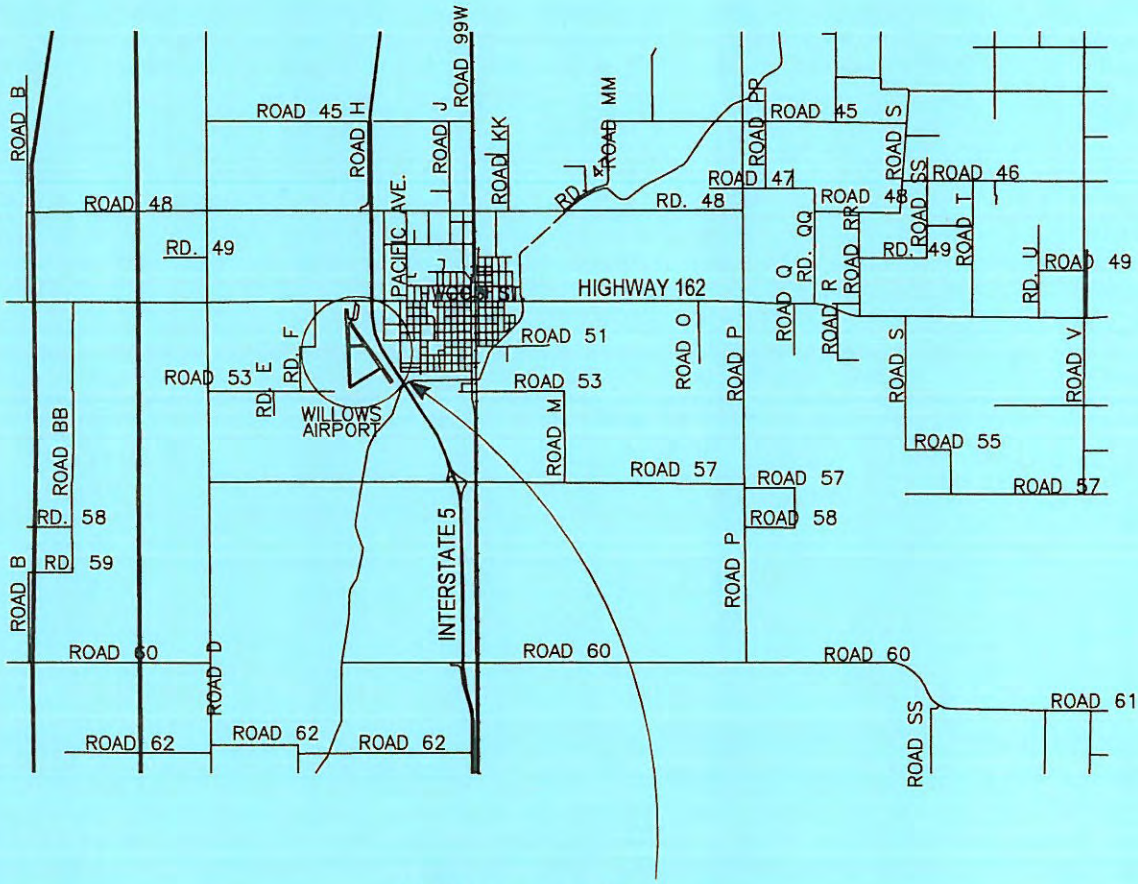
**47.** **Federal Subcontracting Requirements**: If Contractor awards a subcontract under this Contract, Contractor, if applicable, shall use the following alternative steps:

**A.** Using the services of the Small Business Administration and the Minority Business Development Agency of the United States Department of Commerce, as appropriate; and

**B.** Requiring the subcontractor, if it awards subcontracts, to take the affirmative steps set forth in Paragraph 40 above.

If applicable, Contractor agrees to complete and submit to the COUNTY a Minority Business Enterprise/Woman Business Enterprise (MBE/WBE) Utilization Report (Standard Form 334) within thirty (30) days after the end of each fiscal quarter until the end of the Contract.

# VICINITY MAP




Willows Glenn
County Airport

# PROPOSAL FORMS

**PROPOSAL FORM**
**CONSTRUCTION OF AIRCRAFT WASH RACK AND CONTAINMENT/EVAPORATION POND**
**WILLOWS-GLENN COUNTY AIRPORT**
**WILLOWS, CALIFORNIA**
**AIP PROJECT NO. 3-06-0279-04**

FROM:_____

NAME OF BIDDER_____

BUSINESS ADDRESS _____

BUSINESS TELEPHONE _____AFTER-HOURS TELEPHONE _____

CONTRACTOR LICENSE NUMBER _____

TO: Glenn County

Ladies and Gentlemen:

The undersigned, as bidder, *under penalty of perjury,* declares that the only persons or parties interested in this proposal as principals are those named herein: that this proposal is made without collusion with any other person, firm, or corporation; that he has carefully examined the location of the proposed work, the proposed form of contract, the Plans and Specifications herein referred to; and he proposes, and agrees if this proposal is accepted, that he will contract with Glenn County , in the form of the Contract annexed hereto, to provide all necessary machinery, tools, apparatus, and other means of construction, and to do all the work and furnish all the materials specified in the Contract in the manner and time there-in prescribed, and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefore the following item prices, to wit:

**WILLOWS-GLENN COUNTY AIRPORT**
**BID SCHEDULE**
**WASH RACK & CONTAINMENT/EVAPORATION POND**
**AIP PROJECT NO. 3-06-0279-04**

| Item | Description | Units | Approximate Quantity | Unit Price (Figures) | Total Cost (Figures) |
|---|---|---|---|---|---|
| 1 | Mobilization | LS | 1 | $ | $ |
| 2 | Airfield Safety and Traffic Control | LS | 1 | $ | $ |
| 3 | Earthwork & Site Preparation | LS | 1 | $ | $ |
| 4 | Temporary Erosion & Pollution Control | LS | 1 | $ | $ |
| 5 | Aggregate Base (Caltrans) | TN | 190 | $ | $ |
| 6 | Asphalt Concrete (Caltrans) | TN | 25 | $ | $ |
| 7 | Containment/Evaporation Pond/Green House | LS | 1 | $ | $ |
| 8 | Wash Rack & Pollution Control Facility | LS | 1 | $ | $ |
| 9 | 18-inch Culvert Pipe | LF | 30 | $ | $ |
| 10 | 2-inch PVC Conduit w/ Cabling | LF | 370 | $ | $ |
| 11 | Pull Boxes | EA | 7 | $ | $ |
| 12 | Chain Link Fence | LF | 385 | $ | $ |
| 13 | Pedestrian Gate | LS | 1 | $ | $ |
| 14 | 20-foot Double-Swing Vehicle Gate | LS | 1 | $ | $ |
| 15 | Hydroseeding | ACRE | 0.5 | $ | $ |
| **Total Base Bid (Items 1 through 15).** | | | | **$** | |
| **Total Base Bid in in writing:** | | | | | |

Acknowledgment of Addenda

Addendum No. Initial

_____

_____

_____
Signature/Title

_____
Company

_____
Contractor's License Number/Expiration Date

NOTE: Contractor License Number and Expiration Date stated herein are made under penalty of perjury.

## DESIGNATION OF SUBCONTRACTORS

Each bidder shall set forth below: (a) The name and the location of the place of business of each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the work in an amount in excess of one-half (1/2) of one percent (1%) of the Contractor's total bid; and (b) The portion of the work which will be done by each subcontractor.

If the Contractor fails to specify a subcontractor for any portion of the work as above stated, he agrees to perform that work himself. The Contractor shall not, without written consent of the Owner, make any substitution, alterations, or additions to the following list of subcontractors which is made a part of this proposal.

1. NAME: _____

   ADDRESS: _____

   CONTRACT ITEMS: _____ AMOUNT: $_____

2. NAME: _____

   ADDRESS: _____

   CONTRACT ITEMS: _____ AMOUNT: $_____

3. NAME: _____

   ADDRESS: _____

   CONTRACT ITEMS: _____ AMOUNT: $_____

4. NAME: _____

   ADDRESS: _____

   CONTRACT ITEMS: _____ AMOUNT: $_____

5. NAME: _____

   ADDRESS: _____

   CONTRACT ITEMS: _____ AMOUNT: $_____

6. NAME: _____

   ADDRESS: _____

   CONTRACT ITEMS: _____ AMOUNT: $_____

## QUESTIONNAIRE

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a Federal, State, or local government project because of a violation of law or a safety regulation?

Yes _____ No _____

If the answer is yes, attach an explanation of the circumstances.

Signed_____

**BIDDER'S STATEMENT ON**

**PREVIOUS CONTRACTS**

**SUBJECT TO EEO CLAUSE**

Each bidder, prospective prime contractor, and proposed subcontractor must complete the following form:

The Bidder (Proposer) shall complete the following statement by checking the appropriate boxes.

The Bidder (Proposer) has ____ has not ____ participated in a previous contract subject to the equal opportunity clause prescribed by Executive Order 10925, or Executive Order 11114, or Executive Order 11246.

The Bidder (Proposer) has ____ has not ____ submitted all compliance reports in connection with any such contract due under the applicable filing requirements; and that representations indicating submission of required compliance reports signed by proposed subcontractors will be obtained prior to award of subcontracts.

If the Bidder (Proposer) has participated in a previous contract subject to the equal opportunity clause and has not submitted compliance reports due under applicable filing requirements, the Bidder (Proposer) shall submit a compliance report on Standard Form 100, "Employee Information Report EEO -1", prior to the award of contract.

_____ _____

Date Signature and Title

**CERTIFICATION TO BE SUBMITTED BY FEDERALLY ASSISTED CONSTRUCTION CONTRACTORS OF APPLICANTS AND THEIR SUBCONTRACTORS (APPLICABLE TO FEDERALLY ASSISTED CONSTRUCTION CONTRACTS AND RELATED SUBCONTRACTS EXCEEDING $10,000 WHICH ARE NOT EXEMPT FROM THE EQUAL OPPORTUNITY CLAUSE).**

**CERTIFICATION OF NONSEGREGATED FACILITIES**

The federally assisted construction contractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor certifies further that they will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location under his control, where segregated facilities are maintained. The federally assisted construction contractor agrees that a breach of this certification is a violation of the equal opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting room, work areas, rest rooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin, because of habit, local custom, or any other reason. The federally assisted construction contractor agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000 which are not exempt from the provisions of the equal opportunity clause, and that he will retain such certifications in his files.

_____ _____

Date Signature and Title

_____

IRS Employer Identification Number

## CERTIFICATION OF BIDDER REGARDING

## AFFIRMATIVE ACTION PROGRAM

The bidder hereby certifies that he is in compliance with the Civil Rights Act of 1964, Executive Order No. 11246, Employment Practices Act, and any other applicable Federal and State laws and regulations relating to equal opportunity employment.

Bidder's Name: _____

Address: _____

Name and Title of Signer: _____

_____ _____

Date Signature

NOTE: The contractor to whom the Contract is awarded shall submit a statement each month certifying that he is in conformance with the Affirmative Action Program.

**BIDDER'S ASSURANCE OF COMPLIANCE WITH**

**TITLE 49 CFR PART 26 RELATING TO**

**DISADVANTAGED BUSINESS ENTERPRISE *(DBE)* PARTICIPATION**

The bidder hereby gives assurance pursuant to the requirements of Title 49 CFR Part 26 that bidder has made a reasonable effort to meet the goals for Disadvantaged Business Enterprise participation specified for the CONTRACT for which this proposal is submitted and that bidder, if the CONTRACT is awarded to bidder, will have a DBE participation of _____ **percent (CONTRACTOR to fill in actual percent of participation)** of the amount of this bid. Bidder further gives assurance that bidder will submit the documentation required by said REGULATIONS and the CONTRACT SPECIFICATIONS, including the Listing of Disadvantaged Business Enterprises with which the bidder will subcontract if the CONTRACT is awarded and if bidder is unable to meet the CONTRACT goals for DBE participation, of the steps bidder has taken to obtain DBE participation.

Bidder's Name: _____

_____ _____

Date Signature and Title

## DISADVANTAGED BUSINESS ENTERPRISE *(DBE)* UTILIZATION

The undersigned bidder/offeror has satisfied the requirements of the bid specification in the following manner (please check the appropriate space):

The bidder/offeror is committed to a minimum of _____% DBE utilization on this contract.

The bidder/offeror (if unable to meet the DBE goal of 4%) is committed to a minimum of _____% DBE utilization on this contract and submits documentation demonstrating good faith efforts.

Name of bidder/offeror's firm: _____

State Registration No.: _____

By: _____ Title: _____

| LIST OF DBE SUBCONTRACTORS | | CONTRACT AMOUNT |
|---|---|---|
| 1. _____ Name | _____ Phone | $_____ |
| 2. _____ Name | _____ Phone | $_____ |
| 3. _____ Name | _____ Phone | $_____ |
| 4. _____ Name | _____ Phone | $_____ |
| 5. _____ Name | _____ Phone | $_____ |
| 6. _____ Name | _____ Phone | $_____ |
| 7. _____ Name | _____ Phone | $_____ |
| 8. _____ *Name* | _____ *Phone* | $_____ |

**DBE**
**LETTER OF INTENT**

Name of bidder/offeror's firm: _____

Address: _____

City: _____ State: _____ Zip: _____

Name of DBE firm: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____

Description of work to be performed by DBE firm:

_____

_____

_____

_____

The bidder/offeror is committed to utilizing the above-named DBE firm for the work described above. The estimated dollar value of this work is $_____.

**AFFIRMATION**

The above-named DBE firm affirms that it will perform the portion of the contract for the estimated dollar value as stated above.

By _____
(Signature) (Title)

**If the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.**

(Submit this page for each DBE subcontractor within 10 days of request.)

## CERTIFICATION REGARDING FOREIGN TRADE RESTRICTIONS

The Contractor or subcontractor, by submission of an offer and/or execution of a contract, certifies that it:

(a) is not owned or controlled by one or more citizens or nationals of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);

(b) has not knowingly entered into any contract or subcontract for this project with a contractor that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list;

(c) has not procured any product nor subcontracted for the supply of any product for use on the Project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to a contractor or subcontractor who is unable to certify to the above. If the Contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on said list for use on the Project, the Federal Aviation Administration may direct, through the Sponsor, cancellation of the Contract at no cost to the Government.

Further, the Contractor agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The Contractor may rely upon the certification of a prospective subcontractor, unless it has knowledge the certification is erroneous.

The Contractor shall provide immediate written notice to the Sponsor, if the Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The subcontractor agrees to provide immediate written notice to the Contractor, if at any time it learns that its certification was erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct, through the Sponsor, cancellation of the Contract or subcontract for default at no cost to the Government.

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

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

_____ _____

Date Signature

## BUY AMERICAN CERTIFICATE (Jan. 1991)

By submitting a bid/proposal under this solicitation, except for those items listed by the offeror below or on a separate and clearly identified attachment to this bid/proposal, the offeror certifies that steel and each manufactured product, is produced in the United States (as defined in the clause Buy American – Steel and Manufactured Products or Buy American – Steel and Manufactured Products For Construction Contracts) and that components of unknown origin are considered to have been produced or manufactured outside the United States.

A list of articles, materials, and supplies excepted from this provision is contained in Division II, Section 1, Paragraph 1-7, "Buy American – Steel and Manufactured Products for Construction Contracts."

| PRODUCT | COUNTRY OF ORIGIN |
|---|---|
| | |
| | |
| | |
| | |

**SUSPENSION AND DEBARMENT REQUIREMENTS**
**FOR ALL CONTRACTS OVER $25,000**
**49 CFR PART 29**

The bidder/offerer certifies, by submission of this proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the bidder/offerer/contractor or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this solicitation/ proposal.

_____

Signature (Name of Bidder)

_____ _____

Date (Name and Title of Signing Official)

Business Address

_____

_____

_____

# SAMPLE FORMS

## *SAMPLE* AGREEMENT FOR AIRPORT CONSTRUCTION

THIS AGREEMENT, made and entered into this _____ day of _____ 20_____, by and between the *** of the State of California, hereinafter called "***", and ***, hereinafter called "CONTRACTOR".

### WITNESSETH

WHEREAS the *** secured bids for airport improvements known as: Improvements, AIP Project No. *** and;

WHEREAS the CONTRACTOR submitted a proposal for said improvements which is attached hereto and made a part hereof, said proposal having been regularly and duly accepted by minute order of the *** on the _____ day of _____, 20___, all in full compliance with the Contract Documents:

Now, THEREFORE, in consideration of the Mutual Covenants, herein contained, the parties hereto mutually covenant agree to abide as follows:

### SCOPE OF WORK

The CONTRACTOR agrees to furnish all labor, materials, tools, and equipment required to perform and complete in good workmanship like manner the work as called for, in the manner designated in and in strict conformance with the Contract Documents and Specifications for the Construction of Improvements at ***. Said scope of work shall include:

***

### CONTRACT DOCUMENTS

The completed CONTRACT between the parties hereto shall consist of the following identified documents, herein referred to as the Contract Documents: Notice to Bidders, (Advertisement for Bids), Instruction to Bidders, Proposal Form, this Agreement, Bid Bond, Performance Bond, Labor and Materials Bond, Plans, and Specifications and addenda thereto.

### CONTRACT PRICE

The *** agrees to pay and the CONTRACTOR agrees to accept, in full payment for the full and complete performance of this CONTRACT, the sum of
subject to additions and deductions as provided for in the Contract Documents.

### TIME OF COMPLETION

The time of completion for the base bid items is ***. The per diem rate for liquidated damages shall be $***.

| | |
|---|---|
| CONTRACTOR | SPONSOR |
| By _____ | By *** |
| Title _____ | _____ |
| APPROVED AS TO FORM: | ATTEST: |
| _____ | _____ |

**BID BOND**

Recitals: 1. _____"Contractor", has submitted his Contractor's Proposal to **** for the construction of public work for **** Airport **Project Description** in accordance with a Notice Inviting Bids of County dated June 30, 2008.

2. _____

a _____ corporation, hereafter called "Surety", is the surety of this Bond.

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

1. The amount of the obligation of this bond is 10% of the amount of the Contractor's Proposal, including all bid alternates, and inures to the benefit of **Sponsor**.

2. This Bond is exonerated by (1) **Sponsor** rejecting said Proposal or, in the alternate, (2) if said Proposal is accepted, Contractor executes the Agreement and furnishes the Bonds as agreed to in its Proposal, otherwise it remains in full force and effect for the recovery of loss, damage and expense of **Sponsor** resulting from failure of Contractor to act as agreed to in its Proposal. Some types of possible loss, damage and expense are specified in the Contractor's Proposal.

3. Surety, for value received, stipulates and agrees that its obligations hereunder shall in no way be impaired or affected by any extension of time within which **Sponsor** may accept the Proposal and waives notice of any such extension.

4. This Bond is binding on our heirs, executors, administrators, successors and assigns.

Dated: _____

| | |
|---|---|
| _____ | _____ |
| By _____ | By _____ |
| Title: Attorney in Fact<br>"Surety" | Title: _____<br>"Contractors" |

STATE OF _____ )
) ss.
COUNTY OF _____ )

On _____ before me personally appeared _____ known to me to be the person whose name is subscribed to the within instrument as Attorney in Fact.

_____
Notary Public (Seal)

(NOTE: Affix corporate seals.)

## FAITHFUL PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That _____, as Principal, and , as surety, incorporated under the Laws of the State of California and authorized to transact surety business in the State of California, are held and firmly bound unto *** in the sum of _____ Dollars ($_____), for the payment whereof, well and truly to be made, said Principal and Surety bind themselves, their heirs, administrators, successors and assigns, jointly and severally, firmly by these presents.

The Condition of the foregoing obligation is such that, Whereas the above bounden Principal has entered into a Contract, dated _____, 20_____, with the *** to do and perform the following work, to wit:

**WASH RACK AND CONTAINMENT/EVAPORATION POND CONSTRUCTION**
**AIP No. 3-06-0279-04**

All alterations, extensions of time, extra and additional work, and other changes authorized by the Specifications or any part of the Contract may be made without securing the consent of the surety or sureties on the contract bonds. Surety waives any requirement of notice of any such alterations, extensions of time, extra and additional work or any other changes.

Now, Therefore, if the above bounden Principal shall well and truly perform the Contract, then this obligation shall be void; otherwise, to remain in full force and effect.

Signed and Sealed this _____ day of _____, 20_____.

_____
(Principal)

By _____

(SEAL)

_____
(Surety)

By _____

## PAYMENT BOND

(Public Work Civil Code 3247 et seq.)

The makers of this Bond are _____, as Principal and Original Contractor, and _____, a corporation, authorized to issue Surety Bonds in California, as Surety, and this Bond is issued in conjunction with that certain public works contract dated _____, between Principal and County a public entity, as Owner, for $_____, the total amount Payable. THE AMOUNT OF THIS BOND IS 100 PERCENT OF SAID SUM. Said contract is for public work generally consisting of airport improvements at _____Airport.

The beneficiaries of this Bond are as stated in 3248 of the Civil Code and the requirements and conditions of this Bond are as set forth in 3248, 3249, 3250, and 3252 of said Code. Without notice, Surety consents to the extension of time for performance, change in requirements, amount of compensation, or prepayment under said Contract.

Dated: _____

_____
Original Contractor

By: _____

_____

By: _____
Its Attorney in Fact

Title: _____
(If corporation, affix seal)

STATE OF CALIFORNIA )
) ss.
COUNTY OF _____ )

SURETY'S ACKNOWLEDGEMENT

On _____, before me personally appeared person whose name is subscribed the name of said corporation thereto, and acknowledged that he subscribed the name of said corporation thereto, and his name as its attorney in fact.

_____
Notary Public (SEAL)

NOTE: All signatures must be notarized.

## LABOR AND MATERIAL BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____ of _____, as Principal, and , as Surety, incorporated under the Laws of the State of _____and authorized to transact surety business in the State of California, as Surety, are held and firmly bound unto *** , as Obligee in the sum of _____ Dollars ($_____), for the payment whereof, well and truly to be made, said Principal and Surety bind themselves, their heirs, administrators, successors and assigns, jointly and severally, firmly by these presents.

The Condition of the foregoing obligation is such that, Whereas the above bounden Principal has entered into a contract, dated _____, 20___, with the Obligee to do and perform the following work, to wit:

**WASH RACK AND CONTAINMENT/EVAPORATION POND CONSTRUCTION**
**AIP No. 3-06-0279-04**

All alterations, extensions of time, extra and additional work, and other changes authorized by the Specifications or any part of the Contract may be made without securing the consent of the surety or sureties on the contract bonds. Surety waives any requirement of notice of any such alterations, extensions of time, extra and additional work or any other changes.

NOW, THEREFORE, if the above bounden Principal, his or its heirs, executors, administrators, successors or assigns; or subcontractors shall fail to pay any of the persons named in Civil Code Section 3181, or amounts due under the Unemployment Insurance Code with respect to work or labor performed by any such claimant, or any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the Contractor and his subcontractors pursuant to Section 18806 of the Revenue and Taxation Code, with respect to such work and labor, the surety or sureties herein will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the said surety will pay a reasonable attorney's fee to be fixed by the court.

This bond shall inure to the benefit of any and all persons, companies or corporations entitled to file claims under Section 3181 of the Civil Code of the State of California, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Signed and Sealed this _____ day of _____, 20_____.

_____
(Principal)

(SEAL) By: _____

_____
(Surety)

By: _____

# DIVISION II

## FAA Required Provisions

## DIVISION II

## SECTION 1

## REQUIREMENTS FOR BIDS FOR AIP CONTRACTS

**1-1 REQUIRED NOTICES FOR ALL CONTRACTS**. The Sponsor, in accordance with Title VI of the Civil Rights Act of 1964, hereby notifies all bidders that they (bidders) must affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for award.

**1-2 REQUIRED NOTICES FOR CONTRACTS OVER $10,000**.

**A.** Each bidder will be required to comply with the affirmative action plan for equal employment opportunity prescribed by the OFCC (Office of Federal Contract Compliance), United States Department of Labor, Regulations of the Secretary of Labor (41 CFR 60), or by the other designated trades used in the performance of the contract and other nonfederally involved contracts in the area geographically defined in the Plan.

**B.** The proposed contract is under and subject to Executive Order 11246 of September 26, 1965, as amended, and to the equal opportunity clause; and

**C.** The successful bidder will be required to submit a Certification of Nonsegregated Facilities prior to award of the contract, and to notify prospective subcontractors of the requirement for such a certification where the subcontract exceeds $10,000. Samples of the certification and the notice to subcontractors appear in the specifications.

**D.** When a determination has been made to award a contract or subcontract to a specific contractor, such contractor is required, prior to the award or after the award, or both, to furnish such other information as the FAA, the Sponsor, or the Director of OFCC requests.

**E.** A bidder must indicate whether he has previously had a contract subject to the equal opportunity clause, whether he has filed all report forms required in such contract, and if not, a compliance report (Standard Form (SF 100)) must be submitted with his bid.

**F.** Equal Employment Opportunity (EEO) and labor provisions, when applicable, are included in the bidding documents of specifications and are available for inspection at the Department of Public Works.

**G.** Contractors and subcontractors may satisfy EEO requirements of paragraph 2 of the EEO contract clause by stating in all solicitations or advertisements for employees that:

> "All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin."

or by using a single advertisement in which appears in clearly distinguished type, the phrase:

> "an equal opportunity employer".

## 1-3 REQUIRED NOTICE FOR CONTRACTS FOR 50 OR MORE EMPLOYEES AND A CONTRACT OF $50,000 OR MORE.

**A.** A contractor having 50 or more employees and first tier subcontractors having 50 or more employees and who may be awarded a subcontract of $50,000 or more will, within 120 days from contract commencement, be required to develop a written Affirmative Action Compliance Program for each of its establishments.

**B.** Within 30 days after award of this contract, the contractor must file a compliance report (SF 100) if the contractor has not submitted a complete compliance report within 12 months preceding the date of award.

**C.** State and local governments are exempt from the requirements of filing the annual compliance report (SF 100).

**D.** The Contractor shall require the subcontractor on any first tier subcontracts, irrespective of dollar amount, to file a SF 100 within 30 days after award of the subcontract if the above conditions apply. A SF 100 will be furnished upon request. The SF 100 is normally furnished to the contractors annually, based on a mailing list currently maintained by the Joint Reporting Committee. In the event a contractor has not received the form, he may obtain it by writing to the following address:

Joint Reporting Committee
1800 G Street
Washington, D.C. 20506

## 1-4 NOTICE TO PROSPECTIVE CONTRACTORS OF REQUIREMENT FOR CERTIFICATION OF NONSEGREGATED FACILITIES.

**A.** A Certification of Nonsegregated Facilities must be submitted with Bid for a federally assisted construction contract exceeding $10,000 which is not exempt from the provisions of the EEO clause.

**B.** Contractors receiving federally assisted construction contract awards exceeding $10,000 which are not exempt from the provisions of the EEO clause will be required to provide for the forwarding of the notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed $10,000 and are not exempt from the provisions of the EEO clause. **NOTE**: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

## 1-5 CLEAN AIR AND WATER POLLUTION CONTROL REQUIREMENTS FOR ALL CONSTRUCTION CONTRACTS AND SUBCONTRACTS EXCEEDING $100,000.

**A. Contractors and subcontractors agree**:

1. That any facility to be used in the performance of the contract or to benefit from the contract is not listed on the Environmental Protection Agency (EPA) List of Violating Facilities.
2. To comply with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations issued thereunder.
3. That as a condition for award of a contract they will notify the awarding official of the receipt of any communication from the EPA indicating that a facility to be utilized for performance of or

benefit from the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. To include or cause to be included in any contract or subcontract which exceeds $100,000 the aforementioned criteria and requirements.

**1-6 FOREIGN TRADE CERTIFICATION.** The contractor or subcontractor, by submission of an offer and/or execution of a contract, certifies that it:

**A.** is not owned or controlled by one or more citizens or nationals of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);

**B.** has not knowingly entered into any contract or subcontract for this project with a contractor that is not a citizen or a national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list.

**C.** has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to a contractor or subcontractor who is unable to certify to the above. If the contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on the said list for use on the project, the Federal Aviation Administration may direct, through the Sponsor, cancellation of the contract at no cost to the Government.

Further, the contractor agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The contractor may rely upon the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

The contractor shall provide immediate written notice to the Sponsor if the contractor learns that its certification or that of a subcontractor was erroneous when submitted, or has become erroneous by reason of changed circumstances. The subcontractor agrees to provide immediate written notice to the contractor, if at any time it learns that its certification was erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct, through the Sponsor, cancellation of the contract or subcontract for default at no cost to the Government.

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

This certification concerns a matter within the jurisdiction of an agency of the United States of America, and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

**1-7 BUY AMERICAN–STEEL AND MANUFACTURED PRODUCTS FOR CONSTRUCTION CONTRACTS.** The Aviation Safety and Capacity Expansion Act of 1990 provides that preference be given to steel and manufactured products produced in the United states when funds are expended pursuant to a grant issued under the Airport Improvement Program. The following terms apply:

1. Steel and manufactured products. As used in this clause, steel and manufactured products include (1) steel produced in the United States or (2) a manufactured product produced in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 60 percent of the cost of all its components and final assembly has taken place in the United States. Components of foreign origin of the same class or kind as the products referred to in subparagraphs (b)(1) or (2) shall be treated as domestic.
2. Components. As used in this clause, components mean those articles, materials, and supplies incorporated directly into steel and manufactured products.
3. Cost of components. This means the costs for production of the components, exclusive of final assembly labor costs.

The successful bidder will be required to assure that only domestic steel and manufactured products will be used by the contractor, subcontractors, materialmen, and suppliers in the performance of this contract, except those:

1. that the U.S. Department of Transportation has determined under the Aviation Safety and Capacity Expansion Act of 1990, are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality;
2. that the U. S. Department of Transportation has determined, under the Aviation Safety and Capacity Expansion Act of l990, that domestic preference would be inconsistent within the public interest; or
3. that inclusion of domestic material will increase the cost of the overall project contract by more than 25 percent.

The government list of articles, materials, and supplies excepted from this provision is included below:

Acetylene, black
Agar, bulk
Anise
Antimony, as metal or oxide
Asbestos, amosite, chrysolite, and crocidolite
Bananas
Bauxite
Beef, corned, canned
Beef extract
Bephenium Hydroxynapthoate
Bismuth
Books, trade, test, technical, or scientific; newspapers; pamphlets; magazines; periodicals; printed briefs and films; not printed in the United States and for which domestic editions are not available
Brazil nuts, unroasted
Cadmium, ores, and flue dust
Calcium cyanamide
Capers
Cashew nuts
Castor beans and castor oil
Chalk, English
Chestnuts
Chicle
Chrome ore or chromite
Cinchona bark
Cobalt, in cathodes, rondelles, or other primary ore and metal forms
Cocoa beans
Coconut and coconut meat, unsweetened, in shredded, desiccated, or similarly prepared form
Coffee, raw or green bean
Colchicine alkaloid, raw
Copra
Cork, wood, or bark and waste
Cover glass, microscope slide
Cryolite, natural
Dammar gum
Diamonds, industrial, stones and abrasive
Emetine, bulk
Ergot, crude
Erthrityl tetranitrate
Fair linen, altar
Fibers of the following types: abaca, abace, agave, coir, flax, jute, jute burlaps, palmyra and sisal
Goat and kid skins
Graphite, natural, crystalline, crucible grade
Handsewing needles
Hemp yarn
Hog bristles for brushes
Hyoscine, bulk
Ipecac, root
Iodine, crude
Kaurigum
Lac
Leather, sheepskin, hair type
Lavender oil
Manganese
Menthol, natural bulk
Mica
Microprocessor chips (brought onto a construction site as separate units for incorporation into building systems during construction or repair and alteration of real property)
Nickel, primary, in ingots, pigs, shots,cathodes, or similar forms; nickel oxide and nickel salts
Nitroguanidine (also known as picrite)
Nux vomica, crude
Oiticica oil
Olive Oil
Olives (green), pitted or unpitted, or stuffed,in bulk
Opium, crude
Oranges, mandarin, canned
Petroleum, crude oil, unfinished oils, and finished products (see definitions below)
Pine needle oil
Platinum and related group metals, refined, as sponge, powder, ingots, or cast bars
Pyrethrum flowers
Quartz crystals
Quebracho
Quinidine
Quinine
Rabbit fur felt
Radium salts, source and special nuclear materials
Rosettes
Rubber, crude and latex
Rutile
Santonin, crude
Secretin
Shellac
Silk, raw and unmanufactured
Spare and replacement parts for equipment of foreign manufacture, and for which domestic parts are not available
Spices and herbs, in bulk
Sugars, raw
Swords and scabbards
Talc, block, steatite
Tantalum
Tapioca flour and cassava
Tartar, crude; tartaric acid and cream of tartar in bulk
Tea in bulk
Thread, metallic (gold)
Thyme oil
Tin in bars, blocks, and pigs
Triprolidine hydrochloride
Tungsten
Vanilla beans
Venom, cobra
Wax, canauba
Woods; logs, veneer, and lumber of the following species: Alaskan yellow cedar, angelique, balsa, ekki, greenhart, lignum vitae, mahogany, and teak
Yarn, 50 Denier rayon

Petroleum terms are used as follows:

"Crude oil" means crude petroleum, as it is produced at the wellhead, and liquids (under atmospheric conditions) that have been recovered from mixtures of hydrocarbons that existed in a vaporous phase in a reservoir and that are not natural gas products.

"Finished products" means any one or more of the following petroleum oils, or a mixture or combination of these oils, to be used without further processing except blending by mechanical means:

**A.** "Asphalt" - a solid or semisolid cementitious material that (1) gradually liquefies when heated, (2) has bitumens as its predominating constituents, and (3) is obtained in refining crude oil.

**B.** "Fuel oil" - a liquid or liquefiable petroleum product burned for lighting or for the generation of heat or power and derived directly or indirectly from crude oil, such as kerosene, range oil, distillate fuel oils, gas oil, diesel fuel, topped crude oil, or residues.

**C.** "Gasoline" - a refined petroleum distillate that, by its consumption, is suitable for use as a carburant in internal combustion engines.

**D.** "Jet fuel" - a refined petroleum distillate used to fuel jet propulsion engines.

**E.** "Liquefied gases" - hydrocarbon gases recovered from natural gas or produced from petroleum refining and kept under pressure to maintain a liquid state at ambient temperatures.

**F.** "Lubricating oil" - a refined petroleum distillate or specially treated petroleum residue used to lessen friction between surfaces.

**G.** "Naphtha" - a refined petroleum distillate falling within a distillation range overlapping the higher gasoline and the lower kerosenes.

**H.** "Natural Gas products" - liquids (under atmospheric conditions) including natural gasoline that:

1. are recovered by a process of absorption adsorption, compression, refrigeration, cycling, or a combination of these processes, from mixtures of hydrocarbons that existed in a vaporous phase in a reservoir, and
2. when recovered and without processing in a refinery, definitions of products contained in subdivision B, C, and G above.

**I.** "Residual fuel oil" - a topped crude oil or viscous residuum that, as obtained in refining or after blending with other fuel oil, meets or is the equivalent of MILSPEC Mil-F-859 for Navy Special Fuel Oil and any more viscous fuel oil, such as No. 5 or Bunker C.

"Unfinished oils" means one or more of the petroleum oils listed under "Finished products" above, or a mixture or combination of these oils, that are to be further processed other than by blending by mechanical means.

## DIVISION II

## SECTION 2

## STANDARD FEDERAL CONTRACT CLAUSES AND REQUIREMENTS FOR CONSTRUCTION CONTRACTS

### 2-1 GENERAL AND LABOR CLAUSES FOR ALL CONSTRUCTION CONTRACTS AND SUB-CONTRACTS.

A. **Airports Program Project**: The work in this CONTRACT is included in the AIP Project No. 3-06-0279-04 which is being undertaken and accomplished by the SPONSOR in accordance with the terms and conditions of a grant agreement between the SPONSOR and the United States, under the Airport and Airway Safety and Capacity Expansion Act of 1987, pursuant to which the United States has agreed to pay a certain percentage of the costs of the project that are determined to be allowable project costs under that Act. The United States is not a party to this CONTRACT and no reference in this CONTRACT to the Federal Aviation Administration or any representative thereof, or to any rights granted to the Federal Aviation Administration or any representative thereof, or the United States, by the CONTRACT, makes the United States a party to this CONTRACT.

B. **Consent to Assignment**: The CONTRACTOR shall obtain the prior written consent of the SPONSOR to any proposed assignment of any interest in or part of this CONTRACT.

C. **Convict Labor**: No convict labor may be employed under this CONTRACT.

D. **Veterans Preference**: In the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to veterans of the Vietnam era and disabled veterans. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

E. **Withholding, Sponsor from Contractor**: Whether or not payments or advances to the SPONSOR are withheld or suspended by the Federal Aviation Administration, the SPONSOR may withhold or cause to be withheld from the CONTRACTOR so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics employed by the CONTRACTOR or any subcontractor on the work the full amount of wages required by this CONTRACT.

F. **Nonpayment of Wages**: If the CONTRACTOR or subcontractor fails to pay any laborer or mechanic employed or working on the site of the work any of the wages required by this CONTRACT, the SPONSOR may, after written notice to the CONTRACTOR, take such action as may be necessary to cause the suspension of any further payment or advance of funds until the violations cease.

G. **Federal Aviation Administration Inspection and Review**: The CONTRACTOR shall allow any authorized representative of the Federal Aviation Administration to inspect and review any work or materials used in the performance of this CONTRACT.

H. **Subcontracts**: The CONTRACTOR shall insert in each of his subcontracts the provisions contained in paragraphs A, C, D, E, F, and G of this section, and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts which they may enter into, together with a clause requiring this insertion in any further subcontracts that may in turn be made.

I. **Contract Termination**: A breach of paragraphs F, G, and H of this section may be grounds for termination of the CONTRACT.

**2-2 MISCELLANEOUS CLAUSE REQUIREMENTS FOR ALL CONSTRUCTION CONTRACTS AND SUBCONTRACTS UNLESS OTHERWISE INDICATED**. During the performance of this CONTRACT, the CONTRACTOR, for herself/himself, her/his assignees and successors in interest (hereinafter referred to as the "CONTRACTOR") agrees as follows:

A. **Compliance with Regulations**: The CONTRACTOR shall comply with the REGULATIONS relative to nondiscrimination in Federally assisted programs of the Department of Transportation (Title 49, Code of Federal Regulations, Part 21) as they may be amended from time to time, (hereinafter referred to as the REGULATIONS), which are incorporated by reference and made a part of this CONTRACT.

B. **Nondiscrimination**: The CONTRACTOR, with regard to the work performed by her/him during the CONTRACT, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The CONTRACTOR shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the REGULATIONS, including employment practices when the CONTRACT covers a program set forth in Appendix B of the REGULATIONS.

C. **Solicitations for Subcontractors, including Procurement of Materials and Equipment**: In all solicitations either by competitive bidding or negotiation made by the CONTRACTOR for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the CONTRACTOR of the CONTRACTOR's obligations under this CONTRACT and the REGULATIONS relative to nondiscrimination on the grounds of race, color, or national origin.

D. **Information and Reports**: The CONTRACTOR shall provide all information and reports required by the REGULATIONS or directives issued pursuant thereto, and shall permit access to her/his books, records, accounts, other sources of information and her/his facilities as may be determined by the SPONSOR or the Federal Aviation Administration pertinent to ascertain compliance with such REGULATIONS, orders, and instructions. Where any information required of a CONTRACTOR is in the exclusive possession of another who fails or refuses to furnish this information, the CONTRACTOR shall so certify to the SPONSOR or the Federal Aviation Administration, as appropriate, and shall set forth what efforts she/he has made to obtain the information.

E. **Sanction for Noncompliance**: In the event of the CONTRACTOR'S noncompliance with the nondiscrimination provisions of this CONTRACT, the SPONSOR shall impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

1. Withholding of payments to the CONTRACTOR under the CONTRACT until CONTRACTOR complies, and/or

2. Cancellation, termination, or suspension of the CONTRACT, in whole or in part.

F. **Incorporation of Provisions**: The CONTRACTOR shall include the provisions of Paragraphs A through E of this Section in every subcontract, including procurements of materials and leases of equipment, unless exempt by the REGULATIONS or directives issued pursuant thereto. The CONTRACTOR shall take action with respect to any subcontract or procurement as the SPONSOR or the Federal Aviation Administration may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that, in the event a CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of

such direction, the CONTRACTOR may request the SPONSOR to enter into such litigation to protect the interests of the SPONSOR and, in addition, the CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

G. **Breach of Contract Terms Sanctions**: CONTRACT/subcontracts shall contain such contractual provisions or conditions which will allow for administrative, contractual or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as may be appropriate. A sample clause is:

*Any violation or breach of the terms of this CONTRACT on the part of the CONTRACTOR/subcontractor may result in the suspension or termination of this CONTRACT, or such other action which may be necessary to enforce the rights of the parties of this agreement.*

H. **Contract Termination** (For contracts in excess of $10,000.): This CONTRACT may be terminated by the SPONSOR for default or any other conditions or circumstances beyond the control of the CONTRACTOR. Termination conditions, the manner by which it will be effected, and the basis for settlement are as stated in Division III, Section 80-9 and 80-10.

I. **Rights to Inventions Materials** (For contracts or agreements involving imported products, processes, methods, etc.): All rights to inventions and materials generated under this CONTRACT are subject to regulations issued by the Federal Aviation Administration and the recipient of the Federal grant under which this CONTRACT is executed. Information regarding these rights is available from the Federal Aviation Administration and the SPONSOR.

## 2-3 ACCESS TO DOCUMENTS, RECORDS, ETC.

The SPONSOR, the Federal Aviation Administration, the Comptroller General of the United States, or any of their duly authorized representatives, shall be allowed access to any books, documents, papers, and records of the CONTRACTOR which are directly pertinent to the Contract for the purpose of making audit, examination, excerpts, and transcriptions.

## 2-4 LABOR CONTRACT CLAUSES FOR ALL CONSTRUCTION CONTRACTS AND SUBCONTRACTS IN EXCESS OF $2,000.

### A. Minimum wages:

1. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account, except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the CONTRACTOR and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under *Section 1(b)(2)* of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to laborers or mechanics, subject to the provisions of *Subparagraph A.4* below. Also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are

deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in Paragraph D of this clause. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination, including any additional classification and wage rates conformed under A.2 of this Section, and the Davis-Bacon poster (WH-1321) shall be posted at all times by the CONTRACTOR and his subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

2. a. Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the CONTRACT, shall be classified in conformance with the wage determination. The SPONSOR shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:
   (1) the work to be performed by the classification requested is not performed by a classification in the wage determination;
   (2) the classification is utilized in the area by the construction industry; and
   (3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

   b. If the CONTRACTOR and the laborers and mechanics to be employed in the classification (if known), or their representatives and the SPONSOR agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the SPONSOR, or will notify the SPONSOR within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control No. 1215-0140)

   c. In the event the CONTRACTOR, the laborers or mechanics to be employed in the classification or their representatives and the SPONSOR do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits where appropriate), the SPONSOR shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the SPONSOR or will notify the SPONSOR within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control No. 1215-0140)

   d. The wage rate (including fringe benefits, where appropriate) determined pursuant to Subparagraphs 2 b and c of this Paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

3. Whenever the minimum wage rate prescribed in the CONTRACT for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly wage rate, the CONTRACTOR shall either pay the benefit as stated in the wage determination, or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

4. If the CONTRACTOR does not make payments to a trustee or other third person, the CONTRACTOR may consider as part of the wages of any labor or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided that the Secretary of Labor has found, upon written request of the CONTRACTOR, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the CONTRACTOR to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control No. 1215-0140)

**B. Withholding**: The Federal Aviation Administration or the SPONSOR shall, upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the CONTRACTOR (under this contract or any other Federal contract with the same prime CONTRACTOR, or any other federally-assisted contract subject to Davis-Bacon Act prevailing wage requirements, which is held by the same prime CONTRACTOR) so much of the accrued payments or advances (as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the CONTRACTOR or any subcontractor) the full amount of wages required by the CONTRACT. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper (employed or working on the site of work) all or part of the wages required by the CONTRACT, the Federal Aviation Administration may (after written notice to the CONTRACTOR, SPONSOR, applicant, or owner) take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

**C. Payrolls and Basic Records**:

1. Payrolls and basic records relating thereto shall be maintained by the CONTRACTOR during the course of the work and preserved for a period of three (3) years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address and social security number of each such worker, her/his correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in *Section 1(b)(2)(B)* of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found, under Paragraph a(4) of this clause that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the CONTRACTOR shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of the trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates

prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Nos. 1215-0140 and 1251-0017.)

2. a. The CONTRACTOR shall submit weekly (for each week in which any CONTRACT work is performed) a copy of all payrolls to the applicant, SPONSOR, or owner, as the case may be for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under Paragraph C.1 above. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock No. 029-005-00014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime CONTRACTOR is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control No. 1215-0149.)

   b. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the CONTRACTOR or subcontractor or her/his agent who pays or supervises the payment of the persons employed under the contract, and shall certify the following:

      (1) that the payroll for the payroll period contains the information required to be maintained under Paragraph C.1 above and that such information is correct and complete;

      (2) that each laborer and mechanic (including each helper, apprentice and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations 29 CFR Part 3; and

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

   c. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by Paragraph C.2.b of this Section.

   d. The falsification of any of the above certifications may subject the CONTRACTOR or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

3. The CONTRACTOR or subcontractor shall make the records required under Paragraph C.1 of this Section available for inspection, copying or transcription by authorized representatives of the SPONSOR, the Federal Aviation Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the CONTRACTOR or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the CONTRACTOR, SPONSOR, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

## D. Apprentices and Trainees.

1. **Apprentices**: Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in her/his first 90 days of probationary employment as an apprentice in such an apprenticeship program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen in any craft classification shall not be greater than the ratio permitted to the CONTRACTOR as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a CONTRACTOR is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the CONTRACTOR's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a state Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the CONTRACTOR will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

2. **Trainees**: Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training

Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the CONTRACTOR will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

3. **Equal employment opportunity**: The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

E. **Compliance with Copeland Act requirements**: The CONTRACTOR shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

F. **Subcontracts**: The CONTRACTOR or subcontractor shall insert in any subcontracts the clauses contained in *Paragraphs A through J* of this clause and *A through E* of the fifth clause below.

G. **Contract termination: Debarment**: A breach of the CONTRACT clauses in *Paragraphs A through J* of this clause and *A through E* of the fifth clause below may be grounds for termination of the CONTRACT, and for the debarment as a contractor and a subcontractor as provided in 19 CRR 5.12.

H. **Compliance with Davis-Bacon and related act requirements**: All rulings and interpretations of the Davis-Bacon and Related Acts contained in 19 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

I. **Disputes concerning labor standards**: Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the CONTRACTOR (or any of his subcontractors) and the contracting agency, the U.S. Department of Labor or the employees or their relatives.

J. **Certification of eligibility**:

1. By entering into this CONTRACT, the CONTRACTOR certifies that neither she/he nor any person or firm who has an interest in the CONTRACTOR's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a) (1).

2. No part of this CONTRACT shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a) (1).

3. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

**2-5** The following clauses in *Paragraphs A, B, C, D, and E*, below, required by the Contract Work Hours and Safety Standards Act, will also be inserted in full in AIP construction contracts in excess of $2,000 in

addition to the clause required by 29 CFR 5.5(a) or 4.6 of Part 4 of Title 29. As used in the following the terms "laborers" and "mechanics" include watchmen and guards.

A. **Overtime requirements**: No CONTRACTOR or subcontractor contracting for any part of the CONTRACT work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic, in any workweek in which he is employed on such work, to work in excess of eight (8) hours in any calendar day or in excess of forty (40) hours in such workweek, unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek, whichever is greater.

B. **Violations; liability for unpaid wages; liquidated damages**: In the event of any violation of the clause set forth in *Paragraph A*, above, the CONTRACTOR or any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such CONTRACTOR and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed (with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in *Paragraph A*, above) in the sum of ten dollars $10 for each calendar day on which such individual was required or permitted to work in excess of eight (8) hours or in excess of the standard workweek of forty (40) hours without payment of the overtime wages required by the clause set forth in *Paragraph A*, above.

C. **Withholding for unpaid wages and liquidated damages**: The Federal Aviation Administration or the SPONSOR shall, upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld, from any monies payable on account of the work performed by the CONTRACTOR or subcontractor, under any such CONTRACT or any other Federal contract with the same prime CONTRACTOR, or any other federally-assisted CONTRACT subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime CONTRACTOR, such sums as may administratively be determined to be necessary to satisfy any liabilities of such CONTRACTOR or subcontractor for unpaid wages and liquidated damages as set forth in the clause in *Paragraph B*, above.

D. **Subcontracts**: The CONTRACTOR or subcontractor shall insert in any subcontracts the clauses contained in *Paragraphs A through D* and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime CONTRACTOR shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in *Paragraphs A through D*.

E. **Working conditions**: No CONTRACTOR or subcontractor may require any laborer or mechanic employed in the performance of any contract to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to his health or safety as determined under construction safety and health standards (29 CFR Part 1926) issued by the Department of Labor.

**2-6** In addition to the provisions in 2-4 and 2-5, above, for contracts in excess of $2,000, the following is to be included in **all** contracts for work on airport development projects involving labor:

A. **Veteran's Preference**. In the employment of labor (except in executive, administrative and supervisory positions), preference shall be given to veterans of the Vietnam era and disabled veterans. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

**2-7 EQUAL EMPLOYMENT OPPORTUNITY CLAUSE FOR ALL CONSTRUCTION CONTRACTS AND SUBCONTRACTS EXCEEDING $10,000**: During the performance of this CONTRACT, the CONTRACTOR agrees as follows, except any CONTRACTS/subcontracts (or certifications preliminary thereto) with a State or local government or any agency, instrumentality or subdivision thereof shall not be applicable to any agency, instrumentality, or subdivision of such governments which does not participate in work on or under the CONTRACT or subcontract.

A. The CONTRACTOR will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The CONTRACTOR will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employments, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

B. The CONTRACTOR will, in all solicitations or advertisements for employees placed by or on behalf of the CONTRACTOR, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

C. The CONTRACTOR will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice (to be provided) advising the said labor union or workers' representatives of the CONTRACTOR's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

D. The CONTRACTOR will comply with all provisions of Executive Order 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

E. The CONTRACTOR will furnish all information and reports required by Executive Order 11246 of September 24, 1965, as amended, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to these books, records, and accounts by the Federal Aviation Administration and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

F. In the event of the CONTRACTOR's noncompliance with the nondiscrimination clauses of this CONTRACT or with any of the said rules, regulations, or orders, this CONTRACT may be canceled, terminated, or suspended in whole or in part and the CONTRACTOR may be declared ineligible for further Government contracts or Federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, as amended, and such other sanctions may be imposed and remedies invoked as provided in

Executive Order 11246 of September 24, 1965, as amended, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

**G.** The CONTRACTOR will include the portion of the sentence immediately preceding paragraph A and the provisions of paragraphs exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204, of Executive Order 11246 of September 24, 1965, as amended, so that such provisions will be binding upon each subcontractor or vendor. The CONTRACTOR will take such action with respect to any subcontract or purchase order enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event a CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Federal Aviation Administration, the CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

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## DIVISION II

## SECTION 3

## STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS

**3-1 REQUIRED NOTICES FOR CONTRACTS OVER $10,000**. The regulations and orders of the Secretary of Labor, Office of Federal Contract Compliance Program (OFCCP), and FAR Part 152.61 require that the SPONSOR and/or its contractor(s) include in invitation for Bids or negotiations for contracts over $10,000 the following notices:

A. NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246, AS AMENDED).

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the CONTRACTOR's aggregate work force in each trade on all construction work in the covered area, are as follows:

**Timetables**

| | |
|---|---|
| Goals for minority participation for each trade | Vol. 45 Federal Register pg. 65984 10/3/80 |
| Goals for female participation in each trade | 6.9% |

These goals are applicable to all the CONTRACTOR's construction work (whether or not it is Federal or Federally-assisted) performed in the covered area. If the CONTRACTOR performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the CONTRACTOR also is subject to the goals for both its federally involved and nonfederally involved construction.

The CONTRACTOR's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the SPECIFICATIONS set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the CONTRACT, and in each trade, and the CONTRACTOR shall make a good faith effort to employ minorities and women evenly on each of her/his projects. The transfer of minority or female employees or trainees from CONTRACTOR to CONTRACTOR, or from project to project, for the sole purpose of meeting the CONTRACTOR's goals, shall be a violation of the CONTRACT, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The CONTRACTOR shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the CONTRACT resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor, estimated dollar amount of the subcontract, estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in the Notice and in the CONTRACT resulting from this solicitation, the "covered area" is the one or more geographical areas indicated under *Paragraph 1.a(2)*, above.

B. **Contractor/Subcontractor Reporting - 41 CFR 60-1.7**:

1. **Monthly Utilization Reports (SF-257)**: Monthly Utilization Reports (SF 257) may be required to be submitted to the area office of the OFCCP. This requirement applies to CONTRACTs to be performed in areas designated by the Department of Labor. CONTRACTORs should contact the area office of the Department of Labor to see if this report is required.

2. **Employer Information Report (SF 100)**: CONTRACTORs/subcontractors working on federally-assisted projects are required to file with the sponsor annually, on or before March 31, complete and accurate reports on Standard Form 100 (Employer Information Report, EEO-1). The first such report is required within 30 days after award, unless the CONTRACTOR/subcontractor has submitted such a report within 12 months preceding the date of award (the FAA or the Department of Labor can designate other intervals). This form is normally furnished based on a mailing list, but can be obtained from the Equal Employment Opportunity Commission (EEOC) - Survey Division, 2401 E Street, NW, Washington, D.C. 20507 or by calling (202) 634-6750. The report is required if a CONTRACTOR or subcontractor meets all of the following conditions:

   a. **Nonexempt**: If CONTRACTORs/subcontractors are not exempt based on 41 CFR 60-1.5;

   b. **Number of Employees**: Has 50 or more employees;

   c. **Dollar Level**: Has a CONTRACT or subcontract amounting to $50,000 or more; and

   d. **CONTRACTOR/subcontractor**: Is a prime CONTRACTOR or first tier subcontractor. Some subcontractors below the first tier who work at the site are required to file if they meet the above requirements.

