SPECIAL, 10/31/2016 1:30:00 PM

BE IT REMEMBERED that on October 31, 2016, there was begun and holden a SPECIAL session of the Commissioners Court of Jefferson County, Texas, with the following members and officers present and participating except those absent as indicated:

Honorable Jeff Branick, County Judge

Commissioner Eddie Arnold, Commissioner Pct. No. 1

Commissioner Brent Weaver, Commissioner Pct. No. 2 (ABSENT)

Commissioner Michael Sinegal, Commissioner Pct. No. 3

Commissioner Everette D. Alfred, Commissioner Pct. No. 4

Honorable G. Mitch Woods, Sheriff

Honorable Carolyn L. Guidry , County Clerk

When the following proceedings were had and orders made, to-wit:

Jeff R. Branick, County Judge
Eddie Arnold, Commissioner, Precinct One
Brent A. Weaver, Commissioner, Precinct Two
Michael S. Sinegal, Commissioner, Precinct Three
Everette "Bo" Alfred, Commissioner, Precinct Four

NOTICE OF MEETING AND AGENDA OF COMMISSIONERS' COURT OF JEFFERSON COUNTY, TEXAS October 31, 2016

Notice is hereby given that the Commissioners' Court of Jefferson County, Texas, willmeet at **1:30 PM,** on the **31st** day of **October 2016** at its regular meeting place in the Commissioners' Courtroom, 4th Floor, Jefferson County Courthouse, 1149 Pearl Street, Beaumont, Texas.

Said meeting will be a **Special** for the purpose of transacting the routine business of the County. Persons with disabilities requiring auxiliary aids for services who wish to attend this meeting should contact the County Judge's Office to arrange for assistance.

In addition to the routine business of the County, the subject of said meeting will be the following:

Immediately following Commissioners Court- Announcement of an executive (closed) session pursuant to Texas Government Code Section 551.0725 to deliberate business and financial issues relating to a contract being negotiated, that deliberation in open meeting, would have a detrimental effect on the Commissioners Court in negotiations with a third person.

INVOCATION: Eddie Arnold, Commissioner, Precinct One

PLEDGE OF ALLEGIANCE: Michael S. Sinegal, Commissioner, Precinct Three

PURCHASING:

1. Consider and approve specifications for (IFB 16-030/YS), Term Contract for Mowing for Jefferson County.

SEE ATTACHMENTS ON PAGES 12 - 53

Motion by: Commissioner Sinegal
Second by: Commissioner Arnold
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

2. Rescind award and terminate contract for (IFB 16-019/YS), Term Contract for Sheriff's Department (Jefferson County) Law Enforcement Equipment and Uniforms with Texas Code Blue in accordance with Section 4 and the SAM requirements of the specifications for items 1, 6, 17, 24, 51, and 54.

Motion by: Commissioner Sinegal
Second by: Commissioner Arnold
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

3. Re-award (IFB 16-019/YS), Term Contract for Sheriff's Department (Jefferson County) Law Enforcement Equipment and Uniforms with Burgoon Company for item 24, and GT Distributors for items 1, 6, 51, and 54 per Attachment A.

SEE ATTACHMENTS ON PAGES 54 - 56

Motion by: Commissioner Sinegal
Second by: Commissioner Arnold
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

4. Rescind award and terminate contract for (IFB 16-020/YS), Term Contract for Correctional Facility Law Enforcement Equipment and Uniforms with Texas Code Blue in accordance with Section 4 and the SAM requirements of the specifications for items 5, 10, 12, 13, 14, 17, 22, and 24.

Motion by: Commissioner Sinegal
Second by: Commissioner Arnold
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

5. Re-award (IFB 16-020/YS), Term Contract for Correctional Facility Law Enforcement Equipment and Uniforms with Red the Uniform Tailor for items 5, 10, 12, 13, 14, and 24, and GT Distributors for items 17 and 22 per Attachment B.

SEE ATTACHMENTS ON PAGES 57 - 59

Motion by: Commissioner Sinegal
Second by: Commissioner Arnold
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

6. Execute, receive, and file contract for (IFB 16-022/JW), Taxiway D Reconstruction (2016) at Jack Brooks Regional Airport to ALLCO, LLC in the amount of $2,207,225.00. This project is funded by FAA AIP Grant #32.

SEE ATTACHMENTS ON PAGES 60 - 460

Motion by: Commissioner Sinegal
Second by: Commissioner Arnold
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

7. Consider and approve, execute, receive and file Change Order No. 5 for (IFB 14-008/KJS), Jefferson County Courthouse Mechanical and Safety Upgrades (Phase 5) with N & T Construction Company, Inc. for a retainage reduction of this project from 5% to 2% retainage. This change order does not change any contract amounts, or number of working days.

SEE ATTACHMENTS ON PAGES 461 - 461

Motion by: Commissioner Sinegal
Second by: Commissioner Arnold
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

8. Consider and approve, execute, receive and file a Certificate of Completion for (IFB 15-016/JW), McFaddin National Wildlife Refuge Dune Restoration, with Apollo Environmental. This is a Round 2.2 Disaster Project funded by the Texas General Land Office (GLO).

SEE ATTACHMENTS ON PAGES 462 - 463

Motion by: Commissioner Sinegal
Second by: Commissioner Arnold
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

9. Discuss, consider, and possibly approve the Purchasing Agent to obtain an appraisal report or obtain real estate listing services for land located on Viterbo Road (Known as "Precinct No. 2 Rock Yard"). The cost for obtaining an appraisal report from Bishop Real Estate Appraisers, Inc. is $2,000.00, with a lead time of (3) three weeks. The term of a real estate listing with NAI Wheeler (Wheeler Commercial) would be for (12) twelve months, with 6% commission for the first $1M and 3% of everything thereafter to be paid at closing if another broker is involved. If no other broker is involved then we will only charge 4% commission to be paid at closing.

motion to get certified appraisal report

SEE ATTACHMENTS ON PAGES 464 - 465

Motion by: Commissioner Alfred
Second by: County Judge Branick
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

10. Consider and possibly approve disposition of salvage property as authorized by Local Government Code §263.152 (3), for broken or obsolete items.

SEE ATTACHMENTS ON PAGES 466 - 468

Motion by: Commissioner Sinegal
Second by: Commissioner Arnold
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

ADDENDUMS

11. Consider and approve installation of a PanaView Baseball/Softball Scoreboard at Ford Park Fields from Daktronics, in the amount of $89,500.00. This purchase is in accordance with BuyBoard Contract #423-13. Funding was approved by Commissioners' Court on 10/03/2016 / Jefferson County Tourism Committee Hotel Occupancy Tax allocations.

SEE ATTACHMENTS ON PAGES 469 - 474

Motion by: Commissioner Sinegal
Second by: Commissioner Arnold
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

12. Consider and approve, execute, receive and file a Professional Services Agreement (PROF 16-034/JW) with LJA Engineering, Inc. for Environmental Consulting Services for the continued implementation of Jefferson County's Stormwater Management Program for an estimated cost of $13,651.67, which will not be exceeded without prior approval.

SEE ATTACHMENTS ON PAGES 475 - 479

Motion by: Commissioner Sinegal
Second by: Commissioner Arnold
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

COUNTY AUDITOR:

13. Consider and approve FY 2016 budget transfer - District Attorney - additional cost for books.

120-2030-412-3010	BOOKS-PRINTED	$1,000.00	
120-2030-412-4052	POSTAGE		$1,000.00

SEE ATTACHMENTS ON PAGES 480 - 480

Motion by: Commissioner Arnold
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

14. Consider and approve FY 2016 budget transfer - Beaumont Maintenance - additional cost for electricity.

120-6083-416-4056	ELECTRICITY	$25,000.00	

120-6083-416-2003	EMPLOYEES' INSURANCE		$25,000.00

SEE ATTACHMENTS ON PAGES 481 - 481

Motion by: Commissioner Arnold
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

15. Consider and approve FY 2017 budget transfer - Jail - server for IP telephone system voice recording.

120-3062-423-6002	COMPUTER EQUIPMENT	$6,950.00	
120-3062-423-4011	EQUIPMENT- MISCELLANEOUS		$6,950.00

SEE ATTACHMENTS ON PAGES 482 - 482

Motion by: Commissioner Arnold
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

16. Regular County Bills - check #426655 through checks #426886.

SEE ATTACHMENTS ON PAGES 483 - 491

Motion by: Commissioner Arnold
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

COUNTY COMMISSIONERS:

17. Immediately following Commissioners Court- Announcement of an executive (closed) session pursuant to Texas Government Code Section 551.0725 to deliberate business and financial issues relating to a contract being negotiated, that deliberation in open meeting, would have a detrimental effect on the Commissioners Court in negotiations with a third person.

Action: NONE

18. Consider, possibly approve and authorize the County Judge to execute the Jefferson County/Ford Park Use License Agreement between Jefferson County and the Julie Rogers Gift of Life Program for the use of the Ford Park premises for April 18-19, 2017 for the Champagne & Ribs Benefit.

SEE ATTACHMENTS ON PAGES 492 - 506

Motion by: Commissioner Sinegal
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

19. Consider, possibly approve, authorize the County Judge to execute and receive and file the Jefferson County/Ford Park Use License Agreement between Jefferson County and the March of Dimes, Houston Market for the use of the Ford Park premises for April 21-22, 2017 for the March of Dimes Walk Benefit.

SEE ATTACHMENTS ON PAGES 507 - 521

Motion by: Commissioner Sinegal
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

20. Consider appointing Bart L. Owens to the Drainage District # 6 Board of Directors to fill the unexpired term of Judge James McNicholas. This is an appointment of Commissioner Alfred.

SEE ATTACHMENTS ON PAGES 522 - 522

Motion by: Commissioner Alfred
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

21. Receive and file the Certified Roll Jurisdiction Summary Resolution for the tax roll for the tax year 2016 for Jefferson County.

SEE ATTACHMENTS ON PAGES 523 - 525

Motion by: Commissioner Sinegal
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

DISTRICT CLERK:

22. Review and possible approve contract with The Office of the Attorney General to create/update registry-only cases with child support court order and family violence information, and to satisfy the requirements for State Case Registry (SCR)

SEE ATTACHMENTS ON PAGES 526 - 566

Motion by: Commissioner Alfred
Second by: Commissioner Arnold
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

ENGINEERING:

23. Consider and possibly approve a Final Plat of Bergeron Addition Phase III located in Precinct 3 off of Hamshire Road. This plat is not in any ETJ and has met all Engineering Department requirements.

SEE ATTACHMENTS ON PAGES 567 - 568

Motion by: Commissioner Sinegal
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

24. Execute, receive and file Utility Permit 09-U-16 to AT&T to bury a fiber optic cable on Industrial Road. This project is located in Precinct 4.

SEE ATTACHMENTS ON PAGES 569 - 573

Motion by: Commissioner Sinegal
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

SHERIFF'S DEPARTMENT:

25. Consider and approve expenditures by the Sheriff's Office in accordance with order pursuant to section130.908 of theTexas Local Government Code.See attached item.

SEE ATTACHMENTS ON PAGES 574 - 574

Action: NONE

26. Consider and approve an expenditure by the Sheriff's Office in accordance with order pursuant to section 130.908 of the Texas Local Government Code.See attached item.

SEE ATTACHMENTS ON PAGES 575 - 575

Action: NONE

27. Consider and possibly approve a Resolution recognizing Pamela A. Hawthorne for 20 years of dedicated service to the Jefferson County Sheriff's Office and to the citizens of Jefferson County in wishing her well on her retirement.

SEE ATTACHMENTS ON PAGES 576 - 576

Motion by: Commissioner Alfred
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

28. Consider and approve expenditures by the Sheriff in accordance with order pursuant to section 130.908 of Texas Local Government Code. Purchase of a new server for the voice capture on the IP telephones in the amount of $6,950 (120-3062-423-6002). Purchase of 11 replacement badges in the amount of $1,078 (120-3062-423-3057). Purchase of miscellaneous kitchen items in the amount of $3,100 (120-3062-423-3023).

SEE ATTACHMENTS ON PAGES 577 - 577

Motion by: Commissioner Alfred
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

29. Consider and approve expenditures by the Sheriff in accordance with order pursuant to section 130.908 of Texas Local Government Code. Purchase of elevator monitoring contract for the Marine Building in the amount of $2,590 (865-3054-421-4009)

SEE ATTACHMENTS ON PAGES 578 - 578

Motion by: Commissioner Alfred
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

_____

Jeff R. Branick
County Judge

JEFFERSON COUNTY PURCHASING DEPARTMENT

Deborah L. Clark, Purchasing Agent

1149 Pearl Street, 1st Floor, Beaumont, TX 77701 409-835-8593 Fax 409-835-8456

LEGAL NOTICE
Advertisement for Invitation for Bids

October 31, 2016

Notice is hereby given that sealed bids will be accepted by the Jefferson County Purchasing Department for IFB 16-030/YS, Term Contract for Mowing for Jefferson County. **Specifications for this project may be obtained from the Jefferson County website, http://www.co.jefferson.tx.us/Purchasing/main.htm or by calling 409-835-8593.**

Bids are to be sealed and addressed to the Purchasing Agent with the bid number and name marked on the outside of the envelope. Bidders shall forward an original and two (2) copies of their bid to the address shown below. Jefferson County does not accept bids submitted electronically. Late bids will be rejected as non-responsive. Bids will be publicly opened and read aloud in the Jefferson County Commissioners' Courtroom at the time and date below. Bidders are invited to attend the sealed bid opening.

BID NAME:	**Term Contract for Mowing for Jefferson County**
BID NO:	**IFB 16-030/YS**
DUE DATE/TIME:	**11:00 AM CDT, Tuesday, November 29, 2016**
MAIL OR DELIVER TO:	**Jefferson County Purchasing Department** **1149 Pearl Street, 1st Floor** **Beaumont, Texas 77701**

Any questions relating to these requirements should be directed to Yea-Mei Sauer, Contract Specialist, at 409-835-8593 or ysauer@co.jefferson.tx.us.

Jefferson County encourages Disadvantaged Business Enterprises to participate in the bidding process. Jefferson County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provisions of services. Individuals requiring special accommodations are requested to contact our office at 409-835-8593 to make arrangements no later than seven (7) calendar days prior to the submittal deadline. Jefferson County reserves the right to accept or reject any or all proposals, to waive technicalities and to take whatever action is in the best interest of Jefferson County.

All interested firms are invited to submit a bid in accordance with the terms and conditions stated in this bid.

RESPONDENTS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE INVITATION.



Deborah L. Clark, Purchasing Agent
Jefferson County, Texas
Publish: Beaumont Enterprise & Port Arthur News – November 2, 2016 & November 9, 2016

IFB 16-030/YS
Term Contract for Mowing for Jefferson County
Bids due: 11:00 AM CDT, Tuesday, November 29, 2016

Table of Contents

Table of Contents 1
Instructions to Bidders 2
General Conditions of Bidding and Terms of Contract 6
Special Requirements/Instructions 11
Minimum Specifications 15
Bidder Information Form 18
Offer to Contract Form 19
Acceptance of Offer Form 20
Bid Form 21
Signature Page 23
Conflict of Interest Questionnaire 24
Local Government Officer Conflict Disclosure Statement Forms (OFFICE USE ONLY) 25
Good Faith Effort Determination Checklist 26
Notice of Intent 27
HUB Subcontracting Participation Declaration Form 28
Residence Certification/Tax Form 32
Bid Affidavit 33

BID SUBMISSIONS: Bidder is responsible for submitting (1) one original completed copy of this bid specifications packet in its entirety (all pages of this packet), and (2) two copies to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid and any other documentation requested within these specifications.

Additionally, Bidder must monitor the Jefferson County Purchasing Department Website (below) to see if addenda or additional instructions have been posted. Failure to return all required forms could result in a bid being declared as non-responsive.

http://www.co.jefferson.tx.us/purchasing/main.htm

1. Bid Submission

Bids must be submitted in complete original form by mail or messenger to the following address:

Jefferson County Purchasing Department
1149 Pearl Street, 1st Floor
Beaumont, TX 77701

Bids will be accepted at the above address until the time and date specified herein, and immediately after will be publicly opened and read aloud.

All bids shall be tightly sealed in an opaque envelope and plainly marked with the Bid Number, Bid Name, Bid Due Date, and the Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Late bids will not be accepted and will be returned unopened to the bidder.

All bids submitted in response to this invitation shall become the property of Jefferson County and will be a matter of public record available for review.

2. Bid Submissions During Time of Inclement Weather, Disaster, or Emergency

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a bid/proposal/statement of qualifications submission deadline, the bid closing will automatically be postponed until the next business day that County offices are open to the public. Should inclement weather conditions or any other unforeseen event cause delays in courier service operations, the County may issue an addendum to all known vendors interested in the project to extend the deadline. It will be the responsibility of the vendor to notify the county of their interest in the project should these conditions impact their ability to submit a bid/proposal/statement of qualifications submission before the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

Should an emergency or unanticipated event interrupt normal County processes, and bid/proposal/statement of qualifications submissions cannot be received by the Jefferson County Purchasing Department's office by the exact time specified in the IFB and urgent County requirements preclude amendment to the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first business day on which normal County processes resume.

3. Courthouse Security

Bidders are advised that all visitors to the Courthouse must pass through Security. **Bidders planning to hand deliver bids must allow time to get through Security, as a delay in entering the Courthouse will not be accepted as an excuse for late submittal.** Mondays and Tuesdays are particularly heavy days. Bidders are strongly urged to plan accordingly.

4. Preparation of Bids

The bid shall be legibly printed in ink or typed.

If a unit price or extension already entered is to be altered, it shall be crossed out and initialed in ink by the bidder.

The bid shall be legally signed and shall include the complete address of the bidder.

Jefferson County is exempt from Federal and State Sales Taxes, and such taxes shall not be included in bid prices.

5. Signatures

All bids, notifications, claims, and statements must be signed by an individual authorized to bind the bidder. The individual signing certifies, under penalty of perjury, that he or she has the legal authorization to bind the bidder.

6. County Holidays – 2016:

January 1	Friday	New Year's Day
January 18	Monday	Martin Luther King, Jr. Day
February 15	Monday	President's Day
March 25	Friday	Good Friday
May 30	Monday	Memorial Day
July 4	Monday	Independence Day
September 5	Monday	Labor Day
November 11	Friday	Veterans Day
November 24 & 25	Thursday & Friday	Thanksgiving
December 23 & 26	Friday & Monday	Christmas

7. Rejection or Withdrawal

Submission of additional terms, conditions or agreements with the bid document are grounds for deeming a bid non-responsive and may result in bid rejection. Jefferson County reserves the right to reject any and all bids and to waive any informalities and minor irregularities or defects in bids. Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the time set for receipt of bids. Bids are an irrevocable offer and may not be withdrawn within 90 days after opening date.

8. Emergency/Declared Disaster Requirements

In the event of an emergency or if Jefferson County is declared a disaster area, by the County, State, or Federal Government, this Acceptance of Offer may be subjected to unusual usage. Contractor shall service the county during such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing as specified in this Acceptance of Offer shall apply to serving the County's needs regardless of the circumstances. If Contractor is unable to supply the services under the terms of the Acceptance of Offer, then Contractor shall provide proof of such disruption and a copy of the invoice from Contractor's supplier(s). Additional profit margin as a result of supplying services during an emergency or declared disaster shall not be permitted. In the event that additional equipment, supplies, and materials are required during the declared disaster, additional shipping, handling and drayage fees may apply.

9. Award

The bid will be awarded to the responsible, responsive bidder(s) whose bid, conforming to the solicitation, will be most advantageous to Jefferson County – price and other factors considered. Unless otherwise specified in this IFB, Jefferson County reserves the right to accept a bid in whole or in part, and to award by item or by group, whichever is deemed to be in the best interest of Jefferson County. Any bidder who is in default to Jefferson County at the time of submittal of the bid shall have that bid rejected. Jefferson County reserves the right to clarify any contractual terms with the concurrence of the Contractor; however, any substantial nonconformity in the offer, as determined by Jefferson County, shall be deemed non-responsive and the offer rejected.

In evaluating bids, Jefferson County shall consider the qualifications of the bidders, and, where applicable, operating costs, delivery time, maintenance requirements, performance data, and guarantees of materials and equipment. In addition, Jefferson County may conduct such investigation as it deems necessary to assist in the evaluation of a bid and to establish the responsibility, qualifications, and financial ability of the bidders to fulfill the contract.

Jefferson County reserves the right to award this contract on the basis of **lowest and best bid** in accordance with the laws of the State of Texas, to waive any formality or irregularity, to make awards to more than one offeror, and/or to reject any or all bids. In the event the lowest dollar offeror meeting specifications is not a awarded a contract, Offeror may appear before the Commissioners' Court and present evidence concerning Offeror responsibility after officially notifying the Office of the Purchasing Agent of Offeror's intent to appear.

10. Contract

A response to an IFB is an offer to contract with Jefferson County based upon the terms, conditions, and specifications contained in the IFB. Bids do not become contracts unless and until they are executed by Jefferson County, eliminating a formal signing of a separate contract. For that reason, all of the terms and conditions of the contract are contained in the IFB, unless any of the terms and conditions is modified by an IFB Amendment, a Contract Amendment, or by mutually agreed terms and conditions in the contract documents.

11. Waiver of Subrogation

Bidder and bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against Jefferson County as an indirect party to any suit arising out of personal or property damages resulting from bidder's performance under this agreement.

12. Fiscal Funding

A multi-year contract (if requested by the specifications) continuing as a result of an extension option must include fiscal funding out. If, for any reason, funds are not appropriated to continue the contract, said contract shall become null and void.

13. Bid Results

Bid results are not provided in response to telephone inquiries. A preliminary tabulation of bids received will be posted on the Purchasing web page (http://co.jefferson.tx.us/ purchasing/main.htm) as soon as possible following bid opening. A final tabulation will be posted following bid award, and will also be available for review in the Purchasing Department.

14. Changes and Addenda to Bid Documents

Each change or addendum issued in relation to this IFB document will be on file in the Office of the Purchasing Agent, and will be posted on the Purchasing web site as soon as possible. It shall be the bidder's responsibility to make inquiry as to change or addenda issued, and to monitor the web site. All such changes or addenda shall become part of the contract and all bidders shall be bound by such addenda. Information on all changes or addenda issued will be available at the Office of the County Purchasing Agent.

15. Specifications

Unless otherwise stated by the bidder, the bid will be considered as being in accordance with Jefferson County's applicable standard specifications, and any special specifications outlined in the bid document. References to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of Jefferson County, and should not be construed as excluding bids on other types of materials, equipment, and supplies. However, the bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid. Jefferson County reserves the right to determine if equipment/ product being bid is an acceptable alternate. All goods shall be new unless otherwise so stated in the bid. Any unsolicited alternate bid, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of the bid, may be considered non-responsive.

16. Delivery

Bids shall include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the bidder (<u>in writing on the included Bid Form</u>), prices bid will be considered as being based on F.O.B. destination/delivered freight included.

17. Interpretation of Bid and/or Contract Documents

All inquiries shall be made within a reasonable time prior to the date and time fixed for the bid opening, in order that a written response in the form of an addendum, if required, can be processed before the bids are opened. Inquiries received that are not made in a timely fashion may or may not be considered.

18. Currency

Prices calculated by the bidder shall be stated in U.S. dollars.

19. Pricing

Prices shall be stated in units of quantity specified in the bid documents. In case of discrepancy in computing the amount of the bid, the unit price shall govern.

20. Notice to Proceed/Purchase Order

The successful bidder may not commence work under this contract until authorized to do so by the Purchasing Agent.

21. Certification

By signing the offer section of the Offer and Acceptance page, bidder certifies:

- The submission of the offer did not involve collusion or other anti-competitive practices.
- The bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to any public servant in connection with the submitted offer.
- The bidder hereby certifies that the individual signing the bid is an authorized agent for the bidder and has the authority to bind the bidder to the contract.

22. Definitions

"County" – Jefferson County, Texas.

"Contractor" – The bidder whose proposal is accepted by Jefferson County.

23. Minority-Women Business Enterprise Participation

It is the desire of Jefferson County to increase the participation of Minority (MBE) and women-owned (WBE) businesses in its contracting and procurement programs. While the County does not have any preference or set aside programs in place, it is committed to a policy of equitable participation for these firms.

General Conditions of Bidding and Terms of Contract

By execution of this document, the vendor accepts all general and special conditions of the contract as outlined below and in the specifications and plans.

1. Bidding

1.1 Bids. All bids must be submitted on the bid form furnished in this package.

1.2 Authorized Signatures. The bid must be executed personally by the vendor, duly authorized partner of the partnership, or duly authorized officer of the corporation. If executed by an agent, a power of attorney or other evidence of authority to act on behalf of the vendor shall accompany the bid to become a valid bid.

1.3 Late Bids. Bids must be in the office of the Jefferson County Purchasing Agent before or at the specified time and date bids are due. Bids received after the submission deadline shall be rejected as non-responsive and returned unopened.

1.4 Withdrawal of Bids Prior to Bid Opening. A bid may be withdrawn before the opening date by submitting a written request to the Purchasing Agent. If time allows, the bidder may submit a new bid. Bidder assumes full responsibility for submitting a new bid before or at the specified time and date bids are due. Jefferson County reserves the right to withdraw a request for bids before the opening date.

1.5 Withdrawal of Bids after Bid Opening. Bidder agrees that its offer may not be withdrawn or cancelled by the vendor for a period of ninety (90) days following the date and time designated for the receipt of bids unless otherwise stated in the bid and/or specifications.

1.6 Bid Amounts. Bids shall show net prices, extensions where applicable and net total. In case of conflict between unit price and extension, the unit price will govern. Any ambiguity in the bid as a result of omission, error, unintelligible or illegible wording shall be interpreted in the favor of Jefferson County.

1.7 Exceptions and/or Substitutions. All bids meeting the intent of the specifications and plans will be considered for award. Vendors taking exception to the specifications and plans, or offering substitutions, shall state these exceptions in the section provided. If bid is made on an article other than the one specified, which a bidder considers comparable, the name and grade of said article must be specified in the bid and sufficient specifications and descriptive data must accompany same to permit thorough evaluation. The absence of stated exceptions and/or substitutions shall indicate that the vendor has not taken any exceptions to the specifications and shall be responsible to perform in strict accordance with the specifications. As a matter of practice, Jefferson County rejects exception(s) and /or substitutions as non-responsive but reserves the right to accept any and/or all of the exception(s) and/or substitution(s) deemed to be in the best interest of Jefferson County.

1.8 Alternates. The Invitation for Bid and/or specifications may expressly allow bidder to submit an alternate bid. Presence of such an offer shall not be considered an indication of non-responsiveness.

1.9 Descriptions. Unless otherwise specified, any reference to make, manufacturer and/or model used in the bid specifications is merely descriptive and not restrictive, and is used only to indicate type, style, or quality of material desired.

1.10 Bid Alterations. Bids cannot be altered or amended after submission deadline. Any interlineations, alterations, or erasures made before opening time must be initialed by the signer of the bid, guaranteeing authenticity.

1.11 Tax Exempt Status. Jefferson County is exempt from federal excise tax and state sales tax. Unless the bid form or specifications specifically indicate otherwise, the bid price must be net, exclusive of above-mentioned taxes and will be so construed. Therefore, the bid price shall not include taxes.

1.12 Quantities. Quantities indicated are estimated quantities only and are not a commitment to buy. Approximate usage does not constitute an order, but only implies the probable quantity that will be used. Commodities will be ordered on an as-needed basis. Bidder is responsible for accurate final counts.

1.13 Bid Award. Award of contract shall be made to the most responsible, responsive bidder, whose offer is determined to be the best value, taking into consideration the relative importance of price. Jefferson County reserves the right to be the sole judge as to whether items bid will serve the purpose intended. Jefferson County reserves the right to accept or reject in part or in whole any bid submitted,

and to waive any technicalities or informalities for the best interest of the County. Jefferson County reserves the right to award based upon individual line items, sections or total bid.

1.14 Silence of Specifications for Complete Units. All materials, equipment and/or parts that will become a portion of the completed work, including items not specifically stated herein but, necessary to render the service(s) complete and operational per the specifications, are to be included in the bid price. Vendor may be required to furnish evidence that the service, as bid, will meet or exceed these requirements.

1.15 Addenda. Any interpretations, corrections or changes to the specifications and plans will be made by addenda no later than forty-eight (48) hours prior to the bid opening. Addenda will be posted on the Purchasing web site. Vendors are responsible for monitoring the web site in order to remain informed on addenda. Vendors shall acknowledge receipt of all addenda with submission of bid.

1.16 General Bid Bond/Surety Requirements. Failure to furnish bid bond/surety, if requested, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.17 General Insurance Requirements. Failure to furnish Affidavit of Insurance, if required in these specifications, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.18 Responsiveness. A responsive bid shall substantially conform to the requirements of this Invitation to Bid and/or specifications contained herein. Bidders who substitute any other terms, conditions, specifications and/or requirements or who qualify their bids in such a manner as to nullify or limit their liability to the contracting entity shall have their bids deemed non-responsive. Also, bids containing any clause that would limit contracting authority shall be considered non-responsive. Examples of non-responsive bids include but shall not be limited to: a) bids that fail to conform to required delivery schedules as set forth in the bid request; b) bids with prices qualified in such a manner that the bid price cannot be determined, such as with vague wording that may include "price in effect at the time of delivery," and c) bids made contingent upon award of other bids currently under consideration.

1.19 Responsible Standing of Bidder. To be considered for award, bidder must at least: have the ability to obtain adequate financial resources, be able to comply with required or proposed delivery/completion schedule, have a satisfactory record of performance; have a satisfactory record of integrity and ethics, and be otherwise qualified and eligible to receive award.

1.20 Proprietary Data. Bidder may, by written request, indicate as confidential any portion(s) of a bid that contain proprietary information, including manufacturing and/or design processes exclusive to the vendor. Jefferson County will protect from public disclosure such portions of a bid, unless directed otherwise by legal authority, including existing Open Records Acts.

1.21 Public Bid Opening. Bidders are invited to be present at the opening of bids. After the official opening of bids, a period of not less than one week is necessary to evaluate bids. The amount of time necessary for bid evaluation may vary and is determined solely by the County. Following the bid evaluation, all bids submitted are available for public review.

2. Performance

2.1 Design, Strength, and Quality. Design, strength, and quality of materials and workmanship must conform to the highest standards of manufacturing and engineering practices. The apparent silence of specifications and/or plans as to any detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications and/or plans shall be made on the basis of this statement.

2.2 Age and Manufacture. All tangible goods being bid must be new and unused, unless otherwise specified, in first-class condition, of current manufacture, and furnished ready to use. All items not specifically mentioned that are required for a complete unit shall be furnished.

2.3 Delivery Location. All deliveries will be made to the address(es) specified on the purchase order during normal working hours of 8:00 a.m. to 4:00 p.m., Monday through Friday, unless otherwise authorized by the Purchasing Agent or designee.

2.4 Delivery Schedule. Delivery time may be an important consideration in the evaluation of best value. The maximum number of days necessary for delivery ARO shall be stated in the space, if provided, on the bid form.

2.5 Delivery Charges. All delivery and freight charges, F.O.B. destination shown on Jefferson County purchase order, as necessary to perform contract are to be included in the bid price.

2.6 Installation Charges. All charges for assembly, installation and set-up shall be included in the bid price. Unless otherwise stated, assembly, installation and set-up will be required.

2.7 Operating Instructions and Training. Clear and concise operating instructions and descriptive literature will be provided in English, if requested. On-site detailed training in the safe and efficient use and general maintenance of item(s) purchased shall be provided as needed at the request of Jefferson County. Instructions and training shall be at no additional cost to the County.

2.8 Storage. Bidder agrees to provide storage of custom ordered materials, if requested, for up to thirty (30) calendar days.

2.9 Compliance with Federal, State, County, and Local Laws. Bids must comply with all federal, state, county and local laws, including, but not limited to, all applicable standard safety, emission, and noise control requirements. Any vehicles or equipment shall contain all standard safety, emission, and noise control requirements required for the types and sizes of equipment at the time of their manufacture. The contractor agrees, during the performance of work or service, to comply with all applicable codes and ordinances of Jefferson County or the State of Texas as they may apply, as these laws may now read, or as they may hereafter be changed or amended.

2.10 OSHA. The bidder will certify all equipment complies with all regulations and conditions stipulated under the Williams-Steiger Occupational Safety and Health Act of 1971, as amended. The successful bidder will further certify that all items furnished under this project will conform and comply with federal and State of Texas OSHA standards. The successful bidder will agree to indemnify and hold harmless Jefferson County for any and all damages that may be assessed against the County.

2.11 Patents and Copyrights. The successful vendor agrees to protect the County from claims involving infringements of patents and/or copyrights.

2.12 Samples, Demonstrations and Testing. At Jefferson County's request and direction, bidder shall provide product samples and/or testing of items bid to ensure compliance with specifications. Samples, demonstrations and/or testing may be requested at any point prior to or following bid award. Samples, demonstrations and/or testing may be requested upon delivery and/or any point during the term of resulting contract. All samples (including return thereof), demonstrations, and/or testing shall be at the expense of the bidder/vendor.

2.13 Acceptability. All articles enumerated in the bid shall be subject to inspection by an officer designated for that purpose by Jefferson County. If found inferior to the quality called for, or not equal in value to the specifications, deficient in workmanship or otherwise, this fact shall be certified to the Purchasing Agent, who shall have the right to reject the whole or any part of the same. Items and/or work determined to be contrary to specifications must be replaced at the vendor's expense. Inferior items not retrieved by the vendor within thirty (30) calendar days, or an otherwise agreed upon time, shall become the property of the County. If disposal of such items warrants an expense, an amount equal to the disposal expense will be deducted from amounts payable to the vendor.

2.14 Maintenance. Maintenance required for equipment bid should be available in Jefferson County by a manufacturer authorized maintenance facility. Cost for this service shall be shown on the bid sheet as requested or on a separate sheet, as required. If Jefferson County opts to include maintenance, it shall be so stated in the purchase order and said cost will be included. Service will commence only upon expiration of applicable warranties and should be priced accordingly.

2.15 Material Safety Data Sheets. Under the "Hazardous Communications Act," common known as the "Texas Right to Know Act," a bidder must provide the user department, with each delivery, material safety data sheets which are applicable to hazardous substances defined in the Act. Failure of the bidder to furnish this documentation, will be cause to reject any bid applying thereto.

2.16 Evaluation. Evaluation shall be used as a determinant as to which services are the most efficient and/or most economical for the County. It shall be based on all factors having a bearing on price and performance of the items in the user environment. All bids are subject to tabulation by the Jefferson County Purchasing Department and recommendation to Jefferson County Commissioners' Court. Compliance with all bid requirements and needs of the using department are considered in evaluating bids. Pricing is not the only criteria for making a recommendation. The Jefferson County Purchasing Department reserves to right to contact any bidder, at any time, to clarify, verify or requirement information with regard to this bid.

3. Purchase Orders and Payment

3.1 Purchase Orders. A purchase order(s) shall be generated by the Jefferson County Purchasing Agent to the successful vendor. The purchase order number must appear on all itemized invoices and packing slips. The County will not be held responsible for any work orders placed and/or performed without a valid current purchase order number. Payment will be made for all services rendered and accepted by the contract administrator for which a valid invoice has been received.

3.2 Invoices. All invoices shall reference the Purchase Order number. Invoices shall reference the bid item number or a detailed description for each item invoiced. If an item purchased and itemized on the invoice does not correspond to an item in any of the categories awarded to the vendor, invoice shall reference the item as "N/C" to indicate that it is a non-contract item. This requirement is to assist the County in verifying contract pricing on all invoices. Payment will be made under terms of net thirty (30) days unless otherwise agreed upon by seller and the purchasing department.

3.3 Prompt Payment. In accordance with the State of Texas Prompt Payment Act, Article 601f V.T.C.S., payment will be made after receive and acceptance by the County of the merchandise ordered and of a valid invoice. Successful bidder(s) is required to pay subcontractors within ten (10) days after the successful bidder receives payment from the County.

3.4 Funding. Jefferson County is operated and funded on an October 1 to September 30 basis; accordingly, the County reserves the right to terminate, without liability to the County, any contract for which funding is not available.

4. Contract

4.1 Contract Definition. The General Conditions of Bidding and Terms of Contract, Specifications, Plans, Bidding Forms, Addenda, and any other documents made a part of this bid shall constitute the complete bid. This bid, when duly accepted by Jefferson County, shall constitute a contract equally binding between the successful bidder and Jefferson County.

4.2 Contract Agreement. Once a contract is awarded, the unit prices offered by the successful bidder shall remain firm for the term of the contract. Contract shall commence on date of award and, upon agreement between vendor(s) and Jefferson County, may be renewed annually for up to four (4) additional years.

4.3 Change Order. No different or additional terms will become part of this contract with the exception of a change order. No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing and at the discretion and approval of Jefferson County. No change order will be binding unless signed by an authorized representative of the County and the vendor.

4.4 Price Re-determination. A price re-determination may be requested at the time of annual renewal. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

4.5 Termination. Jefferson County reserves the right to terminate the contract for default if the bidder breached any of the terms therein, including warranties of bidder or if the bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies which Jefferson County may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or service within the proper amount of time, and/or to properly perform any and all services required to Jefferson County's satisfaction and/or to meet all other obligations and requirements. Contracts may be terminated without cause upon thirty (30) days' written notice to either party unless otherwise specified. Jefferson County reserves the right to award canceled contract to the next lowest bidder. Bidder, in submitting this bid, agrees that Jefferson County shall not be liable to prosecution for damages in the event that the County declares the bidder in default.

4.6 Conflict of Interest. Employees of the County are not permitted to maintain financial interest in, or receive payment, directly or indirectly, borrow from, lend to, invest in, or engage in any substantial financial transaction with any individual, organization, supplier, or subcontractor who does business with

the County without disclosure. When conflict of interest is discovered, it shall be grounds for termination of contract.

4.7 Injuries or Damages Resulting from Negligence. Successful vendor shall defend, indemnify and save harmless Jefferson County and all its officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful vendor, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from bid award. Successful vendor shall pay any judgment with cost which may be obtained against Jefferson County growing out of such injury or damages.

4.8 Interest by Public Officials. No public official shall have interest in this contract, in accordance with Texas Local Government Code.

4.9 Warranty. The successful vendor shall warrant that all materials utilized in the performance of this contract shall conform to the proposed specifications and/or all warranties as stated in the Uniform Commercial Code and be free from all defects in material, workmanship and title.

4.10 Uniform Commercial Code. The successful vendor and Jefferson County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

4.11 Venue. This agreement will be governed and construed according to the laws of the State of Texas. This agreement is performable in the County of Jefferson, Texas.

4.12 Sale, Assignment, or Transfer of Contract. The successful vendor shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written consent of Jefferson County.

4.13 Silence of Specifications. The apparent silence of these specifications as to any detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

Special Requirements/Instructions

The following requirements and instructions supersede General Requirements where applicable.

1. Bid Requirement

Each bidder shall ensure that required parts of the bid are completed with accuracy and submitted as per the requirements within this specifications packet, including any addenda.

Bidder is responsible for submitting (1) one original completed copy of this bid specifications packet in its entirety (all pages of this packet), and (2) two copies to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid and any other documentation requested within these specifications.

Vendor shall use an opaque envelope, clearly indicating on the outside the **Bid Number, Bid Description, and marked "SEALED BID"**. Jefferson County shall not be responsible for any effort or cost expended in the preparation of a response to this IFB. All protests should be coordinated through the Purchasing Office prior to award recommendation to Commissioners' Court.

2. Vendor Registration: SAM (System for Award Management).

Vendors doing business with Jefferson County are **required** to be registered with The System for Award Management (SAM), with an "active" status. The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from the SAM website at: https://www.sam.gov

Bid Respondents are strongly encouraged to review their firm's SAM (System for Award Management) status prior to Bid Submission.

3. Awarded Vendor(s): Submission of FORM 1295 (Texas Ethics Commission)

As of January 1, 2016, per House Bill 1295, the Texas Ethics Commission (TEC) requires **all awarded vendors** to complete a Certificate of Interested Parties (FORM 1295) at time of notification of award. **Awarded Vendors** must visit the TEC website link below, enter the required information on Form 1295, and print a copy of the completed form. The form will include a certification of filing that will contain a unique certification number.

At the time of award, the Jefferson County Purchasing Department will submit a request to the Awarded Vendor to both:

1. Submit FORM 1295 online via the Texas Ethics Commission website link below.

2. Submit a printed copy of FORM 1295, signed by an Authorized Agent of the Awarded Vendor and notarized to the Jefferson County Purchasing Department.

FORM 1295, Completion Instructions, and Login Instructions are available via the Texas Ethics Commission Website at: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

4. Multiple Vendor Award

Jefferson County reserves the right to award this contract to more than one vendor at the County's discretion.

5. Delivery

If delivery is required, all items must be packaged so as to be protected from damage during shipping and handling. Any item(s) damaged in shipping must be replaced in kind, or repaired, by the contractor, at the discretion of, and at no additional charge to, Jefferson County.

6. Payment

Jefferson County will pay original invoices that clearly itemize the goods and/or services provided as to quantity, part number, description, price, applicable discount (if any), labor charges showing time differential, if applicable and if previously agreed to, and delivery, installation, and set-up costs, if applicable and if previously agreed to. Only charges as stated on the Bid Form(s) submitted as a part of the bid will be considered.

Invoices must indicate Jefferson County as applicable, the address to which the product(s) and/or service(s) were delivered, and the applicable purchase order number. Invoices will be matched to delivery tickets prior to payment; therefore, all delivery tickets should have an accurate description of the product(s) and/or service(s).

Invoices shall be submitted to: Jefferson County Auditing Department, Attention: Accounts Payable, 1149 Pearl Street, 7th floor, Beaumont, TX 77701.

7. Usage Reports

Jefferson County reserves the right to request, and receive at no additional cost, up to two (2) times during the contract period, a usage report detailing the products and/or services furnished to date under a contract resulting from this IFB. The reports must be furnished no later than five (5) working days after written request and itemize all purchases to date by Jefferson County department, description of each item purchased, including manufacturer, quantity of each item purchased, per unit and extended price of each item purchased, and total amount and price of all items purchased.

8. Insurance

The contractor (including any and all subcontractors as defined in Section 9.1.3 below) shall, at all times during the term of this contract, maintain insurance coverages with not less than the type and requirements shown below. Such insurance is to be provided at the sole cost of the contractor. These requirements do not establish limits of the contractor's liability.

All policies of insurance shall waive all rights of subrogation against the County, its officers, employees and agents; a copy of the policy wording or endorsement is required.

Contractor shall furnish Jefferson County with Certificate of Insurance naming Jefferson County as additional insured and will provide the actual policy wording or endorsement showing as such.

All insurance must be written by an insurer licensed to conduct business in the State of Texas.

Minimum Insurance Requirements

Public Liability, including Products & Completed Operations	$1,000,000
Excess Liability	$1,000,000
Property Insurance (policy below that is applicable to this project)**:**	
Improvements & Betterments Policy: Improvements/Remodeling (for Lease Tenants)	
Builder's Risk Policy: Structural Coverage for Construction Projects	
Installation Floater Policy: Improvements/Alterations to Existing Structure	
Workers' Compensation	Statutory Coverage (see attached)

9. Workers' Compensation Insurance

9.1 Definitions:

9.1.1 **Certificate of coverage ("Certificate")** – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement, DWC-81, DWC-82, DWC-83, or DWC-84 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

9.1.2 **Duration of the project** – Includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

9.1.3 **Persons providing services on the project ("subcontractor") in article 406.096** – Includes all persons or entities performing all or part of the services under the contractor

has undertaken to perform on the project, regardless of whether that person contracted directly

with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractor, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" includes, without limitation, providing, hauling or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

9.2 The Contractor shall provide coverage, based on proper reporting of classification code and payroll amounts and filing any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

9.3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract – refer to Section 8 above.

9.4 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

9.5 The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

9.5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

9.5.2 No later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate ends during the duration of the project.

9.6 The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

9.7 The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

9.8 The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

9.9 The Contractor shall contractually require each person with whom it contracts to provide services on a project to:

9.9.1 Provide coverage, based on reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project.

9.9.2 Provide to the Contractor, prior to that person beginning work on the project a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project.

9.9.3 Provide the Contractor, prior to the end of coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

9.9.4 Obtain from each person with whom it contracts, and provide to the Contractor:

9.9.4.1 A certificate of coverage, prior to the other person beginning work on the project; and

9.9.4.2 the coverage period, if the coverage period shown on the current certificate of a new certificate of coverage showing extension of coverage, prior to the end of coverage ends during the duration of the project.

9.9.5 Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter.

9.9.6 Notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

9.9.7 Contractually require each person with whom it contracts to perform as required by paragraphs 9.1. – 9.7., with the certificates of coverage to be provided to the person for whom they are providing services.

9.10 By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the contractor who will provide services of the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

9.11 The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

Minimum Specifications

The following requirements and specifications supersede General Requirements where applicable. Contact Yea-Mei Sauer, Contract Specialist (e-mail: ysauer@co.jefferson.tx.us; phone: 409-835-8593), regarding any questions or comments. Please reference bid number IFB 16-030/YS.

Scope

Jefferson County is seeking proposals for the mowing of unleased "Buy Out Properties" throughout Jefferson County (please see Attachment A for map).

1. The awarded vendor will mow these properties three (3) times annually (March, June, and November) to maintain water drainage. The vendor will contact the precinct foreman prior to each mowing and upon completion.

2. The County desires to retain a contractor with prior experience in mowing and the successful offeror shall be required to submit such evidence of qualifications as deemed necessary.

3. It will be the vendor's responsibility and strongly advised to inspect the properties prior to bid submission for determination of size of the listed properties.

4. The contractor shall provide all labor, equipment, materials, and transportation.

5. Slope mowers are to be used for mowing of ditches and back slopes that cannot be reached by other equipment.

6. Contractor will submit work log detailing properties serviced and dates serviced at time of invoice submission.

7. Additions, deletions or other changes to properties to be mowed will be given to the Contractor with a thirty (30) day notice, verified and approved by written transmittal from Jefferson County.

8. It shall be the vendor's responsibility to rectify any damage to County and individual's property caused by any individual(s) connected with the vendor as well as their own equipment and property.

