

ARTICLE 1D - SPECIAL CONDITIONS

1D-01 DESCRIPTION OF WORK

This project is to install four (4) security gates, relocate two (2) existing lift-arm gates, and construct all other items as set forth in the drawings and specifications.

It is intended that the work be completed in every respect under the Contract, and such items or details not mentioned above that are required by the Contract document shall be furnished, performed, placed, constructed, or installed by the Contractor.

1D-02 NOT USED

1D-03A CONTRACT TIME LIMITS AND LIQUIDATED DAMAGES

Contractor shall commence Work under this Contract on the date specified within the Notice to Proceed for field construction, and the Project shall be completed within **120** days from that date, including Saturdays, Sundays and holidays. Contractor further agrees to pay, as liquidated damages, the sum of **\$2,000** per day for each consecutive calendar day thereafter as provided in General Conditions Article 1C-8.2, "LIQUIDATED DAMAGES". In determining the number of days this Contract, or portions thereof, remains incomplete, the Completion date shall be as defined in General Conditions Article 1C-9.3, "ACCEPTANCE AND PAYMENT" as the date of recommendation of acceptance of work and material by Airport Authority. In addition, Contractor agrees to pay, as liquidated damages to Airport Authority, the amounts indicated in the following "Milestone Schedule" in the event a milestone/task is not timely achieved.

CONTRACT MILESTONES AND LIQUIDATED DAMAGES SCHEDULE

Milestone No.	Milestone Description	Number of Calendar Days* from Notice of Award Date	Daily Liquidated Damages
1(*)	<u>Administrative Processing</u> 1. Submittal Register approved 2. Appendix 4 Safety submittals approved 3. Submittals for Long lead procurement items approved 4. Airport SWPPP approved 5. Construction Phase/Traffic Control Plan approved 6. OCIP Enrollment completed for prime and all subs starting at NTP 7. Cost Loaded Construction CPM Schedule approved 8. Schedule of Values approved 9. Contractor's Quality Control Plan approved	50	\$800
Milestone No.	Milestone Description	Number of Calendar Days from Issuance of Limited NTP	
2(**)	Long Lead Item Procurement Completion (No field construction)	120	\$800
Milestone No.	Milestone Description	Number of Calendar Days from Issuance of Full NTP	Daily Liquidated Damages
3	Substantial Completion	90	\$2,000
4	Final Completion	120	\$2,000

(*) In the sole discretion of the Representative, the Limited NTP will only be issued after all of the requirements in Milestone No. 1, Administrative Processing, have been completed.

() In the sole discretion of the Representative, the Full NTP will only be issued after all of the requirements in Milestone No. 2, Long Lead Items Procurement, have been completed and approved.**

1D-03B NOT USED

1D-03C NOT USED

1D-04 NOT USED

1D-05 WORK OUTSIDE REGULAR HOURS

All Contractor work outside regular hours or on Saturdays, Sundays or holidays (except emergency work) shall be scheduled a minimum of 48 hours in advance with the Airport Authority.

The regular hours are from 7:00 AM to 4:00 PM.

1D-06 PERMITS AND FEES

- A. All temporary utility services costs, including, without limitation, connection fees and charges and all other water bill charges during the Contract Time shall be from sources approved by the Airport Authority and shall be at Contractor's expense. Full compensation for all temporary utilities services and related costs (including those costs for construction offices) and for all water bill charges in connection with water used during the Contract Time shall be included in the Contract Price for the appropriate related Bid items, and no separate payment or reimbursement will be made therefor.
- B. Contractor shall obtain all other permits incidental to the Work, or made necessary by its operation, including but not limited to, those permits required for night work, overload, blasting, demolition and equipment, and pay all fees and costs incurred for and by the permit requirements. The cost of any such permit will be paid by the Contractor and is included in the Contract Price for the appropriate related Bid items, and no separate payment or reimbursement will be made therefor.

1D-07 NOT USED

1D-08 OVERHEAD

The Contractor will be compensated for time-related overhead in accordance with this Article.

Time-related overhead shall consist of those overhead costs, including field and home office overhead, which are in proportion to the time required to complete the Work.

Field office overhead expenses include time-related costs associated with the normal and reoccurring operations of the Project, and shall not include costs directly attributable to any of the Work of the Contract. Such time-related costs include, but are not limited to, the salaries and benefits of project managers, general superintendents, field office managers and other field office staff assigned to the Project, and rent, utilities, maintenance, security, supplies and equipment costs of the Project field office. The rate of field office overhead shall exclude all one-time charges not related to time, such as mobilization, licenses, permits, and any other charges not incurred on a regular basis during the duration of the Project.

Home office overhead or general and administrative (G&A) expenses refer to the fixed costs of operating the Contractor's business. Such costs include, but are not limited to, general administration, insurance, personnel and subcontract administration, purchasing, accounting, and project estimating. The rate of home office overhead shall be specific to this project, and shall exclude expenses related to other contracts or other businesses of the Contractor, equipment coordination, material deliveries, and consultant and legal fees.

The quantity of time-related overhead for payment will be measured as units based on the number of Days as specified in Article 1D-03, "CONTRACT TIME LIMITS AND LIQUIDATED DAMAGES" of these Special Conditions. In the event an early completion progress schedule is submitted by the Contractor and approved by the Airport Authority, the quantity of time-related overhead for payment accepted will be based on the total number of Days as specified in Article 1D-03 rather than the Contractor's early completion progress schedule. Overhead reflects the 90 day onsite field construction only. This does not apply to offsite management during the processing and procurement long lead items. The quantity of time-related overhead, as measured above, will be adjusted only as a result of suspensions and adjustments of time which revise the current Contract Completion date and which are also any of the following:

- A. Suspensions of work ordered in accordance with General Conditions Article 1C-11.3, "TERMINATION OR SUSPENSION FOR CONVENIENCE", except:
 - 1. Suspensions ordered due to weather conditions being unfavorable for the suitable prosecution of the controlling operation or operations; or

2. Suspensions ordered due to the failure on the part of the Contractor to carry out orders given, or to perform any provision of the contract; or
 3. Any other suspensions mutually agreed upon between the Airport Authority and the Contractor.
- B. Extensions of time granted by the Airport Authority in accordance with General Conditions Article 1C-7, "CHANGES IN THE WORK"; or
- C. Reductions in Contract Time set forth in approved Contract Change Orders, in accordance with General Conditions Article 1C-7, "CHANGES IN THE WORK".

In the event a Value Engineering proposal is submitted by the Contractor and provides for a reduction in Contract Time, the quantity of time related overhead associated with the reduction in Contract Time, shall be considered as a net savings of time related overhead, in accordance with Article 1D-40, "VALUE ENGINEERING" of these Special Conditions.

In the event that Contractor completes the Work earlier than the Contract Completion date specified in Article 1D-03, "CONTRACT TIME LIMITS AND LIQUIDATED DAMAGES" of these Special Conditions. Contractor's overhead amount, as shown in **Bid Schedule "A"**, shall not be reduced due to early Contract Completion.

If the quantity of time related overhead, as measured above, exceeds one hundred forty-nine percent (149%) of the number of Days specified in Article 1D-03, "CONTRACT TIME LIMITS AND LIQUIDATED DAMAGES" of these Special Conditions (excluding any days for plant establishment), the Contractor shall, within sixty (60) Days of the Airport Authority's written request, submit an audit performed by an independent Certified Public Accountant. The independent Certified Public Accountant's audit examination is to be performed in accordance with the American Institute of Certified Public Accountants Attestation Standards. The audit examination is to determine if the total quantity of time related overhead is:

- D. Allowable in accordance with Federal Acquisition Regulations, 48 CFR, Chapter 1, Part 31;
- E. Adequately supported by reliable documentation; and
- F. Related solely to the Project under examination.

The audit examination shall depict the Contractor's Project and company-wide financial records and shall specify the actual overall average daily rates for both field and home office overhead for the entire duration of the Project, and whether such costs have been properly allocated. The rates of field and home office overhead shall exclude all unallowable costs as determined in the request, the Contractor shall make its financial records available for audit by the state for the purpose of verifying the actual rate of time related overhead specified in the audit, submitted by the Contractor, shall be subject to approval by the Airport Authority.

If the Airport Authority elects, or if requested in writing by the Contractor, all Contract item payments for time related overhead in excess of one hundred forty-nine percent (149%) of the number of Days specified in Article 1D-03, "CONTRACT TIME LIMITS AND LIQUIDATED DAMAGES" of these Special Conditions (excluding any days for plant establishment), will be adjusted to reflect the actual rate.

The Contract unit price paid for time related overhead shall include full compensation for field and home office overhead measured for payment as specified above, and shall be considered to include all field and home office overhead costs incurred by the Contractor and by any joint venture partner, subcontractor, supplier or other party associated with the Contractor.

Full compensation for additional overhead costs incurred during the performance of extra work that is not a controlling operation and for all overhead, other than time-related overhead measured and paid for as specified above, shall be considered as included in the markups as specified in General Conditions Article 1C-7, "CHANGES IN THE WORK", and the various items of work, and no additional compensation will be allowed therefor.

1D-09

SUBMITTALS

- A. The term "submittals" includes shop drawings, drawings, diagrams, layouts, schematics, description literature, illustrations, schedules, samples, product, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the Work required by the Contract.
- B. Submittals are required for all specified materials.
- C. The Airport Authority has provided a Procurement Log and a Submittal Register in the electronic program management website.

The Contractor shall coordinate submittals with the Progress Schedule and submit to the electronic program management site for the Airport Authority's review. No submittals will be reviewed by the Airport Authority before the Procurement Log and Submittal Register have been accepted by the Airport Authority.

The electronic Procurement Log and electronic Submittal Register shall be updated by the Contractor weekly. Failure to update the Procurement Log, or Submittal Register, as required herein may result in the Airport Authority retaining an amount equal to ten percent (10%) of the estimated value of the work performed during the month from the next submitted Progress Estimate, except that such retention shall not exceed \$10,000, nor be less than \$1,000. Upon completion of an acceptable updated Procurement Log, or Submittal Register, any such withheld amounts can be invoiced and will be released with the next progress payment. Until such time as a final Procurement Log and Submittal Register are provided, no Final Payment shall be due and owing.

The columns titled "Specification Section", "Description", "Submittal Type", "Review Type" and "Submittal Number" will be completed by the Airport Authority.

The submission process shall be phased to ensure that submittals are submitted in order of their criticality to the construction process. A phased system which staggers submittals, by imposed start dates, shall be implemented. The intention is to adjust the flow of the submittals so as to produce an even workload, without peak loads, while meeting the needs of the construction process.

- D. The Contractor shall submit such submittals as required to maintain the progress of the Work. The Contractor shall coordinate all such submittals, and review them for accuracy, completeness and compliance with the Contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Submittals provided to the Airport Authority without evidence of the Contractor's approval will be returned for re-submission.

The Airport Authority will indicate its approval or disapproval of the submittals as specified below and if not approved as submitted shall indicate its reasons. Any Work done prior to such approval shall be at the Contractor's risk. Approval by the Airport Authority shall not relieve the Contractor from responsibility for any errors or omissions in submittals, nor from responsibility for complying with the requirements of this Contract, nor shall said review relieve the Contractor of any obligation hereunder, including without limitation the removal and replacement of defective Work, materials and

equipment which may be rejected by the Airport Authority notwithstanding such review, except with respect to variations described and approved in accordance with Subarticle G below. Submittals are included in the Contract Work.

Identification: Include an electronic label or title page on each submittal for identification.

1. Indicate name of firm and the person that prepared each submittal on label or title page.
 2. Provide a space to record Contractor's review and approval markings and action taken by the Airport Authority.
 3. Identify the intended use or location of each product by notation on the submittal, or by attached schedule, to indicate the Contractor understands the intended use of the product. Reference to specific Section text may not, by itself, constitute sufficient identification. Insufficiently identified products may be returned by the Airport Authority with no action.
 4. Training for the electronic submittal process will be provided by the Airport Authority.
- E. Readability: Submittals, regardless of source, must be clear and readable as determined by the Airport Authority.
- F. Faxes: Faxed submittals will be returned by the Airport Authority without review.
- G. Submittal Variations: If the submittals show any variations from the Contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. Contractor shall describe features of the variation and why the variation is desirable and beneficial to the Airport Authority. If lower cost is a benefit, also include an estimate of the cost savings. Contractor shall identify the proposed variation separately and include the documentation for the proposed variation along with the required submittal for the item. When submitting a variation for approval, the Contractor shall warrant the following:
1. Variation is compatible:

The Contract has been reviewed to establish that the variation, if incorporated, will be compatible with other elements of the Work.