C. The successful bidder will be required to submit a Certification of Nonsegregated Facilities with each proposal, and to notify prospective subcontractors of the requirement for such a certification where the subcontract exceeds $10,000. Samples of the certification and the notice to subcontractors appear in the specifications.

## 3-2 STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246, AS AMENDED)

A. As used in these SPECIFICATIONS:

1. "Covered Area" means the geographical area described in the solicitation from which this CONTRACT resulted;

2. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), United States Department of Labor, or any person to whom the Director delegates authority;

3. "Employer Identification Number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;

4. "Minority" includes:

   a. Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
   b. Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
   c. Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); and
   d. American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

B. Whenever the CONTRACTOR, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, she/he shall physically include, in each subcontract in excess of $10,000, the provisions of these SPECIFICATIONS and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this CONTRACT resulted.

C. If the CONTRACTOR is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, her/his affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. CONTRACTORS must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each CONTRACTOR or subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other CONTRACTORS or subcontractors toward a goal in an approved Plan does not excuse any covered CONTRACTOR's or subcontractor's failure to make good faith efforts to achieve the Plan's goals and timetables.

D. The CONTRACTOR shall implement the specific affirmative action standards provided in *Paragraphs 2g (1) through (16)* of these SPECIFICATIONS. The goals set forth in the solicitation from which this CONTRACT resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the CONTRACTOR should reasonably be able to achieve

in each construction trade in which she/he has employees in the covered area. Covered construction CONTRACTORs performing construction work in geographical areas where they do not have a Federal or federally-assisted construction CONTRACT shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The CONTRACTOR is expected to make substantially uniform progress toward its goals in each craft during the period specified.

E. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the CONTRACTOR has a collective bargaining agreement to refer either minorities or women, shall excuse the CONTRACTOR's obligations under these SPECIFICATIONS, Executive Order 11246, as amended, or the regulations promulgated pursuant thereto.

F. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the CONTRACTOR during the training period, and CONTRACTOR must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

G. The CONTRACTOR shall take specific affirmative actions to ensure Equal Employment Opportunity. The evaluation of the CONTRACTOR's compliance with these SPECIFICATIONS shall be based upon her/his effort to achieve maximum results from her/his actions. The CONTRACTOR shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

1. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the CONTRACTOR's employees are assigned to work. The CONTRACTOR, where possible, will assign two or more women to each construction project. The CONTRACTOR shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the CONTRACTOR's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

2. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the CONTRACTOR or its unions have employment opportunities available, and maintain a record of the organizations' responses.

3. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the CONTRACTOR by the union or, if referred, not employed by the CONTRACTOR, this shall be documented in the file with the reason therefor, along with whatever additional actions the CONTRACTOR may have taken.

4. Provide immediate written notification to the Director when the union or unions with which the CONTRACTOR has a collective bargaining agreement has not referred to the CONTRACTOR,

or when the CONTRACTOR has other information that the union referral process has impeded the CONTRACTOR's efforts to meet its obligations.

5. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the CONTRACTOR's employment needs, especially those programs funded or approved by the Department of Labor. The CONTRACTOR shall provide notice of these programs to the sources compiled under g(2) above.

6. Disseminate the CONTRACTOR's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the CONTRACTOR in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

7. Review, at least annually, the company's EEO policy and affirmative action obligations under these SPECIFICATIONS with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

8. Disseminate the CONTRACTOR's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the CONTRACTOR's EEO policy with other Contractors and subcontractors with whom the CONTRACTOR does or anticipates doing business.

9. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students, and to minority and female recruitment and training organizations serving the CONTRACTOR's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the CONTRACTOR shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

10. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a CONTRACTOR's work force.

11. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

12. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

13. Ensure that seniority practices, job classifications, work assignments and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the CONTRACTOR's obligations under these SPECIFICATIONS are being carried out.

14. Ensure that all facilities and company activities are nonsegregated, except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

15. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

16. Conduct a review, at least annually, of all supervisors' adherence to and performance under the CONTRACTOR's EEO policies and affirmative action obligations.

H. CONTRACTORS are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (G(1) through (16)). The efforts of a contractor association, joint contractor union, contractor-community, or other similar group of which the CONTRACTOR is a member and participant, may be asserted as fulfilling any one or more of its obligations under g(1) through (16) of these SPECIFICATIONS provided that the CONTRACTOR actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the CONTRACTOR's minority and female work force participation, makes a good faith effort to meet its individual goals and time table, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the CONTRACTOR. The obligation to comply, however, is the CONTRACTOR's and failure of such a group to fulfill an obligation shall not be a defense for the CONTRACTOR's noncompliance.

I. A single goal for minorities and a separate single goal for women have been established. The CONTRACTOR, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the CONTRACTOR may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the CONTRACTOR has achieved its goals for women generally, the CONTRACTOR may be in violation of the Executive Order if a specific minority group of women is underutilized).

J. The CONTRACTOR shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

K. The CONTRACTOR shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246, as amended.

L. The CONTRACTOR shall carry out such sanctions and penalties for violation of these SPECIFICATIONS and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts, as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance

Programs. Any CONTRACTOR who fails to carry out such sanctions and penalties shall be in violation of these SPECIFICATIONS and Executive Order 11246, as amended.

M. The CONTRACTOR, in fulfilling its obligations under these SPECIFICATIONS, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph G of these SPECIFICATIONS, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the CONTRACTOR fails to comply with the requirements of Executive Order 11246, the implementing regulations, or these SPECIFICATIONS, the Director shall proceed in accordance with 41 CFR 60-4.8.

N. The CONTRACTOR shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainees, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy these requirements, contractors shall not be required to maintain separate records.

O. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

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## DIVISION II

## SECTION 4

## REQUIREMENTS UNDER THE DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM

**4-1 GENERAL**. This project is subject to Part 26, Title 49, Code of Federal Regulations entitled "Participation By Disadvantaged Business Enterprise in Department of Transportation (DOT) Programs". Portions of the Regulations are set forth hereunder and the Regulations in their entirety are incorporated herein by this reference.

Bidders shall be fully informed respecting the requirements of the Regulations; particular attention is directed to the following matters:

A. A Disadvantaged Business Enterprise (DBE) must be a small business concern as defined pursuant to Section 3 of U.S. Small Business Act.

B. A DBE may participate as a prime contractor, subcontractor, joint venture partner with a prime or subcontractor, or vendor of material or supplies.

C. A DBE joint venture partner must be responsible for a clearly defined portion of the work to be performed in addition to satisfying requirements for ownership and control. The DBE joint venturer must submit *documentation in accordance with appropriate sections* of the Regulations.

D. A DBE must perform a commercially useful function, i.e., must be responsible for the execution of a distinct element of the work and must carry out its responsibility by actually performing, managing, and supervising the work.

E. Credit for a DBE vendor of materials or supplies is limited to 20 percent of the price, unless the vendor manufactures or substantially alters the goods.

F. A DBE must be certified before credit may be allowed toward the DBE goal. The SPONSOR shall have available a directory or source list to facilitate identifying DBEs with capabilities relevant to general contracting requirements and to particular solicitations. The SPONSOR shall make the directory available to bidders and proposers in their efforts to meet the DBE requirements. It shall specify which firms the DOT, the SPONSOR, or the Small Business Administration has determined to be eligible DBEs in accordance with procedures set forth in the Regulations.

**4-2 DBE ASSURANCES**.

*A.* ***Policy:*** *It is the policy of the Department of Transportation (DOT) that Disadvantaged Business Enterprises (DBE's) as defined in 49 CFR Part 26 shall have the maximum opportunity to participate in the performance of CONTRACTS financed in whole or in part with Federal funds under this agreement. Consequently, the DBE requirements of 49 CFR Part 26 applies to this agreement.*

*B.* ***DBE Obligation****: The CONTRACTOR or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this CONTRACT. The CONTRACTOR shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of the DOT-assisted*

*CONTRACTS. Failure by the CONTRACTOR to carry out these requirements is a material breach of this CONTRACT, which may result in the termination of this CONTRACT or such other remedy, as the recipient deems appropriate.*

C. ***Prompt Payment**: The prime CONTRACTOR agrees to pay each subcontractor under this prime CONTRACT for satisfactory performance of its CONTRACT no later than 30 days from the receipt of each payment the prime CONTRACTOR receives from the SPONSOR. The prime CONTRACTOR agrees further to return retainage payments to each subcontractor within 30 days after the prime CONTRACTOR receives said payment from the SPONSOR. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the SPONSOR. This clause applies to both DBE and non-DBE subcontractors.*

**4-3 DBE GOALS**. The DBE goal for this project is to be based on the total amount bid. Based on the 9th Circuit Court Decision in Western States Paving v. Washington State Department of Transportation, the COUNTY has determined that it is appropriate to use a race/gender neutral goal. The COUNTY encourages all bidders to take active race/gender neutral steps to include DBE's in this and other airport contracts. Race/gender neutral steps include: unbundling large contracts, subcontract work the prime contractor may self-perform, provide bonding or financing assistance, provide technical assistance, etc. This CONTRACT may be awarded without the lowest responsive bidder meeting the goal, but must demonstrate good faith effort to meet the goal.

A pre-bid meeting may be scheduled if necessary. One of the purposes of this meeting will be to inform DBEs of subcontracting opportunities. Attendance at this meeting is desirable for demonstrating reasonable effort to meet the goal of DBE participation.

**4-4 AWARD OF CONTRACT**. The SPONSOR reserves the right to reject any or all bids. The award of CONTRACT, if it be awarded, will be to the lowest responsible and *responsive* bidder without consideration of bidder's ability to meet DBE goals.

**4-5 DBE INFORMATION**. After the bid opening and before the award of the CONTRACT, those bidders/proposers that have submitted a CONTRACT price that has been determined to be reasonable will be asked by the SPONSOR, to submit within *ten (10)* days *a Letter of Intent (see Sample Forms) for each* DBE they propose to use, the type of subcontract work each DBE will perform, and the dollar value of each proposed DBE subcontract.

Additional information shall include the names of DBEs to be used with complete description of work or supplies to be provided by each and the dollar value of each such DBE transaction. When 100 percent of a contract item of work is not to be performed or furnished by a DBE, a description of the exact portion of said work to be performed or furnished by that DBE shall be included in the DBE information, including the planned location of said work.

The information necessary to establish the Bidder's good faith efforts to meet the DBE goal should include:

A. The names and dates of advertisement of each newspaper, trade paper, and minority-focus paper in which a request for DBE participation for this project was placed by the Bidder.

B. The names and dates notices of all certified DBEs solicited by *fax or* direct mail for this project and the dates and methods used for following up initial solicitations to determine with certainty whether the DBEs were interested.

C. The items of work for which the Bidder requested subbids or materials to be supplied by DBEs, the information furnished interested DBEs in the way of plans, specifications, and requirements for the work, and any break down of items of work into economically feasible units to facilitate DBE participation.

Where there are DBEs available for doing portions of the work normally performed by the Bidder with his own forces, the Bidder will be expected to make portions of such work available for DBEs to bid on.

D. The names of DBEs who submitted bids for any of the work indicated in (c) above which were not accepted, a summary of the Bidder's discussions and/or negotiations with them, the name of the subcontractor or supplier that was selected for that portion of the work, and the reasons for the Bidder's choice. If the reason for rejecting a DBE bid was price, give the price bid by the rejected DBE and the price bid by the selected CONTRACTOR or supplier. Since the utilization of available DBEs is expected, only significant price differences will be considered as cause for rejecting such DBE bid.

E. Assistance that the Bidder has extended to DBEs identified in (D) above to remedy the deficiency in their subbids.

F. Any additional data to support a demonstration of good faith effort such as contacts with DBE assistance agencies.

**4-6 SUBCONTRACTOR**.

A. No substitution of a DBE subcontractor shall be made at any time without the written consent of the SPONSOR.

B. If a DBE subcontractor is unable to perform successfully and is to be replaced, the CONTRACTOR will be required to make good faith efforts to replace the original DBE subcontractor with another DBE subcontractor.

**4-7 DBE RECORDS**. The CONTRACTOR shall maintain records of all subcontracts entered into with certified DBE subcontractors and records of materials purchased from certified DBE suppliers. Such records shall show the name and business address of each DBE subcontractor or vendor and the total dollar amount actually paid each DBE subcontractor or vendor.

Upon completion of the CONTRACT, a summary of these records shall be prepared and certified correct by the CONTRACTOR or his authorized representative, and shall be furnished to the SPONSOR.

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## DIVISION II

## SECTION 5

### MINIMUM WAGE

All labor on this PROJECT shall be paid not less than the greater of the minimum wage rates established by the U.S. Secretary of Labor *(Federal Wage Rates)*, or by the State of California's Director of the Department of Industrial Relations *(State Wage Rates)*, in accordance with the provisions of these SPECIFICATIONS.

The most current prevailing wage rates available at the time of bid opening shall be used. The minimum Federal and State wage rates applicable to this PROJECT *are incorporated herein by reference as follows:*

### FEDERAL WAGE RATES

General wage determinations issued under the Davis-Bacon and related Acts are available electronically at no cost at Wage Determinations OnLine.gov http://www.wdol.gov/Index.aspx. (To obtain the latest DBA wage determinations click on the "Selecting DBA WDs" option and enter the required information in any of the search fields to obtain the appropriate wage decision.)

### STATE WAGE RATES

The General Prevailing Wage Determination Made by the Director of Industrial Relations Pursuant to California Labor Code Part 7, Chapter 1, Article 2, Sections 1770, 1773 and 1773.2. The CONTRACTOR can download this information from the web site: http://www.dir.ca.gov/dlsr/PWD/

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# DIVISION III

## General Provisions

## DIVISION III
## SECTION 10
## DEFINITION OF TERMS

Whenever the following terms are used in these SPECIFICATIONS, in the CONTRACT, or in any documents or other instruments pertaining to construction where these SPECIFICATIONS govern, the intent and meaning shall be interpreted as follows:

**10-1 AASHTO**. The American Association of State Highway and Transportation Officials, the successor association to AASHO.

**10-2 ACCESS ROAD**. The right-of-way, the roadway and all improvements constructed thereon connecting the AIRPORT to a public highway.

**10-3 ADVERTISEMENT**. A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.

**10-4 AIP**. The Airport Improvement Program, a grant-in-aid program, administered by the Federal Aviation Administration.

**10-5 AIR OPERATIONS AREA**. For the purpose of these SPECIFICATIONS, the term air operations area shall mean any area of the AIRPORT used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operation area shall include such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiway, or apron.

**10-6 AIRPORT**. AIRPORT means an area of land or water which is used or intended to be used for the landing and takeoff of aircraft; an appurtenant area used or intended to be used for AIRPORT buildings or other AIRPORT facilities or rights of way; and AIRPORT buildings and facilities located in any of these areas, and includes a heliport.

**10-7 ASTM**. The American Society for Testing and Materials.

**10-8 AWARD**. The acceptance, by the OWNER, of the successful bidder's proposal.

**10-9** ***BASE.*** *A layer of specified material of planned thickness placed immediately below the pavement or surfacing.*

**10-10 BIDDER**. Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.

**10-11 BUILDING AREA**. An area on the AIRPORT to be used, considered, or intended to be used for AIRPORT buildings or other AIRPORT facilities or rights-of-way together with all AIRPORT buildings and facilities located thereon.

**10-12** ***CAAP.*** *California Aid to Airports Program*

**10-13** ***CALTRANS***. *The Department of Transportation of the State of California.*

**10-14 CALENDAR DAY**. Every day shown on the calendar.

**10-15 CHANGE ORDER**. A written order to the CONTRACTOR covering changes in the PLANS, SPECIFICATIONS, or proposal quantities and establishing the basis of payment and CONTRACT time adjustment, if any, for the work affected by such changes. The work, covered by a change order, shall be within the scope of the CONTRACT.

**10-16 CONTRACT**. The written agreement covering the work to be performed. The awarded CONTRACT shall include, but is not limited to: The Advertisement; The Contract Form; The Proposal; The Performance Bond; The Payment Bond; any required insurance certificates; The SPECIFICATIONS; The PLANS, and any addenda issued to bidders.

**10-17 CONTRACT ITEM (PAY ITEM)**. A specific unit of work for which a price is provided in the CONTRACT.

**10-18 CONTRACT TIME**. The number of calendar days or working days, stated in the proposal, allowed for completion of the CONTRACT, including authorized time extensions. If a calendar date of completion is stated in the proposal, in lieu of a number of calendar or working days, the CONTRACT shall be completed by that date.

**10-19 CONTRACTOR**. The individual, partnership, firm, or corporation primarily liable for the acceptable performance of the work contracted and for the payment of all legal debts pertaining to the work who acts directly or through lawful agents or employees to complete the CONTRACT work.

**10-20 DRAINAGE SYSTEM**. The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the AIRPORT area.

**10-21 ENGINEER**. The individual, partnership, firm, or corporation duly authorized by the OWNER to be responsible for engineering inspection of the CONTRACT work and acting directly or through an authorized representative.

**10-22** ***ENGINEER'S ESTIMATE.*** *The list of estimated quantities of work to be performed as contained in the Bidder's Proposal Form.*

**10-23 EQUIPMENT**. All machinery, together with the necessary supplies for upkeep and maintenance, and also all tools and apparatus necessary for the proper construction and acceptable completion of the work.

**10-24 EXTRA WORK**. An item of work not provided for in the awarded CONTRACT as previously modified by change order or supplemental agreement, but which is found by the Engineer to be necessary to complete the work within the intended scope of the CONTRACT as previously modified.

**10-25 FAA**. The Federal Aviation Administration of the U.S. Department of Transportation. When used to designate a person, FAA shall mean the Administrator or his/her duly authorized representative.

**10-26 FEDERAL SPECIFICATIONS**. The Federal Specifications and Standards, Commercial Item Descriptions, and supplements, amendments, and indices thereto are prepared and issued by the General Services Administration of the Federal Government.

**10-27 FORCE ACCOUNT.** Force account construction work is construction that is accomplished through the use of material, equipment, labor, and supervision provided by the OWNER or by another public agency pursuant to an agreement with the OWNER.

**10-28** ***GRADING PLANE.*** *The surface of the basement material upon which the lowest layer of subbase, base, pavement, surfacing, or other specified layer is placed.*

**10-29 INSPECTOR**. An authorized representative of the Engineer assigned to make all necessary inspections and/or tests of the work performed or being performed, or of the materials furnished or being furnished by the CONTRACTOR.

**10-30 INTENTION OF TERMS**. Whenever, in these SPECIFICATIONS or on the PLANS, the words ``directed," ``required," ``permitted," ``ordered," ``designated," ``prescribed," or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Engineer is intended; and similarly, the words ``approved," ``acceptable," ``satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer, subject in each case to the final determination of the OWNER.

Any reference to a specific requirement of a numbered paragraph of the CONTRACT SPECIFICATIONS or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.

**10-31 LABORATORY**. The official testing laboratories of the OWNER or such other laboratories as may be designated by the Engineer.

**10-32 LIGHTING**. A system of fixtures providing or controlling the light sources used on or near the AIRPORT or within the AIRPORT buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the AIRPORT or to aid in the operation of aircraft landing at, taking off from, or taxiing on the AIRPORT surface.

**10-33** ***LIQUIDATED DAMAGES.*** *The amount prescribed in the SPECIFICATIONS, pursuant to the authority of the Government Code Section 53069.85, to be paid to the OWNER or to be deducted from any payments due or to become due the CONTRACTOR for each day's delay in completing the whole or any specified portion of the work beyond the time allowed in the SPECIFICATIONS.*

**10-34** ***LUMP SUM.*** *A term used to describe a CONTRACT item, which means the total payment or price of the item, including all labor, materials, equipment, incidentals, profit and overhead, and for which a schedule of values is to be provided upon request.*

**10-35 MAJOR AND MINOR CONTRACT ITEMS**. A major CONTRACT item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 20 percent of the total amount of the award CONTRACT. All other items shall be considered minor CONTRACT items.

**10-36 MATERIALS**. Any substance specified for use in the construction of the CONTRACT work.

**10-37 NOTICE TO PROCEED**. A written notice to the CONTRACTOR to begin the actual CONTRACT work on a previously agreed to date. If applicable, the Notice to Proceed shall state the date on which the CONTRACT time begins.

**10-38 OWNER**. The term "OWNER" shall mean the party of the first part or the contracting agency signatory to the CONTRACT. For AIP CONTRACTs, the term "SPONSOR" shall have the same meaning as the term "OWNER." Where the term "OWNER" is capitalized in this document, it shall mean AIRPORT OWNER or SPONSOR only.

**10-39 PAVEMENT**. The combined surface course, base course, and subbase course, if any, considered as a single unit.

**10-40 PAYMENT BOND**. The approved form of security furnished by the CONTRACTOR and his/her surety as a guaranty that he will pay in full all bills and accounts for materials and labor used in the construction of the work.

**10-41 PERFORMANCE BOND**. The approved form of security furnished by the CONTRACTOR and his/her surety as a guaranty that the CONTRACTOR will complete the work in accordance with the terms of the CONTRACT.

**10-42 PLANS**. The official drawings or exact reproductions which show the location, character, dimensions and details of the AIRPORT and the work to be done and which are to be considered as a part of the CONTRACT, supplementary to the SPECIFICATIONS.

**10-43 PROJECT**. The agreed scope of work for accomplishing specific AIRPORT development with respect to a particular AIRPORT.

**10-44 PROPOSAL**. The written offer of the bidder (when submitted on the approved proposal form) to perform the contemplated work and furnish the necessary materials in accordance with the provisions of the PLANS and SPECIFICATIONS.

**10-45 PROPOSAL GUARANTY**. The security furnished with a proposal to guarantee that the bidder will enter into a CONTRACT if his/her proposal is accepted by the OWNER.

**10-46 RUNWAY**. The area on the AIRPORT prepared for the landing and takeoff of aircraft.

**10-47 SCHEDULE OF VALUES.** *A schedule of values is a detailed, itemized cost breakdown of the amount bid for a lump sum CONTRACT item.*

**10-48 SPECIFICATIONS**. A part of the CONTRACT containing the written directions and requirements for completing the CONTRACT work. Standards for specifying materials or testing which are cited in the CONTRACT SPECIFICATIONS by reference shall have the same force and effect as if included in the CONTRACT physically.

**10-49 SPONSOR**. See definition above of "OWNER."

**10-50** ***STATE CONTRACT ACT.*** *Chapter 3, Part 5, Division 3, Title 2 of the California Government Code. The provisions of this act and other applicable laws form and constitute a part of the provisions of this CONTRACT to the same extent as if set forth herein in full.*

**10-51** ***STATE STANDARD SPECIFICATIONS.*** *The SPECIFICATIONS issued by the State of California, Department of Transportation, entitled, "Standard Specifications, May 2006, CALTRANS."*

**10-52 STRUCTURES.** AIRPORT facilities such as bridges; culverts; catch basins, inlets, retaining walls, cribbing; storm and sanitary sewer lines; water lines; underdrains; electrical ducts, manholes, handholes, lighting fixtures and bases; transformers; flexible and rigid pavements; navigational aids; buildings; vaults; and, other manmade features of the AIRPORT that may be encountered in the work and not otherwise classified herein.

**10-53** ***SUBBASE.*** *A layer of specified material of planned thickness between a base and the subgrade materials.*

**10-54 SUBGRADE**. The soil that forms the pavement foundation.

**10-55 SUPERINTENDENT**. The CONTRACTOR's executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the Engineer, and who shall supervise and direct the construction.

**10-56 SUPPLEMENTAL AGREEMENT**. A written agreement between the CONTRACTOR and the OWNER covering (1) work that would increase or decrease the total amount of the awarded CONTRACT, or any major CONTRACT item, by more than 25 percent, such increased or decreased work being within the scope of the originally awarded CONTRACT; or (2) work that is not within the scope of the originally awarded CONTRACT.

**10-57 SURETY**. The corporation, partnership, or individual, other than the CONTRACTOR, executing payment or performance bonds that are furnished to the OWNER by the CONTRACTOR.

**10-58 TAXIWAY**. For the purpose of this document, the term taxiway means the portion of the air operations area of an AIRPORT that has been designated by competent AIRPORT authority for movement of aircraft to and from the AIRPORT's runways or aircraft parking areas.

**10-59 WORK**. The furnishing of all labor, materials, tools, equipment, and incidentals necessary or convenient to the CONTRACTOR's performance of all duties and obligations imposed by the CONTRACT, PLANS, and SPECIFICATIONS.

**10-60 WORKING DAY**. A working day shall be any day other than a legal holiday, Saturday, or Sunday on which the normal working forces of the CONTRACTOR may proceed with regular work for at least 6 hours toward completion of the CONTRACT. When work is suspended for causes beyond the CONTRACTOR's control, Saturdays, Sundays and holidays on which the CONTRACTOR's forces engage in regular work, requiring the presence of an inspector, will be considered as working days.

**END OF SECTION**

## DIVISION III
## SECTION 20
## PROPOSAL REQUIREMENTS AND CONDITIONS

**20-1 ADVERTISEMENT (Notice to Bidders).** The "Advertisement for Bids" included in the front of these SPECIFICATIONS will be (or has been) published at such places and at such times as required by local law or ordinances and is made a part of the "Contract Documents".

**20-2 PREQUALIFICATION OF BIDDERS**. Each bidder shall furnish the OWNER satisfactory evidence of his/her competency to perform the proposed work. Such evidence of competency, unless otherwise specified, shall consist of statements covering the bidder's past experience on similar work, a list of equipment that would be available for the work, and a list of key personnel that would be available. In addition, each bidder shall furnish the OWNER satisfactory evidence of his/her financial responsibility. Such evidence of financial responsibility, unless otherwise specified, shall consist of a confidential statement or report of the bidder's financial resources and liabilities as of the last calendar year or the CONTRACTOR's last fiscal year. Such statements or reports shall be certified by a public accountant. At the time of submitting such financial statements or reports, the bidder shall further certify whether his/her financial responsibility is approximately the same as stated or reported by the public accountant. If the bidder's financial responsibility has changed, the bidder shall qualify the public accountant's statement or report to reflect his/her (bidder's) true financial condition at the time such qualified statement or report is submitted to the OWNER.

Unless otherwise specified, a bidder may submit evidence that he is prequalified with the State Highway Division and is on the current ``bidder's list'' of the state in which the proposed work is located. Such evidence of State Highway Division prequalification may be submitted as evidence of financial responsibility in lieu of the certified statements or reports hereinbefore specified.

Each bidder shall submit "evidence of competency" and "evidence of financial responsibility" to the OWNER at the time of bid opening.

**20-3 CONTENTS OF PROPOSAL FORMS**. The OWNER shall furnish bidders with proposal forms. All papers bound with or attached to the proposal forms are necessary parts and must not be detached.

The PLANS SPECIFICATIONS, and other documents designated in the proposal form shall be considered a part of the proposal whether attached or not.

**20-4 ISSUANCE OF PROPOSAL FORMS**. The OWNER reserves the right to refuse to issue a proposal form to a prospective bidder should such bidder be in default for any of the following reasons:

**A.** Failure to comply with any prequalification regulations of the OWNER, if such regulations are cited, or otherwise included, in the proposal as a requirement for bidding.

**B.** Failure to pay, or satisfactorily settle, all bills due for labor and materials on former CONTRACTs in force (with the OWNER) at the time the OWNER issues the proposal to a prospective bidder.

C. CONTRACTOR default under previous CONTRACTs with the OWNER.

D. Unsatisfactory work on previous CONTRACTs with the OWNER.

**20-5 INTERPRETATION OF ESTIMATED PROPOSAL QUANTITIES**. An estimate of quantities of work to be done and materials to be furnished under these SPECIFICATIONS is given in the proposal. It is the result of careful calculations and is believed to be correct. It is given only as a basis for comparison of proposals and the award of the CONTRACT. The OWNER does not expressly or by implication agree that the actual quantities involved will correspond exactly therewith; nor shall the bidder plead misunderstanding or deception because of such estimates of quantities, or of the character, location, or other conditions pertaining to the work. Payment to the CONTRACTOR will be made only for the actual quantities of work performed or materials furnished in accordance with the PLANS and SPECIFICATIONS. It is understood that the quantities may be increased or decreased as hereinafter provided in the subsection titled ALTERATION OF WORK AND QUANTITIES of Section 40 without in any way invalidating the unit bid prices.

**20-6 EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE**. The bidder is expected to carefully examine the site of the proposed work, the proposal, PLANS, SPECIFICATIONS, and CONTRACT forms. He shall satisfy himself as to the character, quality, and quantities of work to be performed, materials to be furnished, and as to the requirements of the proposed CONTRACT. The submission of a proposal shall be prima facie evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the proposed CONTRACT, PLANS, and SPECIFICATIONS.

Boring logs and other records of subsurface investigations and tests are available for inspection of bidders. It is understood and agreed that such subsurface information, whether included in the PLANS, SPECIFICATIONS, or otherwise made available to the bidder, was obtained and is intended for the OWNER's design and estimating purposes only. Such information has been made available for the convenience of all bidders. It is further understood and agreed that each bidder is solely responsible for all assumptions, deductions, or conclusions which he may make or obtain from his/her examination of the boring logs and other records of subsurface investigations and tests that are furnished by the OWNER.

**20-7 PREPARATION OF PROPOSAL**. The bidder shall submit his/her proposal on the forms furnished by the OWNER. All blank spaces in the proposal forms must be correctly filled in where indicated for each and every item for which a quantity is given. The bidder shall state the price (written in ink or typed) both in words and numerals for which he proposes to do each pay item furnished in the proposal. In case of conflict between words and numerals, the words, unless obviously incorrect, shall govern.

The bidder shall sign his/her proposal correctly and in ink. If the proposal is made by an individual, his/her name and post office address must be shown. If made by a partnership, the name and post office address of each member of the partnership must be shown. If made by a corporation, the person signing the proposal shall give the name of the state under the laws of which the corporation was chartered and the name, titles, and business address of the president, secretary, and the treasurer. Anyone signing a proposal as an agent shall file evidence of his/her authority to do so and that the signature is binding upon the firm or corporation.

**20-8 IRREGULAR PROPOSALS**. Proposals shall be considered irregular for the following reasons:

**A.** If the proposal is on a form other than that furnished by the OWNER, or if the OWNER's form is altered, or if any part of the proposal form is detached.

**B.** If there are unauthorized additions, conditional or alternate pay items, or irregularities of any kind that make the proposal incomplete, indefinite, or otherwise ambiguous.

**C.** If the proposal does not contain a unit price for each pay item listed in the proposal, except in the case of authorized alternate pay items, for which the bidder is not required to furnish a unit price.

**D.** If the proposal contains unit prices that are obviously unbalanced.

**E.** If the proposal is not accompanied by the proposal guaranty specified by the OWNER.

The OWNER reserves the right to reject any irregular proposal and the right to waive technicalities if such waiver is in the best interest of the OWNER and conforms to local laws and ordinances pertaining to the letting of construction CONTRACTs.

**20-9 BID GUARANTEE**. Each separate proposal shall be accompanied by a certified check, or other specified acceptable collateral, in the amount specified in the proposal form. Such check, or collateral, shall be made payable to the OWNER *as liquidated damages in case the successful bidder fails to file satisfactory bonds as required by the Contract Documents, or refuses to enter into a CONTRACT within the specified time.*

**20-10 DELIVERY OF PROPOSAL.** Each proposal submitted shall be placed in a sealed envelope plainly marked with the project number, location of AIRPORT, and name and business address of the bidder on the outside. When sent by mail, preferably registered, the sealed proposal, marked as indicated above, should be enclosed in an additional envelope. No proposal will be considered unless received at the place specified in the advertisement before the time specified for opening all bids. Proposals received after the bid opening time shall be returned to the bidder unopened.

**20-11 WITHDRAWAL OR REVISION OF PROPOSALS**. A bidder may withdraw or revise (by withdrawal of one proposal and submission of another) a proposal provided that the bidder's request for withdrawal is received by the OWNER in writing or by telegram before the time specified for opening bids. Revised proposals must be received at the place specified in the advertisement before the time specified for opening all bids.

**20-12 PUBLIC OPENING OF PROPOSALS**. Proposals shall be opened, and read, publicly at the time and place specified in the advertisement. Bidders, their authorized agents, and other interested persons are invited to attend. Proposals that have been withdrawn (by written or telegraphic request) or received after the time specified for opening bids shall be returned to the bidder unopened.

**20-13 DISQUALIFICATION OF BIDDERS**. A bidder shall be considered disqualified for any of the following reasons:

**A.** Submitting more than one proposal from the same partnership, firm, or corporation under the same or different name.

**B.** Evidence of collusion among bidders. Bidders participating in such collusion shall be disqualified as bidders for any future work of the OWNER until any such participating bidder has been reinstated by the OWNER as a qualified bidder.

**C.** If the bidder is considered to be in ``default" for any reason specified in the subsection titled ISSUANCE OF PROPOSAL FORMS of this section.

**D.** *A "non-responsive bid" as determined by the OWNER.*

**END OF SECTION**

## DIVISION III
## SECTION 30
## AWARD AND EXECUTION OF CONTRACT

**30-1 CONSIDERATION OF PROPOSALS.** After the proposals are publicly opened and read, they will be compared on the basis of the summation of the products obtained by multiplying the estimated quantities shown in the proposal by the unit bid prices. If a bidder's proposal contains a discrepancy between unit bid prices written in words and unit bid prices written in numbers, the unit price written in words shall govern.

Until the award of a CONTRACT is made, the OWNER reserves the right to reject a bidder's proposal for any of the following reasons:

**A.** If the proposal is irregular as specified in the subsection titled IRREGULAR PROPOSALS of Section 20.

**B.** If the bidder is disqualified for any of the reasons specified in the subsection titled DISQUALIFICATION OF BIDDERS of Section 20.

In addition, until the award of a CONTRACT is made, the OWNER reserves the right to reject any or all proposals, waive technicalities, if such waiver is in the best interest of the OWNER and is in conformance with applicable state and local laws or regulations pertaining to the letting of construction CONTRACTs; advertise for new proposals; or proceed with the work otherwise. All such actions shall promote the OWNER's best interests.

**30-2 AWARD OF CONTRACT.** The award of a CONTRACT, if it is to be awarded, shall be made within 30 calendar days of the date specified for publicly opening proposals, unless otherwise specified herein.

Award of the CONTRACT shall be made by the OWNER to the lowest, qualified bidder whose proposal conforms to the cited requirements of the OWNER.

**30-3 CANCELLATION OF AWARD.** The OWNER reserves the right to cancel the award without liability to the bidder, except return of proposal guaranty, at any time before a CONTRACT has been fully executed by all parties and is approved by the OWNER in accordance with the subsection titled APPROVAL OF CONTRACT of this section.

**30-4 RETURN OF PROPOSAL GUARANTY.** All proposal guaranties, except those of the two lowest bidders, will be returned immediately after the OWNER has made a comparison of bids as hereinbefore specified in the subsection titled CONSIDERATION OF PROPOSALS of this section. Proposal guaranties of the two lowest bidders will be retained by the OWNER until such time as an award is made, at which time, the unsuccessful bidder's proposal guaranty will be returned. The successful bidder's proposal guaranty will be returned as soon as the OWNER receives the CONTRACT's bonds as specified in the subsection titled REQUIREMENTS OF CONTRACT BONDS of this section.

**30-5 REQUIREMENTS OF CONTRACT BONDS.** At the time of the execution of the CONTRACT, the successful bidder shall furnish the OWNER a surety bond or bonds that have been fully executed by the

bidder and the surety guaranteeing the performance of the work and the payment of all legal debts that may be incurred by reason of the CONTRACTOR's performance of the work. The surety and the form of the bond or bonds shall be acceptable to the OWNER. Unless otherwise specified in this subsection, the surety bond or bonds shall be in a sum equal to the full amount of the CONTRACT.

**30-6 EXECUTION OF CONTRACT**. The successful bidder shall sign (execute) the necessary agreements for entering into the CONTRACT and return such signed CONTRACT to the OWNER, along with the fully executed surety bond or bonds specified in the subsection titled REQUIREMENTS OF CONTRACT BONDS of this section, within 15 calendar days from the date mailed or otherwise delivered to the successful bidder. If the CONTRACT is mailed, special handling is recommended.

**30-7 APPROVAL OF CONTRACT**. Upon receipt of the CONTRACT and CONTRACT bond or bonds that have been executed by the successful bidder, the OWNER shall complete the execution of the CONTRACT in accordance with local laws or ordinances, and return the fully executed CONTRACT to the CONTRACTOR. Delivery of the fully executed CONTRACT to the CONTRACTOR shall constitute the OWNER's approval to be bound by the successful bidder's proposal and the terms of the CONTRACT.

**30-8 FAILURE TO EXECUTE CONTRACT**. Failure of the successful bidder to execute the CONTRACT and furnish an acceptable surety bond or bonds within the 15 calendar day period specified in the subsection titled REQUIREMENTS OF CONTRACT BONDS of this section shall be just cause for cancellation of the award and forfeiture of the proposal guaranty, not as a penalty, but as liquidation of damages to the OWNER.

**30-9 *VERBAL AGREEMENTS.*** *No verbal agreement or conversation with any officer, agent, or employee of OWNER, either before, during or after the execution of the CONTRACT, shall affect or modify any of the terms or obligations contained in the Contract Documents, nor shall such verbal agreement or conversation entitle CONTRACTOR to any additional payment whatsoever under the terms of the CONTRACT.*

**END OF SECTION**

## DIVISION III
## SECTION 40
## SCOPE OF WORK

**40-1 INTENT OF CONTRACT**. The intent of the CONTRACT is to provide for construction and completion, in every detail, of the work described. It is further intended that the CONTRACTOR shall furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with the PLANS, SPECIFICATIONS, and terms of the CONTRACT.

**40-2 ALTERATION OF WORK AND QUANTITIES**. The OWNER reserves and shall have the right to make such alterations in the work as may be necessary or desirable to complete the work originally intended in an acceptable manner. Unless otherwise specified herein, the Engineer shall be and is hereby authorized to make such alterations in the work as may increase or decrease the originally awarded CONTRACT quantities, provided that the aggregate of such alterations does not change the total CONTRACT cost or the total cost of any major CONTRACT item by more than 25 percent (total cost being based on the unit prices and estimated quantities in the awarded CONTRACT). Alterations that do not exceed the 25 percent limitation shall not invalidate the CONTRACT nor release the surety, and the CONTRACTOR agrees to accept payment for such alterations as if the altered work had been a part of the original CONTRACT. These alterations that are for work within the general scope of the CONTRACT shall be covered by ``Change Orders" issued by the Engineer. Change orders for altered work shall include extensions of CONTRACT time where, in the Engineer's opinion, such extensions are commensurate with the amount and difficulty of added work.

Should the aggregate amount of altered work exceed the 25 percent limitation hereinbefore specified, such excess altered work shall be covered by supplemental agreement. If the OWNER and the CONTRACTOR are unable to agree on a unit adjustment for any CONTRACT item that requires a supplemental agreement, the OWNER reserves the right to terminate the CONTRACT with respect to the item and make other arrangements for its completion.

**40-3 OMITTED ITEMS**. The Engineer may, in the OWNER's best interest, omit from the work any CONTRACT item, except major CONTRACT items. Major CONTRACT items may be omitted by a supplemental agreement. Such omission of CONTRACT items shall not invalidate any other CONTRACT provision or requirement.

Should a CONTRACT item be omitted or otherwise ordered to be nonperformed, the CONTRACTOR shall be paid for all work performed toward completion of such item prior to the date of the order to omit such item. Payment for work performed shall be in accordance with the subsection titled PAYMENT FOR OMITTED ITEMS of Section 90.

**40-4 EXTRA WORK**. Should acceptable completion of the CONTRACT require the CONTRACTOR to perform an item of work for which no basis of payment has been provided in the original CONTRACT or previously issued change orders or supplemental agreements, the same shall be called "Extra Work." Extra Work that is within the general scope of the CONTRACT shall be covered by written change order. Change orders for such Extra Work shall contain agreed unit prices for performing the change order work in accordance with the requirements specified in the order, and shall contain any adjustment to the CONTRACT time that, in the Engineer's opinion, is necessary for completion of such Extra Work.

When determined by the Engineer to be in the OWNER's best interest, he may order the CONTRACTOR to proceed with Extra Work by force account as provided in the subsection titled PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK of Section 90.

Extra Work that is necessary for acceptable completion of the project, but is not within the general scope of the work covered by the original CONTRACT shall be covered by a Supplemental Agreement as hereinbefore defined in the subsection titled SUPPLEMENTAL AGREEMENT of Section 10.

Any claim for payment of Extra Work that is not covered by written agreement (change order or supplemental agreement) shall be rejected by the OWNER.

**40-5 MAINTENANCE OF TRAFFIC**. It is the explicit intention of the CONTRACT that the safety of aircraft, as well as the CONTRACTOR's equipment and personnel, is the most important consideration. It is understood and agreed that the CONTRACTOR shall provide for the free and unobstructed movement of aircraft in the air operations areas of the AIRPORT with respect to his/her own operations and the operations of all his/her subcontractors as specified in the subsection titled LIMITATION OF OPERATIONS of Section 80. It is further understood and agreed that the CONTRACTOR shall provide for the uninterrupted operation of visual and electronic signals (including power supplies thereto) used in the guidance of aircraft while operating to, from, and upon the AIRPORT as specified in the subsection titled CONTRACTOR'S RESPONSIBILITY FOR UTILITY SERVICE AND FACILITIES OF OTHERS in Section 70.

With respect to his/her own operations and the operations of all his/her subcontractors, the CONTRACTOR shall provide marking, lighting, and other acceptable means of identifying: personnel; equipment; vehicles; storage areas; and any work area or condition that may be hazardous to the operation of aircraft, fire-rescue equipment, or maintenance vehicles at the AIRPORT.

When the CONTRACT requires the maintenance of vehicular traffic on an existing road, street, or highway during the CONTRACTOR's performance of work that is otherwise provided for in the CONTRACT, PLANS, and SPECIFICATIONS, the CONTRACTOR shall keep such road, street, or highway open to all traffic and shall provide such maintenance as may be required to accommodate traffic. The CONTRACTOR shall furnish erect, and maintain barricades, warning signs, flagperson, and other traffic control devices in reasonable conformity with the manual of Uniform Traffic Control Devices for Streets and Highways (published by the United States Government Printing Office), unless otherwise specified herein. The CONTRACTOR shall also construct and maintain in a safe condition any temporary connections necessary for ingress to and egress from abutting property or intersecting roads, streets or highways. Unless otherwise specified herein, the CONTRACTOR will not be required to furnish snow removal for such existing road, street, or highway.

The CONTRACTOR shall make his/her own estimate of all labor, materials, equipment, and incidentals necessary for providing the maintenance of aircraft and vehicular traffic as specified in this subsection.

The cost of maintaining the aircraft and vehicular traffic specified in this subsection shall not be measured or paid for directly, but shall be included in the various CONTRACT items.

**40-6 REMOVAL OF EXISTING STRUCTURES.** All existing structures encountered within the established lines, grades, or grading sections shall be removed by the CONTRACTOR, unless such existing structures are otherwise specified to be relocated, adjusted up or down, salvaged, abandoned in place, reused in the work or to remain in place. The cost of removing such existing structures shall not be measured or paid for directly, but shall be included in the various CONTRACT items.

Should the CONTRACTOR encounter an existing structure (above or below ground) in the work for which the disposition is not indicated on the PLANS, the Engineer shall be notified prior to disturbing such structure. The disposition of existing structures so encountered shall be immediately determined by the Engineer in accordance with the provisions of the CONTRACT.

Except as provided in the subsection titled RIGHTS IN AND USE OF MATERIALS FOUND IN THE WORK of this section, it is intended that all existing materials or structures that may be encountered (within the lines, grades, or grading sections established for completion of the work) shall be utilized in the work as otherwise provided for in the CONTRACT and shall remain the property of the OWNER when so utilized in the work.

**40-7 RIGHTS IN AND USE OF MATERIALS FOUND IN THE WORK.** Should the CONTRACTOR encounter any material such as (but not restricted to) sand, stone, gravel, slag, or concrete slabs within the established lines, grades, or grading sections, the use of which is intended by the terms of the CONTRACT to be either embankment or waste, he may at his/her option either:

**A.** Use such material in another CONTRACT item, providing such use is approved by the Engineer and is in conformance with the CONTRACT SPECIFICATIONS applicable to such use; or,

**B.** Remove such material from the site, upon written approval of the Engineer; or

**C.** Use such material for his/her own temporary construction on site; or,

**D.** Use such material as intended by the terms of the CONTRACT.

Should the CONTRACTOR wish to exercise option A., B., or C., he shall request the Engineer's approval in advance of such use.

Should the Engineer approve the CONTRACTOR's request to exercise option A., B., or C., the CONTRACTOR shall be paid for the excavation or removal of such material at the applicable CONTRACT price. The CONTRACTOR shall replace, at his/her own expense, such removed or excavated material with an agreed equal volume of material that is acceptable for use in constructing embankment, backfills, or otherwise to the extent that such replacement material is needed to complete the CONTRACT work. The CONTRACTOR shall not be charged for his/her use of such material so used in the work or removed from the site.

Should the Engineer approve the CONTRACTOR's exercise of option a., the CONTRACTOR shall be paid, at the applicable CONTRACT price, for furnishing and installing such material in accordance with requirements of the CONTRACT item in which the material is used.

It is understood and agreed that the CONTRACTOR shall make no claim for delays by reason of his/her exercise of option A., B., or C.

The CONTRACTOR shall not excavate, remove, or otherwise disturb any material, structure, or part of a structure which is located outside the lines, grades, or grading sections established for the work, except where such excavation or removal is provided for in the CONTRACT, PLANS, or SPECIFICATIONS.

**40-8 FINAL CLEANING UP**. Upon completion of the work and before acceptance and final payment will be made, the CONTRACTOR shall remove from the site all machinery, equipment, surplus and discarded materials, rubbish, temporary structures, and stumps or portions of trees. He shall cut all brush and woods within the limits indicated and shall leave the site in a neat and presentable condition. Material cleared from the site and deposited on adjacent property will not be considered as having been disposed of satisfactorily, unless the CONTRACTOR has obtained the written permission of such property OWNER.

**END OF SECTION**

## DIVISION III
## SECTION 50
## CONTROL OF WORK

**50-1 AUTHORITY OF THE ENGINEER**. The ENGINEER shall decide any and all questions which may arise as to the quality and acceptability of materials furnished, work performed, and as to the manner of performance and rate of progress of the work. The ENGINEER shall decide all questions that may arise as to the interpretation of the SPECIFICATIONS or PLANS relating to the work. The ENGINEER shall determine the amount and quality of the several kinds of work performed and materials furnished which are to be paid for the under CONTRACT.

The ENGINEER does not have the authority to accept pavements that do not conform to FAA specification requirements.

*The ENGINEER shall determine the adequacy of the CONTRACTOR's methods, plant, equipment and appurtenances and may order the work stopped when necessary to prevent its improper execution; may reject any work and materials which in his opinion does not conform to the requirements of the CONTRACT; shall decide all questions which may arise as to the obligation of the CONTRACTOR to do any particular work or to furnish any particular materials or as to the reasonable value of any additional work or materials required by the ENGINEER, or as to the deductions to be made from the CONTRACT price for the work specified herein by reason of any work or materials directed by the ENGINEER to be omitted. All instructions, rulings and decision of the ENGINEER shall be made promptly and shall be in writing if so requested by the CONTRACTOR, and all such instructions, rulings, and decisions shall be final and binding.*

*In carrying out any of the above provisions or in exercising any power or authority granted to him by the CONTRACT Documents, there shall be no liability upon the ENGINEER or his authorized assistants, either personally or as an official of the OWNER, it being understood that in such matters the ENGINEER acts as an agent and representative of the OWNER.*

**50-2 CONFORMITY WITH PLANS AND SPECIFICATIONS**. All work and all materials furnished shall be in reasonably close conformity with the lines, grades, grading sections, cross sections, dimensions, material requirements, and testing requirements that are specified (including specified tolerances) in the CONTRACT, PLANS or SPECIFICATIONS.

If the ENGINEER finds the materials furnished, work performed, or the finished product not within reasonably close conformity with the PLANS and SPECIFICATIONS but that the portion of the work affected will, in his/her opinion, result in a finished product having a level of safety, economy, durability, and workmanship acceptable to the OWNER, he will advise the OWNER of his/her determination that the affected work be accepted and remain in place. In this event, the ENGINEER will document his/her determination and recommend to the OWNER a basis of acceptance that will provide for an adjustment in the CONTRACT price for the affected portion of the work. The ENGINEER's determination and recommended CONTRACT price adjustments will be based on good engineering judgment and such tests or retests of the affected work as are, in his/her opinion, needed. Changes in the CONTRACT price shall be covered by CONTRACT modifications (change order or supplemental agreement) as applicable.

If the ENGINEER finds the materials furnished, work performed, or the finished product are not in reasonably close conformity with the PLANS and SPECIFICATIONS and have resulted in an unacceptable finished product, the affected work or materials shall be removed and replaced or otherwise corrected by and at the expense of the CONTRACTOR in accordance with the ENGINEER's written orders.

For the purpose of this subsection, the term ``reasonably close conformity'' shall not be construed as waiving the CONTRACTOR's responsibility to complete the work in accordance with the CONTRACT, PLANS, and SPECIFICATIONS. The term shall not be construed as waiving the ENGINEER's responsibility to insist on strict compliance with the requirements of the CONTRACT, PLANS, and SPECIFICATIONS during the CONTRACTOR's prosecution of the work, when, in the ENGINEER's opinion, such compliance is essential to provide an acceptable finished portion of the work.

For the purpose of this subsection, the term ``reasonably close conformity'' is also intended to provide the ENGINEER with the authority, after consultation with the FAA, to use good ENGINEERing judgment in his/her determinations as to acceptance of work that is not in strict conformity but will provide a finished product equal to or better than that intended by the requirements of the CONTRACT, PLANS and SPECIFICATIONS.

The ENGINEER will not be responsible for the CONTRACTOR's means, methods, techniques, sequences, or procedures of construction or the safety precautions incident thereto.

**50-3 COORDINATION OF CONTRACT, PLANS, AND SPECIFICATIONS**. The CONTRACT, PLANS, SPECIFICATIONS, and all referenced standards cited are essential parts of the CONTRACT requirements. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, calculated dimensions will govern over scaled dimensions; CONTRACT technical SPECIFICATIONS shall govern over CONTRACT general provisions, PLANS, cited standards for materials or testing, and cited FAA advisory circulars; CONTRACT general provisions shall govern over PLANS, cited standards for materials or testing, and cited FAA advisory circulars; PLANS shall govern over cited standards for materials or testing and cited FAA advisory circulars. If any paragraphs contained in the Special Provisions conflict with General Provisions or Technical SPECIFICATIONS, the Special Provisions shall govern.

From time to time, discrepancies within cited standards for testing occur due to the timing of changing, editing, and replacing of standards. In the event the Contractor discovers any apparent discrepancy within standard test methods, he shall immediately call upon the Engineer for his/her interpretation and decision, and such decision shall be final.

The CONTRACTOR shall not take advantage of any apparent error or omission on the PLANS or SPECIFICATIONS. In the event the CONTRACTOR discovers any apparent error or discrepancy, he shall immediately call upon the ENGINEER for his/her interpretation and decision, and such decision shall be final.

**50-4 COOPERATION OF CONTRACTOR**. The CONTRACTOR will be supplied with five copies each of the PLANS and SPECIFICATIONS. He shall have available on the work at all times one copy each of

the PLANS and SPECIFICATIONS. Additional copies of PLANS and SPECIFICATIONS may be obtained by the CONTRACTOR for the cost of reproduction.

The CONTRACTOR shall give constant attention to the work to facilitate the progress thereof, and he shall cooperate with the ENGINEER and his/her inspectors and with other CONTRACTORs in every way possible. The CONTRACTOR shall have a competent superintendent on the work at all times who is fully authorized as his/her agent on the work. The superintendent shall be capable of reading and thoroughly understanding the PLANS and SPECIFICATIONS and shall receive and fulfill instructions from the ENGINEER or his/her authorized representative.

**50-5 COOPERATION BETWEEN CONTRACTORS**. The OWNER reserves the right to CONTRACT for and perform other or additional work on or near the work covered by this CONTRACT.

When separate CONTRACTs are let within the limits of any one PROJECT, each CONTRACTOR shall conduct his/her work so as not to interfere with or hinder the progress of completion of the work being performed by other CONTRACTORs. CONTRACTORs working on the same PROJECT shall cooperate with each other as directed.

Each CONTRACTOR involved shall assume all liability, financial or otherwise, in connection with his/her CONTRACT and shall protect and save harmless the OWNER from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced by him because of the presence and operations of other CONTRACTORs working within the limits of the same PROJECT.

The CONTRACTOR shall arrange his/her work and shall place and dispose of the materials being used so as not to interfere with the operations of the other CONTRACTORs within the limits of the same PROJECT. He shall join his/her work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

**50-6 CONSTRUCTION LAYOUT AND STAKES**. The ENGINEER shall establish horizontal and vertical control only. The CONTRACTOR must establish all layout required for the construction of the work. Such stakes and markings as the ENGINEER may set for either his/her own or the CONTRACTOR's guidance shall be preserved by the CONTRACTOR. In case of negligence on the part of the CONTRACTOR, or his/her employees, resulting in the destruction of such stakes or markings, an amount equal to the cost of replacing the same may be deducted from subsequent estimates due the CONTRACTOR at the discretion of the ENGINEER.

The CONTRACTOR will be required to furnish all lines, grades and measurements from the control points necessary for the proper prosecution and control of the work contracted for under these SPECIFICATIONS.

The CONTRACTOR must give weekly copies of the survey notes to the ENGINEER so that the ENGINEER may check them as to accuracy and method of staking. All areas that are staked by the CONTRACTOR must be checked by the ENGINEER prior to beginning any work in the area. The ENGINEER will make periodic checks of the grades and alignment set by the CONTRACTOR. In case of error on the part of the CONTRACTOR, or his/her employees, resulting in establishing grades and/or alignment that are not in accordance with the PLANS or established by the ENGINEER, all construction

not in accordance with the established grades and/or alignment shall be replaced without additional cost to the OWNER.