Property ID Number	Address	Address	City, State	Zip code	Legal Description	Latitude	Longitude
123	227	Lene Ln	Beaumont TX	77705	East half of Lot 7 Tract 4 Block 4 and Lot 8 Tract 7 Block 4 Orange Farms Abst 048855	29.55265	-94.06438
122	241	Lene Ln	Beaumont TX	77705	West half of Lot 7 Tract 4 Block 4 and Lot 8 Tract 7 Block 4 Orange Farms Abst 048855	29.55271	-94.06413
83	438	Hillebrandt Acres	Beaumont TX	77705	Lot 15, Block 5, Hillebrandt Acres Abstract 029250	29.93404	-94.10818
19	445	Bass Rd	Beaumont TX	77705	Lot 27 Hillebrandt Heights Unrec .68 Abst 029300	29.92107	-94.09465
16	469	Bass Rd	Beaumont TX	77705	Hillebrandt 26 Heights Unrec .68 Abstract 029300	29.92058	-94.09444
82	492	Lene Ln	Beaumont TX	77705	Lot 1 Block 2 Tract 5 and Lot 2 Block 2 Tract 8 Orange Farms 1.89 Abstract 048855	29.92142	-94.11057

79	1068	Hillebrandt Acres	Beaumont TX	77705	Hillebrandt Acres, Lot 3, Block 2, Abstract 029250	29.93232	-94.11608
147	1291	Hillebrandt	Beaumont TX	77705	Lot 38, Block 1, Hillebrandt Acres Abstract 26 Tract 119 M Grange Abstract 029250	29.93041	-94.11799
104	1420	Hillebrandt Acres	Beaumont TX	77705	Hillebrandt Acres Lot 15 Block 2 Tract 20, .2661 Ac, Abstract 029250	29.93029	-94.118
126	3481	Ballard Rd	Beaumont TX	77705	Tracts 44, 58, 34 and 43 49 WM Smith 0.58 Loc off of Labelle Rd. Abstract 300049	29.87914	-94.16073
148	3534	Ballard Rd	Beaumont TX	77705	Tr 42 49 Wm Smith .22 Abstract 300049 Lot 42	29.87948	-94.16147
80	3577	Doucet	Beaumont TX	77705	Tracts 74 & 75, 49 Wm Smith .59 Abstract 300049 Lot 74,75	29.87802	-94.16027
95	10140	Baltimore	Beaumont TX	77705	Hillebrandt Acres Lot 8 Block 4 Abstract 029250	29.93415	-94.11255
78	10234	Baltimore	Beaumont TX	77705	Hillebrandt Acres Lots 11-13, Block 4 Abstract 029250	29.93348	-94.11378
72	10249	Barton Rd	Beaumont TX	77705	Hillebrandt Acres Lot 4, Block 4 Abstract 029250	29.93352	-94.11487
13	11037	Hickory Ln	Beaumont TX	77705	9 2 Country Road Est Sect 2 Abstract 014853	29.92063	-94.0961
12	11087	Hickory Ln	Beaumont TX	77705	6& 2 7 2 All & Tr 1 S1/2 Of 8 2 Country Road Est Sec 2* Abstract 014853	29.91987	-94.09611
48	11111	Oak Ln	Beaumont TX	77705	6 7 3 Country Road Est Sect 3 Abstract 014861	29.91962	-94.0948
33	11124	Oak Ln	Beaumont TX	77705	16 2 Country Road Est Sect 2 Abstract 014853	29.91927	-94.09518
62	11126	Hickory Ln	Beaumont TX	77705	Lot 12, Block 4 Country Road Estates Section 1 Abstract 014852	29.91915	-94.09638
57	11134	Kenner Rd	Beaumont TX	77705	Hillebrandt 14 Heights Unrec 3 Abstract 029300	29.91965	-94.09236
28	11158	Hickory Ln	Beaumont TX	77705	Lt 20 Blk 1 Country Road Est Sec2 Abstract 014853	29.91888	-94.09638
27	11174	Hickory Ln	Beaumont TX	77705	19 1 Country Road Est Sect 2	29.91852	-94.09634
35	11180	Country Lane Rd	Beaumont TX	77705	18 3 Country Road Est Sect 3 * Abstract 014861	29.91845	-94.09405
34	11189	Oak Ln	Beaumont TX	77705	3 3 Country Road Est Sect 3 Abstract 014861	29.91853	-94.09476
44	11189	Country Lane Rd	Beaumont TX	77705	17 4 Country Road Est Sect 3 Abstract 014861	29.9184	-94.09353
29	11200	Oak Ln	Beaumont TX	77705	2 2 All 18 2 Tr 2 & All Of 19 2 Country Road Est Sect 2 Abstract 014853	29.91824	-94.09513
59	11210	Country Lane Rd	Beaumont TX	77705	Lot 19, Block 3, Country Road Est Sect 3 Abstract 014861	29.91829	-94.09393
42	11223	Oak Ln	Beaumont TX	77705	1 3 Country Road Est Sect 1 Abstract 014852	29.91788	-94.09476

22	11224	Oak Ln	Beaumon, TX	77705	20 2 Country Road Est Sect 2 Abstract 014853	29.91789	-94.09526
53	11232	Country Lane Rd	Beaumont TX	77705	20 3 Country Road Est Sect 1 Abstract 014852	29.91761	-94.09409
43	11265	Sweetgum Ln	Beaumont TX	77705	1 2 Country Road Est Sect 2 Abstract 014853	29.91804	-94.09477
37	11309	Country Lane Rd	Beaumont TX	77705	7 5 Country Road Est Sect 1 Abstract 014852	29.91692	-94.09401
55	11345	Country Lane Rd	Beaumont TX	77705	6 5 Country Road Est Sect 1 Abstract 014852	29.91659	-94.09393
38	11346	Country Lane Rd	Beaumont TX	77705	8 1 Country Road Est Sect 1 Abstract 014852	29.91651	-94.09444
110	11369	Country Lane Rd	Beaumont TX	77705	Lot 5, Block 5 Country Road Estates Section 1 Abstract 014852	29.91669	-94.09578
14	11394	Country Lane Rd	Beaumont TX	77705	Lts 5 1 Tr 2 Lts 6 1 & S 1/2 Lt 7 1 Tr1 Country Road Est Sect 1 Abstract 014852	29.91628	-94.0961
50	11506	Sweetgum Ln	Beaumont TX	77705	8 5 Country Road Est Sect 1 Abstract 014852	29.91672	-94.09493
138	11524	Davidson Rd	Beaumont TX	77705	Lot 3, Block 14, Tract 10 0.666 Acres Orange Farms Abst 048855	29.91606	-94.08812
149	12125	Burr Lane	Beaumont TX	77701	44 Tr 3 (Part) And (Part) Of 45 C O Ellstrom 1.000 Abstract 019250	29.9333	-94.1132
93	15106	Labelle	Beaumont TX	77705	Lot 32, 102 Wm Carr .950 Abstract 300102	29.87782	-94.15935
136	17363	Boondocks	Beaumont TX	77705	Tract 34 4.808 Acres 747 J W Denny (Out To Boondocks Rd)	29.86798	-94.22271
151	17859	Azalea Dr.	Beaumont TX	77705	Lots 27 and 28, Block 6, Green Thumb Estates Section 1	29.82694	-94.22387
141	17886	Azalea Dr	Beaumont TX	77705	Lot 59, Block 8 Green Thumb Estates 1 Abstract 024900	29.8263	-94.22453
81	18084	Azalea Dr	Beaumont TX	77705	Lots 45 & 46, Block 4 Green Thumb Estates Section 1 Abstract 024900	29.82363	-94.22463
134	20615	Highway 73	Hamshire TX	77622	Tract 49 53 B A Vacocu 2.000 Abstract 300053 Lot 49	29.82511	-94.23454
85b	8629 B	Hillebrandt Rd	Beaumont TX	77705	3.68 Acres out of Tract 1, Orange Farms Abstract 048855,	29.92352	-94.11226

Bidder Information Form

Instructions: Complete the form below. Please provide legible, accurate, and complete contact information. PLEASE PRINT.

Bid Name & Number: IFB 16-030/YS, Term Contract for Mowing for Jefferson County

Bidder's Company/Business Name: _____

Bidder's TAX ID Number: _____

Contact Person: _____ **Title:** _____

Phone Number (with area code): _____

Alternate Phone Number if available (with area code):_____

Fax Number (with area code):_____

Email Address: _____

Mailing Address (Please provide a physical address for bid bond return, if applicable):

Address

City, State, Zip Code

OFFER AND ACCEPTANCE FORM

OFFER TO CONTRACT

To Jefferson County:

We hereby offer and agree to furnish the materials or service in compliance with all terms, conditions, specifications, and amendments in the Invitation for Bid and any written exceptions in the offer. We understand that the items in this Invitation for Bid, including, but not limited to, all required certificates are fully incorporated herein as a material and necessary part of the contract.

The undersigned hereby states, under penalty of perjury, that all information provided is true, accurate, and complete, and states that he/she has the authority to submit this bid, which will result in a binding contract if accepted by Jefferson County.

We acknowledge receipt of the following amendment(s): _____, _____, _____, _____.

I certify, under penalty of perjury, that I have the legal authorization to bind the firm hereunder:

_____
Company Name

_____
Address

_____
City State Zip

_____
Signature of Person Authorized to Sign

_____
Printed Name

_____
Title

For clarification of this offer, contact:

_____
Name

_____
Phone Fax

_____
E-mail

Bidder Shall Return Completed Form with Offer.

Acceptance of Offer

The Offer is hereby accepted for the following items: Mowing for Jefferson County Contract Term: One (1) year from date of award with an option to renew for four (4) additional years.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the Invitation for Bid, including all terms, conditions, specifications, amendments, etc., and the Contractor's Offer as accepted by Jefferson County.

This contract shall henceforth be referred to as Contract No. 16-030/YS, Term Contract for Mowing for Jefferson County. The Contractor has not been authorized to commence any billable work or to provide any material or service under this contract until Contractor receives a purchase order and/or a notice to proceed from the Jefferson County Purchasing Agent.

Countersigned:

Jeff R. Branick
County Judge

Date

Attest:

Carolyn L. Guidry
County Clerk

<u>Bidder Shall Return Completed Form with Offer.</u>

Bid Form

Total amount of bid $_____/annually

List of equipment to be used:

Company Name: _____

Company Address: _____

City, State, Zip Code: _____

Telephone Number(s):_____

Fax Number(s):_____

Email: _____

Acknowledgment of Addenda (if any):

Addendum 1 _____ Date Received_____

Addendum 2 _____ Date Received_____

Addendum 3 _____ Date Received_____

Bidder Shall Return Completed Form with Offer.

Vendor References

Please list at least three (3) companies or governmental agencies (preferably a municipality) where the same or similar products and/or services as contained in this specification package were recently provided.

THIS FORM MUST BE RETURNED WITH YOUR BID.

REFERENCE ONE

Government/Company Name: _____

Address: _____

Contact Person and Title: _____

Phone: _____ Fax: _____

Contract Period: _____ Scope of Work: _____

REFERENCE TWO

Government/Company Name: _____

Address: _____

Contact Person and Title: _____

Phone: _____ Fax: _____

Contract Period: _____ Scope of Work: _____

REFERENCE THREE

Government/Company Name: _____

Address: _____

Contact Person and Title: _____

Phone: _____ Fax: _____

Contract Period: _____ Scope of Work: _____

Bidder Shall Return Completed Form with Offer.

Signature Page

As permitted under Article 4413 (32c) V.A.C.S., other governmental entities may wish to participate under the same terms and conditions contained in this contract (i.e., piggyback). In the event any other entity participates, all purchase orders will be issued directly from and shipped directly to the entity requiring supplies/services. Jefferson County shall not be held responsible for any orders placed, deliveries made or payment for supplies/services ordered by another entity. Each entity reserves the right to determine their participation in this contract.

Would bidder be willing to allow other governmental entities to piggyback off this contract, if awarded, under the same terms and conditions? ..... **Yes** ☐ **No** ☐

This bid shall remain in effect for ninety (90) days from bid opening and shall be exclusive of federal excise and state and local sales tax (exempt).

The undersigned agrees, if this bid is accepted, to furnish any and all items upon which prices are offered, at the price and upon the terms and conditions contained in the Invitation for Bid, Conditions of Bidding, Terms of Contract, and Specifications and all other items made a part of the accepted contract.

The undersigned affirms that they are duly authorized to execute the contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other bidder, and that the contents of this bid as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other bidder or to any other person(s) engaged in this type of business prior to the official opening of this bid. And further, that neither the bidder nor their employees nor agents have been for the past six (6) months directly nor indirectly concerned in any pool or agreement or combination to control the price of goods or services on, nor to influence any person to bid or not to bid thereon.

Bidder (Entity Name)	Signature
Street & Mailing Address	Print Name
City, State & Zip	Date Signed
Telephone Number	Fax Number
E-mail Address	

Bidder Shall Return Completed Form with Offer.

Conflict of Interest Questionnaire

CONFLICT OF INTEREST QUESTIONNAIRE — FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.**

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information in this section is being disclosed.**

_____
Name of Officer

This section (item 3 including subparts A, B, C, & D) must be completed for each officer with whom the vendor has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more?

☐ Yes ☐ No

D. Describe each employment or business and family relationship with the local government officer named in this section.

4

_____ _____
Signature of vendor doing business with the governmental entity Date

Adopted 8/7/2015

Bidder Shall Return Completed Form with Offer.

Local Government Officer
Conflicts Disclosure Statement - OFFICE USE ONLY

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT

FORM CIS

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This is the notice to the appropriate local governmental entity that the following local government officer has become aware of facts that require the officer to file this statement in accordance with Chapter 176, Local Government Code.

OFFICE USE ONLY

Date Received

1 **Name of Local Government Officer**

2 **Office Held**

3 **Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code**

4 **Description of the nature and extent of employment or other business relationship with vendor named in item 3**

5 **List gifts accepted by the local government officer and any family member, if aggregate value of the gifts accepted from vendor named in item 3 exceeds $100 during the 12-month period described by Section 176.003(a)(2)(B).**

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

(attach additional forms as necessary)

6 **AFFIDAVIT**

I swear under penalty of perjury that the above statement is true and correct. I acknowledge that the disclosure applies to each family member (as defined by Section 176.001(2), Local Government Code) of this local government officer. I also acknowledge that this statement covers the 12-month period described by Section 176.003(a)(2)(B), Local Government Code.

_____
Signature of Local Government Officer

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20 _____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

Adopted 8/7/2015

Good Faith Effort (GFE) Determination Checklist

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

Instructions: In order to determine if a "Good Faith Effort" was made in soliciting HUBs for subcontracting opportunities, the following checklist and supporting documentation shall be completed by the Prime Contractor/Consultant, and returned with the Prime Contractor/ Consultant's bid. This list contains the **minimum** efforts that should be put forth by the Prime Contractor/Consultant when attempting to achieve or exceed the goals of HUB Subcontractor participation. The Prime Contractor/Consultant may extend his/her efforts in soliciting HUB Subcontractor participation beyond what is listed below.

Did the Prime Contractor/Consultant . . .

☐ Yes ☐ No 1. To the extent practical, and consistent with standard and prudent industry standards, divide the contract work into the smallest feasible portions, to allow for maximum HUB Subcontractor participation?

☐ Yes ☐ No 2. **Notify** in writing a reasonable number of HUBs, allowing sufficient time for effective participation of the planned work to be subcontracted?

☐ Yes ☐ No 3. **Provide** HUBs that were genuinely interested in bidding on a subcontractor, adequate information regarding the project (i.e., plans, specifications, scope of work, bonding and insurance requirements, and a point of contract within the Prime Contractor/Consultant's organization)?

☐ Yes ☐ No 4. **Negotiate** in good faith with interested HUBs, and not reject bids from HUBs that qualify as lowest and responsive bidders?

☐ Yes ☐ No 5. **Document** reasons HUBs were rejected? Was a written rejection notice, including the reason for rejection, provided to the rejected HUBs?

☐ Yes ☐ No 6. If Prime Contractor/Consultant has zero (0) HUB participation, **please explain the reasons why.**

If "No" was selected, please explain and include any pertinent documentation with your bid.
If necessary, please use a separate sheet to answer the above questions.

Printed Name of Authorized Representative	Signature
Title	Date

Bidder Shall Return Completed Form with Offer.

Notice of Intent (NOI) to Subcontract with Historically Underutilized Business (HUB)

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

Instructions for Prime Contractor/Consultant: Bidder shall submit this form with the bid; however, the information below may be submitted after contract award, but prior to beginning performance on the contract. Please submit one form for each HUB Subcontractor/Subconsultant with proper signatures, per the terms and conditions of your contract.

Contractor Name: _____ HUB: p Yes p No

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____

Prime Contract Amount: $ _____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Printed Name of Contractor Representative	Signature of Representative	Date
Printed Name of HUB	Signature of Representative	Date

NOTE: NOTHING ON THIS NOTICE OF INTENT FORM IS INTENDED TO CONFER ANY RIGHTS, EXPRESSED OR IMPLIED, TO ANY THIRD PARTIES.

Pre-Approval for Subcontractor Substitutions must be obtained from the Jefferson County Purchasing Agent's Representative. The "HUB Subcontractor/Subconsultant Change Form" must be completed and faxed to 409-835-8456.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

PAGE 1 OF 4

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

Prime Contractor: _____ HUB: ☐ Yes ☐ No

HUB Status (Gender & Ethnicity): _____

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____ IFB/RFP No.: _____

Total Contract: $ _____ Total HUB Subcontract(s): $ _____

Construction HUB Goals: 12.8% MBE:: _____ % 12.6% WBE: _____ %

Sub-goals: 1.7 African-American, 9.7% Hispanic, 0.7% Native American, 0.8% Asian American.
Use these goals as a guide to diversify.

FOR HUB OFFICE USE ONLY:

Verification date HUB Program Office reviewed and verified HUB Sub information Date: _____ Initials: _____

PART I. HUB SUCONTRACTOR DISCLOSURE

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Texas Bldg & Procurement Comm. ☐ Texas Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

HUB SUBCONTRACTOR DISCLOSURE

PART I: Continuation Sheet **(Duplicate as Needed)**

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

All HUB Subcontractor Participation may be verified with the HUB Subcontractor(s) listed on Part I.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

PART II: STATEMENT OF NON-COMPLIANCE FOR NOT MEETING HUB SUBCONTRACTING GOALS

Please complete Good Faith Effort (GFE) Checklist and attach any supporting documentation.

Our firm was unable to meet the HUB goals for this project for the following reasons:

- ☐ All subcontractors to be utilized are "Non-HUBs." *(Complete Part III)*
- ☐ HUBs were solicited but did not respond.
- ☐ HUBs solicited were not competitive.
- ☐ HUBs were unavailable for the following trade(s):
- ☐ Other: _____

Was the Jefferson County HUB Office contacted for assistance in locating HUBs? ☐ Yes ☐ No

PART III: DISCLOSURE OF OTHER "NON-HUB" SUBCONTRACTS

The bidder shall use this area to provide a listing of all "Non-HUB" Subcontractors, including suppliers, that will perform under this project. A list of those "Non-HUB" Subcontractors the bidder selects, after bid submission, shall be provided to the Purchasing Office not later than five (5) calendar days after being notified that bidder is the apparent low bidder. A list of those "Non-HUB" Subcontractors that are selected after contract award must be provided **immediately** after their selection.

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

PAGE 4 OF 4

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

I hereby certify that I have read the *HUB Program Instructions and Information*, truthfully completed all applicable parts of this form, and **attached any necessary support documentation as required**. I fully understand that intentionally falsifying information on this document may result in my not receiving a contract award or termination of any resulting contract.

Name (print or type): _____

Title: _____

Signature: _____

Date: _____

E-mail address: _____

Contact person that will be in charge of invoicing for this project:

Name (print or type): _____

Title: _____

Date: _____

E-mail address: _____

Bidder Shall Return Completed Form with Offer.

Residence Certification/Tax Form

Pursuant to Texas Government Code §2252.001 *et seq*., as amended, Jefferson County requests Resident Certification. §2252.001 *et seq*. of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

☐ I certify that _____ [company name] is a Resident Bidder of Texas as defined in Government Code §2252.001.

☐ I certify that _____ [company name] is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is _____ _____ (city and state).

Taxpayer Identification Number (T.I.N.):	
Company Name submitting bid/proposal:	
Mailing address:	
If you are an individual, list the names and addresses of any partnership of which you are a general partner:	

Property: List all taxable property owned by you or above partnerships in Jefferson County.

Jefferson County Tax Acct. No.*	Property address or location**

* This is the property amount identification number assigned by the Jefferson County Appraisal District.

** For real property, specify the property address or legal description. For business property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored as a warehouse or other location.

Bidder Shall Return Completed Form with Offer.

Bid Affidavit

The undersigned certifies that the bid prices contained in this bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all commodities upon which prices are extended at the price offered, and upon the conditions contained in the specifications and the Notice to Bidders.

STATE OF_____ COUNTY OF_____

BEFORE ME, the undersigned authority, a Notary Public in and for the State of _____,

on this day personally appeared _____, who
(name)
after being by me duly sworn, did depose and say:

"I, _____ am a duly authorized officer of/agent
(name)
for _____ and have been duly authorized to execute the
(name of firm)
foregoing on behalf of the said_____.
(name of firm)

I hereby certify that the foregoing bid has not been prepared in collusion with any other bidder or other person or persons engaged in the same line of business prior to the official opening of this bid. Further, I certify that the bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities bid on, or to influence any person or persons to bid or not to bid thereon."

Name and address of bidder:_____

_____

Fax: _____ Telephone#_____

by: _____ Title:_____
(print name)

Signature:_____

SUBSCRIBED AND SWORN to before me by the above-named
_____ on

this the _____ day of_____, 2016.

_____
Notary Public in and for
the State of _____

Bidder Shall Return Completed Form with Offer.



Ike Buy Out
Unleased Property as of 2016 09 20

Boondocks Road


1 inch = 300 feet
BURR
149
SATTLER
Ike Buy Out
Unleased Property as of 2016 09 20
Burr Lane


1 inch = 300 feet
13
13
13
12
62
28
27
33
48
34
34
35
34
59
42
53
29
43
22
44
19
16
57
BASS
HICKORY
OAK
COUNTRY LANE
37
55
110
50
38
14
SWEET GUM
KENNER
138
DAVIDSON
COUNTRY LANE
HOLLY
FM 365
Ike Buy Out
Unleased Property as of 2016 09 20
Country Road Estates


1 inch = 300 feet
HWY 73
BOONDOCKS
HOLLY
MAGNOLIA
AZALEA
CAMELLIA
ORCHID
OLEANDER
151
141
81
Ike Buy Out
Unleased Property as of 2016 09 20
Green Acres



Ike Buy Out
Unleased Property as of 2016 09 20

Hillebrandt Acres


1 inch = 300 feet
82
123
LENE
HILLEBRANDT
CASEY
BERRY
Ike Buy Out
Unleased Property as of 2016 09 20
Hillebrandt Road

1 inch = 300 feet

HWY 73

134

WILBER

WEBB

Ike Buy Out
Unleased Property as of 2016 09 20

HWY 73


1 inch = 300 feet
148
BALLARD
126
126
126
CLEN
DOUCET
80
93
LABELLE
BURRELL
PINETREE
EAGLESON
EAGLESON
BURRELL CEMETARY
Ike Buy Out
Unleased Property as of 2016 09 20
LaBelle Road

Attachment A

IFB 16-019/YS
Term Contract for Sheriff's Department (Jefferson County)
Law Enforcement Equipment and Uniforms
Awarded August 22, 2016
Revised 10/26/2016

Item	Description	Vendor	Price Ea.
1	Male Prestige Advance Trouser (Elbeco E494RN)	~~Texas Code Blue~~ GT Distributors	~~68.00~~ 68.59
2	Male Prestige Advance LS Shirt (Elbeco 840N)	Galls, LLC	57.00
3	Male Prestige Advance SS Shirt (Elbeco 8440N)	Galls, LLC	52.00
4.	Female Prestige Advance LS Shirt (Elbeco 9340LCN)	Galls, LLC	57.00
5.	Female Prestige Advance SS Shirt (Elbeco 9840LCN)	Galls, LLC	52.00
6.	Female Prestige Advance Trouser (Elbeco 9494LCN)	~~Texas Code Blue~~ GT Distributors	~~68.00~~ 68.29
7.	Elbeco Tex-Trop w/ zip – F – LS (Elbeco 9314LCN)	Galls, LLC	36.50
8.	Elbeco Tex-Trop w/ zip – F – SS (Elbeco Z9814LCN)	Galls, LLC	33.50
9.	Elbeco Tex-Trop w/ zip – M – LS (Elbeco Z314N)	Galls,LLC	36.50
10.	Elbeco Tex-Trop w/ zip – M – SS (Elbeco Z3314N)	Galls, LLC	33.50
11.	Male Tex-Trop Trouser (Elbeco E314RN)	Galls, LLC	41.95
12.	Elbeco Tex-Trop – F – LS (Elbeco 9314LCN)	Galls, LLC	34.00
13.	Elbeco Tex-Trop – F – SS (Elbeco 9814LCN)	Galls, LLC	31.00
14.	Elbeco Tex-Trop – M – LS (Elbeco 314N)	Galls, LLC	34.00
15.	Elbeco Tex-Trop – M – SS (Elbeco 3314N)	Galls, LLC	31.00
16.	Female Tex-Trop Trouser (Elbeco E9314LC)	Galls, LLC	41.95
17.	Jacket (Elbeco 3800)	No bid	
18.	Polo Shirt (Cornerstone CS410)	Galls, LLC	30.95
19.	Horace Small Sentry Windbreaker (Liberty 560MBK)	Galls, LLC	19.90
20.	Name Badge (Blackinton J2)	GT Distributors Galls, LLC	10.95
21.	Raincoat (Neese Industries #447RSC3M))	GT Distributors	63.48
22.	Belt (Safariland 87)	GT Distributors	48.25 Additional cost for size 46 & up
23.	Belt (Safariland 99)	GT Distributors	25.15 Additional cost for size

Attachment A

			46 & up
24.	Belt (5.11 TACTICAL 59501 – Burgoon Company, ~~Perfect Fit PF-5000 – Texas Code Blue~~)	Burgoon Company ~~Texas Code Blue~~	30.00
25.	Cuff Case (Safariland SAF-190-2B)	GT Distributors	24.13
26.	Cuff Case (Safariland SAF-090-1-16)	GT Distributors	18.71
27.	Baton Holder (G&G B560)	10-32 Supply	15.00
28.	Holster Level III (Safariland 6360)	Burgoon Company	139.00
29.	Holster Level III (Safariland SAF-070-83-161))	GT Distributors	131.87
30.	Double Magazine Holder (Safariland SAF-77-83-2PBL)	GT Distributors	26.48
31.	Double Magazine Holder (Safariland SAF-75-83-2)	GT Distributors	20.47
32.	OC Spray Holder (Safariland SAF-38-4-2B)	GT Distributors	20.47
33.	Belt Keepers (Safariland SAF-63-2B)	GT Distributors	4.54
34.	S.O. Lapel Pin (Blackinton BL-J110)	GT Distributors	4.72
35.	Traffic Vest (Vizguard S912)	Galls, LLC	36.01
36.	Handcuffs, Nickel (Peerless M901P)	ICS Jail Supplies, Inc.	19.50
37.	Red Cone Stinger (STL-75903)	GT Distributors	3.76
38.	Red Cone SL20 (STL-22511)	GT Distributors	4.29
39.	Stinger Flashlight (Streamlight 75014)	Burgoon Company	110.00
40.	Stinger Flashlight Battery (STL-75175)	GT Distributors	12.70
41.	Stinger Flashlight Bulb (STL-75914)	GT Distributors	5.52
42.	Stinger Flashlight Lens Kit (Streamlight 75956)	Burgoon Company	26.20
43.	Stinger DS LED – aluminum (STL-75866)	GT Distributors	87.24
44.	Stinger DS LED – polymer (STL-76113	GT Distributors	91.84
45.	SC20XP LED Flashlight – alum. (Streamlight 25103)	Burgoon Company	94.57
46.	SC20XP LED Flashlight – nylon (STL-25103)	GT Distributors	87.17
47.	Maglite Flashlight (Maglite RL 1019)	Galls, LLC	98.00
48.	Maglite Flashlight Battery (Maglite ARX235)	Galls, LLC	29.05
49.	Maglite Flashlight Bulb (Maglite LR00001)	Galls, LLC	5.00
50.	ASP Baton, Black (ASP-52611)	GT Distributors	76.67
51.	Kevlar Gloves ~~(Strong Suit Enforcer)~~ (DAM-DMZ33-B)	~~Texas Code Blue~~ GT Distributors	32.00
52.	Leg Irons, Standard (Peerless M902)	ICS Jail Supplies, Inc.	33.75
53.	Molded One-Piece Seat Org. (GT-BR-017)	GT Distributors	30.65

Attachment A

54.	Additional Items (% off)	~~Texas Code Blue~~ GT Distributors	~~28%~~ 15% GT Catalog or website
55.	Ballistic Vests (% off) (Point Black Alpha Elite 3A)	Galls, LLC	45%

Vendor shall comply with 15-day delivery whenever possible and shall notify the department in the event that the order will take longer.

10-32 Supply
1048 Neches Street
Beaumont TX 77701
Attn: Bobby F. Goza
Phone: 409-832-4475
Fax: 409-832-4481
bfg1032@hotmail.com

Burgoon Company
2727 Broadway
Galveston TX 77550
Attn: Donna Hanson
Phone: 800-287-4666
Fax: 800-724-0267
dhanson@burgooncompany.com

GT Distributors, Inc.
2545 Brockton Drive, Suite 100
Austin TX 78758
Attn: Jamy Copeland
Phone: 800-252-8310
Fax: 800-480-5845
txbids@gtdist.com

Galls, LLC
1340 Russell Cave Road
Lexington KY 40505
Attn: Rob Hauswald
Phone: 800-876-4242
Fax: 859-266-7227
hauswald-rob@galls.com

ICS Jail Supplies, Inc.
PO Box 21056
Waco TX 76702
Attn: Maegan Eisenman
Phone: 254-751-1566
Fax: 254-751-0299
bids@icswaco.com

Attachment B

IFB 16-020/YS
Term Contract for Correctional Facility Law Enforcement Equipment and Uniforms
Awarded August 29, 2016
Revised 10/26/2016

Item	Description	Vendor	Price Ea.
1	Elbeco Tex-Trop w/ zip – F – LS (Blauer 8600W-Z)	Red the Uniform Tailor	42.89
2	Elbeco Tex-Trop w/ zip – F – SS (Blauer 8610W-Z)	Red the Uniform Tailor	39.11
3	Elbeco Tex-Trop w/ zip – M – LS (Blauer 8600-Z)	Red the Uniform Tailor	42.89 (size 14-19.5) 54.85 (size 20)
4	Elbeco Tex-Trop w/ zip – M – SS (Blauer 8610-Z)	Red the Uniform Tailor	39.11 (size 14-19.5) 49.99 (size 20.5) 66.23 (size 21.5)
5	Male Tex-Trop Trouser ~~(Elbeco E314)~~ (Blauer 8650)	~~Texas Code Blue~~ Red the Uniform Tailor	~~46.00~~ 51.27
6	Elbeco Tex-Trop – F – LS (Blauer 8600W-Z)	Red the Uniform Tailor	42.89
7	Elbeco Tex-Trop – F – SS (Blauer 8610W-Z)	Red the Uniform Tailor	39.11
8	Elbeco Tex-Trop – M – LS (Blauer 8600-Z)	Red the Uniform Tailor	42.89 (size 14-19.5) 54.85 (size 20.5)
9	Elbeco Tex-Trop – M – SS (Blauer 8610-Z)	Red the Uniform Tailor	39.11 (size 14-19.5) 49.99 (size 20.5) 66.23 (size 21.5)
10	Female Tex-Trop Trouser ~~(Elbeco E9314LC w/strap)~~ (Blauer 8650)	~~Texas Code Blue~~ Red the Uniform Tailor	~~48.00~~ 51.27
11	Duty Jacket (Blauer 6045)	Red the Uniform Tailor	97.77 (size XS-3X) 126.43 (size 4X)

Attachment B

12	Coach's Windbreaker ~~(Dutyman J31)~~ (DunBrooke 8430)	~~Texas Code Blue~~ Red the Uniform Tailor	~~48.00~~ 18.37 size XS-XL 21.43 size 2X 22.99 size 3X 24.47 size 4X 27.59 size 5X
13	Raincoat w/ emblem ~~(Neese Industries #447RCH3M)~~ (Blauer 733)	~~Texas Code Blue~~ Red the Uniform Tailor	~~63.00~~ 173.85 size S-3X 217.37 size 4X 282.61 size 5X
14	Raincoat w/o emblem ~~(Neese Industries #447RCH3M)~~ (Blauer 733)	~~Texas Code Blue~~ Red the Uniform Tailor	~~63.00~~ 155.85 size S-3X 199.37 size 4X 264.65 size 5X
15	Polo Shirt (SanMar T474)	Red the Uniform Tailor	29.89 (size XS-XL) 31.41 (size 2X) 34.45 (size 3X) 35.99 (size 4X)
16	Dutyman Garrison Belt (Dutyman 1511)	GT Distributors	13.47 (up to size 44) 17.16 (size 46-60)
17	Kevlar Gloves ~~(Strongsuit/Enforcer)~~ (DAMDMZ33-B)	~~Texas Code Blue~~ GT Distributors	~~32.00~~ 33.58
18	Name Badge (BL-J2)	GT Distributors	8.87
19	Cuff Case (SAF-190-41B)	GT Distributors	21.64
20	Handcuffs, Nickel (PE-4710)	GT Distributors	18.98
21	Handcuffs, color-plated (PE-4712X)	GT Distributors	20.91
22	Leg irons, standard ~~(Smith & Wesson 1900)~~ (SW-350121)	~~Texas Code Blue~~ GT Distributors	~~35.00~~ 37.05
23	One-man restraint chain (PE-PSC60)	GT Distributors	14.55

Attachment B

24	LawPro Centurion Duty Jacket (~~Dutyman Jacket J21)~~ (Blauer 6120)	~~Texas Code Blue~~ Red the Uniform Tailor	~~67.00~~ 126.99 size XS-3X 165.05 size 4X 222.29 size 5X
25	Additional percent off other items	Red the Uniform Tailor	Blauer MSRP 15% Dutyman MSRP 23% Peerless MSRP 22.5% Safariland MSRP 28.5% SanMar MSRP 18%

Vendor shall comply with 15-day delivery whenever possible and shall notify the department in the event that the order will take longer.

GT Distributors, Inc.
2545 Brockton Drive, Suite 100
Austin TX 78758
Attn: David Curtis
Phone: 800-252-8310
Fax: 800-480-5845
txbids@gtdist.com

Red the Uniform Tailor
71 Esplanade Boulevard, Suite 200
Houston TX 77060
Attn: Jeff Mitchell
Phone: 281-931-0006
Fax: 281-931-0026
jeff.mitchell@rtut.com

JACK BROOKS REGIONAL AIRPORT
TAXIWAY D RECONSTRUCTION (2016)
(TAXIWAY 'H' TO TAXIWAY 'F')
AIP NO. 3-48-0018-032-2016

JEFFERSON COUNTY COMMISSIONERS COURT
JEFFERSON COUNTY, TEXAS
Jefferson County Project 16-022/JW

ISSUED FOR CONSTRUCTION

Garver Project Number 16121501

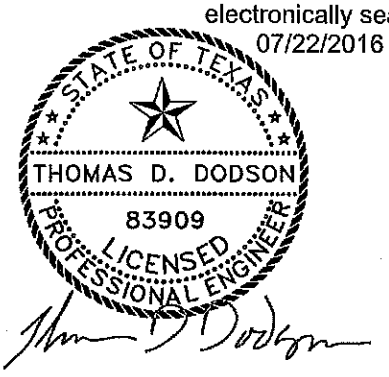
July 2016

JACK BROOKS REGIONAL AIRPORT
TAXIWAY D RECONSTRUCTION (2016)
(TAXIWAY 'H' TO TAXIWAY 'F')
AIP NO. 3-48-0018-032-2016

JEFFERSON COUNTY COMMISSIONERS COURT
JEFFERSON COUNTY, TEXAS
Jefferson County Project 16-022/JW

ISSUED FOR CONSTRUCTION

electronically sealed
07/22/2016



GARVER

TEXAS REGISTERED ENGINEERING FIRM F-5713

Garver Project Number 16121501

July 2016

TABLE OF CONTENTS

A. ADVERTISEMENT AND INVITATION TO BID

B. INSTRUCTIONS TO BIDDERS

C. PROPOSAL

D. STATEMENT OF BIDDER'S QUALIFICATIONS

E. DBE PARTICIPATION AND RESIDENCE CERTIFICATION REPORTING

F. BID SURETY

G. CONTRACT

H. NOTICE OF AWARD
NOTICE TO PROCEED

I. PERFORMANCE BOND
PAYMENT BOND
CERTIFICATE OF INSURANCE

J. GENERAL PROVISIONS (FAA AC 150/5370-10G)
- Section 10 Definitions of Terms
- Section 20 Proposal Requirements and Conditions
- Section 30 Award and Execution of Contract
- Section 40 Scope of Work
- Section 50 Control of Work
- Section 60 Control of Materials
- Section 70 Legal Regulations and Responsibility to Public
- Section 80 Prosecution and Progress
- Section 90 Measurement and Payment
- Section 100 Contractor Quality Control Program
- Section 105 Mobilization
- Section 110 Method of Estimating Percentage of Material within Specification Limits

K. SPECIAL PROVISIONS

L. ADDENDA

M. WAGE RATES

N. CHANGE ORDER FORM

O. TECHNICAL SPECIFICATIONS
Item SS-100 Construction Safety and Phasing Plan (CSPP)

Item SS-101	Contractor Safety Plan Compliance Document
Item SS-110	Standard Specifications
Item SS-120	Site Preparation
Item SS-300	Basic Electrical Requirements
Item SS-301	Electrical Demolition and Relocation Work
Item SS-310	Airport Lighting Systems
P-101	Surface Preparation
P-152	Excavation and Embankment
P-154	Subbase Course
P-155	Lime-Treated Subgrade
P-156	Temporary Air Water Pollution Soil Erosion and Siltation Control
P-501	Portland Cement Concrete Pavement
P-605	Joint Sealing Filler
P-610	Structural Portland Cement Concrete
P-620	Runway and Taxiway Painting
D-701	Pipe for Storm Drains and Culverts
D-751	Manholes, Catch Basins, and Inspection Holes
D-752	Concrete Culverts, Headwalls, and Miscellaneous Drainage Structures
T-901	Seeding
T-904	Sodding
T-905	Topsoiling
L-101	Airport Rotating Beacons
L-108	Underground Power Cable for Airports
L-110	Airport Underground Electrical Duct Banks and Conduits

SECTION A
ADVERTISEMENT AND INVITATION TO BID

JEFFERSON COUNTY PURCHASING DEPARTMENT

Deborah L. Clark, Purchasing Agent

1149 Pearl Street, 1st Floor, Beaumont, TX 77701 409-835-8593 Fax 409-835-8456

LEGAL NOTICE
Advertisement for Invitation for Bids

July 25, 2016

Notice is hereby given that sealed bids will be accepted by the Jefferson County Purchasing Department for IFB 16-022/JW, Taxiway D Reconstruction (2016) at Jack Brooks Regional Airport . **Information for this project may be obtained from the Jefferson County website, http://www.co.jefferson.tx.us/Purchasing/main.htm or by calling 409-835-8593. Specifications, plans, and bidding documents can be obtained from CivCast website at https://www.civcastusa.com. Project ID is BPT_16-022/JW.**

Bids are to be sealed and addressed to the Purchasing Agent with the bid number and name marked on the outside of the envelope or box. Bidders shall forward an original and three (3) copies of their bid to the address shown below. Neither Jefferson County nor CivCast will accept bids submitted electronically. Late bids will be rejected as non-responsive. Bids will be publicly opened and read aloud in the Jefferson County Commissioners' Courtroom at the time and date below. Bidders are invited to attend the sealed bid opening.

BID NAME:	**Taxiway D Reconstruction (2016) at Jack Brooks Regional Airport**
BID NO:	**16-022/JW**
DUE DATE/TIME:	**11:00 AM CDT, Tuesday, August 23, 2016**
MAIL OR DELIVER TO:	**Jefferson County Purchasing Department 1149 Pearl Street, 1st Floor Beaumont, Texas 77701**

There will be a pre-bid conference and walk-through at 10:00 AM CDT on Wednesday, August 10, 2016 in the Airport Administration Conference Room at 5000 Jerry Ware Blvd., Beaumont, Texas 77705. This conference will be bidder's only opportunity to view secured areas of the project.

The County shall require the bidder to furnish a bid security in the amount of five percent (5%) of the total contract cost. The bid bond must be executed with a surety company authorized to do business in the State of Texas. Within ten (10) days after the date of the signing of a contract, the bidder shall furnish a performance bond to the County for the full amount of the contract, if the contract exceeds one hundred thousand dollars ($100,000). If the contract is for one hundred thousand dollars ($100,000) or less, the County may provide that no money be paid to the contractor until completion and acceptance of the work or the fulfillment of the purchase obligation to the County.

Any questions relating to these requirements should be directed to Jamey West, Assistant Purchasing Agent, at 409-835-8593 or jwest@co.jefferson.tx.us

Jefferson County encourages Disadvantaged Business Enterprises to participate in the bidding process. Jefferson County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provisions of services. Individuals requiring special accommodations are requested to contact our office at 409-835-8593 to make arrangements no later than seven (7) calendar days prior to the submittal deadline. Jefferson County reserves the right to accept or reject any or all proposals, to waive technicalities and to take whatever action is in the best interest of Jefferson County.

All interested firms are invited to submit a bid in accordance with the terms and conditions stated in this bid.

Respondents are strongly encouraged to carefully read the entire invitation.

Deborah Clark

Deborah L. Clark, Purchasing Agent
Jefferson County, Texas

Publish: Beaumont Enterprise & Port Arthur News – July 27 and August 3, 2016

SECTION B
INSTRUCTIONS TO BIDDERS

Instructions to Bidders

1. Bid Submission

Bids must be submitted in complete original form by mail or messenger to the following address:

Jefferson County Purchasing Department
1149 Pearl Street, 1st Floor
Beaumont, TX 77701

Bids will be accepted at the above address until the time and date specified herein, and immediately after will be publicly opened and read aloud.

All bids shall be tightly sealed in an opaque envelope or box and plainly marked with the Bid Number, Bid Name, Bid Due Date, and the Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Late bids will not be accepted and will be returned unopened to the bidder.

All bids submitted in response to this invitation shall become the property of Jefferson County and will be a matter of public record available for review.

2. Bid Submissions During Time of Inclement Weather, Disaster, or Emergency

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a bid/proposal/statement of qualifications submission deadline, the bid closing will automatically be postponed until the next business day that County offices are open to the public. Should inclement weather conditions or any other unforeseen event cause delays in courier service operations, the County may issue an addendum to all known vendors interested in the project to extend the deadline. It will be the responsibility of the vendor to notify the county of their interest in the project should these conditions impact their ability to submit a bid/proposal/statement of qualifications submission before the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

Should an emergency or unanticipated event interrupt normal County processes, and bid/proposal/statement of qualifications submissions cannot be received by the Jefferson County Purchasing Department's office by the exact time specified in the IFB and urgent County requirements preclude amendment to the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first business day on which normal County processes resume.

3. Courthouse Security

Bidders are advised that all visitors to the Courthouse must pass through Security. **Bidders planning to hand deliver bids must allow time to get through Security, as a delay in entering the Courthouse will not be accepted as an excuse for late submittal.** Mondays and Tuesdays are particularly heavy days. Bidders are strongly urged to plan accordingly.

4. Preparation of Bids

The bid shall be legibly printed in ink or typed.

If a unit price or extension already entered is to be altered, it shall be crossed out and initialed in ink by the bidder.

The bid shall be legally signed and shall include the complete address of the bidder.

Jefferson County is exempt from Federal and State Sales Taxes, and such taxes shall not be included in bid prices.

5. Signatures

All bids, notifications, claims, and statements must be signed by an individual authorized to bind the bidder. The individual signing certifies, under penalty of perjury, that he or she has the legal authorization to bind the bidder.

6. County Holidays – 2016:

January 1	Friday	New Year's Day
January 18	Monday	Martin Luther King, Jr. Day
February 15	Monday	President's Day
March 25	Friday	Good Friday
May 30	Monday	Memorial Day
July 4	Monday	Independence Day
September 5	Monday	Labor Day
November 11	Friday	Veterans Day
November 24 & 25	Thursday & Friday	Thanksgiving
December 23rd & 26th	Friday & Monday	Christmas

7. Rejection or Withdrawal

Submission of additional terms, conditions or agreements with the bid document are grounds for deeming a bid non-responsive and may result in bid rejection. Jefferson County reserves the right to reject any and all bids and to waive any informalities and minor irregularities or defects in bids. Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the time set for receipt of bids. Bids are an irrevocable offer and may not be withdrawn within 90 days after opening date.

8. Minority-Women Business Enterprise Participation

It is the desire of Jefferson County to increase the participation of Minority (MBE) and women-owned (WBE) businesses in its contracting and procurement programs. While the County does not have any preference or set aside programs in place, it is committed to a policy of equitable participation for these firms.

Special Requirements/Instructions

The following requirements and instructions supersede General Requirements where applicable.

1. Bid Requirement

Each bidder shall ensure that required parts of the bid are completed with accuracy and submitted as per the requirements within this specifications packet, including any addenda.

Bidder is responsible for submitting (1) one original completed copy of this bid specifications packet in its entirety (all pages of this packet), and three (3) copies to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid and any other documentation requested within these specifications.

Vendor shall use an opaque envelope, clearly indicating on the outside the **Bid Number, Bid Description, and marked "SEALED BID"**. Jefferson County shall not be responsible for any effort or cost expended in the preparation of a response to this IFB. All protests should be coordinated through the Purchasing Office prior to award recommendation to Commissioners' Court..

2. Vendor Registration: SAM (System for Award Management).

Vendors doing business with Jefferson County are **required** to be registered with The System for Award Management (SAM), with an "active" status. The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from the SAM website at: https://www.sam.gov

Bid Respondents are strongly encouraged to review their firm's SAM (System for Award Management) status prior to Bid Submission.

3. Awarded Vendor(s): Submission of FORM 1295 (Texas Ethics Commission)

As of January 1, 2016, per House Bill 1295, the Texas Ethics Commission (TEC) requires **all awarded vendors** to complete a Certificate of Interested Parties (FORM 1295) at time of notification of award. **Awarded Vendors** must visit the TEC website link below, enter the required information on Form 1295, and print a copy of the completed form. The form will include a certification of filing that will contain a unique certification number.

At the time of award, the Jefferson County Purchasing Department will submit a request to the Awarded Vendor to both:

1. Submit FORM 1295 online via the Texas Ethics Commission website link below.

2. Submit a printed copy of FORM 1295, signed by an Authorized Agent of the Awarded Vendor and notarized to the Jefferson County Purchasing Department.

FORM 1295, Completion Instructions, and Login Instructions are available via the Texas Ethics Commission Website at: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

6. Payment

Jefferson County will pay original invoices that clearly itemize the goods and/or services provided as to quantity, part number, description, price, applicable discount (if any), labor charges showing time differential, if applicable and if previously agreed to, and delivery, installation, and set-up costs, if applicable and if previously agreed to. Only charges as stated on the Bid Form(s) submitted as a part of the bid will be considered.

Invoices must indicate Jefferson County as applicable, the address to which the product(s) and/or service(s) were delivered, and the applicable purchase order number. Invoices will be matched to delivery tickets prior to payment; therefore, all delivery tickets should have an accurate description of the product(s) and/or service(s).

Invoices shall be submitted to: Jefferson County Auditing Department, Attention: Accounts Payable, 1149 Pearl Street, 7th floor, Beaumont, TX 77701.

8. Insurance

The contractor (including any and all subcontractors as defined in Section 9.1.3 below) shall, at all times during the term of this contract, maintain insurance coverages with not less than the type and requirements shown below. Such insurance is to be provided at the sole cost of the contractor. These requirements do not establish limits of the contractor's liability.

All policies of insurance shall waive all rights of subrogation against the County, its officers, employees and agents.

Contractor shall furnish Jefferson County with Certificate of Insurance naming Jefferson County as additional insured.

All insurance must be written by an insurer licensed to conduct business in the State of Texas.

Minimum Insurance Requirements

Public Liability	$1,000,000.00
Excess Liability	$1,000,000.00

Property Insurance (policy below that is applicable to this project):
Improvements & Betterments Policy: Improvements/Remodeling (for Lease Tenants)
Builder's Risk Policy: Structural Coverage for Construction Projects
Installation Floater Policy: Improvements/Alterations to Existing Structure

Workers' Compensation	Statutory Coverage (see attached)

9. Workers' Compensation Insurance

9.1 Definitions:

9.1.1 **Certificate of coverage ("Certificate")** – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement, DWC-81, DWC-82, DWC-83, or DWC-84 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

9.1.2 **Duration of the project** – Includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

9.1.3 **Persons providing services on the project ("subcontractor") in article 406.096 –** Includes all persons or entities performing all or part of the services under the con-

tractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractor, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" includes, without limitation, providing, hauling or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

9.2 The Contractor shall provide coverage, based on proper reporting of classification code and payroll amounts and filing any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

9.3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract – refer to Section 6 above.

9.4 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

9.5 The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

9.5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

9.5.2 No later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate ends during the duration of the project.

9.6 The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

9.7 The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

9.8 The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

9.9 The Contractor shall contractually require each person with whom it contracts to provide services on a project to:

9.9.1 Provide coverage, based on reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project.

9.9.2 Provide to the Contractor, prior to that person beginning work on the project a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project.

9.9.3 Provide the Contractor, prior to the end of coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

9.9.4 Obtain from each person with whom it contracts, and provide to the Contractor:

9.9.4.1 A certificate of coverage, prior to the other person beginning work on the project; and

9.9.4.2 the coverage period, if the coverage period shown on the current certificate of a new certificate of coverage showing extension of coverage, prior to the end of coverage ends during the duration of the project.

9.9.5 Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter.

9.9.6 Notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

9.9.7 Contractually require each person with whom it contracts to perform as required by paragraphs 9.1. -- 9.7., with the certificates of coverage to be provided to the person for whom they are providing services.

9.10 By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the contractor who will provide services of the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

9.11 The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

SECTION C
BID FORM AND PROPOSAL

BID FORM AND PROPOSAL

Place BEAUMONT, TEXAS

Date AUGUST 23, 2016

Proposal of ALLCO,

a corporation organized and existing under the laws of the State of TEXAS,

or

Proposal of _____,

a partnership consisting of _____

or

Proposal of _____,

an individual doing business as _____,

To: Jack Brooks Regional Airport

This bid results from your advertisement for bids for the construction of the **Taxiway D Reconstruction (2016), Taxiway 'H' to Taxiway 'F'.**

The undersigned Bidder, having visited the site of the work, having examined the Plans, Specifications, and other Contract Documents including all Addenda, and being familiar with all of the conditions relating to the construction of the proposed project, hereby agrees to comply with all other conditions or requirements set forth in the Plans, Specifications, and other Contract Documents, and further proposes to; furnish all material, supplies, equipment, and appliances; to furnish all labor, tools, equipment and incidentals to complete the work in accordance with the Plans, Specifications, and other Contract Documents at and for the unit prices proposed in the attached Bid Form(s).

The undersigned Bidder agrees to begin work within ten (10) calendar days after the issuance by, or on behalf of, the Owner of a "Work Order" or "Notice to Proceed" (except as modified in accordance with the GENERAL FAA PROVISIONS of these Contract Documents). Should the work fail to be completed within the time herein stated, the Contractor shall pay to the Owner, as fixed and agreed liquidated damages, and not as a penalty, the sum, for each day of delay until the work is completed and accepted, as stipulated in GENERAL FAA PROVISIONS of these Contract Documents. It is understood that additional time for the completion of the project is to be allowed only for delays as stipulated in GENERAL FAA PROVISIONS of these Contract Documents.