2. Responsibility for Additional Costs:

Unless otherwise agreed to in writing by the Airport Authority, the Contractor shall take actions and bear the additional costs necessary due to the proposed variation.

3. Review Schedule is modified:

A period of 28 Days will be allowed for consideration by the Airport Authority of submittals with variations.

If the Airport Authority approves any submittals with unidentified variation(s), the Contractor's failure to specifically identify each variation as set forth above shall waive any implied or express approval obtained by the Airport Authority.

H. The Contractor shall electronically post submittals a minimum of three (3) weeks before need of reviewed submittals, unless otherwise specified by the Airport Authority. Contractor shall meet the most stringent delivery requirement specified. The Airport Authority's review is for the limited purpose of checking for general compliance with the concepts and intent of the Contract and it shall not bind the Airport Authority to discover errors. The Airport Authority's review is not for determining the accuracy or completeness of the Work such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems. Acceptance of submittals by the Airport Authority represents only that level of review and shall not further bind the Airport Authority. Contractor shall be responsible for the accuracy and correctness of all submittals and final installation of the Work.

I. Product Data/Material Lists:

1. Manufacturer's Standard Schematic Drawings: Modify drawings to delete information which is not applicable to Project.
2. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data.
3. Clearly mark each copy to identify pertinent materials, products or models.

4. Show dimensions and clearances required.
 5. Show performance characteristics and capacities.
 6. Show wiring diagrams and controls.
 7. Include calculations when applicable.
- J. Samples and Mockups: Samples and Mockups shall be delivered and erected at the direction of the Airport Authority. (Reference Article 1D-10, "MATERIALS AND SAMPLES" of these Special Conditions). Samples shall illustrate materials, equipment, workmanship, and the like; Airport Authority approved samples shall establish the standards by which completed work will be inspected, approved, or rejected. Samples shall be of adequate and reasonable size and quantity to clearly illustrate the functional characteristics of product or material, with integrally related parts, attachment devices, and the like. Erect or apply field mockups, as applicable, at project site at location as noted and as approved by the Airport Authority. Construct each mockup complete, including work of all trades required in finished work.
- K. Number of Copies: Submit one (1) electronic copy of each submittal and re-submittal for the Airport Authority's review.
- L. As a minimum, submittals shall include the following information as applicable:
1. Date and revision date(s).
 2. Project title, name and location, Airport Authority and Work Order number and contract numbers.
 3. Names of contractor, subcontractor, and supplier or manufacturer.
 4. Identification of product or material.
 5. Relation to adjacent structure or material.
 6. Field dimensions, clearly identified as such.
 7. Specification section number.
 8. Consecutive submittal or resubmittal number.

9. Adequate blank space for the Airport Authority's review-stamp and comments.

Where specifically indicated by pertinent specification sections, submit proper certification by recognized producer or association in lieu of testing. Certification shall attest to products compliance with requirements of Contract Documents, see Article 1D-11, "CERTIFICATES OF COMPLIANCE" of these Special Conditions.

Shop drawings shall include name and location of project, name of Contractor, Airport Authority CIP and specification numbers, and cross reference to Contract Documents. Number shop drawings consecutively. Drawings shall be of a sufficiently large-scale to accurately describe the work, and be legible, and complete.

Each transmittal shall be consecutively numbered and shall contain list of items submitted, properly identified as to drawing numbers, Specification Section or other identification; and numbers and dates of previous submittals, if a resubmittal. Submittals and resubmittals shall be transmitted separately for each item, required by the Submittal Register and the Special Provisions, to be delivered to the Airport Authority. Submittals and resubmittals shall not be bundled by the manufacturer, supplier, subcontractor, or contractor. Submittals not adequately identified, incomplete, or bundled will be returned to Contractor for correction and resubmittal.

Mark each set of the submittal to show that it has the Contractor's review and approval. Prior to transmission to the Airport Authority, the Contractor shall review and affix their Contractor's electronic stamp, as set up in the Airport Authority's electronic project management system.

M. Electronic Submittal Requirements:

Prepare and submit Submittals in the submittal format specified and as required by individual Special Provisions Sections. Utilize any software that can save to or write a PDF and allows for encryption and signature.

Scanned Copies: Legible scanned PDF files of paper originals are acceptable; scanned submittals that are not legible will be rejected.

File Size: E-Mail Delivery, Maximum of 20 Megabytes (MB) including header. No zipped files are allowed. Uploaded documents to the electronic program management site have no size limitations.

Split Delivery: Break larger PDF files into small packages where necessary to meet delivery restrictions; identify split packages as "1 of 2" and "2 of 2" in the Subject Line of submission.

Sheet Orientation: Assemble PDF sheets in a single file; unless resulting file is larger than 10 MB, rotated to a "Ready-to-Read" orientation with majority of text horizontal to the sheet with no additional adjustments or formatting required by the viewer.

File Security: Do not set any permissions on the file; protected documents will not be accepted.

File Identification: File name must contain Project Number, Name of Submission, Date of Submission, Name of Fabricator and Submittal Number with an underscore between each item.

Transmission Requirements: Send non-zipped files as an attachment to e-mail or upload the submittal using the electronic project management website provided by the Authority. Zipped files will be rejected.

Drawings: Electronic copies of the Contract Drawings are provided as part of the original bidding documents by the Airport Authority for Contractor's use in preparing submittals. If drawings are larger than 11" X 17", one (1) paper copy in addition to the electronic copy shall be required for review. The paper copy will not be returned to the Contractor.

- N. Coordination: Coordinate preparation and processing of submittals with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
1. Coordinate and transmit related submittals so as to avoid delays during submittal review. The Airport Authority reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
 2. Mark each set of the submittal to show that it has the Contractor's review and approval. Prior to delivery to the Airport Authority, the Contractor shall review and affix their Contractor's stamp, with the required information completed.

3. Stamp Space on Submittals: Provide a blank space for the Airport Authority's electronic stamp on the cover sheet or top page of each submittal. Acceptance of submittals by the Airport Authority will be general and shall not relieve Contractor from responsibility for proper fitting and construction of Work, or from furnishing materials and Work required by Contract, which may not be indicated on submittals.
 4. Do not commence work requiring submittal until submittal has been approved by the Airport Authority. The work shall be in accordance with Airport Authority approved submittals.
- O. Submittals will be reviewed by the Airport Authority and returned to the Contractor within twenty-one (21) Days and will be: (1) returned marked "Approved," (2) returned marked "Approved With Corrections Noted," or (3) returned marked "Disapproved, Revise and Resubmit."
- P. Submittals marked "Disapproved, Revise and Resubmit" and returned to the Contractor shall be corrected by the Contractor to indicate compliance with design requirements and resubmitted for review before proceeding with fabrication. Drawings marked "Approved with Corrections Noted" shall be corrected, and may be issued by the Contractor for fabrication without further review and the Work shall be performed pursuant to the noted corrections.
- Q. Full compensation for furnishing and revising all submittals shall be considered as included in the Contract Price and no additional compensation will be allowed therefor.
- R. Trade Names and Alternatives: Certain materials, products, things or services to be incorporated in the Work may be designated in the specifications by specific brand or trade name by listing at least two (2) brands or trade names of comparable quality or utility followed by the words "or equal" so that the Contractor may furnish any equal material, product, thing or service. The Airport Authority shall, if aware of an equal product manufactured in California, name such product in the specifications. Only one such "or equal" item will be permitted per submitted item. In those cases involving a unique or novel product application required to be used in the public interest, or where only one (1) brand or trade name is known to the Airport Authority, it may list only one (1). In such case, the Contractor may submit data substantiating a request for a substitution of an "or equal" item thirty-five (35) Days after award of the Contract on the Substitution Request Form (Appendix 1, Form 10). If the Airport Authority rejects the substitution of an "or equal" item, the

Contractor shall provide the specified material, product, thing or service without extra cost to the Airport Authority. Public Contract Code section 3400 shall apply, if so designated by this specification. More specifically: 1) In order that a field test or experiment may be made to determine the product's suitability for future use; 2) In order to match other products in use on a particular public improvement either completed or in the course of completion; 3) In order to obtain a necessary item that is only available from one source.

- S. Photographs: Photographic submittals shall be in JPG format and copied to the electronic program management website with project name, project number and date. A brief description of the photographic event shall be provided for each image by the Contractor.

1D-10

MATERIALS AND SAMPLES

- A. All materials shall be new and of the specified quality and fully equal to samples, where samples are required or requested. The Contractor shall furnish to the Airport Authority for review or test, whenever requested and free of charge, samples of all materials proposed to be used in the Work. It shall also submit any required detailed drawings of articles or equipment for Airport Authority approval. Rejected materials must be immediately removed from the Work Site and shall not be brought again upon the Work or used in the Work.
- B. Materials furnished by the Airport Authority:
 - 1. In cases where the Airport Authority furnishes all or a portion of the equipment or materials to be used in the Work ("materials"), the Contractor shall accept delivery of such materials as may be provided. If the Contractor is required to haul such materials under this Contract to the Work Site, it shall pick them up promptly after notification by the Airport Authority, and shall pay at its own cost any demurrage or other charges which have accrued due to its failure to pick up the materials promptly.
 - 2. Contractor shall be responsible for the materials, including proper storage and handling from the time it receives them until Final Acceptance of the Work, and it shall replace or repair, at its own cost and in a manner satisfactory to Airport Authority, any of the materials which are lost or damaged after the Contractor's receipt of same.

3. Any Airport Authority furnished materials which remain unused at the Completion of the Work shall be delivered by the Contractor to the Airport Authority's storage yard designated by the Airport Authority.
4. All compensation to be received by the Contractor for handling and protecting Airport Authority furnished material is included in the Contract Price, and no extra compensation will be paid to the Contractor therefor.

1D-11 CERTIFICATES OF COMPLIANCE

A Certificate of Compliance shall be furnished prior to the use of any materials for which the Contract Documents require that such a certificate be furnished. In addition, when so authorized, the Airport Authority may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The certificate shall be signed by the manufacturer of the material or the manufacturer of assembled materials and shall state that the materials involved comply in all respects with the requirements of the specifications. A Certificate of Compliance shall be furnished with each lot of material delivered to the Work and the lot so certified shall be clearly identified in the certificate.

All materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that material is used on the basis of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the Work which conforms to the requirements of the Contract Documents and any such material not conforming to such requirements will be subject to rejection whether in place or not.

The Airport Authority reserves the right to refuse to permit the use of materials on the basis of a Certificate of Compliance. Certificates of Compliance shall be issued on a company letterhead type form.

1D-12 RECORD DRAWINGS

- A. The Contractor shall maintain at the Work Site record set of full-size project drawings upon which all field changes are recorded on a daily basis. This data shall be legibly recorded on blue-line prints (furnished by the Airport Authority) to the satisfaction of the Airport Authority. Records shall be kept up to date with all entries checked by the Airport Authority before the work is buried or otherwise concealed. In the event the Contractor fails to maintain record drawings up to date on a monthly basis (see Appendix 1, Form 3, "As Built Drawing Certification") as required herein, the Airport Authority shall retain an amount equal to ten percent (10%) of the

estimated value of the Work performed during the month from the next submitted Progress Estimate, except that such retention shall not exceed \$10,000, nor be less than \$1,000. Upon the Contractor producing the required up to date record drawings, any such withheld amounts will be released with the next progress payment. Until such time as the final up to date record drawings are produced, no Final Payment shall be due and owing.

- B. Upon Completion of the Work and as a condition precedent to acceptance and the issuance of Final Payment, the Contractor shall sign and deliver to the Airport Authority a complete set of corrected prints, in good condition and with complete installation and every change in the Work indicated thereon whether concealed or visible.
- C. Any work showing faults under test, and any Work not in accordance with the Contract Documents shall be made good by the Contractor at its own expense.
- D. Should the Contractor refuse or neglect to make any tests necessary to satisfy the Airport Authority or its representative that it has carried out the true intent and meaning of the Contract Documents, the Airport Authority may make such tests and charge the expense to the Contractor, to be retained out of a progress or Final Payment as provided in the Contract Documents.
- E. The Airport Authority may require the testing of materials by a competent testing laboratory of its selection or by other means. The cost of the material to be tested, delivered to the point of testing, shall be borne by the Contractor and the cost of the initial tests will be borne by the Airport Authority. The Contractor shall pay all costs for subsequent tests where work or material fails to pass initial tests. Any Work or material showing faults under test shall be corrected by the Contractor at its own expense.
- F. The Contractor shall record any changes, deletions, additions, rerouting, stub-outs, offsets or any other deviation from the Plans on the as-built drawings. All underground and concealed work shall be recorded with exact location by dimension and elevation as detailed below, even when installed in conformance to original drawings.