No direct payment will be made, unless otherwise specified in CONTRACT Documents, for this labor, materials, or other expenses therewith. The cost thereof shall be included in the price of the bid for the various items of the CONTRACT.

Construction Staking and Layout includes but is not limited to:

Clearing and Grubbing perimeter staking.
Rough Grade slope stakes at 100-foot stations.
Drainage Swales slope stakes and flow line blue tops at 50-foot stations.
Subgrade blue tops at 25 foot stations and 25 foot offset distance (max.) for the following section locations:

a. Runway – minimum 5 per station
b. Taxiways – minimum 3 per station
c. Holding apron areas – minimum 3 per station
d. Roadways – minimum 3 per station

Base Course blue tops at 25 foot stations and 25 foot offset distance (max.) for the following section locations:

a. Runway – minimum 5 per station
b. Taxiways – minimum 3 per station
c. Holding apron areas – minimum 3 per station

Pavement areas:

a. Edge of Pavement hubs and tacks (for stringline by CONTRACTOR) at 100 foot stations
b. Between Lifts at 25 foot stations for the following section locations:
   (1). Runways – each paving lane width
   (2). Taxiways – each paving lane width
   (3). Holding areas – each paving lane width
c. After finish paving operations at 50 foot stations
   (1). All paved areas – Edge of each paving lane prior to next paving lot
d. Shoulder and safety area blue tops at 50 foot stations and at all break points with maximum of 50 foot offsets

Fence lines at 100 foot stations
Electrical and Communications System locations, lines and grades including but not limited to duct runs, connections, fixtures, signs, lights, VASI's, PAPI's, REIL's, Wind Cones, Distance Markers (signs), pull boxes and manholes.
Drain lines, cut stakes and alignment on 25-foot stations, inlet and manholes.
Painting and Striping layout (pinned with 1.5 inch PK nails) marked for paint CONTRACTOR. (All nails shall be removed after painting)
Laser, or other automatic control devices, shall be checked with temporary control point or grade hub at a minimum of once per 400 feet per pass (i.e. paving lane).

NOTE: Controls and stakes disturbed or suspect of having been disturbed shall be checked and/or reset as directed by the ENGINEER without additional cost to the OWNER.

**50-7 AUTOMATICALLY CONTROLLED EQUIPMENT**. Whenever batching or mixing plant equipment is required to be operated automatically under the CONTRACT and a breakdown or malfunction of the automatic controls occurs, the equipment may be operated manually or by other methods for a period 48 hours following the breakdown or malfunction, provided this method of operations will produce results which conform to all other requirements of the CONTRACT.

**50-8 AUTHORITY AND DUTIES OF INSPECTORS**. Inspectors employed by the OWNER shall be authorized to inspect all work done and all material furnished. Such inspection may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. Inspectors are not authorized to revoke, alter, or waive any provision of the CONTRACT. Inspectors are not authorized to issue instructions contrary to the PLANS and SPECIFICATIONS or to act as foreman for the CONTRACTOR.

Inspectors employed by the OWNER are authorized to notify the CONTRACTOR or his/her representatives of any failure of the work or materials to conform to the requirements of the CONTRACT, PLANS, or SPECIFICATIONS and to reject such nonconforming materials in question until such issues can be referred to the ENGINEER for his/her decision.

**50-9 INSPECTION OF THE WORK**. All materials and each part or detail of the work shall be subject to inspection by the ENGINEER. The ENGINEER shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the CONTRACTOR as is required to make a complete and detailed inspection.

If the ENGINEER requests it, the CONTRACTOR, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the CONTRACTOR shall restore said portions of the work to the standard required by the SPECIFICATIONS. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; but should the work so exposed or examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be at the CONTRACTOR's expense.

Any work done or materials used without supervision or inspection by an authorized representative of the OWNER may be ordered removed and replaced at the CONTRACTOR's expense unless the OWNER's representative failed to inspect after having been given reasonable notice in writing that the work was to be performed.

Should the CONTRACT work include relocation, adjustment, or any other modification to existing facilities, not the property of the (CONTRACT) OWNER, authorized representatives of the OWNERs of such facilities shall have the right to inspect such work. Such inspection shall in no sense make any facility OWNER a party to the CONTRACT, and shall in no way interfere with the rights of the parties to this CONTRACT.

**50-10 REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK**. All work that does not conform to the requirements of the CONTRACT, PLANS, and SPECIFICATIONS will be considered unacceptable, unless otherwise determined acceptable by the ENGINEER as provided in the subsection titled CONFORMITY WITH PLANS AND SPECIFICATIONS of this section.

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner in accordance with the provisions of the subsection titled CONTRACTOR'S RESPONSIBILITY FOR WORK of Section 70.

No removal work made under provision of this subsection shall be done without lines and grades having been given by the ENGINEER. Work done contrary to the instructions of the ENGINEER, work done beyond the lines shown on the PLANS or as given, except as herein specified, or any extra work done without authority, will be considered as unauthorized and will not be paid for under the provisions of the CONTRACT. Work so done may be ordered removed or replaced at the CONTRACTOR's expense.

Upon failure on the part of the CONTRACTOR to comply forthwith with any order of the ENGINEER made under the provisions of this subsection, the ENGINEER will have authority to cause unacceptable work to be remedied or removed and replaced and unauthorized work to be removed and to deduct the costs (incurred by the OWNER) from any monies due or to become due the CONTRACTOR.

**50-11 LOAD RESTRICTIONS**. The CONTRACTOR shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the work. A special permit will not relieve the CONTRACTOR of liability for damage that may result from the moving of material or equipment.

The operation of equipment of such weight or so loaded as to cause damage to structures or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base, or structure before the expiration of the curing period. The CONTRACTOR shall be responsible for all damage done by his/her hauling equipment and shall correct such damage at his/her own expense.

**50-12 MAINTENANCE DURING CONSTRUCTION**. The CONTRACTOR shall maintain the work during construction and until the work is accepted. This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces so that the work is maintained in satisfactory condition at all times.

In the case of a CONTRACT for the placing of a course upon a course or subgrade previously constructed, the CONTRACTOR shall maintain the previous course or subgrade during all construction operations.

All costs of maintenance work during construction and before the PROJECT is accepted shall be included in the unit prices bid on the various CONTRACT items, and the CONTRACTOR will not be paid an additional amount for such work.

**50-13 FAILURE TO MAINTAIN THE WORK**. Should the CONTRACTOR at any time fail to maintain the work as provided in the subsection titled MAINTENANCE DURING CONSTRUCTION of this section, the ENGINEER shall immediately notify the CONTRACTOR of such noncompliance. Such notification shall specify a reasonable time within which the CONTRACTOR shall be required to remedy such unsatisfactory maintenance condition. The time specified will give due consideration to the exigency that exists.

Should the CONTRACTOR fail to respond to the ENGINEER's notification, the OWNER may suspend any work necessary for the OWNER to correct such unsatisfactory maintenance condition, depending on the exigency that exists. Any maintenance cost incurred by the OWNER, shall be deducted from monies due or to become due the CONTRACTOR.

**50-14 PARTIAL ACCEPTANCE.** If at any time during the prosecution of the PROJECT the CONTRACTOR substantially completes a usable unit or portion of the work, the occupancy of which will benefit the OWNER, he may request the ENGINEER to make final inspection of that unit. If the ENGINEER finds upon inspection that the unit has been satisfactorily completed in compliance with the CONTRACT, he may accept it as being completed, and the CONTRACTOR may be relieved of further responsibility for that unit. Such partial acceptance and beneficial occupancy by the OWNER shall not void or alter any provision of the CONTRACT.

**50-15 FINAL ACCEPTANCE.** Upon due notice from the CONTRACTOR of presumptive completion of the entire PROJECT, the ENGINEER and OWNER will make an inspection. If all construction provided for and contemplated by the CONTRACT is found to be completed in accordance with the CONTRACT, PLANS, and SPECIFICATIONS, such inspection shall constitute the final inspection. The ENGINEER shall notify the CONTRACTOR in writing of final acceptance as of the date of the final inspection.

If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the ENGINEER will give the CONTRACTOR the necessary instructions for correction of same and the CONTRACTOR shall immediately comply with and execute such instructions. Upon correction of the work, another inspection will be made which shall constitute the final inspection, provided the work has been satisfactorily completed. In such event, the ENGINEER will make the final acceptance and notify the CONTRACTOR in writing of this acceptance as of the date of final inspection.

**50-16 CLAIMS FOR ADJUSTMENT AND DISPUTES.** If for any reason the CONTRACTOR deems that additional compensation is due him for work or materials not clearly provided for in the CONTRACT, PLANS, or SPECIFICATIONS or previously authorized as extra work, he shall notify the ENGINEER in writing of his/her intention to claim such additional compensation before he begins the work on which he bases the claim. If such notification is not given or the ENGINEER is not afforded proper opportunity by the CONTRACTOR for keeping strict account of actual cost as required, then the CONTRACTOR hereby agrees to waive any claim for such additional compensation. Such notice by the CONTRACTOR and the fact that the ENGINEER has kept account of the cost of the work shall not in any way be construed as proving or substantiating the validity of the claim. When the work on which the claim for additional compensation is based has been completed, the CONTRACTOR shall, within l0 calendar days, submit his/her written claim to the ENGINEER who will present it to the OWNER for consideration in accordance with local laws or ordinances.

Nothing in this subsection shall be construed as a waiver of the CONTRACTOR's right to dispute final payment based on differences in measurements or computations.

**50-17 COST REDUCTION INCENTIVE.** The provisions of this subsection will apply only to CONTRACTs awarded to the lowest bidder pursuant to competitive bidding.

On PROJECTs with original CONTRACT amounts in excess of $100,000, the CONTRACTOR may submit to the ENGINEER, in writing, proposals for modifying the PLANS, SPECIFICATIONS or other

requirements of the CONTRACT for the sole purpose of reducing the cost of construction. The cost reduction proposal shall not impair, in any manner, the essential functions or characteristics of the PROJECT, including but not limited to service life, economy of operation, ease of maintenance, desired appearance, design and safety standards. This provision shall not apply unless the proposal submitted is specifically identified by the CONTRACTOR as being presented for consideration as a value ENGINEERing proposal.

Not eligible for cost reduction proposals are changes in the basic design of a pavement type, runway and taxiway lighting, visual aids, hydraulic capacity of drainage facilities, or changes in grade or alignment that reduce the geometric standards of the PROJECT.

As a minimum, the following information shall be submitted by the CONTRACTOR with each proposal:

**A.** A description of both existing CONTRACT requirements for performing the work and the proposed changes, with a discussion of the comparative advantages and disadvantages of each;

**B.** An itemization of the CONTRACT requirements that must be changed if the proposal is adopted;

**C.** A detailed estimate of the cost of performing the work under the existing CONTRACT and under the proposed changes;

**D.** A statement of the time by which a change order adopting the proposal must be issued;

**E.** A statement of the effect adoption of the proposal will have on the time for completion of the CONTRACT; and

**F.** The CONTRACT items of work affected by the proposed changes, including any quantity variation attributable to them.

The CONTRACTOR may withdraw, in whole or in part, any cost reduction proposal not accepted by the ENGINEER, within the period specified in the proposal. The provisions of this subsection shall not be construed to require the ENGINEER to consider any cost reduction proposal that may be submitted.

The CONTRACTOR shall continue to perform the work in accordance with the requirements of the CONTRACT until a change order incorporating the cost reduction proposal has been issued. If a change order has not been issued by the date upon which the CONTRACTOR's cost reduction proposal specifies that a decision should be made, or such other date as the CONTRACTOR may subsequently have requested in writing, such cost reduction proposal shall be deemed rejected.

The ENGINEER shall be the sole judge of the acceptability of a cost reduction proposal and of the estimated net savings from the adoption of all or any part of such proposal. In determining the estimated net savings, the ENGINEER may disregard the CONTRACT bid prices if, in the ENGINEER's judgment such prices do not represent a fair measure of the value of the work to be performed or deleted.

The OWNER may require the CONTRACTOR to share in the OWNER's costs of investigating a cost reduction proposal submitted by the CONTRACTOR as a condition of considering such proposal. Where such a condition is imposed, the CONTRACTOR shall acknowledge acceptance of it in writing. Such

acceptance shall constitute full authority for the OWNER to deduct the cost of investigating a cost reduction proposal from amounts payable to the CONTRACTOR under the CONTRACT.

If the CONTRACTOR's cost reduction proposal is accepted in whole or in part, such acceptance will be by a CONTRACT change order that shall specifically state that it is executed pursuant to this subsection. Such change order shall incorporate the changes in the PLANS and SPECIFICATIONS which are necessary to permit the cost reduction proposal or such part of it as has been accepted and shall include any conditions upon which the ENGINEER's approval is based. The change order shall also set forth the estimated net savings attributable to the cost reduction proposal. The net savings shall be determined as the difference in costs between the original CONTRACT costs for the involved work items and the costs occurring as a result of the proposed change. The change order shall also establish the net savings agreed upon and shall provide for adjustment in the CONTRACT price that will divide the net savings equally between the CONTRACTOR and the OWNER.
The CONTRACTOR's 50 percent share of the net savings shall constitute full compensation to the CONTRACTOR for the cost reduction proposal and the performance of the work.

Acceptance of the cost-reduction proposal and performance of the cost-reduction work shall not extend the time of completion of the CONTRACT unless specifically provided for in the CONTRACT change order.

**50-18** ***CLAIMS RESOLUTION.*** *In accordance with Public Contract Code Section 20104-20104.6 and other applicable law, public works claims of $375,000 or less which arise between the CONTRACTOR and the OWNER shall be resolved following the statutory procedure unless the OWNER has elected to resolve the dispute pursuant to Public Contract Code 10240 et seq.*

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

1. *Claims Under $50,000. The OWNER shall respond in writing to the claim within 45 days of receipt of the claim, or, the OWNER may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the OWNER may have. If additional information is needed thereafter, it shall be provided upon mutual agreement of the OWNER and the claimant. The OWNER's written response shall be submitted 15 days after receiving the additional documentation, or within the same period of time taken by the claimant to produce the additional information, whichever is greater.*

2. *Claims over $50,000 but less than or equal to $375,000. The OWNER shall respond in writing within 60 days of receipt, or, may request in writing within 30 days of receipt of the claim, any additional documents supporting the claim or relating to defenses or claims the OWNER may have against the claimant. If additional information is needed thereafter, it shall be provided pursuant to mutual agreement between the OWNER and the claimant. The OWNER's response shall be submitted within 30 days after receipt of the further documents, or within the*

*same period of time taken by the claimant to produce additional information or documents, whichever is greater.*

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

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

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

**END OF SECTION**

## DIVISION III
## SECTION 60
## CONTROL OF MATERIALS

**60-1 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS**. The materials used on the work shall conform to the requirements of the CONTRACT, PLANS, and SPECIFICATIONS. Unless otherwise specified, such materials that are manufactured or processed shall be new (as compared to used or reprocessed).

In order to expedite the inspection and testing of materials, the CONTRACTOR shall furnish complete statements to the ENGINEER as to the origin, composition, and manufacture of all materials to be used in the work. Such statements shall be furnished promptly after execution of the CONTRACT but, in all cases, prior to delivery of such materials.

At the ENGINEER's option, materials may be approved at the source of supply before delivery is stated. If it is found after trial that sources of supply for previously approved materials do not produce specified products, the CONTRACTOR shall furnish materials from other sources.

**60-2 *CONTRACTOR QUALITY CONTROL*** *The CONTRACTOR shall be responsible for controlling the quality of the material entering the work and of the work performed, and shall perform testing as necessary to ensure control. The test methods used for quality control testing shall be as determined by the CONTRACTOR. The results of the testing shall be made available to the ENGINEER upon request. These tests are for the CONTRACTOR's use in controlling the work and will not be accepted for use as acceptance tests.*

*Full compensation for performing quality control tests and making the results available to the ENGINEER shall be considered as included in the CONTRACT price paid for the various items of work involved and no additional compensation will be allowed therefore.*

**60-3 SAMPLES, TESTS, AND CITED SPECIFICATIONS**. Unless otherwise designated, all materials used in the work shall be inspected, tested, and approved by the ENGINEER before incorporation in the work. Any work in which untested materials are used without approval or written permission of the ENGINEER shall be performed at the CONTRACTOR's risk. Materials found to be unacceptable and unauthorized will not be paid for and, if directed by the ENGINEER, shall be removed at the CONTRACTOR's expense. Unless otherwise designated, tests in accordance with the cited standard methods of ASTM, AASHTO, Federal Specifications, Commercial Item Descriptions, and all other cited methods, which are current on the date of advertisement for bids, will be made by and at the expense of the ENGINEER. The testing organizations performing on site field tests shall have copies of all referenced standards on the construction site for use by all technicians and other personnel, including the CONTRACTOR's representative at his/her request. Unless otherwise designated, samples will be taken by a qualified representative of the ENGINEER. All materials being used are subject to inspection, test, or rejection at any time prior to or during incorporation into the work. Copies of all tests will be furnished to the CONTRACTOR's representative at his/her request.

The CONTRACTOR shall employ a testing organization to perform all CONTRACTOR required tests. The CONTRACTOR shall submit to the ENGINEER resumes on all testing organizations and individual

persons who will be performing the tests. The ENGINEER will determine if such persons are qualified. All the test data shall be reported to the ENGINEER after the results are known. A legible, handwritten copy of all test data shall be given to the ENGINEER daily, along with printed reports, in an approved format, on a weekly basis. After completion of the PROJECT, and prior to final payment, the CONTRACTOR shall submit a final report to the ENGINEER showing all test data reports, plus an analysis of all results showing ranges, averages, and corrective action taken on all failing tests.

**60-4 CERTIFICATION OF COMPLIANCE**. The ENGINEER may permit the use, prior to sampling and testing, of certain materials or assemblies when accompanied by manufacturer's certificates of compliance stating that such materials or assemblies fully comply with the requirements of the CONTRACT. The certificate shall be signed by the manufacturer. Each lot of such materials or assemblies delivered to the work must be accompanied by a certificate of compliance in which the lot is clearly identified.
Materials or assemblies used on the basis of certificates of compliance may be sampled and tested at any time and if found not to be in conformity with CONTRACT requirements will be subject to rejection whether in place or not.

The form and distribution of certificates of compliance shall be as approved by the ENGINEER.

When a material or assembly is specified by ``brand name or equal" and the CONTRACTOR elects to furnish the specified ``brand name," the CONTRACTOR shall be required to furnish the manufacturer's certificate of compliance for each lot of such material or assembly delivered to the work. Such certificate of compliance shall clearly identify each lot delivered and shall certify as to:

**A.** Conformance to the specified performance, testing, quality or dimensional requirements; and,

**B.** Suitability of the material or assembly for the use intended in the CONTRACT work.

Should the CONTRACTOR propose to furnish an ``or equal" material or assembly, he shall furnish the manufacturer's certificates of compliance as hereinbefore described for the specified brand name material or assembly. However, the ENGINEER shall be the sole judge as to whether the proposed ``or equal" is suitable for use in the work.

The ENGINEER reserves the right to refuse permission for use of materials or assemblies on the basis of certificates of compliance.

**60-5 PLANT INSPECTION**. The ENGINEER or his/her authorized representative may inspect, at its source, any specified material or assembly to be used in the work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the work and to obtain samples required for his/her acceptance of the material or assembly.

Should the ENGINEER conduct plant inspections, the following conditions shall exist:

**A.** The ENGINEER shall have the cooperation and assistance of the CONTRACTOR and the producer with whom he has contracted for materials.

**B.** The ENGINEER shall have full entry at all reasonable times to such parts of the plant that concern the manufacture or production of the materials being furnished.

**C.** If required by the ENGINEER, the CONTRACTOR shall arrange for adequate office or working space that may be reasonably needed for conducting plant inspections. Office or working space should be conveniently located with respect to the plant.

It is understood and agreed that the OWNER shall have the right to retest any material that has been tested and approved at the source of supply after it has been delivered to the site. The ENGINEER shall have the right to reject only material which, when retested, does not meet the requirements of the CONTRACT, PLANS, or SPECIFICATIONS.

**60-6 ENGINEER'S FIELD OFFICE**. N/A

**60-7 STORAGE OF MATERIALS**. Materials shall be so stored as to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located so as to facilitate their prompt inspection. The CONTRACTOR shall coordinate the storage of all materials with the ENGINEER. Materials to be stored on airport property shall not create an obstruction to air navigation nor shall they interfere with the free and unobstructed movement of aircraft. Unless otherwise shown on the PLANS, the storage of materials and the location of the CONTRACTOR's plant and parked equipment or vehicles shall be as directed by the ENGINEER. Private property shall not be used for storage purposes without written permission of the OWNER or lessee of such property. The CONTRACTOR shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the CONTRACTOR shall furnish the ENGINEER a copy of the property OWNER's permission.

All storage sites on private or airport property shall be restored to their original condition by the CONTRACTOR at his/her entire expense, except as otherwise agreed to (in writing) by the OWNER or lessee of the property.

**60-8 UNACCEPTABLE MATERIALS**. Any material or assembly that does not conform to the requirements of the CONTRACT, PLANS, or SPECIFICATIONS shall be considered unacceptable and shall be rejected. The CONTRACTOR shall remove any rejected material or assembly from the site of the work, unless otherwise instructed by the ENGINEER.

Rejected material or assembly, the defects of which have been corrected by the CONTRACTOR, shall not be returned to the site of the work until such time as the ENGINEER has approved its used in the work.

**60-9 OWNER FURNISHED MATERIALS**. The CONTRACTOR shall furnish all materials required to complete the work, except those specified herein (if any) to be furnished by the OWNER. OWNER-furnished materials shall be made available to the CONTRACTOR at the location specified herein.

All costs of handling, transportation from the specified location to the site of work, storage, and installing OWNER-furnished materials shall be included in the unit price bid for the CONTRACT item in which such OWNER-furnished material is used.

After any OWNER-furnished material has been delivered to the location specified, the CONTRACTOR shall be responsible for any demurrage, damage, loss, or other deficiencies that may occur during the CONTRACTOR's handling, storage, or use of such OWNER-furnished material. The OWNER will deduct from any monies due or to become due the CONTRACTOR any cost incurred by the OWNER in making good such loss due to the CONTRACTOR's handling, storage, or use of OWNER-furnished materials.

**60-10** ***TRADE NAMES AND ALTERNATIVES.*** *For convenience in designation on the PLANS or in the SPECIFICATIONS, certain articles or materials to be incorporated in the work may be designated under a trade name or the name of a manufacturer and his catalogue information or followed by the words "or equal". The use of an alternative article or material which is of equal quality and of the required characteristics for the purpose intended will be permitted, subject to the following requirements:*

1. *The burden of proof as to the quality and suitability of alternatives shall be upon the CONTRACTOR and he shall furnish all information necessary as required by the ENGINEER. The CONTRACTOR shall clearly flag all areas where the substituted unit differs from the specified material. The ENGINEER shall be the sole judge as to the quality and suitability of alternative articles or materials and his decision shall be final.*

2. *Whenever the SPECIFICATIONS permit the substitution of a similar or equivalent material or article, no tests or action relating to the approval of such substitute material will be made until the request for substitution is made in writing by the CONTRACTOR accompanied by complete data as to the equality of the material or article proposed. Such request shall be made in ample time to permit approval without delaying the work, but need not be made in less than 35 days after award of the CONTRACT.*

**60-11** ***BETTER MATERIAL OR PROCESS.*** *In the event the CONTRACTOR furnishes a material, process or an article better than that specified, any difference in cost of such material, process or article so furnished shall be borne by the CONTRACTOR.*

**60-12** ***SHOP DRAWINGS AND SUBMITTALS.*** *The CONTRACTOR, at his own expense, shall furnish for the approval of ENGINEER any and all shop drawings and other submittals required by the SPECIFICATIONS, or that may be requested by the ENGINEER, for any and all materials the CONTRACTOR proposes to use.*

*Shop drawings and submittals shall be submitted in quadruplicate and shall be marked with the name of the PROJECT and the name of the CONTRACTOR.*

*If the shop drawings or submittals show any variation from the CONTRACT requirements because of standard shop practice or other reason, specific mention of the variation shall be made in the letter of transmittal.*

*Approval of shop drawings and submittals will be general and shall not relieve the CONTRACTOR from the responsibility for proper fitting and construction of the work or from furnishing materials and work required by the CONTRACT which may not be indicated on shop drawings when approved, or from the*

*responsibility for errors in the shop drawings. Shop drawing approval shall not be considered the basis for a CONTRACT change order.*

**60-13** ***MATERIALS LIST.*** *The CONTRACTOR shall submit a complete list of all manufactured materials and equipment which he proposes to incorporate into the PROJECT to the ENGINEER for approval before placing his order for such materials or equipment. If the materials or equipment vary in any way from what was specified or shown on the PLANS, specific mention of the variation shall be made in the letter of transmittal.*

**60-14** ***GUARANTEE OF WORKMANSHIP AND MATERIALS AND DATE OF ACCEPTANCE.*** *Besides guarantees required elsewhere, CONTRACTOR shall and does hereby guarantee all workmanship and materials for a period of one year, except as otherwise required in the CONTRACT for a longer period, from and after the date of acceptance of the Work and recordation of Notice of Completion by OWNER and shall repair or replace any or all workmanship and materials, together with any other work which may be displaced in so doing, that, in the opinion of the OWNER, is or becomes defective during the period of said guarantee without expense whatsoever to OWNER.*

**60-15** ***FORM OF GUARANTEES.*** *Guarantees in the form of written warranty shall be supplied on the CONTRACTOR's own letterhead as follows:*

*WARRANTY FOR*

*We hereby warrant that the _____ has been installed in accordance with the drawings and SPECIFICATIONS and that the work as installed will fulfill the requirements of the warranty included in the SPECIFICATIONS. We agree to repair or replace any or all of our work together with any other adjacent work which may be displaced by so doing, that may prove to be defective in its workmanship or materials for the period of one year from date of acceptance of the above-mentioned structure by the OWNER, ordinary wear and tear, and unusual abuse or neglect excepted.*

*In the event of our failure to comply with the above-mentioned conditions within seven (7) days after being notified in writing we, collectively or separately, do hereby authorize the OWNER to proceed to have said defects repaired and made good at our expense, and we will honor and pay the cost and charges therefore on demand.*

*Signed:_____*

**END OF SECTION**

## DIVISION III
## SECTION 70
## LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC

**70-1 LAWS TO BE OBSERVED**. The CONTRACTOR shall keep fully informed of all Federal and state laws, all local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. He shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees; and shall protect and indemnify the OWNER and all his/her officers, agents, or servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by himself or his/her employees.

**70-2 PERMITS, LICENSES, AND TAXES**. The CONTRACTOR shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work.

**70-3 PATENTED DEVICES, MATERIALS, AND PROCESSES**. If the CONTRACTOR is required or desires to use any design, device, material, or process covered by letters of patent or copyright, he shall provide for such use by suitable legal agreement with the patentee or owner. The CONTRACTOR and the surety shall indemnify and save harmless the OWNER, any third party, or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the OWNER for any costs, expenses, and damages which it may be obliged to pay by reason of an infringement, at any time during the prosecution or after the completion of the work.

**70-4 RESTORATION OF SURFACES DISTURBED BY OTHERS**. The OWNER reserves the right to authorize the construction, reconstruction, or maintenance of any public or private utility service, FAA or National Oceanic and Atmospheric Administration (NOAA) facility, or a utility service of another government agency at any time during the progress of the work

The CONTRACTOR shall not permit any individual, firm, or corporation to excavate or otherwise disturb such utility services or facilities located within the limits of the work without the written permission of the ENGINEER.

Should the owner of public or private utility service, FAA, or NOAA facility, or a utility service of another government agency be authorized to construct, reconstruct, or maintain such utility service or facility during the progress of the work, the CONTRACTOR shall cooperate with such owners by arranging and performing the work in this CONTRACT so as to facilitate such construction, reconstruction or maintenance by others whether or not such work by others is listed above. When ordered as extra work by the ENGINEER, the CONTRACTOR shall make all necessary repairs to the work which are due to such authorized work by others, unless otherwise provided for in the CONTRACT, PLANS, or SPECIFICATIONS. It is understood and agreed that the CONTRACTOR shall not be entitled to make any claim for damages due to such authorized work by others or for any delay to the work resulting from such authorized work.

**70-5 FEDERAL AID PARTICIPATION**. For AIP CONTRACTs, the United States Government has agreed to reimburse the OWNER for some portion of the CONTRACT costs. Such reimbursement is

made from time to time upon the OWNER's request to the FAA. In consideration of the United States Government's (FAA's) agreement with the OWNER, the OWNER has included provisions in this CONTRACT pursuant to the requirements of Title 49 of the United States Code (USC) and the Rules and Regulations of the FAA that pertain to the work.

As required by the USC, the CONTRACT work is subject to the inspection and approval of duly authorized representatives of the Administrator, FAA, and is further subject to those provisions of the rules and regulations that are cited in the CONTRACT, PLANS, or SPECIFICATIONS.

No requirement of the USC, the rules and regulations implementing the USC, or this CONTRACT shall be construed as making the Federal Government a party to the CONTRACT nor will any such requirement interfere, in any way, with the rights of either party to the CONTRACT.

**70-6 SANITARY, HEALTH, AND SAFETY PROVISIONS**. The CONTRACTOR shall provide and maintain in a neat, sanitary condition such accommodations for the use of his/her employees as may be necessary to comply with the requirements of the state and local Board of Health, or of other bodies or tribunals having jurisdiction.

Attention is directed to Federal, state, and local laws, rules and regulations concerning construction safety and health standards. The CONTRACTOR shall not require any worker to work in surroundings or under conditions that are unsanitary, hazardous, or dangerous to his/her health or safety.

**70-7 PUBLIC CONVENIENCE AND SAFETY**. The CONTRACTOR shall control his/her operations and those of his/her subcontractors and all suppliers, to assure the least inconvenience to the traveling public. Under all circumstances, safety shall be the most important consideration.

The CONTRACTOR shall maintain the free and unobstructed movement of aircraft and vehicular traffic with respect to his/her own operations and those of his/her subcontractors and all suppliers in accordance with the subsection titled MAINTENANCE OF TRAFFIC of Section 40 hereinbefore specified and shall limit such operations for the convenience and safety of the traveling public as specified in the subsection titled LIMITATION OF OPERATIONS of Section 80 hereinafter.

**70-8 BARRICADES, WARNING SIGNS, AND HAZARD MARKINGS**. The CONTRACTOR shall furnish, erect, and maintain all barricades, warning signs, and markings for hazards necessary to protect the public and the work. When used during periods of darkness, such barricades, warning signs, and hazard markings shall be suitably illuminated. Unless otherwise specified, barricades, warning signs, and markings for hazards that are in the air operations area shall be a maximum of 18 inches high. Unless otherwise specified, barricades shall be spaced not more than 25 feet apart. Barricades, warning signs, and markings shall be paid for under Section 40-05.

For vehicular and pedestrian traffic, the CONTRACTOR shall furnish, erect, and maintain barricades, warning signs, lights and other traffic control devices in reasonable conformity with the Manual of Uniform Traffic Control Devices for Streets and Highways (published by the United States Government Printing Office).

When the work requires closing an air operations area of the AIRPORT or portion of such area, the CONTRACTOR shall furnish, erect, and maintain temporary markings and associated lighting conforming to the requirements of AC 150/5340-1, Standards for Airport Markings.

The CONTRACTOR shall furnish, erect, and maintain markings and associated lighting of open trenches, excavations, temporary stock piles, and his/her parked construction equipment that may be hazardous to the operation of emergency fire-rescue or maintenance vehicles on the AIRPORT in reasonable conformance to AC 150/5370-2, Operational Safety on Airports During Construction.

The CONTRACTOR shall identify each motorized vehicle or piece of construction equipment in reasonable conformance to AC 150/5370-2.

The CONTRACTOR shall furnish and erect all barricades, warning signs, and markings for hazards prior to commencing work that requires such erection and shall maintain the barricades, warning signs, and markings for hazards until their dismantling is directed by the ENGINEER.

Open-flame type lights shall not be permitted within the air operations areas of the AIRPORT.

**70-9 USE OF EXPLOSIVES.** N/A

**70-10 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE.** The CONTRACTOR shall be responsible for the preservation of all public and private property, and shall protect carefully from disturbance or damage all land monuments and property markers until the ENGINEER has witnessed or otherwise referenced their location and shall not move them until directed.

The CONTRACTOR shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in his/her manner or method of executing the work, or at any time due to defective work or materials, and said responsibility will not be released until the PROJECT shall have been completed and accepted.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the nonexecution thereof by the CONTRACTOR, he shall restore, at his/her own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, or otherwise restoring as may be directed, or he shall make good such damage or injury in an acceptable manner.

**70-11 RESPONSIBILITY FOR DAMAGE CLAIMS.** The CONTRACTOR shall indemnify and save harmless the ENGINEER and the OWNER and their officers, and employees from all suits actions, or claims of any character brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the CONTRACTOR; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of said CONTRACTOR; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the ``Workmen's Compensation Act," or any other law, ordinance, order, or decree. Money due the CONTRACTOR under and by virtue of his/her CONTRACT as may be considered necessary by the OWNER for such purpose may be retained for the use of the OWNER or, in case no money is due, his/her surety may be held until such suit(s), action(s), or claim(s) for injuries or damages as aforesaid shall have been settled and suitable evidence to that effect furnished to the OWNER, except that money due the CONTRACTOR will not be withheld when the

CONTRACTOR produces satisfactory evidence that he is adequately protected by public liability and property damage insurance.

**70-12 THIRD PARTY BENEFICIARY CLAUSE.** It is specifically agreed between the parties executing the CONTRACT that it is not intended by any of the provisions of any part of the CONTRACT to create the public or any member thereof a third party beneficiary or to authorize anyone not a party to the CONTRACT to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of the CONTRACT.

**70-13 OPENING SECTIONS OF THE WORK TO TRAFFIC.** Should it be necessary for the CONTRACTOR to complete portions of the CONTRACT work for the beneficial occupancy of the OWNER prior to completion of the entire CONTRACT, such ``phasing" of the work shall be specified herein and indicated on the PLANS. When so specified, the CONTRACTOR shall complete such portions of the work on or before the date specified or as otherwise specified.

No portion of the work may be opened by the CONTRACTOR for public use until ordered by the ENGINEER in writing. Should it become necessary to open a portion of the work to public traffic on a temporary or intermittent basis, such openings shall be made when, in the opinion of the ENGINEER, such portion of the work is in an acceptable condition to support the intended traffic. Temporary or intermittent openings are considered to be inherent in the work and shall not constitute either acceptance of the portion of the work so opened or a waiver of any provision of the CONTRACT. Any damage to the portion of the work so opened that is not attributable to traffic which is permitted by the OWNER shall be repaired by the CONTRACTOR at his/her expense.

The CONTRACTOR shall make his/her own estimate of the inherent difficulties involved in completing the work under the conditions herein described and shall not claim any added compensation by reason of delay or increased cost due to opening a portion of the CONTRACT work.

CONTRACTOR shall be required to conform to safety standards contained AC 150/5370-2, Operational Safety on Airports During Construction (See Special Provisions.)

CONTRACTOR shall refer to the approved safety plan to identify barricade requirements and other safety requirements prior to opening up sections of work to traffic.

**70-14 CONTRACTOR'S RESPONSIBILITY FOR WORK.** Until the ENGINEER's final written acceptance of the entire completed work, excepting only those portions of the work accepted in accordance with the subsection titled PARTIAL ACCEPTANCE of Section 50, the CONTRACTOR shall have the charge and care thereof and shall take every precaution against injury or damage to any part due to the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The CONTRACTOR shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the CONTRACTOR, including but not restricted to acts of God such as earthquake, tidal wave, tornado, hurricane or other cataclysmic phenomenon of nature, or acts of the public enemy or of government authorities.

If the work is suspended for any cause whatever, the CONTRACTOR shall be responsible for the work and shall take such precautions necessary to prevent damage to the work. The CONTRACTOR shall provide for normal drainage and shall erect necessary temporary structures, signs, or other facilities at his/her expense. During such period of suspension of work, the CONTRACTOR shall properly and continuously maintain in an acceptable growing condition all living material in newly established planting, seedings, and soddings furnished under his/her CONTRACT, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

**70-15 CONTRACTOR'S RESPONSIBILITY FOR UTILITY SERVICE AND FACILITIES OF OTHERS.** As provided in the subsection titled RESTORATION OF SURFACES DISTURBED BY OTHERS of this section, the CONTRACTOR shall cooperate with the OWNER of any public or private utility service, FAA or NOAA, or a utility service of another government agency that may be authorized by the OWNER to construct, reconstruct or maintain such utility services or facilities during the progress of the work. In addition, the CONTRACTOR shall control his/her operations to prevent the unscheduled interruption of such utility services and facilities.

To the extent that such public or private utility services, FAA, or NOAA facilities, or utility services of another governmental agency are known to exist within the limits of the CONTRACT work, the approximate locations have been indicated on the PLANS.

It is understood and agreed that the OWNER does not guarantee the accuracy or the completeness of the location information relating to existing utility services, facilities, or structures that may be shown on the PLANS or encountered in the work. Any inaccuracy or omission in such information shall not relieve the CONTRACTOR of his/her responsibility to protect such existing features from damage or unscheduled interruption of service.

It is further understood and agreed that the CONTRACTOR shall, upon execution of the CONTRACT, notify the owners of all utility services or other facilities of his/her plan of operations. Such notification shall be in writing addressed to THE PERSON TO CONTACT as provided hereinbefore in this subsection and the subsection titled RESTORATION OF SURFACES DISTURBED BY OTHERS of this section. A copy of each notification shall be given to the ENGINEER.

In addition to the general written notification hereinbefore provided, it shall be the responsibility of the CONTRACTOR to keep such individual owners advised of changes in his/her plan of operations that would affect such owners.

Prior to commencing the work in the general vicinity of an existing utility service or facility, the CONTRACTOR shall again notify each such owner of his/her plan of operation. If, in the CONTRACTOR's opinion, the OWNER's assistance is needed to locate the utility service or facility or the presence of a representative of the OWNER is desirable to observe the work, such advice should be included in the notification. Such notification shall be given by the most expeditious means to reach the utility owner's PERSON TO CONTACT no later than two normal business days prior to the CONTRACTOR's commencement of operations in such general vicinity. The CONTRACTOR shall furnish a written summary of the notification to the ENGINEER.

The CONTRACTOR's failure to give the two day's notice hereinabove provided shall be cause for the OWNER to suspend the CONTRACTOR's operations in the general vicinity of a utility service or facility.

Where the outside limits of an underground utility service have been located and staked on the ground, the CONTRACTOR shall be required to use excavation methods acceptable to the ENGINEER within 3 feet (90 cm) of such outside limits at such points as may be required to ensure protection from damage due to the CONTRACTOR's operations.

Should the CONTRACTOR damage or interrupt the operation of a utility service or facility by accident or otherwise, he shall immediately notify the proper authority and the ENGINEER and shall take all reasonable measures to prevent further damage or interruption of service. The CONTRACTOR, in such events, shall cooperate with the utility service or facility owner and the ENGINEER continuously until such damage has been repaired and service restored to the satisfaction of the utility or facility owner.

The CONTRACTOR shall bear all costs of damage and restoration of service to any utility service or facility due to his/her operations whether or not due to negligence or accident. The OWNER reserves the right to deduct such costs from any monies due or which may become due the CONTRACTOR, or his/her surety.

**70-15.1 FAA FACILITIES AND CABLE RUNS.** The CONTRACTOR is hereby advised that the construction limits of the PROJECT may include existing facilities and buried cable runs that are owned, operated and maintained by the FAA. The CONTRACTOR, during the prosecution of the PROJECT work, shall comply with the following:

**A.** The CONTRACTOR shall permit FAA maintenance personnel the right of access to the PROJECT work site for purposes of inspecting and maintaining all existing FAA owned facilities.

**B.** The CONTRACTOR shall notify the above named FAA Airway Facilities Point-of-Contact seven (7) calendar days prior to commencement of construction activities in order to permit sufficient time to locate and mark existing buried cables and to schedule any required facility outages.

**C.** If prosecution of the PROJECT work requires a facility outage, the CONTRACTOR shall contact the above named FAA Point-of-Contact a minimum of 48 hours prior to the time of the required outage.

**D.** If prosecution of the PROJECT work results in damages to existing FAA equipment or cables, the CONTRACTOR shall repair the damaged item in conformance with FAA Airway Facilities' standards to the satisfaction of the above named FAA Point-of-Contact.

**E.** If the PROJECT work requires the cutting or splicing of FAA owned cables, the above named FAA Point-of-Contact shall be contacted a minimum of 48 hours prior to the time the cable work commences. The FAA reserves the right to have a FAA Airway Facilities representative on site to observe the splicing of the cables as a condition of acceptance. All cable splices are to be accomplished in accordance with FAA Airway Facilities' SPECIFICATIONS and require approval by the above named FAA Point-of-Contact as a condition of acceptance by the OWNER. The CONTRACTOR is hereby advised that FAA Airway Facilities restricts the location of where splices may be installed. If a cable splice is required in a location that is not permitted by FAA Airway Facilities, the CONTRACTOR shall furnish and install a sufficient length of new cable that eliminates the need for any splice.

**70-16 FURNISHING RIGHTS-OF-WAY.** The OWNER will be responsible for furnishing all rights-of-way upon which the work is to be constructed in advance of the CONTRACTOR's operations.

**70-17 PERSONAL LIABILITY OF PUBLIC OFFICIALS.** In carrying out any of the CONTRACT provisions or in exercising any power or authority granted to him by this CONTRACT, there shall be no liability upon the ENGINEER, his/her authorized representatives, or any officials of the OWNER either personally or as an official of the OWNER. It is understood that in such matters they act solely as agents and representatives of the OWNER.

**70-18 NO WAIVER OF LEGAL RIGHTS.** Upon completion of the work, the OWNER will expeditiously make final inspection and notify the CONTRACTOR of final acceptance. Such final acceptance, however, shall not preclude or estop the OWNER from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the OWNER be precluded or stopped from recovering from the CONTRACTOR or his/her surety, or both, such overpayment as may be sustained, or by failure on the part of the CONTRACTOR to fulfill his/her obligations under the CONTRACT. A waiver on the part of the OWNER of any breach of any part of the CONTRACT shall not be held to be a waiver of any other or subsequent breach.

The CONTRACTOR, without prejudice to the terms of the CONTRACT, shall be liable to the OWNER for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the OWNER's rights under any warranty or guaranty.

**70-19 ENVIRONMENTAL PROTECTION.** The CONTRACTOR shall comply with all Federal, state, and local laws and regulations controlling pollution of the environment. He shall take necessary precautions to prevent pollution of streams, lakes, ponds, and reservoirs with fuels, oils, bitumens, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.

**70-20 ARCHAEOLOGICAL AND HISTORICAL FINDINGS.** Unless otherwise specified in this subsection, the CONTRACTOR is advised that the site of the work is not within any property, district, or site, and does not contain any building, structure, or object listed in the current National Register of Historic Places published by the United States Department of Interior.

Should the CONTRACTOR encounter, during his/her operations, any building, part of a building, structure, or object that is incongruous with its surroundings, he shall immediately cease operations in that location and notify the ENGINEER. The ENGINEER will immediately investigate the CONTRACTOR's finding and the OWNER will direct the CONTRACTOR to either resume his/her operations or to suspend operations as directed.

Should the OWNER order suspension of the CONTRACTOR's operations in order to protect an archaeological or historical finding, or order the CONTRACTOR to perform extra work, such shall be covered by an appropriate CONTRACT modification (change order or supplemental agreement) as provided in the subsection titled EXTRA WORK of Section 40 and the subsection titled PAYMENT FOR EXTRA WORK AND FORCE ACCOUNT WORK of Section 90. If appropriate, the CONTRACT modification shall include an extension of CONTRACT time in accordance with the subsection titled DETERMINATION AND EXTENSION OF CONTRACT TIME of Section 80.

**70-21 *INSURANCE.*** *Without limiting CONTRACTOR's obligation to indemnify the COUNTY, U.S. Bureau of Reclamation, and local Irrigation District, hereunder, CONTRACTOR shall maintain and keep in force during the term of this Agreement the following insurance:*

***A.*** *Bodily Injury and Property Insurance for all activities of the CONTRACTOR (and its subcontractors) arising out of or in connection with this Agreement, written on a Comprehensive General Liability form including, but not limited to, premises and operations, independent CONTRACTORs, products and completed operations, contractual liability and personal injury, in an amount no less than One Million Dollars ($1,000,000.00) combined single limit for each occurrence.*

***B.*** *Automobile Liability Insurance covering bodily injury and property damage for all activities of the CONTRACTOR arising out of or in connection with this Agreement including coverage for owned, hired, and non-owned vehicles, in an amount no less than One Million Dollars ($1,000,000.00) combined single limit for each occurrence.*

***C.*** *Each said commercial general liability and automobile liability insurance policy shall be endorsed with the following specific language:*

1. *The COUNTY, their officers, agents, and employees, and Mead & Hunt,Inc. are named as additional insured for all liability arising out of the operations by or on behalf of the named insured in the performance of this Agreement.*

2. *The inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverages afforded shall apply as though separate policies had been issued to each insured.*

3. *The insurance provided herein is primary and no insurance held or owned by the COUNTY shall be called upon to contribute to a loss.*

4. *The coverage provided by this policy shall not be reduced or canceled without thirty (30) days written notice given to the COUNTY.*

***D.*** *Prior to commencement of any work under this CONTRACT, the CONTRACTOR shall provide proof of required insurance to the ENGINEER.*

***E.*** *Workers' Compensation insurance as required by the Labor Code of the State of California, for CONTRACTOR and employees of CONTRACTOR shall be provided by CONTRACTOR. All Workers' Compensation policies shall be endorsed with the following specific languages: "This policy shall not be canceled or materially changed without first giving thirty (30) days prior notice to COUNTY in writing."*

**70-22 *SAFETY.*** *The ENGINEER has not been retained or compensated to provide design and construction review services relating to the CONTRACTOR's safety precautions or to means, methods, techniques, sequences or procedures required for the CONTRACTOR to perform his work.*

*The CONTRACTOR will be solely and completely responsible for conditions of the work site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. Safety provisions shall conform to all applicable state, county, and local laws, ordinances, and codes.*

**END OF SECTION**

## DIVISION III
## SECTION 80
## PROSECUTION AND PROGRESS

**80-1 SUBLETTING OF CONTRACT**. The OWNER will not recognize any subcontractor on the work. The CONTRACTOR shall at all times when work is in progress be represented either in person, by a qualified superintendent, or by other designated, qualified representative who is duly authorized to receive and execute orders of the ENGINEER.

Should the CONTRACTOR elect to assign his/her CONTRACT, said assignment shall be concurred in by the surety, shall be presented for the consideration and approval of the OWNER, and shall be consummated only on the written approval of the OWNER. In case of approval, the CONTRACTOR shall file copies of all subcontracts with the ENGINEER.

The CONTRACTOR shall perform, with his organization, an amount of work equal to at least 25 percent of the total CONTRACT cost.

**80-2 NOTICE TO PROCEED**. The notice to proceed shall state the date on which it is expected the CONTRACTOR will begin the construction and from which date CONTRACT TIME will be charged. The CONTRACTOR shall begin the work to be performed under the CONTRACT within 10 days of the date set by the ENGINEER in the written notice to proceed, but in any event, the CONTRACTOR shall notify the ENGINEER at least 24 hours in advance of the time actual construction operations will begin.

**80-3 PROSECUTION AND PROGRESS**. Unless otherwise specified, the CONTRACTOR shall submit his/her progress schedule for the ENGINEER's approval within 10 days after the effective date of the notice to proceed. The CONTRACTOR's progress schedule, when approved by the ENGINEER, may be used to establish major construction operations and to check on the progress of the work. The CONTRACTOR shall provide sufficient materials, equipment, and labor to guarantee the completion of the project in accordance with the PLANS and SPECIFICATIONS within the time set forth in the proposal.

If the CONTRACTOR falls significantly behind the submitted schedule, the CONTRACTOR shall, upon the ENGINEER's request, submit a revised schedule for completion of the work within the CONTRACT TIME and modify his/her operations to provide such additional materials, equipment, and labor necessary to meet the revised schedule. Should the prosecution of the work be discontinued for any reason, the CONTRACTOR shall notify the ENGINEER at least 24 hours in advance of resuming operations.

For AIP CONTRACTs, the CONTRACTOR shall not commence any actual construction prior to the date on which the notice to proceed is issued by the OWNER.

**80-4 LIMITATION OF OPERATIONS**. The CONTRACTOR shall control his/her operations and the operations of his/her subcontractors and all suppliers so as to provide for the free and unobstructed movement of aircraft in the AIR OPERATIONS AREAS of the AIRPORT.

When the work requires the CONTRACTOR to conduct his/her operations within an AIR OPERATIONS AREA of the AIRPORT, the work shall be coordinated with AIRPORT operations (through the ENGINEER) at least 48 hours prior to commencement of such work. The CONTRACTOR shall not close an AIR OPERATIONS AREA until so authorized by the ENGINEER and until the necessary temporary

marking and associated lighting is in place as provided in the subsection titled BARRICADES, WARNING SIGNS, AND HAZARD MARKINGS of Section 70.

When the CONTRACT work requires the CONTRACTOR to work within an AIR OPERATIONS AREA (AOA) of the AIRPORT on an intermittent basis (intermittent opening and closing of the AIR OPERATIONS AREA), the CONTRACTOR shall maintain constant communications as hereinafter specified; immediately obey all instructions to vacate the AIR OPERATIONS AREA; immediately obey all instructions to resume work in such AIR OPERATIONS AREA. Failure to maintain the specified communications or to obey instructions shall be cause for suspension of the CONTRACTOR's operations in the AIR OPERATIONS AREA until the satisfactory conditions are provided.

CONTRACTOR shall be required to conform to safety standards contained in AC 150/5370-2, *Operational Safety on Airports During Construction* (See Special Provisions).

**80-04.1 OPERATIONAL SAFETY ON AIRPORT DURING CONSTRUCTION.** All CONTRACTORs' operations shall be conducted in accordance with the project safety plan and the provisions set forth within the current version of Advisory Circular 150/5370-2. The safety plan included within the CONTRACT documents conveys minimum requirements for operational safety on the AIRPORT during construction activities. The CONTRACTOR shall prepare and submit a plan that details how it proposes to comply with the requirements presented within the safety plan.

The CONTRACTOR shall implement all necessary safety plan measures prior to commencement of any work activity. The CONTRACTOR shall conduct routine checks of the safety plan measures to assure compliance with the safety plan measures.

The CONTRACTOR is responsible to the OWNER for the conduct of all subcontractors it employs on the project. The CONTRACTOR shall assure that all subcontractors are made aware of the requirements of the safety plan and that they implement and maintain all necessary measures.

No deviation or modifications may be made to the approved safety plan unless approved in writing by the OWNER or ENGINEER.

**80-5 CHARACTER OF WORKERS, METHODS, AND EQUIPMENT**. The CONTRACTOR shall, at all times, employ sufficient labor and equipment for prosecuting the work to full completion in the manner and time required by the CONTRACT, PLANS, and SPECIFICATIONS.

All workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform the work satisfactorily.

Any person employed by the CONTRACTOR or by any subcontractor who violates any operational regulations and, in the opinion of the ENGINEER, does not perform his work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the ENGINEER, be removed forthwith by the CONTRACTOR or subcontractor employing such person, and shall not be employed again in any portion of the work without approval of the ENGINEER.

Should the CONTRACTOR fail to remove such persons or person, or fail to furnish suitable and sufficient personnel for the proper prosecution of the work, the ENGINEER may suspend the work by written notice until compliance with such orders.

All equipment that is proposed to be used on the work shall be of sufficient size and in such mechanical condition as to met requirements of the work and to produce a satisfactory quality of work. Equipment used on any portion of the work shall be such that no injury to previously completed work, adjacent property, or existing AIRPORT facilities will result from its use.

When the methods and equipment to be used by the CONTRACTOR in accomplishing the work are not prescribed in the CONTRACT, the CONTRACTOR is free to use any methods or equipment that will accomplish the work in conformity with the requirements of the CONTRACT, PLANS, and SPECIFICATIONS.

When the CONTRACT specifies the use of certain methods and equipment, such methods and equipment shall be used unless others are authorized by the ENGINEER. If the CONTRACTOR desires to use a method or type of equipment other than specified in the CONTRACT, he may request authority from the ENGINEER to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it will be on the condition that the CONTRACTOR will be fully responsible for producing work in conformity with CONTRACT requirements. If, after trial use of the substituted methods or equipment, the ENGINEER determines that the work produced does not meet CONTRACT requirements, the CONTRACTOR shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The CONTRACTOR shall remove any deficient work and replace it with work of specified quality, or take such other corrective action as the ENGINEER may direct. No change will be made in basis of payment for the CONTRACT items involved nor in CONTRACT TIME as a result of authorizing a change in methods or equipment under this subsection.

**80-6 TEMPORARY SUSPENSION OF THE WORK**. The OWNER shall have the authority to suspend the work wholly, or in part, for such period or periods as he may deem necessary, due to unsuitable weather, or such other conditions as are considered unfavorable for the prosecution of the work, or for such time as is necessary due to the failure on the part of the CONTRACTOR to carry out orders given or perform any or all provisions of the CONTRACT.

In the event that the CONTRACTOR is ordered by the OWNER, in writing, to suspend work for some unforeseen cause not otherwise provided for in the CONTRACT and over which the CONTRACTOR has no control, the CONTRACTOR may be reimbursed for actual money expended on the work during the period of shutdown. No allowance will be made for anticipated profits. The period of shutdown shall be computed from the effective date of the ENGINEER's order to suspend work to the effective date of the ENGINEER's order to resume the work. Claims for such compensation shall be filed with the ENGINEER within the time period stated in the ENGINEER's order to resume work. The CONTRACTOR shall submit with his/her claim information substantiating the amount shown on the claim. The ENGINEER will forward the CONTRACTOR's claim to the OWNER for consideration in accordance with local laws or ordinances. No provision of this article shall be construed as entitling the CONTRACTOR to compensation for delays due to inclement weather, for suspensions made at the request of the OWNER, or for any other delay provided for in the CONTRACT, PLANS, or SPECIFICATIONS.