List of Plans

Drawing No.	Title
G-101	COVER SHEET
G-102	SHEET INDEX AND SUMMARY OF QUANTITIES
G-103	GENERAL NOTES
G-201	PROJECT LAYOUT AND SURVEY CONTROL PLAN
G-301	SAFETY AND PHASING PLAN
G-302	SAFETY AND PHASING DETAILS
G-303	SAFETY AND PHASING - PHASE IA
G-304	SAFETY AND PHASING - PHASE IB

Drawing No.	Title
G-401	GEOTECHNICAL INVESTIGATION PLAN
C-101	TYPICAL SECTIONS
C-201	SWPPP DETAILS I
C-202	SWPPP DETAILS II
C-203	SWPPP NOTES
C-204	SWPPP LAYOUT
C-301	EXISTING CONDITIONS LAYOUT I
C-302	EXISTING CONDITIONS LAYOUT II
C-401	DEMOLITION DETAILS
C-402	DEMOLITION LAYOUT
C-501	GRADING AND DRAINAGE DETAILS I
C-502	GRADING AND DRAINAGE DETAILS II
C-503	IL-H-G HORIZONTAL INLET TYPE H 1 OF 2
C-504	IL-H-G HORIZONTAL INLET TYPE H 2 OF 2
C-505	GRADING AND DRAINAGE PLAN
C-601	STORM DRAIN PROFILE
C-701	GEOMETRIC PLAN I
C-702	GEOMETRIC PLAN II
C-801	PAVEMENT PROFILES
C-901	JOINTING DETAILS I
C-902	JOINTING DETAILS II
C-903	JOINT LAYOUT PLAN I
C-904	JOINT LAYOUT PLAN II
C-1001	JOINT ELEVATIONS LAYOUT I
C-1002	JOINT ELEVATIONS LAYOUT II
M-101	MARKING DETAILS
M-102	MARKING REMOVAL PLAN
M-103	MARKING AND SIGNAGE LAYOUT I
M-104	MARKING AND SIGNAGE LAYOUT II
XS-101	TAXIWAY D CROSS SECTIONS I
XS-102	TAXIWAY D CROSS SECTIONS II
XS-103	TAXIWAY D CROSS SECTIONS III
XS-104	TAXIWAY D CROSS SECTIONS IV
XS-105	TAXIWAY D CROSS SECTIONS V
XS-106	TAXIWAY D CROSS SECTIONS VI
XS-107	TAXIWAY D CROSS SECTIONS VII
XS-108	TAXIWAY D CROSS SECTIONS VIII
XS-109	TAXIWAY D CROSS SECTIONS IX
XS-110	TAXIWAY H (DEMO) CROSS SECTIONS I
XS-111	TAXIWAY H (DEMO) CROSS SECTIONS II
XS-112	TAXIWAY G (DEMO) CROSS SECTIONS I
XS-113	TAXIWAY G (DEMO) CROSS SECTIONS II
E-001	ELECTRICAL LEGEND AND NOTES
E-101	LIGHTING REMOVAL PLAN I
E-102	LIGHTING REMOVAL PLAN II

Drawing No.	Title
E-201	LIGHTING INSTALLATION PLAN I
E-202	LIGHTING INSTALLATION PLAN II
E-203	LIGHTING INSTALLATION PLAN III
E-301	ELECTRICAL DETAILS I
E-302	ELECTRICAL DETAILS II
E-303	ELECTRICAL DETAILS III
E-304	ELECTRICAL DETAILS IV
E-305	ELECTRICAL DETAILS V
E-306	ELECTRICAL DETAILS VI

List of Technical Specifications

Specification Item No.	Description
Item SS-101	Contractor Safety Plan Compliance Document
Item SS-110	Standard Specifications
Item SS-120	Site Preparation
Item SS-300	Basic Electrical Requirements
Item SS-301	Electrical Demolition and Relocation Work
Item SS-310	Airport Lighting Systems
P-101	Surface Preparation
P-152	Excavation and Embankment
P-154	Subbase Course
P-155	Lime-Treated Subgrade
P-156	Temporary Air Water Pollution Soil Erosion and Siltation Control
P-501	Portland Cement Concrete Pavement
P-605	Joint Sealing Filler
P-610	Structural Portland Cement Concrete
P-620	Runway and Taxiway Painting
D-701	Pipe for Storm Drains and Culverts
D-751	Manholes, Catch Basins, and Inspection Holes
D-752	Concrete Culverts, Headwalls, and Miscellaneous Drainage Structures
T-901	Seeding
T-904	Sodding
T-905	Topsoiling
L-101	Airport Rotating Beacons
L-108	Underground Power Cable for Airports
L-110	Airport Underground Electrical Duct Banks and Conduits

Bidder acknowledges receipt of the following addendum (addenda):

Addendum No. ONE dated 8-08-16

Addendum No. TWO dated 8-15-16

Addendum No. THREE dated 8-19-16

The undersigned Bidder agrees that this bid shall be good and shall not be withdrawn for a period of ninety (90) calendar days after the opening thereof. If written notice of the acceptance of this Proposal is mailed, telegraphed, or delivered to the undersigned within ninety (90) days after the opening thereof, or at any time thereafter before this Proposal is withdrawn, the undersigned agrees to execute and deliver an Agreement (Contract) in the prescribed form, and furnish the required Performance and Payment Bond, within ten (10) days after the Agreement is presented to him for signature.

It is understood by the undersigned Bidder that the Owner reserves the right to reject any or all bids.

The following provisions are also included by reference:

- Davis Bacon Act (29 CFR Part 5.5)
- EEO Compliance Reports (41 CFR Part 60-1.7)
- Trade Restriction Certification (49 CFR Part 30)
- Buy American Preferences (Title 49 United States Code, Chapter 501)
- Certification of Non-Segregated Facilities (41 CFR Part 60-1.8)
- Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion (49 CFR Part 29)

Accompanying this Proposal as bid security is a ~~certified check~~/bid bond (*strike one*)

in the amount of **FIVE PERCENT OF GREATEST AMOUNT BID********** Dollars

($ 5% GAB**********), being not less than five percent (5%) of the total amount of the bid for the base bid plus additive alternate no. 1 and additive alternate no. 2, as applicable. If the undersigned Bidder is the successful Bidder, but fails or refuses to execute the contract and furnish the required bond within the prescribed ten (10) days of the notification of award, then this bid security is to become the property of the Owner as liquidated damages for the delay and additional expense to the Owner caused by such failure or refusal.

JACK BROOKS REGIONAL AIRPORT
TAXIWAY D RECONSTRUCTION (2016)
BID FORM

BASE BID

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
FAA Section 105	MOBILIZATION	LS	1	$72,000.00	$72,000.00
	Unit price in words: Seventy Two Thousand dollars and No /100				
SS-120-1	SITE PREPARATION	LS	1	$58,000.00 TWH	$58,000.00 TWH
	Unit price in words: Fifty Eight Thousand dollars and No /100				
SS-120-2	***LIGHTED RUNWAY CLOSURE MARKERS***	***DAY***	***10***	$ 275.00	$ 2,750.00
	Unit price in words: Two Hundred Seventy five dollars and No /100				
D-701-1	30" STORMWATER PIPE	L.F.	292	$ 95.00	$ 27,740.00
	Unit price in words: Ninety five dollars and No /100				
D-701-2	REMOVAL OF 30" CONCRETE PIPE	L.F.	390	$ 20.00	$ 7,800.00
	Unit price in words: Twenty dollars and No /100				
D-751-1a	4'X4' SINGLE GRATE INLET (HEAVY-DUTY)	EACH	1	$ 6,000.00	$ 6,000.00
	Unit price in words: Six Thousand dollars and No /100				
D-752-1	CONNECT 30" RCP TO EXIST. GRATE INLET, COMPLETE IN-PLACE	L.S.	1	$ 1,600.00	$ 1,600.00
	Unit price in words: One Thousand Six Hundred dollars and No /100				

JACK BROOKS REGIONAL AIRPORT
TAXIWAY D RECONSTRUCTION (2016)
BID FORM

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
P-101-1	CONCRETE PAVEMENT REMOVAL	S.Y.	17,050	$17.00	$289,850.00
	Unit price in words: Seventeen ——— dollars and No ——— /100				
P-101-2	MILLING AND REMOVAL OF ASPHALT PAVEMENT SURFACING (8" TO 0" THICKNESS)	S.Y.	2,110	$ 10.00	$ 21,100.00
	Unit price in words: Ten ——— dollars and No ——— /100				
P-152-1	UNCLASSIFIED EXCAVATION	C.Y.	1,100	$ 27.00	$ 29,700.00
	Unit price in words: Twenty Seven ——— dollars and No ——— /100				
P-152-2	BORROW EXCAVATION	C.Y.	6,000	$ 27.00	$ 162,000.00
	Unit price in words: Twenty Seven ——— dollars and No ——— /100				
P-152-3	UNSUITABLE EXCAVATION	C.Y.	180	$ 34.00	$ 6,120.00
	Unit price in words: Thirty four ——— dollars and No ——— /100				
P-154-1	8" SUBBASE COURSE	S.Y.	7,390	$ 27.00	$ 199,530.00
	Unit price in words: Twenty Seven ——— dollars and No ——— /100				
P-155-1	16" LIME-TREATED SUBGRADE	S.Y.	7,930	$ 20.00	$ 158,600.00
	Unit price in words: Twenty ——— dollars and No ——— /100				

JACK BROOKS REGIONAL AIRPORT
TAXIWAY D RECONSTRUCTION (2016)
BID FORM

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
P-155-2	LIME	TON	300	$ 170.00	$ 51,000.00
	Unit price in words: One Hundred Seventy — dollars and No — /100				
P-156-1	SEDIMENT CONTROL FENCE	L.F.	2,680	$ 4.00	$ 10,720.00
	Unit price in words: Four — dollars and No — /100				
P-156-2	INLET PROTECTION	EACH	3	$ 400.00	$ 1,200.00
	Unit price in words: Four Hundred — dollars and No — /100				
P-501-1	12.5" PORTLAND CEMENT CONCRETE PAVEMENT	S.Y.	6,840	$ 109.00	$ 745,560.00
	Unit price in words: One Hundred nine — dollars and No — /100				
P-605-1	CONCRETE JOINT CLEAN AND SEAL	L.F.	9,220	$ 4.00	$ 36,880.00
	Unit price in words: Four — dollars and No — /100				
P-620-1	RETRO-REFLECTIVE PAVEMENT MARKINGS	S.F.	***3,500***	$ 3.15	$ 11,025.00
	Unit price in words: Three — dollars and Fifteen — /100				
P-620-3	NON-REFLECTIVE BLACK OUTLINE	S.F.	***5,050***	$ 3.00	$ 15,150.00
	Unit price in words: Three — dollars and No — /100				

JACK BROOKS REGIONAL AIRPORT
TAXIWAY D RECONSTRUCTION (2016)
BID FORM

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
P-620-4	PAVEMENT MARKING REMOVAL	L.S.	1	$12,000.00	$ 12,000.00
	Unit price in words: Twelve Thousand ——— dollars and No ——— /100				
T-901-1	SEEDING, INCLUDING FERTILIZING AND WATERING	ACRE	7.1	$3,400.00	$ 24,140.00
	Unit price in words: Three Thousand Four Hundred dollars and No ——— /100				
T-904-1	SODDING	SY	970	$12.00	$ 11,640.00
	Unit price in words: Twelve ——— dollars and No ——— /100				
T-905-1	TOPSOILING (OBTAINED ON SITE OR REMOVED FROM STOCKPILE 2" THICKNESS)	SY	34,000	$1.00	$ 34,000.00
	Unit price in words: One ——— dollars and No ——— /100				
SS-300-5.1	LOCKOUT/TAGOUT AND CONSTANT CURRENT REGULATOR CALIBRATION PROCEDURES	LS	1	$8,500.00	$ 8,500.00
	Unit price in words: Eight Thousand Five Hundred dollars and No ——— /100				
SS-300-5.2	***BEACON BATTERY BACKUP SYSTEM***	***LS***	***1***	$15,000.00	$ 15,000.00
	Unit price in words: Fifteen Thousand ——— dollars and No ——— /100				

JACK BROOKS REGIONAL AIRPORT
TAXIWAY D RECONSTRUCTION (2016)
BID FORM

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
SS-301-5.1	EXISTING AIRPORT ROTATING BEACON, REMOVED	EACH	1	$2,700.00	$2,700.00
	Unit price in words: Two Thousand Seven Hundred dollars and No /100				
SS-301-5.2	EXISTING CONCRETE ENCASED, ELECTRICAL JUNCTION STRUCTURE, REMOVED	EACH	2	$1,300.00	$2,600.00
	Unit price in words: One Thousand Three Hundred dollars and No /100				
SS-301-5.3	EXISTING STAKE MOUNTED EDGE LIGHT, REMOVED	EACH	61	$170.00	$10,370.00
	Unit price in words: One Hundred Seventy dollars and No /100				
SS-301-5.4	EXISTING BASE MOUNTED EDGE LIGHT, REMOVED	EACH	7	$220.00	$1,540.00
	Unit price in words: Two Hundred Twenty dollars and No /100				
SS-301-5.5	EXISTING BASE MOUNTED EDGE LIGHT, REMOVED, BASE TO REMAIN	EACH	12	$220.00	$2,640.00
	Unit price in words: Two Hundred Twenty dollars and No /100				
SS-301-5.6	EXISTING IN-PAVEMENT EDGE LIGHT, REMOVED	EACH	2	$220.00	$440.00
	Unit price in words: Two Hundred Twenty dollars and No /100				
SS-301-5.7	ABANDONED SIGN BASE, REMOVED	EACH	4	$110.00	$440.00
	Unit price in words: One Hundred Ten dollars and No /100				

JACK BROOKS REGIONAL AIRPORT
TAXIWAY D RECONSTRUCTION (2016)
BID FORM

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
SS-301-5.8	EXISTING BASE MOUNTED EDGE LIGHT, REMOVED	EA	16	$170.00	$ 2,720.00
	Unit price in words: One Hundred Seventy dollars and No /100				
SS-310-5.1	L-858(L) BASE MOUNTED, 1-MODULE GUIDANCE SIGN, INSTALLED	EACH	2	$5,000.00	$ 10,000.00
	Unit price in words: Five Thousand dollars and No /100				
SS-310-5.2	L-862 BASE MOUNTED RUNWAY EDGE LIGHT, INSTALLED	EACH	2	$1,250.00	$ 2,500.00
	Unit price in words: One Thousand Two Hundred Fifty dollars and No /100				
SS-310-5.3	L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT, INSTALLED	EACH	39	$980.00	$ 38,220.00
	Unit price in words: Nine Hundred Eighty dollars and No /100				
SS-310-5.4	L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT, INSTALLED ON EXISTING BASE	EACH	12	$460.00	$ 5,520.00
	Unit price in words: Four Hundred Sixty dollars and No /100				
SS-310-5.5	FIELD LIGHTNING ARRESTOR, INSTALLED	EACH	4	$760.00	$ 3,040.00
	Unit price in words: Seven Hundred Sixty dollars and No /100				
SS-310-5.6	TEMPORARY AIRFIELD LIGHTING	L.S.	1	$5,500.00	$ 5,500.00
	Unit price in words: Five Thousand Five Hundred dollars and No /100				

JACK BROOKS REGIONAL AIRPORT
TAXIWAY D RECONSTRUCTION (2016)
BID FORM

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
L-101-5.1	L-802A, AIRPORT ROTATING BEACON, IN PLACE	EACH	1	$12,700.00	$12,700.00
	Unit price in words: Twelve Thousand Seven Hundred dollars and No /100				
L-108-5.1	TRENCHING FOR DIRECT-BURIED CABLE, 18 INCH MINIMUM DEPTH	L.F.	20	$6.00	$ 120.00
	Unit price in words: Six dollars and No /100				
L-108-5.2	NO. 8 AWG, 5 kV, L-824, TYPE C CABLE, INSTALLED IN TRENCH, DUCT BANK, OR CONDUIT	L.F.	6,900	$1.30	$ 8,970.00
	Unit price in words: One dollars and Thirty /100				
L-108-5.3	NO. 6 AWG, SOLID, BARE COUNTERPOISE WIRE, INSTALLED IN TRENCH, ABOVE THE DUCT BANK OR CONDUIT, INCLUDING GROUND RODS AND GROUND CONNECTORS	L.F.	5,200	$1.30	$ 6,760.00
	Unit price in words: One dollars and thirty /100				
L-108-5.4	TRENCHING FOR DIRECT-BURIED BARE COUNTERPOISE WIRE, 8" MINIMUM DEPTH	L.F.	5,100	$2.60	$13,260.00
	Unit price in words: Two dollars and Sixty /100				
L-110-5.1	NON-ENCASED ELECTRICAL CONDUIT, 1W-2"C	L.F.	5,100	$8.60	$ 43,860.00
	Unit price in words: Eight dollars and Sixty /100				

JACK BROOKS REGIONAL AIRPORT
TAXIWAY D RECONSTRUCTION (2016)
BID FORM

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
L-110-5.2	ENCASED ELECTRICAL CONDUIT, 1W-2"C, WITH FLOWABLE FILL AND SAWCUT PAVEMENT REPAIR	L.F.	140	$98.00	$13,720.00
	Unit price in words: Ninety Eight ——— dollars and No ——— /100				

TOTAL (BASE BID) $2,207,225.00

Total price in words: Two Million Two Hundred Seven Thousand Two Hundred Twenty Five dollars and No ——— /100

It is understood the quantities of work to be done at unit prices are approximate and are intended for bidding purposes only. Amounts are to be shown in both words and figures. In case of discrepancy the amount shown in words shall govern.

Contract Award will be based on the lowest qualified bidder, depending on the availability of funds.

Bidders understand the Owner reserves the right to reject any irregular proposal and the right to waive technicalities if such waiver is in the best interest of the Owner and conforms to State and local laws and ordinances pertaining to the letting of construction contracts. Funding availability will be considered in selecting the bid award. The bidder agrees this bid shall be honored and may not be withdrawn for a period of 90 calendar days after the scheduled closing time for receiving bids.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in a written "Notice to Proceed" and to fully complete the project within:

- **210 Calendar Days** thereafter.

Bidder further agrees to pay as liquidated damages the sum of **One Thousand** Dollars **($1,000.00)** for each calendar day to complete the work beyond the allotted time or as extended by an approved Change Order or Supplemental Agreement.

The undersigned certifies that the bid prices contained in this bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all commodities upon which prices are extended at the price offered, and upon the conditions contained in the specifications and the Notice to Bidders.

STATE OF TEXAS COUNTY OF JEFFERSON

BEFORE ME, the undersigned authority, a Notary Public in and for the State of TEXAS,

on this day personally appeared T.W. HARRISON (name), who

after being by me duly sworn, did depose and say:

"I, T.W. HARRISON (name) am a duly authorized officer of/~~agent~~

for ALLCO (name of firm) and have been duly authorized to execute the

foregoing on behalf of the said ALLCO (name of firm).

I hereby certify that the foregoing bid has not been prepared in collusion with any other bidder or other person or persons engaged in the same line of business prior to the official opening of this bid. Further, I certify that the bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities bid on, or to influence any person or persons to bid or not to bid thereon."

Name and address of bidder: ALLCO

PO BOX 3684, BEAUMONT, TEXAS 77704

Fax: 409-860-3857 Telephone No. 409-860-4459

by: T.W. HARRISON (print name) Title: PRESIDENT

Signature:

ALLCO, L.L.C. TEXAS

SUBSCRIBED AND SWORN to before me by the above-named T.W. HARRISON on

this the 23RD day of AUGUST, 2016.

Notary Public in and for
the State of TEXAS

NOTARY PUBLIC STATE OF TEXAS
JACQUELINE CHRISTOPHER
Notary Public, State Of Texas
Comm. Expires 05-21-2020
My Notary ID # 155932-5

Bidder Shall Return Completed Form with Offer.

SECTION D
STATEMENT OF BIDDER'S QUALIFICATIONS

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires.

1. Name of Bidder ALLCO.
2. Permanent main office address
   (Physical) 6720 COLLEGE, BEAUMONT, TEXAS 77707
   (Mailing) PO BOX 3684, BEAUMONT, TEXAS 77704
3. When organized APRIL 22, 1985.
4. If a corporation, where incorporated TEXAS.
5. How many years have been engaged in the contracting business under your present firm or trade name? 31 YEARS
6. Contracts on hand: (Schedule these, showing amount of each contract and the appropriate anticipated dates of completion)
   PLEASE SEE ATTACHED.

General character of work performed by your company GENERAL CONTRACT (see attached details)

7. Have you ever failed to complete any work awarded to you? NO
8. Have you ever defaulted on a Contract? NO
   If so, where and why?
9. Have you ever been fined or had your license suspended by a Contractor's Licensing Board? NO
   If so, where and why?
10. List the more important projects recently completed by your company, stating the approximate cost for each, and the month and year completed (attach to back of this document). PLEASE SEE ATTACHED.
11. List your major equipment available for this Contract (attach to back of this document). PLEASE SEE ATTACHED.
12. List your experience in construction work similar in scope and scale to this project (attach to back of this document). PLEASE SEE ATTACHED.
13. Background and experience of the principal members of your organization, including the officers (attach to back of this document). WE WILL SUBMIT IF SUCCESSFUL BIDDER.
14. Credit available: $ N/A
15. Give Bank reference: COMMUNITY BANK

ALLCO

LIST OF PROJECTS NOW ENGAGED IN COMPLETING

Contract Amount	Class of Work	Percent Completed	Where Located City/County/State	Owner or Owner Representative
5,600,000	Crenshaw Water Plant Ground Storage Tank	97%	Pasadena Harris Texas	City of Pasadena 1114 Davis Street Ste. 300 Pasadena Texas 77506 713-475-4995
12,605,000	Surface Water Treatment Plant Improvements Phase I	93%	Port Arthur Jefferson Texas	Arceneaux Wilson & Cole 2901 Turtle Creek Dr. #320 Port Arthur Texas 77642 409-724-7888
7,950,000	Water Treatment Plant Lake Livingston Water & Sewer Service Corp	85%	Livingston Polk Texas	Enprotec/Hibbs & Todd 402 Cedar Street Abilene Texas 79601 325-698-5560
50,000,000	Alligator Bayou Pump Station Annex-Drainage District No. 7	53%	Port Arthur Jefferson Texas	Carroll & Blackman Inc. 3120 Fannin Beaumont Texas 77702 409-833-3363
15,990,000	New High School Buna Independent School District	65%	Buna Jasper Texas	Architectural Alliance 350 Pine Street Ste. 720 Beaumont Texas 77701 409-866-7196
300,000	Site Grading Port Arthur Business Park	48%	Port Arthur Jefferson Texas	Arceneaux Wilson & Cole 2901 Turtle Creek Dr. #320 Port Arthur Texas 77642 409-724-7888
191,000,000	Textile Manufacture Facility	0%	Port Arthur Jefferson Texas	Pure Renewable Systems 6712 E. 118 Street Bixby Oklahoma 74008 918-406-2557
2,690,000	Port Acres Wastewater Treatment Plant Improvements	43%	Port Acres Jefferson Texas	Arceneaux Wilson & Cole 2901 Turtle Creek Dr. #320 Port Arthur Texas 77642 409-724-7888

ALLCO
LIST OF PROJECTS NOW ENGAGED IN COMPLETING

Contract Amount	Class of Work	Percent Completed	Where Located City/County/State	Owner or Owner Representative
2,200,000	City of Anahuac Wastewater Treatment Plant Rehab ContractA	30%	Anahuac Chambers Texas	Carroll & Blackman 3120 Fannin Street Beaumont Texas 77702 409-833-3363
1,300,000	City of Rose City Bridges Project #2	66%	Rose City Orange Texas	Goodwin Lasiter 1609 S. Chestnut Ste. 202 Lufkin Texas 75901 936-637-6336
740,000	Asphalt Road Repairs Rosen & Various Streets City of Bridge City	55%	Bridge City Orange Texas	Action Engineers 8460 Central Mall Dr. Ste. J Port Arthur Texas 77642 409-983-6263
23,750,000	Surface Water Treatment Plant Improvements Phase 2	25%	Port Arthur Jefferson Texas	Arceneaux Wilson & Cole 2901 Turtle Creek Dr. Ste. 320 Port Arthur Texas 77642 409-724-7888
3,260,000	Jack Brooks Regional Airport Runway Reconstruction	15%	Beaumont Jefferson Texas	Garver USA C/O 1149 Pearl Street Beaumont Texas 77701 713-491-8333
2,861,000	Wastewater Treatment Plant Expansion Phase 2A & 2B	5%	Orange Orange Texas	Schaumburg & Polk 8865 College Street Beaumont Texas 77707 409-866-0341

ATTACHMENT TO AIA FORM A305
CONTRACTOR'S QUALIFICATION STATEMENT

Experience .

I. Commercial Building Construction and Management

- A. Earthwork
- B. Site Drainage Work
- C. Concrete Foundations
- D. Concrete Paving and Walks
- E. Concrete Tilt Panels
- F. Steel and Panel Erection
- G. Rough and Finish Carpentry

II. Civil Construction

- A. Site Clearing
- B. Drainage Work
- C. Roads and Paving
- D. Bridges
- E. Wetlands and Ponds

III. Water/Wastewater Treatment Facilities

- A. Earthwork
- B. Concrete Foundations
- C. Concrete Structures
- D. Steel Erection
- E. Equipment Setting
- F. Painting
- G. Site Drainage
- H. Piping

IV. Utility

- A. Water Lines, Sewer Lines & Storm Water Drainage Installation
- B. Rehabilitation of Sanitary Sewer/Storm Sewer
  1. Point Repairs
  2. Sliplining
  3. Pipe Bursting
- C. Lift Stations

ALLCO
LIST OF COMPLETED CIVIL/HEAVY PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
12,900,000	South Park Drainage Relief Project	2015	Beaumont Jefferson Texas	City of Beaumont 801 Main Street Beaumont Texas 77701 409-880-3725
1,407,000	Water & Sewer Rehab South Park Area	2015	Beaumont Jefferson Texas	City of Beaumont 1350 Langham Beaumont Texas 77707 409-735-3000
1,612,000	Coopers Gully Pump Station - City of Orange	2015	Orange Orange Texas	Carroll & Blackman Inc. 3120 Fannin Beaumont Texas 77702 409-833-3363
3,400,000	Water System Improv. Keith Lake to Sabine Pass Standpipe	2015	Port Arthur Jefferson Texas	Arceneaux & Gates 2901 Turtle Creek Drive Port Arthur Texas 77642 409-724-7888
1,130,000	Wastewater Treatment Plant Improvements Phase IA & IB	2015	Orange Orange Texas	Schaumburg & Polk 8865 College Street Beaumont Texas 77707 409-866-0341
3,200,000	24" Waterline City of Port Arthur-19th St. to Sabine Neches Canal	2015	Port Arthur Jefferson Texas	Arceneaux & Gates 2901 Turtle Creek Drive Port Arthur Texas 77642 409-724-7888
3,492,000	Sanitary Sewer Impr 54" Interceptor	2015	Beaumont Jefferson Texas	City of Beaumont 1350 Langham Beaumont Texas 77707 409-785-3000
1,750,000	Wastewater Collection Rehabilitation	2015	Nederland Jefferson Texas	Schaumburg & Polk Inc. 8865 College Street Beaumont Texas 77707 409-866-0341

ALLCO
LIST OF COMPLETED CIVIL/HEAVY PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
3,350,000	Detention Ponds & Drainage Facilities Imperial Phase II	2015	Sugarland Fort Bend Texas	LJA Engineers 2929 Briarpark Houston Texas 77042 713-953-520
4,500,000	Orange County WCID #1 Cloverleaf Tiger Lake Lift Station/Force Main	2014	Vidor Orange Texas	Carroll & Blackman 3120 Fannin Beaumont Texas 77702 409-833-3363
1,800,000	City of Missouri City Prestressed Concrete Clearwell	2014	Missouri City Fort Bend Texas	Enprotec/Hibbs & Todd 402 Cedar Street Abilene Texas 79601 325-698-5560
2,500,000	Asphalt Road Repair City Wide -Bridge City	2014	Bridge City Orange Texas	d.p. Consulting Engineers 3727 Doctors Drive Port Arthur Texas 77642 409-983-6263
430,000	Clarifier Rehabilitation	2014	Orange Orange Texas	Firestone Polymers 5713 FM 1006 Orange Texas 77630 409-924-4626
457,000	Post Office Lift Station Improvements	2014	Port Neches Jefferson Texas	Carroll & Blackman Inc. 3120 Fannin Beaumont Texas 77702 409-833-3363
2,400,000	Fort Polk Sewer American Water	2014	Fort Polk Vernon Louisiana	Arceneaux & Gates 3501 Turtle Creek Drive Port Arthur Texas 77642 409-724-7888
10,000,000	Richland Chambers Wetland Expansion Improvements	2013	Fairfield Navarro Texas	Alan Plummer Associates 1349 Empire Central Ste 1000 Dallas Texas 75247 214-631-6100

ALLCO
LIST OF COMPLETED CIVIL/HEAVY PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
2,000,000	Water System Improvements	2013	Nederland Jefferson Texas	City of Nederland 1400 Boston Avenue Nederland Texas 77627 409-723-1542
2,700,000	Sanitary Sewer 60" Trunk Outfall	2013	Beaumont Jefferson Texas	City of Beaumont 1350 Langham Beaumont Texas 77707 409-785-3000
1,150,000	Asphalt Road Repair Repair City of Bridge City	2013	Bridge City Orange Texas	d.p. Consulting Engineers 3727 Doctors Dr. Port Arthur Texas 77642 409-983-6263
9,971,000	Main & Port Acres WWTP Rehabilitation City of Port Arthur	2012	Port Arthur Jefferson Texas	Arceneaux & Gates 2901 Turtle Creek Dr. Ste. 201 Port Arthur Texas 77642 409-724-7888
3,500,000	Sanitary Sewer Rehab Contract 6	2012	Port Arthur Jefferson Texas	City of Port Arthur P.O. Box 1089 Port Arthur Texas 77640 409-983-8226
1,700,000	Diboll Water System Northside	2012	Angelina Diboll Texas	KSA Engineers 107 W. Lufkin Avenue Lufkin Texas 75904 936-637-6061
639,000	Nacogdoches WWTP 2010 Improvements	2012	Nacogdoches Nacogdoches Texas	Schaumburg & Polk Inc. 8865 College Beaumont Texas 77707 409-866-3413
3,100,000	Sanitary Sewer Rehab 2009 Project	2012	Nederland Jefferson Texas	City of Nederland 1400 Boston Avenue Nederland Texas 77627 409-723-1542
800,000	Waterline Installation Large Diameter Main	2011	Beaumont Jefferson Texas	City of Beaumont 1350 Langham Beaumont Texas 77707 409-785-3000

ALLCO
LIST OF COMPLETED CIVIL/HEAVY PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
2,950,000	Wastewater Treatment Plant Improvements	2011	Liberty Liberty Texas	Schaumburg & Polk Inc. 8865 College Street Beaumont Texas 77707 409-866-0341
2,000,000	Water & Sewer Area II & III	2010	Orange Orange Texas	City of Orange P.O. Box 520 Orange Texas 77630 409-883-1900
1,400,000	Sanitary Sewer Rehab Project Contract XIV	2010	Beaumont Jefferson Texas	City of Beaumont 1350 Langham Beaumont Texas 77707 409-785-3000
8,500,000	Water Treatment Plant Expansion/Renovations	2010	Beaumont Jefferson Texas	City of Beaumont 1350 Langham Beaumont Texas 77707 409-785-3000
4,000,000	Full Dept Concrete Repair Project	2010	Beaumont Jefferson Texas	City of Beaumont P.O. Box 3872 Beaumont Texas 77704 409-785-3000
6,700,000	Wastewater Treatment Plant Renovations	2009	Dayton Liberty Texas	O'Malley Engineers 1306 North Park Brenham Texas 77833 979-836-7937
3,200,000	Wastewater Treatment Plant Improvements	2009	Woodlands Montgomery Texas	Carter & Burgess Inc. 55 Waugh Suite 800 Houston Texas 77007 713-869-7900
25,000,000	East Fork Raw Water Supply Wetland Construction Project	2009	Wylie Collin Texas	Alan Plummer Associates 1349 Empire Centra Ste 1000 Dallas Texas 75247 214-631-6100
2,700,000	Alabama Command Control Center	2009	Orange Orange Texas	Port of Orange 1201 Childers Road Orange Texas 77630 409-883-4363

ALLCO
LIST OF COMPLETED CIVIL/HEAVY PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
3,333,000	Water Treatment Plant Improvements Phase I	2009	Carthage Panola Texas	KSA Engineers 140 E. Tyler Suite 600 Longview Texas 75601 936-637-6061
5,500,000	Rolphe Christopher Blvd. Renovations	2009	Beaumont Jefferson Texas	City of Beaumont P.O. Box 3827 Beaumont Texas 77704 409-785-3000
13,200,000	FM 1179 Road Improvements	2008	Bryan Brazos Texas	Texas Dept of Transportation 1300 N. Texas Avenue Bryan Texas 77803 979-778-2165
2,100,000	US 69 Frontage Roads Nederland Ave & Hwy 365-Jefferson County	2008	Nederland Jefferson Texas	Texas Dept of Transportation 8350 Eastex Freeway Beaumont Texas 77708 409-898-5711
5,000,000	Avocet Oceanfront Villas	2008	Bolivar Galveston Texas	Avocet Oceanfront Villas LLP 3112 East Fourth Avenue Durango, Colorado 81301
1,000,000	Seagrass Development	2008	Caplen Galveston Texas	Seagrass-Caplen LLC P.O. Box 7754 Beaumont Texas 77726 409-861-4459
5,200,000	Phelan Boulevard Extension	2008	Beaumont Jefferson Texas	City of Beaumont P.O. Box 3827 Beaumont, Texas 77704 409-785-3000
3,200,000	2006 Sanitary Sewer Improvements Contract C	2008	Lumberton Hardin Texas	Lumberton M.U.D. 55 W. Chance Cut-Off Lumberton, Texas 77656 409-755-1559
3,800,000	Water Transmission Line Singing Sands to Port Bolivar	2008	Bolivar Galveston Texas	Schaumburg & Polk Inc. 8865 College Street Beaumont Texas 77707 409-866-0341

ALLCO
LIST OF COMPLETED CIVIL/HEAVY PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
3,300,000	Water Treatment Plant Improvements Phase II	2008	Carthage Panola Texas	City of Carthage 812 W. Panola Carthage Texas 75633 903-693-3868
9,500,000	Safety Rest Areas Hwy 59 Polk County	2008	Livingston Polk Texas	Texas Dept of Transportation 8350 Eastex Freeway Beaumont Texas 77708 409-898-5711
24,200,000	Highway 96 Construction	2007	Kirbyville Jasper Texas	Texas Dept of Transportation 8350 Eastex Freeway Beaumont Texas 77708 409-898-5711
3,100,000	Wastewater Treatment Plant Renovations	2007	Galveston Galveston Texas	City of Galveston P.O. Box 779 Galveston Texas 77553 409-797-3630
2,600,000	Water Treatment Plant Trinity Bay Conservation District	2007	Winnie Chambers Texas	Carroll & Blackman Inc. 3120 Fannin Beaumont Texas 77702 409-833-3363
9,900,000	Wastewater Collection Rehab Pioneer Park & Griffing Park	2006	Port Arthur Jefferson Texas	Bob Shaw Consulting Engineers 4749 Twin City Highway Port Arthur Texas 77643 409-963-0263
$1,600,000	FM 1131 Roadway Orange County	2006	Deweyville Orange Texas	Texas Dept of Transportation 8350 Eastex Freeway Beaumont Texas 77708 409-898-5711
$1,000,000	Audubon Village Development	2006	Gilchrist Galveston Texas	Audubon Village LLC P.O. Box 7754 Beaumont Texas 77726 409-861-4459

ALLCO
LIST OF COMPLETED CIVIL/HEAVY PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
7,000,000	Walden Development Phase I & II	2006	Beaumont Jefferson Texas	Crescent-Walden LLC P.O. Box 7754 Beaumont, Texas 77726 409-861-4459
8,500,000	FM 364 Major Drive Construction	2005	Beaumont Jefferson Texas	Texas Dept of Transportation 8350 Eastex Freeway Beaumont Texas 77708 409-898-5711
6,000,000	Laguna Harbor Resort	2005	Port Bolivar Galveston Texas	Laguna Resources Ltd. P.O. Box 7754 Beaumont Texas 77726 409-861-4459
3,200,000	High Island to Singing Sands Transmission Line Contract IV	2005	Stowell Chambers Texas	Lower Neches Valley Authority 7850 Eastex Freeway Beaumont, Texas 77708 409-892-4011
4,200,000	City of Nacogdoches WW Collection System SS Replacement	2004	Nacogdoches Nacogdoches Texas	Schaumburg & Polk 8865 College Street Beaumont, Texas 77707 409-866-0341
4,200,000	West Regional Water System Transmission Line	2004	Winnie Chambers Texas	Lower Neches Valley Authority 7850 Eastex Freeway Beaumont, Texas 77708 409-892-4011
4,100,000	Water Treatment Plant West Jefferson Municipal Water Dist	2004	Fannett Jefferson Texas	dp Consulting Engineers 3800 Highway 365 Port Arthur, Texas 77642 409-983-6263
2,200,000	Orleans Street Inter-Locking Pavers	2004	Beaumont Jefferson Texas	City of Beaumont P.O. Box 3827 Beaumont, Texas 77704 409-785-3000

ALLCO
LIST OF COMPLETED CIVIL/HEAVY PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
1,300,000	Jasper County FM82	2004	Kirbyville Jasper Texas	Texas Dept of Transportation 8350 Eastex Freeway Beaumont, Texas 77708 409-898-5711
1,100,000	WWTP Bar Screen & Belt Press Conveyor	2004	Beaumont Jefferson Texas	City of Beaumont 1350 Langham Beaumont, Texas 77706 409-785-3000
9,100,000	Highway Construction Jefferson County IH-10 Feeder Roads	2003	Beaumont Jefferson Texas	Texas Dept of Transportation 8350 Eastex Freeway Beaumont, Texas 77708 409-898-5711
9,600,000	Highway Construction Jefferson County SP 93-Phase III	2003	Beaumont Jefferson Beaumont	Texas Dept of Transportation 8350 Eastex Freeway Beaumont, Texas 77708 409-898-5711
3,500,000	Highway Construction Freestone County Highway 164	2003	Buffalo Freestone Texas	Texas Dept of Transportation 2800 Commerce Street East Buffalo, Texas 75831 713-802-5551
5,500,000	Wastewater Treatment Plant Renovations	2003	Nederland Jefferson Texas	Schaumburg & Polk, Inc. 8865 College Street Beaumont, Texas 77707 409-866-0341
849,000	Distribution Parallel 66" Line	2003	Texas City Galveston Texas	Gulf Coast Water Authority 3630 Highway 1765 Texas City, Texas 77591 409-935-2438
13,535,000	Highway Construction Orange County Highway 87	2002	Orange Orange Texas	Texas Dept of Transportation 3128 Highway 62 Orange, Texas 77632 409-883-3476
5,500,000	Drainage & Street Improvements Concord Road	2002	Beaumont Jefferson Texas	City of Beaumont P.O. Box 3827 Beaumont, Texas 77704 409-785-3000

ALLCO
LIST OF COMPLETED CIVIL/HEAVY PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
1,370,725	Highway Construction FM787 Bridge Project	2000	Saratoga Hardin Texas	Texas Dept of Transportation 1150 Avenue N . Silsbee, Texas 77656 409-385-5269
2,000,000	Highway Construction Jefferson County Walden Road Project	1999	Beaumont Jefferson Texas	Texas Department of Transportation 8350 Eastex Freeway Beaumont, Texas 77708 409-898-5711
7,200,000	Wastewater System Improvements Contract 3,4 & 5	1998	Mauriceville Orange Texas	Schaumburg & Polk, Inc. 8865 College Street Beaumont, Texas 77707 409-866-0341
7,250,000	Highway Construction SP93 West Port Arthur Phase II	1998	Beaumont Jefferson Texas	Texas Department of Transportation 8350 Eastex Freeway Beaumont, Texas 77708 409-898-5711
1,300,000	New Water & Sewer Improvements-Delta Heights & Hwy 96 Area	1998	Pineland Sabine Texas	Hogan Corporation/City of Pineland 101 Dogwood Pineland, Texas 75968 409-381-8811
3,365,583	South Park Drainage Project	1997	Beaumont Jefferson Texas	Schaumburg & Polk, Inc. 8865 College Street Beaumont, Texas 77707 409-866-0341
4,300,000	Water Treatment Facility & New Office Buildings	1996	Nederland Jefferson Texas	City of Nederland 1400 Boston Avenue Nederland, Texas 77627 409-723-1542
4,200,000	Wastewater Treatment Facility & Plant Buildings	1996	Lumberton Hardin Texas	Schaumburg & Polk, Inc. 8865 College Street Beaumont, Texas 77707 409-866-0341

ALLCO REFERENCES

CARROLL & BLACKMAN
MR. ALAN SIMMS, P.E.
3120 FANNIN
BEAUMONT TEXAS 77702
409-833-3363
asims@cbieng.com

ARCENEAUX, WILSON & COLE ENGINEERS
MR. JOE WILSON, P.E.
2901 TURTLE CREEK DR. SUITE 320
PORT ARTHUR TEXAS 77642
409-724-7888
jwilson@ageng.com

d.p. CONSULTING ENGINEERS
MR. MARK KELLY
3727 DOCTORS DRIVE
PORT ARTHUR TEXAS 77642
409-986-6263
mkelly@dpengineersinc.com

BOB SHAW CONSULTING ENGINEERS
MR. ED LONG, P.E.
4749 TWIN CITY HIGHWAY
PORT ARTHUR TEXAS 77642
409-962-0263
elong@bobshawce.com

SCHAUMBURG & POLK ENGINEERS
MR. RICKY J. BOURQUE, P.E.
8865 COLLEGE STREET
BEAUMONT TEXAS 77707
409-866-0341
rbourque@spi-eng.com

PAGE 2
REFERENCES
ALLCO

CITY OF ORANGE
MR. JAMES B. WOLF, P.E.
803 W. GREEN
ORANGE TEXAS 77630
409-883-1900
jwolf@orangetx.org

ORANGE COUNTY W.C.I.D. NO. 1
MR. NORMAN BLACKMAN, P.E.
460 E. BOLIVAR STREET
VIDOR TEXAS 77662
409-769-2669
nblackman@ocwc1.com

CITY OF NEDERLAND
MR. STEVE HAMILTON, P.E.
207 NORTH 12TH
NEDERLAND TEXAS 77627
409-723-1542
Shamilton@ci.nederland.tx.us

CITY OF PORT ARTHUR
DR. JIMMY JOHNSON
444 4TH STREET
PORT ARTHUR TEXAS 77640
409-983-8226
john.tomplait@portarthur.net

ALLCO

SELECTED LIST OF COMPLETED COMMERCIAL PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
13,000,000	New Training/Office Facility-Industrial Safety Training Council	2015	Nederland Jefferson Texas	Mark Magnuson Architects P.O. Box 901 Bridge City Texas 77611 409-735-4999
1,6000,000	New Softball Complex CMAR	2015	Beaumont Jefferson Texas	Lamar University 4410 Jimmy Simmons Blvd Beaumont Texas 77705 409-880-8471
2,200,000	Tennis Courts Covered Uncovered & Loggia Design/Build Project	2015	Beaumont Jefferson Texas	City of Beaumont 801 Main Street Beaumont Texas 77701 409-880-3725
1,150,000	Tennis Center Pro Shop/Clubhouse Beaumont Athletic Complex	2014	Beaumont Jefferson Texas	The LaBiche Architectural Group 7999 Gladys Beaumont Texas 77706 409-860-0197
730,000	Setzer Center Student Center Roof Replacement	2014	Beaumont Jefferson Texas	Lamar University 4410 Jimmy Simmons Blvd Beaumont Texas 77705 409-880-8471
325,000	Dishman Art Building Roof Replacement	2014	Beaumont Jefferson Texas	Lamar University 4410 Jimmy Simmons Blvd Beaumont Texas 77705 409-880-8471
23,700,000	South Park Middle School	2013	Beaumont Jefferson Texas	Beaumont I.S.D. 3395 Harrison Beaumont Texas 77706 409-617-5000
11,500,000	German Pellets Plant Woodville Texas	2013	Woodville Tyler Texas	Evans Contractors 704 Hembree Place Roswell Georgia 30076 678-794-7514

ALLCO

SELECTED LIST OF COMPLETED COMMERCIAL PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
2,379,600	Outdoor Education Service Center Sabine Pass I.S.D.	2013	Sabine Pass Jefferson Texas	The LaBiche Architectural Group 7999 Gladys Suite 101 Beaumont Texas 77706 409-860-0197
2,497,000	Regional Marine Security Center	2013	Sabine Pass Jefferson Texas	Jefferson County 249 Pearl Street Beaumont Texas 77701 409-835-8584
38,000,000	High School Renovation & Additions	2012	Port Neches Jefferson Texas	Port Neches I.S.D. 643 Ave C Port Neches Texas 77651 409-722-3351
18,100,000	New French Elementary School	2012	Beaumont Jefferson Texas	Beaumont I.S.D. 3395 Harrison Beaumont Texas 77706 409-617-5000
17,200,000	New Fehl Elementary School	2012	Beaumont Jefferson Texas	Beaumont I.S.D. 3395 Harrison Beaumont Texas 77706 409-617-5000
17,400,000	New Dunbar Elementary School	2012	Beaumont Jefferson Texas	Beaumont I.S.D. 3395 Harrison Beaumont Texas 77706
10,500,000	Stilwell Education Support Center	2011	Port Arthur Jefferson Texas	Port Arthur I.S.D. 733 5th Street Port Arthur Texas 77640 409-617-5000
18,300,000	New Martin Elementary School	2011	Beaumont Jefferson Texas	Beaumont I.S.D. 3395 Harrison Beaumont Texas 77706 409-617-5000
16,000,000	New Blanchette Elementary School	2011	Beaumont Jefferson Texas	Beaumont I.S.D. 3395 Harrison Beaumont Texas 77706 409-617-5000

ALLCO
SELECTED LIST OF COMPLETED COMMERCIAL PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
15,500,000	Thomas Edison Middle School	2011	Port Arthur Jefferson Texas	Port Arthur I.S.D. 733 5th Street Port Arthur Texas 77640 409-617-5000
14,000,000	New Amelia Elementary	2010	Beaumont Jefferson Texas	Beaumont I.S.D. 3395 Harrison Beaumont Texas 77706 409-617-5000
4,500,000	Travis Elementary Renovations	2010	Port Arthur Jefferson Texas	Port Arthur I.S.D. 733 5th Street Port Arthur Texas 77640 409-989-6244
3,100,000	Stadium Renovations	2010	Port Arthur Jefferson Texas	Port Arthur I.S.D. 733 5th Street Port Arthur Texas 77640 409-989-6244
85,000,000	Memorial High School New Facility	2009	Jefferson Port Arthur Texas	Port Arthur I.S.D. 733 5th Street Port Arthur, Texas 77640 409-989-6244
12,400,000	New Memorial High School C.A.T.E Building	2009	Jefferson Port Arthur Texas	Port Arthur I.S.D. 733 5th Street Port Arthur, Texas 77640 409-989-6244
5,960,000	New Practice Gyms Marshall, Austin, Odom Vincent Middle Schools	2008	Beaumont Jefferson Texas	Beaumont I.S.D. 3395 Harrison Beaumont Texas 77706 409-989-6244
10,000,000	Robert E. Lee Elementary	2007	Port Arthur Jefferson Texas	Natex Corporation 2500 Wilcrest 3rd Floor Houston, Texas 77042 713-975-9525
18,000,000	McDonald Gym Recreational Facility Lamar University	2007	Beaumont Jefferson Texas	Lockwood Andrews Newnam 2925 Briarpark Drive Houston, Texas 77042 713-266-6900

ALLCO
SELECTED LIST OF COMPLETED COMMERCIAL PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
9,000,000	DeQueen Elementary School Facility	2006	Port Arthur Jefferson Texas	Long Architects Inc. 6465 Calder Suite 206 Beaumont Texas 77706 409-866-3443
670,000	Kinsel Lincoln Mercury Dealership	2005	Beaumont Jefferson Texas	Kinsel Auto Mall 3355 Eastex Freeway Beaumont, Texas 77706 409-898-4444
5,858,650	Performing Arts Center	2004	Port Arthur Jefferson Texas	Texas University System Lamar State College Port Arthur, Texas 77640
1,400,000	Eagle Climatized Self Storage	2004	Port Neches Jefferson Texas	M.O. Turner Nederland, Texas 77627
140,400	Information Tech EH & S	2004	Port Neches Jefferson Texas	ISP Elastomers Port Neches, Texas 77651
211,100	Chlorine Building Loeb Water Plant	2004	Lumberton Hardin Texas	City of Beaumont P.O. Box 3827 Beaumont, Texas 77704
4,300,000	Wesley United Methodist Church	2004	Beaumont Jefferson Texas	LaBiche Architectural Group 7999 Gladys Suite 101 Beaumont, Texas 77706
295,000	Customer Service Building	2003	Port Neches Jefferson Texas	ISP Elastomers Port Neches, Texas 77651
369,000	City of Port Neches Service Center Building	2003	Port Neches Jefferson Texas	LaBiche Architectural Group 7999 Gladys Suite 101 Beaumont, Texas 77706