Elevations shall refer to NAVD 88 datum.

Dimensions shall be shown from permanent installations rather than from fencing or other temporary locations that are subject to change.

Two reference dimensions shall be given for each underground or concealed installation.

Trenches for underground lines shall not be backfilled, nor shall concealed work be covered until elevations and dimensions are recorded complete on as-built drawings and a check has been made of lines versus recorded data by Airport Authority. If backfill is placed without Airport Authority's approval, the work shall be uncovered so that a proper check can be performed. Original data that is superseded shall be lined out and still remain legible. Original figures shall not be eradicated, nor corrections made over item.

1D-13

CONTRACTOR COORDINATION WITH OTHERS

- A. Contractor shall make all arrangements with utility agencies to arrange for connections, metering and new services required for the Project. Contractor shall pay all fees and charges and arrange for all required inspections.
- B. Airport Authority will reimburse Contractor the amount of the fees and charges upon claim substantiated by signed receipts from the agencies. The amount of the fees and charges has been estimated and an allowance item in that total amount has been included in the Bid Schedule.
- C. All water services for this Contract shall be made in the name of Contractor and Contractor shall pay all charges for water used under its name. At the time of Completion of the Project construction, when the Plant Establishment and Landscape Maintenance Period begins, the water services shall be transferred to the name of the San Diego County Regional Airport Authority.
- D. Contractor shall coordinate work with other Authority contractors, utilities, tenants, and Airport Operations, as required by the Contract Documents. The Contractor is required to coordinate all of its work on Airport Authority- owned systems through the Representative. The Airport Authority will then coordinate with all relevant Authority personnel. If the Airport Authority determines that Contractor is failing to coordinate its Work, the Airport Authority may upon 72 hours written notice:
 - 1. Withhold any payment otherwise owed hereunder until Contractor complies with Airport Authority's directions.
 - 2. Direct others to perform portions of Contract and charge the cost of Work against Contract amount.

3. Terminate any or all portions of Contract for Contractor's failure to perform in accordance with Contract.

E. In addition, the following provisions apply:

1. The Contractor shall notify and receive approval from the Airport Authority, in writing, ten (10) Days in advance of any utility, service, or system shut down that will affect the normal operations at San Diego International Airport. Utility, service, or system shut downs shall only be allowed at night and during hours determined by the Airport Authority (normally between 11:00 PM to 5:00 AM). The Contractor shall provide the Airport Authority with the type of utility, service, or system and anticipated duration of shut down and specific area(s) that will be affected as a result of the Work. The Contractor shall provide notification by using "Contractor Interface with Airport Systems Notification" (Appendix 1 Form 15). Contractor shall not proceed with Work until written approval is received from the Airport Authority.
2. The Contractor shall notify and receive approval from the Airport Authority, in writing, ten (10) Days in advance of any time that the Contractor plans to make contact with any utility, service or system at the Airport – no matter whether the utility, service, or system is believed to be functional, or non-functional. The Contractor shall provide the Airport Authority with the type of utility, service, or system and anticipated duration of shut down and specific area(s) that will be affected as a result of the Work. The Contractor shall provide notification by using "Contractor Interface with Airport Systems Notification" (Appendix 1 Form 15). Contractor shall not proceed with Work until written approval is received from the Airport Authority.
3. The Contractor shall maintain service under this Contract on all the existing utilities, including but not limited to water lines, telephone lines, data lines, gas lines, electrical lines, security system, paging system, and control systems during all phases of the Work.
4. The Contractor shall be fully responsible for any and all damages to underground and aboveground utilities and facilities resulting from Contractor's operation. No separate measurement or payment will be made to the Contractor for locating, working around, coordinating with the Airport Authority or protecting utilities, services, or systems. All

costs incurred thereby shall be considered incidental to Work under this Contract.

5. The Contractor shall have available on-call sufficient specialty contractors, such as electrical, plumbing, etc., to repair any damage to existing facilities that might occur as a result of construction operations, regardless of when the damage might occur.
6. The Contractor shall expect to work during the hours of 11:00 PM and 5:00 AM whenever construction activities interfere with the normal operation of any Airport Authority systems, airline, other Airport Authority tenant, or passengers.
7. Separate contractors on adjoining or overlapping work shall cooperate with each other as necessary. Such cooperation shall include, but not be limited to:
 - a. Coordination of all service outages to minimize the effects of construction work on the operation of the Airport;
 - b. Arrangements and conduct of Work;
 - c. Storage and disposal of materials, etc., by each, in such a manner as to not interfere with or hinder the progress of the work being performed by other contractors. Contiguous work shall be joined in an acceptable manner;
 - d. Access to the site.
8. The Airport Authority shall have the right, at any time, to contract for and perform other work on, near, over or under the Work covered by this Contract. In addition, other work may be performed under the jurisdiction of the Airport Authority, or another authority or Federal agency. In such cases, when a dispute arises among contractors, the Airport Authority will decide and direct the Contractor accordingly. The Contractor shall cooperate fully with such other Contractors and carefully fit their own work to such other work as may be directed by the Airport Authority.
9. The Contractor agrees that in the event of dispute as to cooperation, the Airport Authority will act as referee. The Contractor agrees to make no claims against the Airport Authority for any inconvenience, delay, or loss experienced

by them because of the presence and operations of other contractors.

1D-14 ACCESS TO BUSINESSES, TENANT LEASEHOLDS, PRIVATE PROPERTY, DRIVEWAYS, ALLEYWAYS, AND THOROUGHFARES

The Contractor shall schedule its operations on the Work Site to provide for:

- A. Pedestrian/vehicle ingress and egress for airport terminals, parking lots, public parks, and other Tidelands business sites at all times, except if otherwise approved in writing by the Airport Authority.
- B. Pedestrian/vehicle ingress and egress for each driveway, alleyway and street within project limits at all times (work on said facilities shall be scheduled so that no less than one half the width is available at a time).

The Airport Authority recognizes that temporary complete closure of certain pedestrian/vehicle ingress and egress locations may be unavoidable due to site and Project requirements. Contractor shall work closely with Airport Authority to keep these instances to an absolute minimum. When complete closures are necessary, detours shall be provided unless they are shown to cause undue hardship.

The Contractor is directed to Article 1D-20, "CONTRACTOR'S PROGRESS SCHEDULE" of these Special Conditions. The schedule shall show the start and end of any partial closures to pedestrian and vehicle pathways, walkways, alleys and driveways. This will allow the Airport Authority time to fulfill the Airport Authority's responsibility to notify all concerned parties and to apprise each party of what conditions can be expected when construction commences.

Contractor shall notify Airport Authority at least seven calendar days in advance upon any change in project schedule or operation that may affect access. Airport Authority will be responsible for notification to affected parties.

Full compensation for access to businesses, tenant leaseholds, private property, driveways, alleyways, and thoroughfares shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefor.

1D-15 EXISTING UTILITIES, IMPROVEMENTS, AND OBSTRUCTIONS

- A. Whenever any pole, structure, culvert, conduit, cable or other obstruction, either above or below ground surface within the area to be utilized by the Contractor in the performance of the Work is, or may be affected by the Contractor's operations, the Contractor shall preserve the same intact or it shall make such arrangements with the owner of same for its protection, support, alteration or removal and reinstallation, as may be required by the conditions encountered.
- B. The Contractor shall notify in advance and cooperate with each owner of poles, structures, pipes, culverts, conduits, cables or other improvements that may be encountered or affected in any way by the Work under this Contract. It shall be the responsibility of the Contractor to verify the existence and exact location of existing utilities prior to construction.
- C. Where water mains or services are altered or removed and reinstalled either to avoid interference with the Work under this Contract or for the convenience of the Contractor, such alteration, removal and reinstallation shall be performed in accordance with the rules and regulations of the owner, and the cost shall be borne as outlined in the following paragraphs.
- D. It shall be the Contractor's responsibility at its sole expense to verify the existence and the exact location of existing underground utilities prior to excavation. Contractor shall pothole to determine depths and exact location of utilities prior to excavation in the area. The Contractor shall uncover sewer laterals, telephone and electric conduits, water mains and gas mains or any other major utility crossings and other high risk underground facilities in advance of trenching operations a minimum of five (5) Business Days sufficient to permit grade changes, should such changes be required. The cost of such work shall be included in the Bid for items of work necessitating such location.
- E. Unless otherwise specifically provided in the Contract Documents, all costs of protecting, potholing, supporting, altering, obliterating, removing, salvaging, reconstructing and reinstalling pipes, poles, structures, trees and other obstructions, shall be borne by the Contractor, including facilities which are altered or removed and reinstalled for the Contractor's convenience, except:
 - 1. Unless otherwise provided, where a subsurface obstruction is encountered which is not shown on the Contract Documents.

2. Where it is necessary to remove or alter obstructions which are maintained under an Airport Authority franchise, ordinance, contract, permit or other agreement by the terms of which the obstruction is required to be moved or adjusted.
 3. The Airport Authority shall not be required to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the Work Site can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site of the construction; provided, however, nothing herein shall relieve the Airport Authority from identifying main or trunk lines in the Contract Documents. The Airport Authority shall compensate the Contractor for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the Contract Documents with reasonable accuracy, and for equipment on the Project necessarily idled during such work.
- F. Except as otherwise expressly provided herein, the Contractor shall not be entitled to any additional compensation due to the presence of, or interference, delays or expense caused by obstructions, or the removal and/or replacement of obstructions where such obstructions could have been reasonably anticipated and such removal and/or replacement is required for proper completion of the Work. The Contractor shall not be assessed liquidated damages for delay in the Completion of the Work, when such delay was caused by the failure of the Airport Authority or the owner of the utility facilities as provided by Government Code Section 4215.
- G. Where the Work requires the removal of or damage to existing pavement, sidewalks, curbs, lawns, shrubbery, trees, hedges, gardens, drives, walls, fences, buildings or other improvements, the Contractor shall take precautions to limit the removal or damage to the least practicable amount; and it shall at its own cost replace or restore said improvements to as near its original location and condition as it reasonably possible, except as otherwise provided. Great care shall be exercised in placing and compacting backfill in areas where improvements are to be placed upon said backfill.
- H. Trees shall not be removed without the express permission of the Airport Authority or as shown in the Contract Documents. Damage to or excessive trimming of trees in the street or right-of-way shall be avoided. If directed by the Airport Authority, the Contractor shall replace with like kind any tree removed and/or overly trimmed in violation of this provision.

- I. The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety, and welfare of workmen and of the public. Facilities requiring special precautions include, but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipelines greater than 6 inches in diameter or pipelines operating at pressures greater than 60 psi (gage); underground electric supply system conductors or cables, with potential to ground of more than 300 volts, either directly buried or in duct or conduit which do not have concentric grounded conductors or other effectively grounded metal shields or sheaths.

The Contractor shall notify the Airport Authority and the appropriate regional notification center for operators of subsurface installation at least two working days prior to performing any excavation or work close to any underground pipeline, conduit, duct, wire or other structure. Regional notification centers include but are not limited to the following:

Underground Service Alert -
Southern California (USA)

Telephone: 1 (800) 227-2600
Alternate: 1 (800) 422-4133

Website: www.digalert.org

1D-16 CONTRACTOR EQUIPMENT STORAGE AND STOCKPILE AREAS

Contractor Equipment Storage and Stockpile Areas are indicated on the drawing.

1D-17 CONTRACTOR'S EMPLOYEE PARKING

Parking for Contractor's personnel and the location of the Contractor's Employee Office Trailer is available as indicated on the drawing.

1D-18 SANITARY FACILITIES FOR CONTRACTOR PERSONNEL

Contractor shall provide portable sanitary facilities for its personnel.

1D-19 COST BREAKDOWN (SCHEDULE OF VALUES)

Attention is directed to Article 1D-20, "CONTRACTOR'S PROJECT SCHEDULE" of these Special Conditions. In addition to the requirements contained in that article, the following requirements shall apply:

The Contractor shall expand (break down) the lump sum and unit prices entered in the Bid Schedule in order to submit a detailed Cost Breakdown (Schedule of Values) for the entire Project. Schedule of Values shall be submitted simultaneously with the Contractor's Progress Schedule. The Initial Application for Payment will not be approved for payment until the Cost Breakdown (Schedule of Values) has been submitted to and accepted by the Airport Authority. Each Contractor's Application for Payment will require a legible copy of the most recent approved Schedule of Values. Any Application for Payment submitted without the current Schedule of Value, or an illegible Schedule of Value will not be process and immediately returned to the contractor for corrective action.