If it should become necessary to suspend work for an indefinite period, the CONTRACTOR shall store all materials in such manner that they will not become an obstruction nor become damaged in any way. He shall take every precaution to prevent damage or deterioration of the work performed and provide for normal drainage of the work. The CONTRACTOR shall erect temporary structures where necessary to provide for traffic on, to, or from the AIRPORT.

**80-7 DETERMINATION AND EXTENSION OF CONTRACT TIME.** The number of calendar or working days allowed for completion of the work shall be stated in the proposal and CONTRACT and shall be known as the CONTRACT TIME.

Should the CONTRACT TIME require extension for reasons beyond the CONTRACTOR's control, it shall be adjusted as follows:

**A.** CONTRACT TIME based on WORKING DAYS shall be calculated weekly by the ENGINEER. The ENGINEER will furnish the CONTRACTOR a copy of his/her weekly statement of the number of working days charged against the CONTRACT TIME during the week and the number of working days currently specified for completion of the CONTRACT (the original CONTRACT TIME plus the number of working days, if any, that have been included in approved CHANGE ORDERS or SUPPLEMENTAL AGREEMENTS covering EXTRA WORK).

The ENGINEER shall base his/her weekly statement of CONTRACT TIME charged on the following considerations:

1. No time shall be charged for days on which the CONTRACTOR is unable to proceed with the principal item of work under construction at the time for at least 6 hours with the normal work force employed on such principal item. Should the normal work force be on a double-shift, 12 hours shall be used. Should the normal work force be on a triple-shift, 18 hours shall apply. Conditions beyond the CONTRACTOR's control such as strikes, lockouts, unusual delays in transportation, temporary suspension of the principal item of work under construction or temporary suspension of the entire work which have been ordered by the OWNER for reasons not the fault of the CONTRACTOR, shall not be charged against the CONTRACT TIME.
2. The ENGINEER will not make charges against the CONTRACT TIME prior to the effective date of the notice to proceed.
3. The ENGINEER will begin charges against the CONTRACT TIME on the first working day after the effective date of the notice to proceed.
4. The ENGINEER will not make charges against the CONTRACT TIME after the date of final acceptance as defined in the subsection titled FINAL ACCEPTANCE of Section 50.
5. The CONTRACTOR will be allowed 1 week in which to file a written protest setting forth his/her objections to the ENGINEER's weekly statement. If no objection is filed within such specified time, the weekly statement shall be considered as acceptable to the CONTRACTOR.

The CONTRACT TIME (stated in the proposal) is based on the originally estimated quantities as described in the subsection titled INTERPRETATION OF ESTIMATED PROPOSAL QUANTITIES of Section 20. Should the satisfactory completion of the CONTRACT require performance of work

in greater quantities than those estimated in the proposal, the CONTRACT TIME shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in CONTRACT TIME shall not consider either the cost of work or the extension of CONTRACT TIME that has been covered by change order or supplemental agreement and shall be made at the time of final payment.

**B.** CONTRACT TIME based on CALENDAR DAYS shall consist of the number of calendar days stated in the CONTRACT counting from the effective date of the notice to proceed and including all Saturdays, Sundays, holidays, and nonwork days. All calendar days elapsing between the effective dates of the OWNER's orders to suspend and resume all work, due to causes not the fault of the CONTRACTOR, shall be excluded.

At the time of final payment, the CONTRACT TIME shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in the CONTRACT TIME shall not consider either cost of work or the extension of CONTRACT TIME that has been covered by a change order or supplemental agreement. Charges against the CONTRACT TIME will cease as of the date of final acceptance.

**C.** When the CONTRACT TIME is a specified completion date, it shall be the date on which all CONTRACT work shall be substantially completed.

If the CONTRACTOR finds it impossible for reasons beyond his/her control to complete the work within the CONTRACT TIME as specified, or as extended in accordance with the provisions of this subsection, he may, at any time prior to the expiration of the CONTRACT TIME as extended, make a written request to the ENGINEER for an extension of time setting forth the reasons which he believes will justify the granting of his/her request. Requests for extension of time on calendar day projects, caused by inclement weather, shall be supported with National Weather Bureau data showing the actual amount of inclement weather exceeded which could normally be expected during the CONTRACT period. The CONTRACTOR's plea that insufficient time was specified is not a valid reason for extension of time. If the ENGINEER finds that the work was delayed because of conditions beyond the control and without the fault of the CONTRACTOR, he may extend the time for completion in such amount as the conditions justify. The extended time for completion shall then be in full force and effect, the same as though it were the original time for completion.

**80-8 FAILURE TO COMPLETE ON TIME**. For each calendar day or working day, as specified in the CONTRACT, that any work remains uncompleted after the CONTRACT TIME (including all extensions and adjustments as provided in the subsection titled DETERMINATION AND EXTENSION OF CONTRACT TIME of this Section) the sum specified in the CONTRACT and proposal as liquidated damages will be deducted from any money due or to become due the CONTRACTOR or his/her surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional engineering services that will be incurred by the OWNER should the CONTRACTOR fail to complete the work in the time provided in his/her CONTRACT.

| SCHEDULE | LIQUIDATED DAMAGES COST | ALLOWED CONSTRUCTION TIME (working days) |
|---|---|---|
| Wash Rack & Evap. Pond Construction | $1,000 per day | 15 mobilization, 25 construction, 40 total |

Permitting the CONTRACTOR to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the OWNER of any of its rights under the CONTRACT.

**80-9 DEFAULT AND TERMINATION OF CONTRACT**. The CONTRACTOR shall be considered in default of his/her CONTRACT and such default will be considered as cause for the OWNER to terminate the CONTRACT for any of the following reasons if the CONTRACTOR:

**A.** Fails to begin the work under the CONTRACT within the time specified in the ``Notice to Proceed," or

**B.** Fails to perform the work or fails to provide sufficient workers, equipment or materials to assure completion of work in accordance with the terms of the CONTRACT, or

**C.** Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or

**D.** Discontinues the prosecution of the work, or

**E.** Fails to resume work which has been discontinued within a reasonable time after notice to do so, or

**F.** Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or

**G.** Allows any final judgment to stand against him unsatisfied for a period of 10 days, or

**H.** Makes an assignment for the benefit of creditors, or

**I.** For any other cause whatsoever, fails to carry on the work in an acceptable manner.

Should the ENGINEER consider the CONTRACTOR in default of the CONTRACT for any reason hereinbefore, he shall immediately give written notice to the CONTRACTOR and the CONTRACTOR's surety as to the reasons for considering the CONTRACTOR in default and the OWNER's intentions to terminate the CONTRACT.

If the CONTRACTOR or surety, within a period of 10 days after such notice, does not proceed in accordance therewith, then the OWNER will, upon written notification from the ENGINEER of the facts of such delay, neglect, or default and the CONTRACTOR's failure to comply with such notice, have full power and authority without violating the CONTRACT, to take the prosecution of the work out of the hands of the CONTRACTOR. The OWNER may appropriate or use any or all materials and equipment that have been mobilized for use in the work and are acceptable and may enter into an agreement for the completion of said CONTRACT according to the terms and provisions thereof, or use such other methods as in the opinion of the ENGINEER will be required for the completion of said CONTRACT in an acceptable manner.

All costs and charges incurred by the OWNER, together with the cost of completing the work under CONTRACT, will be deducted from any monies due or which may become due the CONTRACTOR. If such expense exceeds the sum which would have been payable under the CONTRACT, then the CONTRACTOR and the surety shall be liable and shall pay to the OWNER the amount of such excess.

**80-10 TERMINATION FOR NATIONAL EMERGENCIES**. The OWNER shall terminate the CONTRACT or portion thereof by written notice when the CONTRACTOR is prevented from proceeding with the construction CONTRACT as a direct result of an Executive Order of the President with respect to the prosecution of war or in the interest of national defense.

When the CONTRACT, or any portion thereof, is terminated before completion of all items of work in the CONTRACT, payment will be made for the actual number of units or items of work completed at the CONTRACT price or as mutually agreed for items of work partially completed or not started. No claims or loss of anticipated profits shall be considered.

Reimbursement for organization of the work, and other overhead expenses, (when not otherwise included in the CONTRACT) and moving equipment and materials to and from the job will be considered, the intent being that an equitable settlement will be made with the CONTRACTOR.

Acceptable materials, obtained or ordered by the CONTRACTOR for the work and that are not incorporated in the work shall, at the option of the CONTRACTOR, be purchased from the CONTRACTOR at actual cost as shown by receipted bills and actual cost records at such points of delivery as may be designated by the ENGINEER.

Termination of the CONTRACT or a portion thereof shall neither relieve the CONTRACTOR of his/her responsibilities for the completed work nor shall it relieve his/her surety of its obligation for and concerning any just claim arising out of the work performed.

**80-11 WORK AREA, STORAGE AREA AND SEQUENCE OF OPERATIONS**. The CONTRACTOR shall obtain approval from the ENGINEER prior to beginning any work in all areas of the AIRPORT. No operating runway, taxiway, or Air Operations Area (AOA) shall be crossed, entered, or obstructed while it is operational. The CONTRACTOR shall plan and coordinate his/her work in such a manner as to insure safety and a minimum of hindrance to flight operations. All CONTRACTOR equipment and material stockpiles shall be stored a minimum of 200 feet from the centerline of an active runway. No equipment will be allowed to park within the approach area of an active runway at any time. No equipment shall be within 200 feet of an active runway at any time.

**END OF SECTION**

## DIVISION III
## SECTION 90
## MEASUREMENT AND PAYMENT

***90-1*** **MEASUREMENT OF QUANTITIES**. All work completed under the CONTRACT will be measured by the ENGINEER, or his/her authorized representatives, using United States Customary Units of Measurement or the International System of Units.

The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the CONTRACT will be those methods generally recognized as conforming to good engineering practice.

Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures (or leave-outs) having an area of 9 square feet (0.8 square meter) or less. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the PLANS or ordered in writing by the ENGINEER.

Structures will be measured according to neat lines shown on the PLANS or as altered to fit field conditions.

Unless otherwise specified, all CONTRACT items which are measured by the linear foot such as electrical ducts, conduits, pipe culverts, underdrains, and similar items shall be measured parallel to the base or foundation upon which such items are placed.

In computing volumes of excavation the average end area method or other acceptable methods will be used.

The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fraction of inches.

The term ``ton" will mean the short ton consisting of 2,000 pounds (907 kilograms) avoirdupois. All materials that are measured or proportioned by weights shall be weighed on accurate, approved scales by competent, qualified personnel at locations designed by the ENGINEER. If material is shipped by rail, the car weight may be accepted provided that only the actual weight of material is paid for. However, car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as the ENGINEER directs, and each truck shall bear a plainly legible identification mark.

Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable to the ENGINEER, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles shall be loaded to at least their water level capacity, and all loads shall be leveled when the vehicles arrive at the point of delivery.

When requested by the CONTRACTOR and approved by the ENGINEER in writing, material specified to be measured by the cubic yard (cubic meter) may be weighed, and such weights will be converted to

cubic yards (cubic meters) for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the ENGINEER and shall be agreed to by the CONTRACTOR before such method of measurement of pay quantities is used.

Bituminous materials will be measured by the gallon (liter) or ton (kilogram). When measured by volume, such volumes will be measured at 60 F (15 C) or will be corrected to the volume at 60 F (15 C) using ASTM D 1250 for asphalts or ASTM D 633 for tars.

Net certified scale weights or weights based on certified volumes in the case of rail shipments will be used as a basis of measurement, subject to correction when bituminous material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work.

When bituminous materials are shipped by truck or transport, net certified weights by volume, subject to correction for loss or foaming, may be used for computing quantities.

Cement will be measured by the ton (kilogram) or hundredweight (kilogram).

Timber will be measured by the thousand feet board measure (M.F.B.M.) actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.

The term ``lump sum" when used as an item of payment will mean complete payment for the work described in the CONTRACT.

When a complete structure or structural unit (in effect, ``lump sum" work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories.

Rental of equipment will be measured by time in hours of actual working time and necessary traveling time of the equipment within the limits of the work. Special equipment ordered by the ENGINEER in connection with force account work will be measured as agreed in the change order or supplemental agreement authorizing such force account work as provided in the subsection titled PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK of this section.

When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gage, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited SPECIFICATIONS, manufacturing tolerances established by the industries involved will be accepted.

Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected, and maintained by the CONTRACTOR, or be certified permanently installed commercial scales.

Scales shall be accurate within one-half percent of the correct weight throughout the range of use. The CONTRACTOR shall have the scales checked under the observation of the inspector before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed one-tenth of 1 percent of the

nominal rated capacity of the scale, but not less than 1 pound (454 grams). The use of spring balances will not be permitted.

Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the inspector can safely and conveniently view them.

Scale installations shall have available ten standard 50-pound (2.3 kilogram) weights for testing the weighing equipment or suitable weights and devices for other approved equipment.

Scales must be tested for accuracy and serviced before use at a new site. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end.

Scales ``overweighing" (indicating more than correct weight) will not be permitted to operate, and all materials received subsequent to the last previous correct weighting-accuracy test will be reduced by the percentage of error in excess of one-half of 1 percent.

In the event inspection reveals the scales have been ``underweighing" (indicating less than correct weight), they shall be adjusted, and no additional payment to the CONTRACTOR will be allowed for materials previously weighed and recorded.

All costs in connection with furnishing, installing, certifying, testing, and maintaining scales; for furnishing check weights and scale house; and for all other items specified in this subsection, for the weighing of materials for proportioning or payment, shall be included in the unit CONTRACT prices for the various items of the project.

When the estimated quantities for a specific portion of the work are designated as the pay quantities in the CONTRACT, they shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the PLANS are revised by the ENGINEER. If revised dimensions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions.

***90-2*** **SCOPE OF PAYMENT**. The CONTRACTOR shall receive and accept compensation provided for in the CONTRACT as full payment for furnishing all materials, for performing all work under the CONTRACT in a complete and acceptable manner, and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the prosecution thereof, subject to the provisions of the subsection titled NO WAIVER OF LEGAL RIGHTS of Section 70.

When the ``basis of payment" subsection of a technical specification requires that the CONTRACT price (price bid) include compensation for certain work or material essential to the item, this same work or material will not also be measured for payment under any other CONTRACT item which may appear elsewhere in the CONTRACT, PLANS, or SPECIFICATIONS.

***90-3*** **COMPENSATION FOR ALTERED QUANTITIES**. When the accepted quantities of work vary from the quantities in the proposal, the CONTRACTOR shall accept as payment in full, so far as CONTRACT items are concerned, payment at the original CONTRACT price for the accepted quantities of work actually completed and accepted. No allowance, except as provided for in the subsection titled

ALTERATION OF WORK AND QUANTITIES of Section 40 will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the CONTRACTOR which results directly from such alterations or indirectly from his/her unbalanced allocation of overhead and profit among the CONTRACT items, or from any other cause.

***90-4*** **PAYMENT FOR OMITTED ITEMS**. As specified in the subsection titled OMITTED ITEMS of Section 40, the ENGINEER shall have the right to omit from the work (order nonperformance) any CONTRACT item, except major CONTRACT items, in the best interest of the OWNER.

Should the ENGINEER omit or order nonperformance of a CONTRACT item or portion of such item from the work, the CONTRACTOR shall accept payment in full at the CONTRACT prices for any work actually completed and acceptable prior to the ENGINEER's order to omit or nonperform such CONTRACT item.

Acceptable materials ordered by the CONTRACTOR or delivered on the work prior to the date of the ENGINEER's order will be paid for at the actual cost to the CONTRACTOR and shall thereupon become the property of the OWNER.

In addition to the reimbursement hereinbefore provided, the CONTRACTOR shall be reimbursed for all actual costs incurred for the purpose of performing the omitted CONTRACT item prior to the date of the ENGINEER's order. Such additional costs incurred by the CONTRACTOR must be directly related to the deleted CONTRACT item and shall be supported by certified statements by the CONTRACTOR as to the nature the amount of such costs.

***90-5*** **PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK**. Extra work, performed in accordance with the subsection titled EXTRA WORK of Section 40, will be paid for at the CONTRACT prices or agreed prices specified in the change order or supplemental agreement authorizing the extra work. When the change order or supplemental agreement authorizing the extra work requires that it be done by force account, such force account shall be measured and paid for based on expended labor, equipment, and materials plus a negotiated and agreed upon allowance for overhead and profit.

**A.** **Miscellaneous**. No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.

**B.** **Comparison of Record**. The CONTRACTOR and the ENGINEER shall compare records of the cost of force account work at the end of each day. Agreement shall be indicated by signature of the CONTRACTOR and the ENGINEER or their duly authorized representatives.

**C.** **Statement**. No payment will be made for work performed on a force account basis until the CONTRACTOR has furnished the ENGINEER with duplicate itemized statements of the cost of such force account work detailed as follows:

1. Name, classification, date, daily hours, total hours, rate and extension for each laborer and foreman.
2. Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.
3. Quantities of materials, prices, and extensions.

4. Transportation of materials.

5. Cost of property damage, liability and workman's compensation insurance premiums, unemployment insurance contributions, and social security tax.

Statements shall be accompanied and supported by a receipted invoice for all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the CONTRACTOR's stock, then in lieu of the invoices the CONTRACTOR shall furnish an affidavit certifying that such materials were taken from his/her stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the CONTRACTOR.

***90-6 DIRECT COSTS.***

***A. Labor***

1. *Cost of labor shall include any employer payments to or on behalf of workers for health, welfare, pension, vacation, and similar purposes. Labor rates will not be recognized when in excess of those prevailing in the locality at the time the work is being performed. No labor charges will be accepted for supervision. The costs for all superintendents and forepersons are included in the markups established by the CONTRACT DOCUMENTS. The only exception to this will be working forepersons who perform actual manual labor or the extra work. No labor charges will be accepted for engineering or proposal preparation. These costs are included in the markups established by the CONTRACT DOCUMENTS.*

2. *Overtime and premium time pricing will only be allowed for labor which is performed after normal working hours at the ENGINEER's direction and written approval. If the CONTRACTOR chooses to work overtime without the ENGINEER's written approval, then overtime rates and premiums shall not apply.*

***B. Material***

1. *The actual cost to the CONTRACTOR for the materials directly required for the performance of the force account work. Such costs of materials may include the cost of transportation. No delivery charge will be allowed unless the delivery is specifically for the changed work.*

2. *If a trade discount by an actual supplier is available to the CONTRACTOR, it shall be credited to the COUNTY. If the materials are obtained from a supplier or source owned wholly by or in part by the CONTRACTOR, payment thereof will not exceed the current wholesale price for the materials. The term "trade discount" includes the concept of cash discounting.*

3. *If, in the opinion of the ENGINEER, the cost of the materials is excessive or if the CONTRACTOR fails to furnish satisfactory evidence of a cost to the CONTRACTOR from the actual supplier thereof, then, in either case, the cost of materials shall be deemed to be the lowest current wholesale price at which similar materials are available in the quantities required. The COUNTY reserves the right to furnish such materials as it deems advisable and the CONTRACTOR shall have no claims for cost or profits on materials furnished by the COUNTY.*

***D. Equipment.***

1. *The actual cost to the CONTRACTOR for the use of equipment directly required in the performance of the force account work. In computing the hourly rental of equipment any time less than thirty (30) minutes shall be considered one-half hour. No payment will be made for time while equipment is inoperative due to breakdown or for non-working days. In addition, the rental time shall omit the time required to move the equipment to the work, for rental of such equipment, and to return it to the source. No mobilization or demobilization will be allowed for equipment already on site. If such equipment is not moved by its own power, then loading and transportation costs will be paid in lieu of rental time thereof. However, neither moving time nor loading and transportation costs will be paid if the equipment is used on the project in any way other than upon the changed work.*

2. *Individual pieces of equipment having a replacement value of $1,000 or less shall be considered to be small tools or small equipment and no payment will be made thereof unless it is a direct expense for the changed work and is used for no other purpose.*

3. *The rental rate for equipment will not exceed that as recommended by the lower of the rental rates established by Caltrans or as contained in the Association of Equipment Distributors (AED) book.*

4. *The amount to be paid to the CONTRACTOR for the use of equipment as set forth above shall constitute full compensation to the CONTRACTOR for all costs incidental to the use of the equipment.*

***90-7 COST MARKUPS.***

***A.*** *For work performed by the CONTRACTOR a 15 percent markup for overhead and profit will be added to the direct costs (as defined in Section 90-6) of the force account work.*

***B.*** *For work performed by a Subcontractor a 20 percent markup for overhead and profit will be added to the direct costs (as defined in Section 90-6) of the force account work. (Suggested breakdown: 15 percent to the Subcontractor, 5 percent to the CONTRACTOR.)*

***C.*** *For work performed by a Sub-Subcontractor (any tier) a 25 percent markup for overhead and profit will be added to the direct costs (as defined in Section 90-6) of the force account work. (Suggested breakdown: 15 percent to the Sub-subcontractor, 5 percent to the Subcontractor and 5 percent to the CONTRACTOR.)*

***D.*** *In no case will the total markups be greater than 25 percent of the direct cost notwithstanding the number of CONTRACT tier actually existing.*

***E.*** *On proposals covering both increases and decreases in the amount of the CONTRACT SUM, overhead, profit and commission shall be allowed on the net increase only as determined above. Where the difference is a deletion, no percentage for overhead, profit or commission shall be allowed.*

***F.*** *The markup percentage shall be full compensation for profit, small tools, cleanup, engineering, supervision, warranties, job site overhead and home office overhead. No markup will be allowed on taxes, insurance and bonds.*

***90-8*** **PARTIAL PAYMENTS**. Partial payments will be made to the CONTRACTOR at least once each month as the work progresses. Said payments will be based upon estimates, prepared by the ENGINEER, of the value of the work performed and materials complete and in place in accordance with the contract, plans, and specifications. Such partial payments may also include the delivered actual cost of those materials stockpiled and stored in accordance with the subsection titled PAYMENT FOR MATERIALS ON HAND of this section. No partial payment will be made when the amount due to the CONTRACTOR since the last estimate amounts to less than five hundred dollars.

The CONTRACTOR is required to pay all subcontractors for satisfactory performance of their contracts no later than 30 days after the CONTRACTOR has received a partial payment. The OWNER must ensure prompt and full payment of retainage from the prime CONTRACTOR to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed. A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented as required by the OWNER. When the OWNER has made an incremental acceptance of a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed.

From the total of the amount determined to be payable on a partial payment, 10% percent of such total amount will be deducted and retained by the OWNER until the final payment is made, except as may be provided (at the CONTRACTOR's option) in the subsection titled PAYMENT OF WITHHELD FUNDS of this section. The balance of the amount payable, less all previous payments, shall be certified for payment. Should the CONTRACTOR exercise his/her option, as provided in the subsection titled PAYMENT OF WITHHELD FUNDS of this section, no such percent retainage shall be deducted.

> When at least 95 percent of the work has been completed, the ENGINEER shall, at the OWNER's discretion and with the consent of the surety, prepare estimates of both the contract value and the cost of the remaining work to be done.
>
> The OWNER may retain an amount not less than twice the contract value or estimated cost, whichever is greater, of the work remaining to be done. The remainder, less all previous payments and deductions, will then be certified for payment to the CONTRACTOR.

It is understood and agreed that the CONTRACTOR shall not be entitled to demand or receive partial payment based on quantities of work in excess of those provided in the proposal or covered by approved change orders or supplemental agreements, except when such excess quantities have been determined by the ENGINEER to be a part of the final quantity for the item of work in question.

No partial payment shall bind the OWNER to the acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at the time of final payment as provided in the subsection titled ACCEPTANCE AND FINAL PAYMENT of this section.

The CONTRACTOR shall deliver to the OWNER a complete release of all claims for labor and material arising out of this contract before the final payment is made. If any subcontractor or supplier fails to furnish such a release in full, the CONTRACTOR may furnish a bond or other collateral satisfactory to the OWNER to indemnify the OWNER against any potential lien or other such claim. The bond or collateral

shall include all costs, expenses, and attorney fees the OWNER may be compelled to pay in discharging any such lien or claim.

***90-9*** **PAYMENT FOR MATERIALS ON HAND.** Partial payments may be made to the extent of the delivered cost of materials to be incorporated in the work, provided that such materials meet the requirements of the CONTRACT, PLANS, and SPECIFICATIONS and are delivered to acceptable sites on the AIRPORT property or at other sites in the vicinity that are acceptable to the OWNER. Such delivered costs of stored or stockpiled materials may be included in the next partial payment after the following conditions are met:

**A.** The material has been stored or stockpiled in a manner acceptable to the ENGINEER at or on an approved site.

**B.** The CONTRACTOR has furnished the ENGINEER with acceptable evidence of the quantity and quality of such stored or stockpiled materials.

**C.** The CONTRACTOR has furnished the ENGINEER with satisfactory evidence that the material and transportation costs have been paid.

**D.** The CONTRACTOR has furnished the OWNER legal title (free of liens or encumbrances of any kind) to the material so stored or stockpiled.

**E.** The CONTRACTOR has furnished the OWNER evidence that the material so stored or stockpiled is insured against loss by damage to or disappearance of such materials at any time prior to use in the work.

It is understood and agreed that the transfer of title and the OWNER's payment for such stored or stockpiled materials shall in no way relieve the CONTRACTOR of his/her responsibility for furnishing and placing such materials in accordance with the requirements of the CONTRACT, PLANS, and SPECIFICATIONS.

In no case will the amount of partial payments for materials on hand exceed the CONTRACT price for such materials or the CONTRACT price for the CONTRACT item in which the material is intended to be used.

No partial payment will be made for stored or stockpiled living or perishable plant materials.

The CONTRACTOR shall bear all costs associated with the partial payment of stored or stockpiled materials in accordance with the provisions of this subsection.

***90-10*** **PAYMENT OF WITHHELD FUNDS.** At the CONTRACTOR's option, if an OWNER withholds retainage in accordance with the methods described in subsection 90-08 PARTIAL PAYMENTS, the CONTRACTOR may request that the OWNER deposit the retainage into an escrow account. The OWNER's deposit of retainage into an escrow account is subject to the following conditions:

**A.** The CONTRACTOR shall bear all expenses of establishing and maintaining an escrow account and escrow agreement acceptable to the OWNER.

**B.** The CONTRACTOR shall deposit to and maintain in such escrow only those securities or bank certificates of deposit as are acceptable to the OWNER and having a value not less than the retainage that would otherwise be withheld from partial payment.

**C.** The CONTRACTOR shall enter into an escrow agreement satisfactory to the OWNER.

**D.** The CONTRACTOR shall obtain the written consent of the surety to such agreement.

***90-11*** **ACCEPTANCE AND FINAL PAYMENT**. When the CONTRACT work has been accepted in accordance with the requirements of the subsection titled FINAL ACCEPTANCE of Section 50, the ENGINEER will prepare the final estimate of the items of work actually performed. The CONTRACTOR shall approve the ENGINEER's final estimate or advise the ENGINEER of his/her objections to the final estimate which are based on disputes in measurements or computations of the final quantities to be paid under the CONTRACT as amended by change order or supplemental agreement. The CONTRACTOR and the ENGINEER shall resolve all disputes (if any) in the measurement and computation of final quantities to be paid within 30 calendar days of the CONTRACTOR's receipt of the ENGINEER's final estimate. If, after such 30-day period, a dispute still exists, the CONTRACTOR may approve the ENGINEER's estimate under protest of the quantities in dispute, and such disputed quantities shall be considered by the OWNER as a claim in accordance with the subsection titled CLAIMS FOR ADJUSTMENT AND DISPUTES of Section 50.

After the CONTRACTOR has approved, or approved under protest, the ENGINEER's final estimate, final payment will be processed based on the entire sum, or the undisputed sum in case of approval under protest, determined to be due the CONTRACTOR less all previous payments and all amounts to be deducted under the provisions of the CONTRACT. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

If the CONTRACTOR has filed a claim for additional compensation under the provisions of the subsection titled CLAIMS FOR ADJUSTMENTS AND DISPUTES of Section 50 or under the provisions of this subsection, such claims will be considered by the OWNER in accordance with local laws or ordinances. Upon final adjudication of such claims, any additional payment determined to be due the CONTRACTOR will be paid pursuant to a supplemental final estimate.

**END OF SECTION**

# DIVISION IV

## Miscellaneous Provisions for Airport Construction

## and

## Appendix 1

## Construction Safety and Operations Requirements

## DIVISION IV

## SECTION 1

## MISCELLANEOUS PROVISIONS FOR AIRPORT CONSTRUCTION

## AND

## CONSTRUCTION SAFETY AND PHASING PLAN (CSPP)

**1-1.1 OVERVIEW.** This Section provides for construction safety in an AIRPORT environment; limitations on construction operations; minimum requirements for construction management and scheduling; and site specific information pertaining to potential impacts on construction activities. Unless otherwise noted, all costs associated with related work shall be included in the CONTRACT pay item for Airfield Safety and Traffic Control.

**1-1.2 CONSTRUCTION SAFETY AND PHASING PLAN (CSPP).** The CONTRACTOR shall comply with the PROJECT-specific CSPP included as Appendix 1 to this section. Included as part of the requirements of the attached CSPP is the CONTRACTOR-prepared Safety Plan Compliance Document (SPCD).

**1-1.2 LINES AND GRADES.** The CONTRACTOR shall provide construction and layout staking for the ENGINEER to review and confirm prior to work being started. The ENGINEER will be given 4 hours' notice of pavement marking and electrical facility layout so it may be checked.

**1-1.3 RECORD DRAWINGS.** The CONTRACTOR shall maintain RECORD DRAWINGS of all work continuously as the job progresses. A separate set of prints, for this purpose only, shall be kept at the job site at all times. It shall be required that these DRAWINGS be up to date and be reviewed by the field inspector at the time each progress bill is submitted. All deviations from the DRAWINGS, exact locations and sizes of all utilities, mechanical and electrical lines, equipment details, and all stub outs and connections for future expansion, shall be incorporated. Documentation of RECORD DRAWINGS shall be included in other items of work and no separate payment will be made.

**1-1.4 MATERIAL TESTING AND RETESTING**. All Quality Control shall be performed by the CONTRACTOR and all acceptance testing will be performed by the ENGINEER as necessary. The Quality Control Testing shall include but is not limited to:

1. Compaction testing for subgrade, aggregates, and pavements. The CONTRACTOR is allotted one acceptance test per area per material per lot. In the event the acceptance tests do not pass and the ENGINEER is required to retest the area, the cost for each retest shall be borne by the CONTRACTOR.
2. Concrete strength mix design and other conformance testing required for structural Portland cement concrete.
3. Electrical grounding and circuit testing.

**1-1.5 TIME LIMITATIONS.** The overall time of completion for this PROJECT is forty (40) working days. Should this time schedule not be met, liquidated damages will be assessed. Contract time is divided as follows:

A. **Mobilization.** Notice to Proceed with Mobilization shall be given immediately after award of CONTRACT. All work included in Mobilization shall be completed within fifteen (15) working days.

B. **Construction.** Notice to Proceed with the construction work shall be issued at the COUNTY'S discretion after the start of Mobilization. All work included in the Construction phase shall be completed within twenty five (25) working days.

**1-1.6 LIQUIDATED DAMAGES**. If the approved time limitation for any phase of work not be met, liquidated damages of $ 1,000 per calendar day will be assessed. The COUNTY, at its own discretion, may allow additional time for delays caused by factors beyond the CONTRACTOR's control.

**1-1.7 BARRICADES and DELINEATORS.** The CONTRACTOR shall provide ten (10) barricades, 8-foot long, low profile, as manufactured by Multi-Barrier (Model AR-10 x 96), Sherwin Industries, Inc., or approved equal. They shall be equipped with reflective striping on each side and with two (2) flashing, solar-powered red lights. These barricades shall be turned over to the airport at the close of construction.

Additionally the CONTRACTOR shall provide plastic delineators as required to barricade hazardous areas. Unless otherwise approved by the ENGINEER, delineators shall be 42-inch-high molded plastic type. Delineators shall be four inches in diameter, florescent orange, supplied with a weighted base and reflective stripes. Lighting for delineators will be provided at night as approved by the ENGINEER. All costs associated with this item shall be included in "Airfield Safety and Traffic Control."

**1-1.8 STORM WATER DISCHARGE PERMIT (Construction NPDES)**. Construction activity under this PROJECT will be subject to requirements of the State Water Resources Control Board (SWRCB), Division of Water Quality Order No. 2010-0014-DWG, National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) No. CAS000002, Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities. Due to the amount of ground disturbance for this project, a Storm Water Pollution Prevention Plan (SWPPP) is not required.

**1-1.9 CONSTRUCTION WATER.** The source of construction water for the PROJECT shall be coordinated by the CONTRACTOR. The CONTRACTOR shall pay water and meter fees; and make all necessary arrangements with appropriate local utility to secure construction water for the duration of the CONTRACT. No direct payment will be made for this work. The CONTRACTOR shall include all costs associated with construction water in the price of the work.

**1-1.10 COOPERATION BETWEEN CONTRACTORS.** The CONTRACTOR shall cooperate with all other contractors or other forces to avoid any delay or hindrance to their work. The CONTRACTOR shall attend work coordination meetings, if any. The right is reserved to perform other or additional work at or near the site (including material sources) at any time, by the use of other forces.

Each CONTRACTOR shall be responsible to the other for any damage to work, to persons or property caused to the other by his operations, and for loss caused the other due to his unnecessary delays or failure to finish the work within the time specified for completion.

## METHOD OF MEASUREMENT

**1-2.1** Airfield Safety and Traffic Control will be measured as a lump sum item.

## BASIS OF PAYMENT

**1-3.1** Airfield Safety and Traffic Control will be paid for at the CONTRACT lump sum price. This price shall include full compensation for all labor, materials, tools, equipment, CSPP compliance, SPCD preparation and compliance, and incidentals necessary to complete the work as specified in Sections 1 of the Technical Specifications and requirements shown on the PLANS.

## END OF SECTION

# APPENDIX 1

# CONSTRUCTION SAFETY
# AND
# PHASING PLAN

*Appendix 1*

# WILLOWS-GLENN COUNTY AIRPORT

# CONSTRUCTION SAFETY AND PHASING PLAN

## WASH RACK AND CONTAINMENT/EVAPORATION POND PROJECT

**AIP-3-06-0279-04**

**Prepared by**

Mead & Hunt

**JULY 2012**

Appendix 1

# WILLOWS-GLENN COUNTY AIRPORT

# CONSTRUCTION SAFETY AND PHASING PLAN

WASH RACK AND CONTAMINENT/EVAPORATION POND PROJECT

AIP-3-06-0279-06

Prepared by

Mead & Hunt

JULY 2012

# I. OVERVIEW

This document presents the Construction Safety and Phasing Plan (CSPP) for the proposed construction of a Pollution Control Facility consisting of an Aircraft Wash Rack and a Containment/Evaporation Pond at the Willows-Glenn County Airport (Airport). This project is funded under the Federal Aviation Administration (FAA) Airport Improvement Program (AIP) Grant No. 3-06-0279-04. The anticipated construction duration is August 1, 2012, through September 1, 2012. Specifically, the Project scope includes the following elements:

- **Construct an Aircraft Wash Rack**
- **Construct a Containment and Evaporation Pond**

The objective of this CSPP is to provide a general outline of the construction safety and phasing provisions for working in or near the Air Operations Area (AOA) contained in the Contract Documents (Project Plans and Specifications), and to explain how those provisions will be implemented during construction.

# II. PURPOSE

The CSPP provides single source procedural information for all key Project personnel to use during construction, and defines the specific responsibilities of the Airport Operator, the Contractor, Airport users/tenants, and the Project Engineer. The FAA's Safety and Phasing Plan Checklist was utilized in the preparation of this CSPP, which includes (but is not limited to) provisions for Airport safety and security, operational limitations on construction activities, identifying potential hazards and the impacts those hazards may have on airfield and construction activities, and construction phasing requirements to minimize impact on airfield operations.

Requirements for maintaining operational safety during construction are in conformance with FAA Advisory Circular 150/5370-2F, "*Operational Safety on Airports During Construction.*" The Project specific safety and phasing provisions for the Project elements are shown on Plan Sheet G-081, as well as detailed in the Project Specifications. A copy of the Plan Sheet is attached to this report as *Appendix A*.

# III. CONSTRUCTION SAFETY AND PHASING RESPONSIBILITIES

## A. AIRPORT OPERATOR

The Airport Operator is responsible for operational safety on the Airport at all times. Glenn County (COUNTY) is the Airport Operator. The COUNTY will issue Notice to Airmen (NOTAMS) whenever construction activities occur in the AOA. COUNTY staff will provide oversight of all construction activities and coordinate those activities with Airport users (pilots), and Airport tenants. The COUNTY will hold weekly construction progress and safety meetings. During those meetings, operational safety will be reviewed and an action plan will be developed as needed to address any discrepancies in safety that need to be corrected. The COUNTY will require the Contractor to submit a Safety Plan Compliance Document (SPCD) which details the Contractor's compliance with the CSPP. COUNTY and FAA approval of the SPCD will be required prior to issuance of the Notice to Proceed with Construction.

### B. CONSTRUCTION CONTRACTOR

The Contractor will be determined by a competitive bidding process. The Contractor's responsibilities for safety and phasing are detailed and defined in the Contract Documents. The Contractor will be required to attend weekly progress and safety meetings and to correct any discrepancies found in safety. The Contractor is required to submit a completed SPCD to the COUNTY for approval by the COUNTY and FAA before the Notice to Proceed for Construction can be issued. A sample SPCD is included as *Appendix B*.

### C. AIRPORT USERS AND TENANTS

The COUNTY will notify Airport users and tenants of all pending construction activities that impact them and advise the users and tenants of planned pavement closures and other activities in the AOA that will affect aircraft/Airport operations. Users and tenants will be permitted to attend weekly construction progress and safety meetings when appropriate.

### D. PROJECT ENGINEER

As part of the Project construction management, observation, and quality assurance process, the Project Engineer will monitor construction safety on a daily basis, utilizing the "*Construction Project Daily Safety Inspection Checklist*" (see *Appendix C)* to ensure an appropriate level of priority is given to safety. Any discrepancies in safety will be immediately brought to the attention of the Contractor and COUNTY for corrective action implementation.

## IV. CONSTRUCTION SAFETY AND PHASING

### A. COORDINATION

1. **Contractor Progress Meetings.** Contractor progress meetings will be held weekly for the duration of construction. Operational safety will be a standing agenda item for discussion during progress meetings throughout the Project. Date, time, and location of the progress meetings will be determined after construction begins.

2. **Scope or Schedule Changes.** Scope or schedule changes for the Project may necessitate revisions to the CSPP and require review and approval by the COUNTY and the FAA.

### B. PHASING AND TIME LIMITATIONS

The Project has been divided into two Elements: 1) Mobilization and 2) Construction. A separate Notice to Proceed shall be issued for the Mobilization Element and the Construction Element. The Notice to Proceed for the Construction Element may be issued during Mobilization at the COUNTY'S discretion if the SPCD is approved by the FAA. The work efforts and affected airfield areas within the AOA are detailed below. The Mobilization Element shall be completed within 15 working days and the Construction Element shall be completed within 25 working days. If the Contractor fails to meet any of these time limitations, liquidated damages will be assessed as described in DIV. IV Section 1-1.6 of the Project Specifications.

1. **Element 1 – Mobilization.** (15 working days)

   During this Element of the Project, no work shall be conducted that in any way restricts Airport operations. Mobilization work shall include, but not be limited to, the following:

   - Processing of required submittals, including the Contractor's work schedule.
   - Preparation and submission of the SPCD.

- All prequalification testing, review, and approval.
- Mix design preparation, review, and approval.
- Airfield Safety Devices delivered to site (low profile barricades, if required).
- All miscellaneous Mobilization efforts required to commence construction.
- Materials and equipment delivered to site, as applicable.
- Underground electrical investigation.

All preliminary work required to pursue construction to completion shall be finalized during the Mobilization Element to minimize delays during construction.

2. **Element 2 – Construction.** (25 working days)

   The following restrictions apply:

   - Low profile barricades will be installed on the apron as shown in the Plans before construction begins.
   - Truck and equipment traffic will not be allowed on the apron except for the AC paving equipment necessary to pave the AC transition area.
   - Prior to reopening the apron, the pavement areas must be swept clean of all loose material.

3. **Construction Safety and Phasing Plan Sheets.** A Drawing specifically indicating operational safety procedure in affected areas has been developed for the Project. This Drawing is included in the Contract Drawing Bid Package (Plan Sheet G-081).

## C. AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION

| Scope of Work | Runway area affected | Taxiway area affected | Apron area affected |
|---|---|---|---|
| No work allowed within RSA | -- | -- | -- |
| Work within Apron | None | Taxiway B to remain open | Part of apron closed to aircraft as shown in plans |
| Work outside of Airport fence | None | Taxiway B to remain open | None |

## D. NAVAID PROTECTION

No impact on NAVAID expected for this Project.

## E. CONTRACTOR ACCESS

1. **Location of Stockpiled Construction Materials and Equipment**. Location of stockpiled materials and equipment storage shall be in the staging areas as shown on the Plans or as approved by the COUNTY. Stockpiling materials and equipment outside the staging areas and within the AOA will require prior approval from the COUNTY and will be subjected to additional limitations depending on the height(s). Stockpiled material shall meet the requirements of

Section IV.F "*Wildlife Management*" to prevent the stockpile location(s) from becoming wildlife attractants.

2. **Vehicle and Pedestrian Operations.**

   a) ***Construction Site Parking.*** Employees' vehicles shall be parked in the staging areas designated on the Plans or outside the AOA. No employee vehicles will be allowed beyond the staging area limits. In areas where the staging area is adjacent to the perimeter security fence, all vehicles shall be positioned a minimum of 10 feet away from either side of the fence.

   b) ***Construction Equipment Parking.*** All service and construction vehicles and/or equipment shall be parked in the staging area when not in use, and shall be positioned a minimum of 10 feet away from either side of a perimeter security fence. See Section IV.Q, *"Protection of Runway and Taxiway Critical Areas"* for further parking restrictions within safety areas and object free areas. Unless a complex setup procedure makes movement of specialized equipment infeasible, inactive equipment will not be allowed to park on a closed taxiway or runway. If it is necessary to leave specialized equipment on a closed taxiway at night, the COUNTY must approve the request and the equipment shall be lighted in accordance with Section IV.R, "*Other Limitations on Construction.*"

   c) ***Access and Haul Roads.*** The Contractor will be restricted to using only haul routes shown on the Drawings. Specific haul routes are shown on the Project Layout Plan and the Construction Safety and Phasing Plan in the Plan set. Right-of-way shall be given to all ARFF vehicles and aircraft sharing the haul routes with the Contractor. See paragraphs d) through h) for operating within the airfield environment requirements.

   d) ***Marking and Lighting of Vehicles.*** All contractor personnel operating with an Airport escort within the airfield environment but outside the work area, shall have a company vehicle with an amber flashing light mounted on the roof of the cab and identifying markings visible from 300 feet mounted on both sides of the vehicle.

   e) ***Situational Awareness.*** Yield the right-of-way to moving aircraft (whether under tow or their own power) and pedestrians. While driving or working within the airfield environment, personnel shall not wear any devices in or on their ears, other than those used to protect hearing or communicate company business. Yield right-of-way to emergency vehicles displaying rotating beacons (other than amber) and/or using sirens, and other audible emergency signals. In the event of an emergency, be prepared to move workers, vehicles, and equipment immediately at the direction of the Airport staff.

## F. WILDLIFE MANAGEMENT

Procedures to maintain existing wildlife mitigation devices, limit wildlife attractants, and notification of wildlife encounters.

1. **Trash.** Receptacles shall be provided by the Contractor and equipped with metal, canvas, or plastic covers. Food scraps or other trash may not be disposed on the ground and must be collected and placed in the covered receptacles so not to attract wildlife.

2. **Standing Water.** Staging areas, stockpile areas, and the work area shall be graded to drain to avoid attracting wildlife.

3. **Tall Grass and Seeds.** The use of low quality seed mixtures that contain seeds of plants (such as clover) that attract wildlife shall not be used. Grass and weeds shall be managed, or cut if necessary, within work areas to avoid attracting wildlife habitation.

4. **Fencing and Gates.** Fences and/or gates that are unmaintained and/or left open and unattended permit unwanted wildlife to enter inside the Airport perimeter fence. Contractor personnel shall immediately notify the Airport if any unwanted wildlife is observed inside the Airport perimeter fence.

5. **Disruption of Existing Wildlife Habitat.** Not applicable for this Project.

## G. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT AND DUST CONTROL

The Contractor shall be required to ensure the airfield environment is kept continuously free of construction debris, equipment and/or materials that might endanger or be ingested by an aircraft. Contractor shall take extreme care to ensure that no work-related debris or other loose items are allowed to be blown by wind or aircraft engine blast. The Contractor shall be responsible for any resulting damage to aircraft engines and/or other property arising from failure to secure and/or protect debris, tools, supplies, or other loose items. Following the requirements described herein will help eliminate the potential for FOD. In areas that may result in the tracking of soil, sediments, or hazardous materials on the wheels of hauling equipment outside the area that are enclosed by erosion and silt/sediment control devices, the Contractor shall provide the means and methods to remove these materials prior to the vehicle exiting the controlled area. If water wash stations are used, the Contractor shall provide systems for the collection, treatment, and disposal of wheel wash water and accumulated sediment. Equipment operated on haul routes over existing pavements shall be kept free of material spillage and foreign matter at all times. Haul routes that are shared with aircraft operations shall be cleaned continuously with regenerative air vacuum sweepers, or other Airport approved methods.

Dust control shall be in conformance with Section 10, "Dust Control" of the State Standard Specifications and these Special Provisions. The Contractor shall provide the ways and means to prevent dust, grit and other waste products from becoming a nuisance in and around the working areas. The Contractor shall take action as necessary, with the approval of the Airport, to reduce or eliminate such nuisance. The Contractor shall control dust during the entire Contract period, including holidays and weekends.

Application of water for controlling dust caused by construction operations or the passage of traffic through the work area(s) shall be applied as directed by the Airport or Engineer at the Contractor's expense.

## H. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

1. If shipments of hazardous material (including hazardous debris, contaminated soil or water, and hazardous waste) will be unloaded onto or loaded from Airport property, the Contractor shall have a qualified person available onsite when shipments are received or prepared to ship, who is current with U.S. Department of Transportation (DOT) approved training for the transportation of hazardous materials. Contractor shall properly characterize and manifest waste material leaving the Airport property for disposal. When the waste reaches its final destination, the owner or operator of the designated and permitted treatment, storage, and

disposal (TSD) facility shall sign the manifest and return a copy to the Airport within 35 days to confirm receipt.

2. Minor spills can be controlled by the first responder at the discovery of the spill. Use absorbent materials on small spills rather than hosing down or burying the spill. First responder should contain the spread of the spill, recover spilled materials, clean the contaminated area, and properly dispose of contaminated materials. For minor spills, consult the products Material Safety Data Sheets (MSDS) for recommended actions for spills or container leaks. Additionally, MSDSs shall provide emergency phone numbers and occupational health hazard information.

3. Semi-significant spills can be controlled by the first responder along with the aid of other personnel such as laborers, the foreman, etc. Notify the Airport of semi-significant spills. Spills should be cleaned up immediately. Contain the spread of the spill and notify the Project foreman immediately. If the spill occurs on paved or impermeable surfaces, clean up by using dry methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely. If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil. If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

4. Significant/Hazardous spills that cannot be controlled by personnel in the immediate vicinity must be reported to the local emergency response by dialing 911. In addition to 911, the Contractor shall notify the Airport, proper County officials, and the state Emergency Services Warning Center. The services of a Spills Contractor or a HAZMAT team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staff arrives at the jobsite. Other agencies that may need to be consulted include, but are not limited to, the Fire Department, the Public Works Department, the Highway Patrol, the City/County Police Department, and the Department of Toxic Substance.

5. Ensure that hazardous goods and material delivered to or from the construction site meet applicable DOT labeling and placarding requirements. The material supplier is to supply MSDS for all hazardous material being delivered to the site.

6. The storage and shipment of hazardous waste shall also comply with the requirements of this section.

7. It is emphasized, however, that although spills resulting from incidents or accidents should be responded to, securing the well-being of people shall be the first priority.

8. Good housekeeping practices should be utilized during equipment fueling and maintenance operations. Inspect fueling equipment for leaks prior to dispensing. Fueling operations shall be continuously attended to while dispensing fuel. Fueling and maintenance operations shall not be performed within 50 feet of a storm drain, inlet, ditch, surface water, wetland, etc. to allow adequate time for containment in the event of a spill.

## I. NOTIFICATION OF CONSTRUCTION ACTIVITIES

1. **Responsible Representatives / Points of Contact:**

| Airports Staff Member | Title | Phone/Office | Cell |
|---|---|---|---|
| Annette Chavez | Airport Manager | (530) 934-6530 | |

2. **Notices to Airmen (NOTAM).** Only the Airport Manager may initiate or cancel a NOTAM on Airport conditions and is the only entity that can close or open a runway.

3. **Emergency Contact Information**

   a) Emergency – Dial 911

   b) Airport Manager – (530) 934-6530

   c) California Poison Center – 1-800-222-1222

4. **Coordination with Aircraft Rescue and Firefighting (ARFF) Personnel.** The proposed Project does not deactivate waterlines or hydrants, does not block airfield emergency routes and is not anticipated to include the use of hazardous materials. ARFF personnel will be briefed by the Airport as to the construction schedule. If additional notification of ARFF personnel is required, the Contractor shall contact the Airport.

5. **Notification of the FAA**

   **a)** ***Part 77.*** The Project will not affect navigable airspace. An FAA Form 7460-1, "*Notice of Proposed Construction or Alteration*" has been submitted for this project. Any equipment (cranes, graders, other equipment) used by the Contractor that exceed the height limitation in Section IV.R, *"Other Limitations on Construction"* must also have a Form 7460-1 airspace evaluation and determination prior to use.

   **b)** ***Airport owned/FAA maintained NAVAIDS.*** If construction operations require a shutdown of more than 24 hours or more than 4 hours on consecutive days of a NAVAID owned by the airport but maintained by the FAA, provide a 45-day minimum notice to FAA ATO/Technical Operations prior to facility shutdown.

   **c)** ***FAA owned NAVAIDS.*** The Airport Operator must notify the appropriate FAA ATO Service Area Planning and Requirements (P&R) Group a minimum of 45 days prior to implementing an event that causes impacts to NAVAIDs. Impacts to FAA equipment covered by a Reimbursable Agreement (RA) do not have to be reported by the Airport Operator. The Airport must coordinate work for an FAA owned NAVAID shutdown with the local FAA ATO/Technical Operations office including any necessary reimbursable agreements and flight checks. The Airport must provide seven days' notice to schedule the actual shutdown. In the event of an unanticipated utility outage or cable cut that impacts FAA NAVAIDs, the Airport manager should be notified immediately.

## J. INSPECTION REQUIREMENTS

1. **Daily Inspections.** Inspections should be conducted by the Contractor at least daily, but more frequently if necessary, to ensure conformance with the CSPP. Special attention shall be given to areas shared by construction traffic and air traffic. These areas shall be maintained in accordance with Section IV.G, "*Foreign Object Debris Management.*" The Airport will have the

final authority in determining if the area is suitable for aircraft use.

2. **Final Inspections**. A final inspection shall be conducted by the Airport prior to the commissioning of any construction-impacted areas open to air traffic. The Airport will have the final authority in determining if the area is suitable for aircraft use.

*Appendix C* contains a Daily Safety Inspection Checklist that may be used by the Contractor.

## K. UNDERGROUND UTILITIES AND NOTIFICATION RESPONSIBILITIES.

Contractor must notify the Underground Service Alert (800) 642-2444, "One Call" (800) 332-2344, and owners of underground utilities within the construction area or within affected public rights-of-way or easements in advance of the commencement of excavation activities. Also, notify the Airport when the call is being initiated so the Airport can provide information to Airport utilities as well.

Contractor shall not cross electrical or communication cables unless protected by approved means. In the event of interruption to field-located utility services as a result of the work, promptly notify the Airport first, and then the proper authority. Cooperate with said authority in restoring service as promptly as possible. If required, the Contractor shall install suitable temporary service until permanent repair is completed.

## L. PENALTIES

The Contractor is responsible for maintaining security during construction as detailed herein.
The Contractor shall be responsible for any fines caused by his failure to observe the security requirements contained herein or required by the SPCD. Violations will be cause for the Project to be stopped and Project safety procedures evaluated. Contractor working days will continue to be charged, even if the Contractor ceases construction operations. The Airport will decide if and when work will continue. Enforcement of these regulations will be by the Airport Operations Staff.

## M. SPECIAL CONDITIONS

1. An aircraft in distress may require the Contractor to immediately move equipment away from an aircraft movement area. The Airport will notify the Contractor in the unlikely event of an aircraft in distress. The Contractor will be required to comply with all Airport instructions.

2. Various circumstances, such as an aircraft accident, security breach, or other unforeseen events may require suspension of the construction. The Airport will notify the Contractor when suspension of the work will be required. See Section IV.I, "*Notification of Construction Activities*" for emergency contact information.

3. A VPD (vehicle / pedestrian deviation) is any entry or movement on the movement area by a vehicle or pedestrian that has not been authorized by ATC. In the event of a VPD, the Airport reserves the right to suspend the work or any portion thereof and continue suspension until the completion of any investigation or evaluation by the Airport and full compliance with any corrective measures which the Airport may reasonably require. In addition, the Airport may require the Contractor to provide to the Airport a written plan, satisfactory to the Airport, to demonstrate the Contractor's ability to prevent future violations. See Section IV.E, "*Contractor Access*" for vehicle and pedestrian operations and two-way radio communication requirements.

4. During CAL FIRE, U.S. Forest Service or any other emergency air operations, the Contractor may be instructed to cease work or vacate specific areas of the Airport. Any delays caused by

ordered cessation of work shall be grounds for time extensions as approved by the Engineer. No additional payment shall be allowed for emergency cessation of work.

## N. RUNWAY AND TAXIWAY VISUAL AIDS

1. **Temporary Signs or Visual NAVAIDS.** The nature of this construction Project and duration of closures will not require the addition of temporary signs or visual NAVAIDs to be incorporated into this Project.
2. **Lighting.**
   a) **Closed Taxiways.** No taxiways expected to be closed for this Project.
   b) **Closed Runways.** No runways expected to be closed for this Project.