ALLCO

SELECTED LIST OF COMPLETED COMMERCIAL PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
8,690,424	Five-Story Parking Garage St. Elizabeth Hospital	2002	Beaumont Jefferson Texas	Hellmuth Obata & Kassabaum 2800 Post Oak Blvd Ste 3700 Houston, Texas 77056
413,000	Kinsel Chrysler-Jeep Mazda Showroom	2002	Beaumont Jefferson Texas	Kinsel Auto Mall 3355 Eastex Freeway Beaumont, Texas 77706
735,700	Beaumont Pediatrics Center Memorial Hermann Hospital	2002	Beaumont Jefferson Texas	The LaBiche Architectural Group 7999 Gladys Suite 101 Beaumont, Texas 77706
345,000	Kinsel Auto Mall & Facilities	2002	Beaumont Jefferson Texas	Kinsel Auto Mall 3355 Eastex Freeway Beaumont, Texas 77706
8,661,400	Southeast Texas Entertainment Amphitheater Facility	2002	Beaumont Jefferson Texas	Long Architects 6465 Calder Suite 206 Beaumont, Texas 77706
200,000	Ferguson Baseball Practice Building	2001	Beaumont Jefferson Texas	Ferguson Sports Foundation 490 Park Street Beaumont, Texas 77701
15,869,200	Pietzsch-MacArthur Elementary	2000	Beaumont Jefferson Texas	Beaumont Independent School District 3395 Harrison Beaumont, Texas 77706
23,000,000	Silsbee High School	2000	Silsbee Hardin Texas	Silsbee Independent School District 415 West Avenue N Silsbee, Texas 77656
5,000,000	Newton Middle School	1999	Newton Newton Texas	Bay Architects, Inc. 18201 Gulf Freeway Webster, Texas 77598
355,850	MRI Addition Beaumont Bone & Joint Institute	1999	Beaumont Jefferson Texas	Milton Bell Associates 711 San Jacinto Building Beaumont, Texas 77701

ALLCO
SELECTED LIST OF COMPLETED COMMERCIAL PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
6,100,000	Ozen High School Additions-Alteration	1999	Beaumont Jefferson Texas	Architectural Alliance 6654 Phelan Blvd. Beaumont, Texas 77706
9,120,000	Dishman Elementary	1999	Beaumont Jefferson Texas	Bay Architects, Inc 18201 Gulf Freeway Webster, Texas 77598
25,000,000	Water Treatment Plant Contract II & Plant Buildings	1998	Port Arthur Jefferson Texas	Black & Veatch, Inc. 5728 LBJ Freeway Suite 300 Dallas, Texas 75240
2,000,060	Monsignor Kelly High School Multipurpose Bldg.	1997	Beaumont Jefferson Texas	Steinman & Associates 390 Ninth Street Beaumont, Texas 77702
2,500,000	Austin Middle School	1997	Beaumont Jefferson Texas	Bay Architects, Inc. 18201 Gulf Freeway Webster, Texas 77598
565,997	Beaumont Institute Jesus Christ of Ladder Day Saints	1995	Beaumont Jefferson Texas	Bruce Baxter Architect 2307 North Street Beaumont, Texas 77702
18,500,000	Golden Triangle State School	1995	Beaumont Jefferson Texas	Texas Youth Commission P. O. Box 4260 Austin, Texas 78765
2,787,700	Hardin County Jail Addition	1994	Kountze Hardin Texas	Adams, Richardson, & Fisher, Inc. 1313 S. John Redditt Drive Lufkin, Texas 75901
899,250	West Harbor Island Transit Shed	1994	Beaumont Jefferson Texas	Architectural Alliance 6654 Phelan Boulevard Beaumont, Texas 77706
96,031	Replace Roof on Finishing Building	1994	Beaumont Jefferson Texas	Goodyear Tire & Rubber P.O. Box 26003 Beaumont, Texas 77720

ALLCO

SELECTED LIST OF COMPLETED COMMERCIAL PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
10,500,000	Jefferson County Correctional Facility	1993	Beaumont Jefferson Texas	Jefferson County Commissioners P.O. Box 4025 Beaumont, Texas 77704
162,454	Campus Site Work Lamar University	1992	Port Arthur Jefferson Texas	Moore Stansbury & Vaught Architect 3100 25th Street Port Arthur, Texas 77640
183,250	Additions/Alterations to Recital Hall Lamar University	1992	Beaumont Jefferson Texas	Gordy & Huffhines, Inc. 479 Pine Street Beaumont, Texas 77701
206,400	Carl Parker Building Photographic Services Reconstruction	1992	Beaumont Jefferson Texas	Moore Stansbury & Vaught Architects 3100 25th Street Port Arthur, Texas 77640
1,700,000	Commercial Construction	1991	Nederland, Jefferson Texas	AMI Mid-Jefferson Hospital Highway 365 @ 27th Street Nederland, Texas 77627
698,000	Lab, Maintenance & Power House Constr. & Renov.	1991	Beaumont Jefferson Texas	Goodyear Tire & Rubber Company P.O. Box 26003 Beaumont, Texas 77720
105,000	New Branch Bank Facility Washington Blvd.	1991	Beaumont Jefferson Texas	Parkdale Bank P. O. Box 3567 Beaumont, Texas 77726
191,000	CT Scan Facility	1991	Nederland Jefferson Texas	AMI Mid-Jefferson Hospital Highway 365 & 27th Street Nederland, Texas 77627
750,000	Ash Containment Storage Area-Building	1991	Port Arthur Jefferson Texas	Schaumburg & Polk, Inc. 8865 College Street Beaumont, Texas 77707

ALLCO

SELECTED LIST OF COMPLETED COMMERCIAL PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
2,045,000	Commercial Construction	1990	Beaumont Jefferson Texas	MHMR of Southeast Texas 2850 S. 8th Street Beaumont, Texas 77701
125,000	Foundation and Building	1990	Port Arthur Jefferson Texas	Star Enterprise P. O. Box 712 Port Arthur, Texas 77641
125,200	Operator's Shelter, VPS #2	1990	Port Arthur Jefferson Texas	Star Enterprise P. O. Box 712 Port Arthur, Texas 77641
150,000	Engineering & Drafting Space Renov.	1989	Port Arthur Jefferson Texas	Star Enterprise P. O. Box 712 Port Arthur, Texas 77641
647,455	Expansion of North Central Plant Utilities	1988	Beaumont Jefferson Texas	Lamar University P.O. Box 10016 Beaumont, Texas 77710
692,080	Additions & Renovations to Bank	1988	Beaumont Jefferson Texas	Parkdale Bank P.O. Box 7588 Beaumont, Texas 77706
1,411,111	Warehouse Addition	1987	Beaumont Jefferson Texas	Tideland Specialty P.O. Box 4046 Beaumont, Texas 77704
165,253	Bank Renovations	1987	Port Arthur Jefferson Texas	Mbank-Port Arthur P.O. Box 1000 Port Arthur, Texas 77641
395,741	Addition to Church	1987	Beaumont Jefferson Texas	St. Andrews' Presbyterian 1350 23rd Street Beaumont, Texas 77706
133,814	Alterations to Building	1987	Beaumont Jefferson Texas	Southwestern Bell Telephone Company 3100 Main, Room 609 Houston, Texas 77002

ALLCO

SELECTED LIST OF COMPLETED COMMERCIAL PROJECTS

Contract Amount	Class of Work	When Completed	Where Located City/County/State	Owner or Owner Representative
161,852	Emergency Room Alterations	1986	Conroe Montgomery Texas	Doctors Hospital P.O. Box 1349 Conroe, Texas 77301
202,093	Bank Bldg. Renovations	1986	Beaumont Jefferson Texas	MBank-Beaumont P.O. Box 3567 Beaumont, Texas 77704

ALLCO REFERENCES

BEAUMONT INDEPENDENT SCHOOL DISTRICT
MS. NAKISHA MYLES
nmyles@bmtisd.com
409-617-5042 - phone
409-923-1015 - fax

PORT ARTHUR INDEPENDENT SCHOOL DISTRICT
REED RICHARD
rrichard@paisd.org
409-989-6200 - phone
409-983-7499 - fax

PORT NECHES INDEPENDENT SCHOOL DISTRICT
JEFF BERGERON
jbergeron@pngisd.org
409-722-4483 - phone
409-724-7864 - fax

LONG ARCHITECT
PHILIP LONG
plong@longarchitects.com
409-866-3443 - phone
409-866-3603 - fax

SHW ARCHITECTS
ERIN MACHAC
emachac@stantec.com
713-548-5700 - phone
713-548-5701 - fax

ARCHITECTURAL ALLIANCE
RONNIE JONES
rjones@architect-aia.com
409-866-7196 - phone
409-866-7199 - fax

PBK ARCHITECTS
STEVE DAYLOR
Steve.Daylor@PBK.com
713-965-0608 - phone
713-961-4571 - fax

		ALLCO			
		EQUIPMENT LIST	Unit #	Complete Sir.#	
			Last 4 of Sir.		
1	Back Hoe	Cat 416C IT	10-0486	Sir# 1WR10486	
2	Back Hoe	Cat 416C IT	10-3191	Sir# 1WR03191	
3	Back Hoe	Cat 416C IT	10-4063	Sir# 1WR04063	
4	Back Hoe	Cat 416 C	10-3216	Sir# 5YN03216	
5	Back Hoe	Cat 416 C	10-3379	Sir# 4ZN23379	
6	Back Hoe	Cat 416 C	10-7990	Sir# 4ZN07990	
7	Back Hoe	Cat 416	10-7994	Sir# 4ZN07994	
8	Back Hoe	Cat 416 C	10-9179	Sir# 4ZN19179	
9	Back Hoe	Cat 416 D	10-2353	Sir# BFP02353	
10	Back Hoe	Cat 420 D IT	10-1605	Sir# BLN01605	
11	Back Hoe	Cat 420 D	10-1083	Sir# FDP21083	
12	Back Hoe H	Cat 420 D	10-3930	Sir# FDP03930	
13	Back Hoe	Cat 420D 4x4	10-5722	Sir# FDP25722	
14	Back Hoe	Cat 420 D IT	10-7068	Sir# BLN07068	
15	Back Hoe	Cat 420 E	10-1016	Sir# HLS01016	new
16	Back Hoe EXT	Komatsu WB140-2N	10-2631	Sir# A22631	
17	Back Hoe	Komatsu WB140-2T	10-0448	Sir# 30448	
18	Back Hoe H	Komatsu WB 140-2N	10-0659	Sir# A20659	
19	Back Hoe	Komatsu WB140-2N	10-0680	Sir# A20680	
20	Back Hoe	WB 140	10-1239	Sir# F 11239	
21	Back Hoe	Komatsu WB140-2	10-1268	Sir# F11268	
22	Back Hoe	Case 580 L	10-2842	Sir# JJG0222842	
23	Back Hoe	Case 580 L	10-8024	Sir# JJG0238024	
24	Back Hoe	Case 580 Super L 4x4	10-7301	Sir# JJG0197301	
25	Back Hoe	JCB 1400B	10-2037	Sir# 347203	
26	Back Hoe	Ford 555D	10-2408	Sir# A422408	
27	Track Hoe	Bobcat 322 D Mini Ex.	11-3486	Sir# 223513486	
28	Excavator	1995 Takeuchi TBO15	4504	Sir# 1154504	
29	Excavator	1995 Takeuchi TBO15	4503	Sir# 1154503	
30	Track Hoe	Komatsu PC18 MR-3	11-0114	Sir# KMTPC206C05020114	new
31	Track Hoe	Komatsu PC 18 MR-2	11-7680	Sir# 17680	
32	Track Hoe	Komatsu PC 18 MR-2	11-7686	Sir# 17686	
33	Track Hoe	Komatsu PC 18 MR-2	11-7687	Sir# 17687	
34	Track Hoe	KOMATSU PC 27MR-2	11-5952	Sir# 15952	
35	Track Hoe	Komatsu PC 40-7	11-5473	Sir# 25473	
36	Track Hoe	Komatsu PC 40-7	11-5488	Sir# 25488 ck file 5483	MK FILE
37	Track Hoe	Komatsu PC 45-8	11-5967	Sir# 5967	
38	Track Hoe	Komatsu PC 45R-8	11-5973	Sir# 5973	
39	Track Hoe	Komatsu PC 45-MRX-1F	11-3092	Sir# 3092	
40	Track Hoe	Komatsu PC 45-MRX-1F	11-3196	Sir# 3196A	
41	Track Hoe	Komatsu PC 50 MR-2	11-8205	Sir# 8205A	
42	Track Hoe	Komatsu PC50 MR-2	11-8309	Sir# KMTPC094V05008309	new
43	Track Hoe	Komatsu PC60-7	11-0697	Sir# 50697	
44	Track Hoe	Komatsu PC60-7	11-0846	Sir# 50846	

45	Track Hoe	Komatsu PC60-7	11-6155	Sir# 56155	
46	Track Hoe	Komatsu PC60-7	11-0847	Sir# T50847	
47	Track Hoe	Komatsu PC78 MR-6	11-1353	Sir# 1353	
48	Track Hoe	Komatsu PC78 MR-6	11-2082	Sir# 2082	
49	Track Hoe	Komatsu PC88 MR-8	11-5043	Sir# 5043	
50	Track Hoe	Komatsu PC88 MR-8	11-5409	Sir# 5409	new
51	Track Hoe	Komatsu PC95-1	11-5453	Sir# 21D5005453	
52	Track Hoe	Komatsu PC 120-6	11-3900	Sir# 63900	
53	Track Hoe	Komatsu PC128 UU-1E	11-3069	Sir# T3069	
54	Track Hoe	Komatsu PC 128 UU-1	11-3424	Sir# T3424	
55	Track Hoe	John Deere 190E	11-0274	Sir# FF190EX010274	
56	Track Hoe	Komatsu PC 160 LC-7KA	11-0403	Sir# K40403	
57	Track Hoe	Cat 322 BL	11-0434	Sir# 2ES00434	
58	Track Hoe	Cat 322 BL	11-0790	Sir# 01YS00790	
59	Track Hoe	Komatsu PC220 LC-5L	11-0845	Sir# A70845	
60	Track Hoe	Komatsu PC220 LC-6	11-5256	Sir# A85256	
61	Track Hoe	Komatsu PC 220 LC-6L	11-0384	Sir# A80384	
62	Track Hoe	Komatsu PC220 LC-6LE	11-3539	Sir# A83539	
63	Track Hoe	Komatsu PC200 LC-6LE	11-3631	Sir# A83631	
64	Track Hoe	Komatsu PC220 LC-6LE	11-5394	Sir# A85394	
65	Track Hoe	Komatsu PC220 LC-6LE	11-5420	Sir# A85420	
66	Track Hoe	Komatsu PC220 LC-6LE	11-5423	Sir# A85423	
67	Track Hoe	Komatsu PC220 LC-6 LE	11-3322	Sir# TA83322	
68	Track Hoe	Komatsu PC220 LC-6LE	11-3379	Sir# A83379	
69	Track Hoe	Komatsu PC220 LC-8	11-8157	Sir# A88157	
70	Track Hoe	Komatsu PC220LC-8	11-8329	Sir# A88329	
71	Track Hoe	Komatsu PC250LC-6LE	11-3082	Sir# A83082	
72	Track Hoe	Komatsu PC300 LC-5	11-0199	Sir# A30199	
73	Track Hoe	Komatsu PC300 LC-5LC	11-0200	Sir# A30200	
74	Track Hoe	Komatsu PC300 LC-7L	11-7040	Sir# A87040	
75	Track Hoe	Komatsu PC300 LC-7EO	11-8058	Sir# A88058	
76	Track Hoe	Komatsu PC400 LC-5L	11-0867	Sir# A70867	
77	Track Hoe	Komatsu PC400 LC-6LC	11-0430	Sir# A80430	
78	Track Hoe	Komatsu PC400 LC-7E	11-7519	Sir# A87519	
79	Track Hoe	Komatsu PC400LC-7EO	11-0267	SN# T50267	new
80	Skid Steer	Cat 226	12-3339	Sir# 5FZ03339	
81	Skid Steer	Cat 226	12-3341	Sir# 5FZ03341	
82	Skid Steer	Cat 226	12-3342	Sir# 5FZ03342	
83	Skid Steer	Takeuchi TL 26	12-0263	Sir# 2620263	
84	Skid Steer	Takeuchi TL-126	12-0073	Sir# 21260073	
85	Skid Steer	Bobcat T-190	12-1084	Sir# 519311084	
86	Skid Steer	Bobcat T190	12-2221	Sir# 531612221	
87	Skid Steer	Bobcat T-200	12-8012	Sir# 518918012	
88	Skid Steer	Bobcat T250	12-5067	Sir# A5GS35067	
89	Brush Cat	Brush Cat	12-0263	Sir# 2620263	
90	Loader	Komatsu WA 120-3L	12-0079	Sir# A30079A	
91	Loader	Komatsu WA180 LC-1	12-5423	Sir# TA75423	
92	Loader	Komatsu WA 180-1	12-5746	Sir# A75746	

93	Loader	Komatsu WA180 PT-1	12-6279	Sir# TA76279	
94	Loader	Komatsu WA 180 IT	12-6455	Sir# TA76455	
95	Loader	Komatsu WA 200 L-5	12-5964	Sir# 65964	
96	Loader	Komatsu WA200 L-5	12-8903	Sir# 68903	
97	Loader	Komatsu WA250-3MC	12-1848	Sir# A71848	
98	Loader	Cat 950 G	12-0404	Sir# 4BS00404	
99	Dozer	Cat D3C	13-0234	Sir# 5GS00234	
100	Dozer	Cat D5 G LGP	13-0606	Sir# RKG00606	
101	Dozer	Cat D5 G LGP	13-0914	Sir# FDW00914	
102	Dozer	Cat D5 C LGP	13-1151	Sir# 6CS01151	
103	Dozer	Komatsu D37 P-5	13-3151	Sir# 3151	
104	Dozer	Komatsu D37 P	13-3908	Sir# 3908	
105	Dozer	Komatsu D37 PX-21	13-5101	Sir# 5101	
106	Dozer	Komatsu D37 PX-21	13-5134	Sir# T5134	
107	Dozer	Komatsu D37 PX-21	13-5538	Sir# KMT0D012V01005538	
108	Dozer	Komatsu D39 P-1	13-6331	Sir# P096331	
109	Dozer	Komatsu D39PX-21	13-1278	Sir# 1278	
110	Dozer	Komatsu D41P-6	13-0225	Sir# B30225	
111	Dozer	Komatsu D41 P-6	13-1031	Sir# B21031	
112	Dozer	Komatsu D41 E-6	13-1323	Sir# B21321	
113	Dozer	Komatsu D41 P-6	13-1351	Sir# B21351	
114	Dozer	Komatsu D58E-1	13-2339	Sir# 82339	
115	Dozer	Komatsu D61 PX-12	13-3029	Sir# B3029	
116	Dozer	Komatsu D61PX-12	13-3093	Sir# B3093	
117	Dozer	Komatsu D61 PX-12 W/GPS EQUIP	13-1037	Sir# 1037	
118	Dozer	Cat D6 M LGP W/GPS EQUIPT	13-0596	Sir# 4JN00596	
119	Dozer	Cat D6 M LGP	13-1604	Sir# 4JN01604	
120	Dozer	John Deere850J W/GPS	13-9892	Sir# TO850JX149892	
121	Dozer	John Deere850J W/GPS	13-3150		
122	Dozer	Cat D6R LGP	13-1790	SN# 9PN01790	new
123	Dozer	Cat D6R LGP	13-1734	sir# cat00d6rc9pn01734	
124	Dozer	Cat D6 R	13-1050	Sir# 9PN01050	
125	Dozer	Cat D8 R	13-1127	Sir# 7XM01127	
126	Crane 60 Ton	Link Belt LS118 RM	14-2201	Sir# 2201	
127	Crane 40 Ton	American 599	14-9776	Sir# GS-9776	
128	Boring Rig	Ditch Wich JT4020	59-3060	Sir# 2R3060	new
129	Ditch Wich	Ditch Wich 5110	15-0249	Sir# 5N0249	
130	Ditch Wich	Ditch Wich 5110	15-0434	Sir# 5P0434	
131	DITCH WITCH	DITCH WITCH 3700 DD	15-1215	sir# 3T1215	
132	Ditch Witch	410 SXDD	15-0495	Sir# 4M0495	
133	Roller Asphalt	Bomag BW202 ADH-2	16-1019	Sir# 101640621019	
134	Pnumatic Roller	Rosco 915	16-8333	Sir# 38333	
135	Compactor	Cat 815 B	16-0125	Sir# 17Z00125	
136	Compactor	Cat 815 B	16-1286	Sir# 17Z1286	
137	Roller Smooth	Bomag BW212-D-2	16-0172	Sir# 940172 U	
138	Roller Smooth	Bomag BW212 D-2	16-0263	Sir# 280263	
139	Roller Smooth	Bomag BW213 PH-3	16-1005	Sir# 901581511005	
140	Roller Smooth	Bomag BW211 D-3	16-1095	Sir# 371095	

141	Roller Padfoot	Bomag BW213 PDH-3	16-0201	Sir# 109580240201	
142	Roller Padfoot	Bomag BW213 PDH-3	16-0209	Sir# 240209 V	
143	Roller Padfoot	Bomag BW213 PDH-3	16-1007	Sir# 521007	
144	Roller Padfoot	Bomag BW213 PDH-3	16-1199	Sir# 101580241199	
145	Roller Padfoot	Vibramax 1103-PD	16-3908	Sir# JKC8303908	
146	Roller Padfoot	I-Rand S-D45 FTF	16-4815	Sir# 174815	
147	Roller 36' DD	Wacker RD880V	16-3211	Sir# 673603211	
148	Roller Smooth	Vibramax 602 D	16-9703	Sir# JKC8409703	
149	RT56-SC 36"	Remote Trench Pad Foot Roller	16-9443	SN# 5569443	
150	Broom	Broce RJ350	17-4099	Sir# 404099	
151	Broom	Broce RJ350	17-4586	Sir# 404586	
152	Broom	Cat 6600	17-5460	Sir# 965465	
153	Broom	Broce RJ 300	17-8290	Sir# 88290	
154	Broom	Broce JR350	17-9670	Sir# 89670	
155	Broom	Waldon	17-2648	Sir# 22648	
156	Motor Grader	Cat 140 G	18-3715	Sir# 72V13715	
157	Motor Grader	Komatsu GD530 A	18-0020	Sir# 210020	
158	Motor Grader	Komatsu GD530 A	18-3904	Sir# 203904	
159	Motor Grader	Komatsu GD-655-3CA W/GPS EQUIP	18-1013	Sir# 51013	
160	Motor Grader	Komatsu GD-655-3CA W/GPS EQUIP+C349	18-1224	Sir# 51224	
161	Motor Grader	Champion 720 AVHP	18-9723	Sir# 29723	
162	Motor Grader	Fiatallis FG-65 C	18-5285	Sir# 8555285	
163	Crane 15 Ton	Galion 150A	19-0222	Sir# 10222	
164	Picker 15 Ton	Gallion 150 FA	19-0108	Sir# 10108	
165	Picker 15 Ton	Gallion 150 FA	19-9889	Sir# 9889	
166	Picker 28 Ton	Grove RT528 C	19-3562	Sir# 73562	
167	Vacuum Trl.	VPH-1000	20-1117	Sir# 92-93-1117	
168	Farm Tractor	John Deere 5310	23-3255	Sir# LV5310S233255	
169	Asphalt Paver	Roadtec RP195	25-0143	Sir# RP195X143	
170	C.C.Paver	CMI SF3002	25-5127	Sir# 5127	
171	Rock Spreder	Etnyre	25-5668	Sir# R5668	
172	C.C.Placer	Terex CMI PS-3502	25-7073	Sir# 527073	
173	Road Widener	MTP 4004	25-7193	Sir# 537193	
174	Texture-Tine	TC-3004	25-7193	Sir# 508212	C-DALE
175	Vacuum Trl.	VPH-1000	26-1116	Sir# 92-93-1116	
176	Power Pak	Pipeburst / trailer (new)	27-2487	Engine Sir#PE4045LO72487	VIN # 5BEBV1627AC15
177	Power Pak	New Pipeburst	27-8639	Sir#PE4045L078639	
178	Power Pak	New Pipeburst	27-8640	Sir#PE4045L078640	
179	Curb Paver	Gomaco GT3600	25-0269	Sir# 902900269	CHG #
180	C.C.Paver	Compton Form Rider Paver	31-0000	Sir# Engine Sir#	
181	Manlift	Terex TB 42	33-0025	Sir# 99690025	
182	Mixer	Cat SS250	36-0188	Sir# 6DD00188	
183	Mixer	Cat RM250 C	36-0197	Sir# AWG00197	
184	Mixer	CMI RS-425	36-6229	Sir# 526229	
185	2011	F250 4D L/WB 4x4	37-0175	Vin# 1FT7W2B63BEC00175	new
186	2008	F250 4D	37-0181	Vin# 1FTSW21R98ED40181	
187	2003	F150 E/C	37-0225	Vin# 1FTRX17L83NA50255	
188	2000	Chevy 2500	37-0326	Vin# 1GCGK2943YE390326	

189	2006	F250 4D 4x4	37-0355	Vin# 1FTSW21507EA20355	
190	2010	F150	37-0370	Vin# 1FTFW1EV7AKA90370	new
191	1997	F250 S/C LWB 4x4	37-0384	Vin# 1FTHF26H2VEC30384	
192	2005	F250 4D L/WB	37-0426	Vin# 1FTSW20P25EB90426	
193	1998	Chevy S/C 4x4	37-0724	Vin# 1GCGK24RXWZ170724	
194	2003	F150 S/C L/WD	37-1233	Vin# 2FTRF17203CB01233	
195	2010	F150	37-1239	Vin# 1FTEW1C85AKE31239	new
196	2002	F250 4D S/WB 4x4	37-1888	Vin# 1FTNW21F92EA21888	
197	2006	F150 E/C L/WB	37-2074	Vin# 1FTVX12526NA62074	
198	2006	F150 E/C L/WB	37-2105	Vin# 1FTVX12596NA62105	
199	2004	F150 E/C S/WB	37-2230	Vin# 1FTRX12W84NA72230	
200	2000	F250 S/C L/WB	37-2398	Vin# 3FTNF20L7YMA62398	
201	1998	F150	37-3011	Vin#1FTZF1725WB43011	
202	2003	F150 4D SWB	37-3327	Vin# 1FTRW076X3KD03327	
203	2008	Ford Expedition	37-3382	Vin# 1FMFU20558LA23382	
204	2006	F250 4D	37-3577	Vin# 1FTSW20576EA53577	
205	2007	Chevy E/C	37-3650	Vin# 2GCEK19J371723650	
206	2000	F250 S/C LWB	37-3729	Vin# 1FTNF20L5YEA33729	
207	2005	F150 4D 4x4	37-4519	Vin# 1FTPW14575KD94519	
208	2006	F150 4D S/WB	37-4616	Vin# 1FTPW12V66KD14616	
209	2006	F250 E/C 4x4	37-4930	Vin# 1FTSX21P96EC54930	
210	1994	F250 E/C L/WB Diesel	37-5067	Vin# 1FTHX25K2RKA95067	
211	2005	Jeep Cherokee	37-5930	Vin# 1J4HR58N95C545930	
212	2000	F150 E/C	37-6029	Vin# 1FTRX17L2YNC26029	
213	2003	F250 4D S/WB	37-6161	Vin# 1FTNW21L23EB76161	
214	2003	F150 E/C	37-6326	Vin# 1FTRX17L93NA16326	
215	2011	F350 4D L/WB 4x4	37-6873	Vin# 1FT8W3B68BEA26873	new
216	2008	F250 4D L/WB	37-7134	Vin# 1FTSW20R88EC17134	
217	2007	F250 EC L/WB 4x4	37-7288	Vin# 1FTSX21567EA27288	
218	2004	Chevy 2500 4D L/WB 4x4	37-7519	Vin# 1GCHK23U44F237519	
219	2004	Chevy Suburban	37-8050	Vin# 3GNEC16Z24G198050	
220	2005	F150 E/C	37-8341	Vin# 1FTVX12555NA98341	
221	2005	F150 S/C L/WB	37-8501	Vin# 1FTRF12295NA98501	
222	2008	F250 4D L/WB	37-8768	Vin# 1FTSW20518EE28768	
223	2006	F250 E/C L/WB Tool	37-8805	Vin# 1FTSX20516EB28805	
224	2008	F250 4D S/WB	37-9140	Vin# 1FTSW20558ED79140	
225	2008	Chevy Z71	37-9705	Vin# 3GCEK13J48G299705	
226	2004	F250	37-9843	Vin# 1FTNX20L74ED69843	
227	2005	F250 4D S/WB 4x4	37-9873	Vin# 1FTSW21596EB09873	
228	2001	F350 S/C Service	38-1016	Vin# 1FDWF36F91ED01016	
229	2000	F350	38-3843	Vin# 1FTWW32F9YEC23843	
230	1997	Dodge 3500 S/C F/B 4x4	38-5436	Vin# 1B6MF36D2VJ555436	
231	1998	F350 4D L/WB 4x4 DW	38-6871	Vin# 1FTWW3F9XEA46871	
232	2000	F350 4D L/WB 4x4	38-8494	Vin# 1FTSW31F1YEC08494	
233	1997	F350	38-8525	Vin# 1FTJW35FXVEC88525	
234	1997	F350 4D L/WB 2WD	38-8526	Vin# 1FTJW35F1VFC88526	
235	2011	F250 4D 4x4	37-1972	Vin# 1FTW2B68BED01972	new
236	2011	F250 4D L/WB 2WD	37-9158	Vin# 1FT7W2A69BEB69158	new

237	2008	F E350	38-2505	Vin# 1FBSS31LX8DB12505	
238	1999	FL70 E/C Service	39-7546	Vin# 1FV6HFBA8XHA17546	
239	1997	FL70 S/C F/B	39-8148	Vin# 1FV6HFAC2VH778148	
240	Off Road Dump	2004 725,Articulated truck		sn# AFX01219	new
241	Off Road Dump	2004 725 Articulated truck		sn# AFX01064	new
242	Off Road Dump	Cat D250 E II	40-0543	Sir# 4PS00543	
243	Off Road Dump	Cat D250 E II	40-0544	Sir# 4PS00544	
244	2002	F-550 4x4 Service	40-1552	Vin# 1FDAF57F42ED21552	new
245	2001	F550 4x4 4D Service	40-7668	Vin# 1FDAW57F01ED27668	new
246	1999	F8000 6 yd. Dump	40-1913	Vin# 3FENF80CXXMA01913	
247	1999	Chevey Dump Truck 6YD	40-3436	Vin# 1GGDL7H1C3XJ513436	
248	1995	Volvo WG64T (Haul Truck)	40-4566	Vin# 4V1JDBJF0SR834566	
249	1992	Ford L800 Grapel Truck	40-5274	Vin# 1FDXS82A7NVA15274	
250	Dump Truck	1999 Mack	40-7533	Vin# 1M2AA13YXXW117533	
251	1999	FORD DUMP TRUCK	40-7619	Vin# 3FENF80C7XMAO7619	
252	1996	FL70 S/C Service	40-7977	Vin# 1FV6HLAC5TL727977	
253	1994	Ford L-9000 Lube	40-8299	Vin# 1FTYS95B5RVA38299	
254	2005	Sterling Service Truck	40-8342	Vin# 2FZHAZDE95AV58342	
255	1993	Volvo Dump Truck	40-8640	Vin# 4V1JDBLFXPR818640	
256	1994	Mack Haul Truck	40-1051	Vin# 1M2AA13Y2W041051	new
257	1994	Volvo (Green)Dump Truck	40-3458	Vin# 4V2SDBCF4RR513458	new
258	1998	Int'l Water Truck (Mud)	41-3525	Vin# 2HSFMAHR2WC053525	new
259	Water Wagon	Cat 613 C 5000 gal	41-0962	Sir# 8LJ00962	
260	Off Road Water	Terex 3066 C 5,000 gal	41-1030	Sir# A7101030	
261	1985	Mack RS688 LS 4,000 gal.	41-2251	Vin# 1M2T157V0FM002251	
262	1987	F800 Water Truck 2,000 gal.	41-5030	Vin# 1FTWR72PXHVA45030	
263	1988	F800 HYDRO-Cleaner	41-5528	Vin# 1FDPF82K3JYA35528	
264	2002	F550 Service	40-0550	Vin# 1FDAF57F32EB20550	
265	2009	F350 V 10	38-6631	Vin# 1FTWW31Y59EA16631	
266	Welder	Lincon 400 K1273-5	44-6096	Sir# U1980806096	
267	Compressor	Ingersall Rand 185	45-7085	Sir# 297085	
268	Compressor	Ingersall Rand P 185 W1R	45-0295	Sir# 337595UEN295	
269	Compressor	Ingersall Rand P185 W1R	45-0295	Sir# 323038UFL295	
270	Compressor	Ingersall Rand 185	45-0328	Sir# 232105UDD328	
271	Compressor	Leroi	45-0379	Sir# N3272X379	
272	Compressor	Ingersall Rand P375WCU	45-0413	Sir#296788UAJ413	
273	Compressor	IR 185	45-1328	Sir#192913U91328	
274	Compressor	Ingersall Rand 185CFM	45-1328	Sir#192907U91328	
275	Compressor	Ingersall Rand P185 W1R	45-4425	Sir# 364425	
276	Compressor	Sullair 185 DPO JD	45-5271	Sir# 004-125271	
277	Compressor	Ingersall Rand P185 W1R	45-7286	Sir# 317286VKK295	
278	Compressor	Ingersall Rand P185 WIR	45-M295	Sir# 327745UBM295	
279	Fork Lift	Cat DP70	46-0481	Sir# 9CP00481	
280	Hammer	Allied AS 380 (Black)	47-0698	Sir# 0698	
281	Drop Hammer	Arrow 1350 Hydra	47-6435	Sir# 6435	
282	Hammer	Hyram/Mini Exc - 715MXS	47-0538	Sir# 0538	
283	Concrete Saw	Husquvarna FS 6600 D36	48-1001	Sir# 001257871001	
284	Concrete Saw	Target Pro65 III	48-8698	Sir# 378698	

285	Arrow Board	Almond Eclipse	49-0532	Sir# 532AB07	
286	Arrow Board	Almond Eclipse	49-0533	Sir# 533AB07	
287	Arrow Board	Almond Eclipse	49-0534	Sir# 534AB07	
288	Arrow Board	Almond Eclipse	49-0538	Sir# 538AB07	
289	Asphalt Zipper	AZ-480 Milling Machine	50-0163	Sir# 48000163	
290	12" Pump	Pioneer Vac Asst	51-1064	Sir# 1064	
291	12" Pump	Pioneer Vac Asst	51-1325	Sir#	
292	12' Pump	Pioneer Vac Asst	51-1788	Sir# 1788	
293	6' Pump	Cornell	51-1235	Engine# 6NHTA-RPEM18-4	
294	6" Pump	Deutz		Sir#	
295	6' Pump	Cornell		Sir#	
296	6" Pump	Pioneer		Sir# 0518	
297	4" Pump	H/M Isuzu	51-1500	Sir# Engine Sir#	
298	4" Pump	Deutz	51-2407	Sir#	
299	4" Pump	H/M John Deere/ Pioneer		Sir# 268T	
300		jet pump	51-6704	Sir#	
301	2006	F-750 XL / Etnyre Aspalt Dist.	53-0389	Vin# 3FRXF75N06V300389	
302	1985	Chevy C65 Asphalt Dist. Tack	53-3690	Vin# CCE668V113690	
303	Scraper	Cat 621F	55-0239	Sir# 8PL00239	
304	Scraper	Cat 621F	55-0240	Sir# 8PL00240	
305	Scraper	Cat 621 F	55-0499	Sir# 4SK00499	
306	Scraper	Cat 621F	55-0500	Sir# 4SK00500	
307	Scraper	Cat 621 F	55-0647	Sir# 4SK00647	
308	Light Tower	AMIDA AL4060D4MH	61-4611	Sir# FMF14611	
309	Light Tower		61-1823		
310	Tiller	Quick AttachTiller		Sir#1020550	new
311	Landscape Rake	Stone Dawg		Sir#1020551	new
312		2008 Frac 500 Barrell		5.00E+16	new
313		2008 Frac 500 Barrell		4S9SV46146T084256	new
314		2008 Frac 500 Barrell		4S9SV461X7T084862	new
315		2008 Frac 500 Barrell		4S9SV46117T084698	new
316		Wichita 500 Barrell		WTM-02395	new
317	Frac Tank	10,000			
318	WATER TRUCK	2000 GA FORD R.S.C.	41-2557	SR# 3FRPF75E55V122557	
319	MAN LIFT	Z45/25	33-3817	Z452504-23817	
320	Broom	TERRAMITE	17-0108	SN#23TS0108	
321	WELDER	lincon classic 300D	44-0030	SN# C1070100030	
322	Compressor	Ingersall Rand P 185	45-2023	sn# 382023uarb34	
323	UTILITY VEHICAL	Club car 1550SE		Sir# SY0810-876440	
324	UTILITY VEHICAL	Club car 1550SE		Sir# SY0908-003155	
325	UTILITY VEHICAL	RTV900		Sir# 97094	
326	Lawn Tractor	Kubota ZD331	23-2438	Sir# 32438	
327	Farm Tractor	Massy Ferguson 271X		Sir# 9916BK23031	
328	Office conex	8x20			
329	Office conex	8x20			
330	Office conex	8x20			
331	Vacum Pump	Griffin 6WPRD-921 Well Point sys.	57-0921	Sir# 6WPRD-GFSL02W04J04	
332	Well point drill	Deep Rock DR20 Well Point sys.	57-7881	Sir#1D9AG101291067881	

333	Shredder	Land Pride 15'	99-6368		
334	Power Pak	Pipeburst	99-0150	Sir#T04045TF150	
335	Power Pak	Pipeburst	6693	Sir#T04045796693	
336	Power Pak	Pipeburst	7313	Sir#T04045777313	
337	M.H.Wall Sealer	Pro Pump & Gun	99-0596	Sir#500596	
338	Message Board	Dot-Sign DH-1000	3904	Sir# 513904	
339	Arrow Board	B 429/		Sir# 9506	
340	Generator	600T-2006 125 KW		Sir# 129908	
341	Disc	Big Yellow 24"		Sir#	
342	Welder	Miller 225		Sir# LB321358	
343	Pres.Washer	PGDC 5-2500		Sir#	
344	Trench Burner	John Deere		Sir#	
345	Total Station	Pentax PC325		Sir# 730288	
346	1988	S1900 International	41-5609	Vin# 1HSLRTVN1JH585609	
347	2005	Peterbuilt 378	0103	Vin# 1XPFDB0X95D850103	
348	1984	Chevy CG70 / Scorpion Attenuator	25-1238	Sir# 01238	
349	2002	Chevy E/C L/WB	1041	Vin# 1GCEC19T9E181041	
350	Arrow Board		1329	Sir#	
351	Arrow Board		1454	Sir#	
352	1998	FORD DUMP TRUCK	1872	Vin#3FENF80C0XMA01872	
353	2001	F350	2308	Vin#1FTWW32S81EA22308	
354	2002	Chevy 2500 4x4	3946	Vin# 1GCHK23U62F213946	
355	2005	Mercedes Van - TV Equipment	5039	Vin#WDYPD544555795039	C-DALE
356	1991	1991 International 2000 gal	7543	Vin# 1HSHANWN4MH377543	
357	1990	International Lube Truck	7593	Vin# 1HSHATVN2LH697593	
358	Message Board		9089	Sir# 4GM2M151351409089	
359	Message Board		9090	Sir# 4GM2M151X51409090	
360	Brushhog	Bobcat Brushcat 60"	12-0623	Sir# 2620263	
361		04 Jayco CT	200077	Vin# 1UJBJ02R241EM0077	NOFILE
362		Mobile Home	200153		
363		16x80 Mobile Office	200414	Sir# CLW000414 TX	
364		Trail King Trailer	200891	Vin# 1TKJ053365M040891	
365		Job Trailer 12x56	201278	Vin#	
366		Gooseneck Trailer	201593	Vin# 1D9GN24267B601593	
367		16x80 Mobile Office	201680	Sir# 16X80	
368		Job Trailer 8x28	201939	NO	
369		Cargo Trailer 16'	202602	Vin# 5NHUEH6246W052602	
370		Job Trailer 12x60	202810	NO	
371		Job Trailer 12x60	203431	NO	
372		TR385 Trailer	203476	Vin#mull	
373		TR311 Trailer	203678	Vin#	
374		Lowboy 18' Trailer	205218	Vin#	
375		Cherokee Travel Trailer	205405	Vin# 4X4TCKD227X105405	
376		Lowboy 20' Trailer	205540	Vin# 5BEBU20237C146540	
377		Cherokee Travel Trailer	205896	Vin# 4X4TCKD237X105896	
378		Trailmaster Trailer	206064	Vin# 5BEBF25253C126064	
379		Lowboy 18' Trailer	207081	Vin# 1C9UT182X6L347081	

380		Trailmaster 18' Trailer	207187	Vin# 5BEBU18215C137187	
381		Trailmaster 18' Trailer	207188	Vin# 5BEBU18235C137188	
382		Office Trailer 8x28	209186	NO	
383		Trench Box 8x24	211023	Slr# 1023	
384		Trench Box 8x24	211024	Slr# 1024	
385		Total Station ATS600	220529	Slr# 64620529	
386		Total Station ATS-3D plus key	220742	Slr# 64620742	
387		Nikon NPL-352 Total Sta	221271	?	
388		Operator Control Box plus key	221648	?	
389		GPS System	221826	? NOT ON LIST	
390		Terramodel Const Pack	225435	Slr# 485436	
391		Bidwell Bridge Deck Paver	250001	Slr# B3600239	
392		CMI Road Widener Kit	256843	SIR# R6843	
393		TV Camera	260300	SIR# 0300	
394		Winch Assembly	263038	SIR# 3038	
395		Landa Steamer & Trailer	292272	MAKE A FILE	
396		Honda Pressure Washer	296863	SIR# 296863	
397		Honda Pressure Washer	296864	SIR# 296864	
398		Shaker Screed	315670	MAKE A FILE	
399		Allen Razorback Screed	317169	MAKE A FILE	
400		Paving Forms / 8" & 10" 15,000 FT	350001		
401		Auto Crane 5005EH	407977.01	Slr# 0306-023	
402		Detroit 150KW Generator	429908	Slr# 129908	
403		Lincoln 400 K1273-5	446095	Slr# U1980806096 MAKE FILE/ K1278-5	C-DALE
404		IR P185 Air Comp	453038	MAKE A FILE	
405		Sull Air Comp 185	455271	MAKE A FILE	
406		IR P185 Air Comp	457595	SIR# 337595	
407		IR P185 Air Comp	457745	Slr# 327745	
408		Case 586G Forklift	461240	Slr# JJG0291240	
409		Lull Forklift	462276	SIR# 97Y19P22276	
410		Hairpin Hammer 4000#	474020	Slr# 4000	
411		Hyd Hammer NPK 4X (cat)	479093	SIR# 69093	
412		Solar Arrowboard	495327	Slr# 532AB07	
413		Solar Arrowboard	495337	Slr# 533AB07	
414		Solar Arrowboard	495347	Slr# 534AB07	
415		Solar Arrowboard	495387	Slr# 538AB07	
416		Solar Tech Mess Board	498759	SIR# 408759	
417		Solar Tech Mess Board	498761	SIR# 408761	
418		GR-CE6 Pump	510858	?	
419		Pioneer Pump PP1212S2	511058	?	
420		12" pump	511235	?FILE	
421		Pump 4NNTF3L	513655	?	
422		Peerless Pump	516704	?FILE	
423		Pump 6NHTAF4	518902	?	
424		6000 Gallon Tank	540001.01		
425		Skid tank 1000 gal	560215	10215 TANK #	

426		Skid tank 10000 gal	560244	10244 TANK #	
427		Dewatering System	570921	Sir# 5WPRD-92	
428		ESI Phone System	990017	Sir# 0017	
429		Ricoh C5000	990494	Sir# V1385100494	
430		Ricoh 2045	993408	Sir# J5937203408	
431		Trench Box 10x24x6	99-1164	Sir# 1164	
432		Trench Box 6x24x4	99-1165	Sir# 1165	
433		Trench Box 816DW4KE	99-2981	Sir# 2981	
434		6" Piercing Tool Pkg	99-0118	Sir# P160913V118	
435		CONEX BOXES / 8' X 20'	TOTAL 41		
436		EXTRA BUCKETS VARIOUS SIZES	TOTAL 15		
437		TRENCH BOXES VARIOUS SIZES	TOTAL 5		
438		RAKES 10' FT	TOTAL 2		
439		C.C. Screeds	TOTAL 10		
440	Press washer	trailer	43-622	Sir# 622	
441	2002	TRMA	5x10 Lowboy	Vin# 5BEBU08122C124266	
442	2001	Bourg Trl.	Utility(curing comp.)	Vin# 4J1FS081X1B006630	
443		Office	8x24	20-3894	
444	2006	Trailer	Cargo Green 6X12	Vin# 16HCB12166K010703	
445		Office		20-7771	
446	1997	Bourg Trl.	18' FT	Vin# 4J1FS1820VB003031	
447	2004	Bourg Trl.	18' FT	Vin# 4J1FS18264B008734	
448	2007	Cherokee	Travel Trailer	5405	Vin# 7X105405
449	2006	Big Tex	18' Lowboy	Vin# 16VPX182162E24894	
450		Trailer	Goose Neck		
451	1992	C&F Trailer	18Ft. Lowboy	Vin# 1C9UT1822NL347009	
452	1992	C&F Trailer	18Ft. Flat Trailer	Vin# 1C9UT1823NL347035	
453	1992	Hale Trailer	18Ft.	Vin# 1C9UT1825HL347019	Sir#47019
454	1991	C&F Trailer	18Ft. UT Trailer	Vin# 1C9UT1826ML347013	
455	1998	TRMA Trailer	10Ft. Flatbed Trl.	Vin# 1T9US1017WC023495	
456	1991	C&F Trailer	18Ft. Lowboy	Vin# 1C9UT1820ML347010	
457	2003	Trailmaster	18Ft. Utility Trl.	Vin# 5BEBU18273C127938	
458	1999	Trailmaster	18Ft. Lowboy	Vin# 5BEBU1829XC11116	
459	2000	Trailmaster	10Ft. Trailer	Vin# 5BEBU1016YC112843	
460		Office Trailer		28271	
461		Office Trailer		59882	
462	2001	Trail Master	18' Lowboy	Vin# 5BEBU18241C117753	
463	2001	Trail Master	16' Lowboy	Vin# 5BEBU16271C119645	
464	2007	FB Trailer	5x10	Vin# 1M9FS10107T449011	
465	2006	Tx Bragg	Pres.Washer	Vin# 17XF6122461063836	
466		Office	8x25 Test Lab	20-8228	
467	1999	Trail Master	16' Lowboy	Vin# 5BEBU1622XC111462	
468			28' Office	1341	
469	2006	Trailmaster	6x12 P/W	Vin# 5BEBU121X6C1432622	
470			Pres.Washer		
471	1999	Bourg	6x18 Lowboy Tilt	Vin# 4J1FS1827XB003806	
472	2006	Trail Master	6x8 Lowboy U/T	Vin# 5BEBU12166C143973	
473	1999	Trail Master	27' Goose Neck	Vin# 5BEBF3222XC111649	

474	2004	Trail Master	18' Lowboy	Vin# 5BEBU18254C133917	
475		Office	Trailer	20-5724	
476		Office	Trailer	20-5138	
477	2009	Trail Master	20' Car Hauler	Vin# 5BEBU20289C152468	
478	2007	Trail Master	6x12 U/T	Vin# 5BEBU12137C147772	
479	2007	Trail Master	5x10 U/T	Vin# 5BEBU10127C148379	
480	2006	Trail Master	16' Lowboy	3232	
481	2005	Cargo Mate	16' Box	Vin# 5nhueh6246w052602	
482		Trailer	Goose Neck Old (Bent)		
483		Mobil Home	TR311	20-3678	
484		Mobil Home	TR385	20-3476	
485	1998	Trailer P/W	Bour/UT 6x10	Vin# 4J1FS0813WB003284	
486	2002	Utility		Vin# 17XFP162X21020207	
487	2009	Wyoming C684		5099	
488	1996	25 Ft	Bourg Trailer	Vin# 4G1FS2920TB002320	
489	2006	Cargo	6X12	Vin# 16HCB121666K008921	
490	2006	Utility Trailer		Vin# 5BEBU18286C142338	
491	2004	Trail Master		Vin# 5BEBU12154C134033	
492	2002	Trail Master	8' Utility	Vin# 1BENU08102C124251	
493	1998	Tow Master	Pindel Hitch 25'	Vin# 4KNFT1923WL162053	Vin# WL162053
494	2007	Intruder	Welding Trailer 10'	Vin# 1UFFS08198T030001	
495	1998	Old Rebuilt	20' Lowboy	Vin# 1T9US2026WC023521	Vin# WC023521
496	2006		18' Lowboy	Vin# 5bebu18207c145218	
497	2009	Trail Master	20' Deck Over W/5'Dove	Vin# 5BEBF25259C152429	
498	2005	Trailer P/W	Texas Bragg	Vin# 17XF122551051841	
499	1999	G/NTrailer	Bourg	Vin# 4J1FS3527XB004325	
500		Trailer	Cargo 5x8 Red	Vin# 1G9CS0818XC223700	
501		Trailer	Cargo 6x10 Vin#5170	Vin# 16HCB10181H085170	
502	Office	Trailer	#1376	1376	
503	1989	Nabors Trailer 40 ft	40Ft. Haul Trailer	Vin# 1NT302454K1000475	
504	1986	Rehab	18Ft.	Vin# 17YBP162XGB003636	Sir#03636
505	1992	Hale Trailer	18Ft.	Vin# 1C9UT1823NL347018	Sir#47018
506	1996	Bourg Trailer	18Ft. Utility Trl.	Vin# 4J1FS1825TB002177	Sir#02177
507	2003	Trailmaster	10Ft. Utility Trl.	Vin# 5BEBU10143C127863	
508		Trailer	18Ft.	8626	Sir#38626
509	Office	12x60		Bad	
510	2009	Keystone Everest 305T		Vin# 4YDF305219E770443	
511	GPS system	Trimble GCS1900	13-0596		
512	GPS system	Trimble GCS1900	18-1224		
513	GPS system	Trimble GCS1900			
514	GPS system	Trimble GCS1900			
515	GPS system	Trimble GCS1900			
516	GPS system	Trimble GCS1900			



LARRY L. MILLS, CPA
DAVID E. WHITE, CPA
TERRY S. WHIDDON, CPA
WM. KEITH KELLEY, CPA
RYAN C. HARKEY, CPA

SHERRY J. MEADOR, CPA
PATTI R. MITCHELL, CPA
KIM PENNY, CPA
REBECCA L. ROGERS, CPA
CHRISTOPHER R. LANIER, CPA

H. B. FUNCHESS III, CPA
(1952-1995)

INDEPENDENT AUDITORS' REPORT

To the Members
Allco, LLC
Beaumont, Texas

Report on the Financial Statements

We have audited the accompanying consolidated financial statements of Allco, LLC and its subsidiary which comprise the consolidated balance sheet as of December 31, 2015, and the related consolidated statements of income and comprehensive income, equity, and cash flows for the year then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

1150 NORTH ELEVENTH ST. • BEAUMONT, TX 77702-1207
409-838-3755 • 1-888-FMW-CPAS (369-2727) • FAX 409-838-1491 • www.fmwcpas.com

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Alico, LLC and its subsidiary, as of December 31, 2015, and the results of their operations and their cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

FMW, P.C.