Format and Content: The Cost Breakdown (Schedule of Values) shall conform to the format, content and numbering system of the approved Contractor's Construction Schedule. Contractor's, subcontractors' and suppliers' profit and overhead shall be included in each line item. The Project Specification Table of Contents may be used as a general guide to format the Cost Breakdown (Schedule of Values). Special item numbers may be sequentially numbered.

- A. Entries shall match approved Contractor's Construction Schedule. Use updated schedules if revisions have been made.
- B. The Cost Breakdown (Schedule of Values) shall be a detailed itemization of the price to provide each item of work and material on the project. No breakdown (values) shall be included for non-construction activities including, but not limited to, procurement and submittals.
- C. Each line item on the Cost Breakdown (Schedule of Values) shall be presented in a manner that allows the Airport Authority to easily find that item of work within the pertinent construction period.
- D. Each line item on the Cost Breakdown (Schedule of Values) shall be ascribed a breakdown (value) by the Contractor that represents the breakdown (value) of the work. If required by the Airport Authority, the Contractor shall substantiate each breakdown (value) by the use of supplier, subcontractor written quotations, labor wages, labor rates, hourly estimates, or other industry recognized cost estimating references (as approved by the Airport Authority).
- E. Each line item of the Cost Breakdown (Schedule of Values) shall be coordinated with other line items of work.
- F. Arrange the Cost Breakdown (Schedule of Values) in a tabular form with separate columns to indicate the following for each item listed.

Each sheet of the Cost Breakdown (Schedule of Values) shall be titled and numbered sequentially.

1. Line Item Number
2. Description of Item
3. Quantity
4. Unit of Measure
5. Unit Price
6. Value of Line Item

Round amounts off to the nearest whole dollar; the total shall equal the Contract Sum.

- G. Schedule Updating: Contractor shall update and resubmit the Cost Breakdown (Schedule of Values) prior to each payment application when approved Change Orders result in a change in the Contract Sum.

1D-20A CONTRACTOR'S PROGRESS SCHEDULE

In addition to the requirements of the General Conditions, the following shall apply:

- A. Before the preparation of the Contractor's Progress Schedule, Contractor shall inspect the project Work Site in order to familiarize itself with the condition of the existing area where it will perform the Work.
- B. Contractor shall submit a practicable Progress Schedule, in quadruplicate, to the Airport Authority within 30 calendar days of Notice of Award. No Work shall be allowed to proceed unless and until a Progress Schedule is submitted. In the event a Notice to Proceed has been issued, no time extension or compensation will be allowed to Contractor for failure to comply with this provision.
- C. The Contractor may furnish the progress schedule using either the latest version of Primavera Project Management (P6) for Windows, latest version of Microsoft Project, or other equivalent CPM software. The schedule shall clearly show the order in which the Contractor proposes to perform the work, the dates on which it will start the salient features of the work (including but not limited to the procurement of materials, plant and equipment), production rates, and proposed completion dates for each of these features. The progress schedule submitted shall be consistent in all respects with the time constraints and sequencing requirements of the Contract.

- D. An updated progress schedule shall be submitted monthly, or as requested by the Airport Authority, to show the progress of the work. In any event, if the Contractor fails to submit said updated Progress Schedule within 10 calendar days after a written request by the Airport Authority, the Airport Authority shall have the right to withhold progress payments for any work until a satisfactory progress schedule is submitted to the Airport Authority. Failure to submit an updated progress schedule as required herein may result in the Authority retaining an amount equal to ten percent (10%) of the estimated value of the work performed during the month from the next submitted progress estimate, except that such retention shall not exceed \$10,000, nor be less than \$1,000. Upon receipt of the required updated progress schedule, any such withheld amounts will be released with the next progress payment. Until such time as the updated progress schedule is provided, no final payment will be due and owing.
- E. The capacity of the construction plant, sequence of operations, and methods of operations shall be such as to ensure the completion of the work within the time specified in the progress schedule.
- F. When the Contractor is to furnish major items of equipment or materials, the progress schedule shall include the proposed dates of manufacture and shipment of these items as well as the names and locations of factories or other sources from which these items are to be obtained.
- G. Total float is the number of days by which a part of the work in the schedule may be delayed from its early dates without necessarily extending the Contract time. Contract float is the number of days between the Contractor's anticipated date for early completion of the work, or specified part, and the corresponding Contract time. Total float and contract float belong to the project and are not for the exclusive benefit of any party. They shall be available to the Authority, or the Contractor to accommodate changes in the work or to mitigate the effect of events that may delay performance or completion. Each party will monitor and optimize the use of float for the benefit of the project.
- H. An early completion schedule is a schedule that anticipates completion of all or specified part of the work ahead of the corresponding Contract completion date. Because contract float belongs to the Project, the Contractor shall not be entitled to any extension in contract time, or recovery for any delay incurred because of extensions in an early completion date, until all contract float is used or consumed and performance or completion of the work extends beyond the Contract completion date. The Contractor

shall adjust or remove any float suppression techniques, e.g., preferential sequencing (crew movements, equipment use, form reuse, etc.) extended durations, imposed dates, scheduling of work not required for a Contract time as required work, and others, as prerequisite to a request for an increase in Contract price or Contract time.

- I. Time extensions: The Contractor shall submit a network window for all claimed time extension requests, showing the impact of the claimed delay on the Contract schedule.
- J. The Authority has no obligation to consider any time extension request unless the Contractor complies with the requirements of the Contract documents. The Authority is not responsible for or liable to the Contractor for any construction acceleration or deceleration resulting from the failure of the Authority to grant time extensions under the Contract documents if the Contractor fails to substantially comply with the submission requirements and the justification requirements of this Contract for time extension requests. The Contractor's failure to perform in accordance with the Contract schedule shall not be excused because the Contractor has submitted time extension requests, until and unless the Airport Authority approves such requests.
- K. Short interval scheduling (SIS) shall be used throughout the onsite construction activity. The interval shall be a 4-week projection and shall include the week submitted and 3 weeks thereafter. It shall contain sufficient detail to evaluate daily milestones and shall identify/tie into the monthly update Contract schedule. SIS shall require approval by the Airport Authority. SIS shall be submitted weekly. The Airport Authority will schedule a weekly meeting to review and discuss SIS.
- L. Recovery Schedule: If the Contract schedule falls 7 calendar days behind schedule on milestone dates or completion dates, the Contractor shall immediately notify the Airport Authority and shall be required to prepare and submit a recovery schedule, form and detail appropriate to the need, to explain and display how it intends to reschedule those activities to retain compliance with the Contract schedule during the immediate and subsequent pay periods. Upon acceptance by the Airport Authority, the Contractor shall incorporate the recovery schedule into the Contract schedule.
- M. Daily Reports: The Contractor shall submit a daily activity report to the Airport Authority for each workday, including weekends and holidays when worked.

N. Adverse Weather Delays

1. Allowance for normal rain days for the area shall be included and incorporated in the Contractor's schedule. Normal rain days or "typical number of working days lost to inclement weather" are defined in Table 2 below.
2. Rain day: Any day of the week where work is originally planned is considered a rain day if both the Authority and the Contractor agree that no work can be performed on critical path rain-sensitive work, and that in actuality, as documented in the daily reports of both the Authority and Contractor, no work was performed on those activities on any part of the day. Weather delays may consist of days lost to adverse weather conditions or days lost to site cleanup because of adverse weather.
3. Rain calendar: A rain-sensitive activity covers rain-sensitive work only. A rain-sensitive activity in the schedule is given a dry-weather duration but, to allow for rain delay, is lengthened appropriately by being assigned a separate "rain calendar." A rain calendar has typical rain days inserted for the month (e.g., four Wednesdays in February indicate four typical rain days for February). This technique allows for correct rain day allocation even if the schedule slides over time. The assignment of an activity to a rain calendar shall be approved by the Authority.
4. Table 2 lists the typical number of working days lost to inclement weather or normal rain days per month in the project area.

Table 2
Typical Number of Working Days Lost to Inclement Weather
for Rain-Sensitive Work

Month	No. of Days ^a	Month	No. of Days ^a
January	5	July	0
February	4	August	0
March	4	September	1
April	3	October	2
May	1	November	4
June	1	December	5
^a Number of typical rain days will vary with location. The listed number of rain days is typical for San Diego International Airport.			

Days cannot be carried over from one month to the next month.

Only working days lost because of weather in a given month in excess of those typical rain days listed for that month will be considered for a time extension. Such a time extension must be requested by the Contractor and comply with the provisions of Time Impact Evaluations and Time Extensions as described in the Contract Documents.

5. Contract time extensions for greater-than-typical weather delays will only be considered for delays that impact rain-sensitive activities on the critical path of the contract, as defined by the schedule update current at the time of the delay. Such time extensions, if approved and supported by TIEs and a mitigation plan, will be reason for non-compensatory time extensions of contractual milestones

1D-20B NOT USED

1D-21 CONSTRUCTION QUALITY CONTROL PROGRAM

A. SUMMARY

This Article specifies the responsibilities of the Contractor regarding quality control inspection and testing requirements. The Contractor will perform quality control inspection and testing. Quality assurance will be provided by the Airport Authority.

B. QUALITY CONTROL ORGANIZATION

The Contractor's Quality Control Program shall be implemented by the establishment of a separate quality control organization. An organizational chart shall be developed to show all quality control personnel and how these personnel integrate with other management/ production and construction functions and personnel.

The organizational chart shall identify all quality control staff by name and function, and shall indicate the total staff required to implement all elements of the Quality Control Program, including inspection and testing for each item of work. If necessary, different technicians can be utilized for specific inspection and testing functions for different items of work. If an outside organization or independent testing laboratory is used for implementation of all or part of the Quality Control Program, the personnel assigned shall be subject to the qualification requirements of paragraph 1 and 2

below. The organizational chart shall indicate which personnel are Contractor employees and which are provided by an outside organization.

The quality control organization shall consist of the following minimum personnel:

1. Program Administrator

The Program Administrator shall be a full time employee of the Contractor, or a consultant engaged by the Contractor. The Program Administrator shall have a minimum of 5 years of experience in airport and/or highway construction and shall have had prior quality control experience on a project of comparable size and scope as the contract.

Additional qualifications for the Program Administrator shall include at least one of the following requirements:

- a. Professional engineer registered in the State of California with 1 year of airport paving experience acceptable to the Airport Authority.
- b. Engineer in training with 2 years of airport paving experience acceptable to the Airport Authority.
- c. An individual with 3 years of highway and/or airport paving experience acceptable to the Airport Authority, with a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology or Construction.
- d. Construction materials technician certified at Level III by the National Institute for Certification in Engineering Technologies (NICET).
- e. Highway materials technician certified at Level III by NICET.
- f. Highway construction technician certified at Level III by NICET.
- g. A NICET certified engineering technician in Civil Engineering Technology with 5 years of highway and/or airport paving experience acceptable to the Airport Authority.

The Program Administrator shall have full authority to institute any and all actions necessary for the successful implementation of the Quality Control Program to ensure compliance with the contract plans and Special Provisions. The Program Administrator shall report directly to a responsible officer of the construction firm.

The Program Administrator may supervise the Quality Control Program on more than one project provided that person can be at the job site within 2 hours after being notified of a problem.

2. Quality Control Technicians

A sufficient number of quality control technicians necessary to adequately implement the Quality Control Program shall be provided. These personnel shall be either engineers, engineering technicians, or experienced craftsman with qualifications in the appropriate field equivalent to NICET Level II or higher construction materials technician or highway construction technician and shall have a minimum of 2 years of experience in their area of expertise.

The quality control technicians shall report directly to the Program Administrator and shall perform the following functions:

- a. Inspection of all materials, construction, plant, and equipment for conformance to the Special Provisions, and as required by this Article.
- b. Performance of all quality control tests as required by the Special Provisions and this Article.

Certification at an equivalent level, by a state or nationally recognized organization will be acceptable in lieu of NICET certification.

3. Staffing Levels

The Contractor shall provide sufficient qualified quality control personnel to monitor each work activity at all times. Where material is being produced in a plant for incorporation into the work, separate plant and field technicians shall be provided at each plant and field placement location. The scheduling and coordinating of all inspection and testing must match the type and pace of work activity. The Quality

Control Program shall state where different technicians will be required for different work elements.