## O. MARKING AND SIGNS FOR ACCESS ROUTES

1. The Contractor shall place traffic control signs and/or devices as appropriate, to advise the Airport users of construction operations and hauling. Signs and/or devices shall conform to the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD), 2009 edition.

## P. HAZARD MARKING AND LIGHTING

1. Before starting work, provide and have available all signs, barricades, and lights necessary for protection of the work. Install and maintain adequate warning signs and lighted barricades to protect property and personnel in the work area. Barricades shall be weighted or anchored to prevent overturning from wind or aircraft engine blast.
2. Barricades are not permitted in any active safety area. Barricades located within a runway or taxiway object free area and/or on aprons must be as low as possible to the ground, and no more than 18 inches high, exclusive of supplementary lights. The Contractor shall provide low-level barricades, marked with diagonal, alternating orange and white stripes, to separate all construction/maintenance areas from the movement areas listed above. The low-level barricades shall be provided with red omni-directional flashers. Low-level barricades shall be spaced a maximum of 8 feet apart unless directed otherwise by the Engineer. The barricades shall be 8-foot long, low profile, as manufactured by Multi-Barrier (Model AR-10 x 96), Sherwin Industries, Inc., or approved equal.
3. The Contractor shall have a person on call 24 hours a day for emergency maintenance of Airport hazard lighting and barricades. The Contractor must file the contact person's information with the Airport. Lighting shall be checked for proper operation at least once per day, preferably at dusk.
4. Open trenches, excavations, or obstructions not being actively worked shall be marked with lighted and weighted barricades that can be seen from a reasonable distance.

## Q. PROTECTION OF RUNWAY AND TAXIWAY CRITICAL AREAS

1. **Runway Safety Area (RSA).** No work is allowed or expected within the RSA for this Project.
2. **Runway Object Free Area (ROFA).** No work within the ROFA is expected for this Project.
3. **Taxiway Safety Area (TSA).** No work within the TSA is expected for this Project.

4. **Taxiway/Taxilane Object Free Area (TOFA).** No materials or equipment are to be parked or stored outside of the barricades placed on the apron.

5. **Runway Approach/Departure Surfaces.** All personnel, material, and/or equipment must remain clear of the threshold siting surfaces (approach and departure surfaces).

## R. OTHER LIMITATIONS ON CONSTRUCTION

1. **Prohibitions.**

   a) Open flame welding or torches are prohibited unless fire safety precautions are provided and the Airport has approved their use.

   b) Electrical blasting caps are prohibited on or within 1,000 feet of the Airport property.

   c) The use of flare pots are prohibited within the AOA.

   d) No smoking will be allowed within the airfield environment except as designated by the Airport.

2. **Restrictions**

   a) ***Equipment***

      1) Construction equipment that extends 15 feet or more above ground level shall be cleared through the Airport prior to moving onto site. Equipment that may be lowered readily shall be lowered at night, during reduced daytime visibility, and during other periods of storage to comply with the 15-foot height limitation.

      2) If directed by the Airport, construction equipment that cannot be lowered below the 15-foot height limitation shall be lighted at night and during periods of reduced daytime visibility. The light shall be mounted on the highest point of equipment; shall be omni-directional; and shall consist of, at a minimum, one 100-watt bulb enclosed within an aviation red lens. Also, for daytime operations, mount an FAA-approved 3-foot square orange and white checkered flag at the highest point.

      3) During daylight hours with severe visibility problems or heavy fog, cranes shall not operate. The Airport will determine when visibility problems exist and will coordinate and designate requirements for position and location of flag and light.

## S. SAFETY PLAN COMPLIANCE DOCUMENT (SPCD).

The SPCD shall detail how the Contractor will comply with the CSPP. This shall include all Project-specific construction safety plan details not included in the CSPP, including construction equipment heights, any applicable hazard management requirements, and contact information for the Contractor's safety management staff responsible for monitoring the CSPP and SPCD during construction. The SPCD shall be a supplement to and enhancement of the Project CSPP. See *Appendix B* for example of SPCD.

The SPCD must include a statement that the Contractor understands the operational safety requirements of the CSPP and an assertion that the Contractor will not deviate from the approved CSPP and SPCD without written approval from the Airport. Any construction operation, activity, or practice proposed by the Contractor that does not conform to the CSPP and SPCD will require a revision to those documents. The revised CSPP and SPCD must be submitted to FAA for review and approval prior to performing any activities that are not in compliance with a previously

approved CSPP.

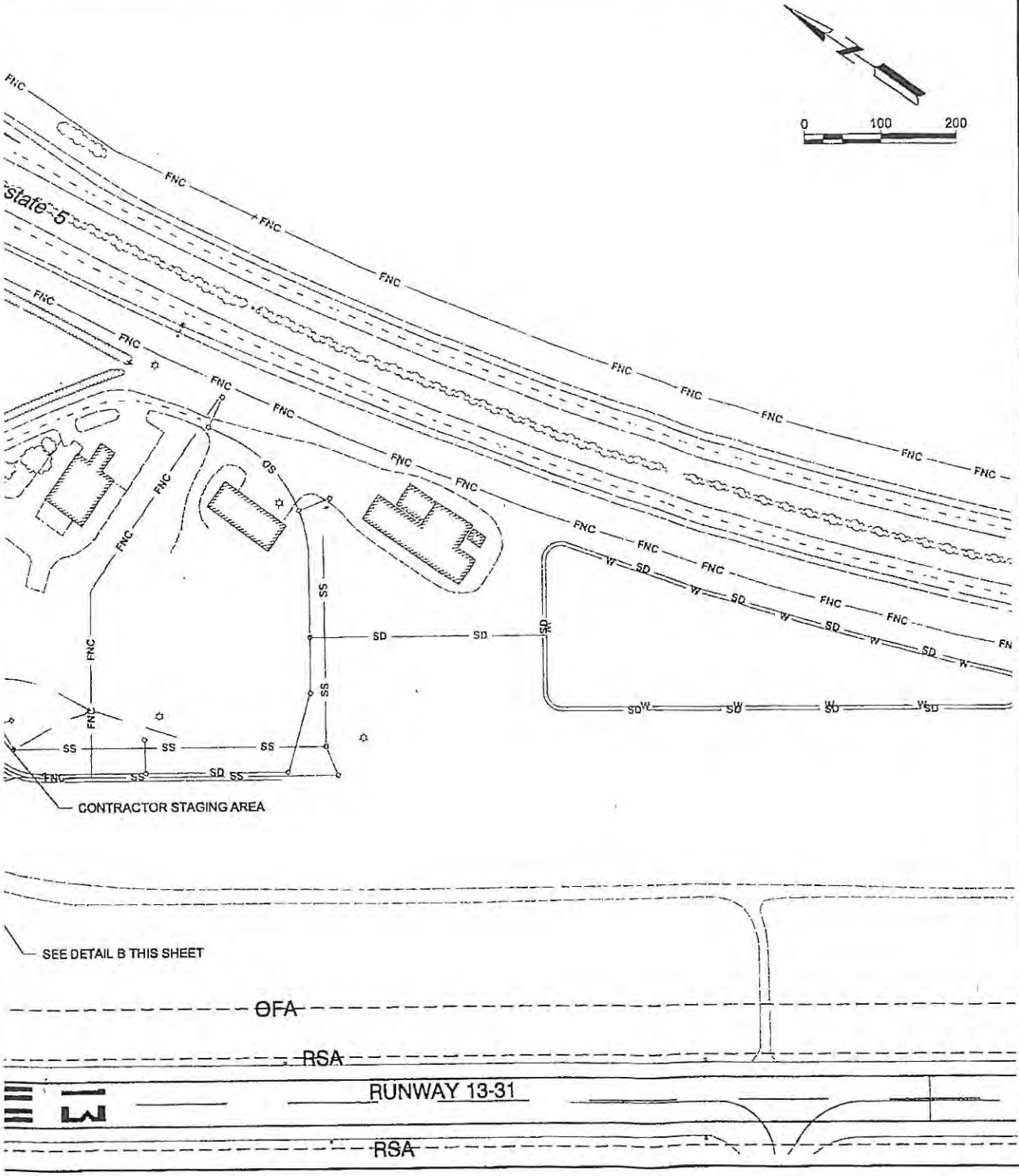
Copies of the approved CSPP and SPCD must be available on-site at all times. The Contractor shall ensure all construction personnel are familiar with safety procedures and regulations applicable to construction on the Airport. At least one of the Contractor's safety management staff must be on-site whenever active construction is ongoing to act as point of contact and immediate response coordinator to correct any construction-related activity that may adversely affect operational safety of the Airport.

***APPENDICES:***

*Appendix A – Plan Sheet*
*Appendix B – SPCD Example*
*Appendix C – Inspection Checklist*
*Appendix D – Definition of Terms*

# Appendix A

## PLAN SHEET




LEGEND

CONTRACTOR ACCESS ROUTE

LIGHTED BARRICADE

Mead & Hunt

Mead & Hunt, Inc.
133 Aviation Boulevard,
Suite 100
Santa Rosa, CA 95403
phone: 707-526-5010
meadhunt.com

REGISTERED PROFESSIONAL ENGINEER
LEE B. MOEN
No. 20056
Exp. 3-31-14
CIVIL
STATE OF CALIFORNIA



# WILLOWS-GLENN COUNTY AIRPORT WASH RACK & CONTAINMENT/EVAPORATION POND

WILLOWS, CALIFORNIA

REVISION

| | |
|---|---|
| AIP NO. | 3-06-0279-04 |
| M&H NO. | 07187-00-115019.01 |
| DATE | 6-26-2012 |
| DESIGNED BY | TET |
| DRAWN BY | TET |
| CHECKED BY | LBM |

SHEET CONTENTS
CONSTRUCTION SAFETY & PHASING PLAN

# Appendix B

## SAFETY PLAN COMPLIANCE DOCUMENT (SPCD)

**CONTRACTOR'S**
**SAFETY PLAN COMPLIANCE DOCUMENT (SPCD)**
**(AC 150/5370-2F)**

## Project Information

Airport and Sponsor: WILLOWS-GLENN COUNTY AIRPORT, GLENN COUNTY

Project ID: FAA AIP NO. 3-06-0279-04

Description of Project: WASH RACK AND CONTAINMENT/EVAPORATION POND CONSTRUCTION

Type of Work: AIRPORT IMPROVEMENT CONSTRUCTION

FAA Project Manager: RON BIAOCO Phone: (650) 827-7626

Airport Operator Contact: ANNETTE CHAVEZ Phone: (530) 934-6530

## Contractor's Information

Prime Contractor: _____

Address: _____

Contractor Contact: _____ Phone: _____

## Contractor's Responsibility

In accordance with Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5370-2F, *Operational Safety During Airport Construction,* a SPCD for a project must be submitted to the FAA and to the Airport Operator for review and approval prior to the issuance of a Notice-to-Proceed for Construction. The SPCD shall be prepared in a detailed written and graphical format that identifies the timing and methodology for the Contractor's compliance with the project's Construction Safety and Phasing Plan (CSPP).

**The Contractor shall comply with all provisions contained herein and provide the following project-specific complementary and supplemental information to the FAA-approved Construction Safety and Phasing Plan:**

1. Contractor shall have copies of the CSPP and SPCD available at all times for reference by the Airport Operator and its representatives, and by Contractor's and subcontractor's employees.

   Location(s) of CSPP and SPCD: _____

   _____

2. Provide contact information for the person responsible for initiating and coordinating an immediate response to correct any construction-related activity that may adversely affect the operational safety of the Airport. Project will require 24-hour coverage.

   Point of Contact: _____ Phone: _____

3. Provide list of Contractor's on-site employees responsible for monitoring compliance with the CSPP and SPCD whenever active construction is ongoing.

   Contact Person: _____ Phone: _____
   Contact Person: _____ Phone: _____
   Contact Person: _____ Phone: _____
   Contact Person: _____ Phone: _____

4. Contractor shall conduct inspections at least once daily, and more frequently if necessary to ensure construction personnel comply with the CSPP and SPCD and that there are no altered construction activities that could create potential safety hazards. A Construction Project Daily Safety Inspection Checklist is attached.

5. Describe details of Contractor's plan to restrict movement of construction vehicles and personnel to permitted construction areas by flagging, barricading, erecting temporary fencing, or providing escorts, as appropriate and as specified in the CSPP. Include the appropriate plan sheets to identify timing and/or location of control measures: [***Contractor to insert detailed description.***]

6. Describe details of Contractor's plan to ensure that no employees of Contractor, subcontractors, suppliers, or other persons enter any part of the Air Operations Area (AOA) unless authorized. [***Contractor to insert detailed description***.]

7. Provide a description and schedule of anticipated operation for all Contractor equipment over 15 feet in height (e.g. cranes, concrete pumps, other similarly tall equipment) and heights of stockpiles and haul routes when different from what is shown on previously filed CSPP. [***Contractor to insert detailed equipment list/stockpile heights as applicable.***]

   (As necessary, the Contractor must coordinate with the Airport Operator for the purpose of filing a supplemental submittal of FAA Form 7460-1 to the FAA for determination of whether or not an aeronautical study must be conducted prior to allowing tall equipment operations to begin.)

8. Provide a description of Contractor's plan to ensure that construction personnel are familiar with the safety procedures and regulations on the Airport, the CSPP, and the SPCD. **[*Contractor to insert detailed description.*]**

**SPCD Amendment**

The SPCD shall be amended when there is a construction practice proposed by the Contractor that does not conform to the CSPP and SPCD and may impact the Airport's operational safety. This will require a revision to the CSPP and SPCD and re-coordination with the Airport Operator and the FAA in advance.

**Statement of Certification**

I certify that we understand the operational safety requirements of the CSPP and assert that we will not deviate from the approved CSPP and SPCD unless written approval is granted by the Airport Operator and FAA.

Print Name: _____ Title: _____

Signature: _____ Date: _____

# Appendix C

## DAILY SAFETY INSPECTION CHECKLIST

**Construction Project Daily Safety Inspection Checklist**

The situations identified below are potentially hazardous conditions that may occur during airport construction projects. Safety area encroachments, unauthorized and improper ground vehicle operations, and unmarked or uncovered holes and trenches near aircraft operating surfaces pose the most prevalent threats to airport operational safety during airport construction projects. The list below is one tool that the airport operator or contractor may use to aid in identifying and correcting potentially hazardous conditions. It should be customized as appropriate for each project.

| **Potentially Hazardous Conditions Item** | **Action Required or** | **None** |
|---|---|---|
| Excavation adjacent to runways, taxiways, and aprons improperly backfilled. | | ☐ |
| Mounds of earth, construction materials, temporary structures, and other obstacles near any open runway, taxiway, or taxi lane; in the related Object Free area and aircraft approach or departure areas/zones; or obstructing any sign or marking. | | ☐ |
| Runway resurfacing projects resulting in lips exceeding 3 in (7.6 cm) from pavement edges and ends. | | ☐ |
| Heavy equipment (stationary or mobile) operating or idle near AOA, in runway approaches and departures areas, or in OFZ. | | ☐ |
| Equipment or material near NAVAIDs that may degrade or impair radiated signals and/or the monitoring of navigation and visual aids. Unauthorized or improper vehicle operations in localizer or glide slope critical areas, resulting in electronic interference and/or facility shutdown. | | ☐ |
| Tall and especially relatively low visibility units (that is, equipment with slim profiles) — cranes, drills, and similar objects — located in critical areas, such as OFZ and approach zones. | | ☐ |
| Improperly positioned or malfunctioning lights or unlighted airport hazards, such as holes or excavations, on any apron, open taxiway, or open taxi lane or in a related safety, approach, or departure area. | | ☐ |
| Obstacles, loose pavement, trash, and other debris on or near AOA. Construction debris (gravel, sand, mud, and paving materials) on airport pavements may result in aircraft propeller, turbine engine, or tire damage. Also, loose materials may blow about, potentially causing personal injury or equipment damage. | | ☐ |

| Item | Action Required or | None |
|---|---|---|
| Inappropriate or poorly maintained fencing during construction intended to deter human and animal intrusions into the AOA. Fencing and other markings that are inadequate to separate construction areas from open AOA create aviation hazards. | | ☐ |
| Improper or inadequate marking or lighting of runways (especially thresholds that have been displaced or runways that have been closed) and taxiways that could cause pilot confusion and provide a potential for a runway incursion. Inadequate or improper methods of marking, barricading, and lighting of temporarily closed portions of AOA create aviation hazards. | | ☐ |
| Wildlife attractants — such as trash (food scraps not collected from construction personnel activity), grass seeds, tall grass, or standing water — on or near airports. | | ☐ |
| Obliterated or faded temporary markings on active operational areas. | | ☐ |
| Misleading or malfunctioning obstruction lights. Unlighted or unmarked obstructions in the approach to any open runway pose aviation hazards. | | ☐ |
| Failure to issue, update, or cancel NOTAMs about airport or runway closures or other construction related airport conditions. | | ☐ |
| Failure to mark and identify utilities or power cables. Damage to utilities and power cables during construction activity can result in the loss of runway / taxiway lighting; loss of navigation, visual, or approach aids; disruption of weather reporting services; and/or loss of communications. | | ☐ |
| Restrictions on ARFF access from fire stations to the runway / taxiway system or airport buildings. | | ☐ |
| Lack of radio communications with construction vehicles in airport movement areas. | | ☐ |
| Objects, regardless of whether they are marked or flagged, or activities anywhere on or near an airport that could be distracting, confusing, or alarming to pilots during aircraft operations. | | ☐ |
| Water, snow, dirt, debris, or other contaminants that temporarily obscure or derogate the visibility of runway/taxiway marking, lighting, and pavement edges. Any condition or factor that obscures or diminishes the visibility of areas under construction. | | ☐ |
| Spillage from vehicles (gasoline, diesel fuel, oil) on active pavement areas, such as runways, taxiways, aprons, and airport roadways. | | ☐ |

| Item | Action Required or | None |
|---|---|---|
| Failure to maintain drainage system integrity during construction (for example, no temporary drainage provided when working on a drainage system). | | ☐ |
| Failure to provide for proper electrical lockout and tagging procedures. At larger airports with multiple maintenance shifts/workers, construction contractors should make provisions for coordinating work on circuits. | | ☐ |
| Failure to control dust. Consider limiting the amount of area from which the contractor is allowed to strip turf. | | ☐ |
| Exposed wiring that creates an electrocution or fire ignition hazard. Identify and secure wiring, and place it in conduit or bury it. | | ☐ |
| Site burning, which can cause possible obscuration. | | ☐ |
| Construction work taking place outside of designated work areas and out of phase. | | ☐ |

# Appendix D

## DEFINITIONS OF TERMS

## Definition of Terms

| Term | Definition |
|---|---|
| 7460-1 | Notice Of Proposed Construction Or Alteration. For on-airport projects, the form submitted to the FAA regional or airports division office as formal written notification of any kind of construction or alteration of objects that affect navigable airspace, as defined in 14 CFR Part 77, safe, efficient use, and preservation of the navigable airspace. (See guidance available on the FAA web site at oeaaa.faa.gov.) The form may be downloaded at http://www.faa.gov/airports/resources/forms/, or filed electronically at: https://oeaaa.faa.gov. |
| 7480-1 | Notice Of Landing Area Proposal. Form submitted to the FAA Airports Regional Division Office or Airports District Office as formal written notification whenever a project without an airport layout plan on file with the FAA involves the construction of a new airport; the construction, realigning, altering, activating, or abandoning of a runway, landing strip, or associated taxiway; or the deactivation or abandoning of an entire airport The form may be downloaded at http://www.faa.gov/airports/resources/forms/. |
| AC | Advisory Circular |
| ACRC | Aircraft Reference Code |
| ACSI | Airport Certification Safety Inspector |
| ADG | Airplane Design Group |
| AIP | Airport Improvement Program |
| ALECP | Airport Lighting Equipment Certification Program |
| ANG | Air National Guard |
| AOA | Air Operations Area. Any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operations area includes such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runways, taxiways, or aprons. |
| ARFF | Aircraft Rescue and Fire Fighting |
| ARP | FAA Office of Airports |
| ASDA | Accelerate-Stop Distance Available |
| ATCT | Airport Traffic Control Tower |
| ATIS | Automatic Terminal Information Service |
| ATO | Air Traffic Organization |
| Certificated Airport | An airport that has been issued an Airport Operating Certificate by the FAA under the authority of 14 CFR Part 139, Certification of Airports. |
| CFR | Code of Federal Regulations |
| Construction | The presence and movement of construction-related personnel, equipment, and materials in any location that could infringe upon the movement of aircraft. |
| CSPP | Construction Safety And Phasing Plan. The overall plan for safety and phasing of a construction project developed by the airport operator, or developed by the airport operator's consultant and approved by the airport operator. It is included in the invitation for bids and becomes part of the project specifications. |

| Term | Definition |
|---|---|
| CTAF | Common Traffic Advisory Frequency |
| Displaced Threshold | A threshold that is located at a point on the runway other than the designated beginning of the runway. The portion of pavement behind a displaced threshold is available for takeoffs in either direction or landing from the opposite direction. |
| DOT | Department of Transportation |
| EPA | Environmental Protection Agency |
| FOD | Foreign Object Debris |
| HAZMAT | Hazardous Materials |
| IFR | Instrument Flight Rules |
| ILS | Instrument Landing System |
| LDA | Landing Distance Available |
| LOC | Localizer antenna array |
| Movement Area | The runways, taxiways, and other areas of an airport that are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading aprons and aircraft parking areas (reference 14 CFR Part 139). |
| MSDS | Material Safety Data Sheet |
| MUTCD | Manual on Uniform Traffic Control Devices |
| NAVAID | Navigation Aid |
| NAVAID Critical Area | An area of defined shape and size associated with a NAVAID that must remain clear and graded to avoid interference with the electronic signal. |
| Non-Movement Area | The area inside the airport security fence exclusive of the Movement Area. It is important to note that the non-movement area includes pavement traversed by aircraft. |
| NOTAM | Notices to Airmen |
| Obstruction | Any object/obstacle exceeding the obstruction standards specified by 14 CFR Part 77, subpart C. |
| OE / AAA | Obstruction Evaluation / Airport Airspace Analysis |
| OFA | Object Free Area. An area on the ground centered on the runway, taxiway, or taxi lane centerline provided to enhance safety of aircraft operations by having the area free of objects except for those objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes. (See AC 150/5300-13, for additional guidance on OFA standards and wingtip clearance criteria.) |
| OFZ | Obstacle Free Zone. The airspace below 150 ft (45 m) above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway and for missed approaches. The OFZ is subdivided as follows: Runway OFZ, Inner Approach OFZ, Inner Transitional OFZ, and Precision OFZ. Refer to AC 150/5300-13 for guidance on OFZ. |
| OSHA | Occupational Safety and Health Administration |
| P&R | Planning and Requirements Group |

| Term | Definition |
|---|---|
| PAPI | Precision Approach Path Indicators |
| PFC | Passenger Facility Charge |
| PLASI | Pulse Light Approach Slope Indicators |
| Project Proposal Summary | A clear and concise description of the proposed project or change that is the object of Safety Risk Management. |
| RE | Resident Engineer |
| REIL | Runway End Identifier Lights |
| RNAV | Area Navigation |
| ROFA | Runway Object Free Area |
| RSA | Runway Safety Area. A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway, in accordance with AC 150/5300-13. |
| SIDA | Security Identification Display Area |
| SMS | Safety Management System |
| SPCD | Safety Plan Compliance Document. Details developed and submitted by a contractor to the airport operator for approval providing details on how the performance of a construction project will comply with the CSPP. |
| SRM | Safety Risk Management |
| Taxiway Safety Area | A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway, in accordance with AC 150/5300-13. |
| TDG | Taxiway Design Group |
| Temporary | Any condition that is not intended to be permanent. |
| Temporary Runway End | The beginning of that portion of the runway available for landing and taking off in one direction, and for landing in the other direction. Note the difference from a displaced threshold. |
| Threshold | The beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced. |
| TODA | Takeoff Distance Available |
| TOFA | Taxiway Object Free Area |
| TORA | Takeoff Run Available. The length of the runway less any length of runway unavailable and/or unsuitable for takeoff run computations. See AC 150/5300-13 for guidance on declared distances. |
| TSA | Taxiway Safety Area<br>Transportation Security Administration |
| UNICOM | A radio communications system of a type used at small airports. |
| VASI | Visual Approach Slope Indicators |

| Term | Definition |
|---|---|
| VGSI | Visual Glide Slope Indicator. A device that provides a visual glide slope indicator to landing pilots. These systems include precision approach path indicators (PAPI), visual approach slope indicators (VASI), and pulse light approach slope indicators (PLASI). |
| VFR | Visual Flight Rules |
| VOR | VHF Omnidirectional Radio Range |
| VPD | Vehicle / Pedestrian Deviation |

# DIVISION V

## Technical Specifications

# DIVISION V

## SECTION 1

## MOBILIZATION

**1-1.1 GENERAL.** Mobilization shall consist of preparatory work and operations, including, but not limited to, attending preconstruction meetings; preparing PROJECT schedules; submittal documents; those actions necessary for the movement of personnel, equipment, supplies, traffic control devices, barricades and incidentals to the PROJECT site; establishment of all other facilities necessary for work on the PROJECT; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various CONTRACT items on the PROJECT site.

**1-1.2 MOBILIZATION PHASE.** The Mobilization phase shall begin immediately upon receipt of the Notice to Proceed for Mobilization. See Division IV, Section 1, for Mobilization phase time limits and applicable liquidated damages. CONTRACTOR is solely responsible for delays in PROJECT resulting directly or indirectly from late submissions or resubmission of submittals.

**1-1.3 BARRICADES.** Ten (10) low profile airport style barricades with red solar powered flashers, as shown in the PLANS, are to be supplied by the CONTRACTOR for the project. These barricades and flashers are to be retained by the COUNTY at the end of the PROJECT.

**1-1.4 PRIORITY SUBMITTALS.** Mix designs for new Asphalt Concrete (AC), PROJECT Quality Control Plan, PROJECT Schedule, and all required material prequalification submittals shall be provided to the ENGINEER for review and approval within the first ten (10) working days of the Mobilization phase.

**1-1.5 SUBMITTALS.** All materials and equipment used to construct this item shall be submitted to the ENGINEER for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or SHOP DRAWINGS shall be provided. Submittal data shall be presented in a clear, precise, and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are of good quality and legible. Any deviations or substitutions from SPECIFICATIONS shall be identified, in writing, at the time the submittals are made.

Clearly and boldly mark each copy to identify pertinent products or models applicable to this PROJECT. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting only is not acceptable). CONTRACTOR is solely responsible for delays in PROJECT accruing directly or indirectly from late submissions or resubmissions of submittals.

The data submitted shall be sufficient, in the opinion of the ENGINEER, to determine compliance with the PLANS and SPECIFICATIONS. The CONTRACTOR's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by SPECIFICATION section. The ENGINEER reserves the right to reject any and all equipment, materials or procedures, which, in the ENGINEER's opinion, does not meet the system design and the standards and codes, specified.

## METHOD OF MEASUREMENT

**1-2.1** Mobilization will be measured as a lump sum item.

**1-2.2** Barricades shall not be measured separately but shall be included in the lump sum price for Airfield Safety and Traffic Control.

## BASIS OF PAYMENT

**1-3.1 MOBILIZATION.**

**A.** When the monthly partial payment estimate of the amount earned, not including the amount earned for Mobilization, is 5 percent or more of the original CONTRACT amount, 50 percent of the CONTRACT item price for Mobilization will be included in the estimate for payment.

**B.** When the monthly partial payment estimate of the amount earned, not including the amount earned for Mobilization, is 10 percent or more of the original CONTRACT amount, the total amount earned for Mobilization shall be 75 percent of the CONTRACT item price for Mobilization and said amount will be included in the estimate for payment.

**C.** When the monthly partial payment estimate of the amount earned, not including the amount earned for Mobilization, is 20 percent or more of the original CONTRACT amount, the total amount earned for Mobilization shall be 95 percent of the CONTRACT item price for Mobilization and said amount will be included in the estimate for payment.

**D.** When the monthly partial payment estimate of the amount earned, not including the amount earned for Mobilization, is 50 percent or more of the original CONTRACT amount, the total amount earned for Mobilization shall be 100 percent of the CONTRACT item price for Mobilization and said amount will be included in the estimate for payment.

The CONTRACT lump sum price paid for Mobilization shall include full compensation for all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in Mobilization as specified herein.

Payments made for Mobilization will be excluded from consideration in determining compensation under changed quantities.

**1-3.2** The cost of barricades shall be included in the CONTRACT lump sum price for Airfield Safety and Traffic Control.

**END OF SECTION**

**DIVISION V**

**SECTION 2**

**ITEM P-152**
**EARTHWORK AND *SITE PREPARATION***

**DESCRIPTION**

**2-1.1 GENERAL**

**A.** This item covers utility location and potholing, *demolition*, *AC transition grinding*, *layout*, excavation, disposal, placement, *grading* and compaction of all materials within the limits of the work required to construct safety areas, runways, taxiways, aprons, *service roads, wash racks, evaporation ponds* and intermediate as well as other areas for drainage, building construction, parking, or other purposes in accordance with these SPECIFICATIONS and in conformity to the dimensions and typical section(s) shown on the PLANS. *Also included in this item is miscellaneous site preparation items not included in other items of work.*

**B.** ***Special Site Requirements.*** *The subgrade is likely to be excessively wet and in-place drying techniques detailed in Section 2-1.4 shall be performed unless otherwise approved by the ENGINEER. The geotechnical investigation report is available upon request. The in-place native material in all areas to be paved shall be manipulated and processed to the depths called for on the PLANS. The upper layers (see PLAN for specific thickness) of material shall be removed and replaced as necessary to achieve the required compaction at the depths specified. The CONTRACTOR shall excavate and grade the site as necessary to achieve the desired subgrade elevations. Excess material may be disposed of on-site, as directed by the ENGINEER.*

**C.** ***Site Conditions.*** *Due to the potentially high moisture content of the native soils, it may be necessary to allow the exposed subgrade soils to air dry in order to achieve required compaction. The CONTRACTOR may choose to stabilize excessively wet subgrade soils with alternative techniques at no additional cost. Due to the proximity of the ground water table, removal of additional soil (over excavation) shall not be allowed without the approval of the ENGINEER. The subgrade shall be proof rolled while being observed by an ENGINEER prior to placing additional fill.*

**D.** ***Site Information.*** *A geotechnical report was prepared for the AIRPORT, dated March 26, 2012, by CGI Technical Services, Inc. A copy of the Geotechnical Report is included as Appendix 2 to this Section. All earthwork and grading shall be in compliance with recommendations and requirements presented therein.*

**2-1.2** ***SUBMITTALS.*** *Submittals for equipment and materials shall be in accordance with Section 1, Mobilization, of these SPECIFICATIONS.*

**2-1.3 CLASSIFICATION.** All material excavated shall be classified as unclassified excavation:

**A.** **Unclassified Excavation.** Unclassified excavation shall consist of the excavation and disposal of all material, regardless of its nature, which is not otherwise classified and paid for under the following items.

B. **Drainage Excavation.** Drainage excavation shall consist of all excavation made for the primary purpose of drainage and includes drainage ditches, such as intercepting, inlet or outlet; temporary levee construction; or any other type as shown on the PLANS.

C. **Borrow Excavation.** Borrow excavation shall consist of approved material required for the construction of embankment or for other portions of the work in excess of the quantity of usable material available from required excavations. Borrow material shall be obtained from areas within the limits of the AIRPORT property but outside the normal limits of necessary grading, or from areas outside the AIRPORT.

**2-1.4 UNSUITABLE EXCAVATION.** Any material containing vegetable or organic matter shall be considered unsuitable for use in embankment construction. When approved by the ENGINEER as suitable to support vegetation, marginal material may be used on the embankment slope, as top soil. *Unsuitable material is defined as material the ENGINEER determines to be:*

1 *Of such unstable nature as to be incapable of being compacted to specified density using ordinary methods at optimum moisture content; or*

2 *Too wet to be properly compacted and circumstances prevent suitable in-place drying prior to incorporation into the work; or*

3 *Rocks that cannot be broken down by compaction equipment to a nominal size less than 36"; or otherwise unsuitable for the planned use.*

*The presence of excessive moisture in a material is not, by itself, sufficient cause for determining that the material is unsuitable. In-place drying techniques shall be employed prior to classifying the material as unsuitable. In-place drying techniques shall consist of ripping, windrowing, turning, and otherwise manipulating, twice daily, up to a 2-foot depth of material, in 6-8 inch lifts for up to 3-5 working days working days (without rain) to achieve drying and compaction. Rubber-tired excavation and vibratory or steel drum compaction equipment shall not be used in unstable areas unless specifically approved by the ENGINEER. If these drying techniques fail, or at the direction of the ENGINEER, the material shall be removed as detailed herein or stabilized as detailed in Paragraph 2-2.9 of this section. No separate measurement or payment shall be made for in-place drying. All costs shall be included in the lump sum bid for Earthwork and Site Preparation.*

*The removal and disposal of unsuitable material will be paid for as excavation for the quantities involved if the removal of such material is shown on the PLANS or specified in the Special Provisions.*

*If the removal of unsuitable material is not shown on the PLANS or specified in the Special Provisions, the removal and disposal of such unsuitable material will be paid for as extra work.*

*When unsuitable material is removed and disposed of, the resulting space shall be filled with material suitable for the planned use. Such suitable material shall be placed and compacted in layers as hereinafter specified for constructing embankments.*

**2-1.1 RECYCLED AC GRINDINGS.** Any grindings from the AC transition area to be used as recycled aggregate base shall meet the following minimum gradation shown in Table 1.

**TABLE 1**

| Sieve Size | Percent Passing |
|---|---|
| 2 inch | 100 |
| 1-1/2 inch | 90 - 100 |
| 1 inch | 70 - 90 |
| ¾ inch | 55 - 70 |

**2-1.2** ***MISCELLANEOUS SITE PREPARATION AND INCIDENTAL WORK.*** *Miscellaneous site preparation shall include, but not be limited to all demolition work called for on the PLANS, construction staking, saw cutting and pavement grinding; adjusting existing facilities (valve boxes, pull boxes, catch basins, etc.) to finish grade, if they are to remain; pavement marking removed by sandblasting or high pressure water jet; and all incidental work necessary to complete the PROJECT. The cost of this work shall be included in the lump sum price for Earthwork and Site Preparation for each area of work.*

**2-1.3** ***CLEARING AND STRIPPING.*** *All vegetation, broken PCC/AC, decayed vegetable matter, rubbish, and any other unsuitable material within the area upon which an embankment or other improvement is to be placed shall be stripped or otherwise removed before any improvement is started and in no case shall such objectionable material be allowed in or under an embankment. Rubbish and other material unsuitable for fills shall be disposed of off-site by the CONTRACTOR. No direct payment will be made for clearing and stripping. The cost of this work shall be included in the lump sum price for Earthwork and Site Preparation.*

**2-1.4** ***TEMPORARY EROSION AND DUST CONTROL DURING CONSTRUCTION.*** *Limits of disturbance and access corridors shall be clearly delineated at the PROJECT site by the CONTRACTOR as directed by the ENGINEER prior to any grading or site disturbance activity. Under no circumstances shall existing vegetation or soils be disturbed outside of designated work areas. Any areas disturbed beyond the designated limits shall be restored at the CONTRACTOR's expense as directed by the ENGINEER. Dust shall be controlled at all times during construction and grading by means of sprinkling with a water truck.*

**2-1.5** ***DEMOLITION.*** *Demolition shall consist of demolishing and removing the fence, and demolishing and stockpiling the existing gravel service road materials as shown in the PLANS. The cost of this work shall be included in the lump sum price for Earthwork and Site Preparation.*

## CONSTRUCTION METHODS

**2-2.1 GENERAL.** The suitability of material to be placed in embankments shall be subject to approval by the ENGINEER. All unsuitable material shall be disposed of in waste areas shown on the PLANS *or as directed by the ENGINEER.* All waste areas shall be graded to *eliminate standing water and* allow positive drainage *away from* the area and adjacent areas. The surface elevation of waste areas shall not extend above the surface elevation of adjacent usable areas of the AIRPORT, unless specified on the PLANS or approved by the ENGINEER.

When the CONTRACTOR's excavating operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued. At the direction of the ENGINEER, the CONTRACTOR shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation will be paid for as extra work.

Those areas outside of the pavement areas in which the top layer of soil material has been compacted, by hauling or other activities of the CONTRACTOR, shall be scarified and disked to a depth of 4 inches, in order to loosen and pulverize the soil.

*All haul roads and/or travel ways used by the CONTRACTOR outside of the pavement areas shall be restored to original condition as directed by the ENGINEER.*

If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures, the CONTRACTOR shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the CONTRACTOR shall notify the ENGINEER, who shall arrange for their removal if necessary. The CONTRACTOR shall, at his own expense, satisfactorily repair or pay the cost of all damage to such facilities or structures that may result from any of the CONTRACTOR's operations during the period of the CONTRACT.

*No direct payment shall be made for the work performed under this section. The necessary clearing and grubbing and the quantity of excavation removed will be paid for under the respective items of work.*

**2-2.2** ***COMPACTION REQUIREMENTS.*** The subgrade under areas to be paved, embankment(s), shoulders, or other graded areas, shall be compacted to a depth(s) and to a density shown on the PLANs as determined by ASTM D 698. The material to be compacted shall be within +/- 2 percent of optimum moisture content before rolled to obtain the prescribed compaction (except for expansive soils).

*Embankments compaction shall be tested for each 8-inch thick layer. Minimum compaction requirement for subgrade in all areas shall be 6-inches depth at ninety percent (90%) for cohesive soils and ninety-five percent (95%) for noncohesive soils of the maximum density as determined by ASTM D 698.*

If nuclear density machines are to be used for density determination, the machines shall be calibrated in accordance with ASTM D 6938. The nuclear equipment shall be calibrated using blocks of materials with densities that extend through a range representative of the density of the proposed embankment material. (See attached *Appendix 1,* Section 120, Nuclear Gages, for additional guidance with nuclear density testing.)

*Samples of all materials for testing, both before and after placement and compaction, will be taken for each construction area. Based on these tests, the CONTRACTOR shall make the necessary corrections and adjustments in methods, materials or moisture content in order to achieve the correct embankment density.*

**2-2.3 EXCAVATION.** No excavation shall be started until the work has been staked out by the CONTRACTOR and the ENGINEER has obtained elevations and measurements of the ground surface. All excavated material *deemed suitable by the ENGINEER* shall be used in the formation of embankment, subgrade, or for other purposes shown on the PLANS. All unsuitable material shall be disposed of as *directed by the ENGINEER.*

When the volume of the excavation exceeds that required to construct the embankments to the grades indicated, the excess shall be used to grade the areas of ultimate development or disposed of as

directed. When the volume of excavation is not sufficient for constructing the fill to the grades indicated, the deficiency shall be obtained from borrow areas.

The grade shall be maintained so that the surface is well drained at all times. When necessary, temporary drains and drainage ditches shall be installed to intercept or divert surface water that may affect the work.

A. **Selective Grading.** *If the ENGINEER determines that some native materials are more suitable than others,* the more suitable material shall be used in constructing the embankment or in capping the pavement subgrade. If, at the time of excavation, it is not possible to place this material in its final location, it shall be stockpiled in approved areas *until it can be placed in the desired embankment, or other fill area(s).*

B. **Undercutting.** Rock, shale, hardpan, loose rock, boulders, or other material unsatisfactory for safety areas, subgrades, roads, shoulders, or any areas intended for turfing shall be excavated to a minimum depth of 12 inches, or to the depth specified by the ENGINEER, below the subgrade. Muck, peat, matted roots, or other yielding material, unsatisfactory for subgrade foundation, shall be removed to the depth specified. Unsuitable materials shall be disposed of *as directed.* This excavated material shall be paid for as extra work. The excavated area shall be refilled with suitable material obtained from the grading operations or borrow areas and compacted to specified densities. The necessary refilling will constitute a part of the embankment. Where rock cuts are made and refilled with selected material, any pockets created in the rock surface shall be drained in accordance with the details shown on the PLANS.

C. **Overbreak.** Overbreak, including slides, is that portion of any material displaced or loosened beyond the finished work as planned or authorized by the ENGINEER. The ENGINEER shall determine if the displacement of such material was unavoidable and his decision shall be final. All overbreak shall be graded or removed by the CONTRACTOR and disposed of as directed; however, payment will not be made for the removal and disposal of overbreak that the ENGINEER determines as avoidable. Unavoidable overbreak will be classified as ``Unclassified Excavation."

D. **Removal of Utilities.** The removal of existing structures and utilities required to permit the orderly progress of work shall be accomplished by someone other than the CONTRACTOR, e.g., the utility company, unless otherwise shown on the PLANS. All existing foundations shall be excavated for at least 2 feet below the top of subgrade or as indicated on the PLANS, and the material disposed of as directed. All foundations thus excavated shall be backfilled with suitable material and compacted as specified herein.

Stones or rock fragments larger than 4 inches in their greatest dimension will not be permitted in the top 6 inches of the subgrade. The finished grading operations, conforming to the typical cross section, shall be completed and maintained at least 1,000 feet ahead of the paving operations or as directed by the ENGINEER.

In cuts, all loose or protruding rocks on the back slopes shall be barred loose or otherwise removed to line of finished grade of slope. All cut-and-fill slopes shall be uniformly dressed to the slope, cross section, and alignment shown on the PLANS or as directed by the ENGINEER.
Blasting is not allowed.

**2-2.4 BORROW EXCAVATION.** Borrow area(s), if required, within the AIRPORT property will be identified. Borrow excavation shall be made only at these designated locations and within the horizontal and vertical limits as staked, as directed, or as *approved by the ENGINEER.*

*Borrow areas shall be uniformly excavated to the lines and grades established by the CONTRACTOR and approved by the ENGINEER. All borrow areas shall be smooth graded to drain and blend with the contour of surrounding terrain at the close of construction. All costs for borrow shall be included in the lump sum price for Earthwork and Site Preparation.*

When borrow sources are outside the boundaries of the AIRPORT property, it shall be the CONTRACTOR's responsibility to locate and obtain the supply, subject to the approval of the ENGINEER. The CONTRACTOR shall notify the ENGINEER, at least fifteen (15) days prior to beginning the excavation, so necessary measurements and tests can be made. All unsuitable material shall be disposed of by the CONTRACTOR. All borrow pits shall be opened up to expose the vertical face of various strata of acceptable material to enable obtaining a uniform product. Borrow pits shall be excavated to regular lines to permit accurate measurements, and they shall be drained and left in a neat, presentable condition with all slopes dressed uniformly.

**2-2.5 DRAINAGE EXCAVATION.** Drainage excavation shall consist of excavating for drainage ditches, *basins, swales, or structures,* such as intercepting; inlet or outlet, for temporary levee construction; or for any other type as designed or as shown on the PLANS. The work shall be performed in the proper sequence with the other construction. All satisfactory, *suitable* material shall be placed in fills; unsuitable material shall be placed in waste areas or as directed. Intercepting ditches shall be constructed prior to starting adjacent excavation operations. All necessary work shall be performed to secure a finish true to grade, line, elevation, and cross section.

The CONTRACTOR shall maintain ditches constructed on the PROJECT to the required cross section and shall keep them free of debris, and/or obstructions until the PROJECT is accepted. *The CONTRACTOR shall also provide and implement standard and customary best management practices (BMP's) for erosion control such that silt-laden runoff is not discharged from the site. All costs for drainage excavation shall be included in the lump sum price for Earthwork and Site Preparation.*

**2-2.6 PREPARATION OF EMBANKMENT AREA.** Where an embankment is to be constructed to a height of 4 feet or less, all sod and vegetable matter shall be removed from the surface upon which the embankment is to be placed, and the cleared surface shall be completely broken up by plowing or scarifying to a minimum depth of 6 inches. This area shall then be compacted as indicated in paragraph 2-2.7. When the height of fill is greater than 4 feet, *and the ENGINEER deems* sod *removal is* not required, *the designated area(s)* shall be thoroughly disked and re-compacted to the density of the surrounding ground before *the embankment is constructed.*

No direct payment shall be made for the work performed under this section. The necessary clearing and grubbing and the quantity of excavation removed will be paid for under the respective item of work.

**2-2.7 FORMATION OF EMBANKMENTS.** Embankments shall be formed *by placing* successive horizontal layers of *suitable material in uncompacted lifts of* not more than 8 inches in loose depth. *The layers shall extend for* the full width of the cross section, unless otherwise approved by the ENGINEER. *In the construction of embankments, layer placement shall begin in the deepest portion of the fill; as*

*placement progresses, layers shall be constructed approximately parallel to the finished pavement grade line.*

The grading *and soil placement* operations shall be conducted, and the various soil strata shall be placed, *so as to* produce a soil structure *conforming to the* typical cross-section shown on the PLANS or as directed. *Unsuitable* materials such as brush, hedge, roots, stumps, grass, and other organic matter, shall not be incorporated or buried in the embankment.

Operations on earthwork shall be suspended at any time *the ENGINEER deems that* satisfactory results cannot be obtained because of rain, freezing, or other unsatisfactory conditions *that may exist in* the field. The CONTRACTOR shall *shape* the embankment to provide proper surface drainage.

The material in the layer *being placed* shall be within +/-2 percent of optimum moisture content before rolling to obtain the prescribed compaction. In order to achieve uniform moisture content throughout the layer, the material *shall be manipulated, watered, or dried*, as necessary. Should the material be too wet to permit proper compaction or rolling, all work on all of the affected portions of the embankment shall be delayed until the material has dried to the required moisture content. Sprinkling of dry material to obtain the proper moisture content shall be done with approved equipment that will sufficiently distribute the water. Sufficient equipment to furnish the required water shall be available at all times. Samples of all embankment materials for testing, both before and after placement and compaction, will be taken for each construction area Based on these tests, the CONTRACTOR shall make the necessary corrections and adjustments in methods, materials, or moisture content in order to achieve the correct embankment density.

Rolling operations shall be continued until the required embankment compact is achieved.

On all areas outside of the pavement or service road areas, no compaction will be required on the top 4 inches.

Compaction areas shall be kept separate *from uncompacted layers*, and no layer shall be covered by another until the proper density is obtained.

During construction of the embankment, the CONTRACTOR shall route equipment, both when loaded and when empty, over the layers as they are placed and shall distribute the travel evenly over the entire width of the embankment. The equipment shall be operated in such a manner *as to breakup* hardpan, cemented gravel, clay, or other chunky soil into small particles and become incorporated with the other material in the layer.

When rock and other embankment material are excavated at approximately the same time, the rock shall be incorporated into the outer portion of the embankment and the other material shall be incorporated under the future paved areas. Stones or fragmentary rock larger than 4 inches in their greatest dimensions will not be allowed in the top 6 inches of the subgrade. Rock fill shall be brought up in layers, as specified or as directed, and every effort shall be exerted to fill the voids *between the rocks* with the finer material *so that a* dense, compact mass *is formed*. Rock or boulders shall not be disposed of outside the excavation or embankment areas, except at places and in the manner *approved* by the ENGINEER

*If the fill is not testable due to the quantity of rock, each 8-inch lift shall be moisture conditioned as directed by the ENGINEER and compacted by five (5) to seven (7) passes of a Caterpillar 825 Sheepsfoot Compactor or approved equivalent. The ENGINEER may modify the lift thickness and/or the number of compaction passes as deemed appropriate.*

When the excavated material consists predominantly of rock fragments of such size that the material cannot be placed in layers of the prescribed thickness without crushing, pulverizing or further breaking down the pieces, such material may be placed in the embankment as directed in layers not exceeding 2 feet in thickness. Each layer shall be leveled and smoothed with suitable leveling equipment and by distribution of spalls and finer fragments of rock. These type lifts shall not be constructed above an elevation 4 feet below the finished subgrade.

Frozen material shall not be placed in the embankment nor shall embankment be placed upon frozen material.

There will be no separate measurement of payment for compacted embankment, and all costs incidental to placing in layers, compacting, disking, watering, mixing, sloping, and other necessary operations for construction of embankments will be included in the CONTRACT price for Earthwork and Site Preparation, or other items.

**2-2.8** ***PAVEMENT COLD MILLING.*** *Cold milling for AC transitions, joins, and other work called for in the PLANS shall be accomplished with a self-propelled milling machine or grinder. The equipment shall be capable of accurately establishing profile grades within a tolerance of 0.02-foot by reference from either the existing pavement or from independent grade control and shall have a positive means for controlling cross slope elevations. The equipment shall incorporate a totally enclosed cutting drum with replaceable cutting teeth and effectively remove the ground material from the surface and prevent dust from escaping into the air. The use of a heating device to soften the pavement will not be permitted.*

*The existing pavement shall be removed to the depth, width, grade and cross-section shown on the PLANS or as directed by the ENGINEER to provide a surface profile true to specified grade and transverse slope.*

*The new surface resulting from the pavement removal will be tested by the ENGINEER for trueness to specified grade and transverse slope at selected locations. Testing will be with a CONTRACTOR-supplied 12-foot straightedge. The variation of the surface from the testing edge of the straightedge between any two (2) contact points shall not exceed 0.02-foot.*

*Materials removed by grinding shall be salvaged and reused as fill material for the wash rack shoulder or the re-routed service road, unless otherwise approved by ENGINEER.*

**2-2.9** ***SUBGRADE.***

**A.** **Finishing and Protection.** After the subgrade has been substantially completed, the full width shall be *moisture* conditioned, *trimmed and finished as necessary to remove any* unstable material that will not compact properly. The resulting areas and all other low areas, holes or depressions shall be brought to grade with suitable select material. Scarifying, blading, rolling and other methods shall be performed to provide a thoroughly compacted subgrade shaped to the lines and grades shown on the PLANS.

Grading of the subgrade shall be performed so that it will drain readily. The CONTRACTOR shall take all precautions necessary to protect the subgrade from damage. He shall limit hauling over the finished subgrade to that which is essential for construction purposes.

All ruts or rough places that develop in a completed subgrade shall be smoothed and re-compacted.

No subbase, base, or surface course shall be placed on the subgrade until the subgrade has been approved by the ENGINEER.

B. ***Subgrade Stabilization***. *The subgrade in some areas of the AIRPORT may contain expansive clays which are unstable when excessively wet. The CONTRACTOR shall give due diligence to subgrade moisture and avoid overwatering subgrade or base rock during compaction. Watered subgrade or base rock more than 5 percent above optimum moisture content shall be assumed to be overly wet and any instability that may occur shall be the responsibility of the CONTRACTOR to remedy with no additional payment. If, despite due care in watering, areas of subgrade or base rock become unstable or show unacceptable deflection during compaction, they shall be dried as described in Paragraph 2-1.4 or stabilized as directed by the ENGINEER as follows:*

1. *The pumping area, as designated by the ENGINEER, shall be over excavated to a depth of 24 inches below the grading plane and the excavated material shall be removed to the spoils area.*
2. *A geotextile fabric, Tensar TriAx™ TX160 or approved equal, shall be placed in the bottom of the excavation and covered with 12 inches of AB compacted to 85 percent relative compaction.*
3. *The remaining 12 inches of excavation shall be filled with AB in 6-inch lifts. The lower lift shall be compacted to 90 percent relative compaction and the top lift compacted to 95 percent relative compaction.*

*Payment for this work, if needed, shall be by square yard and shall include the reinforcing fabric and base rock used to fill the excavated area. The COUNTY reserves the right to require as much subgrade stabilization as necessary to satisfy site conditions. No limitations on change of quantity shall apply to this item.*

*Subgrade stabilization shall be measured and paid for as extra work.*

**2-2.10 HAUL.** All hauling will be considered a necessary and incidental part of the work. Its cost shall be considered by the CONTRACTOR and included in the CONTRACT price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work.

**2-2.11 TOLERANCES.** In those areas upon which a subbase or base course is to be placed, the top of the subgrade shall be of such smoothness that, when tested with a *CONTRACTOR-supplied* 16-foot straightedge applied parallel and at right angles to the centerline, it shall not show any deviation in excess of 1/2-inch, or shall not be more than 0.05-foot from true grade as established by grade hubs or pins. Any deviation in excess of these amounts shall be corrected by loosening, adding, or removing materials, reshaping, *moisture conditioning,* and re-compacting by sprinkling and rolling *to achieve required compaction.*

On intermediate and other designated areas, *shoulders* and other *unpaved* areas, the surface shall be of such smoothness that it will not vary more than 0.10 foot from true grade as established by grade hubs. Any deviation in excess of this amount shall be corrected by loosening, adding or removing materials, and reshaping.

**2-2.12 TOPSOIL.** *Deleted.*

## METHOD OF MEASUREMENT

**2-3.1** Earthwork and Site Preparation will be measured as a lump sum item.

## BASIS OF PAYMENT

**2-4.1** Earthwork and Site Preparation will be paid for at the CONTRACT lump sum price. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

## TESTING REQUIREMENTS

ASTM D 698 Test for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, Using 5.5-pound Rammer and 12-inch Drop

ASTM D 1556 Test for Density of Soil In Place by the Sand-Cone Method

ASTM D 1557 Test for Laboratory Compaction Characteristics of Soil Using Modified Effort

ASTM D 6938 Test for Density and Moisture Content of Soil In Place by the Nuclear Method.

**END OF SECTION**

# APPENDIX 1

## Nuclear Gages

## SECTION 120
## NUCLEAR GAGES

**120-01 TESTING.** When the specifications provide for nuclear gauge acceptance testing of material for Items P-152, P-154, P-208, and P-209, the testing shall be performed in accordance with this section. At each sampling location, the field density shall be determined in accordance with ASTM D 6938 using the Direct Transmission Method. The nuclear gauge shall be calibrated in accordance with ASTM D 6938. Calibration and operation of the gauge shall be in accordance with the requirements of the manufacturer. The operator of the nuclear gauge must show evidence of training and experience in the use of the instrument. The gauge shall be standardized daily in accordance with ASTM standards.

When using the nuclear method, ASTM D 6938 shall be used to determine the moisture content of the material. The calibration curve furnished with the nuclear gauges shall be checked in accordance with ASTM standards. The calibration checks shall be made at the beginning of a job and at regular daily intervals.

The material shall be accepted on a lot basis. Each Lot shall be divided into eight (8) sublots when ASTM D 6938 is used.