Beaumont, Texas
April 14, 2016

ALLCO, LLC AND SUBSIDIARY

CONSOLIDATED BALANCE SHEET
December 31, 2015

Assets

Current Assets		
Cash		$ 10,086,112
Marketable securities		681,071
Accounts receivable (including Retainage $3,845,719)		19,455,523
Deposits		104,064
Cash value of life insurance		229,857
Cost and estimated earnings in excess of billings		894,756
Other current assets		8,649
Total Current Assets		31,460,032
Fixed Assets		
Land	$ 250,000	
Machinery and equipment	17,871,602	
Vehicles	4,816,608	
Capitalized permitting cost	310,709	
Sewer lines	7,844,569	
Waste water treatment plant	544,497	
Total Fixed Assets	31,637,985	
Less: Accumulated depreciation	(19,487,494)	
Total Fixed Assets Net		12,150,491
Total Assets		$ 43,610,523

The accompanying notes are an integral part of these consolidated financial statements.

ALLCO, LLC AND SUBSIDIARY

CONSOLIDATED BALANCE SHEET
December 31, 2015

Liabilities and Members' Equity

Current Liabilities		
Accounts payable and accrued expenses (including retainage of $2,812,943)		$ 12,851,170
Billings in excess of cost and estimated earnings		4,518,595
Notes payable		1,388,815
Other current liabilities		130,521
Total Current Liabilities		18,889,101
Long-Term Liabilities		
Long-term debt	$ 3,483,021	
Other long-term liabilities	529,970	4,012,991
Total Liabilities		22,902,092
Equity		
Members' Equity	$ 19,808,431	
Preferred Member's Equity	900,000	
Total Equity		20,708,431
Total Liabilities and Members' Equity		$ 43,610,523

The accompanying notes are an integral part of these consolidated financial statements.

16. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the Owner? YES

The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Owner, in verification of the recitals comprising this statement of Bidder's Qualifications.

The Bidder shall provide a brief description of any litigation or administrative proceeding of the following types, either pending or concluded within the proceeding year, to which the Bidder (and the ultimate controlling person, if different from the Bidder) or any of its directors or executive officers was a party or of which the property of any such person is or was the subject; the names of the parties and the court or agency in which such litigation or proceeding is or was pending shall be given:

(a) Administrative or judicial proceedings of any state federal agency or authority concerning environmental violations; NONE

(b) Proceedings which may have a material effect upon the solvency of the ultimate holding company, including but not necessarily limited to, bankruptcy and receivership; and NONE

(c) Criminal proceedings. NONE

Dated at BEAUMONT this 23RD day of AUGUST, 2016.

ALLCO
(Name of Bidder)
By
T.W. HARRISON
Title PRESIDENT

ALLCO, L.L.C. TEXAS

STATE OF TEXAS)
) §.
COUNTY OF JEFFERSON)

T.W. HARRISON being duly sworn deposes and says that he is

PRESIDENT of ALLCO
(Name of Organization)

and that the answers to the foregoing questions and all statements therein contained are true and correct.
SUBSCRIBED AND SWORN TO BEFORE ME this 23RD day of AUGUST, 2016.

Jacqueline Christopher
(Notary Public)

My Commission Expires:
MAY 21, 2020

JACQUELINE CHRISTOPHER
Notary Public, State Of Texas
Comm. Expires 05-21-2020
My Notary ID # 155932-5

Bidder Shall Return Completed Statement with Offer.

CONFLICT OF INTEREST QUESTIONNAIRE

CONFLICT OF INTEREST QUESTIONNAIRE FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of vendor who has a business relationship with local governmental entity.

ALLCO

2 ☐ Check this box if you are filing an update to a previously filed questionnaire.

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 Name of local government officer about whom the information in this section is being disclosed.

JEFFERSON COUNTY
Name of Officer

This section (item 3 including subparts A, B, C, & D) must be completed for each officer with whom the vendor has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☒ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes ☒ No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more?

☐ Yes ☒ No

D. Describe each employment or business and family relationship with the local government officer named in this section.

N/A

4

ALLCO, L.L.C. TEXAS

8-23-16
Date

Signature of vendor doing business with the governmental entity

T.W. HARRISON - PRESIDENT

Bidder Shall Return Completed Form with Offer.

LOCAL GOVERNMENT OFFICER
CONFLICTS DISCLOSURE STATEMENT – (OFFICE USE ONLY)

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT

FORM CIS

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This is the notice to the appropriate local governmental entity that the following local government officer has become aware of facts that require the officer to file this statement in accordance with Chapter 176, Local Government Code.

OFFICE USE ONLY

Date Received

1 Name of Local Government Officer

2 Office Held

3 Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code

4 Description of the nature and extent of employment or other business relationship with vendor named in item 3

5 List gifts accepted by the local government officer and any family member, if aggregate value of the gifts accepted from vendor named in item 3 exceeds $100 during the 12-month period described by Section 176.003(a)(2)(B).

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

(attach additional forms as necessary)

6 AFFIDAVIT

I swear under penalty of perjury that the above statement is true and correct. I acknowledge that the disclosure applies to each family member (as defined by Section 176.001(2), Local Government Code) of this local government officer. I also acknowledge that this statement covers the 12-month period described by Section 176.003(a)(2)(B), Local Government Code.

_____
Signature of Local Government Officer

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

_____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

Adopted 8/7/2015

SECTION E
DBE PARTICIPATION AND RESIDENCE CERTIFICATION REPORTING

NOTICE OF INTENT (NOI) TO SUBCONTRACT WITH DISADVANTAGED BUSINESS ENTERPRISES (DBE)

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☒ Yes ☐ No

Instructions for Prime Contractor/Consultant: Bidder shall submit this form with the bid; however, the information below may be submitted after contract award, but prior to beginning performance on the contract. Please submit one form for each DBE Subcontractor/Subconsultant with proper signatures, per the terms and conditions of your contract.

Contractor Name: ALLCO DBE: ☐ Yes ☒ No

Address: 6720 COLLEGE (Street) BEAUMONT (City) TEXAS (State) 77707 (Zip)

Phone (with area code): 409-860-4459 Fax (with area code): 409-860-3857

Project Title & No.: Jack Brooks Regional Airport Taxiway D Reconstruction (2016) Project #16-022/JW

Prime Contract Amount: $Not known at Bid Time

DBE Subcontractor Name: NOT KNOWN AT BID TIME. WILL SUBMIT AFTER CONTRACT AWARD.

DBE Status (Gender & Ethnicity): _____

Certifying Agency: _____

Address: _____ (Street) _____ (City) _____ (State) _____ (Zip)

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

T.W. HARRISON - PRESIDENT		AUGUST 23, 2016
Printed Name of Contractor Representative	Signature of Representative	Date
Printed Name of DBE	Signature of Representative	Date

NOTE: NOTHING ON THIS NOTICE OF INTENT FORM IS INTENDED TO CONFER ANY RIGHTS, EXPRESSED OR IMPLIED, TO ANY THIRD PARTIES.

Pre-Approval for Subcontractor Substitutions must be obtained from the Jefferson County Purchasing Agent's Representative. The "DBE Subcontractor/Subconsultant Change Form" must be completed and faxed to 409-835-8456.

Bidder Shall Return Completed Form with Offer.

DISADVANTAGED BUSINESS ENTERPRISES (DBE)
SUBCONTRACTING PARTICIPATION DECLARATION FORM
Page 1 of 4

This Information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☒ Yes ☐ No

Prime Contractor: ALICO DBE: ☐ Yes ☒ No

DBE Status (Gender & Ethnicity): _____

Address: 6720 COLLEGE (Street) BEAUMONT (City) TEXAS (State) 77707 (Zip)

Phone (with area code): 409-860-4459 Fax (with area code): 409-860-3857

Project Title & No.: Jack Brooks Regional Airport Taxiway D Reconsruction (2016) Project #16-022/JW IFB/RFP No.: 16-022/JW

Total Contract: $ Not known at Bid Time Total DBE Subcontract(s): $ Not known at Bid Time.

Construction DBE Goals: 12.62% DBE:: Not known at Bid Time. %

FOR DBE OFFICE USE ONLY:

Verification date DBE Program Office reviewed and verified DBE Sub information Date: _____ Initials: _____

PART I. DBE SUCONTRACTOR DISCLOSURE

DBE Subcontractor Name: NOT KNOWN AT BID TIME.

DBE Status (Gender & Ethnicity): _____

Certifying Agency: _____

Address: _____ (Street) _____ (City) _____ (State) _____ (Zip)

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

DISADVANTAGED BUSINESS ENTERPRISES (DBE)
SUBCONTRACTING PARTICIPATION DECLARATION FORM
Page 2 of 4

DBE SUBCONTRACTOR DISCLOSURE

PART I: Continuation Sheet **(Duplicate as Needed)**

DBE Subcontractor Name: N/A

DBE Status (Gender & Ethnicity): _____

Certifying Agency: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

DBE Subcontractor Name: N/A

DBE Status (Gender & Ethnicity): _____

Certifying Agency: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

All DBE Subcontractor Participation may be verified with the DBE Subcontractor(s) listed on Part I.

Bidder Shall Return Completed Form with Offer.

DISADVANTAGED BUSINESS ENTERPRISES (DBE)
SUBCONTRACTING PARTICIPATION DECLARATION FORM

PART II: STATEMENT OF NON-COMPLIANCE FOR NOT MEETING DBE SUBCONTRACTING GOALS

Please complete Good Faith Effort (GFE) Checklist and attach any supporting documentation.

Our firm was unable to meet the DBE goals for this project for the following reasons:

- ☐ All subcontractors to be utilized are "Non-DBEs." *(Complete Part III)*
- ☐ DBEs were solicited but did not respond.
- ☐ DBEs solicited were not competitive.
- ☐ DBEs were unavailable for the following trade(s):
- ☒ Other: DBE PARTICIPATION NOT KNOWN AT BID TIME.

Was the Jefferson County DBE Office contacted for assistance in locating DBEs? ☐ Yes ☒ No

PART III: DISCLOSURE OF OTHER "NON-DBE" SUBCONTRACTS

The bidder shall use this area to provide a listing of all "Non-DBE" Subcontractors, including suppliers, that will perform under this project. A list of those "Non-DBE" Subcontractors the bidder selects, after bid submission, shall be provided to the Purchasing Office not later than five (5) calendar days after being notified that bidder is the apparent low bidder. A list of those "Non-DBE" Subcontractors that are selected after contract award must be provided **immediately** after their selection.

Subcontractor Name: INFORMATION NOT KNOWN AT BID TIME.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

DISADVANTAGED BUSINESS ENTERPRISES (DBE)
SUBCONTRACTING PARTICIPATION DECLARATION FORM
Page 4 of 4

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

I hereby certify that I have read the *DBE Program Instructions and Information*, truthfully completed all applicable parts of this form, and **attached any necessary support documentation as required.** I fully understand that intentionally falsifying information on this document may result in my not receiving a contract award or termination of any resulting contract.

Name (print or type): T.W. HARRISON

Title: PRESIDENT

Signature: _____

Date: AUGUST 23, 2016

E-mail address: tharrison@allco.com

ALLCO, L.L.C. TEXAS

Contact person that will be in charge of invoicing for this project:

Name (print or type): BRANDON HARRISON

Title: PROJECT MANAGER

Date: AUGUST 23, 2016

E-mail address: bharrison@allco.com

Bidder Shall Return Completed Form with Offer.

GOOD FAITH EFFORT (GFE) DETERMINATION CHECKLIST

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☒ Yes ☐ No

Instructions: In order to determine if a "Good Faith Effort" was made in soliciting DBEs for subcontracting opportunities, the following checklist and supporting documentation shall be completed by the Prime Contractor/Consultant, and returned with the Prime Contractor/ Consultant's bid. This list contains the **minimum** efforts that should be put forth by the Prime Contractor/Consultant when attempting to achieve or exceed the goals of DBE Subcontractor participation. The Prime Contractor/Consultant may extend his/her efforts in soliciting DBE Subcontractor participation beyond what is listed below.

Did the Prime Contractor . . .

☒ Yes	☐ No	1. To the extent practical, and consistent with standard and prudent industry standards, divide the contract work into the smallest feasible portions, to allow for maximum DBE Subcontractor participation?
☒ Yes	☐ No	2. **Notify** in writing a reasonable number of DBEs, allowing sufficient time for effective participation of the planned work to be subcontracted?
☒ Yes	☐ No	3. **Provide** DBEs that were genuinely interested in bidding on a subcontractor, adequate information regarding the project (i.e., plans, specifications, scope of work, bonding and insurance requirements, and a point of contract within the Prime Contractor/Consultant's organization)?
☒ Yes	☐ No	4. **Negotiate** in good faith with interested DBEs, and not reject bids from DBEs that qualify as lowest and responsive bidders?
☐ Yes	☒ No	5. **Document** reasons DBEs were rejected? Was a written rejection notice, including the reason for rejection, provided to the rejected DBEs? DBE'S WERE NOT KNOWN AT TIME OF BID.
☒ Yes	☐ No	6. If Prime Contractor/Consultant has zero (0) DBE participation, **please explain the reasons why.** DBE'S PARTICIPATION NOT KNOWN AT BID TIME.

If "No" was selected, please explain and include any pertinent documentation with your bid.
If necessary, please use a separate sheet to answer the above questions.

T.W. HARRISON
Printed Name of Authorized Representative

Signature

PRESIDENT
Title

AUGUST 23, 2016
Date

Bidder Shall Return Completed Form with Offer.

RESIDENCE CERTIFICATION/TAX FORM

Pursuant to Texas Government Code §2252.001 *et seq.*, as amended, Jefferson County requests Resident Certification. §2252.001 *et seq.* of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

I certify that ALLCO [company name] is a Resident Bidder of Texas as defined in Government Code §2252.001.

I certify that _____ [company name] is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is _____ _____ (city and state).

Taxpayer Identification Number (T.I.N.):	76-0685119
Company Name submitting bid/proposal:	ALLCO
Mailing address:	PO BOX 3684, BEAUMONT, TEXAS 77704
If you are an individual, list the names and addresses of any partnership of which you are a general partner: N/A	

Property: List all taxable property owned by you or above partnerships in Jefferson County.

Jefferson County Tax Acct. No.*	Property address or location**
N/A	N/A

* This is the property amount identification number assigned by the Jefferson County Appraisal District.

** For real property, specify the property address or legal description. For business property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored as a warehouse or other location.

Bidder Shall Return Completed Form with Offer.

SECTION F
BID SURETY

BID BOND

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA
Hartford, Connecticut 06183

KNOW ALL MEN BY THESE PRESENTS,

That we, **Allco** as Principal, hereinafter called the Principal, and TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA, of Hartford, Connecticut, a corporation duly organized under the laws of the State of Connecticut, as Surety, hereinafter called the Surety, are held and firmly bound unto

Jefferson County

as Obligee, hereinafter called the Obligee, in the sum of ****Five Percent of Greatest Amount of Bid**** Dollars **($**5% Of GAB**)**, for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for

JACK BROOKS REGIONAL AIRPORT
TAXIWAY D RECONSTRUCTION (2016) BID NO. 16-022/JW

NOW, THEREFORE, If the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this **23rd** day of **August, 2016.**

ALLCO, L.L.C. TEXAS

Jackie Christopher
(Witness)

Allco
(Principal) (Seal)

T.W. Harrison, President
(Title)

Christina Stafford (Witness)

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

By
George M. Haynes (Attorney-in-Fact)

Printed in cooperation with the American Institute of Architects (AIA) by Travelers Casualty and Surety Company of America. The language in this document conforms exactly to the language used in AIA Document A310, February 1970 edition.

S-1869-G (07-97)

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

TRAVELERS

POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 226569

Certificate No. 006052302

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Larry W. Smith, George M. Haynes, and K. Scott Miller

of the City of Beaumont, State of Texas, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 5th day of September, 2014.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

By: _____
Robert L. Raney, Senior Vice President

State of Connecticut
City of Hartford ss.

On this the 5th day of September, 2014, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2016.

MARIE C. TETREAULT NOTARY PUBLIC CONNECTICUT

Marie C. Tetreault
Marie C. Tetreault, Notary Public

58440-8-12 Printed in U.S.A.

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

SECTION G
CONTRACT

CONTRACT

THIS AGREEMENT made this 31st day of October, 2016, by and between **ALLCO** a Corporation organized and existing under the laws of the State of **Texas** hereinafter called the "Contractor", and **JEFFERSON COUNTY, TEXAS**, hereinafter called the "Owner".

W I T N E S S E T H:

That the Contractor and the Owner for the consideration stated herein mutually agree as follows:

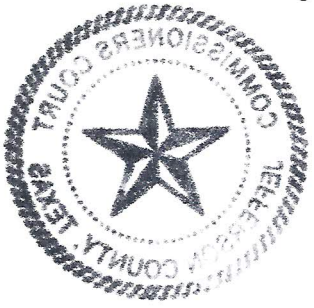
ARTICLE 1. Statement of Work. The Contractor shall furnish all supervision, technical personnel, labor, materials, machinery, tools, equipment, incidentals and services, including utility and transportation services and perform and complete all work required for the construction of **Taxiway D Reconstruction (2016) from Taxiway 'H' to Taxiway 'F' at Jack Brooks Regional Airport** in strict accordance with the Contract Documents.

ARTICLE 2. The Contract Price. The Owner will pay the Contractor, because of his performance of the Contract, for the total quantities of work performed at the lump sum and unit prices stipulated in the Proposal for the **Base Bid, not to exceed a total contract value of: Two Million Two Hundred Seven Thousand Two Hundred Twenty Five dollars and no /100 ($2,207,225.00)** subject to additions, and deductions as provided in the Section entitled "CHANGES IN THE WORK" under GENERAL PROVISIONS.

ARTICLE 3. Contract Time. The Contractor agrees to begin work within ten (10) calendar days after issuance by the Owner of a "Work Order" or "Notice to Proceed" and to complete the work within **TWO-HUNDRED AND TEN (210)** consecutive calendar days thereafter (except as modified in accordance with the GENERAL PROVISIONS of these Contract Documents). If the Contractor shall fail to complete the work within the time specified, he and his Surety shall be liable for payment to the Owner, as liquidated damages ascertained and agreed, and not in the nature of a penalty, the amount specified in the PROPOSAL of these Contract Documents for each day of delay. To the extent sufficient in amount, liquidated damages shall be deducted from the payments to be made under this Contract.

ARTICLE 4. Contract. The executed Contract Documents shall consist of the following:

a. Advertisement and Invitation to Bidders
b. Instructions to Bidders
c. Bid Form and Proposal
d. Executed Contract
e. Statement of Bidder's Qualifications
f. List of Proposed Subcontractors
g. Performance and Payment Bonds
h. Certificates of Insurance and Insurance Policies
i. General Provisions (FAA AC 150/5370-10F)
j. Special Provisions
k. Addenda (if any)
l. Wage Rates
m. Technical Specifications
n. Drawings
o. Certificate(s) of Insurance



This Agreement, together with other Documents enumerated in this Article 4, which said other Documents are as fully a part of the Contract as if hereto attached or herein repeated, form the Contract between the parties hereto. In the event that any provisions in any component part of this Contract conflicts with any

provision of any other component part, the conflict shall be resolved by the Engineer whose decision shall be final.

ARTICLE 5. Surety. The Surety on the Performance-Payment Bond shall be a surety company of financial resources satisfactory to the Owner, authorized to do business in the State of Texas, and shall comply with applicable Texas laws.

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed in four (4) counterparts, each of which shall be considered an original on the day and year first above written.

Name ALLCO
(Contractor)

ATTEST: Mary Beth DeLord By

Mary Beth DeLord Title: T.W. Harrison - President
(Print the names underneath all signatures)

6720 College
(Street)
Beaumont TX 77707
(City)

ALLCO, L.L.C. TEXAS

JEFFERSON COUNTY, TEXAS,
(Owner)

ATTEST: Carolyn L Guidry By

Jeff R. Branick

CAROLYN L. GUIDRY Title: Jefferson County Judge
(Print the names underneath all signatures)

COMMISSIONERS COURT JEFFERSON COUNTY, TEXAS

SECTION H
NOTICE OF AWARD AND NOTICE TO PROCEED

12141 Wickchester Lane
Suite 640
Houston, TX 77079

TEL 713.491.8333
FAX 713.395.5486

www.GarverUSA.com

NOTICE OF AWARD

October 26, 2016

ALLCO
P.O. Box 3684
Beaumont, TX 77704

PROJECT OWNER: JEFFERSON COUNTY PROJECT 16-022/JW

FAA AIP GRANT No. 3-48-0018-032-2016

CONTRACT FOR: TAXIWAY D RECONSTRUCTION (2016) TAXIWAY H TO TAXIWAY F AT JACK BROOKS REGIONAL AIRPORT

You are notified that your Bid dated August 23, 2016 for the above Contract has been considered. You are the apparent Successful Bidder and have been awarded a contract for Base Bid.

The Contract Price of your contract is Two Million, Two Hundred Seven Thousand, Two Hundred Twenty Five dollars and no /100 dollars and no /100 ($2,207,225.00).

You must comply with the following conditions precedent within FIFTEEN (15) days of the date of this *Notice of Award* that is by, November 10, 2016

1. You must deliver to the **OWNER 4** fully executed counterparts of the Agreement including all the Contract Documents.

2. You must deliver with the executed Agreement the Contract Security (Bonds) as specified in the Advertisement for Bids, General Conditions (Article 2), and Supplementary Conditions.

3. You must deliver to the **OWNER** 4 original ***Certificates of Insurance,*** naming the Owner ***(Jefferson County)*** and Engineer ***(Garver, LLC.)*** and their respective agents and employees, to be expressly named as additional insured's, in accordance with the General Conditions.

Failure to comply with these conditions within the time specified will entitle OWNER to consider your bid in default, to annul this Notice of Award, and to declare your Bid Security forfeited.

Within ten (10) days after you comply with the above conditions, OWNER will return to you one (1) fully signed counterpart of the Agreement with the Contract Documents attached.

Sincerely,
GARVER, LLC

Thomas D Dodson, PE
Senior Project Manager

ACCEPTANCE OF AWARD:
CONTRACTOR:

_____
BY:_____
TITLE:_____
DATE:_____

Attachments: Contract Documents (4)

XXXXXXX, 201X

XXXXXXXXXXX
XXXXXXXXXXX
XXXXXXXXXXX
XXXXXXXXXXX

Re: Jack Brooks Regional Airport
Runway Taxiway D Reconstruction (2016); Jefferson County Contract 16-022/JW
AIP No. 3-48-0018-032-2016
Notice to Proceed

Dear Mr. _____:

Please consider this letter as your Notice to Proceed with construction on the above referenced project, effective XXXXXXX, 201X.

Under the terms of the Contract, contract time will start when construction begins or ten (10) days after the effective date of this Notice to Proceed, whichever comes first. Work must be completed within 210 calendar days of the start of contract time. Before you start work at the site, Special Provisions Section C-01 requires that you must deliver to the Engineer and Owner Certificates of Insurance which you are required to purchase and maintain in accordance with the Contract. As stipulated in the Contract Proposal, failure to complete the work within the contract time shall result in the assessment of liquidated damages. The damages are therein set in the amount of $1,000.00 per calendar day.

As required in Section 80-03, a construction schedule is to be submitted as soon as possible since no schedule was submitted at the pre-construction meeting of XXXXXXXXXXX, 2016.

Please call me if you have any questions.

Sincerely,

GARVER, LLC

Thomas D Dodson, P.E.
Sr. Project Manager

CC: Alex Rupp, Jack Brooks Regional Airport (via email)

SECTION I
PERFORMANCE AND PAYMENT BONDS
CERTIFICATE OF INSURANCE

PAYMENT BOND

PERFORMANCE BOND

INSERT INSURANCE DOCUMENTS HERE

SECTION J
GENERAL PROVISIONS
(FAA AC 150/5370-10G)

GENERAL PROVISIONS

SECTION 10
DEFINITION OF TERMS

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

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

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

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

10-4 AIRPORT IMPROVEMENT PROGRAM (AIP). A grant-in-aid program, administered by the Federal Aviation Administration (FAA).

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

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

10-7 ASTM INTERNATIONAL (ASTM). Formerly known as the American Society for Testing and Materials (ASTM).

10-8 AWARD. The Owner's notice to the successful bidder of the acceptance of the submitted bid.

10-9 BIDDER. Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.

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

10-11 CALENDAR DAY. Every day shown on the calendar.

10-12 CHANGE ORDER. A written order to the Contractor covering changes in the plans, specifications, or proposal quantities and establishing the basis of payment and contract time adjustment, if any, for the work affected by such changes. The work, covered by a change order, must be within the scope of the contract.

10-13 CONTRACT. The written agreement covering the work to be performed. The awarded contract shall include, but is not limited to: Advertisement, Contract Form, Proposal, Performance Bond, Payment Bond, any required insurance certificates, Specifications, Plans, and any addenda issued to bidders.

10-14 CONTRACT ITEM (PAY ITEM). A specific unit of work for which a price is provided in the contract.

10-15 CONTRACT TIME. The number of calendar days or working days, stated in the proposal, allowed for completion of the contract, including authorized time extensions. If a calendar date of completion is stated in the proposal, in lieu of a number of calendar or working days, the contract shall be completed by that date.

10-16 CONTRACTOR. The individual, partnership, firm, or corporation primarily liable for the acceptable performance of the work contracted and for the payment of all legal debts pertaining to the work who acts directly or through lawful agents or employees to complete the contract work.

10-17 CONTRACTOR'S LABORATORY. The Contractor's quality control organization in accordance with the Contractor Quality Control Program.

10-18 CONSTRUCTION SAFETY AND PHASING PLAN (CSPP). The overall plan for safety and phasing of a construction project developed by the airport operator, or developed by the airport operator's consultant and approved by the airport operator. It is included in the invitation for bids and becomes part of the project specifications.

10-19 DRAINAGE SYSTEM. The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the airport area.

10-20 ENGINEER. The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for engineering inspection of the contract work and acting directly or through an authorized representative.

10-21 EQUIPMENT. All machinery, together with the necessary supplies for upkeep and maintenance, and also all tools and apparatus necessary for the proper construction and acceptable completion of the work.

10-22 EXTRA WORK. An item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which is found by the Engineer to be necessary to complete the work within the intended scope of the contract as previously modified.

10-23 FAA. The Federal Aviation Administration of the U.S. Department of Transportation. When used to designate a person, FAA shall mean the Administrator or his or her duly authorized representative.

10-24 FEDERAL SPECIFICATIONS. The Federal Specifications and Standards, Commercial Item Descriptions, and supplements, amendments, and indices thereto are prepared and issued by the General Services Administration of the Federal Government.

10-25 FORCE ACCOUNT. Force account work is planning, engineering, or construction work done by the Sponsor's employees.

10-26 INSPECTOR. An authorized representative of the Engineer assigned to make all necessary inspections, observations and/or observation of tests of the work performed or being performed, or of the materials furnished or being furnished by the Contractor.

10-27 INTENTION OF TERMS. Whenever, in these specifications or on the plans, the words "directed," "required," "permitted," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Engineer is intended; and similarly, the words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer, subject in each case to the final determination of the Owner.

Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or

cited standard that may be pertinent to such specific reference.

10-28 LABORATORY. The official testing laboratories of the Owner or such other laboratories as may be designated by the Engineer. Also referred to as "Engineer's Laboratory" or "quality assurance laboratory."

10-29 LIGHTING. A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.

10-30 MAJOR AND MINOR CONTRACT ITEMS. A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 20% of the total amount of the award contract. All other items shall be considered minor contract items.

10-31 MATERIALS. Any substance specified for use in the construction of the contract work.

10-32 NOTICE TO PROCEED (NTP). A written notice to the Contractor to begin the actual contract work on a previously agreed to date. If applicable, the Notice to Proceed shall state the date on which the contract time begins.

10-33 OWNER. The term "Owner" shall mean the party of the first part or the contracting agency signatory to the contract. Where the term "Owner" is capitalized in this document, it shall mean airport Sponsor only.

10-34 PASSENGER FACILITY CHARGE (PFC). Per 14 CFR Part 158 and 49 USC § 40117, a PFC is a charge imposed by a public agency on passengers enplaned at a commercial service airport it controls."

10-35 PAVEMENT. The combined surface course, base course, and subbase course, if any, considered as a single unit.

10-36 PAYMENT BOND. The approved form of security furnished by the Contractor and his or her surety as a guaranty that the Contractor will pay in full all bills and accounts for materials and labor used in the construction of the work.

10-37 PERFORMANCE BOND. The approved form of security furnished by the Contractor and his or her surety as a guaranty that the Contractor will complete the work in accordance with the terms of the contract.

10-38 PLANS. The official drawings or exact reproductions which show the location, character, dimensions and details of the airport and the work to be done and which are to be considered as a part of the contract, supplementary to the specifications.

10-39 PROJECT. The agreed scope of work for accomplishing specific airport development with respect to a particular airport.

10-40 PROPOSAL. The written offer of the bidder (when submitted on the approved proposal form) to perform the contemplated work and furnish the necessary materials in accordance with the provisions of the plans and specifications.

10-41 PROPOSAL GUARANTY. The security furnished with a proposal to guarantee that the bidder will enter into a contract if his or her proposal is accepted by the Owner.

10-42 RUNWAY. The area on the airport prepared for the landing and takeoff of aircraft.

10-43 SPECIFICATIONS. A part of the contract containing the written directions and requirements for completing the contract work. Standards for specifying materials or testing which are cited in the contract specifications by reference shall have the same force and effect as if included in the contract physically.

10-44 SPONSOR. A Sponsor is defined in 49 USC § 47102(24) as a public agency that submits to the FAA for an AIP grant; or a private Owner of a public-use airport that submits to the FAA an application for an AIP grant for the airport.

10-45 STRUCTURES. Airport facilities such as bridges; culverts; catch basins, inlets, retaining walls, cribbing; storm and sanitary sewer lines; water lines; underdrains; electrical ducts, manholes, handholes, lighting fixtures and bases; transformers; flexible and rigid pavements; navigational aids; buildings; vaults; and, other manmade features of the airport that may be encountered in the work and not otherwise classified herein.

10-46 SUBGRADE. The soil that forms the pavement foundation.

10-47 SUPERINTENDENT. The Contractor's executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the Engineer, and who shall supervise and direct the construction.

10-48 SUPPLEMENTAL AGREEMENT. A written agreement between the Contractor and the Owner covering (1) work that would increase or decrease the total amount of the awarded contract, or any major contract item, by more than 25%, such increased or decreased work being within the scope of the originally awarded contract; or (2) work that is not within the scope of the originally awarded contract.

10-49 SURETY. The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds that are furnished to the Owner by the Contractor.

10-50 TAXIWAY. For the purpose of this document, the term taxiway means the portion of the air operations area of an airport that has been designated by competent airport authority for movement of aircraft to and from the airport's runways, aircraft parking areas, and terminal areas.

10-51 WORK. The furnishing of all labor, materials, tools, equipment, and incidentals necessary or convenient to the Contractor's performance of all duties and obligations imposed by the contract, plans, and specifications.

10-52 WORKING DAY. A working day shall be any day other than a legal holiday, Saturday, or Sunday on which the normal working forces of the Contractor may proceed with regular work for at least six (6) hours toward completion of the contract. When work is suspended for causes beyond the Contractor's control, it will not be counted as a working day. Saturdays, Sundays and holidays on which the Contractor's forces engage in regular work will be considered as working days.

END OF SECTION 10

SECTION 20
PROPOSAL REQUIREMENTS AND CONDITIONS

20-1 ADVERTISEMENT (NOTICE TO BIDDERS). *(See Page A-2)*

20-2 QUALIFICATION OF BIDDERS. Each bidder shall furnish the Owner satisfactory evidence of his or her competency to perform the proposed work. Such evidence of competency, unless otherwise specified, shall consist of statements covering the bidder's past experience on similar work, a list of equipment that would be available for the work, and a list of key personnel that would be available. In addition, each bidder shall furnish the Owner satisfactory evidence of his or her financial responsibility. Such evidence of financial responsibility, unless otherwise specified, shall consist of a confidential statement or report of the bidder's financial resources and liabilities as of the last calendar year or the bidder's last fiscal year.

Such statements or reports shall be certified by a public accountant. At the time of submitting such financial statements or reports, the bidder shall further certify whether his or her financial responsibility is approximately the same as stated or reported by the public accountant. If the bidder's financial responsibility has changed, the bidder shall qualify the public accountant's statement or report to reflect the bidder's true financial condition at the time such qualified statement or report is submitted to the Owner.
Unless otherwise specified, a bidder may submit evidence that he or she is prequalified with the State Highway Division and is on the current "bidder's list" of the state in which the proposed work is located. Such evidence of State Highway Division prequalification may be submitted as evidence of financial responsibility in lieu of the certified statements or reports specified above.

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

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

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

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

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

b. Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts in force with the Owner at the time the Owner issues the proposal to a prospective bidder.

c. Documented record of Contractor default under previous contracts with the Owner.

d. Documented record of unsatisfactory work on previous contracts with the Owner.

20-5 INTERPRETATION OF ESTIMATED PROPOSAL QUANTITIES. An estimate of quantities of work to be done and materials to be furnished under these specifications is given in the proposal. It is the result of careful calculations and is believed to be correct. It is given only as a basis for comparison of proposals and the award of the contract. The Owner does not expressly, or by implication, agree that the actual quantities involved will correspond exactly therewith; nor shall the bidder plead misunderstanding or deception because of such estimates of quantities, or of the character, location, or other conditions pertaining to the work. Payment to the Contractor will be made only for the actual quantities of work performed or materials furnished in accordance with the plans and specifications. It is understood that the

quantities may be increased or decreased as hereinafter provided in the subsection 40-02 titled ALTERATION OF WORK AND QUANTITIES of Section 40 without in any way invalidating the unit bid prices.

20-6 EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE. The bidder is expected to carefully examine the site of the proposed work, the proposal, plans, specifications, and contract forms. Bidders shall satisfy themselves as to the character, quality, and quantities of work to be performed, materials to be furnished, and as to the requirements of the proposed contract. The submission of a proposal shall be prima facie evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the proposed contract, plans, and specifications. **Boring logs and other records of subsurface investigations and tests are available for inspection of bidders. It is understood and agreed that such subsurface information, whether included in the plans, specifications, or otherwise made available to the bidder, was obtained and is intended for the Owner's design and estimating purposes only. Such information has been made available for the convenience of all bidders. It is further understood and agreed that each bidder is solely responsible for all assumptions, deductions, or conclusions which the bidder may make or obtain from his or her examination of the boring logs and other records of subsurface investigations and tests that are furnished by the Owner.**

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

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

20-8 RESPONSIVE AND RESPONSIBLE BIDDER. A responsive bid conforms to all significant terms and conditions contained in the Sponsor's invitation for bid. It is the Sponsor's responsibility to decide if the exceptions taken by a bidder to the solicitation are material or not and the extent of deviation it is willing to accept.

A responsible bidder has the ability to perform successfully under the terms and conditions of a proposed procurement, as defined in 49 CFR § 18.36(b)(8). This includes such matters as Contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

20-9 IRREGULAR PROPOSALS. Proposals shall be considered irregular for the following reasons:

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

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

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

d. If the proposal contains unit prices that are obviously unbalanced.

e. If the proposal is not accompanied by the proposal guaranty specified by the Owner.

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

20-10 BID GUARANTEE. Each separate proposal shall be accompanied by a certified check, or other specified acceptable collateral, in the amount specified in the proposal form. Such check, or collateral, shall be made payable to the Owner.

20-11 DELIVERY OF PROPOSAL. Each proposal submitted shall be placed in a sealed envelope plainly marked with the project number, location of airport, and name and business address of the bidder on the outside. When sent by mail, preferably registered, the sealed proposal, marked as indicated above, should be enclosed in an additional envelope. No proposal will be considered unless received at the place specified in the advertisement or as modified by Addendum before the time specified for opening all bids. Proposals received after the bid opening time shall be returned to the bidder unopened.

20-12 WITHDRAWAL OR REVISION OF PROPOSALS. A bidder may withdraw or revise (by withdrawal of one proposal and submission of another) a proposal provided that the bidder's request for withdrawal is received by the Owner in writing or by fax or email before the time specified for opening bids. Revised proposals must be received at the place specified in the advertisement before the time specified for opening all bids.

20-13 PUBLIC OPENING OF PROPOSALS. Proposals shall be opened, and read, publicly at the time and place specified in the advertisement. Bidders, their authorized agents, and other interested persons are invited to attend. Proposals that have been withdrawn (by written or telegraphic request) or received after the time specified for opening bids shall be returned to the bidder unopened.

20-14 DISQUALIFICATION OF BIDDERS. A bidder shall be considered disqualified for any of the following reasons:

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

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

c. If the bidder is considered to be in "default" for any reason specified in the subsection 20-04 titled ISSUANCE OF PROPOSAL FORMS of this section.

END OF SECTION 20

SECTION 30
AWARD AND EXECUTION OF CONTRACT

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

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

a. If the proposal is irregular as specified in the subsection 20-09 titled IRREGULAR PROPOSALS of Section 20.

b. If the bidder is disqualified for any of the reasons specified in the subsection 20-14 titled DISQUALIFICATION OF BIDDERS of Section 20.

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

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

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

30-3 CANCELLATION OF AWARD. The Owner reserves the right to cancel the award without liability to the bidder, except return of proposal guaranty, at any time before a contract has been fully executed by all parties and is approved by the Owner in accordance with the subsection 30-07 titled APPROVAL OF CONTRACT of this section.

30-4 RETURN OF PROPOSAL GUARANTY. All proposal guaranties, except those of the two lowest bidders, will be returned immediately after the Owner has made a comparison of bids as specified in the subsection 30-01 titled CONSIDERATION OF PROPOSALS of this section. Proposal guaranties of the two lowest bidders will be retained by the Owner until such time as an award is made, at which time, the unsuccessful bidder's proposal guaranty will be returned. The successful bidder's proposal guaranty will be returned as soon as the Owner receives the contract bonds as specified in the subsection 30-05 titled REQUIREMENTS OF CONTRACT BONDS of this section.

30-5 REQUIREMENTS OF CONTRACT BONDS. At the time of the execution of the contract, the successful bidder shall furnish the Owner a surety bond or bonds that have been fully executed by the bidder and the surety guaranteeing the performance of the work and the payment of all legal debts that may be incurred by reason of the Contractor's performance of the work. The surety and the form of the bond or bonds shall be acceptable to the Owner. Unless otherwise specified in this subsection, the surety bond or bonds shall be in a sum equal to the full amount of the contract.

30-6 EXECUTION OF CONTRACT. The successful bidder shall sign (execute) the necessary agreements for entering into the contract and return the signed contract to the Owner, along with the fully executed surety bond or bonds specified in the subsection 30-05 titled REQUIREMENTS OF CONTRACT BONDS of this section, within calendar days from the date mailed or otherwise delivered to the successful bidder.

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

30-8 FAILURE TO EXECUTE CONTRACT. Failure of the successful bidder to execute the contract and furnish an acceptable surety bond or bonds within the 15 calendar day period specified in the subsection 30-06 titled EXECUTION OF CONTRACT of this section shall be just cause for cancellation of the award and forfeiture of the proposal guaranty, not as a penalty, but as liquidation of damages to the Owner.

END OF SECTION 30

SECTION 40
SCOPE OF WORK

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

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

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

Supplemental agreements shall be approved by the FAA and shall include all applicable Federal contract provisions for procurement and contracting required under AIP. Supplemental agreements shall also require consent of the Contractor's surety and separate performance and payment bonds.

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

Should a contract item be omitted or otherwise ordered to be non-performed, the Contractor shall be paid for all work performed toward completion of such item prior to the date of the order to omit such item.

Payment for work performed shall be in accordance with the subsection 90-04 titled PAYMENT FOR OMITTED ITEMS of Section 90.

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

When determined by the Engineer to be in the Owner's best interest, the Engineer may order the Contractor to proceed with Extra Work as provided in the subsection 90-05 titled PAYMENT FOR EXTRA WORK of Section 90. Extra Work that is necessary for acceptable completion of the project, but is not within the general scope of the work covered by the original contract shall be covered by a Supplemental Agreement as defined in the subsection 10-48 titled SUPPLEMENTAL AGREEMENT of Section 10.

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

40-5 MAINTENANCE OF TRAFFIC. It is the explicit intention of the contract that the safety of aircraft, as well as the Contractor's equipment and personnel, is the most important consideration.

a. It is understood and agreed that the Contractor shall provide for the free and unobstructed movement of aircraft in the air operations areas (AOAs) of the airport with respect to his or her own operations and the operations of all subcontractors as specified in the subsection 80-04 titled LIMITATION OF OPERATIONS of Section 80. It is further understood and agreed that the Contractor shall provide for the uninterrupted operation of visual and electronic signals (including power supplies thereto) used in the guidance of aircraft while operating to, from, and upon the airport as specified in the subsection 70-15 titled CONTRACTOR'S RESPONSIBILITY FOR UTILITY SERVICE AND FACILITIES OF OTHERS in Section 70.

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

c. When the contract requires the maintenance of vehicular traffic on an existing road, street, or highway during the Contractor's performance of work that is otherwise provided for in the contract, plans, and specifications, the Contractor shall keep such road, street, or highway open to all traffic and shall provide such maintenance as may be required to accommodate traffic. The Contractor shall be responsible for the repair of any damage caused by the Contractor's equipment and personnel. The Contractor shall furnish, erect, and maintain barricades, warning signs, flag person, and other traffic control devices in reasonable conformity with the Manual on Uniform Traffic Control Devices (MUTCD) (http://mutcd.fhwa.dot.gov/), unless otherwise specified. The Contractor shall also construct and maintain in a safe condition any temporary connections necessary for ingress to and egress from abutting property or intersecting roads, streets or highways. Unless otherwise specified herein, the Contractor will not be required to furnish snow removal for such existing road, street, or highway.

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

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

Except as provided in the subsection 40-07 titled RIGHTS IN AND USE OF MATERIALS FOUND IN THE WORK of this section, it is intended that all existing materials or structures that may be encountered (within the lines, grades, or grading sections established for completion of the work) shall be used in the work as otherwise provided for in the contract and shall remain the property of the Owner when so used in the work.

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

a. Use such material in another contract item, providing such use is approved by the Engineer and is in conformance with the contract specifications applicable to such use; or,

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

c. Use such material for the Contractor's own temporary construction on site; or,

d. Use such material as intended by the terms of the contract.

Should the Contractor wish to exercise option a., b., or c., the Contractor shall request the Engineer's approval in advance of such use.

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

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

It is understood and agreed that the Contractor shall make no claim for delays by reason of his or her exercise of option a., b., or c.

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

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

END OF SECTION 40

SECTION 50
CONTROL OF WORK

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

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

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

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

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

For the purpose of this subsection, the term "reasonably close conformity" shall not be construed as waiving the Contractor's responsibility to complete the work in accordance with the contract, plans, and specifications. The term shall not be construed as waiving the Engineer's responsibility to insist on strict compliance with the requirements of the contract, plans, and specifications during the Contractor's execution of the work, when, in the Engineer's opinion, such compliance is essential to provide an acceptable finished portion of the work.

For the purpose of this subsection, the term "reasonably close conformity" is also intended to provide the Engineer with the authority, after consultation with the FAA, to use sound engineering judgment in his or her determinations as to acceptance of work that is not in strict conformity, but will provide a finished product equal to or better than that intended by the requirements of the contract, plans and specifications.

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

50-3 COORDINATION OF CONTRACT, PLANS, AND SPECIFICATIONS. The contract, plans, specifications, and all referenced standards cited are essential parts of the contract requirements. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, calculated dimensions will govern over scaled dimensions; contract technical specifications shall govern over contract general provisions, plans, cited standards for materials or testing, and cited advisory circulars (ACs);

contract general provisions shall govern over plans, cited standards for materials or testing, and cited ACs; plans shall govern over cited standards for materials or testing and cited ACs. If any paragraphs contained in the Special Provisions conflict with General Provisions or Technical Specifications, the Special Provisions shall govern.

From time to time, discrepancies within cited testing standards occur due to the timing of the change, edits, and/or replacement of the standards. If the Contractor discovers any apparent discrepancy within standard test methods, the Contractor shall immediately ask the Engineer for an interpretation and decision, and such decision shall be final.

50-4 COOPERATION OF CONTRACTOR. The Contractor will be supplied with three copies each of the plans and specifications. The Contractor shall have available on the work at all times one copy each of the plans and specifications. Additional copies of plans and specifications may be obtained by the Contractor for the cost of reproduction.

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

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

When separate contracts are let within the limits of any one project, each Contractor shall conduct the work so as not to interfere with or hinder the progress of completion of the work being performed by other Contractors. Contractors working on the same project shall cooperate with each other as directed.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with his or her contract and shall protect and save harmless the Owner from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced because of the presence and operations of other Contractors working within the limits of the same project.

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

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

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

The Contractor must give copies of survey notes to the Engineer for each area of construction and for each placement of material as specified to allow the Engineer to make periodic checks for conformance with plan grades, alignments and grade tolerances required by the applicable material specifications. All surveys must be provided to the Engineer prior to commencing work items that will cover or disturb the survey staking as set by the Contractor's surveyor. Survey(s) and notes shall be provided in the following format(s): **electronic CAD format (.dwg or .dgn).** In the case of error, on the part of the Contractor, their surveyor, employees or subcontractors, resulting in established grades, alignment or grade tolerances that do not

concur with those specified or shown on the plans, the Contractor is solely responsible for correction, removal, replacement and all associated costs at no additional cost to the Owner.