C. CONTRACTOR QUALITY CONTROL PROGRAM

1. It shall be the responsibility of the Contractor to provide and maintain a quality control program plan for all phases of the project. This requirement is in addition to any acceptance testing performed by the Airport Authority or its laboratory. Within three (3) weeks after the Notice of Award, or prior to Notice to Proceed for the Contract, whichever is earlier, the Contractor shall submit the Contractor's Quality Control (CQC) Plan to the Airport Authority for approval. The plan shall conform to the requirements of this Item. The Airport Authority will consider an interim plan for the first sixty (60) days of operation. The Contractor's work may be suspended or progress payments may be withheld, if the Contractor fails to submit the required and satisfactory CQC Plan as scheduled. Failure to submit CQC Plan as required herein may result in the Airport Authority retaining an amount equal to ten percent (10%) of the value of the estimated value of the work performed during the month from the next submitted Progress Estimate, except that such retention shall not exceed \$10,000, nor be less than \$1,000. Upon receipt of the required CQC Plan, any such withheld amounts will be released with the next progress payment. Until such time as the final CQC Plan information is provided, no Final Payment shall be due and owing.
2. The Contractor shall maintain an effective CQC Program that complies with the Special Provisions. The Contractor's program shall encompass all actions involving selection of construction material sources and suppliers, on-site and off-site fabrication of the Contractor-furnished items to be included in the work, on-site and off-site production of construction materials, work placement procedures, workmanship, inspection, and testing. Detailed CQC plan requirements for certain items of Contractor procured equipment to be installed in the finished work or off-site prefabricated materials are covered in the Special Provisions. The Contractor shall not build upon or conceal any feature of the work containing non-corrected defects. Payment on such defective or deficient features will be withheld until they are satisfactorily corrected or other action has been taken as authorized pursuant to the inspection and acceptance paragraphs.

3. The Contractor shall maintain a quality control system to provide the necessary supervision, inspection, and testing of all items of work, including that of his/her suppliers and subcontractors, that will assure the compliance of all work with applicable specifications and drawings in respect to the Contractor furnished equipment, materials, workmanship, construction, finish, functional performance and identification. The Contractor's system shall encompass all management and finished construction work, including all inspection controls and tests required for compliance with the Special Provisions, except for those inspections and tests specifically reserved to be accomplished by the Airport Authority. Results of tests conducted by the Airport Authority may be provided to the Contractor.
4. The controls shall be adequate to cover all construction operations, including both on-site and off-site fabrication, and shall be keyed to the proposed construction sequence. The Airport Authority shall be notified at least forty eight (48) hours in advance of the preparatory and initial phases of inspection and all phases of inspection shall be made a matter of record in the Contractor's quality control documentation. The controls shall include as a minimum at least three (3) phases of inspection for all definable features of work, as follows:
 - a. A preparatory inspection shall be performed prior to beginning any work on any definable feature of work. It shall include a review of Contract requirements; a check to assure that all materials and/or equipment has been tested, submitted, and approved; a check to assure that provisions have been made to provide required control testing; examination of the work area to ascertain that all preliminary work has been completed; and a physical examination of materials and equipment to assure that they conform to approved shop drawings or submittal data and that all materials and/or equipment is on hand.
 - b. An initial inspection shall be performed as soon as a representative portion of the particular feature of work has been accomplished and shall include examination of the quality of workmanship and shall include a review of control testing for compliance with the Contract requirements, use of defective or damaged materials, omissions, and dimensional requirements.

- c. Follow up inspections shall be performed daily to assure continuing compliance with the Contract requirement including control testing, until completion of the particular feature of work.
- 5. The Contractor shall maintain current records throughout the life of the Contract, on an appropriate approved form, for all inspections and tests performed. These records shall include, but not be limited to, factual evidence that the required inspections or tests have been performed, including type and number of inspections or tests involved, identification of operators and inspectors, results of inspections or tests, nature of defects, causes for rejection, etc., proposed remedial action and corrective actions taken. These records must cover both conforming and defective or deficient features and must include a statement that all supplies and materials incorporated in the work are in full compliance with the terms of the Contract. Legible copies of these records must be furnished to the Airport Authority daily, or at such other intervals as directed. The records shall cover all work placement subsequent to the previously furnished records and shall be verified by the Contractor or designated representative. Failure to submit inspection and test records as required herein may result in the Airport Authority retaining an amount equal to ten percent (10%) of the estimated value of the work performed during the month from the next submitted Progress Estimate, except that such retention shall not exceed \$10,000, nor be less than \$1,000. Upon receipt of the required inspection and test records, any such withheld amounts will be released with the next progress payment. Until such time as the final inspection and test information is provided, no Final Payment shall be due and owing.
- 6. Approval of the CQC Plan shall not relieve the Contractor of his/her responsibility to comply with the requirements of the Contract Documents. The plan shall be revised or updated as required or as requested by the Airport Authority. No additional cost or time extensions will be allowed for the Contractor's resubmittal of CQC Plans. This document shall include as a minimum:
 - a. An organization chart showing the portion of the Contractor's corporate organization which is concerned with the on-site construction activities;

- b. The Contractor's on-site organization chart including his/her quality control organization;
- c. Types of personnel (work classification) to be used in the quality control organization, required qualification standards, and the planned duration of their services;
- d. Authority and responsibilities of quality control personnel;
- e. Operational procedures for accomplishing and reviewing work, supervision, inspections, tests, construction material production controls, fabrication controls, certifications, documentation of quality control operations, and inspections and tests, including those for subcontractors. These procedures shall include the methods to be utilized during the procurement cycle (order to delivery) for those items of materials or equipment that require source inspection, shop fabrication, and operations away from the work site;
- f. Methods and procedures for selecting suppliers;
- g. The Contractor's plan for the testing and certification of welders;
- h. Methods and procedures for indoctrination and instruction of quality control personnel, construction supervisors, and foremen;
- i. An appropriate schedule of submission of the detailed CQC Plans required by the Special Provisions;
- j. A copy of the letter of direction to the Contractor's representative and his/her staff for quality control which defines their delegated duties and responsibilities; and
- k. When the quality control functions are to be accomplished by personnel not located at the site and/or not directly under the control of the Project Manager, the on-site/off-site coordinating procedures and authorities shall be covered in detail in the specific CQC Plan(s) involved.

7. At least thirty (30) Days prior to starting any specific phase of the work as identified in the various Special Provisions, the Contractor shall submit to the Airport Authority for review and approval three (3) copies of a detailed plan covering the following general items and any additional pertinent items. Such approval shall not relieve the Contractor of his/her responsibility for the compliance with the Contract requirements. Similar categories of work may be consolidated to a single plan even though they may relate to several different Technical Specifications Sections. If the majority of any one phase of the work is to be accomplished by a subcontractor, the subcontractor's CQC Plan may form the basic document, supplemented by those actions, inspections, and reports to be accomplished or made by the Contractor's quality control staff. In addition, the Contractor's Quality Control Representative shall have job site discussions with the Airport Authority on the interrelationship of their activities before starting each major phase of construction. These meetings shall be monthly or as otherwise required by the Airport Authority.
- a. The specific requirements stated in the Special Provisions;
 - b. Phased inspection procedures as stated in paragraph "Quality Control System";
 - c. Total list of all tests to be performed by the Contractor, and the respective test methods and copies of forms to be used for recording inspection results, performance, or test data;
 - d. Procedures and methods for documentation and submittal for factory or off-site inspections;
 - e. Names of laboratories or individuals designated to accomplish the various types of inspection and test work;
 - f. The Contractor's program for regular indoctrination, coordination, and orientation meetings to keep workmen and craftsmen apprised of peculiar requirements for the succeeding period and general findings on work placement during preceding period;

- g. Specific reports to be rendered to the Airport Authority including the normal time required for processing information or data;
 - h. Documentation procedures which reference applicable specifications, Contract Drawings, and shop drawings; and
 - i. Pending submission and approval of CQC Plans, the Contractor shall submit written interim quality control reports as directed by the Airport Authority.
- 8. All inspections and Contractor required tests involving the recording of equipment or system performance data, including all corrective actions taken, shall be recorded on approved forms and endorsed by the Contractor's Quality Control Manager. The Contractor shall also prepare a monthly report, or at such intervals as directed by the Airport Authority, which summarizes all quality control operations.
- 9. This summary report shall identify inspections made, deficiencies found, corrective action taken, preparation status of plans being developed, and status of plans requiring resubmission under this Article. These inspection reports shall be completed and transmitted by the Contractor to the Airport Authority.
- 10. All quality control records shall be maintained in a central on-site location by the Contractor.
- 11. These records shall include all quality control sampling data; factory tests and/or manufacturer's certifications; quality control coordinating actions; records of quality control training; and routine hydrostatic, electrical continuity, grounding, welding and line cleaning tests. The quality control records will be available for examination, and the Contractor shall provide copies of specific tests and data as requested by the Airport Authority. The requirements to maintain quality control records, as described above, shall not be construed to relieve the Contractor from submitting samples, test data, shop drawings, material certificates, or other information required elsewhere in the Contract.

If the Airport Authority determines that the Contractor's quality control system or its operation are deficient in the identification and correction of nonconforming quality of workmanship or materials, documentation, or other

operational procedures, the Contractor shall correct and/or modify his/her quality control system as directed. In addition, the Contractor shall take prompt action to correct conditions that have resulted or might result in substandard or defective materials, parts, components, or services. This action shall include preventive measures as well as correction of conditions that have occurred. The Contractor shall document his/her efforts to correct existing deficiencies and to minimize their future occurrence. Reports prepared shall carry follow up action on all deficiencies until adequate correction has been made. The Contractor shall not build upon or conceal any feature of the work containing uncorrected defects.

Inspection and test results and detailed examination of deficient or failed articles shall be used to determine the nature and basic causes of deficiencies or failures. The Contractor shall provide samples of the deficient or failed articles to the Airport Authority upon request.

12. Noncompliance:

- a. The Airport Authority will notify the Contractor of any noncompliance with any of the foregoing requirements. The Contractor shall, after receipt of such notice, immediately take corrective action. Any notice, when delivered by the Airport Authority or his/her authorized representative to the Contractor or his/her authorized representative at the site of the work, shall be considered sufficient notice.
- b. In cases where quality control activities do not comply with either the Contractor's Quality Control Program or the contract provisions, or where the Contractor fails to properly operate and maintain an effective Quality Control Program, as determined by the Airport Authority, the Airport Authority may:
 - 1) Order the Contractor to replace ineffective or unqualified quality control personnel or subcontractors.
 - 2) Order the Contractor to stop operations until appropriate corrective actions are taken.

13. The Contractor shall provide and maintain gauges and other measuring and testing devices necessary to assure that

articles conform to the Contract requirements. These devices shall be calibrated against certified measurement standards that have known valid relationships to national standards at established periods to assure continued accuracy. Records shall be maintained of the data resulting from calibration operations. Any equipment exceeding its required due date or tolerance and any nonconforming articles shall be suitably isolated, tagged, or otherwise marked to prevent its use without written permission of the Airport Authority.

Full compensation for the construction quality control program shall be considered as included in the prices paid for various Contract items of work and no additional compensation will be allowed therefor.

1D-22 PROJECT MEETINGS

The Airport Authority will administer a Pre-Construction Conference for clarification of Contractor's responsibilities with regard to the use of the Work Site and for review of administrative procedures. The agenda shall include as a minimum, a discussion of the following:

- A. Organizational arrangement of Contractor's forces and personnel, and those of subcontractors, materials suppliers, and Airport Authority.
- B. Channels and procedures for communications.
- C. Construction schedule, including sequence of critical work.
- D. Contract Documents, including distribution of required copies of original documents and revisions.
- E. Processing of Shop Drawings and other data submitted to the Airport Authority for review.
- F. Processing of field decisions and Change Orders.
- G. Rules and regulations governing performance of the Work.
- H. Procedures for safety and first aid, security, quality control, housekeeping, and other related matters.

The Airport Authority will schedule and administer the Project Progress meetings throughout progress of the Work, including the preparation and distribution of the meeting minutes. Project Progress meetings shall be

held every week throughout construction of the Project. When construction issues warrant more frequent meetings, the Airport Authority may schedule additional meetings. Location of meeting(s) will be determined by Airport Authority. Attendance will include, but not necessarily limited to Design Architect(s) and Engineer(s), Airport Authority, Contractor, Major Subcontractors, Suppliers (when necessary), and other affected parties, as deemed appropriate to agenda topics for each meeting. The minimum agenda should include the following:

- A. Approval of minutes of previous meetings.
- B. Review of Work progress.
- C. Review of field observations, problems, and decisions.
- D. Identification of problems, which impede planned progress.
- E. Review of submittals schedule and status of submittals.
- F. Review of Change Orders.
- G. Review of off-site fabrication and delivery schedules.
- H. Maintenance of progress schedule.
- I. Corrective measures to maintain, or restore schedules.
- J. Planned progress during succeeding work period.
- K. Review of Requests for Information.
- L. Review of non-conforming work.
- M. Other business relating to the work.
- N. Safety.