**120-03 VERIFICATION TESTING.** (For Items P-152 and P-154 only.) The Engineer will verify the maximum laboratory density of material placed in the field for each lot. A minimum of one test will be made for each lot of material at the site. The verification process will consist of; (1) compacting the material and determining the dry density and moisture-density in accordance with ASTM D 698 for aircraft gross weights less than 60,0000 pounds and (2) comparing the result with the laboratory moisture-density curves for the material being placed. This verification process is commonly referred to as a "one-point Proctor". 1

If the material does not conform to the existing moisture-density curves, the Engineer will establish the laboratory maximum density and optimum moisture content for the material in accordance with[ASTM D 698.

Additional verification tests will be made, if necessary, to properly classify all materials placed in the lot.

The percent compaction of each sampling location will be determined by dividing the field density of each sublot by the laboratory maximum density for the lot.

**END OF SECTION 120**

# APPENDIX 2

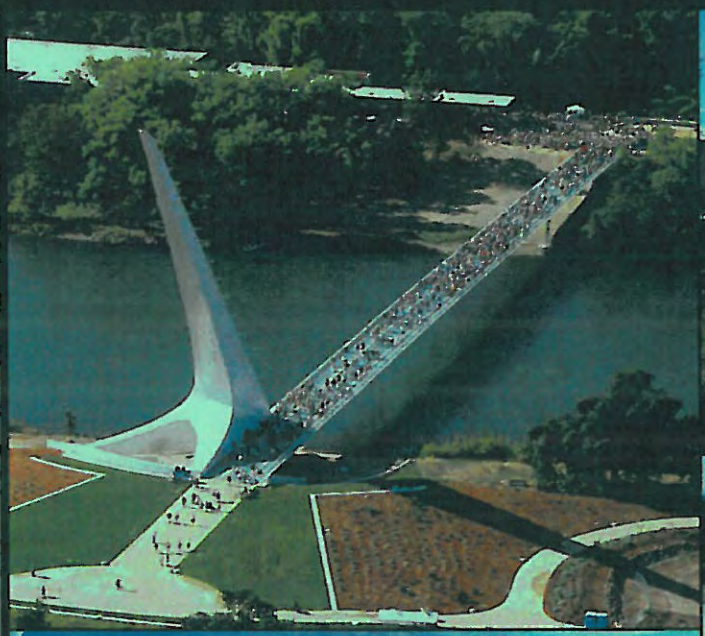
## Geotechnical Report

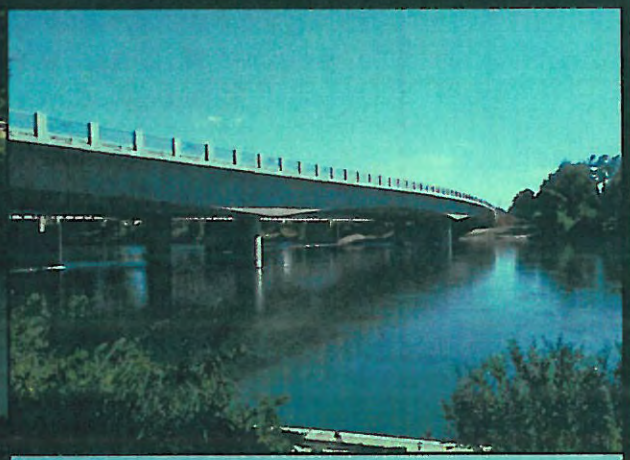
# GEOTECHNICAL STUDY

## WASH RACK & RELATED IMPROVEMENTS
## WILLOWS-GLENN COUNTY AIRPORT
## WILLOWS, CALIFORNIA

Prepared For:

## Mead & Hunt, Inc.





CGI TECHNICAL SERVICES INC.

Mead & Hunt

CGI TECHNICAL SERVICES INC.

March 26, 2012
CGI: 11-1144.58

Mr. Richard Lichau
**MEAD & HUNT, INC.**
133 Aviation Boulevard, Suite 100
Santa Rosa, California 95403

**Subject:** **Geotechnical Report**
**Willows-Glenn Airport**
**Wash Rack & Related Improvements**
**Willows, Glenn County, California**

Dear Mr. Lichau:

CGI Technical Services, Inc. (CGI), is pleased to submit this geotechnical report for the proposed design of the wash rack and related improvements at the Willows-Glenn Airport located in Willows, Glenn County, California. This report presents our findings, conclusions, and recommendations for design of the proposed development.

We appreciate the opportunity to perform this study and look forward to continued participation during the design and construction phases of this project. If you have any questions pertaining to this report, or if we may be of further service, please contact Jim Bianchin at (530) 244-6277 at your earliest convenience.

Regards,

**CGI TECHNICAL SERVICES, INC.**

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## PLATES



## APPENDICES

# 1.0 GENERAL

This report presents the results of our geotechnical study for a new wash rack facility at the Willows-Glenn County Airport (Airport) located in the City of Willows, California. CGI Technical Services, Inc. (CGI), has prepared this report at the request of Mead & Hunt, Inc. (Mead & Hunt). The project location is shown on Plate 1 – Site Location Map. The following sections present our understanding of the project, the purpose of our study, and the findings, conclusions, and recommendations of this study. Our services were performed in general compliance with our proposal dated December 8, 2011.

## *1.1 PROJECT UNDERSTANDING*

We understand that the project consists of the design of a number of improvements at the subject airport. Two improvements require geotechnical input for design: a proposed wash rack and a proposed evaporation pond. The project elements are shown on Plate 2 – Project Elements. The wash rack and evaporation pond are proposed for undeveloped sites located southeast of the existing animal control facility.

The wash rack is anticipated to have dimensions of about 65 feet long and 55 feet wide. It will be situated about 80 feet southeast of the animal control facility. The configuration of the wash rack on site is unknown at the time this report was prepared but it is anticipated that drainage collection systems could extend a few to many feet below the existing grade. It is also anticipated that grading will be required to elevate the existing grade and create a flat development pad.

Wash water collected from the wash rack will be collected and transferred to an evaporation pond located east of the project site. The evaporation pond is proposed to be about 80 feet long and 10 feet wide. The depth of the pond is unknown at this time but anticipated to be a few to many feet below the ground surface. It is anticipated that pond sidewalls will be constructed at inclinations no steeper than 2:1 and that the pond will be lined.

As part of the project, an existing gravel road will be destroyed and relocated south of its current location. Once constructed, new fencing and gates will be constructed to reduce access to the site.

## *1.2 STUDY PURPOSE*

The purpose of our geotechnical study was to explore and evaluate selected site surface and subsurface conditions in order to provide geotechnical engineering recommendations related to the design and construction of the project, and to identify potential geologic hazards that could impact the project. The subsurface characterization was primarily intended to estimate the depth, profile, consistency, strength, and grain-size distribution of the soils that might be encountered during project construction, along with the general depth to groundwater.

## *1.3 PREVIOUS WORK PERFORMED*

Our review and research of the site found no existing geotechnical work performed for the site; however, some environmental studies to estimate depth and extent of contaminates and groundwater have occurred adjacent and east of the site. We attempted to obtain those environmental studies from the California State Water Control Board's Geotracker database, which did not contain those data.

In addition, regional geotechnical and groundwater data are available locally around the project area. A geotechnical report for a fast-foot restaurant in Willows was obtained and reviewed as part of this study. Groundwater data were obtained from the California Department of Water Resources (DWR) Water Database and from the California State Water Control Board's Geotracker database. Those references along with regional geologic and other sources cited are present in the References Section of this report.

### *1.4 SCOPE OF SERVICES*

Services performed for this study are in general conformance with the proposed scope of services presented in our December 8, 2011 proposal. Our scope of services included:

- Reconnaissance of the site surface conditions, topography, and existing drainage features;
- Attempted acquisition of existing, available geotechnical and groundwater data for the project site;
- Review of pertinent, selected regional geological data;
- Exploration of the subsurface conditions within the project site using test pits. Exploration locations are shown on Plate 3 – Geotechnical Map. Exploration procedures and exploration logs are presented in Appendix A – Subsurface Exploration;
- Performance of laboratory testing on selected samples obtained during our field investigation. Laboratory test procedures and results of those tests are presented in Appendix B – Laboratory Testing;
- Preparation of this report, which includes:
  - A description of the proposed project;
  - A summary of our field exploration and laboratory testing programs;
  - A description of site surface and subsurface conditions encountered during our field investigation;
  - A description of ground shaking conditions expected at the site, including CBC seismic design criteria;
  - Recommendations for:
    - Site preparation, engineered fill, site drainage, and subgrades;
    - Suitability of on-site materials for use as engineered fill;
    - 2010 CBC seismic design criteria;
    - Concrete slabs on-grade;
    - Temporary excavations, shoring, and trench backfill;
    - Allowable bearing capacities and class of soil type for foundation design and construction.
  - Appendices that present a summary of our field investigation procedures and laboratory testing programs.

# 2.0 FINDINGS

## *2.1 FIELD INVESTIGATION*

CGI conducted a geotechnical field investigation to evaluate subsurface soil conditions, and to provide subsurface data for evaluation of the proposed development. Our field geotechnical investigation was limited to reconnaissance-level geologic mapping of the project site and subsurface exploration through excavation of three backhoe test pits. The test pits, designated TP-1 through TP-3, were excavated on January 26, 2012. Test pit locations are shown on Plate 3. Detailed descriptions of soils encountered are presented on the test pit logs included in Appendix A. The soils encountered within the excavations were logged in general accordance with the Unified Soil Classification System (USCS). Surficial and subsurface soil samples were collected and transported to our laboratory for testing. Laboratory test results are included with this report.

## *2.2 SITE CONDITIONS*

### 2.2.1 Surface Conditions

The project is located on a relatively flat site east of and adjacent to the paved agricultural application tarmac at the Airport. The wash rack site is unpaved, contains scattered vegetation and debris, and is moderately hummocky from past ground disturbance. It is bordered to the west by a fence separating the site from airport tarmac, to the north by the existing Animal Control facility, to the east by fallow ground, and to the south by an unpaved access road.

The proposed evaporation pond site is generally flat and covered with gravel and small cobbles, and scattered vegetation consisting of low seasonal shrubs and tumble weeds. The site is bordered to the west by a fence separating the site from airport tarmac, to the north by an unpaved access road, to the east by fallow ground, and to the south by a debris-laden field and industrial park. The pond area is traversed by two drainage ditches: one to the southwest along the fence line separating the pond from the tarmac and one located along the northeast portion of the site. Both ditches are oriented in a northwesterly direction.

Project elevation is about 135 feet above mean sea level (MSL) according to the U.S. Geological Survey Willows Quadrangle 7.5-Minute topographic map. Drainage occurs as sheet flow towards the southeast. Drainage swales capture and convey sheetflow away from the project site.

### 2.2.2 Subsurface Conditions

Soils encountered beneath the ground surface consisted predominately of silty clay to clayey silt to the depths explored. These materials are considered Basin Deposits and can be locally interbedded with clayey sand, sandy clay, and sand. Sandy clay and clayey sand were encountered to a depth of 10 to 16.5 feet with sand below, at a site located about 2,000 feet northeast of the site. Similarly, interbedded silts and sands were encountered to depths of up to 55 feet in drill holes advanced at a service station site located about 1,800 feet northeast of the project site (Cambria, 2005).

In addition, disturbed soils and/or artificial fill were encountered at both the wash rack and evaporation basin sites. At the wash rack site, the upper 18 to 24 inches of soils were disturbed and some debris, consisting of brick, wood, and charred materials, was present within those soils. The site was reportedly a former incinerator site for Glenn County's Health Department and, as such, some former medical waste that was not fully incinerated was been observed at this site (Ken Dunn, personal communication with Jim

Bianchin on January 26, 2012). Artificial fill at the evaporation pond site was observed to consist of 8 to 12 inches of sand, gravel, and cobbles that had been placed on the ground surface at that site.

The logs in Appendix A present specific soil and rock descriptions encountered within each test pit advanced by CGI during this study.

## *2.3 GEOLOGIC CONDITIONS*

### 2.3.1 Regional Geology

The project site is located in the northern Sacramento Valley within the Great Valley Physiographic province. The Great Valley province is bordered to the north by the Klamath and Cascade Physiographic provinces, to the east by the Cascade and Sierra Nevada Physiographic provinces, to the west by the Klamath and Coast Ranges Physiographic provinces, and to the south by the Transverse Ranges Physiographic province.

The Great Valley Physiographic province is about 50 miles wide and 400 miles long. The Sacramento Valley, which forms the northern portion of the province, is about 150 miles long and 40 miles wide (Hinds, 1952). According to Hackel (1966), "The Great Valley is a large elongate northwest-trending asymmetric structural trough that has been filled with a tremendously thick sequence of sediments ranging from Jurassic to recent." Sediment thicknesses of up to 10 miles are reported within the Sacramento Valley; however, in the project area, being at the northern margin of the valley, those thicknesses have been projected to be less than one mile (Hackel, 1966). Sediments within the Great Valley consist of both marine and continental deposits, with most of the sediments underlying the project area consisting of continental deposits.

### 2.3.2 Local Geologic Setting

The local materials consist of artificial fill materials and the Basin Deposits. Artificial fill materials were observed at both the wash rack and evaporation pond sites during this study. The artificial fill materials are discussed in greater detail in Section 2.2.2 above. Underlying the artificial fill materials are Basin Deposits (Helley & Harwood, 1985), consisting of relatively recent alluvial soils, as shown on Plate 4 – Geologic Map. Those materials consist predominately of fine-grained soils with lesser amounts of granular soils. In the project region, both fine-grained and granular soils have been observed within the upper 55 feet of the soil column, as discussed in Section 2.2.2.

### 2.3.3 Groundwater

Groundwater was encountered in test pit TP-3 at a depth of 4.5 feet. Groundwater was not encountered in test pits TP-2 and TP-3. Groundwater was not encountered at a fast-food restaurant site located northeast of the site but was encountered by Cambria (2006) at a depth of about 8 feet. Additionally, groundwater has been measured as shallow as 8 feet below the ground surface in regional groundwater wells monitored by DWR (2012).

The depth to groundwater can vary throughout the year and from year to year. Intense and long duration precipitation, modification of topography, and cultural land uses, such as irrigation, water well usage, on site waste disposal systems, and water diversions can contribute to fluctuations in groundwater levels. Localized saturated conditions or perched groundwater conditions near the ground surface should be anticipated during and following periods of heavy precipitation and snowmelt. If groundwater is

encountered during construction, it is the Contractor's responsibility to install mitigation measures for adverse impacts caused by groundwater encountered in excavations.

# 3.0 GEOLOGICAL HAZARDS

## *3.1 GEOLOGIC HAZARD ZONES*

No mapped geologic hazards zones are known for the project region.

## *3.2 FAULTING & SEISMICITY*

### 3.2.1 Seismic Setting

The State of California designates faults as active, potentially active, and inactive depending on the recency of movement that can be substantiated for a fault. Fault activity is rated as follows:

| FAULT ACTIVITY RATINGS | | |
|---|---|---|
| **Fault Activity Rating** | **Geologic Period of Last Rupture** | **Time Interval (Years)** |
| Active | Holocene | Within last 11,000 Years |
| Potentially Active | Quaternary | >11,000 to 1.6 Million Years |
| Inactive | Pre-Quaternary | Greater than 1.6 Million Years |

The California Geologic Survey (CGS) evaluates the activity rating of a fault in fault evaluation reports (FER). FERs compile available geologic and seismologic data and evaluate if a fault should be zoned as active, potentially active, or inactive. If an FER evaluates a fault as active, then it is typically incorporated into a Special Studies Zone in accordance with the Alquist-Priolo Earthquake Hazards Act (AP). AP Special Studies Zones require site-specific evaluation of fault location and require a structure setback if the fault is found traversing a project site.

The site is not located within an Alquist-Priolo Earthquake Fault Zone and no active faults are known to pass through the project site (Jennings, 1994; Hart & Bryant, 1997). However, a number of regional and local faults traverse the project region. The most significant of these faults are the potentially active Corning fault and the inactive Willows fault, bot located about 6 miles northeast of the project site. The closest active fault, as zoned by the State, is the Bartlett Springs fault, located about 40 miles west of the site.

### 3.2.2 CBC Design Recommendations

At a minimum, structures should be designed in accordance with the 2010 California Building Code (CBC) seismic design criteria. CBC-based design requires the definition of the following seismic parameters: Site Class Designation; Site Coefficients ($F_a$ and $F_v$); Mapped spectral accelerations for short periods ($S_s$); and Mapped spectral accelerations for a 1-second period ($S_1$).

| CBC SEISMIC DESIGN PARAMETERS | |
|---|---|
| **Parameter** | **CBC Designation** |
| Mapped Spectral Acceleration, $S_s$ | 0.727g |
| Mapped Spectral Acceleration, $S_1$ | 0.286g |
| Site Class Designation | D |
| Site Coefficient, $F_a$ | 1.219 |
| Site Coefficient, $F_v$ | 1.828 |

### *3.3 LIQUEFACTION AND LATERAL SPREADING*

Liquefaction is described as the sudden loss of soil shear strength due to a rapid increase of soil pore water pressures caused by cyclic loading from a seismic event. In simple terms, it means that a liquefied soil acts more like a fluid than a solid when shaken during an earthquake. In order for liquefaction to occur, the following are needed:

- Granular soils (sand, silty sand, sandy silt, and some gravels);
- A high groundwater table; and
- A low density in the granular soils underlying the site.

If those criteria are present, then there is a potential that the soils could liquefy during a seismic event. It is our opinion that soils encountered during this study have a low potential to liquefy. This opinion is based on the fact that the in-situ soils are clay rich. Furthermore, granular sediments encountered by Cambria (2005) are generally medium dense to dense. Thus, conditions encountered during this study and reported by Cambria (2005) support our opinion that there is likely a low potential for liquefaction to occur in sediments beneath the site.

### *3.4 EXPANSIVE POTENTIAL*

There is a direct relationship between plasticity of a soil and the potential for expansive behavior, with expansive soil generally having a high plasticity. Thus, granular soils typically have a low potential to be expansive, where as, clay-rich soils can have a low to high potential to be expansive. Atterberg limit testing performed on two selected samples recorded plasticity indices (PI) of approximately 18 and 21. Those PI values are associated with soils having a low to medium expansion potential (Day, 1999).

### *3.5 SOIL CHEMISTRY*

A selected sample of the near-surface soil encountered at the site was submitted for limited soil chemistry testing for use in cement typing and corrosion evaluations. The results of those tests are pending and will be submitted in a separate letter once they become available.

# 4.0 CONCLUSIONS AND RECOMMENDATIONS

## *4.1 GENERAL*

Based on the results of our investigation, it is our opinion that the site is suitable for the proposed improvements provided recommendations presented, herein, are utilized during design and construction of the project. Specific comments and recommendations regarding the geotechnical aspects of project design and construction are presented in the following sections of this report.

Recommendations presented, herein, are based upon the proposed site development plan prepared by Mead & Hunt (2010), along with stated assumptions. Changes in the configuration from those studied during this investigation may require supplemental recommendations.

## *4.2 FAULTING*

No known faults pass through the project site. Several faults have been mapped in the vicinity of the project area. The site does not lie within the boundaries of an Alquist-Priolo Earthquake Fault Zone; therefore, it is our opinion that surface rupture potential is low.

## *4.3 LIQUEFACTION POTENTIAL*

Based on our observations and material exposed during the investigation, it our opinion that liquefaction has a relatively low risk of adversely affecting the proposed improvements.

## *4.4 EXPANSIVE POTENTIAL*

Atterberg limit testing performed on select surficial samples recorded plasticity indices of approximately 18 and 21 for the materials that will be encountered on site This material correlates to material having a low to moderate expansion potential (Day, 1999).

## *4.5 LANDSLIDES & OTHER GEOHAZARD*

No signs of landsliding, either former or incipient, were observed on or adjacent to the project property. It is our opinion that naturally occurring landslides pose a low risk to the project. See Sections 4.6.8 and 4.7 of this report regarding temporary and man-made slope stability issues.

## *4.6 SITE PREPARATION AND GRADING*

### 4.6.1 Stripping

Prior to general site grading and/or construction of planned improvements, existing pavement, debris, and deleterious materials should be stripped and disposed of off-site or outside the construction limits. CGi should be allowed to observe stripped areas to confirm that adequate removal of debris, deleterious, and unsuitable materials have been properly stripped and removed from the site.

### 4.6.2 Existing Utilities, Wells, and/or Foundations

Below-grade utility lines, septic tanks, cesspools, wells, on-site waste disposal fields and tanks, irrigation ponds and/or foundations that are encountered during construction should be removed and disposed of off-site. Buried tanks, if present, should be removed in compliance with applicable regulatory agency requirements. Existing, below-grade utility pipelines (if any) that extend beyond the limits of the proposed construction and will be abandoned in-place should be plugged with lean concrete or grout to prevent

migration of soil and/or water. All excavations resulting from removal and demolition activities should be cleaned of loose or disturbed material prior to placing any fill or backfill.

### 4.6.3 Scarification and Compaction

Following site stripping and overexcavation, areas to receive engineered fill should be scarified to a minimum depth of 8 inches, uniformly moisture-conditioned to near optimum moisture content, and compacted to at least 90 percent of the maximum dry density as determined using standard test method ASTM D1557[1].

### 4.6.4 Keying and Benching

The proposed development area is located on relatively flat ground. Therefore, keying and benching are not anticipated to be required for this project.

### 4.6.5 Wet/Unstable Soil Conditions

If site preparation or grading is performed in the winter, spring, or early summer seasons, or shortly after significant precipitation, near-surface on-site soils may be significantly over optimum moisture content. This condition could hinder equipment access as well as efforts to compact site soils to a specified level of compaction. In addition, perched water can be present in subsurface layers throughout the year and contribute to wet soil conditions. If over optimum soil moisture content conditions are encountered during construction, disking to aerate, replacement with imported material, chemical treatment, stabilization with a geotextile fabric or grid, and/or other methods will likely be required to facilitate earthwork operations. The applicable method of stabilization is the contractor's responsibility and will depend on the contractor's capabilities and experience, as well as other project-related factors beyond the scope of this investigation. Therefore, if over-optimum moisture within the soil is encountered during construction, CGI should review these conditions (as well as the contractor's capabilities) and, if requested, provide recommendations for their treatment.

### 4.6.6 Site Drainage

Finished grading should be performed in such a manner that provides a minimum of 10 horizontal feet of positive surface gradient away from all structures. The ponding of water should not be allowed adjacent to structures, retaining walls, or the top of fill sections. Interceptor drains should be constructed above all cut and fill slopes to prevent water from flowing over those slopes. Surface runoff should be directed toward engineered collection systems or suitable discharge areas and not allowed to flow onto or over slopes. Discharge from roof downspouts should also be collected, conveyed in solid (unperforated) pipelines, and discharged away from all structures and into engineered systems, such as storm drains. Landscape plantings around structures should be avoided or be dry climate tolerant and require minimal irrigation. Care should be taken to avoid overwatering all landscaping.

### 4.6.7 Excavation Characteristics

Explorations for this project were advanced using a John Deere 310SJ backhoe using a 2-foot wide bucket. In general, earth materials encountered in the upper 10 feet of the soil profile were penetrated with

[1] This test procedure applies wherever relative compaction, maximum dry density, or optimum moisture content is referenced within this report.

relatively minimal difficulty using this equipment. It is our opinion that soils present at the site should be excavatable using conventional heavy grading equipment operated by experienced personnel.

### 4.6.8 Permanent & Temporary Slopes

This section explicitly excludes trench slopes for buried utilities. Temporary trench excavations are discussed in Section 4.7.1 of this report.

It is our understanding that no permanent slopes are part of this project; however, if changes to the design are made to include permanent slopes, those permanent slopes should be constructed at inclinations of 2:1 or flatter. In isolated areas where a cut slope is less than 8 feet tall, is adequately protected from erosion, and is not intended to support structures or surcharges, then the cut slope can be constructed at inclinations of 1.5:1 or flatter, per Section J106 of the 2010 CBC. Temporary construction slopes should be constructed no steeper than 1:1.

### 4.6.9 Overexcavation

Artificial fill materials loose disturbed soils beneath the wash rack site and loose sand, gravel, and cobbles at the evaporation pond site were encountered during exploration at the site. It is recommended that the disturbed soils beneath the wash rack site be removed down to firm and unyielding, undisturbed natural soils. It is anticipated that the depth of overexcavation will range from 12 to 24 inches. The overexcavation should extend a minimum of 5 horizontal feet outside of the building perimeter. A CGi engineer or geologist should observe and approve the overexcavated areas to confirm that those materials have been fully removed prior to placement of engineered fill materials. Overexcavated materials containing organics, debris, or deleterious materials should be removed from the project site and disposed of at an approved location.

Artificial fill within the evaporation site may be left in place provided paved access road, structure pads, and areas where other physical improvements will derive support from those materials are overexcavated. The overexcavation is anticipated to range from 6 to 18 inches and should expose firm and unyielding in-place natural soils. A CGi engineer or geologist should observe and approve the overexcavated areas to confirm that those materials have been fully removed prior to placement of engineered fill materials. Overexcavated materials containing organics, debris, or deleterious materials should be removed from the project site and disposed of at an approved location.

Areas that are overexcavated should be backfilled with engineered fill materials, in accordance with recommendations presented in Section 4.6.13 of this report.

### 4.6.10 On-Site Soil Materials

It is our opinion that most of the near-surface soils encountered at the site can be used for general engineered fill provided it is free of organics, debris, oversized particles (>3") and deleterious materials. When highly plastic clayey materials (materials having a plasticity index exceeding 30 and a liquid limit in excess of 50) are encountered during grading, those materials should be segregated and excluded from engineered fill, where possible, or thoroughly mixed with granular materials to reduce the plasticity of the soil. The existing artificial fill materials encountered during exploration can also be re-used as engineered fill provided those materials are screened of organics, woody debris, refuse, deleterious materials, and oversize particles (>3"). If potentially unsuitable soil is considered for use as engineered fill, CGI should

observe, test, and provide recommendations as to the suitability of the material prior to placement as engineered fill.

### 4.6.11 Imported Fill Materials - General

If imported fill materials are used for this project, they should consist of soil and/or soil-aggregate mixtures generally less than 3 inches in maximum dimension, nearly free of organic or other deleterious debris, and essentially non-plastic. Typically, well-graded mixtures of gravel, sand, non-plastic silt, and small quantities of clay are acceptable for use as imported engineered fill within foundation areas. Imported fill materials should be sampled and tested prior to importation to the project site to verify that those materials meet recommended material criteria noted below. Specific requirements for imported fill materials, as well as applicable test procedures to verify material suitability are as follows:

| IMPORTED FILL RECOMMENDATIONS | | | | |
|---|---|---|---|---|
| GRADATION | | | | |
| Sieve Size | General Fill | Granular Fill | Test Procedures | |
| | Percent Passing | | ASTM | AASHTO |
| 3-inch | 100 | 100 | D422 | T88 |
| ¾-inch | 70 – 100 | 70 – 100 | D422 | T88 |
| No. 200 | 0 - 30 | <5 | D422 | T88 |
| PLASTICITY | | | | |
| Liquid Limit | <30 | NA | D4318 | T89 |
| Plastic Index | <12 | Nonplastic | D4318 | T90 |
| ORGANIC CONTENT | <3% | <3% | D2974 | NA |

### 4.6.12 Materials - Granular

All granular fill should consist of imported soil mixtures generally less than 3 inches in maximum dimension, nearly free of organic or other deleterious debris, and essentially non-plastic. Specific requirements for granular fill, as well as applicable test procedures to verify material suitability are presented in Section 4.6.11 of this report.

### 4.6.13 Placement & Compaction

Soil and/or soil-aggregate mixtures used for fill should be uniformly moisture-conditioned to within 3 percent of optimum moisture content, placed in horizontal lifts less than 8 inches in loose thickness, and compacted to at least 90 percent relative compaction[2]. Testing should be performed to verify that the relative compactions are being obtained as recommended herein. Compaction testing, at a minimum, should consist of one test per every 500 cubic yards of soil being placed or at every 1.5-foot vertical fill interval, whichever comes first. We recommend that CGI be retained to perform compaction testing to verify compliance with our recommendations.

In general, a "sheep's foot" or "wedge foot" compactor should be used to compact fine-grained fill materials. A vibrating smooth drum roller could be used to compact granular fill materials and final fill surfaces.

[2] This test procedure applies wherever relative compaction, maximum dry density, or optimum moisture content is referenced within this report.

## *4.7 UTILITY TRENCHS AND TRENCH BACKFILL*

### 4.7.1 Trenches and Dewatering

Utility trenches greater than 5 feet deep should be braced or shored in accordance with good construction practices and all applicable safety ordinances. In general, soils having a tendency to run or flow were not observed during our study; however, there is a potential that shallow un-shored trenches excavated with sidewalls steeper than 1:1 could locally cave. The actual construction of the trench walls and worker safety is the sole responsibility of the contractor.

Heavy construction equipment, building materials, excavated soil, and vehicular traffic should not be allowed within a 1:1 (horizontal to vertical) projection from the toe of the trench excavation to the ground surface. Where the stability of adjoining buildings, walls, buried utilities within the trench sidewalls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning may be required to provide structural stability and to protect personnel working within the excavation.

### 4.7.2 Materials

Pipe zone backfill (i.e., material placed from the trench bottom to a minimum of 6 inches over the pipeline crown) should consist of imported soil having a Sand Equivalent (SE) of no less than 30 and having a particle size no greater than ½-inch in maximum dimension. On site soils will likely not meet this recommendation. Trench zone backfill (i.e., material placed between the pipe zone backfill and finished subgrade) may consist of on-site soil that meets the material requirements previously provided for engineered fill with 100% passing the ¾-inch sieve.

If imported material is used for pipe or trench zone backfill, we recommend it consist of fine-grained sand. In general, use of coarse-grained sand, crushed rock, and/or gravel is not recommended due to the potential for soil migration into and water seepage along trenches backfilled with this type of material.

Recommendations provided above for pipe zone backfill are minimum requirements only. More stringent material specifications may be required to fulfill local codes and/or bedding requirements for specific types of pipe. We recommend the project Civil Engineer develop these material specifications based on planned pipe types, bedding conditions, and other factors beyond the scope of this study.

### 4.7.3 Placement and Compaction

Trench backfill should be placed and compacted in accordance with recommendations previously provided for engineered fill. Mechanical compaction is strongly recommended; *ponding, flooding, and jetting should not be allowed during construction.* It should be noted that if in rare instances, ponding, flooding, or jetting are allowed, the pipe zone backfill materials should have an SE of 50 or greater and should be less than ½-inch in maximum dimension. In addition, a number of additional conditions for collection and removal of excess ponded, flooded, or jetted water will be required if those methods are utilized during construction. Special care should be given to ensuring that adequate compaction is made beneath the haunches of the pipeline (that area from the pipe springline to the pipe invert) and that no voids remain in this space.

### 4.7.4 Trench Subgrade Stabilization

Soft and yielding trench subgrade could be encountered along the bottom of trench excavations. It is recommended that the bottom of trenches be stabilized prior to placement of the pipeline bedding so that, in the judgment of the geotechnical engineer, the trench subgrade is firm and unyielding. The Contractor should have the sole responsibility for design and implementation of trench subgrade stabilization techniques. Some methods that we have observed used to stabilize trench subgrades include the following:

- Use of ¾–inch to 1½-inch floatrock worked into the trench bottom and covered with a geotextile fabric such as Mirafi 500X;
- Placement of a geotextile fabric, such as Mirafi 500X, on the trench bottom and covered with at least one foot of compacted processed miscellaneous base (PMB) conforming to the requirements of Section 200-2.5 of the Greenbook, latest edition;
- Overexcavation of trench subgrade and placement of two-sack sand-cement slurry; and
- In extreme conditions, injection grouting along the trench alignment.

If floatrock is used, typically sand with an SE of 50 or more should be used to fill the voids in the rock prior to placement of pipe bedding materials.

### 4.7.5 Erosion Protection

The on-site soil materials are relatively erodable. Maintained, drought-resistant vegetation, riprap, or similar protective material should cover all permanent cut and fill slopes. All drainage channels should be paved or lined with rip-rap.

## *4.8 FOUNDATIONS*

### 4.8.1 Minimum Footing Embedment and Dimensions

Minimum embedment depths, widths, and thicknesses should conform to Table 1809.7 of the CBC, but should be determined by the Structural Engineer. Transition lot construction, where structures span across both native cut materials and engineered fills, can lead to differential settlement issues. **Foundations should not span both cuts and fills**.

Frost penetration depths typically do not affect soil within the area of the proposed project. Therefore, foundations should not require specific design recommendations to reduce the potential adverse affects of frost on structure foundations.

### 4.8.2 Allowable Bearing Capacity

It is assumed that all structure foundations for the proposed buildings will rest entirely on cut or entirely on engineered fill. The foundations must not be constructed partially on fill and partially on cut. Isolated and continuous footing elements should be proportioned for dead loads plus probable maximum live load, and a maximum allowable bearing pressure of the following:

| ALLOWABLE BEARING CAPACITIES | | | |
|---|---|---|---|
| Material | Allowable Bearing Capacity (psf) | Increase per Foot of Embedment (psf) | Maximum Allowable Bearing Capacity (psf) |
| Alluvium/Basin Deposits | 1,500 | 250 | 2,500 |

The allowable bearing pressures provided are net values. Therefore, the weight of the foundation (which extends below finished subgrade) may be neglected when computing dead loads. The allowable bearing pressure applies to dead plus live loads and includes a calculated factor of safety of at least 3. An increase of allowable bearing pressure by one-third for short-term loading due to wind or seismic forces should NOT be incorporated unless an alternative load combination, as described in Section 1605.3.2 of the 2010 CBC, is applied. The allowable bearing value is for vertical loads only; eccentric loads may require adjustment to the values recommended above.

To minimize differential settlement between the proposed addition and the existing structure, it is our recommendation that the new footing to be anchored to the existing foundation. The anchoring system should be designed by the project structural engineer.

### 4.8.3 Lateral Earth Pressures

Subsurface structures should be designed to resist the earth pressure exerted by the retained, compacted backfill plus any additional lateral force that will be applied due to surface loads placed at or near the wall or below-grade structure. Recommended design criteria for subsurface structures are presented below:

The recommended equivalent fluid weights presented below are for static (non-earthquake) conditions with the ground level behind the shoring system.

| LATERAL EARTH PRESSURES UNDER STATIC CONDITIONS | | | |
|---|---|---|---|
| Lateral Earth Pressure Condition | Slope Inclination Above Structure | Equivalent Fluid Weight (pcf) | |
| | | Dry/Moist (Drained Conditions) | Saturated (Undrained Conditions) |
| At-Rest | Flat | 75 | 100 |
| | 2:1 | 95 | 120 |
| Active | Flat | 55 | 80 |
| | 2:1 | 75 | 95 |

The resultant force of the static lateral force prism should be applied at a distance of 30 percent of the wall height above the soil elevation on the toe side of the wall. The tabulated values are based on a soil unit weight of 125 pounds per cubic foot (pcf), and do not provide for surcharge conditions resulting from construction materials, equipment, or vehicle traffic. Loads not considered as surcharges should bear behind a 1:1 (horizontal to vertical) line projected upward from the base of the shoring. If surcharges are expected, CGI should be advised so that we can provide additional recommendations as needed.

### 4.8.4 Minimum Footing Reinforcement

Footing reinforcement should be designed by a Structural Engineer and should conform to pertinent structural code requirements. Minimum footing reinforcement should not be less than that required for shrinkage, temperature control, and structural integrity.

### 4.8.5 Estimated Settlements

The proposed structures should not rest partially on fill and partially on cut. All foundations are anticipated to rest on native soils or engineering fill. Anticipated total settlement for the proposed structure foundations, if construction occurs as recommended within this report, should be less than one inch. Differential settlement for the structure foundations is anticipated to be less than ½ -inch in 20 feet.

### 4.8.6 Construction Considerations

Prior to placing steel or concrete, foundation excavations should be cleaned of all debris, loose or disturbed soil, and any water. A representative of CGI should observe all foundation excavations prior to concrete placement.

## *4.9 SLIDING AND PASSIVE RESISTANCE*

### 4.9.1 Sliding Resistance

Ultimate sliding resistance generated through a compacted soil/concrete interface can be computed by:

- Multiplying the soil/concrete adhesion (150 psf) by the footing contact area for cohesive soils. In no case shall the lateral sliding resistance exceed one-half the dead load; or
- Multiplying the total dead weight structural loads by the friction coefficient of 0.30 for imported granular engineered fill.

### 4.9.2 Passive Resistance

Passive resistance developed from lateral bearing of shallow foundation elements bearing against compacted soil surfaces for that portion of the foundation element extending below a depth of 1 foot below the lowest adjacent grade can be estimated using an equivalent fluid weight of 150 pcf. Passive resistance of the upper one foot of the soil column should be neglected.

### 4.9.3 Safety Factors

Sliding resistance and passive pressure may be used together without reduction in conjunction with recommended safety factors outlined below. A minimum factor of safety of 2 is recommended for foundation sliding, where sliding resistance and passive pressure are used together. The safety factor for sliding can be reduced to 1.5 if passive pressure is neglected.

## *4.10 CONCRETE SLABS SUPPORTED ON-GRADE*

### 4.10.1 General

All ground-supported slabs should be designed by a Civil Engineer to support the anticipated loading conditions but, as a minimum, should be at least 4 inches thick. Reinforcement for floor slabs should be designed by a Civil Engineer to maintain structural integrity, and should not be less than that required to meet pertinent code, shrinkage, and temperature requirements. Reinforcement should be placed at mid-thickness in the slab with provisions to ensure it stays in that position during construction and concrete placement.

The mat slab can be designed using a flat slab on an elastic half-space analog. A modulus of subgrade reaction ($k_{s1}$) of 50 kcf is recommended for design of mat-type foundations. That modulus of subgrade reaction value represents a presumptive value based on soil classification. No plate-load tests were performed as part of this study. The modulus value is for a 1-foot-square plate and must be corrected for mat size and shape, assuming a cohesive subgrade.

### 4.10.2 Subgrade Preparation

Subgrade soils supporting interior concrete floor slabs should be scarified to a minimum depth of 8 inches, uniformly moisture-conditioned to near the optimum moisture content, and compacted to at least 90 percent relative compaction.

### 4.10.3 Rock Capillary Break/Vapor Barrier

Interior concrete floor slabs supported-on-grade should be underlain by a capillary break consisting of a blanket of compacted, free-draining, durable rock at least 4 inches thick, graded such that 100 percent passes the 1-inch sieve and less than 5 percent passes the No. 4 sieve.[3] Vapor barriers are not anticipated to be needed for this project. If a vapor barrier is desired, CGI can provide recommendations for design and construction of a vapor barrier beneath proposed slabs. A capillary break and/or vapor barrier may not be required for some types of construction (such as equipment buildings, warehouses, garages, and other uninhabited structures insensitive to water intrusion and/or vapor transmission through the slab). For these types of structures, the gravel capillary break and/or vapor barrier may be omitted and the slab placed directly on the prepared subgrade or other approved surface. In the event a capillary break and/or vapor barrier is not to be used, CGI should review the planned structure in order to assess the applicability of the approach and provide (if necessary) additional recommendations regarding subgrade preparation and/or support.

## 5.0 REVIEW OF PLANS AND SPECIFICATIONS

We recommend CGI conduct a general review of final plans and specifications to evaluate that recommendations contained herein have been properly interpreted and implemented during design. In the event that CGI is not retained to perform this recommended review, we will assume no responsibility for misinterpretation of our recommendations.

## 6.0 LIMITATIONS

This report has been prepared in substantial accordance with the generally accepted geotechnical engineering practice, as it existed in the site area at the time our services were rendered. No other warranty, either express or implied, is made. The recommendations provided in this report are based on the assumption that an adequate program of tests and observations will be conducted by CGI during the construction phase in order to evaluate compliance with our recommendations.

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[3] In general, Caltrans Class 2 aggregate base (or similar material) does not meet the requirements provided above for a capillary break. Therefore, we recommend this material not be used for a capillary break beneath interior concrete slabs supported-on-grade.

Conclusions and recommendations contained in this report were based on the conditions encountered during our field investigation and are applicable only to those project features described herein (see Section 1.1 – Project Understanding). Soil and rock deposits can vary in type, strength, and other geotechnical properties between points of observation and exploration. Additionally, groundwater and soil moisture conditions can also vary seasonally and for other reasons. Therefore, we do not and cannot have a complete knowledge of the subsurface conditions underlying the project site. The conclusions and recommendations presented in this report are based upon the findings at the point of exploration, and interpolation and extrapolation of information between and beyond the points of observation, and are subject to confirmation based on the conditions revealed by construction. If conditions encountered during construction differ from those described in this report, or if the scope or nature of the proposed construction changes, we should be notified immediately in order to review and, if deemed necessary, conduct additional studies and/or provide supplemental recommendations.

The scope of services provided by CGI for this project did not include the investigation and/or evaluation of toxic substances, or soil or groundwater contamination of any type. If such conditions are encountered during site development, additional studies may be required. Further, services provided by CGI for this project did not include the evaluation of the presence of critical environmental habitats or culturally sensitive areas.

This report may be used only by our client and their agents and only for the purposes stated herein, within a reasonable time from its issuance. Land use, site conditions, and other factors may change over time that may require additional studies. In the event significant time elapses between the issuance date of this report and construction, CGI shall be notified of such occurrence in order to review current conditions. Depending on that review, CGI may require that additional studies be conducted and that an updated or revised report is issued.

Any party other than our client who wishes to use all or any portion of this report shall notify CGI of such intended use. Based on the intended use as well as other site-related factors, CGI may require that additional studies be conducted and that an updated or revised report be issued. Failure to comply with any of the requirements outlined above by the client or any other party shall release CGI from any liability arising from the unauthorized use of this report.

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## REFERENCES


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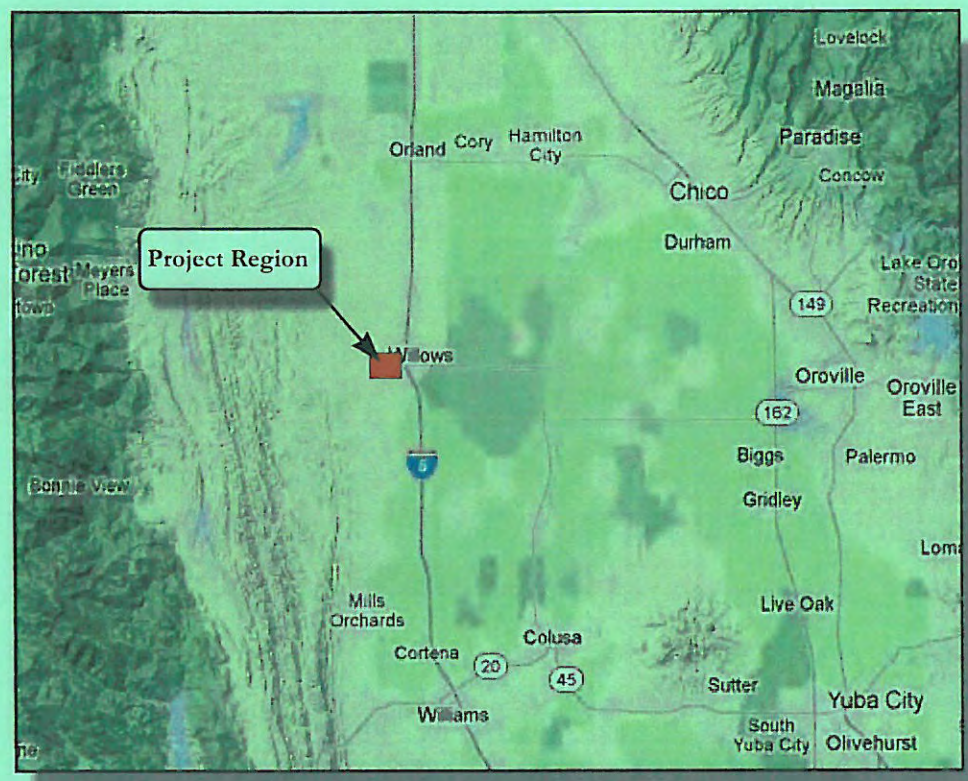
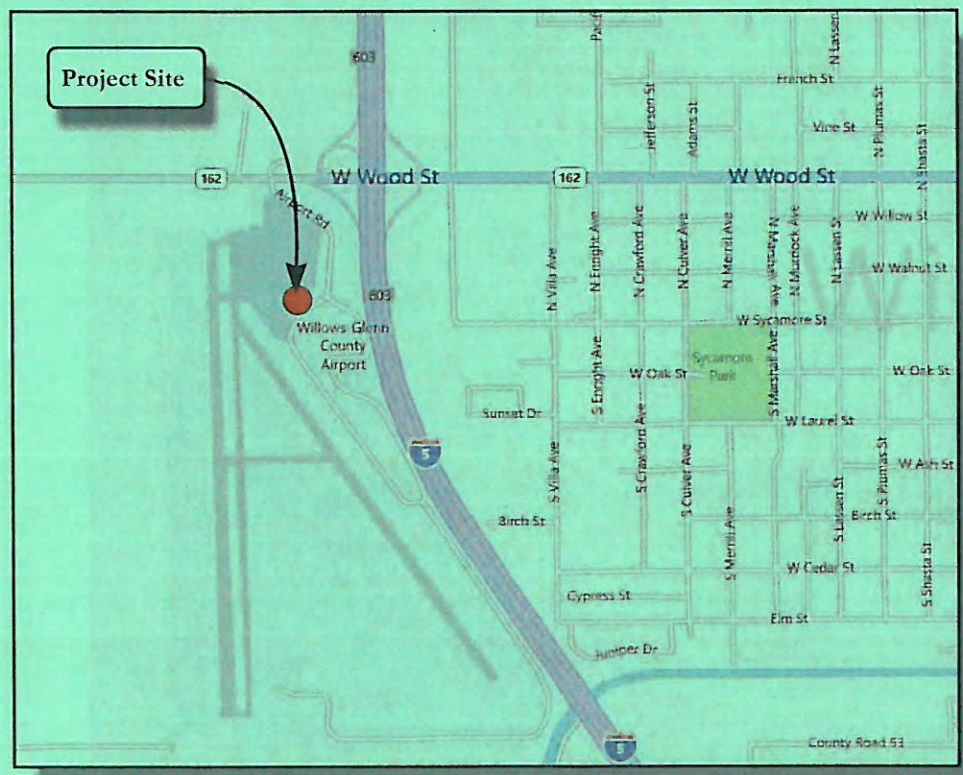


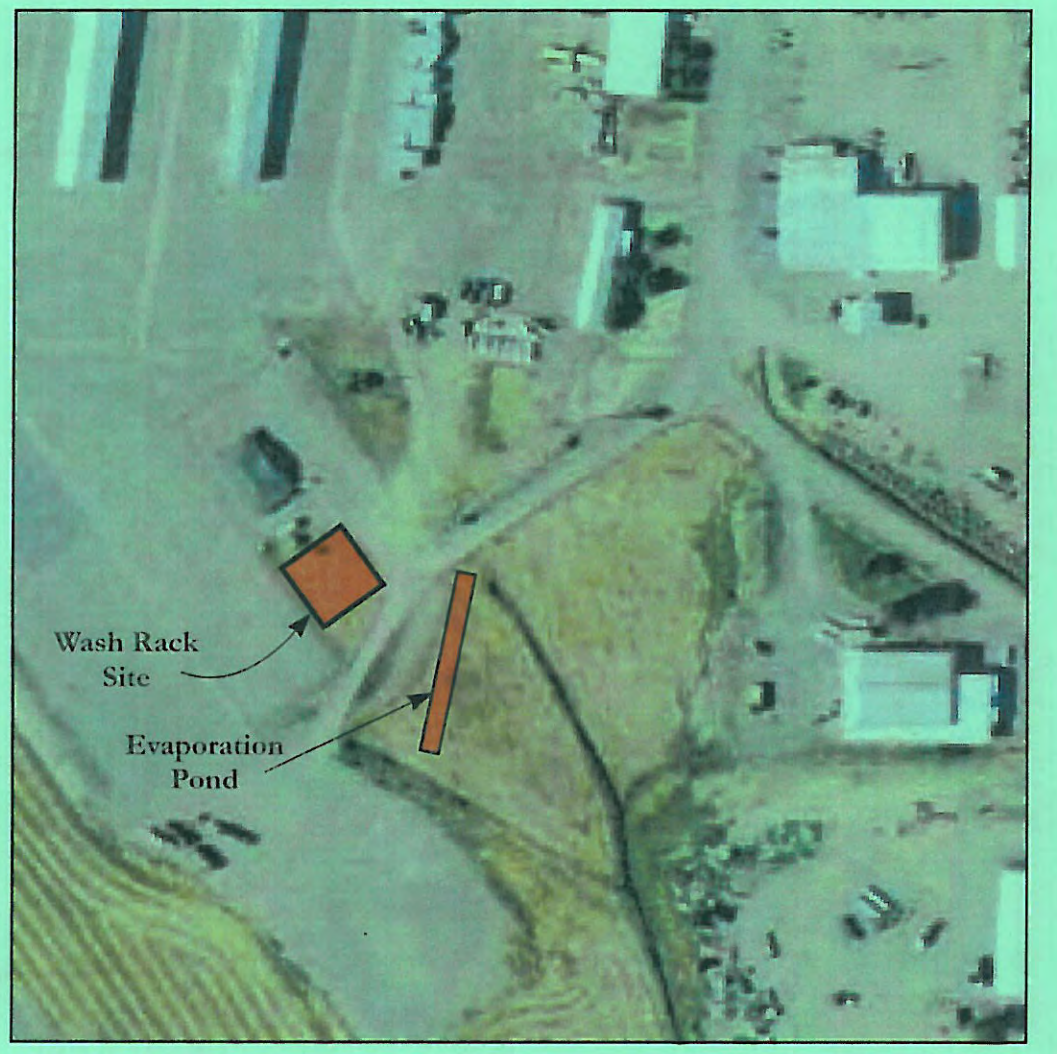

CGI TECHNICAL SERVICES INC.

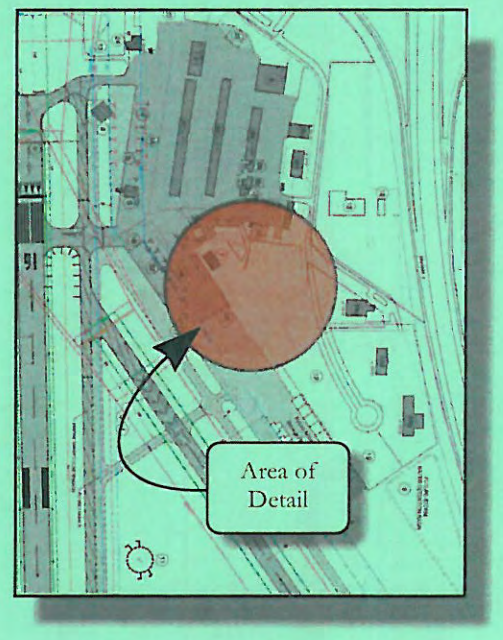
Project No.: 12-1144.58

SITE LOCATION MAP
WASH RACK & RELATED IMPROVEMENTS
WILLOWS-GLENN AIRPORT
WILLOWS, GLENN COUNTY, CALIFORNIA

Plate

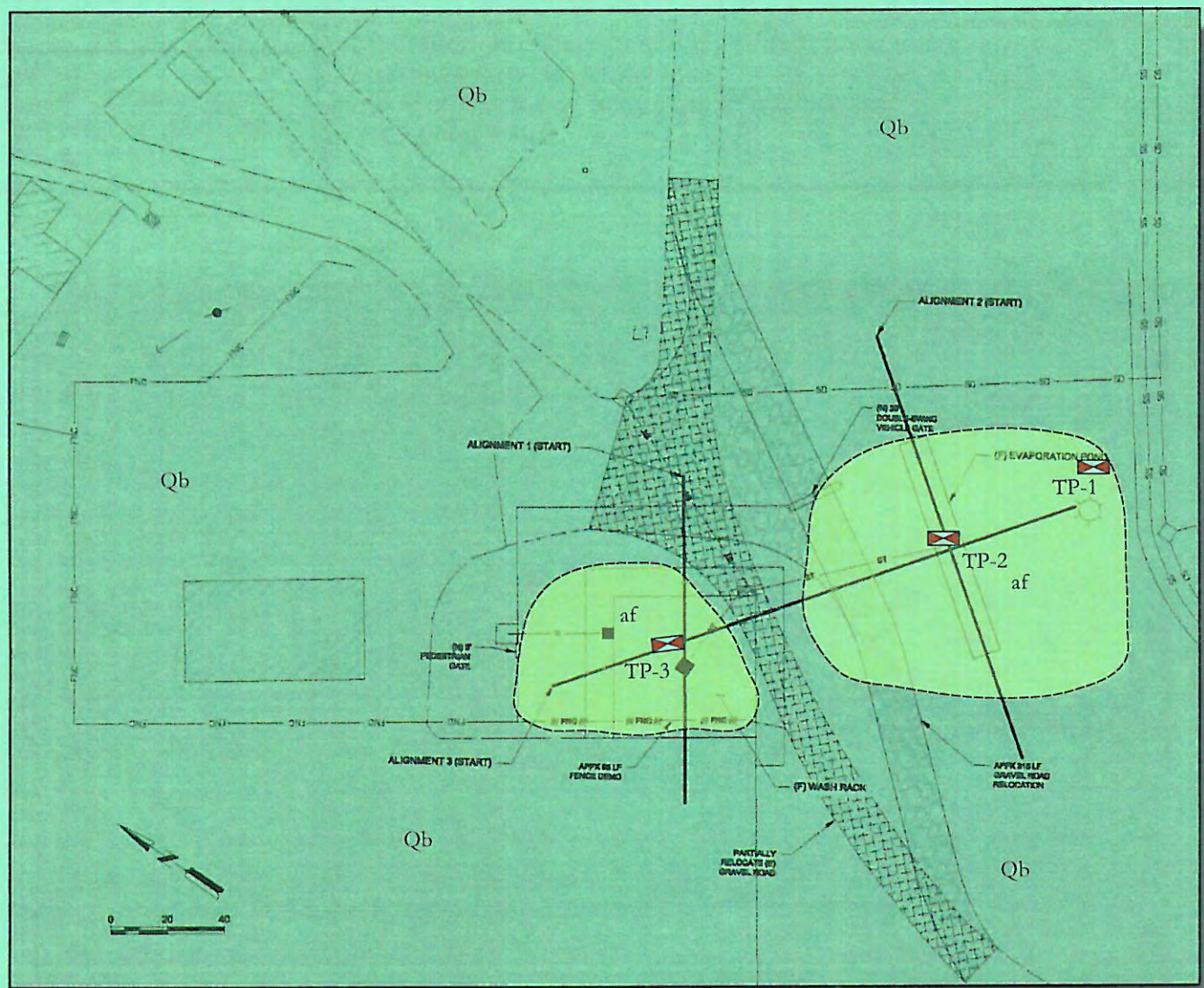
1




Based on Mead & Hunt (2011) Plan Sheet C-101, sheet 1 of 1

| | | |
|---|---|---|
| CGI TECHNICAL SERVICES INC. | PROJECT ELEMENTS<br>WASH RACK & RELATED IMPROVEMENTS<br>WILLOWS-GLENN AIRPORT<br>WILLOWS, GLENN COUNTY, CALIFORNIA | Plate<br>2 |
| Project No.: 12-1144.58 | | |




af Artificial Fill

Qb Basin Deposits

Test Pit Locations
TP-3

Base map from Mead & Hunt (2011), Plan Sheet C-101, Sheet 1 of 1

CGI TECHNICAL SERVICES INC.