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

Construction Staking and Layout includes but is not limited to:

a. Clearing and Grubbing perimeter staking

b. Rough Grade slope stakes at 100-foot (30-m) stations

c. Drainage Swales slope stakes and flow line blue tops at 50-foot (15-m) stations

Subgrade blue tops at 25-foot (7.5-m) stations and 25-foot (7.5-m) offset distance (maximum) for the following section locations:

a. Runway – minimum five (5) per station

b. Taxiways – minimum three (3) per station

c. Holding apron areas – minimum three (3) per station

d. Roadways – minimum three (3) per station

Base Course blue tops at 25-foot (7.5-m) stations and 25-foot (7.5-m) offset distance (maximum) for the following section locations:

a. Runway – minimum five (5) per station

b. Taxiways – minimum three (3) per station

c. Holding apron areas – minimum three (3) per station

Pavement areas:

a. Edge of Pavement hubs and tacks (for stringline by Contractor) at 100-foot (30-m) stations.

b. Between Lifts at 25-foot (7.5-m) stations for the following section locations:

(1) Runways – each paving lane width
(2) Taxiways – each paving lane width
(3) Holding areas – each paving lane width

c. After finish paving operations at 50-foot (15-m) stations:

(1) All paved areas – Edge of each paving lane prior to next paving lot

d. Shoulder and safety area blue tops at 50-foot (15-m) stations and at all break points with maximum of 50-foot (15-m) offsets.

e. Fence lines at 100-foot (30-m) stations minimum.

f. Electrical and Communications System locations, lines and grades including but not limited to duct runs, connections, fixtures, signs, lights, Visual Approach Slope Indicators (VASIs), Precision Approach Path Indicators (PAPIs), Runway End Identifier Lighting (REIL), Wind Cones, Distance Markers (signs), pull

boxes and manholes.

g. Drain lines, cut stakes and alignment on 25-foot (7.5-m) stations, inlet and manholes.

h. Painting and Striping layout (pinned with 1.5 inch PK nails) marked for paint Contractor. (All nails shall be removed after painting).

i. Laser, or other automatic control devices, shall be checked with temporary control point or grade hub at a minimum of once per 400 feet (120 m) per pass (that is, paving lane).

The establishment of Survey Control and/or reestablishment of survey control shall be by a State Licensed Land Surveyor.

Controls and stakes disturbed or suspect of having been disturbed shall be checked and/or reset as directed by the Engineer without additional cost to the Owner.

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

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

Inspectors are authorized to notify the Contractor or his or her representatives of any failure of the work or materials to conform to the requirements of the contract, plans, or specifications and to reject such nonconforming materials in question until such issues can be referred to the Engineer for a decision.

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

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

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

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

50-10 REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK. All work that does not conform to the requirements of the contract, plans, and specifications will be considered unacceptable, unless

otherwise determined acceptable by the Engineer as provided in the subsection 50-02 titled CONFORMITY WITH PLANS AND SPECIFICATIONS of this section.

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner in accordance with the provisions of the subsection 70-14 titled CONTRACTOR'S RESPONSIBILITY FOR WORK of Section 70.

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

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

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

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

50-12 MAINTENANCE DURING CONSTRUCTION. The Contractor shall maintain the work during construction and until the work is accepted. Maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces so that the work is maintained in satisfactory condition at all times.
In the case of a contract for the placing of a course upon a course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations.

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

50-13 FAILURE TO MAINTAIN THE WORK. Should the Contractor at any time fail to maintain the work as provided in the subsection 50-12 titled MAINTENANCE DURING CONSTRUCTION of this section, the Engineer shall immediately notify the Contractor of such noncompliance. Such notification shall specify a reasonable time within which the Contractor shall be required to remedy such unsatisfactory maintenance condition. The time specified will give due consideration to the exigency that exists.

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

50-14 PARTIAL ACCEPTANCE. If at any time during the execution of the project the Contractor substantially completes a usable unit or portion of the work, the occupancy of which will benefit the Owner, the Contractor may request the Engineer to make final inspection of that unit. If the Engineer finds upon inspection that the unit has been satisfactorily completed in compliance with the contract, the Engineer may accept it as being complete, and the Contractor may be relieved of further responsibility for that unit. Such

partial acceptance and beneficial occupancy by the Owner shall not void or alter any provision of the contract.

50-15 FINAL ACCEPTANCE. Upon due notice from the Contractor of presumptive completion of the entire project, the Engineer and Owner will make an inspection. If all construction provided for and contemplated by the contract is found to be complete in accordance with the contract, plans, and specifications, such inspection shall constitute the final inspection. The Engineer shall notify the Contractor in writing of final acceptance as of the date of the final inspection.

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

50-16 CLAIMS FOR ADJUSTMENT AND DISPUTES. If for any reason the Contractor deems that additional compensation is due for work or materials not clearly provided for in the contract, plans, or specifications or previously authorized as extra work, the Contractor shall notify the Engineer in writing of his or her intention to claim such additional compensation before the Contractor begins the work on which the Contractor bases the claim. If such notification is not given or the Engineer is not afforded proper opportunity by the Contractor for keeping strict account of actual cost as required, then the Contractor hereby agrees to waive any claim for such additional compensation. Such notice by the Contractor and the fact that the Engineer has kept account of the cost of the work shall not in any way be construed as proving or substantiating the validity of the claim. When the work on which the claim for additional compensation is based has been completed, the Contractor shall, within 10 calendar days, submit a written claim to the Engineer who will present it to the Owner for consideration in accordance with local laws or ordinances.

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

END OF SECTION 50

SECTION 60
CONTROL OF MATERIALS

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

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

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

The Contractor shall furnish airport lighting equipment that conforms to the requirements of cited materials specifications. In addition, where an FAA specification for airport lighting equipment is cited in the plans or specifications, the Contractor shall furnish such equipment that is:

a. Listed in advisory circular (AC) 150/5345-53, Airport Lighting Equipment Certification Program, and Addendum that is in effect on the date of advertisement; and,

b. Produced by the manufacturer as listed in the Addendum cited above for the certified equipment part number.

The following airport lighting equipment is required for this contract and is to be furnished by the Contractor in accordance with the requirements of this subsection: **see construction drawings.**

60-2 SAMPLES, TESTS, AND CITED SPECIFICATIONS. Unless otherwise designated, all materials used in the work shall be inspected, tested, and approved by the Engineer before incorporation in the work. Any work in which untested materials are used without approval or written permission of the Engineer shall be performed at the Contractor's risk. Materials found to be unacceptable and unauthorized will not be paid for and, if directed by the Engineer, shall be removed at the Contractor's expense.

Unless otherwise designated, quality assurance tests in accordance with the cited standard methods of ASTM, American Association of State Highway and Transportation Officials (AASHTO), Federal Specifications, Commercial Item Descriptions, and all other cited methods, which are current on the date of advertisement for bids, will be made by and at the expense of the Engineer.

The testing organizations performing on-site quality assurance field tests shall have copies of all referenced standards on the construction site for use by all technicians and other personnel, including the Contractor's representative at his or her request. Unless otherwise designated, samples for quality assurance will be taken by a qualified representative of the Engineer. All materials being used are subject to inspection, test, or rejection at any time prior to or during incorporation into the work. Copies of all tests will be furnished to the Contractor's representative at their request after review and approval of the Engineer.

The Contractor shall employ a testing organization to perform all Contractor required Quality Control tests. The Contractor shall submit to the Engineer resumes on all testing organizations and individual persons who will be performing the tests. The Engineer will determine if such persons are qualified. All the test data shall be reported to the Engineer after the results are known. A legible, handwritten copy of all test data shall be given to the Engineer daily, along with printed reports, in an approved format, on a weekly basis. After completion of the project, and prior to final payment, the Contractor shall submit a final report to the Engineer showing all test data reports, plus an analysis of all results showing ranges, averages, and corrective action taken on all failing tests.

60-3 CERTIFICATION OF COMPLIANCE. The Engineer may permit the use, prior to sampling and testing, of certain materials or assemblies when accompanied by manufacturer's certificates of compliance stating that such materials or assemblies fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer. Each lot of such materials or assemblies delivered to the work must be accompanied by a certificate of compliance in which the lot is clearly identified.

Materials or assemblies used on the basis of certificates of compliance may be sampled and tested at any time and if found not to be in conformity with contract requirements will be subject to rejection whether in place or not.

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

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

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

b. Suitability of the material or assembly for the use intended in the contract work.

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

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

60-4 PLANT INSPECTION. The Engineer or his or her authorized representative may inspect, at its source, any specified material or assembly to be used in the work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the work and to obtain samples required for acceptance of the material or assembly.

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

a. The Engineer shall have the cooperation and assistance of the Contractor and the producer with whom the Engineer has contracted for materials.

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

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

It is understood and agreed that the Owner shall have the right to retest any material that has been tested and approved at the source of supply after it has been delivered to the site. The Engineer shall have the right to reject only material which, when retested, does not meet the requirements of the contract, plans, or specifications.

60-5 ENGINEER'S FIELD OFFICE. The Contractor shall furnish for the duration of the project one building for the use of the field Engineers and inspectors, as a field office. This facility shall be an approved weatherproof building meeting the current State Highway Specifications (for example, Class I Field Office or Type C Structure). This building shall be located conveniently near to the construction and shall be

separate from any building used by the Contractor. The Contractor shall furnish photocopy machine, water, sanitary facilities, heat, air conditioning, wireless internet access and electricity The Contractor and the Contractor's superintendent shall provide all reasonable facilities to enable to the Engineer to inspect the workmanship and materials used into the work.

60-6 STORAGE OF MATERIALS. Materials shall be so stored as to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located to facilitate their prompt inspection. The Contractor shall coordinate the storage of all materials with the Engineer. Materials to be stored on airport property shall not create an obstruction to air navigation nor shall they interfere with the free and unobstructed movement of aircraft. Unless otherwise shown on the plans, the storage of materials and the location of the Contractor's plant and parked equipment or vehicles shall be as directed by the Engineer. Private property shall not be used for storage purposes without written permission of the Owner or lessee of such property. The Contractor shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the Contractor shall furnish the Engineer a copy of the property Owner's permission.
All storage sites on private or airport property shall be restored to their original condition by the Contractor at his or her entire expense, except as otherwise agreed to (in writing) by the Owner or lessee of the property.

60-7 UNACCEPTABLE MATERIALS. Any material or assembly that does not conform to the requirements of the contract, plans, or specifications shall be considered unacceptable and shall be rejected. The Contractor shall remove any rejected material or assembly from the site of the work, unless otherwise instructed by the Engineer.

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

60-8 OWNER FURNISHED MATERIALS. The Contractor shall furnish all materials required to complete the work, except those specified, if any, to be furnished by the Owner. Owner-furnished materials shall be made available to the Contractor at the location specified.

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

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

END OF SECTION 60

SECTION 70
LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC

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

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

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

70-4 RESTORATION OF SURFACES DISTURBED BY OTHERS. The Owner reserves the right to authorize the construction, reconstruction, or maintenance of any public or private utility service, FAA or National Oceanic and Atmospheric Administration (NOAA) facility, or a utility service of another government agency at any time during the progress of the work. To the extent that such construction, reconstruction, or maintenance has been coordinated with the Owner, such authorized work (by others) is indicated as follows:

Owner	*Person to Contact (Phone Number)*
Jefferson County (Jack Brooks Regional Airport	*Duke Youmans (409) 719-4900*
Federal Aviation Administration	*James Terrel*

Except as listed above, the Contractor shall not permit any individual, firm, or corporation to excavate or otherwise disturb such utility services or facilities located within the limits of the work without the written permission of the Engineer.

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

70-5 FEDERAL AID PARTICIPATION. For Airport Improvement Program (AIP) contracts, the United States Government has agreed to reimburse the Owner for some portion of the contract costs. Such reimbursement is made from time to time upon the Owner's request to the FAA. In consideration of the United States Government's (FAA's) agreement with the Owner, the Owner has included provisions in this contract pursuant to the requirements of Title 49 of the USC and the Rules and Regulations of the FAA that pertain to the work.

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

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

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

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

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

The Contractor shall maintain the free and unobstructed movement of aircraft and vehicular traffic with respect to his or her own operations and those of his or her subcontractors and all suppliers in accordance with the subsection 40-05 titled MAINTENANCE OF TRAFFIC of Section 40 hereinbefore specified and shall limit such operations for the convenience and safety of the traveling public as specified in the subsection 80-04 titled LIMITATION OF OPERATIONS of Section 80 hereinafter.

70-8 BARRICADES, WARNING SIGNS, AND HAZARD MARKINGS. The Contractor shall furnish, erect, and maintain all barricades, warning signs, and markings for hazards necessary to protect the public and the work. When used during periods of darkness, such barricades, warning signs, and hazard markings shall be suitably illuminated. Unless otherwise specified, barricades, warning signs, and markings for hazards that are in the air operations area (AOAs) shall be a maximum of 18 inches high. Unless otherwise specified, barricades shall be spaced not more than 4 feet apart. Barricades, warning signs, and markings shall be paid for under subsection 40-05.

For vehicular and pedestrian traffic, the Contractor shall furnish, erect, and maintain barricades, warning signs, lights and other traffic control devices in reasonable conformity with the Manual on Uniform Traffic Control Devices.

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

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

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

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

Open-flame type lights shall not be permitted.

70-9 USE OF EXPLOSIVES. When the use of explosives is necessary for the execution of the work, the Contractor shall exercise the utmost care not to endanger life or property, including new work. The Contractor shall be responsible for all damage resulting from the use of explosives.

All explosives shall be stored in a secure manner in compliance with all laws and ordinances, and all such storage places shall be clearly marked. Where no local laws or ordinances apply, storage shall be provided satisfactory to the Engineer and, in general, not closer than 1,000 feet (300 m) from the work or from any building, road, or other place of human occupancy.

The Contractor shall notify each property Owner and public utility company having structures or facilities in proximity to the site of the work of his or her intention to use explosives. Such notice shall be given sufficiently in advance to enable them to take such steps as they may deem necessary to protect their property from injury.

The use of electrical blasting caps shall not be permitted on or within 1,000 feet (300 m) of the airport property.

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

The Contractor shall be responsible for all damage or injury to property of any character, during the execution of the work, resulting from any act, omission, neglect, or misconduct in manner or method of executing the work, or at any time due to defective work or materials, and said responsibility shall not be released until the project has been completed and accepted.

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

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

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

70-13 OPENING SECTIONS OF THE WORK TO TRAFFIC. Should it be necessary for the Contractor to complete portions of the contract work for the beneficial occupancy of the Owner prior to completion of the entire contract, such "phasing" of the work shall be specified herein and indicated on the plans. When so specified, the Contractor shall complete such portions of the work on or before the date specified or as otherwise specified. The Contractor shall make his or her own estimate of the difficulties involved in arranging the work to permit such beneficial occupancy by the Owner as described below:

- Contractor shall reference the Construction Safety and Phasing Plan for phasing/beneficial occupancy requirements.

Upon completion of any portion of the work listed above, such portion shall be accepted by the Owner in accordance with the subsection 50-14 titled PARTIAL ACCEPTANCE of Section 50.

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

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

Contractor shall be required to conform to safety standards contained AC 150/5370-2 (see Special Provisions).

Contractor shall refer to the approved Construction Safety Phasing Plan (CSPP) to identify barricade requirements and other safety requirements prior to opening up sections of work to traffic.

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

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

70-15 CONTRACTOR'S RESPONSIBILITY FOR UTILITY SERVICE AND FACILITIES OF OTHERS. As provided in the subsection 70-04 titled RESTORATION OF SURFACES DISTURBED BY OTHERS of this section, the Contractor shall cooperate with the Owner of any public or private utility service, FAA or NOAA,

or a utility service of another government agency that may be authorized by the Owner to construct, reconstruct or maintain such utility services or facilities during the progress of the work. In addition, the Contractor shall control their operations to prevent the unscheduled interruption of such utility services and facilities.

To the extent that such public or private utility services, FAA, or NOAA facilities, or utility services of another governmental agency are known to exist within the limits of the contract work, the approximate locations have been indicated on the plans and the Owners are indicated as follows:

- Contractor shall reference section 70-04 of the General Provisions for utility location information.

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

It is further understood and agreed that the Contractor shall, upon execution of the contract, notify the Owners of all utility services or other facilities of his or her plan of operations. Such notification shall be in writing addressed to THE PERSON TO CONTACT as provided in this subsection and subsection 70- 04 titled RESTORATION OF SURFACES DISTURBED BY OTHERS of this section. A copy of each notification shall be given to the Engineer.

In addition to the general written notification provided, it shall be the responsibility of the Contractor to keep such individual Owners advised of changes in their plan of operations that would affect such Owners.

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

The Contractor's failure to give the two days' notice shall be cause for the Owner to suspend the Contractor's operations in the general vicinity of a utility service or facility.

Where the outside limits of an underground utility service have been located and staked on the ground, the Contractor shall be required to use hand excavation methods within 3 feet (1 m) of such outside limits at such points as may be required to ensure protection from damage due to the Contractor's operations.

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

The Contractor shall bear all costs of damage and restoration of service to any utility service or facility due to their operations whether due to negligence or accident. The Owner reserves the right to deduct such costs from any monies due or which may become due the Contractor, or his or her surety.

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

a. The Contractor shall permit FAA maintenance personnel the right of access to the project work site

for purposes of inspecting and maintaining all existing FAA owned facilities.

b. The Contractor shall provide notice to the FAA Air Traffic Organization (ATO)/Technical Operations/System Support Center (SSC) Point-of-Contact through the airport manager a minimum of seven (7) calendar days prior to commencement of construction activities in order to permit sufficient time to locate and mark existing buried cables and to schedule any required facility outages.

c. If execution of the project work requires a facility outage, the Contractor shall contact the FAA Point-of-Contact a minimum of 72 hours prior to the time of the required outage.

d. Any damage to FAA cables, access roads, or FAA facilities during construction caused by the Contractor's equipment or personnel whether by negligence or accident will require the Contractor to repair or replace the damaged cables, access road, or FAA facilities to FAA requirements. The Contractor shall not bear the cost to repair damage to underground facilities or utilities improperly located by the FAA.

e. If the project work requires the cutting or splicing of FAA owned cables, the FAA Point-of-Contact shall be contacted a minimum of 72 hours prior to the time the cable work commences. The FAA reserves the right to have a FAA representative on site to observe the splicing of the cables as a condition of acceptance. All cable splices are to be accomplished in accordance with FAA specifications and require approval by the FAA Point-of-Contact as a condition of acceptance by the Owner. The Contractor is hereby advised that FAA restricts the location of where splices may be installed. If a cable splice is required in a location that is not permitted by FAA, the Contractor shall furnish and install a sufficient length of new cable that eliminates the need for any splice.

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

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

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

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

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

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

Should the Contractor encounter, during his or her operations, any building, part of a building, structure, or

object that is incongruous with its surroundings, the Contractor shall immediately cease operations in that location and notify the Engineer. The Engineer will immediately investigate the Contractor's finding and the Owner will direct the Contractor to either resume operations or to suspend operations as directed.

Should the Owner order suspension of the Contractor's operations in order to protect an archaeological or historical finding, or order the Contractor to perform extra work, such shall be covered by an appropriate contract change order or supplemental agreement as provided in the subsection 40-04 titled EXTRA WORK of Section 40 and the subsection 90-05 titled PAYMENT FOR EXTRA WORK of Section 90. If appropriate, the contract change order or supplemental agreement shall include an extension of contract time in accordance with the subsection 80-07 titled DETERMINATION AND EXTENSION OF CONTRACT TIME of Section 80.

END OF SECTION 70

SECTION 80
EXECUTION AND PROGRESS

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

The Contractor shall provide copies of all subcontracts to the Engineer. The Contractor shall perform, with his organization, an amount of work equal to at least **25** percent of the total contract cost.

Should the Contractor elect to assign his or her contract, said assignment shall be concurred in by the surety, shall be presented for the consideration and approval of the Owner, and shall be consummated only on the written approval of the Owner.

80-2 NOTICE TO PROCEED. The notice to proceed shall state the date on which it is expected the Contractor will begin the construction and from which date contract time will be charged. The Contractor shall begin the work to be performed under the contract within 10 days of the date set by the Engineer in the written notice to proceed, but in any event, the Contractor shall notify the Engineer at least 24 hours in advance of the time actual construction operations will begin. The Contractor shall not commence any actual construction prior to the date on which the notice to proceed is issued by the Owner.

80-3 EXECUTION AND PROGRESS. Unless otherwise specified, the Contractor shall submit their progress schedule for the Engineer's approval within 10 days after the effective date of the notice to proceed. The Contractor's progress schedule, when approved by the Engineer, may be used to establish major construction operations and to check on the progress of the work. The Contractor shall provide sufficient materials, equipment, and labor to guarantee the completion of the project in accordance with the plans and specifications within the time set forth in the proposal.

If the Contractor falls significantly behind the submitted schedule, the Contractor shall, upon the Engineer's request, submit a revised schedule for completion of the work within the contract time and modify their operations to provide such additional materials, equipment, and labor necessary to meet the revised schedule. Should the execution of the work be discontinued for any reason, the Contractor shall notify the Engineer at least 24 hours in advance of resuming operations.

The Contractor shall not commence any actual construction prior to the date on which the notice to proceed is issued by the Owner.

80-4 LIMITATION OF OPERATIONS. The Contractor shall control his or her operations and the operations of his or her subcontractors and all suppliers to provide for the free and unobstructed movement of aircraft in the air operations areas (AOA) of the airport.

When the work requires the Contractor to conduct his or her operations within an AOA of the airport, the work shall be coordinated with airport operations (through the Engineer) at least 48 hours prior to commencement of such work. The Contractor shall not close an AOA until so authorized by the Engineer and until the necessary temporary marking and associated lighting is in place as provided in the subsection 70-08 titled BARRICADES, WARNING SIGNS, AND HAZARD MARKINGS of Section 70.

When the contract work requires the Contractor to work within an AOA of the airport on an intermittent basis (intermittent opening and closing of the AOA), the Contractor shall maintain constant communications as specified; immediately obey all instructions to vacate the AOA; immediately obey all instructions to resume work in such AOA. Failure to maintain the specified communications or to obey instructions shall be cause for suspension of the Contractor's operations in the AOA until the satisfactory conditions are provided. The following AOA cannot be closed to operating aircraft to permit the Contractor's operations on a continuous basis and will therefore be closed to aircraft operations intermittently as follows:

- The contractor shall reference the Construction Safety and Phasing Plans for all phases of the work.

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

80-04.1 OPERATIONAL SAFETY ON AIRPORT DURING CONSTRUCTION. All Contractors' operations shall be conducted in accordance with the project Construction Safety and Phasing Plan (CSPP) and the provisions set forth within the current version of AC 150/5370-2. The CSPP included within the contract documents conveys minimum requirements for operational safety on the airport during construction activities. The Contractor shall prepare and submit a Safety Plan Compliance Document that details how it proposes to comply with the requirements presented within the CSPP.

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

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

No deviation or modifications may be made to the approved CSPP unless approved in writing by the Owner or Engineer.

80-5 CHARACTER OF WORKERS, METHODS, AND EQUIPMENT. The Contractor shall, at all times, employ sufficient labor and equipment for prosecuting the work to full completion in the manner and time required by the contract, plans, and specifications.

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

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

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

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

When the methods and equipment to be used by the Contractor in accomplishing the work are not prescribed in the contract, the Contractor is free to use any methods or equipment that will accomplish the work in conformity with the requirements of the contract, plans, and specifications.

When the contract specifies the use of certain methods and equipment, such methods and equipment shall be used unless others are authorized by the Engineer. If the Contractor desires to use a method or type of equipment other than specified in the contract, the Contractor may request authority from the Engineer to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it will be on the condition

that the Contractor will be fully responsible for producing work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the Engineer determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of specified quality, or take such other corrective action as the Engineer may direct. No change will be made in basis of payment for the contract items involved nor in contract time as a result of authorizing a change in methods or equipment under this subsection.

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

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

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

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

Should the contract time require extension for reasons beyond the Contractor's control, it shall be adjusted as follows:

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

The Engineer shall base his or her weekly statement of contract time charged on the following considerations:

(1) No time shall be charged for days on which the Contractor is unable to proceed with the principal item of work under construction at the time for at least six (6) hours with the normal work force employed on such principal item. Should the normal work force be on a double-shift, 12 hours shall be used. Should the normal work force be on a triple-shift, 18 hours shall apply. Conditions beyond the Contractor's control such as strikes, lockouts, unusual delays in transportation, temporary suspension of the principal item of work under construction or temporary suspension of the entire work which have been ordered by the Owner for reasons not the fault of the Contractor, shall not be charged against the contract time.

(2) The Engineer will not make charges against the contract time prior to the effective date of the notice to proceed.

(3) The Engineer will begin charges against the contract time on the first working day after the effective date of the notice to proceed.

(4) The Engineer will not make charges against the contract time after the date of final acceptance as defined in the subsection 50-15 titled FINAL ACCEPTANCE of Section 50.

(5) The Contractor will be allowed one (1) week in which to file a written protest setting forth his or her objections to the Engineer's weekly statement. If no objection is filed within such specified time, the weekly statement shall be considered as acceptable to the Contractor.

The contract time (stated in the proposal) is based on the originally estimated quantities as described in the subsection 20-05 titled INTERPRETATION OF ESTIMATED PROPOSAL QUANTITIES of Section 20. Should the satisfactory completion of the contract require performance of work in greater quantities than those estimated in the proposal, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in contract time shall not consider either the cost of work or the extension of contract time that has been covered by change order or supplemental agreement and shall be made at the time of final payment.

b. Contract Time based on calendar days shall consist of the number of calendar days stated in the contract counting from the effective date of the notice to proceed and including all Saturdays, Sundays, holidays, and non-work days. All calendar days elapsing between the effective dates of the Owner's orders to suspend and resume all work, due to causes not the fault of the Contractor, shall be excluded.

At the time of final payment, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal.

Such increase in the contract time shall not consider either cost of work or the extension of contract time that has been covered by a change order or supplemental agreement. Charges against the contract time will cease as of the date of final acceptance.

c. When the contract time is a specified completion date, it shall be the date on which all contract work shall be substantially complete.

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

80-8 FAILURE TO COMPLETE ON TIME. For each calendar day or working day, as specified in the contract, that any work remains uncompleted after the contract time (including all extensions and adjustments as provided in the subsection 80-07 titled DETERMINATION AND EXTENSION OF CONTRACT TIME of this Section) the sum specified in the contract and proposal as liquidated damages will be deducted from any money due or to become due the Contractor or his or her surety. Such deducted

sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional engineering services that will be incurred by the Owner should the Contractor fail to complete the work in the time provided in their contract.

Schedule	Liquidated Damages Cost	Allowed Construction Time
See Proposal and Contract		

The maximum construction time allowed for Schedules **[N/A]** will be the sum of the time allowed for individual schedules but not more than **[N/A]** days. Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a wavier on the part of the Owner of any of its rights under the contract.

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

a. Fails to begin the work under the contract within the time specified in the Notice to Proceed, or

b. Fails to perform the work or fails to provide sufficient workers, equipment and/or materials to assure completion of work in accordance with the terms of the contract, or

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

d. Discontinues the execution of the work, or

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

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

g. Allows any final judgment to stand against the Contractor unsatisfied for a period of 10 days, or

h. Makes an assignment for the benefit of creditors, or

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

Should the Engineer consider the Contractor in default of the contract for any reason above, the Engineer shall immediately give written notice to the Contractor and the Contractor's surety as to the reasons for considering the Contractor in default and the Owner's intentions to terminate the contract.

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

All costs and charges incurred by the Owner, together with the cost of completing the work under contract, will be deducted from any monies due or which may become due the Contractor. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be

liable and shall pay to the Owner the amount of such excess.

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

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

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

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

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

80-11 WORK AREA, STORAGE AREA AND SEQUENCE OF OPERATIONS. The Contractor shall obtain approval from the Engineer prior to beginning any work in all areas of the airport. No operating runway, taxiway, or air operations area (AOA) shall be crossed, entered, or obstructed while it is operational. The Contractor shall plan and coordinate his or her work in such a manner as to ensure safety and a minimum of hindrance to flight operations. All Contractor equipment and material stockpiles shall be stored a minimum of **400** feet from the centerline of an active runway. No equipment will be allowed to park within the approach area of an active runway at any time. No equipment shall be within **250** feet of an active runway at any time.

END OF SECTION 80

SECTION 90
MEASUREMENT AND PAYMENT

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

The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice.

Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures (or leave-outs) having an area of 9 square feet (0.8 square meters) or less. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the plans or ordered in writing by the Engineer.

Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions. Unless otherwise specified, all contract items which are measured by the linear foot such as electrical ducts, conduits, pipe culverts, underdrains, and similar items shall be measured parallel to the base or foundation upon which such items are placed.

In computing volumes of excavation the average end area method or other acceptable methods will be used.

The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fraction of inch.

The term "ton" will mean the short ton consisting of 2,000 lb (907 km) avoirdupois. All materials that are measured or proportioned by weights shall be weighed on accurate, approved scales by competent, qualified personnel at locations designed by the Engineer. If material is shipped by rail, the car weight may be accepted provided that only the actual weight of material is paid for. However, car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as the Engineer directs, and each truck shall bear a plainly legible identification mark.

Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable for the materials hauled, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles shall be loaded to at least their water level capacity, and all loads shall be leveled when the vehicles arrive at the point of delivery.

When requested by the Contractor and approved by the Engineer in writing, material specified to be measured by the cubic yard (cubic meter) may be weighed, and such weights will be converted to cubic yards (cubic meters) for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Engineer and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

Bituminous materials will be measured by the gallon (liter) or ton (kg). When measured by volume, such volumes will be measured at 60°F (16°C) or will be corrected to the volume at 60°F (16°C) using ASTM D1250 for asphalts or ASTM D633 for tars.

Net certified scale weights or weights based on certified volumes in the case of rail shipments will be used as a basis of measurement, subject to correction when bituminous material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work.

When bituminous materials are shipped by truck or transport, net certified weights by volume, subject to correction for loss or foaming, may be used for computing quantities.

Cement will be measured by the ton (kg) or hundredweight (km).

Timber will be measured by the thousand feet board measure (MFBM) actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.

The term "lump sum" when used as an item of payment will mean complete payment for the work described in the contract.

When a complete structure or structural unit (in effect, "lump sum" work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories.

Rental of equipment will be measured by time in hours of actual working time and necessary traveling time of the equipment within the limits of the work. Special equipment ordered by the Engineer in connection with force account work will be measured as agreed in the change order or supplemental agreement authorizing such force account work as provided in the subsection 90-05 titled PAYMENT FOR EXTRA WORK of this section.

When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gauge, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.

Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected, and maintained by the Contractor, or be certified permanently installed commercial scales.

Scales shall be accurate within 1/2% of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the inspector before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed one-tenth of 1% of the nominal rated capacity of the scale, but not less than 1 pound (454 grams). The use of spring balances will not be permitted.

Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the inspector can safely and conveniently view them.

Scale installations shall have available ten standard 50-pound (2.3 km) weights for testing the weighing equipment or suitable weights and devices for other approved equipment.

Scales must be tested for accuracy and serviced before use at a new site. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end.

Scales "overweighing" (indicating more than correct weight) will not be permitted to operate, and all materials received subsequent to the last previous correct weighting-accuracy test will be reduced by the percentage of error in excess of one-half of 1%.

In the event inspection reveals the scales have been underweighing (indicating less than correct weight), they shall be adjusted, and no additional payment to the Contractor will be allowed for materials previously weighed and recorded.

All costs in connection with furnishing, installing, certifying, testing, and maintaining scales; for furnishing check weights and scale house; and for all other items specified in this subsection, for the weighing of materials for proportioning or payment, shall be included in the unit contract prices for the various items of the project.

When the estimated quantities for a specific portion of the work are designated as the pay quantities in the contract, they shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the Engineer. If revised dimensions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions.

90-2 SCOPE OF PAYMENT. The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials, for performing all work under the contract in a complete and acceptable manner, and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the execution thereof, subject to the provisions of the subsection 70-18 titled NO WAIVER OF LEGAL RIGHTS of Section 70.

When the "basis of payment" subsection of a technical specification requires that the contract price (price bid) include compensation for certain work or material essential to the item, this same work or material will not also be measured for payment under any other contract item which may appear elsewhere in the contract, plans, or specifications.

90-3 COMPENSATION FOR ALTERED QUANTITIES. When the accepted quantities of work vary from the quantities in the proposal, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract price for the accepted quantities of work actually completed and accepted. No allowance, except as provided for in the subsection 40-02 titled ALTERATION OF WORK AND QUANTITIES of Section 40 will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor which results directly from such alterations or indirectly from his or her unbalanced allocation of overhead and profit among the contract items, or from any other cause.

90-4 PAYMENT FOR OMITTED ITEMS. As specified in the subsection 40-03 titled OMITTED ITEMS of Section 40, the Engineer shall have the right to omit from the work (order nonperformance) any contract item, except major contract items, in the best interest of the Owner.

Should the Engineer omit or order nonperformance of a contract item or portion of such item from the work, the Contractor shall accept payment in full at the contract prices for any work actually completed and acceptable prior to the Engineer's order to omit or non-perform such contract item.

Acceptable materials ordered by the Contractor or delivered on the work prior to the date of the Engineer's order will be paid for at the actual cost to the Contractor and shall thereupon become the property of the Owner.

In addition to the reimbursement hereinbefore provided, the Contractor shall be reimbursed for all actual costs incurred for the purpose of performing the omitted contract item prior to the date of the Engineer's order. Such additional costs incurred by the Contractor must be directly related to the deleted contract item and shall be supported by certified statements by the Contractor as to the nature the amount of such costs.

90-5 PAYMENT FOR EXTRA WORK. Extra work, performed in accordance with the subsection 40-04 titled EXTRA WORK of Section 40, will be paid for at the contract prices or agreed prices specified in the change order or supplemental agreement authorizing the extra work.

90-6 PARTIAL PAYMENTS. Partial payments will be made to the Contractor at least once each month as the work progresses. Said payments will be based upon estimates, prepared by the Engineer, of the value of the work performed and materials complete and in place, in accordance with the contract, plans, and specifications. Such partial payments may also include the delivered actual cost of those materials stockpiled and stored in accordance with the subsection 90-07 titled PAYMENT FOR MATERIALS ON HAND of this section. No partial payment will be made when the amount due to the Contractor since the last estimate amounts to less than five hundred dollars.

The Contractor is required to pay all subcontractors for satisfactory performance of their contracts no later than 30 days after the Contractor has received a partial payment. The Owner must ensure prompt and full payment of retainage from the prime Contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed. A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented as required by the Owner. When the Owner has made an incremental acceptance of a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed.

When at least 95% of the work has been completed, the Engineer shall, at the Owner's discretion and with the consent of the surety, prepare estimates of both the contract value and the cost of the remaining work to be done.

The Owner may retain an amount not less than twice the contract value or estimated cost, whichever is greater, of the work remaining to be done. The remainder, less all previous payments and deductions, will then be certified for payment to the Contractor.

It is understood and agreed that the Contractor shall not be entitled to demand or receive partial payment based on quantities of work in excess of those provided in the proposal or covered by approved change orders or supplemental agreements, except when such excess quantities have been determined by the Engineer to be a part of the final quantity for the item of work in question.

No partial payment shall bind the Owner to the acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at the time of final payment as provided in the subsection 90-09 titled ACCEPTANCE AND FINAL PAYMENT of this section.

The Contractor shall deliver to the Owner a complete release of all claims for labor and material arising out of this contract before the final payment is made. If any subcontractor or supplier fails to furnish such a release in full, the Contractor may furnish a bond or other collateral satisfactory to the Owner to indemnify the Owner against any potential lien or other such claim. The bond or collateral shall include all costs, expenses, and attorney fees the Owner may be compelled to pay in discharging any such lien or claim.

90-7 PAYMENT FOR MATERIALS ON HAND. Partial payments may be made to the extent of the delivered cost of materials to be incorporated in the work, provided that such materials meet the requirements of the contract, plans, and specifications and are delivered to acceptable sites on the airport property or at other sites in the vicinity that are acceptable to the Owner. Such delivered costs of stored or stockpiled materials may be included in the next partial payment after the following conditions are met:

a. The material has been stored or stockpiled in a manner acceptable to the Engineer at or on an approved site.

b. The Contractor has furnished the Engineer with acceptable evidence of the quantity and quality of such stored or stockpiled materials.

c. The Contractor has furnished the Engineer with satisfactory evidence that the material and transportation costs have been paid.

d. The Contractor has furnished the Owner legal title (free of liens or encumbrances of any kind) to the material so stored or stockpiled.

e. The Contractor has furnished the Owner evidence that the material so stored or stockpiled is insured against loss by damage to or disappearance of such materials at any time prior to use in the work.

It is understood and agreed that the transfer of title and the Owner's payment for such stored or stockpiled materials shall in no way relieve the Contractor of his or her responsibility for furnishing and placing such materials in accordance with the requirements of the contract, plans, and specifications.

In no case will the amount of partial payments for materials on hand exceed the contract price for such materials or the contract price for the contract item in which the material is intended to be used.

No partial payment will be made for stored or stockpiled living or perishable plant materials.

The Contractor shall bear all costs associated with the partial payment of stored or stockpiled materials in accordance with the provisions of this subsection.

90-8 PAYMENT OF WITHHELD FUNDS. At the Contractor's option, if an Owner withholds retainage in accordance with the methods described in subsection 90-06 PARTIAL PAYMENTS, the Contractor may request that the Owner deposit the retainage into an escrow account. The Owner's deposit of retainage into an escrow account is subject to the following conditions:

a. The Contractor shall bear all expenses of establishing and maintaining an escrow account and escrow agreement acceptable to the Owner.

b. The Contractor shall deposit to and maintain in such escrow only those securities or bank certificates of deposit as are acceptable to the Owner and having a value not less than the retainage that would otherwise be withheld from partial payment.

c. The Contractor shall enter into an escrow agreement satisfactory to the Owner.

d. The Contractor shall obtain the written consent of the surety to such agreement.

90-9 ACCEPTANCE AND FINAL PAYMENT. When the contract work has been accepted in accordance with the requirements of the subsection 50-15 titled FINAL ACCEPTANCE of Section 50, the Engineer will prepare the final estimate of the items of work actually performed. The Contractor shall approve the Engineer's final estimate or advise the Engineer of the Contractor's objections to the final estimate which are based on disputes in measurements or computations of the final quantities to be paid under the contract as amended by change order or supplemental agreement. The Contractor and the Engineer shall resolve all disputes (if any) in the measurement and computation of final quantities to be paid within 30 calendar days of the Contractor's receipt of the Engineer's final estimate. If, after such 30-day period, a dispute still exists, the Contractor may approve the Engineer's estimate under protest of the quantities in dispute, and such disputed quantities shall be considered by the Owner as a claim in accordance with the subsection 50-16 titled CLAIMS FOR ADJUSTMENT AND DISPUTES of Section 50.

After the Contractor has approved, or approved under protest, the Engineer's final estimate, and after the Engineer's receipt of the project closeout documentation required in subsection 90-11 Project Closeout, final payment will be processed based on the entire sum, or the undisputed sum in case of approval under protest, determined to be due the Contractor less all previous payments and all amounts to be deducted under the provisions of the contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

If the Contractor has filed a claim for additional compensation under the provisions of the subsection 50-16 titled CLAIMS FOR ADJUSTMENTS AND DISPUTES of Section 50 or under the provisions of this subsection, such claims will be considered by the Owner in accordance with local laws or ordinances.

Upon final adjudication of such claims, any additional payment determined to be due the Contractor will be paid pursuant to a supplemental final estimate.

90-10 CONSTRUCTION WARRANTY.

a. In addition to any other warranties in this contract, the Contractor warrants that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, workmanship, or design furnished, or performed by the Contractor or any subcontractor or supplier at any tier.

b. This warranty shall continue for a period of one year from the date of final acceptance of the work. If the Owner takes possession of any part of the work before final acceptance, this warranty shall continue for a period of one year from the date the Owner takes possession. However, this will not relieve the Contractor from corrective items required by the final acceptance of the project work.

c. The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Owner real or personal property, when that damage is the result of:

(1) The Contractor's failure to conform to contract requirements; or
(2) Any defect of equipment, material, workmanship, or design furnished by the Contractor.

d. The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for one year from the date of repair or replacement.

e. The Owner will notify the Contractor, in writing, within 7 days after the discovery of any failure, defect, or damage.

f. If the Contractor fails to remedy any failure, defect, or damage within 30 days after receipt of notice, the Owner shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

g. With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall: (1) Obtain all warranties that would be given in normal commercial practice; (2) Require all warranties to be executed, in writing, for the benefit of the Owner, as directed by the Owner, and (3) Enforce all warranties for the benefit of the Owner.

h. This warranty shall not limit the Owner's rights with respect to latent defects, gross mistakes, or fraud.

90-11 PROJECT CLOSEOUT. Approval of final payment to the Contractor is contingent upon completion and submittal of the items listed below. The final payment will not be approved until the Engineer approves the Contractor's final submittal. The Contractor shall:

a. Provide two (2) copies of all manufacturers warranties specified for materials, equipment, and installations.

b. Provide weekly payroll records (not previously received) from the general Contractor and all subcontractors.

c. Complete final cleanup in accordance with subsection 40-08, FINAL CLEANUP.

d. Complete all punch list items identified during the Final Inspection.

e. Provide complete release of all claims for labor and material arising out of the Contract.

f. Provide a certified statement signed by the subcontractors, indicating actual amounts paid to the Disadvantaged Business Enterprise (DBE) subcontractors and/or suppliers associated with the project.

g. When applicable per state requirements, return copies of sales tax completion forms.

h. Manufacturer's certifications for all items incorporated in the work.

i. All required record drawings, as-built drawings or as-constructed drawings.

j. Project Operation and Maintenance (O&M) Manual.

k. Security for Construction Warranty.

l. Equipment commissioning documentation submitted, if required.

END OF SECTION 90

SECTION 100
CONTRACTOR QUALITY CONTROL PROGRAM

100-1 GENERAL. When the specification requires a Contractor Quality Control Program, the Contractor shall establish, provide, and maintain an effective Quality Control Program that details the methods and procedures that will be taken to assure that all materials and completed construction required by this contract conform to contract plans, technical specifications and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors. Although guidelines are established and certain minimum requirements are specified here and elsewhere in the contract technical specifications, the Contractor shall assume full responsibility for accomplishing the stated purpose.

The intent of this section is to enable the Contractor to establish a necessary level of control that will:

a. Adequately provide for the production of acceptable quality materials.

b. Provide sufficient information to assure both the Contractor and the Engineer that the specification requirements can be met.

c. Allow the Contractor as much latitude as possible to develop his or her own standard of control.

The Contractor shall be prepared to discuss and present, at the preconstruction conference, their understanding of the quality control requirements. The Contractor shall not begin any construction or production of materials to be incorporated into the completed work until the Quality Control Program has been reviewed and accepted by the Engineer. No partial payment will be made for materials subject to specific quality control requirements until the Quality Control Program has been reviewed.

The quality control requirements contained in this section and elsewhere in the contract technical specifications are in addition to and separate from the acceptance testing requirements. Acceptance testing requirements are the responsibility of the Engineer.

Paving projects over $250,000 shall have a Quality Control (QC)/Quality Assurance (QA) workshop with the Engineer, Contractor, subcontractors, testing laboratories, and Owner's representative and the FAA prior to or at start of construction. The workshop shall address QC and QA requirements of the project specifications. The Contractor shall coordinate with the Airport and the Engineer on time and location of the QC/QA workshop.

100-2 DESCRIPTION OF PROGRAM.

a. General description. The Contractor shall establish a Quality Control Program to perform quality control inspection and testing of all items of work required by the technical specifications, including those performed by subcontractors. This Quality Control Program shall ensure conformance to applicable specifications and plans with respect to materials, workmanship, construction, finish, and functional performance. The Quality Control Program shall be effective for control of all construction work performed under this Contract and shall specifically include surveillance and tests required by the technical specifications, in addition to other requirements of this section and any other activities deemed necessary by the Contractor to establish an effective level of quality control.

b. QUALITY CONTROL PROGRAM. The Contractor shall describe the Quality Control Program in a written document that shall be reviewed and approved by the Engineer prior to the start of any production, construction, or off-site fabrication. The written Quality Control Program shall be submitted to the Engineer for review and approval at least **10** calendar days before the **associated work begins**. The Contractor's Quality Control Plan and Quality Control testing laboratory must be approved in writing by the Engineer prior to the Notice to Proceed (NTP).

The Quality Control Program shall be organized to address, as a minimum, the following items:

a. Quality control organization

b. Project progress schedule

c. Submittals schedule

d. Inspection requirements

e. Quality control testing plan

f. Documentation of quality control activities

g. Requirements for corrective action when quality control and/or acceptance criteria are not met

The Contractor is encouraged to add any additional elements to the Quality Control Program that is deemed necessary to adequately control all production and/or construction processes required by this contract.

100-3 QUALITY CONTROL ORGANIZATION. The Contractor 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 used 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 100-03a and 100-03b. The organizational chart shall indicate which personnel are Contractor employees and which are provided by an outside organization.

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

a. Program Administrator. The Program Administrator shall be a full-time on-site employee of the Contractor, or a consultant engaged by the Contractor. The Program Administrator shall have a minimum of five (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:

(1) Professional Engineer with one (1) year of airport paving experience.

(2) Engineer-in-training with two (2) years of airport paving experience.

(3) An individual with three (3) years of highway and/or airport paving experience, with a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology or Construction.

(4) Construction materials technician certified at Level III by the National Institute for Certification in Engineering Technologies (NICET).

(5) Highway materials technician certified at Level III by NICET.

(6) Highway construction technician certified at Level III by NICET.

(7) A NICET certified engineering technician in Civil Engineering Technology with five (5) years of highway and/or airport paving experience.

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 technical specifications. 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 two (2) hours after being notified of a problem.

b. 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 two (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:

(1) Inspection of all materials, construction, plant, and equipment for conformance to the technical specifications, and as required by subsection 100-06.

(2) Performance of all quality control tests as required by the technical specifications and subsection 100-07.

(3) Performance of density tests for the Engineer when required by the technical specifications.

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

c. 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.

100-4 PROJECT PROGRESS SCHEDULE. The Contractor shall submit a coordinated construction schedule for all work activities. The schedule shall be prepared as a network diagram in Critical Path Method (CPM), Program Evaluation and Review Technique (PERT), or other format, or as otherwise specified in the contract. As a minimum, it shall provide information on the sequence of work activities, milestone dates, and activity duration.

The Contractor shall maintain the work schedule and provide an update and analysis of the progress schedule on a twice monthly basis, or as otherwise specified in the contract. Submission of the work schedule shall not relieve the Contractor of overall responsibility for scheduling, sequencing, and coordinating all work to comply with the requirements of the contract.

100-5 SUBMITTALS SCHEDULE. The Contractor shall submit a detailed listing of all submittals (for example, mix designs, material certifications) and shop drawings required by the technical specifications. The listing can be developed in a spreadsheet format and shall include:

a. Specification item number

b. Item description

c. Description of submittal

d. Specification paragraph requiring submittal

e. Scheduled date of submittal

100-6 INSPECTION REQUIREMENTS. Quality control inspection functions shall be organized to provide inspections for all definable features of work, as detailed below. All inspections shall be documented by the Contractor as specified by subsection 100-07.

Inspections shall be performed daily to ensure continuing compliance with contract requirements until completion of the particular feature of work. These shall include the following minimum requirements:

a. During plant operation for material production, quality control test results and periodic inspections shall be used to ensure the quality of aggregates and other mix components, and to adjust and control mix proportioning to meet the approved mix design and other requirements of the technical specifications. All equipment used in proportioning and mixing shall be inspected to ensure its proper operating condition. The Quality Control Program shall detail how these and other quality control functions will be accomplished and used.

b. During field operations, quality control test results and periodic inspections shall be used to ensure the quality of all materials and workmanship. All equipment used in placing, finishing, and compacting shall be inspected to ensure its proper operating condition and to ensure that all such operations are in conformance to the technical specifications and are within the plan dimensions, lines, grades, and tolerances specified. The Program shall document how these and other quality control functions will be accomplished and used.

100-7 QUALITY CONTROL TESTING PLAN. As a part of the overall Quality Control Program, the Contractor shall implement a quality control testing plan, as required by the technical specifications. The testing plan shall include the minimum tests and test frequencies required by each technical specification Item, as well as any additional quality control tests that the Contractor deems necessary to adequately control production and/or construction processes.

The testing plan can be developed in a spreadsheet fashion and shall, as a minimum, include the following:

a. Specification item number (for example, P-401)

b. Item description (for example, Plant Mix Bituminous Pavements)

c. Test type (for example, gradation, grade, asphalt content)

d. Test standard (for example, ASTM or American Association of State Highway and Transportation Officials (AASHTO) test number, as applicable)

e. Test frequency (for example, as required by technical specifications or minimum frequency when requirements are not stated)

f. Responsibility (for example, plant technician)

g. Control requirements (for example, target, permissible deviations)

The testing plan shall contain a statistically-based procedure of random sampling for acquiring test samples in accordance with ASTM D3665. The Engineer shall be provided the opportunity to witness quality control sampling and testing.

All quality control test results shall be documented by the Contractor as required by subsection 100-08.