1D-23 OPERATIONAL SAFETY ON THE AIRPORT

Appendix 2, "Airport Operational Safety and Security Requirements" is incorporated herein by this reference.

1D-24 NOT USED

1D-25 AIRPORT SECURITY

Attention is directed to Appendix 3 of the Contract. The Contractor shall coordinate all security matters through the Airport Authority. A Chief of Security **is not** required for this project.

Full compensation for conforming to the requirements of this Article 1D-25, "AIRPORT SECURITY" shall be included in the Contract Price for the various items of work and no additional compensation will be allowed therefor.

1D-26 PROTECTION OF SECURITY SYSTEM

Contractor shall take all precautions to ensure that the existing access control security system is protected and not damaged by Contractor operations. In the event damage to the system is caused by the Contractor's performance of the Work, the Contractor shall make all repairs necessary bringing the system back to its originally completed condition within two hours.

If the Contractor does not repair the system within two (2) hours of the time the system was damaged, the Airport Authority will have its security system maintenance contractor repair the damage to the access control security system. The cost for repairing the damage will be deducted from the Contractor's current monthly progress payment.

In addition, the Contractor agrees to pay as liquidated damages \$5,000.00 per day for each calendar day or portion thereof the security system remains inoperable owing to the damage caused by the Contractor. These liquidated damages will be charged separately from and in addition to the liquidated damages charged for any internal phase and liquidated damages charged for not completing the total project on time, notwithstanding the posting of guards as mentioned elsewhere in these specifications.

1D-27 PROJECT CLOSEOUT

A. CLOSEOUT PROCEDURES

1. Contractor shall comply with procedures stated in the Contract Documents for issuance of Certificate of Substantial Completion.
2. In addition to submittals required by the Contract Documents, Contractor shall provide submittals required by governing authorities and agencies.

B. SUBSTANTIAL COMPLETION

1. Contractor shall:
 - a. Submit a written declaration to Airport Authority that the Project or designated portion of the Project is substantially completed or corrected.
 - b. Submit list of items to be completed or corrected.
2. Airport Authority will make preliminary inspection after receipt of Contractor's declaration.
3. Should the Airport Authority Representative determine that Work is not Substantially Complete:
 - a. He/she shall immediately notify Contractor, in writing (Punch List), stating reasons.
 - b. Contractor shall complete work identified by the Airport Authority representative and send second written notice to Airport Authority certifying the Project or designated portion of Project is Substantially Complete.
 - c. Airport Authority will re-inspect Work and identify any outstanding items.
 - d. Contractor shall complete Work listed for completion or correction, within designated time.
4. When the Work is determined to be substantially complete the Airport Authority will prepare a Certificate of Substantial Completion with a list of remaining items to be completed.

C. FINAL COMPLETION

1. Contractor shall submit written declaration to Airport Authority that:
 - a. All aspects of Contract Documents have been complied with.
 - b. All items of Substantial Completion Punch List have been completed.
 - c. All tools, construction equipment and surplus materials have been removed from site.

- d. All final cleaning has been completed.
- 2. The Airport Authority will make inspection after receipt of Contractor's declaration of final completion.
- 3. Should the Airport Authority consider that Work is not Complete:
 - a. The Airport Authority shall notify Contractor, in writing (second Punch List), stating reasons.
 - b. Contractor shall take immediate steps to remedy the stated deficiencies and send second written notice to the Airport Authority certifying that Work is complete.
 - c. Airport Authority will re-inspect Work.
- 4. When Airport Authority and Airport Authority consider that work is finally complete in accordance with Contract Document requirements, the Airport Authority will prepare and process closeout documents.

D. REINSPECTION COSTS

- 1. Final Completion: Should the Airport Authority be required to perform second or subsequent inspections, after inspecting the Work following the Contractor's first written notice to the Airport Authority, because of the Contractor's failure to comply with the Airport Authority's written notifications, then the Airport Authority may be required to compensate the Design Team for additional services. The amount paid to the Design Team for such additional services shall be deducted from the final payment to the Contractor.

E. PROJECT RECORD DOCUMENTS

- 1. Maintain at Project Site, one copy of:
 - a. Record Contract Drawings
 - b. Record Project Manual, including addenda
 - c. Reviewed Shop Drawings, Product Data and Samples
 - d. Bulletins

- e. Change Orders (CO)
 - f. Other modifications to Contract
 - g. Field test records
 - h. Inspection reports and records
2. Store documents in temporary field office, apart from documents used for construction. Provide files and racks for storage of documents.
 3. Maintain documents in clean, dry, legible conditions; do not use.
 4. Make documents available at all times for inspection by the Airport Authority and Airport Authority.
 5. Record Contract Document Drawings: Refer to Article 1D-12, "RECORD DRAWINGS" of these Special Conditions.
 6. Shop Drawings: Maintain as record documents; legibly annotate Shop Drawings to record changes made after review.
 7. At completion of Project, deliver Actual Built and other record documents and transparencies to the Airport Authority.
 8. Certificate of Occupancy: The Contractor shall provide certification by Building Officials and all other governing departments of agencies having jurisdiction, that the building has been inspected, approved and accepted. Furnish to the Airport Authority original certificate for occupancy.

F. OPERATION AND MAINTENANCE MANUALS

1. Provide one (1) set of the operation and maintenance manuals, bound in 8 1/2 x 11 inch three ring side binders with durable plastic covers, and one complete soft copy on CD or DVD. Manuals must be furnished to the Airport Authority at least two weeks prior to the scheduled dates of any required Contractor furnished field instructions or at least one month prior to project completion, if no Contractor-furnished field instructions are required. Failure to submit manuals as required herein may result in the Airport Authority retaining an amount equal to ten percent (10%) of the estimated value of the work performed during the month

from the next submitted Progress Estimate, except that such retention shall not exceed \$10,000, nor be less than \$1,000. Upon receipt of the required operation and maintenance manuals, any such withheld amounts will be released with the next progress payment. Until such time as the operation and maintenance manuals are provided, no Final Payment shall be due and owing.

2. In each manual include information specified in the individual Specification Section and the following information for each major component of building equipment and its controls:
 - a. General system or equipment description.
 - b. Design factors and assumptions.
 - c. Copies of applicable Shop Drawings and Product Data.
 - d. System or equipment identification, including:
 - 1) Name of manufacturer
 - 2) Model number
 - 3) Serial number of each component
 - e. Operating instructions.
 - f. Emergency instructions.
 - g. Wiring diagrams.
 - h. Inspection and test procedures.
 - i. Maintenance procedures and schedules.
 - j. Precautions against improper use and maintenance.
 - k. Copies of warranties.
 - l. Repair instructions including spare parts listing.
 - m. Sources of required maintenance materials and related services.
 - n. Manual index.

3. Organize each manual into separate Sections for each piece of related equipment. As a minimum, each manual shall contain a title page; a table of contents; copies of Product Data, supplemented by Drawings and written text; and copies of each warranty, bond, and service contract issued.
 - a. Title Page: Provide a title page in a transparent, plastic envelope as the first sheet of each manual. Provide the following information:
 - 1) Subject matter covered by the manual.
 - 2) Name and address of the Project.
 - 3) Date of submittal.
 - 4) Name, address, and telephone number of the Contractor.
 - 5) Name and address of the Engineer/Architect of record.
 - 6) Cross-reference to related systems in other operation and maintenance manuals.
 - b. Table of Contents: After title page, include a typewritten table of contents for each volume, arranged systematically according to the Project Manual format. Include a list of each product included, identified by product name or other appropriate identifying symbol and indexed to the content of the volume.
 - c. Where a system requires more than one volume to accommodate data, provide a comprehensive table of contents for all volumes in each volume of the set.
 - d. General Information: Provide a general information Section immediately following table of contents, listing each product included in the manual, identified by product name. Under each product, list the name, address, and telephone number of the subcontractor or Installer and the maintenance contractor. Clearly delineate the extent of responsibility of each of these entities. Include a local source for replacement parts and equipment.

- e. **Product Data:** Where the manuals include manufacturer's standard printed data, include only sheets that are pertinent to the part or product installed. Mark each sheet to identify each part or product included in the installation. Where the Project includes more than one item in a tabular format, identify each item, using appropriate references from the Contract Documents. Identify data that is applicable to the installation, and delete references to information that is not applicable.
- f. **Written Text:** Prepare written text to provide necessary information where manufacturer's standard printed data is not available, and the information is necessary for proper operation and maintenance of equipment or systems. Prepare written text where it is necessary to provide additional information or to supplement data included in the manual. Organize text in a consistent format under separate headings for different procedures. Where necessary, provide a logical sequence of instruction for each operation or maintenance procedure.
- g. **Drawings:** Provide specially prepared drawings where necessary to supplement manufacturer's printed data to illustrate the relationship of component parts of equipment or systems or to provide control or flow diagrams. Coordinate these drawings with information contained in project record drawings to assure correct illustration of the completed installation.
- h. Do not use original project record documents as part of operation and maintenance manuals.
- i. **Warranties, Bonds, and Service Contracts:** Provide a copy of each warranty, bond, or service contract in the appropriate manual for the information of the Airport Authority's operating personnel. Provide written data outlining procedures to follow in the event of product failure. List circumstances and conditions that would affect validity of warranty or bond.

G. EQUIPMENT OPERATION

- 1. Lubricate all operating equipment in strict accordance with manufacturer's instructions; provide all oil, grease and other

materials and methods required for the proper operation of the work by the Airport Authority.

2. Start up all equipment and test run for sufficient period to demonstrate operation and capacity of equipment; adjust for operation satisfactory to the Airport Authority's Representative and operating personnel prior to acceptance of the work by Airport Authority.
3. Weather protect all equipment which is located outside, as required by the conditions of exposure.
4. Furnish an operation and maintenance instruction period for the Airport Authority's representative and personnel following completion and initial operation of equipment and systems

H. WARRANTIES AND GUARANTEES

1. Contractor shall provide one (1) notarized hard copies and one (1) soft copy on CD or DVD of all warranties and guarantees required in the Special Provisions prior to Final Completion. Contractor shall also provide one (1) notarized copies of Warranty Acknowledgment as required in the Contract Documents in terms and language stated therein. Failure to submit warranties and guarantees as required herein may result in the Airport Authority retaining an amount equal to ten percent (10%) of the estimated value of the Work performed during the month from the next submitted Progress Estimate, except that such retention shall not exceed \$10,000 nor be less than \$1,000. Upon receipt of the required warranties and guarantees any such withheld amounts will be released with the next progress payment. Until such time as the warranties and guarantees are provided, no Final Payment shall be due and owing.
2. Execute Contractor's warranties and guarantees and assemble documents executed by subcontractors, suppliers and manufacturers. Provide table of contents and assemble in binder with durable plastic cover.
3. Submit materials prior to final Application for Payment. For equipment put into use with Airport Authority's permission during construction, submit within ten (10) days after first operation. For items of work delayed materially beyond Date of Substantial Completion, provide undated submittal within ten (10) days after acceptance, listing date of acceptance as start of warranty or guarantee period.

4. Provide a complete warranty matrix prior to final completion. (See "Warranty Information", Appendix 1 Form 12.)

I. **SPARE PARTS AND MAINTENANCE MATERIALS**

1. Provide products, spare parts and maintenance materials in quantities specified in each Technical Specification Section, in addition to that used for construction of Work. Coordinate with Airport Authority, deliver to Airport Authority's representative and obtain receipt prior to final payment. Failure to provide materials as required herein shall result in the Airport Authority retaining an amount equal to ten percent (10%) of the estimated value of the work performed during the month from the next submitted Progress Estimate, except that such retention shall not exceed \$10,000, nor be less than \$1,000. Upon receipt of the required materials any such withheld amounts will be released with the next progress payment. Until such time as the required materials are provided, no Final Payment shall be due and owing.

1D-28 **MATERIALS, EQUIPMENT AND WORK TO BE FURNISHED BY AUTHORITY**

Two (2) sets of the original contract specifications, including the Duplicate Original, and two (2) sets of drawings, one of which is marked "FOR RECORD DRAWING USE ONLY".

1D-29 **RECEIPT OF DOCUMENTS**

All documents received after 2:30 p.m. will be stamped and received the next Business Day.