Project No.: 12-1144.58

GEOTECHNICAL MAP
WASH RACK & RELATED IMPROVEMENTS
WILLOWS-GLENN AIRPORT
WILLOWS, GLENN COUNTY, CALIFORNIA

Plate
3



Qb — Basin Deposits

Qmu — Modesto Formation

Qru — Riverbank Formation Upper Member

Qrl — Riverbank Formation Lower Member

Geologic Contact: dashed where approximate, dotted where covered, queried where uncertain

Fault: showing dip of fault and and trend of striae on fault surface (arrow); bar and ball on downthrown side; dashed where approximate, dotted where concealed; queried where uncertain

Base map: Helley & Harwood (1985)

CGI Technical Services Inc.

Project No.: 12-1144.58

GEOLOGIC MAP
WASH RACK & RELATED IMPROVEMENTS
WILLOWS-GLENN AIRPORT
WILLOWS, GLENN COUNTY, CALIFORNIA

Plate 4

# APPENDIX A
# SUBSURFACE EXPLORATION

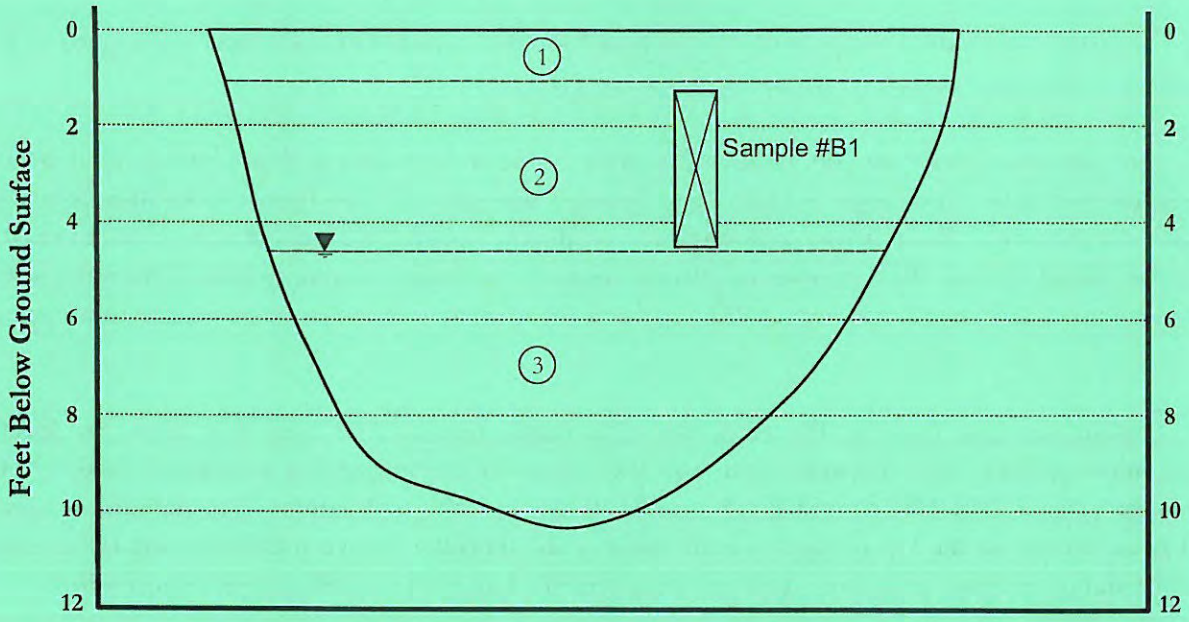
The subsurface exploration program for the proposed project consisted of excavating and logging of three exploratory test pits. Test pit locations are shown on Plate 3.

The test pits were excavated on January 26, 2012, using a John Deere 310SJ rubber-tired backhoe equipped with a two-foot wide bucket. The backhoe was provided by Pacheco Backhoe Services of Willows, California. The test pits were advanced to depths ranging from about 6 to 10 feet below the existing ground surface. Bulk samples of selected materials encountered were recovered from the test pits for laboratory classification and testing. The results of the testing procedures are attached within Appendix B.

The exploration logs describe the earth materials encountered. The logs also show the location, exploration number, date of exploration, and the names of the logger and equipment used. A CGI geologist, using ASTM 2488 for visual soil classification, logged the explorations. The boundaries between soil types shown on the log are approximate because the transition between different soil layers may be gradual and may change with time. Test pits were backfilled using excavated soils and wheel rolled.

Test pit logs are presented as Plates A-1.1 and A-1.3. A legend to the test pit logs is presented as Plate A-2.

# LOG OF TEST PIT




| | Soil Descriptions |
|---|---|
| 1 | ARTIFICIAL FILL (af)<br>GRAVEL (GW) with Sand, gray, moist with abundant fine to coarse sand and, subrounded to rounded fine to coarse gravel with few cobbles. |
| 2 | BASIN DEPOSITS (Qb)<br>Silty CLAY to CLAY (CL/CH), moderate yellowish brown, damp, very stiff to hard, slightly plastic |
| 3 | BASIN DEPOSITS (Qb)<br>Clayey SILT to Silty CLAY (ML/CL), moderate yellowish brown, damp, dense/stiff, slightly plastic |
| | |

| | | | |
|---|---|---|---|
| Date Logged: | January 26, 2012 | Excavated With: | John Deere 310SJ |
| Logged by: | Jim Bianchin | Backfilled With: | Excavated Cuttings |
| Excavator: | Pacheco Excavating | Depth to Water (ft): | 4.5 Feet |

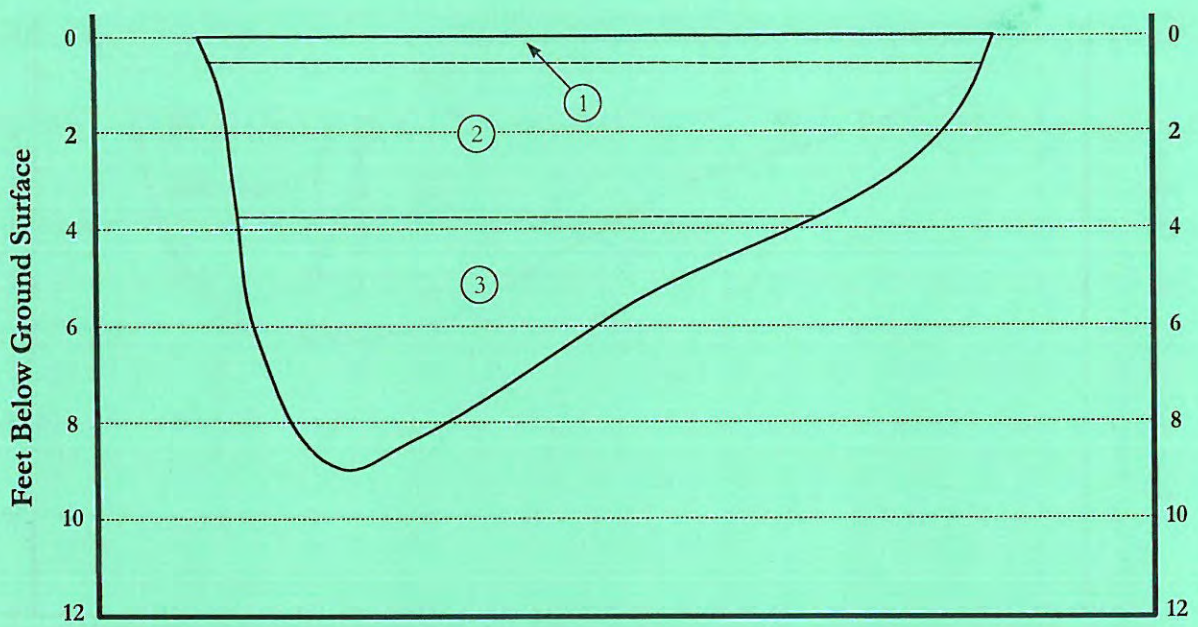
CGI TECHNICAL SERVICES INC.

Project No.: 12-1144.58

TEST PIT TP-1
WASH RACK & RELATED IMPROVEMENTS
WILLOWS-GLENN AIRPORT
WILLOWS, GLENN COUNTY, CALIFORNIA

Plate No.
A-1.1

# LOG OF TEST PIT




| Soil Descriptions | |
|---|---|
| 1 | ARTIFICIAL FILL (af)<br>GRAVEL (GW) with Sand, gray, moist with abundant fine to coarse sand and, subrounded to rounded fine to coarse gravel with few cobbles. |
| 2 | BASIN DEPOSITS (Qb)<br>Silty CLAY to CLAY (CL/CH), moderate yellowish brown, damp, very stiff to hard, slightly plastic |
| 3 | BASIN DEPOSITS (Qb)<br>Clayey SILT to Silty CLAY (ML/CL), moderate yellowish brown, damp, dense/stiff, slightly plastic |
| | |

| | | | |
|---|---|---|---|
| Date Logged: | January 26, 2012 | Excavated With: | John Deere 310SJ |
| Logged by: | Jim Bianchin | Backfilled With: | Excavated Cuttings |
| Excavator: | Pacheco Excavating | Depth to Water (ft): | Not Encountered |

CGI TECHNICAL SERVICES INC.

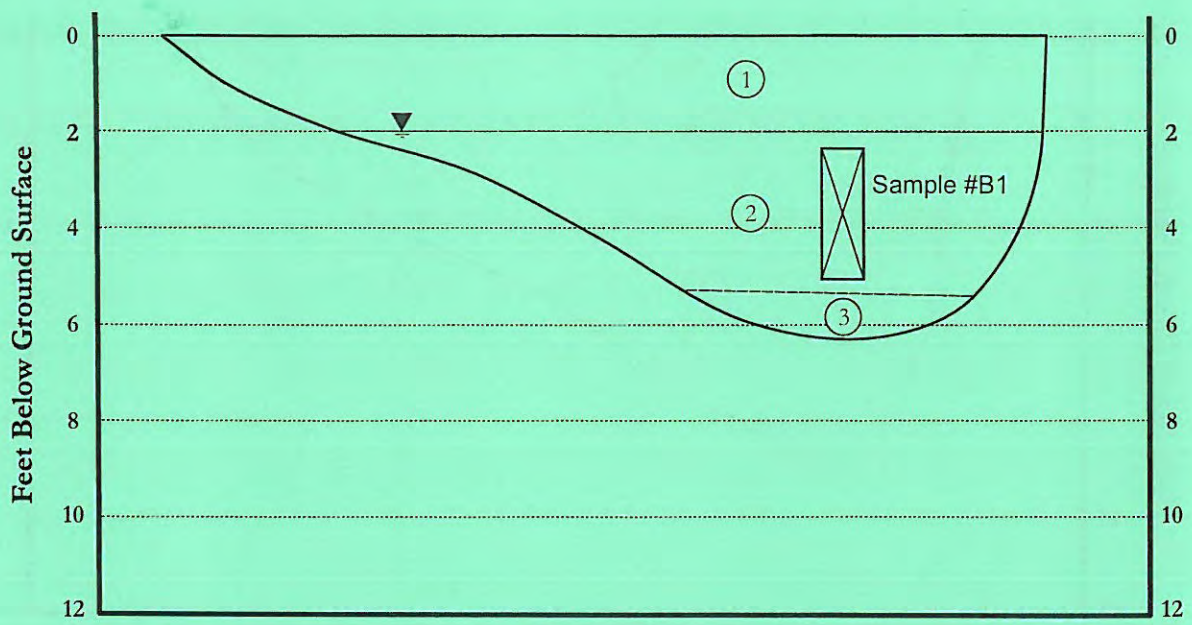
Project No.: 12-1144.58

TEST PIT TP-2
WASH RACK & RELATED IMPROVEMENTS
WILLOWS-GLENN AIRPORT
WILLOWS, GLENN COUNTY, CALIFORNIA

Plate No.

A-1.2

# LOG OF TEST PIT




| | Soil Descriptions |
|---|---|
| 1 | ARTIFICIAL FILL (af)<br>Silty CLAY to CLAY (CL/CH), dark brown to brown, wet with perched water at 2 feet, soft, with fine roots in upper 12 inches, few fine to coarse subrounded gravel, and little debris consisting of wood, brick, and plastic |
| 2 | BASIN DEPOSITS (Qb)<br>Silty CLAY to CLAY (CL/CH), moderate yellowish brown, damp, very stiff to hard, slightly plastic |
| 3 | BASIN DEPOSITS (Qb)<br>Clayey SILT to Silty CLAY (ML/CL), moderate yellowish brown, damp, dense/stiff, slightly plastic |
| | |

| | | | |
|---|---|---|---|
| Date Logged: | January 26, 2012 | Excavated With: | John Deere 310SJ |
| Logged by: | Jim Bianchin | Backfilled With: | Excavated Cuttings |
| Excavator: | Pacheco Excavating | Depth to Water (ft): | 2 Feet |

CGI TECHNICAL SERVICES INC.

Project No.: 12-1144.58

TEST PIT TP-3
WASH RACK & RELATED IMPROVEMENTS
WILLOWS-GLENN AIRPORT
WILLOWS, GLENN COUNTY, CALIFORNIA

Plate No.

A-1.3

| Major Divisions | | | USCS Symbol | Description |
|---|---|---|---|---|
| COARSE-GRAINED SOILS<br>More than 50% of sample or material is larger than the No. 200 Sieve (0.0029 inches) | GRAVELS<br>More than 50% of the coarse fraction is retained on No. 4 sieve (0.187 inches) | GRAVELS<br>Clean Gravels, few fines | GW | Well graded gravels and sand mixtures with little to no fines |
| | | | GP | Poorly graded gravels & gravel/sand mixtures with little to no fines |
| | | GRAVELS<br>With appreciable fines | GM | Silty gravels and poorly graded gravel/sand/silt mixtures |
| | | | GC | Clayey gravels and poorly graded gravel/sand/clay mixtures |
| | SANDS<br>More than 50% of the coarse fraction passes the No. 4 sieve (0.187 inches) | SANDS<br>Clean Sands, few fines | SW | Well graded sands and gravelly sands with little to no fines |
| | | | SP | Poorly graded sands and gravelly sands with little to no fines |
| | | SANDS<br>With appreciable fines | SM | Silty sands and poorly graded sand/gravel/silt mixtures |
| | | | SC | Clayey sands and poorly graded sand/gravel/clay mixtures |
| FINE-GRAINED SOILS<br>More than 50% of sample or material is smaller than the No. 200 Sieve (0.0029 inches) | SILTS & CLAYS<br>Liquid limit less than 50 | | ML | Inorganic silts with very fine sands, silty and/or clayey fine sands, clayey silts with slight plasticity |
| | | | CL | Inorganic clays with low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays |
| | | | OL | Organic silts and clays with low plasticity |
| | SILTS & CLAYS<br>Liquid limit greater than 50 | | MH | Inorganic silts, micaceous or diatomaceous fine sands or silts |
| | | | CH | Inorganic clays with high plasticity, fat clays |
| | | | OH | Orgainic silts and clays with high plasticity |
| HIGHLY ORGANIC SOIL | | | PT | Peat, humus, swamp soil with high organic content |

**Samples**

- Bulk or disturbed sample
- Relatively undisturbed sample

**Symbols**

- Groundwater
- Caving
- Contact Between Soil/Rock Layers

**GENERAL NOTES**

Dual symbols (such as ML/CL or SM/SC) are used to indicate borderline classifications.
In general, USCS designations shown on the logs were evaluated using visual methods. Actual designations (based on laboratory tests) may vary.
Logs represent general soil conditions observed on the date and locations indicated. No warranty is provided regarding soil continuity between locations.
Lines separating soil strata on logs are approximate. Actual transitions may be gradual and vary with depth.

CGI TECHNICAL SERVICES INC.

Project No.: 12-1144.58

LEGEND TO TEST PIT LOGS
WASH RACK & RELATED IMPROVEMENTS
WILLOWS-GLENN AIRPORT
WILLOWS, GLENN COUNTY, CALIFORNIA

Plate No.

A-2

# APPENDIX B
# LABORATORY TESTING

### *Laboratory Analyses*

Laboratory tests were performed on selected bulk soil samples to estimate engineering characteristics of the various earth materials encountered. Testing was performed under procedures described in one of the following references:

- ASTM Standards for Soil Testing, latest revision;
- Lambe, T. William, Soil Testing for Engineers, Wiley, New York, 1951;
- Laboratory Soils Testing, U.S. Army, Office of the Chief of Engineers, Engineering Manual No. 1110-2-1906, November 30, 1970.

### *Plasticity Index Tests*

Atterberg Limits (plastic limit, liquid limit, and plasticity index) tests were performed on two selected samples in accordance with standard test method ASTM D4318. Results of the Atterberg Limits tests are presented in the report text and on the attached plate labeled Atterberg Limits Tests.

### *Grain Size Distribution*

Grain size distribution was determined for two selected soil samples in accordance with standard test method ASTM D422. The grain size distribution data are shown on the attached plates labeled *Laboratory Sieve Analysis.*

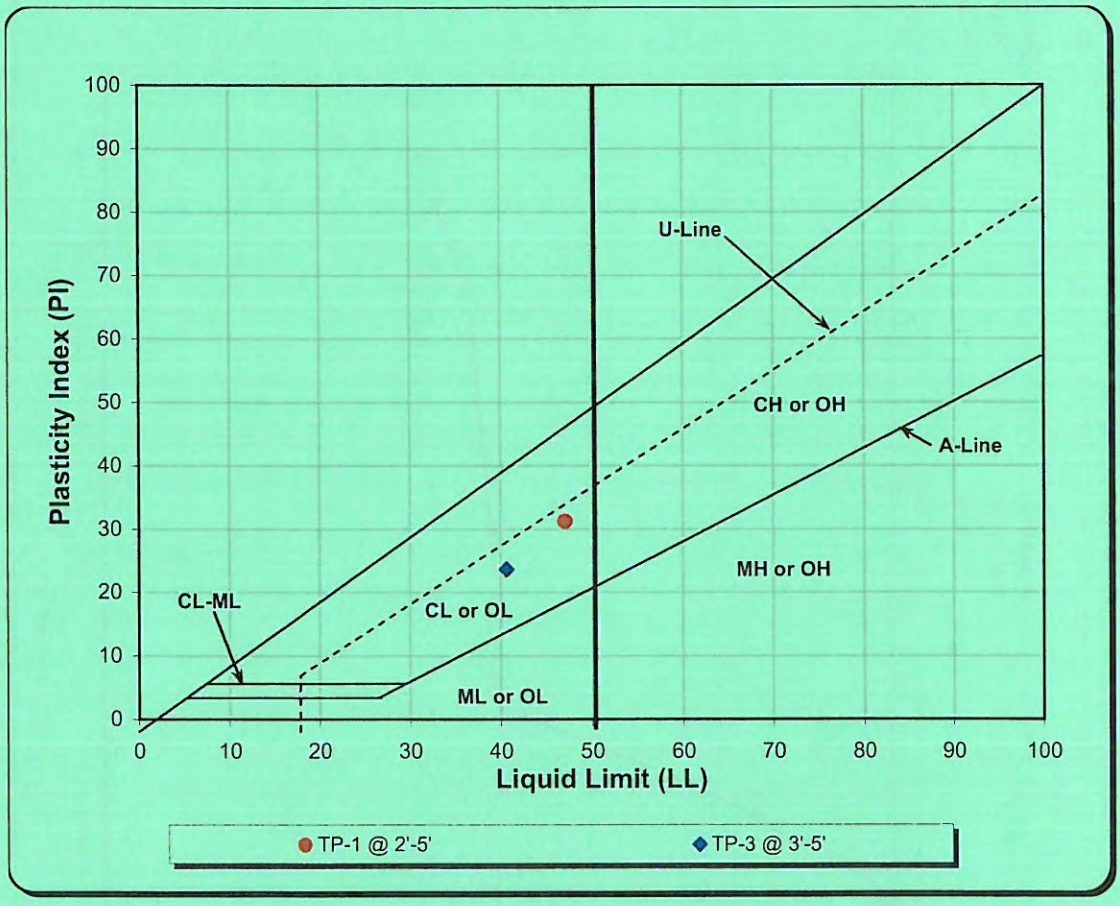
### *Corrosion Testing*

Soil chemistry tests were performed to evaluate the pH, resistivity, chloride, and sulfate concentrations within one sample of on-site soils tested. The results of the test are attached to this appendix.

CGI TECHNICAL SERVICES INC.

# ATTERBERG LIMITS TESTS

| | | | |
|---|---|---|---|
| **Client:** | Mead & Hunt, Inc. | **Job No.:** | 12-1144.58 |
| **Project:** | Willows-Glenn Airport Wash Rack | **Lab No.:** | 5480 |
| **Location:** | Willows, California | | |
| **Sampled By:** | JAB | **Date Sampled:** | 26-Jan-12 |
| **Received By:** | TK | **Date Received:** | 26-Jan-12 |
| **Tested By:** | JS | **Date Tested:** | 6-Feb-12 |
| **Reviewed By:** | JAB | **Date Reviewed:** | 6-Feb-12 |




| LEGEND | | | CLASSIFICATION | ATTERBERG LIMITS TEST RESULTS | | |
|---|---|---|---|---|---|---|
| Location | Depth, ft | Sample No. | | Liquid Limit (LL) | Plastic Limit (PL) | Plasticity Index (PI) |
| TP-1 | 2' - 5' | B1 | Silty Clay | 47.1 | 15.9 | 31 |
| TP-3 | 3' - 5' | B1 | Silty Clay | 40.7 | 17.0 | 24 |

ASTM D4318 & D2487

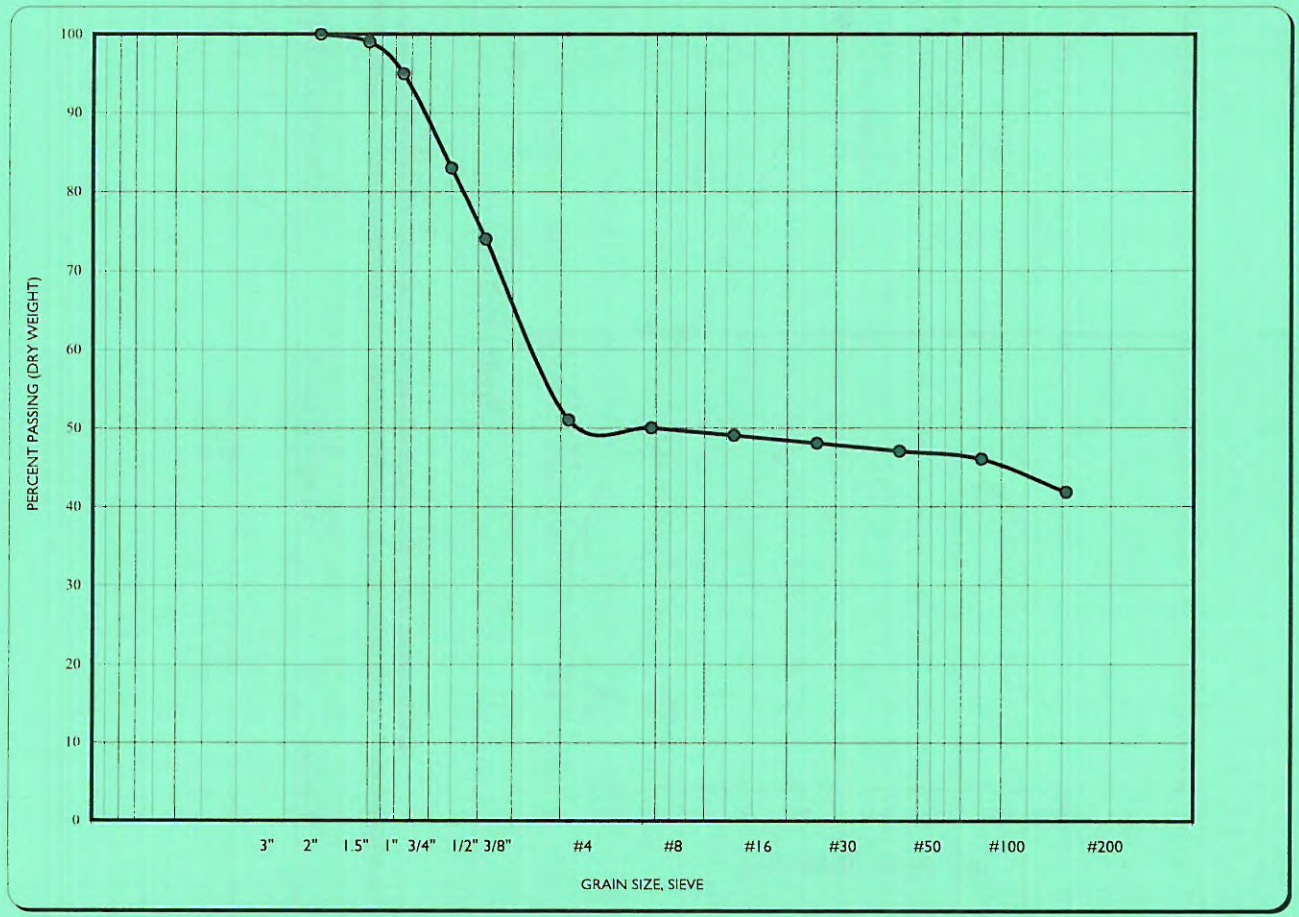
CGi Technical Services, Inc.

# LABORATORY TEST RESULTS

**Client:** Mead & Hunt, Inc.
**Project:** Willows-Glenn Airport Wash Rack
**Material Type:** Clayey Sand
**USCS:** SC

**Sample Location:** TP-1, 1'-3'
**Sampled By:** JAB
**Tested By:** TK

**Job No.:** 12-1144.58
**Lab No.:** 5424
**Date Received:** 26-Jan-12
**Date Tested:** 3-Feb-12
**Date Reviewed:** 3-Feb-12




SIEVE ANALYSIS

| Sieve Size Standard | Grain Size (mm) | Percent Passing |
|---|---|---|
| 3 | 76.20 | |
| 2 | 50.80 | |
| 1.5 | 37.50 | 100 |
| 1" | 25.00 | 99 |
| 3/4" | 19.00 | 95 |
| 1/2" | 12.50 | 83 |
| 3/8" | 9.50 | 74 |
| #4 | 4.75 | 51 |
| #8 | 2.36 | 50 |
| #16 | 1.18 | 49 |
| #30 | 600um | 48 |
| #50 | 300um | 47 |
| #100 | 150um | 46 |
| #200 | 75um | 41.8 |

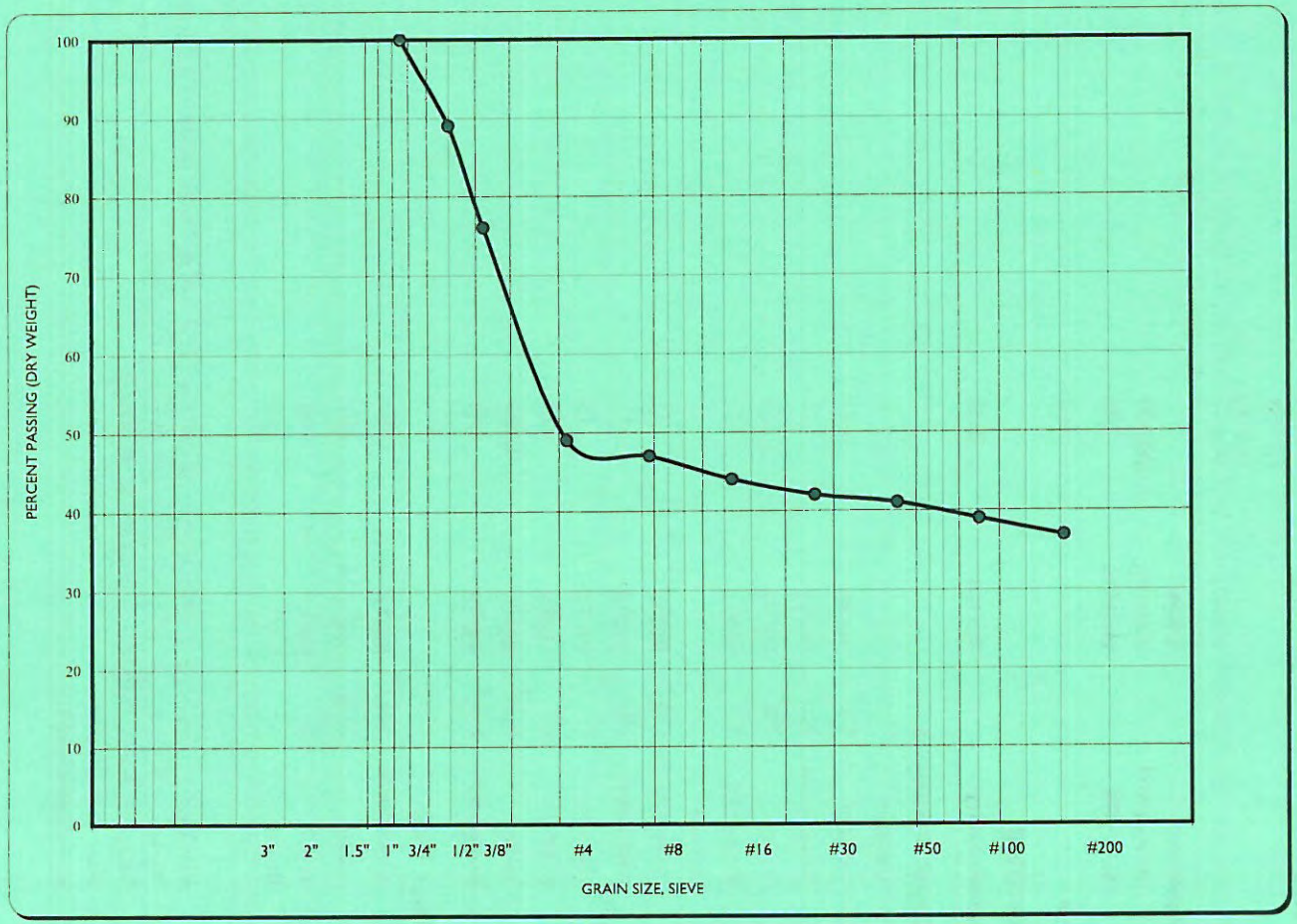
CGi Technical Services, Inc.

# LABORATORY TEST RESULTS

**Client:** Mead & Hunt, Inc.
**Project:** Willows-Glenn Airport Wash Rack
**Material Type:** Clayey Sand
**USCS:** SC

**Sample Location:** TP-3, 3'-5'
**Sampled By:** JAB
**Tested By:** TK

**Job No.:** 12-1144.58
**Lab No.:** 5424
**Date Received:** 26-Jan-12
**Date Tested:** 3-Feb-12
**Date Reviewed:** 3-Feb-12




SIEVE ANALYSIS

| Sieve Size Standard | Grain Size (mm) | Percent Passing |
|---|---|---|
| 3 | 76.20 | |
| 2 | 50.80 | |
| 1.5 | 37.50 | |
| 1" | 25.00 | |
| 3/4" | 19.00 | 100 |
| 1/2" | 12.50 | 89 |
| 3/8" | 9.50 | 76 |
| #4 | 4.75 | 49 |
| #8 | 2.36 | 47 |
| #16 | 1.18 | 44 |
| #30 | 600um | 42 |
| #50 | 300um | 41 |
| #100 | 150um | 39 |
| #200 | 75um | 36.9 |

## Table 1 - Laboratory Tests on Soil Samples

***CGI Technical Services, Inc.***
***Willows Glenn Airport***
***Your #12-1144.58, HDR\Schiff #12-0098LAB***
***8-Feb-12***

| **Sample ID** | | | TP3 B-1 @ 2'-5' Native |
|---|---|---|---|
| **Resistivity** | | **Units** | |
| as-received | | ohm-cm | 4,400,000 |
| saturated | | ohm-cm | 196 |
| **pH** | | | 8.1 |
| **Electrical Conductivity** | | mS/cm | 2.04 |
| **Chemical Analyses** | | | |
| **Cations** | | | |
| calcium | $Ca^{2+}$ | mg/kg | 173 |
| magnesium | $Mg^{2+}$ | mg/kg | 71 |
| sodium | $Na^{1+}$ | mg/kg | 2,323 |
| potassium | $K^{1+}$ | mg/kg | 11 |
| **Anions** | | | |
| carbonate | $CO_3^{2-}$ | mg/kg | 33 |
| bicarbonate | $HCO_3^{1-}$ | mg/kg | 355 |
| fluoride | $F^{1-}$ | mg/kg | 16 |
| chloride | $Cl^{1-}$ | mg/kg | 110 |
| sulfate | $SO_4^{2-}$ | mg/kg | 4,384 |
| phosphate | $PO_4^{3-}$ | mg/kg | ND |
| **Other Tests** | | | |
| ammonium | $NH_4^{1+}$ | mg/kg | ND |
| nitrate | $NO_3^{1-}$ | mg/kg | ND |
| sulfide | $S^{2-}$ | qual | na |
| Redox | | mV | na |

Electrical conductivity in millisiemens/cm and chemical analysis were made on a 1:5 soil-to-water extract.
mg/kg = milligrams per kilogram (parts per million) of dry soil.
Redox = oxidation-reduction potential in millivolts
ND = not detected
na = not analyzed

## DIVISON V

## SECTION 3

## AGGREGATE BASES (MODIFIED CALTRANS)

### DESCRIPTION

**3-1.1 GENERAL.** This work shall consist of furnishing, spreading and compacting aggregate bases as specified in these SPECIFICATIONS and the Special Provisions.

Aggregate bases are designated as Class 2.

**3-1.2 PREQUALIFICATION OF MATERIALS.** The CONTRACTOR shall provide test results for prequalification of materials used in this item. Submittals of these test results must be received by the ENGINEER no less than ten (10) working days prior to placement of materials. No separate payment shall be made for prequalifying tests.

**3-1.3 MATERIALS.** Aggregate for the various classes of aggregate base at the time it is deposited on the roadbed shall conform to the following requirements:

**A. Class 2 Aggregate Base.** Aggregate for Class 2 aggregate base shall be free from organic matter and other deleterious substances, and shall be of such nature that it can be compacted readily under watering and rolling to form a firm, stable base. Aggregate may include material processed from reclaimed asphalt concrete, portland cement concrete, lean concrete base, cement treated base or a combination of any of these materials. The amount of reclaimed material shall not exceed 50 percent of the total volume of the aggregate used.

Aggregate shall conform to the grading and quality requirements shown in the following tables.

**AGGREGATE GRADING REQUIREMENTS**

| Sieve Sizes | Percentage Passing 3/4 " Maximum | |
|---|---|---|
| | Operating Range | Contract Compliance |
| 2" | — | — |
| 1 1/2" | — | — |
| 1" | 100 | 100 |
| 3/4" | 90-100 | 87-100 |
| No. 4 | 35-60 | 30-65 |
| No. 30 | 10-30 | 5-35 |
| No. 200 | 2-9 | 0-12 |

**QUALITY REQUIREMENTS**

| Test | Operating Range | Contract Compliance |
|---|---|---|
| Resistance (R-value) | — | 78 Min. |
| Sand Equivalent | 25 Min. | 22 Min. |
| Durability Index | — | 35 Min. |

The aggregate shall not be treated with lime, cement or other chemical material before the Durability Index test is performed. Untreated reclaimed asphalt concrete and portland cement concrete will not be considered to be treated with lime, cement or other chemical material for purposes of performing the Durability Index test.

If the results of either or both the aggregate grading and Sand Equivalent tests do not meet the requirements specified for "Operating Range" but meet the "Contract Compliance" requirements, placement of the aggregate base may be continued for the remainder of that day. However, another day's work may not be started until tests, or other information, indicate to the satisfaction of the ENGINEER that the next material to be used in the work will comply with the requirements specified for "Operating Range."

If the results of either or both the aggregate grading and Sand Equivalent tests do not meet the requirements specified for "Contract Compliance," the aggregate base which is represented by these tests shall be removed. However, if requested by the CONTRACTOR and approved by the ENGINEER, the aggregate base may remain in place, and the CONTRACTOR shall pay to the State $2.25 per cubic yard for the aggregate base represented by the tests and left in place. The Department may deduct this amount from any moneys due, or that may become due, the CONTRACTOR under the contract. If both the aggregate grading and Sand Equivalent do not conform to the "Contract Compliance" requirements, only one adjustment shall apply.

No single aggregate grading or Sand Equivalent test shall represent more than 500 cubic yards or one day's production, whichever is smaller.

**3-1.4 SUBGRADE.** The subgrade to receive aggregate base, immediately prior to spreading shall conform to the compaction and elevation tolerance specified for the material involved, and shall be free of loose or extraneous material.

Areas of the finished surface of aggregate subbase which are lower than the grade established by the ENGINEER shall be filled with aggregate base. The quantity of aggregate base so placed will not be included in the quantity calculated for payment.

When aggregate subbase is not specified and areas of the grading plane which are lower than the grade established by the ENGINEER may be filled with aggregate base. The quantity of aggregate base so placed will not be included in the quantity calculated for payment as stated above. If basement material consists of imported borrow, aggregate base placed below the grade established by the ENGINEER will not be measured or paid for as imported borrow.

**A. Adding Water.** At the time aggregate base is spread it shall have a moisture content sufficient to obtain the required compaction. The moisture shall be uniformly distributed throughout the material.

**3-1.5 SPREADING.** Aggregate bases shall be delivered to the roadbed as uniform mixtures. The mixture shall be deposited and spread to the required compacted thickness within the tolerances specified in Section 3-1.6, "Compacting," by means which will maintain the uniformity of the mixture. Each layer shall be free from pockets of coarse or fine material.

Where the required thickness is 0.50-foot or less, the base material may be spread and compacted in one layer. Where the required thickness is more than 0.50-foot, the base material shall be spread and compacted in two or more layers of approximately equal thickness, and the maximum compacted thickness of any one layer shall not exceed 0.50-foot.

Aggregate bases, placed on road approaches and connections, street intersection areas, median strip areas, shoulder areas, and at locations which are inaccessible to the spreading equipment, may be spread in one or more layers by any means to obtain the specified results.

When the subgrade for aggregate base consists of cohesionless sand, and written permission is granted by the ENGINEER, a portion of the aggregate base may be dumped in piles upon the subgrade and spread ahead from the dumped material in sufficient quantity to stabilize the subgrade. Segregation of aggregate shall be avoided and each layer shall be free from pockets of coarse or fine material.

**3-1.6 COMPACTING.** The relative compaction of each layer of compacted base material shall be not less than 95 percent.

The surface of the finished aggregate base at any point shall not vary more than 0.05-foot above or below the grade established by the ENGINEER.

At locations where the planned thickness of aggregate base, less allowable tolerance, is not obtained, the CONTRACTOR shall take such corrective measures as are necessary to obtain that thickness. If requested by the CONTRACTOR and permitted by the ENGINEER, a deduction will be made from contract payment for aggregate base in lieu of correcting the deficient thickness. The deduction will be computed as the product of (a) the deficient thickness less allowable tolerance; (b) the planned width; and (c) the longitudinal distance between locations showing specified thickness, all as determined by the ENGINEER, multiplied by a fixed price of $17.00 per cubic yard, or the CONTRACT bid price, whichever is higher.

Base which does not conform to the above requirements shall be reshaped or reworked, watered and thoroughly re-compacted to conform to the specified requirements.

## MEASUREMENT

**3-2.1** Quantities of aggregate base shall be measured by the ton based on collected weight tags for material actually used in the field. No allowance will be made for aggregate base placed outside the areas shown on the PLANS unless otherwise ordered by the ENGINEER.

## PAYMENT

**3-3.1** Quantities of aggregate base will be paid for at the CONTRACT price per ton.

The above prices and payments shall include full compensation for furnishing all labor, materials tools, equipment, and incidentals, and for doing all the work involved in constructing aggregate base, complete in place, as shown on the PLANS, and as specified in these specifications and the special provisions, and as directed by the ENGINEER.

**END OF SECTION**

## DIVISION V

## SECTION 4

## UNDER-SLAB VAPOR BARRIER
## (*IMPERMEABLE LINER*)

### DESCRIPTION

**4-1.1** This item shall consist of furnishing and installing vapor barrier (Impermeable Liner), seam tape, mastic tape, and pipe boots for installation under concrete slabs.

**4-1.2 SUBMITTALS.**

**A. Quality Control/Assurance**

1. Independent laboratory test results showing compliance with ASTM and ACI standards.
2. Manufacturer's samples, literature.
3. Manufacturer's installation instructions for placement, seaming, and pipe boot installations.

### MATERIALS

**4-2.1 VAPOR BARRIER.**

**A.** Vapor barrier must have the following qualities.

1. Water Vapor Transmission rate ASTM E 96 0.006 WVTR or lower
2. Water Vapor Barrier ASTM E 1745 Meets Class A (Plastics)

**B.** Vapor barrier product manufacturers.

1. Stego Wrap 15-mil Vapor Barrier by STEGO INDUSTRIES LLC. (877) 464-7834 www.stegoindustries.com
2. Premoulded Membrane with Plasmatic Core by W.R. Meadows.
3. Zero-Perm by Alumiseal.

**4-2.2 ACCESSORIES.**

**A. Seam Tape.**

1. Tape must have the following qualities:
   a. Water Vapor Transmission Rate ASTM E 96 0.3 perms or lower
2. Seam Tape shall be Stego Tape by STEGO INDUSTRIES LLC or Engineer-approved equal.

**B. Vapor Proofing Mastic.**

1. Mastic must have the following qualities:
   a. Water Vapor Transmission Rate ASTM E 96 0.3 perms or lower

2. Mastic shall be Stego Mastic by STEGO INDUSTIREIS LLC or Engineer-approved equal.

**C. Pipe Boots.**

1. Construct pipe boots from vapor barrier material, pressure-sensitive tape, and/or mastic per manufacturer's instructions.

## CONSTRUCTION METHODS

**4-3.1** Base shall be approved by the ENGINEER before beginning installation.

**4-3.2 INSTALLATION.**

**A. Install Vapor Barrier.**

1. Installation shall be in accordance with manufacturer's instructions and ASTM E 1643-98.
   a. Unroll Vapor Barrier with the longest dimension parallel with the direction of the pour.
   b. Lap Vapor Barrier over footings and seal to foundation walls.
   c. Overlap joints six inches and seal with manufacturer's tape.
   d. Seal all penetrations (including pipes) per manufacturer's instructions.
   e. No penetration of the Vapor Barrier is allowed except for reinforcing steel and permanent utilities.
   f. Repair damaged areas by cutting patches of Vapor Barrier, overlapping damaged area six inches and taping all four sides with tape.

## MEASUREMENT AND PAYMENT

**4-4.1 MEASUREMENT.** No separate measurement will be made for vapor barrier.

**4-4.2 PAYMENT.** Payment for Vapor Barrier material shall be included in the CONTRACT lump sum price for Containment/Evaporation Pond/Green House. The price shall be full compensation for furnishing and delivering all materials, for all preparation, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

**END OF SECTION**

## DIVISION V

## SECTION 5

## ITEM P-605
## JOINT SEALING FILLER

### DESCRIPTION

**5-1.1** This item shall consist of providing and installing a resilient and adhesive joint sealing filler capable of effectively sealing joints and cracks in pavements.

### MATERIALS

**5-2.1 JOINT SEALERS.** Joint sealing materials shall meet the requirements of ASTM D 5893 - Standard Specifications for Cold Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Concrete Pavements.

Each lot or batch of sealing compound shall be delivered to the jobsite in the manufacturer's original sealed container. Each container shall be marked with the manufacturer's name, batch or lot number, and shall be accompanied by the manufacturer's certification stating that the compound meets the requirements of this SPECIFICATION.

### CONSTRUCTION METHODS

**5-3.1 TIME OF APPLICATION.** Joints shall be sealed as soon after completion of the curing period as feasible and before the pavement is opened to traffic, including construction equipment. The pavement temperature shall be above 50°F at the time of installation of the poured joint sealing material.

**5-3.2 PREPARATION OF JOINTS.**

**A.** **Sawing**. All joints shall be sawed in accordance with SPECIFICATIONS and PLAN details. Immediately after sawing the joint, the resulting slurry shall be completely removed from joint and adjacent area by flushing with a jet of water, and by use of other tools as necessary.

**B.** **Sealing**. Immediately before sealing, the joints shall be thoroughly cleaned of all remaining laitance, curing compound, and other foreign material. Cleaning shall be accomplished by sandblasting. Sandblasting shall be accomplished in a minimum of two passes. One pass per joint face with the nozzle held at an angle directly toward the joint face and not more that 3 inches from it. Upon completion of cleaning, the joints shall be blown out with compressed air free of oil and water. Only air compressors with operable oil and water traps shall be used to prepare the joints for sealing. The joint faces shall be surface dry when the seal is applied.

**5-3.3 INSTALLATION OF SEALANTS.** Joints shall be inspected for proper width, depth, alignment, and preparation, and shall be approved by the ENGINEER before sealing is allowed. Sealants shall be installed in accordance with the manufacturers recommendations:

## METHOD OF MEASUREMENT

**5-4.1** No separate measurement will be made for joint sealer.

## BASIS OF PAYMENT

**5-5.1** Payment for joint sealing material shall be included in the CONTRACT lump sum price for Wash Rack & Pollution Control Facility. The price shall be full compensation for furnishing and delivering all materials, for all preparation, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

## TESTING REQUIREMENTS

| | |
|---|---|
| ASTM D 412 | Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension |

## MATERIAL REQUIREMENTS

| | |
|---|---|
| ASTM D 5893 | Standard SPECIFICATIONS for Cold Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Concrete Pavements. |

## END OF SECTION

# DIVISION V

## SECTION 6

## ITEM D-701
## PIPE FOR STORM DRAINS AND CULVERTS

### DESCRIPTION

**6-1.1 GENERAL.** This item shall consist of the construction of an 18 inch culvert pipe in accordance with these SPECIFICATIONS and in reasonably close conformity with the lines and grades shown on the PLANS.

**6-1.2** ***SUBMITTALS.*** *Submittals for equipment and materials shall be in accordance with Section 1, Mobilization.*

***6-1.3 CERTIFICATES OF COMPLIANCE.*** *The CONTRACTOR shall furnish the ENGINEER with the manufacturer's certificates of compliance with requirements specified herein for all materials used.*

### MATERIALS

**6-2.1** Materials shall meet the requirements shown on the PLANS and specified below.

**6-2.2 PIPE**. The pipe shall be of the type called for on the PLANS or in the proposal and shall be in accordance with the following requirements.

| | |
|---|---|
| Corrugated Polyethylene Pipe 300 to 1200 mm diameter (all types) | AASHTO M 294 |

**6-2.3 CONCRETE.** Concrete, where used, shall conform to Caltrans Type II, Class 1.

**6-2.4 RUBBER GASKETS.** Rubber gaskets for PVC pipe and polyethylene pipe shall conform to the requirements of ASTM F 477.

**6-2.5 JOINT MORTAR.** Pipe joint mortar shall consist of one part portland cement and two parts sand. The portland cement shall conform to the requirements of ASTM C 150, Type I. The sand shall conform to the requirements of ASTM C 144.

**6-2.6** ***OAKUM.*** Deleted

**6-2.7 JOINT FILLERS.** Deleted

**6-2.8 PLASTIC GASKETS.** Plastic gaskets shall conform to the requirements of AASHTO M 198 (Type B).

***6-2.9 COMPRESSION JOINTS.*** Deleted

**6-2.10 CONTROLLED LOW STRENGTH MATERIAL (CLSM)**. N/A

## CONSTRUCTION METHODS

**6-3.1 EXCAVATION.** The width of the pipe trench shall be sufficient to permit satisfactory jointing of the pipe and thorough tamping of the bedding material under and around the pipe. For pipe 4 inches and larger in diameter, the trench shall not be less than the external diameter of the pipe plus 6 inches on each side. The trench walls shall be approximately vertical.

Where rock, hardpan, or other unyielding material is encountered, the CONTRACTOR shall remove it from below the foundation grade for a depth of at least 12 inches or one-half inch for each foot of fill over the top of the pipe (whichever is greater) but for no more than three-quarters of the nominal diameter of the pipe. The width of the excavation shall be at least 1 foot greater than the horizontal outside diameter of the pipe. The excavation below grade shall be backfilled with selected fine compressible material, such as silty clay or loam, and lightly compacted in layers not over 6 inches in uncompacted depth to form a uniform, but yielding foundation.

Where a firm foundation is not encountered at the established grade, due to soft, spongy, or other unstable soil, the unstable material shall be removed and replaced with approved granular material for the full trench width. The ENGINEER shall determine the depth of removal necessary. *If used,* the granular material shall be compacted to provide adequate support for the pipe.

*If undisturbed original soil at the planned grade of the excavation is determined to be unsuitable material by the ENGINEER, the ENGINEER will direct corrective work. Any such corrective work will be paid for as extra work.*

*The CONTRACTOR shall be responsible for dewatering excavations as required. The methods used to control and remove water at excavations shall be at the option of the CONTRACTOR and may include, but are not limited to, well point systems, pumping sumps, or cofferdams. Care shall be taken during excavation to prevent disturbing the pipe trench foundation. If ground water is encountered during excavation, dewatering shall be commenced and shall proceed in advance of or concurrently with further excavation.*

*The trench shall be free of water at the time pipes are placed and backfilled. Water control shall continue as necessary to prevent damage to the work. If suitable trenches, pipe, bedding and backfill material has been disturbed by the CONTRACTOR's operations, has been damaged by water, or has been removed for the CONTRACTOR's convenience in dewatering the trench, the bedding shall be restored by the CONTRACTOR at his expense to a condition at least equal to the undisturbed bedding as determined by the ENGINEER. The material used to replace such damaged or removed trench material shall be Caltrans Class II or approved native as directed by the ENGINEER and shall be compacted to 90% relative compaction*.*
*(*If Caltrans Class II material is used it shall be paid for as extra work. No additional payment will be made for using approved native material.)*

*When undisturbed original matter at the planned grade of the excavation is determined by the ENGINEER to be unsuitable material, the ENGINEER will direct corrective work. This work will be paid for at the CONTRACT price as extra work and aggregate base. Full compensation for controlling and removing water from excavations and for furnishing and installing or constructing all cofferdams and all other facilities necessary to the dewatering operations and their subsequent removal, if required by the ENGINEER, shall be considered as included in the CONTRACT price paid for pipe.*

The excavation for pipes that are placed in embankment fill shall not be made until the embankment has been completed to a height above the top of the pipe as shown on the PLANS.

**6-3.2 BEDDING.** The pipe bedding shall conform to that specified on the PLANS.

A. **Flexible Pipe.** For flexible pipe, the bed shall be roughly shaped to fit the pipe, and a bedding blanket of sand or fine granular material shall be provided as follows:

| Pipe Corrugation Depth Inch | Maximum Bedding Depth Inch |
|---|---|
| 1/2 | 1 |
| 1 | 2 |
| 2 | 3 |
| 2-1/2 | 3-1/2 |

B. **PVC and Polyethylene Pipe.** For PVC and polyethylene pipe, the bedding material shall consist of coarse sands and gravels with a maximum particle size of 3/4-inch. For pipes installed under paved areas, no more than 12 percent of the material shall pass the No. 200 sieve. For all other areas, no more than 50 percent of the material shall pass the No. 200 sieve. The bedding shall have a thickness of at least 6 inches below the bottom of the pipe and extend up around the pipe for a depth of not less than 50 percent of the pipe's vertical outside diameter.

**6-3.3 LAYING PIPE.** The pipe laying shall begin at the lowest point of the trench and proceed upgrade. The lower segment of the pipe shall be in contact with the bedding throughout its full length. Bell or groove ends of rigid pipes and outside circumferential laps of flexible pipes shall be placed facing upgrade.

Elliptical and elliptically reinforced pipes shall be placed with the manufacturer's top of pipe mark within five degrees of a vertical plane through the longitudinal axis of the pipe.

**6-3.4 JOINING PIPE.** Pipe joints shall be made with rubber gaskets and pipe/structure joints shall be made with portland cement mortar.

Mortar joints shall be made with an excess of mortar to form a continuous bead around the outside of the pipe and shall be finished smooth on the inside. Molds or runners shall be used for grouted joints in order to retain the poured grout. Rubber ring gaskets shall be installed to form a flexible watertight seal.

A. **Concrete Pipe.** *Deleted.*

B. **Metal Pipe.** *Deleted.*

C. **PVC and Polyethylene Pipe.** Joints for PVC pipe shall conform to the requirements of ASTM D 3212 when water tight joints are required. Joints for PVC and Polyethylene pipe shall conform to the requirements of AASHTO M 304 when soil tight joints are required. Fittings for polyethylene pipe shall conform to the requirements of AASHTO M 252 or M 294M.

**6-3.5 BACKFILLING.** Pipes shall be inspected before any backfill is placed; any pipes found to be out of alignment, unduly settled, or damaged shall be removed and re-laid or replaced at the CONTRACTOR's expense.