100-8 DOCUMENTATION. The Contractor shall maintain current quality control records of all inspections and tests performed. These records shall include factual evidence that the required inspections or tests have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, 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 shall be furnished to the Engineer daily. The records shall cover all work placed subsequent to the previously furnished records and shall be verified and signed by the Contractor's Program Administrator.

Specific Contractor quality control records required for the contract shall include, but are not necessarily limited to, the following records:

a. **Daily inspection reports.** Each Contractor quality control technician shall maintain a daily log of all inspections performed for both Contractor and subcontractor operations. These technician's daily reports shall provide factual evidence that continuous quality control inspections have been performed and shall, as a minimum, include the following:

(1) Technical specification item number and description
(2) Compliance with approved submittals
(3) Proper storage of materials and equipment
(4) Proper operation of all equipment
(5) Adherence to plans and technical specifications
(6) Review of quality control tests
(7) Safety inspection.

The daily inspection reports shall identify inspections conducted, results of inspections, location and nature of defects found, causes for rejection, and remedial or corrective actions taken or proposed.

The daily inspection reports shall be signed by the responsible quality control technician and the Program Administrator. The Engineer shall be provided at least one copy of each daily inspection report on the work day following the day of record.

b. **Daily test reports.** The Contractor shall be responsible for establishing a system that will record all quality control test results. Daily test reports shall document the following information:

(1) Technical specification item number and description
(2) Test designation
(3) Location
(4) Date of test
(5) Control requirements
(6) Test results
(7) Causes for rejection
(8) Recommended remedial actions
(9) Retests

Test results from each day's work period shall be submitted to the Engineer prior to the start of the next day's work period. When required by the technical specifications, the Contractor shall maintain statistical quality control charts. The daily test reports shall be signed by the responsible quality control technician and the Program Administrator.

100-9 CORRECTIVE ACTION REQUIREMENTS. The Quality Control Program shall indicate the appropriate action to be taken when a process is deemed, or believed, to be out of control (out of tolerance) and detail what action will be taken to bring the process into control. The requirements for corrective action

shall include both general requirements for operation of the Quality Control Program as a whole, and for individual items of work contained in the technical specifications.

The Quality Control Program shall detail how the results of quality control inspections and tests will be used for determining the need for corrective action and shall contain clear sets of rules to gauge when a process is out of control and the type of correction to be taken to regain process control.

When applicable or required by the technical specifications, the Contractor shall establish and use statistical quality control charts for individual quality control tests. The requirements for corrective action shall be linked to the control charts.

100-10 SURVEILLANCE BY THE ENGINEER. All items of material and equipment shall be subject to surveillance by the Engineer at the point of production, manufacture or shipment to determine if the Contractor, producer, manufacturer or shipper maintains an adequate quality control system in conformance with the requirements detailed here and the applicable technical specifications and plans. In addition, all items of materials, equipment and work in place shall be subject to surveillance by the Engineer at the site for the same purpose.

Surveillance by the Engineer does not relieve the Contractor of performing quality control inspections of either on-site or off-site Contractor's or subcontractor's work.

100-11 NONCOMPLIANCE.

a. The Engineer 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 Engineer or his or her authorized representative to the Contractor or his or 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 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 Engineer, the Engineer 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.

END OF SECTION 100

SECTION 105 MOBILIZATION

105-1 DESCRIPTION. This item shall consist of work and operations, but is not limited to, work and operations necessary for the movement of personnel, equipment, material and supplies to and from the project site for work on the project except as provided in the contract as separate pay items.

105-1.1 POSTED NOTICES. Prior to commencement of construction activities the Contractor must post the following documents in a prominent and accessible place where they may be easily viewed by all employees of the prime Contractor and by all employees of subcontractors engaged by the prime Contractor: Equal Employment Opportunity (EEO) Poster "Equal Employment Opportunity is the Law" in accordance with the Office of Federal Contract Compliance Programs Executive Order 11246, as amended; Davis Bacon Wage Poster (WH 1321) - DOL "Notice to All Employees" Poster; and Applicable Davis-Bacon Wage Rate Determination. These notices must remain posted until final acceptance of the work by the Owner.

105-2 BASIS OF MEASUREMENT AND PAYMENT. Based upon the contract lump sum price for "Mobilization" partial payments will be allowed as follows:

a. With first pay request, 25%.

b. When 25% or more of the original contract is earned, an additional 25%.

c. When 50% or more of the original contract is earned, an additional 40%.

d. After Final Inspection, Staging area clean-up and delivery of all Project Closeout materials as required by 90-11, the final 10%.

END OF SECTION 105

SECTION 110
METHOD OF ESTIMATING PERCENTAGE OF MATERIAL WITHIN SPECIFICATION LIMITS (PWL)

110-1 GENERAL. When the specifications provide for acceptance of material based on the method of estimating percentage of material within specification limits (PWL), the PWL will be determined in accordance with this section. All test results for a lot will be analyzed statistically to determine the total estimated percent of the lot that is within specification limits. The PWL is computed using the sample average (X) and sample standard deviation (S_n) of the specified number (n) of sublots for the lot and the specification tolerance limits, L for lower and U for upper, for the particular acceptance parameter. From these values, the respective Quality index, QL for Lower Quality Index and/or QU for Upper Quality Index, is computed and the PWL for the lot for the specified n is determined from Table 1. All specification limits specified in the technical sections shall be absolute values. Test results used in the calculations shall be to the significant figure given in the test procedure.

There is some degree of uncertainty (risk) in the measurement for acceptance because only a small fraction of production material (the population) is sampled and tested. This uncertainty exists because all portions of the production material have the same probability to be randomly sampled. The Contractor's risk is the probability that material produced at the acceptable quality level is rejected or subjected to a pay adjustment. The Owner's risk is the probability that material produced at the rejectable quality level is accepted.

It is the intent of this section to inform the Contractor that, in order to consistently offset the Contractor's risk for material evaluated, production quality (using population average and population standard deviation) must be maintained at the acceptable quality specified or higher. In all cases, it is the responsibility of the Contractor to produce at quality levels that will meet the specified acceptance criteria when sampled and tested at the frequencies specified.

110-2 METHOD FOR COMPUTING PWL. The computational sequence for computing PWL is as follows:

a. Divide the lot into n sublots in accordance with the acceptance requirements of the specification.

b. Locate the random sampling position within the sublot in accordance with the requirements of the specification.

c. Make a measurement at each location, or take a test portion and make the measurement on the test portion in accordance with the testing requirements of the specification.

d. Find the sample average (X) for all sublot values within the lot by using the following formula:

$$X = (x_1 + x_2 + x_3 + \ldots x_n) / n$$

Where: X = Sample average of all sublot values within a lot
x_1, x_2 = Individual sublot values
n = Number of sublots

e. Find the sample standard deviation (S_n) by use of the following formula:

$$S_n = [(d_1^2 + d_2^2 + d_3^2 + \ldots d_n^2) / (n-1)]^{1/2}$$

Where: S_n = Sample standard deviation of the number of sublot values in the set
d_1, d_2 = Deviations of the individual sublot values x_1, x_2,.. from the average value X that is: $d_1 = (x_1 - X)$, $d_2 = (x_2 - X)$ ... $d_n = (x_n - X)$
n = Number of sublots

f. For single sided specification limits (that is, L only), compute the Lower Quality Index QL by use of

the following formula:

$$Q_L = (X - L) / S_n$$

Where: L = specification lower tolerance limit

Estimate the percentage of material within limits (PWL) by entering Table 1 with QL, using the column appropriate to the total number (n) of measurements. If the value of QL falls between values shown on the table, use the next higher value of PWL.

g. For double-sided specification limits (that is, L and U), compute the Quality Indexes QL and QU by use of the following formulas:

$$Q_L = (X - L) / S_n$$

And

$$Q_U = (U - X) / S_n$$

Where: L and U = specification lower and upper tolerance limits

Estimate the percentage of material between the lower (L) and upper (U) tolerance limits (PWL) by entering Table 1 separately with Q_L and Q_U, using the column appropriate to the total number (n) of measurements, and determining the percent of material above P_L and percent of material below P_U for each tolerance limit. If the values of Q_L fall between values shown on the table, use the next higher value of P_L or P_U. Determine the PWL by use of the following formula:

$$PWL = (P_U + P_L) - 100$$

Where: P_L = percent within lower specification limit
P_U = percent within upper specification limit

EXAMPLE OF PWL CALCULATION

Project: Example Project
Test Item: Item P-401, Lot A.

A. PWL Determination for Mat Density.

1. Density of four random cores taken from Lot A.

A-1 = 96.60
A-2 = 97.55
A-3 = 99.30
A-4 = 98.35
n = 4

2. Calculate average density for the lot.

$X = (x_1 + x_2 + x_3 + \ldots x_n) / n$
$X = (96.60 + 97.55 + 99.30 + 98.35) / 4$
X = 97.95% density

3. Calculate the standard deviation for the lot.

$S_n = [((96.60 - 97.95)^2 + (97.55 - 97.95)^2 + (99.30 - 97.95)^2 + (98.35 - 97.95)2)) / (4 - 1)]^{1/2}$
$S_n = [(1.82 + 0.16 + 1.82 + 0.16) / 3]^{1/2}$
$S_n = 1.15$

4. Calculate the Lower Quality Index Q_L for the lot. (L=96.3)

$Q_L = (X - L) / S_n$
$Q_L = (97.95 - 96.30) / 1.15$
$Q_L = 1.4348$

5. Determine PWL by entering Table 1 with QL= 1.44 and n= 4.

PWL = 98

B. PWL Determination for Air Voids.

1. Air Voids of four random samples taken from Lot A.

A-1 = 5.00
A-2 = 3.74
A-3 = 2.30
A-4 = 3.25

2. Calculate the average air voids for the lot.

$X = (x_1 + x_2 + x_3 \ldots x_n) / n$
$X = (5.00 + 3.74 + 2.30 + 3.25) / 4$
$X = 3.57\%$

3. Calculate the standard deviation S_n for the lot.

$S_n = [((3.57 - 5.00)^2 + (3.57 - 3.74)^2 + (3.57 - 2.30)^2 + (3.57 - 3.25)^2) / (4 - 1)]^{1/2}$
$S_n = [(2.04 + 0.03 + 1.62 + 0.10) / 3]^{1/2}$
$S_n = 1.12$

4. Calculate the Lower Quality Index Q_L for the lot. (L= 2.0)

$Q_L = (X - L) / S_n$
$Q_L = (3.57 - 2.00) / 1.12$
$Q_L = 1.3992$

5. Determine P_L by entering Table 1 with $Q_L = 1.41$ and n = 4.

PL = 97

6. Calculate the Upper Quality Index Q_U for the lot. (U= 5.0)

$Q_U = (U - X) / S_n$
$Q_U = (5.00 - 3.57) / 1.12$
$Q_U = 1.2702$

7. Determine P_U by entering Table 1 with $Q_U = 1.29$ and n = 4.

$P_U = 93$

8. Calculate Air Voids PWL

PWL = (P_L + P_U) - 100
PWL = (97 + 93) - 100 = 90

EXAMPLE OF OUTLIER CALCULATION (REFERENCE ASTM E178)

Project: Example Project
Test Item: Item P-401, Lot A.

A. Outlier Determination for Mat Density.

1. Density of four random cores taken from Lot A arranged in descending order.

   A-3 = 99.30
   A-4 = 98.35
   A-2 = 97.55
   A-1 = 96.60

2. Use n=4 and upper 5% significance level of to find the critical value for test criterion = 1.463.

3. Use average density, standard deviation, and test criterion value to evaluate density measurements.

   a. For measurements greater than the average:

   If (measurement - average) / (standard deviation) is less than test criterion, then the measurement is not considered an outlier

   For A-3, check if (99.30 - 97.95) / 1.15 is greater than 1.463.

   Since 1.174 is less than 1.463, the value is not an outlier.

   b. For measurements less than the average:

   If (average - measurement) / (standard deviation) is less than test criterion, then the measurement is not considered an outlier.

   For A-1, check if (97.95 - 96.60) / 1.15 is greater than 1.463.

   Since 1.435 is less than 1.463, the value is not an outlier.

Note: In this example, a measurement would be considered an outlier if the density were:

Greater than (97.95 + 1.463 × 1.15) = 99.63%

OR

Less than (97.95 - 1.463 × 1.15) = 96.27%.

Table 1. Table for Estimating Percent of Lot Within Limits (PWL)

Percent Within Limits (P_L and	Positive Values of Q (Q_L and Q_U)							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
99	1.1541	1.4700	1.6714	1.8008	1.8888	1.9520	1.9994	2.0362
98	1.1524	1.4400	1.6016	1.6982	1.7612	1.8053	1.8379	1.8630
97	1.1496	1.4100	1.5427	1.6181	1.6661	1.6993	1.7235	1.7420

96	1.1456	1.3800	1.4897	1.5497	1.5871	1.6127	1.6313	1.6454
95	1.1405	1.3500	1.4407	1.4887	1.5181	1.5381	1.5525	1.5635
94	1.1342	1.3200	1.3946	1.4329	1.4561	1.4717	1.4829	1.4914
93	1.1269	1.2900	1.3508	1.3810	1.3991	1.4112	1.4199	1.4265
92	1.1184	1.2600	1.3088	1.3323	1.3461	1.3554	1.3620	1.3670
91	1.1089	1.2300	1.2683	1.2860	1.2964	1.3032	1.3081	1.3118
90	1.0982	1.2000	1.2290	1.2419	1.2492	1.2541	1.2576	1.2602
89	1.0864	1.1700	1.1909	1.1995	1.2043	1.2075	1.2098	1.2115
88	1.0736	1.1400	1.1537	1.1587	1.1613	1.1630	1.1643	1.1653
87	1.0597	1.1100	1.1173	1.1192	1.1199	1.1204	1.1208	1.1212
86	1.0448	1.0800	1.0817	1.0808	1.0800	1.0794	1.0791	1.0789
85	1.0288	1.0500	1.0467	1.0435	1.0413	1.0399	1.0389	1.0382
84	1.0119	1.0200	1.0124	1.0071	1.0037	1.0015	1.0000	0.9990
83	0.9939	0.9900	0.9785	0.9715	0.9671	0.9643	0.9624	0.9610
82	0.9749	0.9600	0.9452	0.9367	0.9315	0.9281	0.9258	0.9241
81	0.9550	0.9300	0.9123	0.9025	0.8966	0.8928	0.8901	0.8882
80	0.9342	0.9000	0.8799	0.8690	0.8625	0.8583	0.8554	0.8533
79	0.9124	0.8700	0.8478	0.8360	0.8291	0.8245	0.8214	0.8192
78	0.8897	0.8400	0.8160	0.8036	0.7962	0.7915	0.7882	0.7858
77	0.8662	0.8100	0.7846	0.7716	0.7640	0.7590	0.7556	0.7531
76	0.8417	0.7800	0.7535	0.7401	0.7322	0.7271	0.7236	0.7211
75	0.8165	0.7500	0.7226	0.7089	0.7009	0.6958	0.6922	0.6896
74	0.7904	0.7200	0.6921	0.6781	0.6701	0.6649	0.6613	0.6587
73	0.7636	0.6900	0.6617	0.6477	0.6396	0.6344	0.6308	0.6282
72	0.7360	0.6600	0.6316	0.6176	0.6095	0.6044	0.6008	0.5982
71	0.7077	0.6300	0.6016	0.5878	0.5798	0.5747	0.5712	0.5686
70	0.6787	0.6000	0.5719	0.5582	0.5504	0.5454	0.5419	0.5394
69	0.6490	0.5700	0.5423	0.5290	0.5213	0.5164	0.5130	0.5105
68	0.6187	0.5400	0.5129	0.4999	0.4924	0.4877	0.4844	0.4820
67	0.5878	0.5100	0.4836	0.4710	0.4638	0.4592	0.4560	0.4537
66	0.5563	0.4800	0.4545	0.4424	0.4355	0.4310	0.4280	0.4257
65	0.5242	0.4500	0.4255	0.4139	0.4073	0.4030	0.4001	0.3980
64	0.4916	0.4200	0.3967	0.3856	0.3793	0.3753	0.3725	0.3705
63	0.4586	0.3900	0.3679	0.3575	0.3515	0.3477	0.3451	0.3432
62	0.4251	0.3600	0.3392	0.3295	0.3239	0.3203	0.3179	0.3161
61	0.3911	0.3300	0.3107	0.3016	0.2964	0.2931	0.2908	0.2892
60	0.3568	0.3000	0.2822	0.2738	0.2691	0.2660	0.2639	0.2624
59	0.3222	0.2700	0.2537	0.2461	0.2418	0.2391	0.2372	0.2358
58	0.2872	0.2400	0.2254	0.2186	0.2147	0.2122	0.2105	0.2093
57	0.2519	0.2100	0.1971	0.1911	0.1877	0.1855	0.1840	0.1829
56	0.2164	0.1800	0.1688	0.1636	0.1607	0.1588	0.1575	0.1566
55	0.1806	0.1500	0.1406	0.1363	0.1338	0.1322	0.1312	0.1304
54	0.1447	0.1200	0.1125	0.1090	0.1070	0.1057	0.1049	0.1042
53	0.1087	0.0900	0.0843	0.0817	0.0802	0.0793	0.0786	0.0781
52	0.0725	0.0600	0.0562	0.0544	0.0534	0.0528	0.0524	0.0521
51	0.0363	0.0300	0.0281	0.0272	0.0267	0.0264	0.0262	0.0260
50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Percent Within Limits (P_L and P_U)	Negative Values of Q (Q_L and Q_U)							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
49	-0.0363	-0.0300	-0.0281	-0.0272	-0.0267	-0.0264	-0.0262	-0.0260
48	-0.0725	-0.0600	-0.0562	-0.0544	-0.0534	-0.0528	-0.0524	-0.0521
47	-0.1087	-0.0900	-0.0843	-0.0817	-0.0802	-0.0793	-0.0786	-0.0781
46	-0.1447	-0.1200	-0.1125	-0.1090	-0.1070	-0.1057	-0.1049	-0.1042
45	-0.1806	-0.1500	-0.1406	-0.1363	-0.1338	-0.1322	-0.1312	-0.1304
44	-0.2164	-0.1800	-0.1688	-0.1636	-0.1607	-0.1588	-0.1575	-0.1566

43	-0.2519	-0.2100	-0.1971	-0.1911	-0.1877	-0.1855	-0.1840	-0.1829
42	-0.2872	-0.2400	-0.2254	-0.2186	-0.2147	-0.2122	-0.2105	-0.2093
41	-0.3222	-0.2700	-0.2537	-0.2461	-0.2418	-0.2391	-0.2372	-0.2358
40	-0.3568	-0.3000	-0.2822	-0.2738	-0.2691	-0.2660	-0.2639	-0.2624
39	-0.3911	-0.3300	-0.3107	-0.3016	-0.2964	-0.2931	-0.2908	-0.2892
38	-0.4251	-0.3600	-0.3392	-0.3295	-0.3239	-0.3203	-0.3179	-0.3161
37	-0.4586	-0.3900	-0.3679	-0.3575	-0.3515	-0.3477	-0.3451	-0.3432
36	-0.4916	-0.4200	-0.3967	-0.3856	-0.3793	-0.3753	-0.3725	-0.3705
35	-0.5242	-0.4500	-0.4255	-0.4139	-0.4073	-0.4030	-0.4001	-0.3980
34	-0.5563	-0.4800	-0.4545	-0.4424	-0.4355	-0.4310	-0.4280	-0.4257
33	-0.5878	-0.5100	-0.4836	-0.4710	-0.4638	-0.4592	-0.4560	-0.4537
32	-0.6187	-0.5400	-0.5129	-0.4999	-0.4924	-0.4877	-0.4844	-0.4820
31	-0.6490	-0.5700	-0.5423	-0.5290	-0.5213	-0.5164	-0.5130	-0.5105
30	-0.6787	-0.6000	-0.5719	-0.5582	-0.5504	-0.5454	-0.5419	-0.5394
29	-0.7077	-0.6300	-0.6016	-0.5878	-0.5798	-0.5747	-0.5712	-0.5686
28	-0.7360	-0.6600	-0.6316	-0.6176	-0.6095	-0.6044	-0.6008	-0.5982
27	-0.7636	-0.6900	-0.6617	-0.6477	-0.6396	-0.6344	-0.6308	-0.6282
26	-0.7904	-0.7200	-0.6921	-0.6781	-0.6701	-0.6649	-0.6613	-0.6587
25	-0.8165	-0.7500	-0.7226	-0.7089	-0.7009	-0.6958	-0.6922	-0.6896
24	-0.8417	-0.7800	-0.7535	-0.7401	-0.7322	-0.7271	-0.7236	-0.7211
23	-0.8662	-0.8100	-0.7846	-0.7716	-0.7640	-0.7590	-0.7556	-0.7531
22	-0.8897	-0.8400	-0.8160	-0.8036	-0.7962	-0.7915	-0.7882	-0.7858
21	-0.9124	-0.8700	-0.8478	-0.8360	-0.8291	-0.8245	-0.8214	-0.8192
20	-0.9342	-0.9000	-0.8799	-0.8690	-0.8625	-0.8583	-0.8554	-0.8533
19	-0.9550	-0.9300	-0.9123	-0.9025	-0.8966	-0.8928	-0.8901	-0.8882
18	-0.9749	-0.9600	-0.9452	-0.9367	-0.9315	-0.9281	-0.9258	-0.9241
17	-0.9939	-0.9900	-0.9785	-0.9715	-0.9671	-0.9643	-0.9624	-0.9610
16	-1.0119	-1.0200	-1.0124	-1.0071	-1.0037	-1.0015	-1.0000	-0.9990
15	-1.0288	-1.0500	-1.0467	-1.0435	-1.0413	-1.0399	-1.0389	-1.0382
14	-1.0448	-1.0800	-1.0817	-1.0808	-1.0800	-1.0794	-1.0791	-1.0789
13	-1.0597	-1.1100	-1.1173	-1.1192	-1.1199	-1.1204	-1.1208	-1.1212
12	-1.0736	-1.1400	-1.1537	-1.1587	-1.1613	-1.1630	-1.1643	-1.1653
11	-1.0864	-1.1700	-1.1909	-1.1995	-1.2043	-1.2075	-1.2098	-1.2115
10	-1.0982	-1.2000	-1.2290	-1.2419	-1.2492	-1.2541	-1.2576	-1.2602
9	-1.1089	-1.2300	-1.2683	-1.2860	-1.2964	-1.3032	-1.3081	-1.3118
8	-1.1184	-1.2600	-1.3088	-1.3323	-1.3461	-1.3554	-1.3620	-1.3670
7	-1.1269	-1.2900	-1.3508	-1.3810	-1.3991	-1.4112	-1.4199	-1.4265
6	-1.1342	-1.3200	-1.3946	-1.4329	-1.4561	-1.4717	-1.4829	-1.4914
5	-1.1405	-1.3500	-1.4407	-1.4887	-1.5181	-1.5381	-1.5525	-1.5635
4	-1.1456	-1.3800	-1.4897	-1.5497	-1.5871	-1.6127	-1.6313	-1.6454
3	-1.1496	-1.4100	-1.5427	-1.6181	-1.6661	-1.6993	-1.7235	-1.7420
2	-1.1524	-1.4400	-1.6016	-1.6982	-1.7612	-1.8053	-1.8379	-1.8630
1	-1.1541	-1.4700	-1.6714	-1.8008	-1.8888	-1.9520	-1.9994	-2.0362

END OF SECTION 110

SECTION K
SPECIAL PROVISIONS

SPECIAL PROVISIONS

TABLE OF CONTENTS

A. FEDERAL AVIATION ADMINISTRATION REQUIREMENTS

A-01 General Civil Rights Provisions
A-02 Civil Rights - Title VI Assurances
A-03 Notice of Requirement for Affirmative Action
A-04 Access to Records and Reports
A-05 Buy American Certification
A-06 Disadvantage Business Enterprises
A-07 Energy Conservation Requirements
A-08 Federal Fair Labor Standards Act (Federal Minimum Wage)
A-09 Lobbying and Influencing Federal Employees
A-10 Occupational Safety and Health Act of 1970
A-11 Rights to Inventions
A-12 Trade Restriction Clause
A-13 Veteran's Preference
A-14 Copeland "Anti-Kickback" Act
A-15 Davis Bacon Labor Provisions
A-16 Texting When Driving
A-17 Equal Opportunity Clause
A-18 Notice of Nonsegregated Facilities Requirement
A-19 Termination of Contract
A-20 Certificate Regarding Debarment and Suspension
A-21 Breach of Contract
A-22 Clean Air and Water Pollution Control
A-23 Contract Workhours and Safety Standards Act Requirements

B. STATE TERMS AND CONDITIONS

C. LOCAL TERMS AND CONDITIONS

C-01 Insurance
C-02 Utilities
C-03 Legal Holidays
C-04 Clean Up
C-05 Project Meetings and Coordination
C-06 Liquidated Damages for Delay
C-07 Quality Assurance/Materials Testing
C-08 Record Documents
C-09 Contractor/Subcontractor/Supplier Legal Disputes
C-10 General Guaranty
C-11 Contractor's Release and Affidavit
C-12 Submittals
C-13 Stormwater Pollution Prevention Plan
C-14 Test Borings/Subsurface Information
C-15 Wage Rates

SECTION A – FEDERAL AVIATION ADMINISTRATION REQUIREMENTS

A-01 GENERAL CIVIL RIGHTS PROVISIONS

The contractor agrees that it will comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

This provision also obligates the tenant/concessionaire/lessee or its transferee for the period during which Federal assistance is extended to the airport through the Airport Improvement Program, except where Federal assistance is to provide, or is in the form of personal property; real property or interest therein; structures or improvements thereon.

In these cases the provision obligates the party or any transferee for the longer of the following periods:

(a) the period during which the property is used by the airport sponsor or any transferee for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits; or
(b) the period during which the airport sponsor or any transferee retains ownership or possession of the property.

A-02 CIVIL RIGHTS – TITLE VI ASSURANCES

Title VI Solicitation Notice:
The Owner, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the **Title VI List of Pertinent Nondiscrimination Statutes and Authorities**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

   a. Withholding payments to the contractor under the contract until the contractor complies; and/or

   b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

A-03 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION

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

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

   A. Timetables

   B. Goals for minority participation for each trade (Vol. 45 Federal Register pg. 65984 10/3/80)

   C. Goals for female participation in each trade (6.9%)

   These goals are applicable to all of the contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor is also subject to the goals for both federally funded and non-federally funded construction regardless of the percentage of federal participation in funding.

   The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training shall be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees

from contractor to contractor or from project to project, for the sole purpose of meeting the contractor's goals, shall be a violation of the contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

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

4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is the City of Abiline, Taylor County, Texas.

A-04 ACCESS TO RECORDS AND REPORTS

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Sponsor, the Federal Aviation Administration, and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers, and records of the contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

A-05 BUY AMERICAN CERTIFICATION

See Section 010470 "Bidder Certifications" for Contractor Buy American Certification.

A-06 DISADVANTAGED BUSINESS ENTERPRISES

Contract Assurance (§ 26.13) - The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate.

Prompt Payment (§26.29))- The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 30 days from the receipt of each payment the prime contractor receives from Owner. The prime contractor agrees further to return retainage payments to each subcontractor within {specify the same number as above} days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Owner. This clause applies to both DBE and non-DBE subcontractors.

A-07 ENERGY CONSERVATION REQUIREMENTS

The contractor agrees to comply with mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163).

A-08 FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)

All contracts and subcontracts that result from this solicitation incorporate the following provisions by reference, with the same force and effect as if given in full text. The contractor has full responsibility to monitor compliance

to the referenced statute or regulation. The contractor must address any claims or disputes that pertain to a referenced requirement directly with the Federal Agency with enforcement responsibilities.

Requirement	Federal Agency with Enforcement Responsibilities
Federal Fair Labor Standards Act (29 USC 201)	U.S. Department of Labor – Wage and Hour Division

A-09 LOBBYING AND INFLUENCING FEDERAL EMPLOYEES

The bidder or offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the bidder or offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

A-10 OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

All contracts and subcontracts that result from this solicitation incorporate the following provisions by reference, with the same force and effect as if given in full text. The contractor has full responsibility to monitor compliance to the referenced statute or regulation. The contractor must address any claims or disputes that pertain to a referenced requirement directly with the Federal Agency with enforcement responsibilities.

Requirement	Federal Agency with Enforcement Responsibilities
Occupational Safety and Health Act of 1970 (20 CFR Part 1910)	U.S. Department of Labor – Occupational Safety and Health Administration

A-11 RIGHTS TO INVENTIONS

All rights to inventions and materials generated under this contract are subject to requirements and regulations issued by the FAA and the Sponsor of the Federal grant under which this contract is executed.

A-12 TRADE RESTRICTION CLAUSE

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

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

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

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

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

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

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

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

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

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

A-13 VETERAN'S PREFERENCE

In the employment of labor (except in executive, administrative, and supervisory positions), preference must be given to Vietnam era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns owned and controlled by disabled veterans as defined in Title 49 United States

Code, Section 47112. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

A-14 COPELAND "ANTI-KICKBACK" ACT

The United States Department of Labor Wage and Hours Division oversees the Copeland "Anti-Kickback" Act requirements. All contracts and subcontracts must meet comply with the Occupational Safety and Health Act of 1970.

United States Department of Labor Wage and Hours Division can provide information regarding any specific clauses or assurances pertaining to the Copeland "Anti-Kickback" Act requirements required to be inserted in solicitations, contracts or subcontracts.

A-15 DAVIS-BACON LABOR PROVISIONS

1. Minimum Wages

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

(ii) (A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
(2) The classification is utilized in the area by the construction industry; and
(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards

Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

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

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2 Withholding.

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

3. Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been

communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii) (A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the Federal Aviation Administration, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

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

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR § 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR § 5.5 (a)(3)(i) and that such information is correct and complete;
(2) That each laborer and mechanic (including each helper, apprentice and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations 29 CFR Part 3;
(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

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

(iii) The contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying or transcription by authorized representatives of the Sponsor, the Federal Aviation Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit

the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

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

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

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

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

5. Compliance With Copeland Act Requirements.

The contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

6. Subcontracts.

The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR Part 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

7. Contract Termination: Debarment.

A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance With Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes Concerning Labor Standards.

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

10. Certification of Eligibility.

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

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

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

A-16 TEXTING WHEN DRIVING

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving" (10/1/2009) and DOT Order 3902.10 "Text Messaging While Driving" (12/30/2009), the Contractor must promote policies and initiatives for employees and other work personnel that decrease crashes by distracted

drivers, including policies to ban text messaging while driving. The Contractor must include these policies in each third party subcontract involved on this project.

A-17 EQUAL OPPORTUNITY CLAUSE

During the performance of this contract, the contractor agrees as follows:

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

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

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

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the

administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS

1. As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

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

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

d. "Minority" includes:

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

2. Whenever the contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

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

4. The contractor shall implement the specific affirmative action standards provided in paragraphs 18.7a through 18.7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract

Compliance Programs office or from Federal procurement contracting officers. The contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

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

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

7. The contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:

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

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

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

d. Provide immediate written notification to the Director when the union or unions with which the contractor has a collective bargaining agreement has not referred to the contractor a minority person or female sent by the contractor, or when the contractor has other information that the union referral process has impeded the contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the

company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

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

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

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

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

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

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

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

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

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

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (18.7a through 18.7p). The efforts of a contractor association, joint contractor union, contractor community, or other similar groups of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 18.7a through 18.7p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates

the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's and failure of such a group to fulfill an obligation shall not be a defense for the contractor's noncompliance.

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

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

11. The contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

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

13. The contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 18.7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

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

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

A-18 NOTICE OF NONSEGREGATED FACILITIES REQUIREMENT

Notice to Prospective Federally Assisted Construction Contractors:

1. A Certification of Non-segregated Facilities shall be submitted prior to the award of a federally-assisted construction contract exceeding $10,000 which is not exempt from the provisions of the Equal Opportunity Clause.

2. Contractors receiving federally-assisted construction contract awards exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of the following notice to prospective subcontractors for supplies and construction contracts

where the subcontracts exceed $10,000 and are not exempt from the provisions of the Equal Opportunity Clause.

3. The penalty for making false statements in offers is prescribed in 18 U.S.C. § 1001.

Notice to Prospective Subcontractors of Requirements for Certification of Non-Segregated Facilities:

1. A Certification of Non-segregated Facilities shall be submitted prior to the award of a subcontract exceeding $10,000, which is not exempt from the provisions of the Equal Opportunity Clause.

2. Contractors receiving subcontract awards exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of this notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed $10,000 and are not exempt from the provisions of the Equal Opportunity Clause.

3. The penalty for making false statements in offers is prescribed in 18 U.S.C. § 1001.

CERTIFICATION OF NONSEGREGATED FACILITIES

The federally-assisted construction contractor certifies that she or he does not maintain or provide, for his employees, any segregated facilities at any of his establishments and that she or he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally-assisted construction contractor certifies that she or he will not maintain or provide, for his employees, segregated facilities at any of his establishments and that she or he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The federally-assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms, and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directives or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason. The federally-assisted construction contractor agrees that (except where she or he has obtained identical certifications from proposed subcontractors for specific time periods) she or he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that she or he will retain such certifications in his files.

A-19 TERMINATION OF CONTRACT

a. The Sponsor may, by written notice, terminate this contract in whole or in part at any time, either for the Sponsor's convenience or because of failure to fulfill the contract obligations. Upon receipt of such notice services must be immediately discontinued (unless the notice directs otherwise) and all materials as may

have been accumulated in performing this contract, whether completed or in progress, delivered to the Sponsor.

b. If the termination is for the convenience of the Sponsor, an equitable adjustment in the contract price will be made, but no amount will be allowed for anticipated profit on unperformed services.

c. If the termination is due to failure to fulfill the contractor's obligations, the Sponsor may take over the work and prosecute the same to completion by contract or otherwise. In such case, the contractor is liable to the Sponsor for any additional cost occasioned to the Sponsor thereby.

d. If, after notice of termination for failure to fulfill contract obligations, it is determined that the contractor had not so failed, the termination will be deemed to have been effected for the convenience of the Sponsor. In such event, adjustment in the contract price will be made as provided in paragraph 2 of this clause.

e. The rights and remedies of the sponsor provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

A-20 CERTIFICATE REGARDING DEBARMENT AND SUSPENSION

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that at the time the bidder or offeror submits its proposal that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

CERTIFICATION REGARDING DEBARMENT AND SUSPENSION (SUCCESSFUL BIDDER REGARDING LOWER TIER PARTICIPANTS)

The successful bidder, by administering each lower tier subcontract that exceeds $25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: http://www.sam.gov

2. Collecting a certification statement similar to the Certificate Regarding Debarment and Suspension (Bidder or Offeror), above.

3. Inserting a clause or condition in the covered transaction with the lower tier contract

If the FAA later determines that a lower tier participant failed to tell a higher tier that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedy, including suspension and debarment.

A-21 BREACH OF CONTRACT

Any violation or breach of terms of this contract on the part of the contractor or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement. The duties and obligations imposed by the Contract Documents and the rights

and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

A-22 CLEAN AIR AND WATER POLLUTION CONTROL

Contractors and subcontractors agree:

1. That any facility to be used in the performance of the contract or subcontract or to benefit from the contract is not listed on the Environmental Protection Agency (EPA) List of Violating Facilities;

2. To comply with all the requirements of Section 114 of the Clean Air Act, as amended, 42 U.S.C. 1857 et seq. and Section 308 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in Section 114 and Section 308 of the Acts, respectively, and all other regulations and guidelines issued thereunder;

3. That, as a condition for the award of this contract, the contractor or subcontractor will notify the awarding official of the receipt of any communication from the EPA indicating that a facility to be used for the performance of or benefit from the contract is under consideration to be listed on the EPA List of Violating Facilities;

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

A-23 CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

1. Overtime Requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2 .Violation; Liability for Unpaid Wages; Liquidated Damages.

In the event of any violation of the clause set forth in paragraph (1) above, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 above, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 above.

3. Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as

may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 above.

4. Subcontractors.

The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section.

SECTION B – STATE TERMS AND CONDITIONS

B-01 NOT USED

SECTION C – LOCAL TERMS AND CONDITIONS

C-01 CONTRACTOR'S INSURANCE

Contractor shall obtain insurance of the types and in the amounts described below. The insurance shall be written by insurance companies and on forms acceptable to Owner.

Owner and Garver, LLC shall be included as an insured under the CGL, (using ISO Additional Insured Endorsement CG 20 10 11 85 or a substitute providing equivalent coverage), and under the commercial automobile liability (using ISO Additional Insured Endorsement CA 2048 or a substitute providing equivalent coverage), and commercial umbrella, if any. This insurance, including insurance provided under the commercial umbrella, if any, shall apply as primary and non-contributory insurance with respect to any other insurance or self-insurance programs afforded to, or maintained by, Owner.

Commercial General and Umbrella Liability Insurance: Contractor shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance, with a limit of not less than $5,000,000 each occurrence. If such CGL insurance contains a general aggregate limit, it shall apply separately to the Project.

CGL insurance shall be written on ISO occurrence form CG 20 10 (11-85) (or a substitute combination of the following forms CG 20 10 (10-01) and CG 20 37 (10-01) providing equivalent coverage) and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal injury and advertising injury and liability assumed under an insured contract.

There shall be no endorsement or modification of the CGL limiting the scope of coverage for liability arising from pollution, explosion, collapse, underground property damage, or amending the contractual coverage in the ISO occurrence form.

CGL insurance shall be written with an ISO form CG 25 03 05 09 Designated Construction Project(s) General Aggregate Limit or a substitute form providing equivalent coverage.

Continuing CGL Coverage: Contractor shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella liability insurance, with a limit of not less than $5,000,000 each occurrence for at least 3 years following substantial completion of the Work.

Continuing commercial umbrella coverage, if any, shall include liability coverage for damage to the insured's completed Work equivalent to that provided under ISO form CG 00 01.

Owner's and Contractor's Protective Liability Insurance: Contractor shall maintain Owner's and Contractor's Protective Liability (OCP) insurance on behalf of Owner and Garver, LLC, as named insured, with a limit of $1,000,000.

Railroad Protective Liability Insurance: Not applicable.

Commercial Auto and Umbrella Liability Insurance: Contractor shall maintain business auto liability and, if necessary, commercial umbrella liability insurance with a limit of not less than $1,000,000 each accident.

Such insurance shall cover liability arising out of any auto (including owned, hired and non-owned autos).

Commercial auto coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.

If the Contract Documents require Contractor to remove and haul hazardous waste from the Project site, or if the Project involves such similar environmental exposure, pollution liability coverage equivalent to that provided under the ISO Pollution Liability-Broadened Coverage for Covered Autos Endorsement (CA 99 48) shall be provided, and the Motor Carrier Act Endorsement (MCS 90) shall be attached.

Workers' Compensation Insurance: Contractor shall maintain workers' compensation and employer's liability insurance.

1 Definitions:

1.1 **Certificate of coverage ("Certificate")** – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement, DWC-81, DWC-82, DWC-83, or DWC-84 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

1.2 **Duration of the project** – Includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

1.3 **Persons providing services on the project ("subcontractor") in article 406.096** – Includes all persons or entities performing all or part of the services under the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractor, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" includes, without limitation, providing, hauling or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

2 The Contractor shall provide coverage, based on proper reporting of classification code and payroll amounts and filing any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract – refer to Contractor's Insurance requirements above.

4 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

5 The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

5.2 No later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate ends during the duration of the project.

6 The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

7 The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

8 The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

9 The Contractor shall contractually require each person with whom it contracts to provide services on a project to:

9.1 Provide coverage, based on reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project.

9.2 Provide to the Contractor, prior to that person beginning work on the project a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project.

9.3 Provide the Contractor, prior to the end of coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

9.4 Obtain from each person with whom it contracts, and provide to the Contractor:

9.4.1 A certificate of coverage, prior to the other person beginning work on the project; and

9.4.2 the coverage period, if the coverage period shown on the current certificate of a new certificate of coverage showing extension of coverage, prior to the end of coverage ends during the duration of the project.

9.5 Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter.

9.6 Notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

9.7 Contractually require each person with whom it contracts to perform as required by paragraphs 1. – 7. with the certificates of coverage to be provided to the person for whom they are providing services.

10 By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the contractor who will provide services of the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

11 The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

The employer's liability, and if necessary commercial umbrella, limits shall not be less than $500,000 each accident for bodily injury by accident or $500,000 each employee for bodily injury by disease.

If Contractor leases its employees, the alternate employer endorsement (WC 00 03 01 A) shall be attached showing Owner in the schedule as the alternate employer.

Where applicable, U.S. Longshore and Harborworkers Compensation Act Endorsement shall be attached to the policy.

Where applicable, Nonappropriated Fund Instrumentalities Act (NFIA) shall be attached to the policy. NFIA extends the coverage of the Longshore and Harbor Workers' Compensation Act to civilian employees working on United States military bases throughout the world who are not paid with funds appropriated by Congress. These employees, working in facilities operated for the comfort, contentment, and improvement of armed forces personnel, are instead compensated with funds generated from earnings of their facility.

Where applicable, Outer Continental Shelf Lands Act Endorsement shall be attached to the policy.

Where applicable, the Maritime Coverage Endorsement shall be attached to the policy.

If project is located in a state where workers compensation is secured via monopolistic state funds, include evidence of the "Stop Gap" endorsement to the general liability policy.

Property Insurance: If applicable, Contractor shall purchase and maintain property insurance for the Work. Such insurance shall be written in an amount at least equal to the initial contract sum as well as subsequent modifications of that sum. The insurance shall apply on a replacement cost basis. If the insurance obtained in compliance with this paragraph is builders risk insurance, coverage shall be written on a completed value form.

The property insurance as required above shall name as insureds the Owner, Contractor, and all subcontractors and sub-subcontractors on the Project.

Primary and Non-contributory: Contractor agrees that the insurance listed above, including insurance provided under the commercial umbrella, if any, shall apply as primary and non-contributory insurance with respect to any other insurance or self-insurance programs afforded to, or maintained by, Owner.

Waiver of Subrogation: Contractor waives all rights against the Owner and Garver, LLC and its agents, officers, directors and employees for recovery of damages to the extent these damages are covered by the commercial general liability, commercial umbrella liability insurance, automobile liability insurance and workers compensation insurance maintained pursuant to paragraph C-01 of this agreement.

No Implied Waiver: Contractor shall furnish certifications matching the coverage requirements. Failure of Owner or Engineer to demand such certificate or other evidence of full compliance with these insurance requirements or failure of Owner or Engineer to identify a deficiency from evidence that is provided shall not be construed as a waiver of the contractors obligations to furnish and maintain such insurance, or as a waiver to the enforcement of any of the provisions at a later date.

Any waiver of the contractor's obligation to furnish such certificate or maintain such evidence must be by written change order and signed by a Managing Member (Officer) of the Engineer and the Owner.

Cancellation, Non-Renewal, and/or Impairment Notification: The Contractor shall not cause any insurance policy to be cancelled or permit it to lapse and all insurance policies shall include an endorsement to the effect that the insurance policy or certificate shall not be subject to cancellation or to a reduction in the required limits of liability or amounts of insurance until notice has been mailed to the Owner and Engineer, stating the date when such cancellation or reduction shall be effective, which date shall not be less than (60) days after such notice.

The amount shown in the bid item for the Owner's Protective Insurance shall include that amount of additional premium required for obtaining Owner's and Engineer's Protective Liability insurance for the Owner and Garver, LLC. The Engineer has the right to request justification from the contractor for the full amount of the cost included under the items "Owner's Protective Insurance".

Notice shall be sent via email and regular mail to the following persons and addresses:

Owner:
Alex Rupp
5000 Jerry Ware Drive
Beaumont, TX 77705
ARupp@co.Jefferson.tx.us

Garver:
Thomas Dodson, PE
Garver, LLC
11111 Katy Freeway
Suite 910
Houston, TX 77079
TDDodson@GarverUSA.com

C-02 UTILITIES

All work in this contract shall be in accordance with the Texas Underground Facilities Damage Prevention Act. The Contractor shall abide by the most current edition of this Act.

Underground utilities exist within and adjacent to the limits of construction. An attempt has been made to locate these utilities on the plans. However, all existing utilities may not be shown and the actual locations of the utilities may vary from the locations shown.

The Contractor shall be responsible for the protection of all existing utilities or improvements crossed by or adjacent to his construction operations. Where existing utilities or service lines are cut, broken, or damaged, the Contractor shall replace or repair immediately the utilities or service lines with the same type of original material and construction or better, at his own expense.

C-03 LEGAL HOLIDAYS

Holidays that shall be observed are the following: New Year's Day (January 1); Memorial Day (last Monday in May); Independence Day (July 4); Labor Day (1st Monday in September); Thanksgiving Day (4th Thursday in November); and Christmas Day (December 25); no other days will be so considered. If a holiday falls on a Saturday or Sunday, the observed day shall be the Friday preceding the Saturday or the Monday following the Sunday. No construction observation will be furnished on legal holidays or Sundays, except in an emergency. The Contractor shall observe these legal holidays and all Sundays, and no work shall be performed on these days except in an emergency. Calendar day contract time includes delays for all holidays. Refer to Section C-06 for more information.

C-04 CLEAN UP

From time to time, the Contractor shall clean up the site, including any work areas at the airport, in order that the site presents a neat appearance and the progress of the work not be impeded. One such period of clean up shall immediately precede final inspection.

Immediately following acceptance of the work by the Owner, the Contractor shall remove all temporary plant, equipment, surplus materials, and debris resulting from his operations, and leave the site in a condition fully acceptable to the Owner.

C-05 PROJECT MEETINGS AND COORDINATION

A preconstruction conference will be called by the Engineer at a time convenient to the Owner and before the issuance of the "Notice to Proceed". The Engineer and the Contractor and such subcontractors as the Contractor may desire shall attend this meeting with the Owner.

The Owner and/or Engineer will call such coordination conferences as may seem expedient to him for the purpose of assuring coordination of the work covered by this Contract. The Contractor shall attend all such conferences. This in no way relieves the Contractor of his responsibility to fully coordinate his work under this Contract.

C-06 LIQUIDATED DAMAGES FOR DELAY

The number of calendar days allowed for completion of the project is stipulated in the Proposal and in the Contract and shall be known as the Contract Time. The Contractor agrees that time is a critical element for this Contract. Loss will accrue to the Owner due to delayed completion of the work; and the cost to the Owner of the administration of the Contract, including engineering, inspection, and supervision, will be increased as the time occupied in the work is lengthened. The Contractor agrees that for each day of delay beyond the

number of calendar days herein agreed upon for the completion of the work herein specified and contracted for, the Owner may withhold, permanently, from the Contractor's total compensation, the sum of **One Thousand** Dollars (**$1,000.00**) as stipulated damages for each day of such delay. Should the amount otherwise due the Contractor be less than the amount of such ascertained and liquidated damages, the Contractor and his Surety shall be liable to the Owner for such deficiency.

It is understood and agreed by and between the Owner and the Contractor that the time of completion herein set out is a reasonable time. The Contractor shall perform fully, entirely, and in an acceptable manner, the work contracted for within the contract time stated in the Contract. The contract time shall be counted from ten days after the effective date of the "Notice to Proceed", or the date work commences, whichever occurs first; and shall include all Sundays, holidays, and non-work days. All calendar days elapsing between the effective dates of any orders of the Engineer for suspension of the prosecution of the work, due to the fault of the Contractor, shall be counted as elapsed contract time, and shall not be considered for an extension of time.

Extensions of time for completion, under the condition of 3(a) next below, will be granted; extensions may be granted under other stated conditions:

1. If the satisfactory execution and completion of the Contract shall require work or material in greater amounts or quantities than those set forth in the Contract, then the Contract time shall be increased in the same proportion as the additional work bears to the original work contracted for.

2. An average or usual number of inclement weather days, when work cannot proceed, is to be anticipated during the construction period and is not to be considered as warranting extension of time. The days included in the contract time for Normal Weather-Related Events and holidays are as follows:

(On A Monthly Basis)

Month	Normal Weather-Related Events
January	5
February	7
March	4
April	4
May	3
June	4
July	8
August	4
September	6
October	5
November	2
December	5

If, however, it appears that the Contractor is delayed by conditions of weather, outside of normal weather-related events detailed in the proceeding table, extensions of time may be granted.

3. Should the work under the Contract be delayed by other causes which could not have been prevented or contemplated by the Contractor, and which are beyond the Contractor's power to prevent or remedy, an extension of time may be granted. Such causes of delay shall include but not necessarily be limited to the following:

   a. Acts of God, acts of the public enemy, acts of the Owner except as provided in these Specifications, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather.

b. Any delays of Subcontractors or suppliers occasioned by any of the causes specified above.

The Engineer or other authorized representative of the Owner shall keep a written record sufficient for determination as to the inclusion of that day in the computation of Contract time. This record shall be available for examination by the Contractor during normal hours of work as soon as feasible after the first of each construction month. In case of disagreement between the representative of the Owner and the Contractor, as to the classification of any day, the matter shall be referred to the Owner whose decision shall be final.