1D-30 **NOT USED**

1D-31 **NOT USED**

1D-32 **NOT USED**

1D-33 **CLEANING UP**

The Representative may establish sanitary rules and regulations for all forces employed under this Contract. Contractor shall be responsible for compliance therewith, and in the event of noncompliance, the Representative may enforce the rules and regulations at the expense of the Contractor.

Contractor shall provide the necessary personnel, equipment, and materials needed to maintain the specified standard of cleanliness. Conduct daily inspection to verify that requirements of cleanliness are being met.

Use cleaning materials and equipment which are compatible with the surfaces being cleaned, as recommended by the manufacturer of the material to be cleaned. The Airport Authority reserves the right to withhold approval of payment requests for failure on the part of the Contractor to regularly clean the project in conformance with the requirements of this Article. The Airport Authority also reserves the right to clean any work areas that have not been acceptably cleaned by the Contractor and charge the Contractor for the Airport Authority's cleaning costs.

PROGRESS CLEANING

- A. Retain stored items in an orderly arrangement allowing maximum access, not impeding drainage or traffic, and providing the required protection of materials.
- B. Do not allow the accumulation of scrap, debris, waste material, and other items not required for construction of this work.
- C. At least twice each month, and more often if necessary, remove scrap, debris, and waste material from the job site.
- A. Provide adequate storage for items awaiting removal from the job site, observing requirements for fire protection and protection of the environment.

SITE

- A. Daily, and more often if necessary, inspect the site and pick up all scrap, debris and waste material. Remove items to the place designated for their storage. Combustible waste shall be removed from the site. Flammable waste shall be kept in sealed metal containers until removed from the site.
- B. Weekly, and more often if necessary, inspect arrangements of materials stored on the site, restack, tidy, or otherwise service arrangements to meet the requirements specified above.
- C. Maintain the site in a neat and orderly condition.
- D. Contractor shall be responsible for Health and Welfare of employees, trades, and the public as relates to maintaining a clean and orderly site.

FINAL CLEANING

- A. Definition: Except as otherwise specifically provided, “clean”, shall be interpreted as meaning the level of cleanliness generally provided by skilled cleaners using commercial quality building maintenance equipment and materials; i.e., “scrub and polish clean”.
- B. General: Prior to Completion of the Work, Contractor shall remove from the Work Site all tools, surplus materials, equipment, scrap, debris, and waste. Contractor shall conduct final progress cleaning as described above.
- C. Work Site: Unless otherwise specifically directed by the Airport Authority, Contractor shall water and broom clean paved areas on the Work Site and public paved areas. Contractor shall provide demonstration section on paved area for approval by Airport Authority and the remainder of the Project shall be cleaned in conformance to approved test strip.

1D-34

STORMWATER MANAGEMENT COMPLIANCE

- A. **Presence of Storm Water.** Storm, surface, ground, nuisance, or other waters may be encountered at various times during the Work. Contractor hereby acknowledges that it has investigated the risk arising from such waters, has prepared its Bid accordingly, and assumes any and all risks and liabilities arising therefrom.
- B. **Compliance with Law and Orders.** Contractor shall keep itself and all subcontractors, staff, and employees fully informed of and in compliance with all local, state and federal laws, rules and regulations that may impact, or be implicated by the performance of the Work including, without limitation, all applicable provisions of the Federal Water Pollution Control Act (33 U.S.C. §1251 *et seq.*); the California Porter-Cologne Water Quality Control Act (Cal. Water Code §13000 *et seq.*); and any and all ordinances, regulations, policies, permits, and orders issued pursuant to any such authority. These include, but are not limited to California Regional Water Quality Control Board, San Diego Region, Order No. R9-2013-0002, Order No. R9-2008-0002, and State Water Resources Control Board Order No. 97-03-DWQ (NPDES Order No. CAS000001), Order No. 2010-0014-DWQ, Order No. 2009-0009-DWQ, and Order No. 2012-0006-DWQ, and any amendment or renewal thereof.
- C. **Compliance with Other Water Quality Rules, Regulations and**

Policies. Contractor shall comply with the lawful requirements of the Airport Authority, and any municipality, drainage district, or other local agency with jurisdiction over the location where the Work is to be conducted, regarding discharges of storm water to separate storm drain systems or watercourses, including, but not limited to, all applicable requirements of the SAN Storm Water Management Plan ("SWMP"), the San Diego County Regional Airport Authority Best Management Practices ("BMP") Design Manual, any final Water Quality Improvement Plan(s) ("WQIP") for the Pueblo San Diego, Sweetwater, and Otay Watershed Management Areas, and any Storm Water Pollution Prevention Plan ("SWPPP") in existence for the Project site. Contractor shall be familiar with the SWMP, the BMP Design Manual, and any applicable WQIP and shall comply with the requirements as specified therein.

Copies of the SWMP and BMP Design Manual are available on the internet at:

<http://www.san.org/Airport-Projects/Environmental-Affairs#124539-stormwater>

- D. **Compliance with Construction General Permit.** Contractor shall be required to comply with all aspects of the State Water Resources Control Board ("State Board") Water Quality Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activity, including any amendment or renewal thereof, ("Construction General Permit") for all projects that involve construction on or disturbance of one acre or more of land or which are part of a larger common area of development.

The Airport Authority may require Contractor to file the Notice of Intent ("NOI") and obtain coverage for the Project under the Construction General Permit. This may include filing all necessary documentation including the Permit Registration Documents ("PRDs") through the Stormwater Multiple Applications and Report Tracking System ("SMARTS"); preparing and implementing a Storm Water Pollution Prevention Plan ("SWPPP") for the Work site; implementing all other provisions, and monitoring and reporting requirements required by the Construction General Permit; and providing a Qualified SWPPP Developer ("QSD") and Qualified SWPPP Practitioner ("QSP"), as necessary for all Work site activities, including but not limited to preparation and submittal of all reports, plans, inspections, and monitoring information in compliance with the Construction General Permit. The Airport Authority retains the right to develop its own documentation for the Project site, including but not limited to the SWPPP, and in the

alternative may require Contractor to adopt and implement portions of the Airport Authority developed SWPPP. Specific requirements for the Work site shall be set forth in the Special Conditions. Contractor shall include all costs of compliance with specified requirements in the Contract amount.

1. For those Work sites where construction activity results in ground disturbance, soil disturbing activities that may generate pollutants in storm water runoff, the disturbance of less than one acre of total land area and/or do not need coverage under the Construction General Permit, the Contractor shall be responsible for preparing and implementing a pollution control plan, construction BMP plan, an Erosion and Sediment Control Plan, or other plans or practices in accordance with California Regional Water Quality Control Board Order NO. R9-2013-0001 and any amendment or renewal thereof, the Airport Authority's SWMP, BMP Design Manual, and any applicable WQIP.
2. Notwithstanding the above, before any PRDs, SWPPP, or other Construction General Permit related-document may be submitted to the State Water Resources Control Board or implemented on the Work site, it must first be reviewed and approved by the Airport Authority and/or the Airport Authority's designee. The Airport Authority expressly reserves the right to procure coverage under the Construction General Permit for the Work site if Contractor fails to draft satisfactory PRDs or SWPPP or otherwise fails to proceed in a manner that complies with the requirements of the Construction General Permit. The Airport Authority additionally reserves the right to hire additional contractors to maintain compliance at the Work site. Whether Contractor has adequately maintained compliance with the Construction General Permit shall be the Airport Authority's sole determination. Any costs incurred by the Airport Authority in procuring coverage under the Construction General Permit, or drafting and/or implementing a SWPPP for the Work site shall be paid by Contractor.

E. Liability for Non-compliance. Failure to comply with laws, regulations, and ordinances listed in this Article, is a violation of federal and state law. Notwithstanding any other indemnity contained in this Contract, Contractor agrees to indemnify and hold harmless the Airport Authority, its officials, officers, agents, employees and authorized volunteers from and against any and all claims, demands, losses or liabilities of any kind or nature which the Airport Authority, its officials, officers, agents, employees and authorized volunteers may sustain or incur for noncompliance with the laws, regulations, and ordinances listed above, arising out of or in

connection with the Work, except for liability resulting from the sole established negligence, willful misconduct or active negligence of the Airport Authority, its officials, officers, agents, employees or authorized volunteers.

F. Reservation of Right to Defend. Airport Authority reserves the right to defend any enforcement action or civil action brought against the Airport Authority for Contractor's failure to comply with any applicable water quality law, regulation, or policy. Contractor hereby agrees to be bound by, and to reimburse the Airport Authority for the costs associated with, any settlement reached between the Airport Authority and any relevant enforcement entity.

G. Damages. Airport Authority may seek damages from Contractor for delay in completing the Work in accordance with the Contract Documents, caused by Contractor's failure to comply with the laws, regulations and policies described in this Article, or any other relevant water quality law, regulation, or policy.

H. Training. In addition to the standard of performance requirements set forth in the Contract Documents, Contractor warrants that all employees and subcontractors shall have sufficient skill and experience to perform the Work assigned to them without impacting water quality in violation of the laws, regulations and policies described in this Article. Contractor further warrants that it, its employees and subcontractors will receive adequate training regarding the requirements of the laws, regulations and policies described in this Article as they may relate to the Work provided under this Contract.

1D-35 **STORM WATER MANAGEMENT - Projects Less than 1 Acre of Disturbed Soil and Not Subject to State Construction General Permit**

Projects with less than 1 acre of disturbed area, or that are not part of a larger common area of development that is equal to or greater than 1 acre are not subject to the State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS000002, General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit). However, projects that are not subject to the Construction General Permit are still subject to San Diego Regional Water Quality Control Board (RWQCB) Order No. R9-2013-0001, NPDES Permit No. CAS0109266, NPDES Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region (the "Permit") as adopted, amended, and/or modified. This Permit applies to construction activities that result in the disturbance of land area including clearing, grading, excavation, removal and replacement of soil or surface pavement, and reconstruction of existing

facilities. The Contractor shall comply with the Permit and Airport Authority direction related to permitted activities.

The Contractor shall retain and identify a Qualified SWPPP Developer (QSD) as defined in the Construction General Permit to prepare a Storm Water Pollution Prevention Plan based on the Airport Authority's template (Authority SWPPP). The QSD shall use the Authority SWPPP prepared by the Airport Authority as provided in the Bid Documents and improve as necessary to adjust to the Contractors means and methods. The contractor will be solely responsible to implement, maintain, and adjust the Authority SWPPP to reflect the means and methods that will be used to comply with all regulations.

Construction work shall not start until the QSD has toured the site with the Airport Authority's project manager and/or construction manager, and the Authority SWPPP has been submitted to and reviewed and approved by the Airport Authority. The Contractor shall be responsible for delays associated with the Contractor's failure to complete and submit the Authority SWPPP for Airport Authority review and approval within the time specified in the bid documents.

The Contractor will maintain the Authority SWPPP as a living-document and implement the Authority SWPPP as required in APPENDIX 5 - STORM WATER POLLUTION PREVENTION. The Contractor will continually monitor the effectiveness of the Authority SWPPP during construction to prevent and/or eliminate unauthorized discharges off the jobsite and/or to the storm water conveyance system. The Contractor's QSD shall be available at all times to meet and confer with Airport Authority's construction manager regarding the need to amend the Authority SWPPP to address changing site conditions and ensure effectiveness of the Authority SWPPP. The amendments shall be submitted to the Airport Authority for approval prior to implementation.

The Contractor shall also retain and identify a Qualified SWPPP Practitioner (QSP), with qualifications as defined in the Construction General Permit, dedicated to, having the responsibility to, and having the authority to modify (but not amend) the Authority SWPPP and to maintain and modify best management practices (BMPs), according to California Stormwater Quality Association (CASQA) standards, in response to his activities, his inspections and his monitoring.

The Airport Authority may conduct monitoring and/or inspection and/or review and notify the Contractor to modify the Authority SWPPP and/or the implementation of the Authority SWPPP and/or BMPs, as necessary, in response to inspections conducted by a duly authorized Airport Authority representative or other public agency.

No discharges of any material may enter the storm water conveyance system including, but not limited to, process and wash waters, dust, petroleum products, soil or debris. All unauthorized discharges shall be reported immediately to the Airport Authority, in order to address any permit requirements regarding spill notifications on behalf of the Airport Authority or Contractor.