Material for backfill *in unpaved areas* shall be fine, readily compatible soil, granular material selected from the excavation or a source of the CONTRACTOR's choosing. It shall not contain frozen lumps, stones that would be retained on a 2-inch sieve, chunks of highly plastic clay, or other objectionable material *except as shown on the PLANS.* No less than 95 percent of a granular backfill material shall pass through a 1/2-inch sieve, and no less than 95 percent of it shall be retained on a No. 4 sieve.

*Material for backfill in paved areas shall be Caltrans Class II aggregate base unless otherwise approved by the ENGINEER.*

When the top of the pipe is even with or below the top of the trench, the backfill shall be compacted in layers not exceeding 6 inches on both sides of the pipe and shall be brought up one foot above the top of the pipe or to natural ground level, whichever is greater. Care shall be exercised to thoroughly compact the backfill material under the haunches of the pipe. Material shall be brought up evenly on both sides of the pipe.

When the top of the pipe is above the top of the trench, the backfill shall be compacted in layers not exceeding 6 inches and shall be brought up evenly on both sides of the pipe to 1 foot above the top of the pipe. The width of backfill on each side of the pipe for the portion above the top of the trench shall be equal to twice the pipe's diameter or 12 feet, whichever is less.

For PVC and polyethylene pipe, the backfill shall be placed in two stages; first to the top of the pipe and then at least 12 inches over the top of the pipe. The backfill material shall meet the requirements of paragraph 6-3.2 and *as shown on the PLANS.*

All backfill shall be compacted to the density *shown on the PLANS, in accordance with Section 2, Earthwork and Site Preparation,* Item P-152.

## METHOD OF MEASUREMENT

**6-4.1** The length of 18 inch culvert pipe shall be measured per linear foot of pipe in place, completed, and approved. Pipe will be measured along the centerline from end or inside face of structure to the end or inside face of structure, whichever is applicable. All fittings shall be included in the footage as typical pipe sections in the pipe being measured.

## BASIS OF PAYMENT

**6-5.1** Payment will be made at the CONTRACT unit price per linear foot of pipe and shall fully compensate the CONTRACTOR for furnishing all materials and *installation of these materials;* all preparation, excavation, *trenching, backfilling work;* and for all labor, equipment, tools, and incidentals necessary to complete the item.

**6-5.2** Storm drain pipe used in the construction of the wash rack and containment/evaporation pond shall be included in those respective items.

## MATERIAL REQUIREMENTS

ASTM C 94M-09 Ready Mixed Concrete

ASTM C 144 Aggregate for Masonry Mortar

| | |
|---|---|
| ASTM C 150 | Portland Cement |
| AASHTO M 252 | Corrugated Polyethylene Drainage Tubing |
| AASHTO M 294M | Corrugated Polyethylene Pipe, 12 to 24-in. Diameter |

**END OF SECTION**

## DIVISION V

## SECTION 7

## ITEM F-162
## CHAIN-LINK FENCES AND GATES

### DESCRIPTION

**7-1.1** This item shall consist of furnishing and erecting a chain-link fence in accordance with these SPECIFICATIONS and the details shown on the PLANS and in conformity with the lines and grades shown on the PLANS or established by the ENGINEER.

***7-1.2 CERTIFICATES OF COMPLIANCE.*** *The CONTRACTOR shall furnish Certificates of Compliance and other test or material information necessary to show compliance with these SPECIFICATIONS fifteen (15) days prior to installation.*

***7-1.3 SHOP DRAWINGS AND MANUALS.*** *Gate type, operator position, and access control equipment shall be as shown on the PLANS for each location. The CONTRACTOR shall provide and submit detailed SHOP DRAWINGS for each gate that includes gate fabrication assembly plans, post sizes, operator access control equipment installation diagrams, wiring diagrams, and equipment lists. The CONTRACTOR shall furnish three (3) bound copies of the operating and service manuals for the equipment installed to the County prior to final payment.*

### MATERIALS

**7-2.1 FABRIC.** The fabric shall be woven with a 9-gauge galvanized steel wire in a 2-inch mesh and shall meet the requirements of ASTM A 392, Class 2.

**7-2.2 BARBED WIRE.** N/A

**7-2.3 POSTS, RAILS, AND BRACES.** Line posts, rails, and braces shall conform to the requirements of ASTM F-1043 or ASTM F 1083 as follows:

Galvanized tubular steel pipe shall conform to the requirements of Group IA, (Schedule 40) coatings conforming to Type A, or Group IC (High Strength Pipe), External coating Type B, and internal coating Type B or D.

Posts, rails, and braces, with the exception of galvanized steel conforming to ASTM F 1043 or ASTM F 1083 Group IA, Type A, shall demonstrate the ability to withstand testing in salt spray in accordance with ASTM B 117 as follows:

Exterior: 1,000 hours with a maximum of 5% red rust.
Interior: 650 hours with a maximum of 5% red rust.

The dimensions of the posts, rails, and braces shall be in accordance with Tables I through VI of Fed. Spec. RR-F-191/3.

**7-2.4 GATES.** Gate frames shall consist of galvanized steel pipe and shall conform to the specifications for the same material under Paragraph 7-2.3. The fabric shall be of the same type as used in the fence.

**A.** *Gates shall be of the type and size shown on the PLANS. Gate frames shall be constructed using 2-inch O.D. pipe with the corners fastened together by welding. Welding shall conform to the best commercial practice; all welds shall be sound and shall develop the strength of the connected member. All welds shall be smooth and repaired with three applications zinc-rich coating per manufacturer's recommendations. Gate accessories, hinges, latches, center stops, keepers, and other hardware shall be as specified or of the quality required for industrial application. Latches shall permit padlocking.*

**B.** ***Pedestrian Gate.*** *Each pedestrian gate shall be equipped with a padlock type latch.*

**7-2.5 WIRE TIES AND TENSION WIRES.** Wire ties for use in conjunction with a given type of fabric shall be of the same material and coating weight identified with the fabric type. Tension wire shall be 7-gauge marcelled steel wire with the same coating as the fabric type and shall conform to ASTM A 824.

All material shall conform to Fed. Spec. RR-F-191/4.

**7-2.6 MISCELLANEOUS FITTINGS AND HARDWARE.** Miscellaneous steel fittings and hardware for use with steel fabric shall be of commercial grade steel or better quality, wrought or cast as appropriate to the article, and sufficient in strength to provide a balanced design when used in conjunction with fabric posts, and wires of the quality specified herein. All steel fittings and hardware shall be protected with a zinc coating applied in conformance with ASTM A 153.

**7-2.7 CONCRETE.** Concrete shall be of a commercial grade with a minimum 28-day compressive strength of 2,500 psi.

**7-2.8 MARKING.** Each roll of fabric shall carry a tag showing the kind of base metal, kind of coating, the gage of the wire, the length of fencing in the roll, and the name of the manufacturer. Posts, wire, and other fittings shall be identified as to manufacturer, kind of base metal, and kind of coating.

## CONSTRUCTION METHODS

**7-3.1 CLEARING FENCE LINE.** All trees, brush, stumps, logs, and other debris which would interfere with the proper construction of the fence in the required location shall be removed a minimum width of 2 feet on each side of the fence centerline before starting fencing operations. The cost of removing and disposing of the material shall not constitute a pay item and shall be considered incidental to fence construction.

**7-3.2 INSTALLING POSTS.** All posts shall be set in concrete at the required dimension and depth and at the spacing shown on the PLANS.

The concrete shall be thoroughly compacted around the posts by tamping or vibrating and shall have a smooth finish slightly higher than the ground and sloped to drain away from the posts. All posts shall be set plumb and to the required grade and alignment. No materials shall be installed on the posts, nor shall the posts be disturbed in any manner within 7 days after the individual post footing is completed.

Should rock be encountered at a depth less than the planned footing depth, a hole 2 inches larger than the greatest dimension of the posts shall be drilled to a depth of 12 inches. After the posts are set, the remainder of the drilled hole shall be filled with grout, composed of one part Portland cement and two parts mortar sand. Any remaining space above the rock shall be filled with concrete in the manner described above.

In lieu of drilling, the rock may be excavated to the required footing depth. No extra compensation shall be made for rock excavation.

**7-3.3 INSTALLING TOP RAILS.** The top rail shall be continuous and shall pass through the post tops. The coupling used to join the top rail lengths shall allow for expansion.

**7-3.4 INSTALLING BRACES.** Horizontal brace rails, with diagonal truss rods and turnbuckles, shall be installed at all terminal posts.

**7-3.5 INSTALLING FABRIC.** The wire fabric shall be firmly attached to the posts and braced in the manner shown on the PLANS. All wire shall be stretched taut and shall be installed to the required elevations. The fence shall generally follow the contour of the ground, with the bottom of the fence fabric no less than 1 inch or more than 4 inches from the ground surface. Grading shall be performed where necessary to provide a neat appearance.

At locations of small natural swales or drainage ditches and where it is not practical to have the fence conform to the general contour of the ground surface, longer posts may be used and multiple strands of barbed wire stretched thereon to span the opening below the fence. The vertical clearance between strands of barbed wire shall be 6 inches or less.

**7-3.6 ELECTRICAL GROUNDS.** Electrical grounds shall be constructed where a power line passes over the fence. The ground shall be installed directly below the point of crossing. The ground shall be accomplished with a copper clad rod 8 feet long and a minimum of 5/8-inch in diameter driven vertically until the top is 6 inches below the ground surface. A No. 6 solid copper conductor shall be clamped to the rod and to the fence in such a manner that each element of the fence is grounded. Installation of ground rods shall not constitute a pay item and shall be considered incidental to fence construction.

## METHOD OF MEASUREMENT

**7-4.1** Chain-link fence will be measured for payment by the linear foot. Measurement will be along the top of the fence from center to center of end posts, excluding the length occupied by gate openings.

**7-4.2** Gates will be measured as complete units.

## BASIS OF PAYMENT

**7-5.1** Payment for chain-link fence will be made at the CONTRACT unit price per linear foot.

**7-5.2** Payment for the vehicle gate will be made at the CONTRACT lump sum price for that item.

**7-5.3** Payment for the pedestrian gate will be made at the CONTRACT lump sum price for that item.

The price shall be full compensation for furnishing all materials, and for all preparation, erection, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

## MATERIAL REQUIREMENTS

| | |
|---|---|
| ASTM A 123 | Zinc (Hot Galvanized) Coatings on Iron and Steel Products, *Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars, and Strip* |
| ASTM A 153 | Zinc Coating (Hot-Dip) on Iron and Steel Hardware |
| ASTM A 392 | Zinc-Coated Steel Chain-Link Fence Fabric |
| *ASTM A 446* | *Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Structural (Physical) Quality* |
| *ASTM A 569* | *Steel, Carbon (0.15 Maximum, Percent), Hot Rolled Sheet and Strip Commercial Quality* |
| *ASTM A 570* | *Hot-Rolled Carbon Steel Sheet and Strip Structural Quality* |
| ASTM A 572 | High-Strength Low-Alloy Columbium-Vanadium Steels of Structural Steel Quality |
| ASTM A 653 | Specification for Steel Sheet, Zinc Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process |
| ASTM A 824 | Metallic-Coated Steel Marcelled Tension Wire for Use with Chain Link Fence |
| ASTM A 1011 | Steel Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability |
| ASTM B 117 | Standard Practice for Operating Salt Spray (Fog) Apparatus |
| ASTM F 1043 | Strength and Protective Coatings on Metal Industrial Chain Link Fence Framework |
| ASTM F 1083 | Pipe, Steel, Hot-dipped Zinc-coated (galvanized) Welded, for Fence Structures |
| FED. SPEC. RR-F-191/3 | Fencing, Wire and Post, Metal (Chain-Link Fence Posts, Top Rails and Braces) |
| FED. SPEC. RR-F-191/4 | Fencing, Wire and Post, Metal (Chain-Link Fence Accessories) |

**END OF SECTION**

## DIVISION V

## SECTION 8

## AIRCRAFT WASH RACK
## POLLUTION CONTROL FACILITY and CONTAINMENT/EVAPORATION POND

### DESCRIPTION

**8-1.1 GENERAL.** This work shall include furnishing and installing all material and equipment and all labor and incidentals necessary to construct the aircraft wash rack and containment/evaporation pond as shown on the PLANS and specified herein. All work shall conform with CALTRANS Standard Specification (May 2006) as modified herein.

### SITE PREPARATION AND CONCRETE CONSTRUCTION

**8-2.1 EARTHWORK.** Earthwork shall conform to the provisions in Section 19, "Earthwork", of the State Standard Specifications and Section 2 of these Specifications. Excavation shall conform to Section 19-3, "Structure Excavation and Backfill," of the State Standard Specifications.

**8-2.2 AGGREGATE BASE**. Aggregate base shall be Class 2 and shall conform to the provisions in Section 26, "Aggregate Bases", of the State Standard Specifications.

**8-2.3 ASPHALT CONCRETE**. Asphalt concrete materials and methods shall conform to Section 39, "Asphalt Concrete," of the State Standard Specifications. Asphalt concrete shall be Type B, 1/2-inch maximum, medium. The mix design shall be approved by the COUNTY.

**8-2.4 CONCRETE.**

A. **Concrete.** Concrete material and procedures used on this PROJECT shall conform with Section 90, "Portland Cement Concrete," of the State Standard Specifications and shall have a minimum compressive strength of 3,000 psi unless noted otherwise.

   Section 90-10.02B, "Aggregate", of the Standard Specifications is amended by adding the following:

   Mineral admixture will be required in the manufacture of concrete containing aggregate that is determined to be "deleterious" or "potentially deleterious" when tested in accordance with ASTM C 289. The use of mineral admixture in such concrete shall conform to the requirements in Section 90-4.08, "Required Use of Mineral Admixtures," except the use of Class C mineral admixture will not be permitted.

B. **Reinforcement.** All reinforcement material and methods shall conform with Section 52, "Reinforcement", of the State Standard Specifications.

C. **Surface Finish.** The wash rack surface shall be lightly broomed. Concrete surfaces shall not vary more than 1/4-inch from the lower edge of a 10-foot straightedge nor shall there be any water retaining depressions. Oil spills, paint splatters, or stains will not be tolerated in the finished slab.

D. **Concrete Joints.** Joints shall be sawcut as shown on the PLANS. Sawing of the joints shall commence as soon as the concrete has hardened sufficiently to permit cutting without chipping, spalling, or tearing, and shall be completed within 24 hours following placement of the concrete.

E. **Joint Sealing.** All joints shall be sealed as shown on the drawings. Joint sealing materials shall conform to Section 5 of these SPECIFICATIONS. Application of the sealer shall be as recommended by the manufacturer. The material as delivered to the job shall be accompanied by the manufacturer's certification stating that the product meets all requirements of the SPECIFICATIONS.

**8-2.5 GREASE SAND SEPARATOR (CLARIFIER) AND PUMP BOX**. The grease/sand separator (clarifier) and pump box shall conform to the provisions in Section 51, "Concrete Structures", of the State Standard Specifications and these Special Provisions. The grease/sand separator and pump box shall conform with the details shown on the PLANS.

The provisions of Section 51-1.02, "Minor Structures", and Section 90-10, "Minor Concrete", of the State Standard Specifications shall apply except as modified herein.

The grease/sand separator and pump box is classified as a minor structure.

The grading limits for the combined aggregate grading for aggregate used in Portland cement concrete shall be those for the 1-inch maximum grading in Section 90-3.4, "Combined Aggregate Gradings", of the State Standard Specifications.

The provisions of Section 51-1.18B, "Class 1 Surface Finish," of the Standard Specifications are modified as follows:

> In lieu of the provisions of the first sentence of the second paragraph requiring sanding, the surfaces to receive a Class 1 Surface Finish shall be finished with a neat cement wash or with a brush coat or surface film of thin cement mortar composed of one (1) part Portland cement and (1) one part of fine sand that will pass through a No. 16 sieve.

Frames, grates, and covers shall be galvanized and rated for H2O loading. Dimensions shown on the PLANS may be varied as approved by the COUNTY to allow the use of a precast box.

**8-2.6 HOSE AND REEL ASSEMBLY.** The hose and reel assembly shall be commercial quality and heavy-duty rated. The hose shall be 3/4-inch diameter, 100 feet long. Reel assembly shall be Rapid Reel 400 Series, Extreme-Duty Package, with spring-activated rewind, or approved equal.

**8-2.7 FLOOR DRAIN.** The slotted floor drain shall be heavy duty type, Neenah Foundry model R-4015-A or ENGINEER-approved equivalent.

## ELECTRICAL SYSTEM AND UTILITIES

**8-3.1 GENERAL.** This item includes furnishing and installing all electrical equipment, sewer, and water facilities as indicated on the PLANS and specified herein. Included in this item are conduit, pull boxes,

conductors, circuits, switches, and miscellaneous electrical components. Also included are sewer and water line, cleanouts, hose bibs, valves, and miscellaneous water and sewer system components.

**8-3.2 CODES.** The CONTRACTOR shall comply with all provisions of the current National Electrical Code, UBC, and other applicable codes in the installation of the electrical, sewer, and water systems.

**8-3.3 FEES AND PERMITS.** The CONTRACTOR shall make application and pay the basic fees for sewer, water, and electrical service to the site. The CONTRACTOR shall do all on-site work necessary to provide these services to the wash rack. Additionally, the CONTRACTOR shall coordinate all work on these facilities with the appropriate utility company and acquire construction permits as necessary. Any permit fees will be waived or paid for by the CONTRACTOR.

**8-3.4 CONDUIT AND PULL BOXES.** Direct burial conduit shall be Schedule 40 PVC equipped with nylon pull lines.

**8-3.5 CONDUCTORS.** Unless noted otherwise, conductors shall be copper of the gauge shown on the PLANS. Conductors for power, and outlets shall be minimum size #12 TW. Splices shall be per applicable codes and accepted industry standards.

**8-3.6 CONVENIENCE OUTLETS.** Outdoor outlets shall be GFCI, Hubbel No. GF 5262, with gasketed weatherproof covers, Hubbel No. WPF526 cover, on an FS box.

**8-3.7 MISCELLANEOUS.** The CONTRACTOR shall provide all mounting brackets, supports, struts, etc., to install complete equipment as shown on the PLANS or as specified in the Special Provisions. All installations shall conform to applicable codes.

**8-3.8 WATER SYSTEM.**

**A. General.** All material and methods used in water system installation shall meet Water District requirements for water service. The CONTRACTOR shall provide a 1-inch water service from the meter as indicated on the PLANS. The CONTRACTOR shall extend this service from the meter to the wash rack and provide all connections indicated.

**B. Water Line.** All water line shall be approved by the Water District and shall meet applicable codes, and shall be installed as indicated on the PLANS.

**C. Miscellaneous.** Valves, hose bids, and other miscellaneous components shall be approved by the COUNTY.

**D. Testing and Sterilization.** All new water line installed shall be pressure tested under COUNTY supervision prior to acceptance. Water line shall be sterilized as directed by the COUNTY.

**8-3.9 STORM DRAIN SYSTEM.**

**A. PVC Drain Pipe.** This work shall consist of furnishing and installing PVC drain pipe for all drainage pipes connected to the wash rack and containment/evaporation pond. The PVC pipe shall meet the

requirements of ASTM D 3034. The CONTRACTOR shall provide the ENGINEER with a Certificate of Compliance from the manufacturer for each size of PVC pipe furnished, in accordance with the provisions of Section 6-1.07, "Certificates of Compliance", of the Standard Specifications. Said certificate shall certify that the PVC pipe complies with the requirements of the SPECIFICATIONS.

B. **Joints.** PVC pipe culvert joints shall conform to either standard or positive joint requirements in Section 61-1.02, "Performance Requirements for Culvert and Drainage Pipe Joints," of the State Standard Specifications.

C. **Earthwork.** Structure excavation and backfill for PVC pipe culverts shall conform to the details shown in the PLANS. Structure backfill material shown on the PLANS to be compacted to a relative compaction of not less than 95 percent shall conform to the grading and quality requirements of Class 2 aggregate base, 3/4-inch maximum grading, in Section 26-1.02B, "Class 2 Aggregate Base," of the State Standard Specifications. PVC pipe shall be laid in a trench excavated to the lines and grades shown in the PLANS. The bottom of the trench shall be graded and prepared to provide a firm and uniform bearing throughout the entire length of the pipe.

**8-3.10 SIGNS.** Signs shall be installed at the locations shown on the PLANS or where directed by the ENGINEER, and shall conform to the provisions in Section 56-2, "Roadside Signs," of the State Standard Specifications and the Special Provisions. Sign panels and all mounting hardware shall be furnished by the CONTRACTOR.

## MEASUREMENT AND PAYMENT

**8-4.1** Wash Rack and Pollution Control Facility will be measured and paid for at the CONTRACT lump sum price for the complete operational system as shown on the PLANS and specified herein. Said lump sum payment shall include the control equipment, clarifier, pump, drains and all labor, equipment, materials, tools, and incidentals necessary to complete construction.

**8-4.2** Containment/Evaporation Pond/Green House will be measured and paid for at the CONTRACT lump sum price for the complete operational system as shown on the PLANS and specified herein. Said lump sum payment shall include the roof structure, float level sensor, foundation, and all labor, equipment, materials, tools, and incidentals necessary to complete construction.

## MATERIAL REQUIREMENTS

| | |
|---|---|
| Polyvinyl Chloride (PVC) Pipe | ASTM D 3034 |

**END OF SECTION**

# DIVISION V

## SECTION 9

## ITEM P-156

## TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION, AND SILTATION CONTROL

### DESCRIPTION

**9-1.1** This item shall consist of temporary control measures as shown on the PLANS or as ordered by the ENGINEER during the life of a CONTRACT to control water pollution, soil erosion, and siltation through the use of *straw wattles,* berms, dikes, dams, sediment basins, fiber mats, gravel, mulches, grasses, slope drains, and other erosion control devices or methods.

The temporary erosion control measures contained herein shall be coordinated with the permanent erosion control measures specified as part of this CONTRACT to the extent practical to assure economical, effective, and continuous erosion control throughout the construction period.

Temporary control may include work outside the construction limits such as borrow pit operations, equipment and material storage sites, waste areas, and temporary plant sites.

### MATERIALS

**9-2.1 GRASS.** Grass that will not compete with the grasses sown later for permanent cover shall be a quick-growing species (such as ryegrass, Italian ryegrass, or cereal grasses) suitable to the area providing a temporary cover.

**9-2.2 MULCHES.** Mulches may be hay, straw, fiber mats, netting, bark, wood chips, or other suitable material reasonably clean and free of noxious weeds and deleterious materials.

**9-2.3 FERTILIZER.** Fertilizer shall be a standard commercial grade and shall conform to all Federal and state regulations and to the standards of the Association of Official Agricultural Chemists.

**9-2.4 SLOPE DRAINS.** Slope drains may be constructed of pipe, fiber mats, rubble, portland cement concrete, bituminous concrete, or other materials that will adequately control erosion.

**9-2.5 SRAW WATTLES.** Straw wattles shall be of the type as shown in the PLAN details.

**9-2.6 OTHER.** All other materials shall meet commercial grade standards and shall be approved by the ENGINEER before being incorporated into the project.

### CONSTRUCTION REQUIREMENTS

**9-3.1 GENERAL.** In the event of conflict between these requirements and pollution control laws, rules, or regulations of other Federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.

The ENGINEER shall be responsible for assuring compliance to the extent that construction practices, construction operations, and construction work are involved.

**9-3.2 SCHEDULE.** Prior to the start of construction, the CONTRACTOR shall submit schedules for accomplishment of temporary and permanent erosion control work, as are applicable for clearing and grubbing; grading; construction; paving; and structures at watercourses. The CONTRACTOR shall also submit a proposed method of erosion and dust control on haul roads and borrow pits and a plan for disposal of waste materials. Work shall not be started until the erosion control schedules and methods of operation for the applicable construction have been accepted by the ENGINEER.

**9-3.3 AUTHORITY OF ENGINEER.** The ENGINEER has the authority to limit the surface area of erodible earth material exposed by clearing and grubbing, to limit the surface area of erodible earth material exposed by excavation, borrow and fill operations, and to direct the CONTRACTOR to provide immediate, permanent, or temporary pollution control measures to minimize contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment.

**9-3.4 CONSTRUCTION DETAILS.** The CONTRACTOR will be required to incorporate all permanent erosion control features into the project at the earliest practicable time as outlined in the accepted schedule. Except where future construction operations will damage slopes, the CONTRACTOR shall perform the permanent seeding and mulching and other specified slope protection work in stages, as soon as substantial areas of exposed slopes can be made available. Temporary erosion and pollution control measures will be used to correct conditions that develop during construction that were not foreseen during the design stage; that are needed prior to installation of permanent control features; or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with permanent control features on the PROJECT.

Where erosion is likely to be a problem, clearing and grubbing operations should be scheduled and performed so that grading operations and permanent erosion control features can follow immediately thereafter if the PROJECT conditions permit; otherwise, temporary erosion control measures may be required between successive construction stages.

The ENGINEER will limit the area of clearing and grubbing, excavation, borrow, and embankment operations in progress, commensurate with the CONTRACTOR's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent control measures current in accordance with the accepted schedule. Should seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately to the extent feasible and justified.

In the event that temporary erosion and pollution control measures are required due to the CONTRACTOR's negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled or are ordered by the ENGINEER, such work shall be performed by the CONTRACTOR at his/her own expense.

The ENGINEER may increase or decrease the area of erodible earth material to be exposed at one time as determined by analysis of project conditions.

The erosion control features installed by the CONTRACTOR shall be acceptably maintained by the CONTRACTOR during the construction period.

Whenever construction equipment must cross watercourses at frequent intervals, and such crossings will adversely affect the sediment levels, temporary structures should be provided.

Pollutants such as fuels, lubricants, bitumen, raw sewage, wash water from concrete mixing operations, and other harmful materials shall not be discharged into or near rivers, streams, and impoundments or into natural or manmade channels leading thereto.

## METHOD OF MEASUREMENT

**9-4.1** Temporary erosion and pollution control work required which is not attributed to the CONTRACTOR's negligence, carelessness, or failure to install permanent controls will be performed as scheduled or ordered by the ENGINEER. Completed and accepted work will be measured on a lump sum basis.

**9-4.2** Control work performed for protection of construction areas outside the construction limits, such as borrow and waste areas, haul roads, equipment and material storage sites, and temporary plant sites, will not be measured and paid for directly but shall be considered as a subsidiary obligation of the CONTRACTOR with costs included in the contract prices bid for the items to which they apply.

## BASIS OF PAYMENT

**9-5.1** Accepted quantities of temporary water pollution, soil erosion, and siltation control work ordered by the ENGINEER and measured as provided in paragraph 9-4.1 and 4.2 will be paid for under the item "Temporary Erosion and Pollution Control" as a lump sum.

Where other directed work falls within the specifications for a work item that has a CONTRACT unit price, the units of work shall be measured and paid for at the CONTRACT unit price bid for the various items.

Temporary control features not covered by CONTRACT items that are ordered by the ENGINEER will be paid for as extra work.

## END OF SECTION

## DIVISION V

## SECTION 10

## HYDROSEED

### DESCRIPTION

**10-1.1** Hydroseed work shall consist of applying hydro-seeded erosion control materials, consisting of a mixture of fiber, seed, commercial fertilizer, tackifier, and water. The mixture shall be applied to graded ditches, spoil areas, and all other disturbed areas as designated by the ENGINEER.

**10-1.2 SEED.** Seed shall consist of the following:

| Botanical Name (Common Name) | Percentage Purity (minimum) | Percentage Germination (minimum) | Lbs. Per Acre |
|---|---|---|---|
| Blando Brome | 95 | 95 | 30 |
| Zorro Annual Fescue | 95 | 95 | 12 |
| Rose Clover | 95 | 80 | 8 |

Seed shall be furnished separately or in mixtures in standard containers with the seed name, lot number, net weight, percentages of purity and of germination and hard seed, and percentage of maximum weed seed content clearly marked for each kind of seed. The CONTRACTOR shall furnish the ENGINEER duplicate signed copies of a statement by the vendor certifying that each lot of seed has been tested by a recognized laboratory for seed testing within 6 months of date of delivery. This statement shall include: name and address of laboratory, date of test, lot number for each kind of seed, and the results of tests as to name, percentages of purity and of germination, and percentage of weed content for each kind of seed furnished, and, in case of a mixture, the proportions of each kind of seed.

**10-1.3 MULCH TACKIFIERS.** Mulch tackifier shall be a nonasphaltic tackifier, derived from natural plant materials, conforming with Section 20-2.11 of the California State Standard Specifications.

**10-1.4 FIBER.** Wood fiber shall conform with Section 20-2.07 of the California State Standard Specifications.

### CONSTRUCTION METHODS

**10-2.1 HYDROSEED APPLICATION**. Seed shall be mixed on the PROJECT site in the presence of the ENGINEER.

The Hydroseed materials shall be mixed and applied in the following proportions:

| Material | Lbs. Per Acre (Slope Measurement) |
|---|---|
| Fiber | 1,500 |
| Seed | 50 |
| Commercial Fertilizer | 300 |
| Tackifier | 80 |

The mixture shall be applied within 60 minutes after the seed has been added to the mixture.

**10-2.2 MAINTENANCE OF SEEDED AREAS.** The CONTRACTOR shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the ENGINEER. Surfaces gullied or otherwise damaged following seeding shall be repaired by regrading by hand labor and reseeding as directed. The CONTRACTOR shall maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

## METHOD OF MEASUREMENT

**10-3.1** The quantity of hydroseed to be paid for shall be the number of acres measured on the ground surface, completed and accepted.

## BASIS OF PAYMENT

**10-4.1** Payment will be made at the CONTRACT unit price per acre or fraction thereof, which price and payment shall be full compensation for furnishing and placing all material and for all labor, equipment, tools, and incidentals necessary to complete the work prescribed in this item.

## END OF SECTION

# DIVISION V

# SECTION 11

# GENERAL ELECTRICAL REQUIREMENTS

## GENERAL

### 11-1.1 DESCRIPTION

**A. Work Included**

1. PVC conduit installation which includes all excavation and backfill/compaction to meet SPECIFICATIONS.
2. Pull box installation which includes all excavation and backfill/compaction to meet SPECIFICATIONS.
3. Installation of new power service panel and meter for the wash rack.

**B. Related Work**

1. Record Drawings and Submittals.

### 11-1.2 REGULATORY AGENCIES AND STANDARDS

**A. Regulatory Agencies:** Installation, materials, equipment and workmanship shall conform to the latest provisions of the following agencies:

1. National Fire Protection Association Standard 70 - National Electrical Code.
2. Occupational Safety and Health Act (OSHA).
3. Uniform Building Code (UBC).
4. Local authorities having lawful jurisdiction pertaining to the work required.

**B. Underwriters' Laboratories, Inc. (UL):** Materials, appliances, equipment, and devices shall conform to the applicable UL standards.

**C. Standards:** Where referenced in these specifications or on the drawings, the publications, and standards of the following organizations apply:

1. American Society of Testing and Materials (ASTM).
2. National Electrical Manufacturers Association (NEMA).
3. National Fire Protection Association (NFPA).
4. American National Standards Institute (ANSI).
5. Institute of Electrical and Electronics Engineers (IEEE).
6. Insulated Power Cable Engineers Association (IPCEA).

### 11-1.3 SUBMITTALS

**A.** Submit SHOP DRAWINGS for all equipment and materials in accordance with Division I.

**B.** Submit SHOP DRAWINGS by section. Separate sections by either tab dividers or separate binders. Each section submittal shall be complete, with SHOP DRAWINGS provided for all components. Partial SHOP DRAWINGS for SPECIFICATION sections will be rejected.

**C.** SHOP DRAWINGS returned to the CONTRACTOR with a "Revise as Noted and Resubmit" status shall be resubmitted within fifteen (15) days.

### 11-1.4 RECORD DRAWINGS

**A.** During progress of job, keep up-to-date, one set of electrical DRAWINGS stamped with "As-Built". Show the following by dimension from readily obtained base lines.

1. Exact location, type, and function of concealed control equipment and devices.
2. Exact size, elevations, and locations of underground conduits.
3. Show the dimensions, location, and routing of electrical work, which will become permanently concealed.
4. Show complete routing and sizing of any revisions to the systems shown.

**B.** Maintain "As-Built" DRAWINGS in an up-to-date fashion in conjunction with the actual progress of installation. Accurate progress drawings shall be available on site for examination by the OWNER's representative.

**C.** At completion of PROJECT, deliver completed "As-Built" DRAWINGS to the OWNER's representative.

## MATERIALS

### 11-2.1 GENERAL

**A.** Similar materials and equipment shall be the product of a single manufacturer.

**B.** Provide and install equipment and materials shown on the drawings and as specified unless noted as "Not in Contract", "Future" or as "Existing to Remain". Provide only products which are new, undamaged and in the original cartons or containers.

**C.** Materials and equipment shall be the standard products of manufacturers regularly engaged in the production of such material and shall be the manufacturer's current design.

**D.** Materials and equipment shall be suitable for storage, installation and operation in an ambient of $0^0$C to $40^0$C except where more stringent conditions are stated in individual equipment SPECIFICATIONS.

**E.** Factory finished electrical equipment, wireways and panels with manufacturer's standard primer and enamel topcoats, unless stated otherwise in the individual equipment SPECIFICATIONS.

### 11-2.2 TESTING LABORATORY APPROVALS

**A.** Electrical materials and equipment shall be listed, certified or found acceptable by a OSHA certified Nationally Recognized Testing Laboratory. Results of tests and inspections by the testing

laboratory shall be submitted for review and approval to the local authorities having jurisdiction upon request. In testing the equipment, the following shall be considered:

1. Suitability for installation and use in conformity with the provisions of the NEC.
2. Mechanical strength and durability, including, for parts designed to enclose and protect other equipment, the adequacy of the protection thus provided.
3. Wire bending and connection space.
4. Electrical insulation.
5. Heating effects under normal conditions of use and also under abnormal conditions likely to arise in service.
6. Arcing effects.
7. Classification by type, size, voltage, current capacity and specific use.
8. Other factors which contribute to the practical safeguarding of persons using or likely to come in contact with the equipment.

**B.** Recognized testing laboratories are as follows:

1. Underwriters Laboratories, Inc. (UL).
2. Electrical Testing Laboratories (ETL).
3. Other testing laboratories certified by OSHA as a Nationally Recognized Testing Laboratory (NRTL).

**C.** Provide the testing laboratory label on equipment material and devices.

### 11-2.3 WARRANTY

**A.** Equipment materials and installation shall be guaranteed for a period of one year after the date of acceptance of the work by the OWNER. Repair or remove and replace any and all work that is found to be defective in workmanship and/or materials within said one year periods, without expense whatsoever to the OWNER, ordinary wear and tear and unusual abuse or neglect excepted.

## EXECUTION

### 11-3.1 INSTALLATION

**A.** At equipment, terminate wires and cables at the proper termination point per the manufacturer's recommendations. The DRAWINGS indicate connections for typical equipment only. If the equipment or connections are different from what is shown, provide the modifications necessary for a safe and properly operating installation in accordance with the equipment manufacturer's recommendations.

**B.** The DRAWINGS diagrammatically indicate the desired location and arrangement of outlets, conduit runs, equipment and other items. Field determine exact location based on physical size and arrangement of equipment, finished elevations and obstructions.

**C.** Work or equipment not indicated or specified which is necessary for the complete and proper operation of the Electrical systems shall be accomplished without additional cost to the OWNER.

**D.** Install equipment and materials per the manufacturer's recommendations.

**11-3.2 IDENTIFICATIONS AND SIGNS**

**A.** Provide nameplates on equipment, devices, panels and field mounted instruments (pressure switches, limit switches, etc.) to identify each item with its respective service or function. Use black-on-white laminated plastic, with beveled edges and engraved lettering not less than 1/4 inch high unless otherwise noted. Attach with No. 4 Phillips, round head, Type 316 stainless steel, self-tapping screws. For exterior nameplates, provide silicon seal for screw penetrations. For cast iron enclosures mount nameplates with Seton Tuff-Bond #TB2 adhesive.

## METHOD OF MEASUREMENT

**11-4.1** The measurement of PVC conduit shall be by the linear foot completed and accepted.

**11-4.2** The measurement of Pull Boxes shall be per each box installed and accepted.

**11-4.3** No separate measurement for the new power service panel and meter shall be made.

## BASIS OF PAYMENT

**11-5.1** Payment for PVC conduit shall be per CONTRACT unit price for 2-inch PVC conduit and cabling. The price shall be full compensation for furnishing and delivering all materials, for all preparation, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

**11-5.2** Payment for Pull Boxes shall be per CONTRACT unit price for Pull Boxes. The price shall be full compensation for furnishing and delivering all materials, for all preparation, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

**11-5.3** The payment for the new power service panel and meter shall be included in the CONTRACT lump sum price for Wash Rack and Pollution Control Facility Item. The price shall be full compensation for furnishing and delivering all materials, for all preparation, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

**END OF SECTION**

# PROPOSAL FORMS

**PROPOSAL FORM**
**CONSTRUCTION OF AIRCRAFT WASH RACK AND CONTAINMENT/EVAPORATION POND**
**WILLOWS-GLENN COUNTY AIRPORT**
**WILLOWS, CALIFORNIA**
**AIP PROJECT NO. 3-06-0279-04**

FROM:_____

NAME OF BIDDER_____

BUSINESS ADDRESS _____

BUSINESS TELEPHONE _____AFTER-HOURS TELEPHONE _____

CONTRACTOR LICENSE NUMBER _____

TO: Glenn County

Ladies and Gentlemen:

The undersigned, as bidder, *under penalty of perjury,* declares that the only persons or parties interested in this proposal as principals are those named herein: that this proposal is made without collusion with any other person, firm, or corporation; that he has carefully examined the location of the proposed work, the proposed form of contract, the Plans and Specifications herein referred to; and he proposes, and agrees if this proposal is accepted, that he will contract with Glenn County , in the form of the Contract annexed hereto, to provide all necessary machinery, tools, apparatus, and other means of construction, and to do all the work and furnish all the materials specified in the Contract in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefore the following item prices, to wit:

**WILLOWS-GLENN COUNTY AIRPORT**
**BID SCHEDULE**
**WASH RACK & CONTAINMENT/EVAPORATION POND**
**AIP PROJECT NO. 3-06-0279-04**

| Item | Description | Units | Approximate Quantity | Unit Price (Figures) | Total Cost (Figures) |
|---|---|---|---|---|---|
| 1 | Mobilization | LS | 1 | $ | $ |
| 2 | Airfield Safety and Traffic Control | LS | 1 | $ | $ |
| 3 | Earthwork & Site Preparation | LS | 1 | $ | $ |
| 4 | Temporary Erosion & Pollution Control | LS | 1 | $ | $ |
| 5 | Aggregate Base (Caltrans) | TN | 190 | $ | $ |
| 6 | Asphalt Concrete (Caltrans) | TN | 25 | $ | $ |
| 7 | Containment/Evaporation Pond/Green House | LS | 1 | $ | $ |
| 8 | Wash Rack & Pollution Control Facility | LS | 1 | $ | $ |
| 9 | 18-inch Culvert Pipe | LF | 30 | $ | $ |
| 10 | 2-inch PVC Conduit w/ Cabling | LF | 370 | $ | $ |
| 11 | Pull Boxes | EA | 7 | $ | $ |
| 12 | Chain Link Fence | LF | 385 | $ | $ |
| 13 | Pedestrian Gate | LS | 1 | $ | $ |
| 14 | 20-foot Double-Swing Vehicle Gate | LS | 1 | $ | $ |
| 15 | Hydroseeding | ACRE | 0.5 | $ | $ |
| **Total Base Bid (Items 1 through 15).** | | | | **$** | |
| **Total Base Bid in in writing:** | | | | | |

Acknowledgment of Addenda

Addendum No. Initial

_____

_____

_____
Signature/Title

_____
Company

_____
Contractor's License Number/Expiration Date

NOTE: Contractor License Number and Expiration Date stated herein are made under penalty of perjury.

## DESIGNATION OF SUBCONTRACTORS

Each bidder shall set forth below: (a) The name and the location of the place of business of each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the work in an amount in excess of one-half (1/2) of one percent (1%) of the Contractor's total bid; and (b) The portion of the work which will be done by each subcontractor.

If the Contractor fails to specify a subcontractor for any portion of the work as above stated, he agrees to perform that work himself. The Contractor shall not, without written consent of the Owner, make any substitution, alterations, or additions to the following list of subcontractors which is made a part of this proposal.

1. NAME: _____
   ADDRESS: _____
   CONTRACT ITEMS: _____ AMOUNT: $_____
2. NAME: _____
   ADDRESS: _____
   CONTRACT ITEMS: _____ AMOUNT: $_____
3. NAME: _____
   ADDRESS: _____
   CONTRACT ITEMS: _____ AMOUNT: $_____
4. NAME: _____
   ADDRESS: _____
   CONTRACT ITEMS: _____ AMOUNT: $_____
5. NAME: _____
   ADDRESS: _____
   CONTRACT ITEMS: _____ AMOUNT: $_____
6. NAME: _____
   ADDRESS: _____
   CONTRACT ITEMS: _____ AMOUNT: $_____

## QUESTIONNAIRE

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a Federal, State, or local government project because of a violation of law or a safety regulation?

Yes _____ No _____

If the answer is yes, attach an explanation of the circumstances.

Signed_____

**BIDDER'S STATEMENT ON**

**PREVIOUS CONTRACTS**

**SUBJECT TO EEO CLAUSE**

Each bidder, prospective prime contractor, and proposed subcontractor must complete the following form:

The Bidder (Proposer) shall complete the following statement by checking the appropriate boxes.

The Bidder (Proposer) has ____ has not ____ participated in a previous contract subject to the equal opportunity clause prescribed by Executive Order 10925, or Executive Order 11114, or Executive Order 11246.

The Bidder (Proposer) has ____ has not ____ submitted all compliance reports in connection with any such contract due under the applicable filing requirements; and that representations indicating submission of required compliance reports signed by proposed subcontractors will be obtained prior to award of subcontracts.

If the Bidder (Proposer) has participated in a previous contract subject to the equal opportunity clause and has not submitted compliance reports due under applicable filing requirements, the Bidder (Proposer) shall submit a compliance report on Standard Form 100, "Employee Information Report EEO -1", prior to the award of contract.

_____ _____

Date Signature and Title

**CERTIFICATION TO BE SUBMITTED BY FEDERALLY ASSISTED CONSTRUCTION CONTRACTORS OF APPLICANTS AND THEIR SUBCONTRACTORS (APPLICABLE TO FEDERALLY ASSISTED CONSTRUCTION CONTRACTS AND RELATED SUBCONTRACTS EXCEEDING $10,000 WHICH ARE NOT EXEMPT FROM THE EQUAL OPPORTUNITY CLAUSE).**

**CERTIFICATION OF NONSEGREGATED FACILITIES**

The federally assisted construction contractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor certifies further that they will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location under his control, where segregated facilities are maintained. The federally assisted construction contractor agrees that a breach of this certification is a violation of the equal opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting room, work areas, rest rooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin, because of habit, local custom, or any other reason. The federally assisted construction contractor agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000 which are not exempt from the provisions of the equal opportunity clause, and that he will retain such certifications in his files.

_____ _____

Date Signature and Title

_____

IRS Employer Identification Number

## CERTIFICATION OF BIDDER REGARDING

## AFFIRMATIVE ACTION PROGRAM

The bidder hereby certifies that he is in compliance with the Civil Rights Act of 1964, Executive Order No. 11246, Employment Practices Act, and any other applicable Federal and State laws and regulations relating to equal opportunity employment.

Bidder's Name: _____

Address: _____

Name and Title of Signer: _____

_____ _____

Date Signature

NOTE: The contractor to whom the Contract is awarded shall submit a statement each month certifying that he is in conformance with the Affirmative Action Program.

**BIDDER'S ASSURANCE OF COMPLIANCE WITH**

**TITLE 49 CFR PART 26 RELATING TO**

**DISADVANTAGED BUSINESS ENTERPRISE *(DBE)* PARTICIPATION**

The bidder hereby gives assurance pursuant to the requirements of Title 49 CFR Part 26 that bidder has made a reasonable effort to meet the goals for Disadvantaged Business Enterprise participation specified for the CONTRACT for which this proposal is submitted and that bidder, if the CONTRACT is awarded to bidder, will have a DBE participation of _____ **percent (CONTRACTOR to fill in actual percent of participation)** of the amount of this bid. Bidder further gives assurance that bidder will submit the documentation required by said REGULATIONS and the CONTRACT SPECIFICATIONS, including the Listing of Disadvantaged Business Enterprises with which the bidder will subcontract if the CONTRACT is awarded and if bidder is unable to meet the CONTRACT goals for DBE participation, of the steps bidder has taken to obtain DBE participation.

Bidder's Name: _____

_____ _____

Date Signature and Title

## DISADVANTAGED BUSINESS ENTERPRISE *(DBE)* UTILIZATION

The undersigned bidder/offeror has satisfied the requirements of the bid specification in the following manner (please check the appropriate space):

The bidder/offeror is committed to a minimum of _____% DBE utilization on this contract.

The bidder/offeror (if unable to meet the DBE goal of 4%) is committed to a minimum of _____% DBE utilization on this contract and submits documentation demonstrating good faith efforts.

Name of bidder/offeror's firm: _____

State Registration No.: _____

By: _____ Title: _____

| LIST OF DBE SUBCONTRACTORS | | CONTRACT AMOUNT |
|---|---|---|
| 1. _____ Name | _____ Phone | $_____ |
| 2. _____ Name | _____ Phone | $_____ |
| 3. _____ Name | _____ Phone | $_____ |
| 4. _____ Name | _____ Phone | $_____ |
| 5. _____ Name | _____ Phone | $_____ |
| 6. _____ Name | _____ Phone | $_____ |
| 7. _____ Name | _____ Phone | $_____ |
| 8. _____ *Name* | _____ *Phone* | $_____ |

**DBE**
**LETTER OF INTENT**

Name of bidder/offeror's firm: _____

Address: _____

City: _____ State: _____ Zip: _____

Name of DBE firm: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____

Description of work to be performed by DBE firm:

_____

_____

_____

_____

The bidder/offeror is committed to utilizing the above-named DBE firm for the work described above. The estimated dollar value of this work is $_____.

**AFFIRMATION**

The above-named DBE firm affirms that it will perform the portion of the contract for the estimated dollar value as stated above.

By _____
(Signature) (Title)

**If the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.**

(Submit this page for each DBE subcontractor within 10 days of request.)

## CERTIFICATION REGARDING FOREIGN TRADE RESTRICTIONS

The Contractor or subcontractor, by submission of an offer and/or execution of a contract, certifies that it:

(a) is not owned or controlled by one or more citizens or nationals of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);

(b) has not knowingly entered into any contract or subcontract for this project with a contractor that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list;

(c) has not procured any product nor subcontracted for the supply of any product for use on the Project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to a contractor or subcontractor who is unable to certify to the above. If the Contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on said list for use on the Project, the Federal Aviation Administration may direct, through the Sponsor, cancellation of the Contract at no cost to the Government.

Further, the Contractor agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The Contractor may rely upon the certification of a prospective subcontractor, unless it has knowledge the certification is erroneous.

The Contractor shall provide immediate written notice to the Sponsor, if the Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The subcontractor agrees to provide immediate written notice to the Contractor, if at any time it learns that its certification was erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct, through the Sponsor, cancellation of the Contract or subcontract for default at no cost to the Government.

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

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

_____ _____

Date Signature

## BUY AMERICAN CERTIFICATE (Jan. 1991)

By submitting a bid/proposal under this solicitation, except for those items listed by the offeror below or on a separate and clearly identified attachment to this bid/proposal, the offeror certifies that steel and each manufactured product, is produced in the United States (as defined in the clause Buy American – Steel and Manufactured Products or Buy American – Steel and Manufactured Products For Construction Contracts) and that components of unknown origin are considered to have been produced or manufactured outside the United States.

A list of articles, materials, and supplies excepted from this provision is contained in Division II, Section 1, Paragraph 1-7, "Buy American – Steel and Manufactured Products for Construction Contracts."

| PRODUCT | COUNTRY OF ORIGIN |
|---|---|
| | |
| | |
| | |
| | |

**SUSPENSION AND DEBARMENT REQUIREMENTS**
**FOR ALL CONTRACTS OVER $25,000**
**49 CFR PART 29**

The bidder/offerer certifies, by submission of this proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the bidder/offerer/contractor or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this solicitation/ proposal.

_____

Signature (Name of Bidder)

_____ _____

Date (Name and Title of Signing Official)

Business Address

_____

_____

_____

**BID BOND**

Recitals: 1. _____"Contractor", has submitted his Contractor's Proposal to **** for the construction of public work for **** Airport **Project Description** in accordance with a Notice Inviting Bids of County dated June 30, 2008.

2. _____

a _____ corporation, hereafter called "Surety", is the surety of this Bond.

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

1. The amount of the obligation of this bond is 10% of the amount of the Contractor's Proposal, including all bid alternates, and inures to the benefit of **Sponsor**.

2. This Bond is exonerated by (1) **Sponsor** rejecting said Proposal or, in the alternate, (2) if said Proposal is accepted, Contractor executes the Agreement and furnishes the Bonds as agreed to in its Proposal, otherwise it remains in full force and effect for the recovery of loss, damage and expense of **Sponsor** resulting from failure of Contractor to act as agreed to in its Proposal. Some types of possible loss, damage and expense are specified in the Contractor's Proposal.

3. Surety, for value received, stipulates and agrees that its obligations hereunder shall in no way be impaired or affected by any extension of time within which **Sponsor** may accept the Proposal and waives notice of any such extension.

4. This Bond is binding on our heirs, executors, administrators, successors and assigns.

Dated: _____

| | |
|---|---|
| _____ | _____ |
| By _____ | By _____ |
| Title: Attorney in Fact<br>"Surety" | Title: _____<br>"Contractors" |

STATE OF _____ )
) ss.
COUNTY OF _____ )

On _____ before me personally appeared _____ known to me to be the person whose name is subscribed to the within instrument as Attorney in Fact.

_____
Notary Public (Seal)

(NOTE: Affix corporate seals.)

## FAITHFUL PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That _____, as Principal, and , as surety, incorporated under the Laws of the State of California and authorized to transact surety business in the State of California, are held and firmly bound unto *** in the sum of _____ Dollars ($_____), for the payment whereof, well and truly to be made, said Principal and Surety bind themselves, their heirs, administrators, successors and assigns, jointly and severally, firmly by these presents.

The Condition of the foregoing obligation is such that, Whereas the above bounden Principal has entered into a Contract, dated _____, 20_____, with the *** to do and perform the following work, to wit:

**WASH RACK AND CONTAINMENT/EVAPORATION POND CONSTRUCTION**
**AIP No. 3-06-0279-04**

All alterations, extensions of time, extra and additional work, and other changes authorized by the Specifications or any part of the Contract may be made without securing the consent of the surety or sureties on the contract bonds. Surety waives any requirement of notice of any such alterations, extensions of time, extra and additional work or any other changes.

Now, Therefore, if the above bounden Principal shall well and truly perform the Contract, then this obligation shall be void; otherwise, to remain in full force and effect.

Signed and Sealed this _____ day of _____, 20_____.

_____
(Principal)

By _____

(SEAL)

_____
(Surety)

By _____

## PAYMENT BOND

(Public Work Civil Code 3247 et seq.)

The makers of this Bond are _____, as Principal and Original Contractor, and _____, a corporation, authorized to issue Surety Bonds in California, as Surety, and this Bond is issued in conjunction with that certain public works contract dated _____, between Principal and County a public entity, as Owner, for $_____, the total amount Payable. THE AMOUNT OF THIS BOND IS 100 PERCENT OF SAID SUM. Said contract is for public work generally consisting of airport improvements at _____Airport.

The beneficiaries of this Bond are as stated in 3248 of the Civil Code and the requirements and conditions of this Bond are as set forth in 3248, 3249, 3250, and 3252 of said Code. Without notice, Surety consents to the extension of time for performance, change in requirements, amount of compensation, or prepayment under said Contract.

Dated: _____

_____
Original Contractor

_____

By: _____

By: _____
Its Attorney in Fact

Title: _____
(If corporation, affix seal)

STATE OF CALIFORNIA )
) ss.
COUNTY OF _____ )

SURETY'S ACKNOWLEDGEMENT

On _____, before me personally appeared person whose name is subscribed the name of said corporation thereto, and acknowledged that he subscribed the name of said corporation thereto, and his name as its attorney in fact.

_____
Notary Public (SEAL)

NOTE: All signatures must be notarized.

## LABOR AND MATERIAL BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____ of _____, as Principal, and , as Surety, incorporated under the Laws of the State of _____and authorized to transact surety business in the State of California, as Surety, are held and firmly bound unto *** , as Obligee in the sum of _____ Dollars ($_____), for the payment whereof, well and truly to be made, said Principal and Surety bind themselves, their heirs, administrators, successors and assigns, jointly and severally, firmly by these presents.

The Condition of the foregoing obligation is such that, Whereas the above bounden Principal has entered into a contract, dated _____, 20___, with the Obligee to do and perform the following work, to wit:

**WASH RACK AND CONTAINMENT/EVAPORATION POND CONSTRUCTION**
**AIP No. 3-06-0279-04**

All alterations, extensions of time, extra and additional work, and other changes authorized by the Specifications or any part of the Contract may be made without securing the consent of the surety or sureties on the contract bonds. Surety waives any requirement of notice of any such alterations, extensions of time, extra and additional work or any other changes.

NOW, THEREFORE, if the above bounden Principal, his or its heirs, executors, administrators, successors or assigns; or subcontractors shall fail to pay any of the persons named in Civil Code Section 3181, or amounts due under the Unemployment Insurance Code with respect to work or labor performed by any such claimant, or any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the Contractor and his subcontractors pursuant to Section 18806 of the Revenue and Taxation Code, with respect to such work and labor, the surety or sureties herein will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the said surety will pay a reasonable attorney's fee to be fixed by the court.

This bond shall inure to the benefit of any and all persons, companies or corporations entitled to file claims under Section 3181 of the Civil Code of the State of California, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Signed and Sealed this _____ day of _____, 20_____.

_____
(Principal)

(SEAL) By: _____

_____
(Surety)

By: _____