The Contractor shall be responsible for the costs and for liabilities imposed by law as a result of the Contractor's failure to comply with the provisions set forth in this section "Storm Water Management" and related sections, including but not limited to, compliance with the applicable provisions of Federal, State and local laws, regulations, and permits. Costs and liabilities include, but are not limited to, fines, penalties, and damages whether assessed against the Airport Authority or the Contractor, including those levied under the Federal Clean Water Act and the State Porter Cologne Water Quality Act.

The Contractor shall be responsible for delays associated with the Contractor's failure to complete the Work in compliance with the requirements of the Permit.

Contractor Quality Control. The Contractor shall develop a quality control program in accordance with section 1D-21 of the Special Condition Specifications. The program shall address all elements of Storm Water Management and the Authority SWPPP, including but not limited to the work required in Appendix 5 and the erosion control plans provided or prepared for the project.

Method of Measurement. Storm Water Management 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 Contractor's QSP. The Contractor's QSP shall ensure implementation of one or a combination of the items below to achieve compliance with this Section. When shown on the Bid Schedule, completed and accepted work will be measured as follows:

1. Scheduling shall follow CASQA standard EC-1 and will be measured per calendar day as a complete item of work.
2. Gravel Bag Berm shall follow CASQA standard SE-6 and will be measured per linear foot. This item includes demolition and proper disposal upon completion of the phase or project.
3. Street Sweeping shall follow CASQA standard SE-7 and will be measured per calendar day as a complete item of work.
4. Storm Drain Inlet Protection shall follow CASQA standard SE-10 and will be measured per each. This item includes demolition and proper disposal upon completion of the phase or project.

The following shall follow CASQA standards as listed and will not be measured, as the performance of this work and the supplying of these materials as indicated shall be considered as a subsidiary obligation of the Contractor under other contract items. The inclusion of these items in this specification is merely to establish standards of performance and shall not be construed as creating separate pay items.

- a. Illicit Connection/Discharge shall follow CASQA standard NS-6 and will not be measured.
- b. Potable Water/Irrigation shall follow CASQA standard NS-7 and will not be measured.
- c. Vehicle and Equipment Cleaning shall follow CASQA standard NS-8 and will not be measured.
- d. Vehicle and Equipment Fueling shall follow CASQA standard NS-9 and will not be measured.
- e. Vehicle and Equipment Maintenance shall follow CASQA standard NS-10 and will not be measured.
- f. Pile Driving Operation shall follow CASQA standard NS-11 and will not be measured.
- g. Concrete Curing shall follow CASQA standard NS-12 and will not be measured.
- h. Concrete Finishing shall follow CASQA standard NS-13 and will not be measured.
- i. Material and Equipment Use Over Water shall follow CASQA standard NS-14 and will not be measured.
- j. Demolition Removal Adjacent to Water shall follow CASQA standard NS-15 and will not be measured.
- k. Temporary Batch Plants shall follow CASQA standard NS-16 and will not be measured.
- l. Material Delivery and Storage shall follow CASQA standard WM-01 and will not be measured.
- m. Material Use shall follow CASQA standard WM-01 and will not be measured.
- n. Spill Prevention and Control shall follow CASQA standard WM-01 and will not be measured.
- o. Solid Waste Management shall follow CASQA standard WM-01 and will not be measured.
- p. Hazardous Waste Management shall follow CASQA standard WM-01 and will not be measured.
- q. Sanitary-Septic Waste Management shall follow CASQA standard WM-01 and will not be measured.
- r. Liquid Waste Management shall follow CASQA standard WM-01 and will not be measured.

No measurement or direct payment will be made for revising the Authority SWPPP, inspection and maintenance reports, or other documentation required to perform this work, as these costs shall be considered as included

in other items for which direct payment is made. Dust control will not be measured, as the performance of this work and the supplying of these materials as indicated shall be considered as a subsidiary obligation of the Contractor under other contract items. The inclusion of dust control in this specification is merely to establish a standard of performance and shall not be construed as creating a separate pay item. Storm Water Management Control work performed for protection of construction areas outside the construction limits, such as borrow and waste areas, offsite 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 under other contract items.

When there is an allowance in the Bid Schedule for additional erosion and sediment controls, this item may be implemented by the Airport Authority for unforeseen and miscellaneous conditions. Any unused allowance will be deducted from the contract with a deductive change order. All work directed by the Airport Authority under the item for additional Storm Water Management shall be performed per Article 7, Changes in the Work.

Basis of Payment. The unit bid prices for Storm Water Management work shall be full compensation for furnishing, placing all new materials and for all labor, equipment, tools, operations, hauling, excavation, backfill, and incidentals necessary to complete the item, maintain the item, and relocate or modify as needed, and subsequent removal when no longer required. Dust control during construction will be considered incidental to the contract. When shown in the Bid Schedule, the accepted quantities for best management practices required for storm water management will be measured and paid for under the following items:

- EC-1 Scheduling – per calendar day
- SE-6 Gravel Bag Berm – per linear foot
- SE-7 Street Sweeping – per calendar day
- SE-10 Storm Drain Inlet Protection – per each

Storm Water Management shall include all work such as preparing, maintaining, monitoring, modifying, and implementing the Authority SWPPP as required by the Permit. Costs of revision and implementation of the Authority SWPPP during the construction period is considered as included in the unit bid prices as shown in the Bid Schedule.

Schedule of Values. The Contractor shall submit a Schedule of Values in accordance with Section 1D-19 "Schedule of Values (SOV)." The SOV shall itemize the Work further as applicable to show more details as follows:

1. QSD, including availability to meet at the job-site with the Airport Authority Construction Manager

2. QSP, including attendance during weekly site walk/inspection conducted by the Authority's QSP (or his appointed designee)
3. Mandatory Training Session for Superintendent, Foreman, QSD, and QSP
4. Good Site Management "Housekeeping" BMPs
5. Non-Storm Water Management
6. Erosion Control
7. Sediment Control
8. Run-on and Runoff Management
9. BMP Inspection, Maintenance, and Repair, including documentation of such and in response to inspections by others
10. Development and Implementation of Construction Site Monitoring Program (CSMP)
11. Street Sweeping

Conformity with Plans, Specifications and Standards. All work and all materials furnished shall be in reasonably close conformity with general construction permit, the CASQA BMP's standards, and the material requirements that are specified in the contract, plans or specifications.

If the Airport Authority finds the materials furnished, work performed, or the BMP's are not within reasonably close conformity with the plans, specifications and/or the CASQA BMP standards, but that the portion of the work affected will, in his or her opinion, result in a product having a level of safety, economy, durability, and workmanship acceptable to the Airport Authority, then the affected work be accepted and remain in place. In this event, the Airport Authority will document the determination and a basis of acceptance will be provided for an adjustment in the contract price for the affected portion of the work. Changes in the contract price shall be covered by a bulletin and a contract change order as applicable.

If the Airport Authority 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 Airport Authority will issue a non-compliance report (NCR) and the affected work or materials shall be immediately removed and replaced or otherwise corrected by and at the expense of the Contractor in accordance with the Airport Authority's written directive.

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 Airport Authority's responsibility to insist on strict compliance with the requirements of the contract, plans, and specifications during the Contractor's execution of the work, when, in the Airport Authority's opinion, such compliance is essential to provide an acceptable portion of the work.

1D-36 UTILITY USAGE

Contractor shall provide at its own cost all utilities, including water, which are necessary for performance of the Work. Said utilities, including water, shall be from sources approved by the Representative.

1D-37 WATER FOR THE WORK

The Contractor shall, whenever possible and not in conflict with the Technical Specifications or ordinances, minimize the use of water during construction of the Project. Watering equipment, hoses, piping and valves shall be kept in good working order; water leaks shall be repaired promptly, and washing of equipment, except when necessary for safety or for the protection of the equipment, shall be discouraged. Wash water from such activities shall not be discharged into storm drains.

1D-38 NOT USED

1D-39 DISPOSAL OF CONSTRUCTION AND DEMOLITION WASTE

The Airport Authority must manage the airport in compliance with California Public Resources Code Section 42648 requirements for solid waste reduction. The California Green Building Standards Code, commonly known as "CALGreen," and specifically, California Code of Regulations, Title 24, Part 11, Division 4.4, Section 4.408, requires planning for materials conservation and resource efficiency. The Airport Authority has adopted a Sustainability Policy to incorporate the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) criteria for all airport development and remodeling projects, including standards for construction waste management. As such, material from construction and demolition projects (C&D wastes) shall be reused or recycled and diverted from landfill disposal whenever practicable.

The minimum waste diversion goals are:

- A. 90% of the inert material (a material not subject to decomposition such as concrete, asphalt, brick, rock, block, dirt, metal, glass, etc.), by weight, and
- B. 75% of the total project waste from at least four material streams, by weight.

For projects that divert at or above ninety five percent (95%) of the total C&D waste by weight, the Contractor will receive public recognition from the Airport Authority upon satisfactory documentation of compliance.

All Projects shall divert C&D waste using one or a combination of the following activities:

- A. Salvage
- B. Deconstruction
- C. Reuse
- D. Source-Separated C&D Recycling
- E. Co-mingled C&D Recycling

The Contractor shall prepare and implement a Waste Management Plan (WMP) as required in Appendix 8.

The Contractor shall prepare and submit Waste Management Reports as required in Appendix 8.

The Contractor must also complete the following for projects for which a construction or demolition permit is required from the City of San Diego:

- A. Contractor shall comply with the City of San Diego Construction and Demolition (C&D) Debris Deposit Ordinance as adopted, amended, or modified, and available at:
<http://www.sandiego.gov/environmental-services/recycling/cd/index.shtml>
- B. A copy of all initial and final documentation required by the City shall also be provided to the Airport Authority for its records within five (5) Business Days of submittal to the City.
- C. Documentation shall include verification of compliance to the satisfaction of the City in the form of proof of return of the required recycling deposit.

Where the specifications and/or the approved Waste Management Plan require the Contractor to dispose of any material, such material shall be legally disposed.

The Contractor shall be responsible for the costs and for liabilities imposed by law as a result of the Contractor's failure to comply with the provisions set forth in this section "Management of Construction and Demolition Waste" and related sections, including but not limited to, compliance with the applicable provisions of Federal, State and local laws, regulations, and permits. Costs and liabilities include, but are not limited to, fines, penalties, and damages whether assessed against the Airport Authority or the Contractor.

The Contractor shall be responsible for delays associated with the Contractor's failure to complete the Work in compliance with the requirements of this section and Appendix 8.

Management of Construction and Demolition (C&D) waste will not be measured, as the performance of this work and the supplying of these materials as indicated shall be considered as a subsidiary obligation of the Contractor under other contract items.

1D-40

VALUE ENGINEERING

The provisions of this Article 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 Airport Authority, 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 value engineering 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, and 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 value engineering 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 value engineering proposal not accepted by the Airport Authority, within the period specified in the proposal. The provisions of this Article shall not be construed to require the Airport Authority to consider any value engineering proposal which 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 value engineering proposal has been issued. If a change order has not been issued by the date upon which the Contractor's value engineering proposal specifies that a decision should be made, or such other date as the Contractor may subsequently have requested in writing, such value engineering proposal shall be deemed rejected.

The Airport Authority shall be the sole judge of the acceptability of a value engineering 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 Airport Authority may disregard the Contract bid prices if, in the Airport Authority's judgment such prices do not represent a fair measure of the value of the work to be performed or deleted.

The Airport Authority may require the Contractor to share in the Airport Authority's costs of investigating a value engineering 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 Airport Authority to deduct the cost of investigating a value engineering proposal from amounts payable to the Contractor under the Contract.

If the Contractor's value engineering proposal is accepted in whole or in part, such acceptance will be by a Contract change order which shall specifically state that it is executed pursuant to this Article. Such change order shall incorporate the changes in the plans and specifications which are necessary to permit the value engineering proposal or such part of it as has been accepted and shall include any conditions upon which the Airport Authority's approval is based. The change order shall also set forth the estimated net savings attributable to the value engineering

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 Airport Authority.

The Contractor's fifty percent (50%) share of the net savings shall constitute full compensation to the Contractor for the value engineering proposal and the performance of the work. Acceptance of the value engineering proposal and performance of the value engineering work shall not extend the time of completion of the Contract unless specifically provided for in the contract change order.

1D-41 BUY AMERICAN REQUIREMENT

This project is not AIP funded. The FAA Buy American Preference Requirements as stated in Section 1A "Instructions to Bidder" and Section 1B "Bidder's Submission Documents" are not applicable.

1D-42 NOT USED

1D-43 NOT USED

1D-44 NOT USED

1D-45 NOT USED

1D-46 NOT USED

1D-47 NOT USED

1D-48 NOT USED

**** END OF ARTICLE 1D ****