If the Contractor finds it impossible for reasons beyond his control to complete the work within the Contract time as specified, or as extended in accordance with the provisions of this subsection, he may, at any time prior to the expiration of the Contract time as extended, make a written request to the Engineer for an extension of time setting forth the reasons which he believes will justify the granting of his request. The Contractor's plea that insufficient time was specified is not a valid reason for extension of time. If the Engineer finds that the work was delayed because of conditions beyond the control and without the fault of the Contractor, he may recommend to the Owner that the contract time be extended as conditions justify. If the Owner extends the contract, the extended time for completion shall then be in full force and effect, the same as though it were the original time for completion.

The amount of all extensions of time for whatever reason granted shall be determined by the Owner. In general, only actual and not hypothetical days of delay will be considered. The Owner shall have authority to grant additional extensions of time as the Owner may deem justifiable.

C-07 QUALITY ASSURANCE/MATERIALS TESTING

The Owner shall be responsible for quality assurance testing as stated in theses specifications; however, the Contractor shall be responsible for payment of any subsequent tests made necessary by previous unsatisfactory tests. In this event, the Owner's quality assurance representative shall conduct the additional testing and payment for such tests shall be directly deducted from the Contractor's payment. The Contractor shall pay for additional testing at the Owner's contract rate.

C-08 RECORD DOCUMENTS

The Contractor shall keep one record copy of all Specifications, Drawings, Addenda, Modifications, Shop Drawings and samples at the site, in good order, and annotated to show all changes made during the construction process. In addition, the Contractor shall note any differences between locations of underground existing facilities shown in the plans and the actual location located during construction. These record documents shall be available to the Engineer for examination and shall be delivered to the Engineer upon completion of the work.

C-09 CONTRACTOR/SUBCONTRACTOR/SUPPLIER LEGAL DISPUTES

Any fees, expenses, charges, fines or other costs borne by the Owner as a result of legal disputes or lawsuits between the contractor and his subcontractors, or between the contractor and his suppliers, shall be deducted from monies due or which may thereafter become due the contractor.

C-10 GENERAL GUARANTY

Neither the final certificate of payment nor any provision in the Contract nor partial or entire use of the improvements embraced in this contract by the Owner or the public shall constitute an acceptance of work not done in accordance with the Contract or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to other work resulting there, which shall appear within a period of 12 months from the date of final acceptance of the work. The Contractor will be responsible for all costs associated with construction observation and oversight for the repair work. The Owner will give notice of

defective materials and work with reasonable promptness. In the event repair work is required, the Contractor shall remedy any defects and pay for any damage to other work resulting there, which shall appear within a period of 12 months from the date of the acceptance of the repair work.

C-11 CONTRACTOR'S RELEASE AND AFFIDAVIT

At the project's completion, the Contractor shall execute the attached Release and Lien Waiver to release all claims against the Owner arising under and by virtue of his Contract. The date of the Release shall be that agreed to for the final acceptance of the project with the Owner.

C-12 SUBMITTALS

The Contractor shall prepare and submit information required by the individual Specification sections sufficiently in advance of the related work to allow an appropriate review time by the Engineer. The types of submittals are indicated in the individual Specification sections.

During the preconstruction conference, the Contractor shall review his submittal schedule and procedures, including notifying the Engineer whether electronic submittals or paper submittals will be provided for all submittal packages in the project. Mixing of package types will not be allowed. The Contractor shall provide one of the following submittal package types:

1. Submit electronic submittals via email as PDF electronic files directly to the Engineer's designated representative, or post these PDF electronic files directly to the Engineer's FTP site specifically established for this project. Electronic submittals shall be in Adobe Acrobat (*.PDF) format and shall be legible when printed.

2. Submit six (6) paper submittal copies via mail or other courier service to the Engineer's designated representative.

Submittals shall be neat, organized, and easy to interpret. Assemble complete submittal package into a single indexed electronic file or hard cover bound book, incorporating submittal requirements of an individual Specification section, the transmittal form with unique submittal numbering system, and electronic links or tabs enabling navigation to each item. Unless approved otherwise by the Engineer, all submittals for the individual Specification section shall be submitted at one time.

Submittals must come directly from the Prime Contractor; submittals from subcontractors or suppliers will not be reviewed.

Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review. Faxed submittals or submittals with extremely small or otherwise unreadable print will not be accepted. Submittals not required by the Contract Documents will be returned by the Engineer without action.

The Contractor shall retain complete copies of submittals on project site. Use only final submittals that are marked with approval notation from Engineer's submittal review stamp with comments form.

Resubmittals shall continue the unique, sequential, submittal numbering system. Resubmittals without unique numbering, example resubmittals transmitted as 005A or 005REV, are unacceptable and will be returned un-reviewed.

C-13 STORMWATER POLLUTION PREVENTION PLAN

Refer to Technical Specification P-156.

C-14 TEST BORINGS/SUBSURFACE INFORMATION

A geotechnical investigation and soils report have been completed for the project area and are available upon request. This information can be obtained by contacting the Engineer.

Soil characteristics provided in any soil reports, or as shown on boring logs, are representative only at the location of the sample taken, and neither the Owner, Engineer nor Engineer's consultants will be responsible for variations in the soil characteristics at other locations. Any subsurface information or geotechnical reports made available to Contractor was obtained and intended for the Owner's design and estimating purposes only. Such reports and drawings are not Contract Documents.

The Contractor may not rely upon or make any claim against Owner, Engineer, or Engineer's Consultants with respect to (1) the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by the Contractor and safety precautions and programs incident thereto, (2) other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings, or (3) any Contractor interpretation or other conclusion drawn from any data, interpretations, opinions, or information.

If in any case, the recommendations set forth in the Geotechnical Report conflict with the requirements set forth in these Contract Documents, the requirements in the Contract Documents shall take precedent.

C-15 WAGE RATES

The Davis Bacon minimum wage rates for this project are applicable and included in Section L of this contract.

END OF SPECIAL PROVISIONS

RELEASE OF LIEN

FROM: Contractor's Name _____

Address _____

TO: Owner's Name _____

Address _____

DATE OF CONTRACT: _____

Upon receipt of the final payment and in consideration of that amount, the undersigned does hereby release the Owner and its agents from any and all claims arising under or by virtue of this Contract or modification thereof occurring from the undersigned's performance in connection with the

_____

_____

project.

_____
Contractor's Signature

_____
Title

Subscribed and sworn to before me this _____ day of _____, 20___.

_____
Notary Public

My Commission Expires:

_____

CONTRACTOR'S AFFIDAVIT

FROM: Contractor's Name _____

Address _____

TO: Owner's Name _____

Address _____

_____

DATE OF CONTRACT: _____

I hereby certify that all claims for material, labor, and supplies entered into contingent and incident to the construction or used in the course of the performance of the work on _____

_____

have been fully satisfied.

_____
Contractor's Signature

_____
Title

Subscribed and sworn to before me this _____ day of _____, 20___.

_____
Notary Public

My Commission Expires:

_____

The Surety Company consents to the release of the retained percentage on this project with the understanding that should any unforeseen contingencies arise having a right of action on the bond that the Surety Company will not waive liability through the consent to the release of the retained percentage.

Dated _____
Surety Company

By _____
Resident Agent, State of Texas

SECTION L
ADDENDA

12141 Wickchester Lane
Suite 640
Houston, TX 77079

TEL 713.491.8333
FAX 713.395.5486

www.GarverUSA.com

August 8, 2016

Addendum No.1
To Plans, Contract Documents and Specifications
IFB 16-022/JW, Taxiway D Reconstruction (2016)

This addendum shall be a part of the Plans, Contract Documents and Specifications to the same extent as though it were originally included therein, and it shall supersede anything contained in the Plans, Contract Documents and Specifications with which it might conflict. All bidders shall acknowledge receipt of this Addendum on page C-4 of the sealed bid proposal.

Modifications to the Plans:

1. **Replace the following sheets:**
   - G-102 'Sheet Index and Summary of Quantities' with the attached sheet G-102 'Sheet Index and Summary of Quantities'.
   - C-402 'Demolition Layout' with the attached sheet C-402 'Demolition Layout'.
   - C-505 'Grading and Drainage Plan' with the attached sheet C-505 'Grading and Drainage Plan'.
   - C-701 'Geometric Plan I" with the attached sheet C-701 'Geometric Plan I".
   - C-702 'Geometric Plan II" with the attached sheet C-702 'Geometric Plan II".
   - C-801 'Pavement Profiles' with the attached sheet C-801 'Pavement Profiles".
   - E-101 'Lighting Removal Plan I' with the attached sheet E-101 'Lighting Removal Plan I'.
   - E-102 'Lighting Removal Plan II' with the attached sheet E-102 'Lighting Removal Plan II'.
   - E-201 'Lighting Installation Plan I' with the attached sheet E-201 'Lighting Installation Plan I'.
   - E-202 'Lighting Installation Plan II' with the attached sheet E-202 'Lighting Installation Plan II'.

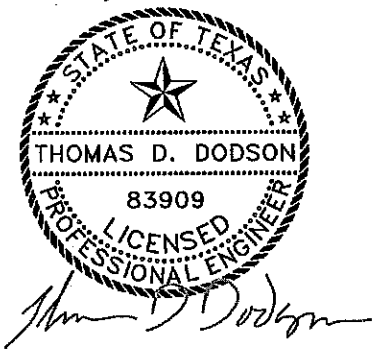
2. **Add the following sheets:**
   - C-502 'Grading and Drainage Details II'.
   - C-503 'IL-H-G Horizontal Inlet Type H 1 of 2'.
   - C-504 'IL-H-G Horizontal Inlet Type H 2 of 2'.
   - C-604 'Storm Drain Profile'.

Bidder Questions with Answers:

A question has been received by email. The response to this question is attached to this addendum. Questions are paraphrased and are as understood by Garver.

By: Thomas D Dodson, PE.

Attachments: Revised Plansheets: 10 sheets
Additional Plansheets: 4 sheets
Response to Bidder Questions: 1 page



12141 Wickchester Lane
Suite 640
Houston, TX 77079

TEL 713.491.8333
FAX 713.395.5486

www.GarverUSA.com

MEMORANDUM

To: Potential Bidders **Date:** August 8, 2016

From: Thomas D Dodson, PE

RE: Jack Brooks Regional Airport – Taxiway D Reconstruction (2016)
Bidder Questions

See below for responses to Bidder questions regarding the Taxiway 'D' Reconstruction project at the Jack Brooks Regional Airport.

Question 1: Would it be possible to quote the approximately 49 precast housing bases per the PCC specs on P-610 and do we have to be preapproved by any agency (FAA, DOT, etc.) to bid on this project?
Answer 1: Vendors and suppliers are welcome to provide precast elements for the project, provided they are manufactured and consist of materials meeting the individual specifications item(s) they are a component of, and that the items are not manufactured prior to execution of the contract with the successful contractor. The Engineer reserves the right to visit the precaster's facility to observe the manufacturing, or may request photo-documentation of the manufacturing process for the specific items to be installed on this project.

12141 Wickchester Lane
Suite 640
Houston, TX 77079

TEL 713.491.8333
FAX 713.395.5486

www.GarverUSA.com

August 15, 2016

Addendum No.2
To Plans, Contract Documents and Specifications
IFB 16-022/JW, Taxiway D Reconstruction (2016)

This addendum shall be a part of the Plans, Contract Documents and Specifications to the same extent as though it were originally included therein, and it shall supersede anything contained in the Plans, Contract Documents and Specifications with which it might conflict. All bidders shall acknowledge receipt of this Addendum on page C-4 of the sealed bid proposal.

Pre-Bid Meeting:

1. **A pre-bid meeting was held on August 10, 2016:**
   - The agenda for the meeting is attached and forms part of the addendum
   - The sign-in sheet of attendees to the pre-bid meeting is attached.

Modifications to the Bid Form:

1. **Replace the following pages:**
   - Proposal pages C-5 to C-14 with the attached pages C-5 to C-14. A pay item for lighted runway closure markers was added as item SS-120-2.

Modifications to the Specifications:

1. **Replace the following specifications:**
   - SS-120 'Site Preparation' with the attached specification SS-120 'Site Preparation'. Paragraph 120-2.3 was modified along with adding pay item SS-120-2.
   - SS-300 'Basic Electrical Requirements' with the attached specification SS-300 'Basic Electrical Requirements'. Paragraph 300-2.6 and 300-4.1 were added along with pay item SS-300-5.2.
   - SS-310 'Airport Lighting Systems' with the attached specification SS-310 'Airport Lighting Systems". The portions of paragraph 310-3.9 related to in-pavement lighting were struck through since there is no in-pavement lighting work in the project.

Modifications to the Plans:

1. **Replace the following sheets:**
   - G-102 'Sheet Index and Summary of Quantities' with the attached sheet G-102 'Sheet Index and Summary of Quantities'.
   - G-303 'Safety and Phasing Plan – Phase 1A' with the attached sheet G-303 'Safety and Phasing Plan – Phase 1A'.

- E-001 'Electrical Legend and Notes' with the attached sheet E-001 'Electrical Legend and Notes'.
- E-201 'Lighting Installation Plan I' with the attached sheet E-201 'Lighting Installation Plan I'.
- E-203 'Lighting Installation Plan III' with the attached sheet E-202 'Lighting Installation Plan III'.

Bidder Questions with Answers:

Questions have been asked at the pre-bid meeting and received by email. The response to these questions is attached to this addendum. Questions are paraphrased and are as understood by Garver.

By: Thomas D Dodson, PE.

STATE OF TEXAS
THOMAS D. DODSON
83909
LICENSED
PROFESSIONAL ENGINEER

Attachments: Bid Form: 10 pages
Pre-bid Meeting Agenda and Sign-in sheet: 3 pages
Revised Plansheets: 5 sheets
Revised Specifications: 32 pages
Response to Bidder Questions: 2 pages

12141 Wickchester Lane
Suite 640
Houston, TX 77079

TEL 713.491.8333
FAX 713.395.5486

www.GarverUSA.com

Jack Brooks Regional Airport – Taxiway D Reconstruction (2016) Taxiway 'H' to 'F' Pre-Bid Meeting

11:00 a.m. August 10, 2016

1) **Introductions & Roles:**
   a) Alex Rupp, Airport Manager, Jack Brooks Regional Airport (Owner)
   b) Duke Youmans, Operations Manager, Jack Brooks Regional Airport
   c) Megan Landry, Finance Manager, Jack Brooks Regional Airport
   d) Jamey West, Assistant Purchasing Agent, Jefferson County
   e) Tom Dodson, PE, Senior Project Manager, Garver

2) **Bidding Procedures**
   a) Bids proposals are due no later than 11:00 am local time on August 23, 2016 at the Jefferson County Purchasing Division, 1149 Pearl Street, 1st Floor, Beaumont, Texas 77701. After the cut-off time, bids will be publicly opened and read. DO NOT DELIVER BID PACKAGES TO THE AIRPORT – THEY WILL BE CONSIDERED NON-RESPONSIVE.
   b) Instructions to Bidders. Requirements are detailed in this section.
      i) Bid package consisting of an entire project manual and 3 copies of the required documents
      ii) Vendor registration with System for Award Management
   c) Awarded Vendor requirement for Submission of Form 1295
   d) Bids may be held up to 90 days for FAA funding schedule.
   e) Bid Proposal. Contract Time:
      i) 210 Calendar Days; this is inclusive of typical weather days and holidays.
      ii) $1,000 per day Liquidated Damages thereafter.
      iii) Section K identifies included typical weather days per month.
   f) Contract Award

Base Bid – Taxiway D Reconstruction (2016)

3) **Federal Provisions**
   a) The DBE goal is **12.62%**.
      i) Questions regarding goals and good faith efforts should be directed to Megan Landry at the airport.

4) **FAA General Provisions**
   a) 7/21/2014 version of the provisions are included in the project manual portion of the bid documents.
   b) Section 110 covers the calculation of "Percent Within Limits" for concrete pavement pay factors.

5) **Plans and Technical Specifications**
   a) Plansheets G-301 to G-304 for phasing plan and requirements. This project will only close Runway 12/30 during overnight hours and to non-commercial traffic during a 10-day period at the beginning of construction. Remaining project work will be done with the runway open to all traffic.
   b) Safety Plan Compliance Document SS-101 – this is a document requirement for working on the airfield.
   c) Concrete Pavement P-501 – this specification has been modified to allow side-form construction
   d) Subbase Course P-154 – for foundation beneath the concrete pavement
   e) Lime-Treated Subgrade – for foundation beneath the subbase course. A 6% dosage rate; 16" depth is anticipated to be windrowed in 2 lifts
   f) Airport Lighting Systems SS-310 – for LED taxiway lighting fixtures
   g) Airport Rotating Beacon L-101 – to replace existing beacon fixture

6) **Construction Security**
   a) Security background checks and driver training. These are to be provided by the Contractor at his own expense for employees that will be driving on the airfield.

7) **General Discussion / Question and Answer**

IFB 16-022/JW, Taxiway D Reconstruction (2016) at Jack Brooks Regional Airport
Pre-Bid Conference ▪ August 10, 2016 – 10:00 am
Airport Administration Conference Room

JACK BROOKS REGIONAL AIRPORT

Sign In Sheet

Name	Business	Email	Phone
Megan Landry	JBRA	mlandry@co.jefferson.co.us	719-4900
Duke Youmans	GBRA	Dyoumans@co.jefferson.tx.us	719-4900
James West	Jeff Cty Purchasing	jwest@co.jefferson.tx.us	409-835-8093
Brandon Harrison	Alico, LLC	bharrison@alico.com	409-860-4459
Kevin Lowrance	Martin Marietta	Kevin.lowrance@martinmarietta.com	409-679-8893
Bill Kelley	Martin Marietta	William.kelley@martinmarietta.com	409-658-7791
Donald Stanton	Trinity trans con	d.stanton@trinitytrans.com	940-613-1792
Dylan LeBlanc	MK Constructors	SALES@MKCONSTRUCTORS.com	409-769-0089
Alex Rupp	JBRA		409-719-4900
Aaron Hatcher	JBRA		409-454-1604
Clarence Huckaby	FAA	Clarence.Huckaby@FAA.gov	409-720-5160
James L. Terrell, Jr	FAA	James.Terrell@FAA.gov	409-720-5160

B 16-022/JW, Taxiway D Reconstruction (2016) at Jack Br .s Regional Airport
Pre-Bid Conference • August 10, 2016 – 10:00 am
Airport Administration Conference Room

JACK BROOKS REGIONAL AIRPORT

Sign In Sheet

Name	Business	Email	Phone
McClain McDonald	L & L General Contractors	landlinc@att.net	409-796-1344
Ethan Langston	Excavation & Construction	ethan.langston@excoalle.com	409-332-8773
~~Lacey Gilchrist~~	~~Excavation & Construction~~		409-332-8773
Larry Rougeau	Hartmann Building Specialties	lrougeau@hbslltd.net	409 658 0023
Bryan Phelps	Brystar Contracting Inc	bryan@brystar.com	(409)842-6768 ext 112
Adrian Baker	Sawgrass Civil	adrian.baker@sawgrass.com	(281) 914-3970
Artie Tucker	APAC-Tx, Inc.	awtucker@apac.com	409-866-1444

12141 Wickchester Lane
Suite 640
Houston, TX 77079

TEL 713.491.8333
FAX 713.395.5486

www.GarverUSA.com

MEMORANDUM

To: Potential Bidders **Date:** August 15, 2016

From: Thomas D Dodson, PE TD

RE: Jack Brooks Regional Airport – Taxiway D Reconstruction (2016)
Bidder Questions

See below for responses to Bidder questions regarding the Taxiway 'D' Reconstruction project at the Jack Brooks Regional Airport.

Question 1: There is a note in the spec (page SS-310-5) to rehab existing in-pavement fixtures with new prism/lens and gaskets. Is there a bid item for the work?

Answer 1: No. The project contains no work related to in-pavement light fixtures. The portion of SS-310 containing these requirements has been struck-through and the revised SS-310 is attached to Addendum #2.

Question 2: If contractor's staff have airport security badges from other airports, will that be acceptable for badging on this project?

Answer 2: Contractor's staff are encouraged to display their security badges to help identify themselves to airport operations and security officers. Contractor is to provide documentation of staff credentialing as part of the notification of intended airside staff during the project. However, badging at another airport does not provide access of the contractor's staff to areas outside the project without advance notice to airport operations and does not waive requirements airport operations has for escorts, radio operators, etc.

Question 3: How is the work on Taxiway 'F' intended to be carried out?

Answer 3: Due to the limited access users of the East Ramp have to the airport, the intersection of Taxiways F and D cannot be closed; therefore the work is to be carried out in a fall-back basis. As noted in the pre-bid meeting, this intersection can be busy during daytime and weekends. If the contractor prefers, the project improvements in this area can be carried out during overnight hours, when the opportunity for longer work periods without the need for fall-back may be possible.

Question 4: How is Mobilization under FAA Section 105 versus Site Preparation under item SS-120 to be divided and paid?

Answer 4: Refer to each item for a description of the work that is to be included in the item. The intent was not to directly overlap work items between the two specifications. Please refer to the work outlined in each item for the development of your costs to include in the bid price for each item.

Question 5: Can the contract time be changed to 270 calendar days?

Answer 5: No. Operations and safety at the airport are of the utmost importance and compressing construction time to a reasonable but expedited schedule minimizes impacts to the airport. The design process included development of a detailed construction schedule that included typical weather days to arrive at the contract time. There will be no change to the contract time for this project.

Question 6: The phasing plan does not show the lighted runway closure markers. Will these be required when the runway is closed?

Answer 6: Yes – when the runway is closed during hours the ATCT is not staffed, Runway Closure Markers will be required. Please see the updated item SS-120 and bid form, along with the update plansheets that include runway closure markers as part of the Phase 1A work.

Question 7: Bid Item P101-2, Milling/Removal of Asphalt Paving, only has a quantity of 2,110 square yards. This quantity would only cover the milling at the asphalt transitions along Runway 12-30. Do you plan to adjust the quantity for the other asphalt pavement?

Answer 7: No. The two connections to Runway 12-30 consist of asphalt transitions. These areas are to be milled in Phase 1A to allow for soil backfill to remove the connectors from the runway without removing the concrete pavement beneath. Milling of these areas are the only milling required on the project. Pavements outlined for removal that include asphalt surfaces may be milled at the contractor's option, but will not be paid for as milling. Any milling of pavements to be removed will be considered subsidiary to the pavement removal as called for in the plans and outlined in Item P-101-1, Concrete Pavement Removal; as the pavement primarily consists of concrete.

12141 Wickchester Lane
Suite 640
Houston, TX 77079

TEL 713.491.8333
FAX 713.395.5486

www.GarverUSA.com

August 19, 2016

Addendum No.3
To Plans, Contract Documents and Specifications
IFB 16-022/JW, Taxiway D Reconstruction (2016)

This addendum shall be a part of the Plans, Contract Documents and Specifications to the same extent as though it were originally included therein, and it shall supersede anything contained in the Plans, Contract Documents and Specifications with which it might conflict. All bidders shall acknowledge receipt of this Addendum on page C-4 of the sealed bid proposal.

Modifications to the Bid Form:

1. **Replace the following pages:**
   - Proposal pages C-5 to C-14 with the attached pages C-5 to C-14. Removal of the pay item for preformed surface painted sign from item P-620 with adjustments to the paint square footages and the addition of a pay item for the battery backup for the beacon was added as item SS-300-5.2.

Modifications to the Specifications:

1. **Replace the following specifications:**
   - P-620 'Runway and Taxiway Painting' with the attached item P-620 'Runway and Taxiway Painting'. The portions pertaining to preformed thermoplastic airport pavement markings were struck through to remove preformed in-pavement signs from the project.

Modifications to the Plans:

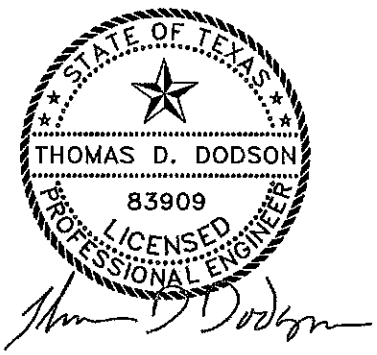
1. **Replace the following sheets:**
   - G-102 'Sheet Index and Summary of Quantities' with the attached sheet G-102 'Sheet Index and Summary of Quantities'.
   - M-101 'Marking Details' with the attached sheet M-101 'Marking Details'.
   - M-103 'Marking and Signage Layout 1' with the attached sheet M-103 'Marking and Signage Layout 1'.

Bidder Questions with Answers:

Questions have been asked at the pre-bid meeting and received by email. The response to these questions is attached to this addendum. Questions are paraphrased and are as understood by Garver.

By: Thomas D Dodson, PE.

Attachments: Bid Form: 10 pages
Revised Plansheets: 3 sheets
Revised Specifications: 10 pages
Response to Bidder Questions: 2 pages



12141 Wickchester Lane
Suite 640
Houston, TX 77079

TEL 713.491.8333
FAX 713.395.5486

www.GarverUSA.com

MEMORANDUM

To: Potential Bidders **Date:** August 19, 2016

From: Thomas D Dodson, PE TD

RE: Jack Brooks Regional Airport – Taxiway D Reconstruction (2016)
Bidder Questions

See below for responses to Bidder questions regarding the Taxiway 'D' Reconstruction project at the Jack Brooks Regional Airport.

Question 1: What type of badging is going to be required for the basic labor that will be working on the job site; can it be a simple badge with company name, employee name and employee number?

Answer 1: Employees on the site are to be badged as described in the August 15 question 2 answer.

Question 2: Is there going to be a background check required for all employees on site or just for the employees who will be doing the escorting of people on to the site?

Answer 2: For employees providing escort across the airfield, security badging at the airport will be required. Escorts will also require driver training and communications training prior to being badged. Credentials must be provided for security badging. As noted before, a TWIC credential will be acceptable for credentials for those requiring the security badging.

Question 3: What class is required for the people who will be escorting and who teaches the required class; will the people escorting be the only ones required to take the class?

Answer 3: At the airport, KUSA Aviation (409-727-7900) can provide the training for both driver and radio communications training. Costs for training are to be borne by the Contractor as part of the site preparation work. Workers that are not driving on any active parts of the airport (i.e. open taxiways or aprons) are not required to have driver or communications training.

Question 4: Who all will be required to take the communication class and who teaches the required class?

Answer 4: At the airport, KUSA Aviation (409-727-7900) can provide the training for both driver and radio communications training. Costs for training are to be borne by the Contractor as part of the site preparation work.

Question 5: How do we go about scheduling a walk-through at the airport so that our lighting contractor can look at the site?

Answer 5: There are no other opportunities to see the secure areas of the airport. The one opportunity was given during the pre-bid meeting.

Question 6: Will the required concrete slump be increased due to side-form construction being allowed?

Answer 6: No. The slump requirement for concrete will remain as specified for concrete under item P-501. However, side form placements do allow a slightly higher allowed slump than slip-formed concrete..

Question 7: Can P-154 be substituted for another aggregate base specification?

Answer 7: No. The base material must meet the requirements of Item P-154.

Question 8: The demolition plans show the work on the connector taxiways that is within the Runway Safety Area (RSA). The demolition plan does not show any work on Taxiway 'F' within the RSA. Is the work on Taxiway 'F' requiring a runway closure?

Answer 8: Yes. Any work within 250 feet of the centerline of Runway 12/30 can only be carried out while the runway is closed. The phasing sheets G-301 through G-304 identify the work limitations for the phases of construction. See sheet C-903 for joint sealing and E-101 and E-201 for lighting work that is in Taxiway 'F' that lies within the RSA.

Question 9: Can Phase 1A and Phase 1B work be carried out at the same time?

Answer 9: Yes. While the focus at the beginning of construction should be to begin with Phase 1A, Phase 1B work can be carried out with the Phase 1A work.

SECTION M
WAGE RATES

Article 5159a of the Revised Civil Statutes of Texas, passed by the 43rd Legislature Acts of 1933, Page 91, Chapter 45, provides that any government subdivision shall ascertain the general prevailing rate of per diem wages in the locality in which the work is to be performed for each craft or type of workman or mechanic and shall specify in the call for bids and in the Contract the prevailing rate of per diem wages which shall be paid for each craft type of workman. This Article further provides that the CONTRACTOR shall forfeit, as a penalty, to the City, County, or State, or other political subdivision, Ten Dollars ($10.00) per day for each laborer, or workman, or mechanic who is not paid the stipulated wage for the type of work performed by him as set up on the wage scale. The OWNER is authorized to withhold from the CONTRACTOR, after full investigation by the awarding body, the amount of this penalty in any payment that might be claimed by the CONTRACTOR or Subcontractor. The Act makes the CONTRACTOR responsible for the acts of the Subcontractor in this respect.

The Article likewise requires that the CONTRACTOR and Subcontractor keep an accurate record of the names and occupations of all persons employed by him and show the actual per diem wages paid to each worker, and these records are open to the inspection of the OWNER.

The Davis Bacon minimum wage rates for this project are as follows:

LABOR CLASSIFICATION AND MINIMUM WAGE SCALE

General Decision Number: TX160056 01/08/2016 TX56

Superseded General Decision Number: TX20150056

State: Texas

Construction Type: Highway

Counties: Austin, Brazoria, Chambers, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, San Jacinto and Waller Counties in Texas.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction;bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wageof $10.15 for calendar year 2016 applies to all contractssubject to the Davis-Bacon Act for which the solicitation wasissued on or after January 1, 2015. If this contract is coveredby the EO, the contractor must pay all workers in anyclassification listed on this wage determination at least$10.15 (or the applicable wage rate listed on this wagedetermination, if it is higher) for all hours spent performingon the contract in calendar year 2016. The EO minimum wage ratewill be adjusted annually. Additional information on contractorrequirements and worker protections under the EO is availableat www.dol.gov/whd/govcontracts.

Modification Number Publication Date

0 01/08/2016

* SUTX2011-013 08/10/2011

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER (Paving and Structures)	$ 12.98	
ELECTRICIAN	$ 27.11	
FORM BUILDER/ FORM SETTER		
Paving & Curb	$ 12.34	
Structures	$ 12.23	
LABORER		
Asphalt Raker	$ 12.36	
Flagger	$ 10.33	
Laborer, Common	$ 11.02	
Laborer, Utility	$ 11.73	
Pipelayer	$ 12.12	
Work Zone Barricade Servicer	$ 11.67	
PAINTER (Structures)	$ 18.62	
POWER EQUIPMENT OPERATOR		
Asphalt Distributor	$ 14.06	
Asphalt Paving Machine	$ 14.32	
Broom or Sweeper	$ 12.68	
Concrete Pavement Finishing Machine	$ 13.07	
Concrete Paving, Curing, Float, Texturing Machine	$ 11.71	
Concrete Saw	$ 13.99	
Crane, Hydraulic 80 Tons or less	$ 13.86	
Crane, Lattice boom 80 tons or less	$ 14.97	
Crane, Lattice boom over 80 Tons	$ 15.80	
Crawler Tractor	$ 13.68	
Excavator, 50,000 pounds or less	$ 12.71	
Excavator, Over 50,000 pounds	$ 14.53	
Foundation Drill, Crawler Mounted	$ 17.43	
Foundation Drill, Truck Mounted	$ 15.89	
Front End Loader 3 CY or Less	$ 13.32	
Front End Loader, Over 3 CY	$ 13.17	
Loader/Backhoe	$ 14.29	
Mechanic	$ 16.96	
Milling Machine	$ 13.53	
Motor Grader, Fine Grade	$ 15.69	
Motor Grader, Rough	$ 14.23	
Off Road Hauler	$ 14.60	
Pavement Marking Machine	$ 11.18	
Piledriver	$ 14.95	
Roller, Asphalt	$ 11.95	
Roller, Other	$ 11.57	
Scraper	$ 13.47	
Spreader Box	$ 13.58	
Servicer.	$ 13.97	
Steel Worker		
Reinforcing Steel	$ 15.15	
Structural Steel Welder	$ 12.85	
Structural Steel	$ 14.39	
TRUCK DRIVER		
Low Boy Float	$ 16.03	
Single Axle	$ 11.46	
Single or Tandem Axle Dump	$ 11.48	
Tandem Axle Tractor w/Semi Trailer	$ 12.27	
WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.		

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- an existing published wage determination
- a survey underlying a wage determination
- a Wage and Hour Division letter setting forth a position on a wage determination matter
- a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

==========

For current Wage Determination Decisions, see the Department of Labor website (http://www.wdol.gov/dba.aspx#0).

SECTION N
CHANGE ORDER FORM

Change Order

No. _____

Date of Issuance: Effective Date:
Project: Owner: Owner's Contract No.:
Contract: Date of Contract:
Contractor: Engineer's Project No.:

The Contract Documents are modified as follows upon execution of this Change Order:

Description:

Attachments: (List documents supporting change):

CHANGE IN CONTRACT PRICE:
Original Contract Price:

CHANGE IN CONTRACT TIMES:
Original Contract Times:
☐ Working days ☐ Calendar days

Substantial completion (days or date):
$ Ready for final payment (days or date):
[Increase] [Decrease] from previously approved Change

Orders No._____ to No._____:

[Increase] [Decrease] from previously approved Change Orders
No._____ to No._____:

Substantial completion (days):

$ Ready for final payment (days):
Contract Price prior to this Change Order: Contract Times prior to this Change Order:

Substantial completion (days or date):

$ Ready for final payment (days or date):
[Increase] [Decrease] of this Change Order: [Increase] [Decrease] of this Change Order:
Substantial completion (days or date):

$ Ready for final payment (days or date):
Contract Price incorporating this Change Order: Contract Times with all approved Change Orders:

Substantial completion (days or date):
$ Ready for final payment (days or date):

RECOMMENDED:	ACCEPTED:	ACCEPTED:
_____	_____	_____
By:	By:	By:
Engineer (Authorized Signature)	Owner (Authorized Signature)	Contractor (Authorized signature)
_____	_____	_____
Date:	Date:	Date:

_____ _____
Approved by Funding Agency (if applicable): Date:

SECTION O
TECHNICAL SPECIFICATIONS

ITEM SS-100 CONSTRUCTION SAFETY AND PHASING PLAN (CSPP)

DESCRIPTION

100-1.1 This item includes notes in reference to construction safety and phasing for the project. This item shall be used in conjunction with all Construction Safety Drawings and Construction Safety and Phasing Notes in the plans.

CONSTRUCTION SAFETY AND PHASING NOTES

100-2.1 COORDINATION.

a. Contractor Progress Meetings - The Owner, Engineer, and Contractor will hold progress meetings on a coordinated schedule during construction. Operational safety will be a standing agenda item in such meetings.

b. Scope or Schedule Changes - The Owner and/or Engineer will call such coordination conferences as may seem expedient to him for the purpose of assuring coordination of the work covered by this contract and/or scope or schedule changes. The Contractor shall attend all such conferences.

c. –NOT REQUIRED-

100-2.2 PHASING. During performance of this project, the airport's runways, taxiways, and aircraft parking aprons shall remain in use by aircraft to the maximum extent possible. The project is phased to reduce operational impacts at the airport.

a. Phase Elements – If necessary for each phase, the construction safety drawings detail the areas closed to aircraft operations, estimated duration of closures, taxi routes, ARFF access routes, construction staging areas, construction access and haul routes, NAVAID impacts, lighting and marking changes, available runway length, declared distances, hazard marking and lighting, and required lead time for NOTAMS.

b. Construction Safety Drawings – See sheets G-301 through G-304 of the construction plans for construction safety drawings.

100-2.3 AREAS OF OPERATIONS AFFECTED BY CONSTRUCTION ACTIVITY.

a. Identification of Affected Areas – See the table below and the construction safety drawings for areas affected by construction for each phase.

b.

Operational Requirement	Existing Condition	Phase 1A	Phase 1B
Runway 12-30 ARC	C-III	Same	Same
Runway 12 Approach Minimums	½ Mile	Same	Same
Runway 30 Approach Minimums	¾ Mile	Same	Same
Runway 12 Declared Distances	TORA: 6,750	Same	Same
	TODA: 6,750	Same	Same

Operational Requirement	Existing Condition	Phase 1A	Phase 1B
Runway 12 Declared Distances	ASDA: 6,675	Same	Same
	LDA: 6,675	Same	Same
Runway 30 Declared Distances	TORA: 6,750	Same	Same
	TODA: 6,750	Same	Same
	ASDA: 6,750	Same	Same
	LDA: 6,750	Same	Same
Runway 12 Approach Procedures	ILS/RNAV/VOR	Same	Same
Runway 30 Approach Procedures	RNAV/LPV	Same	Same
Runway 12 NAVAIDS	MALSR, DME	Same	Same
Runway 30 NAVAIDS	PAPI	Same	Same
Taxiway D ARC	ADG-III / TDG-V	N/A	ADG-III / TDG-III
Taxiway G ARC	ADG-III / TDG-V	Removed	Removed
Taxiway H ARC	ADG-III / TDG-V	Removed	Removed

c. Mitigation Efforts - See the table above and the construction safety drawings for mitigation efforts of operations affected by construction.

100-2.4 PROTECTION OF NAVIGATION AIDS (NAVAIDS). The Contractor must not conduct any construction activity within navigational aid restricted areas without prior approval from the local FAA Airway Facilities Sector representative. Navigational aids include instrument landing system components and very high-frequency omni-directional range airport surveillance radar. Such restricted areas are depicted on the construction safety drawings.

100-2.5 CONTRACTOR ACCESS.

a. Location of Stockpiled Materials - The Contractor may install a temporary fence around his construction staging area to separate his material stockpile, equipment storage, and parking areas from the public. No personal vehicles of contractor's employees will be allowed inside the secured area of the airport. All material deliveries shall be received in the staging area reserved by the contractor. No delivery trucks will be allowed access to a secured area of the airport beyond this staging area. Stockpiled materials and equipment are not permitted within the active runway safety area and obstacle free zone. The contractor shall receive approval from the Engineer and FAA air spacing office prior to locating stockpiles or equipment within the object free area, safety area, or obstacle free zone. No stockpile shall be greater than 15-ft in height.

b. Vehicle and Pedestrian Operations - See the construction safety drawings for construction site parking, equipment storage areas, and access and haul routes. Vehicular traffic shall always yield to aircraft traffic.

When any vehicle, other than one that has prior approval from the airport operator, must travel over any portion of an aircraft movement area, it will be escorted and properly identified. To operate in those areas during daylight hours, the vehicle must have a flag or beacon attached to it. Any vehicle operating on the movement areas during hours of darkness or reduced visibility must be equipped with a flashing dome-type light, the color of which is in accordance with local or state codes.

All construction vehicles shall be clearly identified for control purposes by prominently displaying the company name on each side of the vehicle. The identification symbols should be a minimum 8-inch block-type characters of a contrasting color and easy to read. They may be applied either by using tape or a water-soluble paint to facilitate removal. Magnetic signs are also acceptable.

At 14 CFR Part 139 certified and towered airports, all vehicle operators having access to the active parts of the airfield must be familiar with airport procedures for the operation of ground vehicles and the consequences of noncompliance or be escorted by someone who is. Those trained must provide a certificate of training to the airport prior to accessing the airfield. Only those trained and providing a certificate as such will have escorting privileges.

Personnel entering the active parts of the airport must be in possession of and display a valid airport identification badge at all times or must be escorted by a person with the above-noted escorting privileges. Any person who is escorting individuals must be in direct control of the escorted individuals at all times. Any fine, including any and all associated costs, assessed the airport for failure to maintain security of the airport which are a result of the negligence of the prime contractor, any of his subcontractors, or any supply/delivery personnel, will be assessed to the prime contractor and shall be deducted from any monies due him.

Vehicular traffic located in or crossing an active movement area must have a working two-way radio in contact with the control tower or be escorted by a person in radio contact with the tower. The driver, through personal observation, should confirm that no aircraft is approaching the vehicle position. Construction personnel may operate on the airfield without two-way radio communication provided a NOTAM is issued closing the area and the area is properly marked to prevent incursions. Two-way radio communications are required between Contractor personnel and the Airport Traffic Control Tower/Airport Aeronautical Advisory Stations "Beaumont Ground" (119.50MHz) between the hours of 06:00 and 22:00; and UNICOM (122.95MHz) between the hours of 22:00 and 06:00 daily. Continuous monitoring is required only when equipment movement is necessary in certain areas.

c. Control of Gates - The Contractor shall be responsible for maintaining the security of the access gates by keeping the access gate locked or guarded at all times. Should the Contractor fail, at any time, to keep the access gate locked or guarded, there shall be a fine of $200.00 assessed to the Contractor, for each occurrence that the Contractor fails to maintain the security of the access gate. All fines assessed to the Contractor shall be deducted from any monies due to him/her.

100-2.6 WILDLIFE MANAGEMENT. The Contractor shall review AC 150/5200-33, hazardous wildlife attractants on or near airports, and CertAlert 98-05, grasses attractive to hazardous wildlife (www.faa.gov). The Contractor shall carefully control and continuously remove waste or loose materials that might attract wildlife. Contractor personnel must be aware of and avoid construction activities that can create wildlife hazards on airports. The contractor shall mitigate the following items.

a. Trash - The Contractor shall perform trash clean-up on a daily basis.

b. Standing Water - The Contractor provide temporary drainage during construction to avoid standing water.

c. Tall Grass and Seeds - The Contractor shall adhere to the requirements of Section T-901, Seeding of the contract documents and specifications.

d. Poorly Maintained Fencing and Gates - The Contractor shall immediately report any damage to gates or fences. The Contractor will be responsible for repairs to any gates or fences caused by negligence by the Contractor.

e. Disruption of Existing Wildlife Habitat - The Contractor shall notify the airport immediately of any wildlife sightings.

100-2.7 FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT.

The Contractor shall ensure that the pavement surfaces in the active movement area are kept clean from dirt, mud, and other debris from the Contractor's equipment. Frequent clean up in the vicinity of Contractor's work areas is required.

The Contractor shall require vehicle operators to check tires prior to traversing active airfield pavement. Any material tracked onto an active airfield pavement by construction equipment shall be immediately removed. See AC 150/1510-24, foreign object debris (FOD) management (www.faa.gov) for further instruction.

100-2.8 HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT.

If any construction vehicle or equipment is operated within airport property, the Contractor must be adequately prepared to expeditiously contain and clean-up spills resulting from fuel or hydraulic fluid leaks. Special care must also be taken when handling or transporting hazardous materials on airport property. The contractor shall notify the Engineer immediately after any hazardous material spill. Management of hazardous wastes must strictly follow the most current stringent Federal, State and local regulations governing treatment, storage, and disposal. See AC 150/5320-15, management of airport industrial waste (www.faa.gov), for further instruction.

100-2.9 NOTIFICATION OF CONSTRUCTION ACTIVITIES.

a. List of Responsible Representatives - A point of contact list will be completed as part of ITEM SS-101 Safety Plan Compliance Document (SPCD) and will be delivered to all parties prior to construction.

b. Notices to Airmen (NOTAM) - Before beginning any construction activity, the Contractor must, through the airport operator, give notice using the NOTAM system of proposed location, time, and date of commencement of construction. Upon completion of work and return of all such areas to standard conditions, the Contractor must, through the airport operator, verify the cancellation of all notices issued via the NOTAM system. Timing requirements for notification shall be as noted in the Plans.

c. Emergency Notification Procedures - In the event of an emergency, the Contractor shall call airport emergency response at (409) 719-4950, and 911. Contractor is to also immediately notify the Engineer.

d. Coordination with ARFF personnel - Any deactivation of water lines or hydrants, rerouting of access routes, or use of hazardous materials on the airfield shall be coordinated and approved by the airport's ARFF personnel prior to execution of such activities.

e. Notification to the FAA - The Contractor shall ensure, through the Engineer, that all construction equipment over 25-ft in height is air spaced through the appropriate FAA regional or district office prior to using such equipment on site.

Shutdown of any NAVAID (airport or FAA owned) shall be coordinated with the FAA ATO 45 days prior to the proposed shutdown. The Contractor shall provide an additional seven days advance notice to the airport to coordinate with the FAA ATO Tech Ops office responsible for the FAA facilities.

100-2.10 INSPECTION REQUIREMENTS.

a. Daily Inspections - The Contractor shall perform daily safety inspections to ensure all construction operations are in conformance with the CSPP.

b. Final Inspections - Prior to opening any portion of the airport to traffic, the Contractor, Engineer, and airport operator shall perform a safety inspection of the area to be opened to traffic to ensure conformance with the CSPP and FAA standards.

100-2.11 UNDERGROUND UTILITIES. Underground utilities exist within and adjacent to the limits of construction. An attempt has been made to locate these utilities on the plans. However, all existing utilities may not be shown and the actual locations of the utilities may vary from the locations shown. Prior to beginning any type of excavation, the contractor shall contact the utilities involved and make arrangements for the location of the utilities on the ground. The contractor shall maintain the utility location markings until they are no longer necessary.

Texas state law, the underground facilities damage prevention act, requires ten working days advance notification through the one-call system center before excavating using mechanized equipment or explosives (except in the case of an emergency). The one-call system phone number is 1-800-245-4848, or 811. The contractor is advised that there is a severe penalty for not making this call. Not all utility companies are members of the one-call system; therefore, the contractor is advised to contact all non-member utilities as well as the one-call system.

Due to FAA underground cables being located in the areas depicted in the plans, the contractor shall use extreme caution when working in these areas. The Contractor shall notify FAA ATO Ops personnel a minimum of 72 hours prior to construction in these areas to ensure no FAA utilities will be impacted. Any FAA equipment or utilities damaged during construction shall be replaced by the contractor at no expense to the owner or the FAA.

100-2.12 PENALTIES. Failure of the Contractor (including employees) or any of his subcontractors (including employees) to comply with ATCT instructions, the airport safety plan, or any of the other requirements of the airport while operating on airport property, shall be subject to the following:

a. First Offense - The Contractor shall receive a fine of $1,000.00, and the vehicle operator will receive a loss of driving privileges on the airport. In addition, any fines or penalties imposed on the airport as a result of the incident will be assessed to the Contractor.

b. Second Offense - The Contractor shall receive a fine of $5,000.00 to be deducted from any monies due him, and the vehicle operator will receive a loss of driving privileges on the airport. In addition, any fine or penalties imposed on the airport as a result of the incident will be assessed to the contractor.

c. Third Offense - Work will be suspended. The Contractor (including employees) and any of his subcontractors (including employees) who will operate ground vehicles on the airport shall successfully complete, for a second time, formalized airport safety training, to be conducted by airport staff. When the contractor's employees have completed airport safety training to the satisfaction of the owner, work may continue at the discretion of the Owner.

100-2.14 RUNWAY AND TAXIWAY VISUAL AIDS.

a. General - All airport markings, lighting, signs, and visual NAVAIDs that are in operation must be clear from all obstructions. All temporary markings, signs, lights, or other visual aids must be secured in place to prevent prop wash, jet blast, wing vortices, or other wind currents.

b. Markings - All temporary or permanent runway and taxiway visual aids shall conform to the requirements of the most recent edition of FAA AC 150/5340-1 (www.faa.gov). Markings for this project include the following:

i. Temporarily Closed Runways – The Contractor shall be responsible for furnishing,

installing, and maintaining runway closure markers on top of the runway designation markers. See details on construction safety drawings for closed runway marker detail.

ii. Temporarily Closed Taxiways – The Contractor shall be responsible for furnishing, installing, and maintaining taxiway closure markers at the entrance to the closed taxiway from the adjacent runway. The taxiway closure markers shall be installed inside the runway safety area. The contractor shall also furnish and install low profile barricades at the entrance to the closed taxiway from an adjacent taxiway. Barricades shall be installed outside all active taxiway safety areas. See details on construction safety drawings for closed taxiway marker and low-profile aircraft barricade details.

c. Lighting and Visual Aids – All temporary lighting for runway and taxiway systems shall conform to the requirements of the most recent edition of FAA AC 150/5340-30 and 150/5345-50 (www.faa.gov). The contractor shall be responsible for disconnecting isolation transformers associated with any runway or taxiway light fixtures that are being disconnected.

d. Signs - The Contractor shall install all signs in accordance with the most recent edition of FAA AC 150/5345-44 and 150/5340-18. Any sign that is not performing its normal function must be covered or removed to prevent misleading pilots.

100-2.15 MARKING AND SIGNS FOR ACCESS ROUTES. The contractor shall be responsible for supplying and installing all necessary markings and signage for all access routes to and from the site to be used by contractor personnel, subcontractor personnel, or delivery operations. All signage in the air operations area shall be frangible mounted.

100-2.16 HAZARD MARKING AND LIGHTING

a. Purpose - Hazard marking and lighting prevents pilots from entering areas closed to aircraft and prevents contractor personnel from entering areas open to aircraft.

b. Equipment - The contractor shall furnish, install, and maintain low-profile barricades in hazardous areas inside movement areas. Barricades shall restrict access and make hazards obvious to aircraft, personnel, and vehicles. During periods of low visibility and at night, barricades shall be equipped with red flashing or steady burning lights. The spacing of barricades shall be such that a breach is physically prevented barring a deliberate act. If barricades are intended to prevent pedestrians, then they shall be linked. See details on construction safety drawings for low-profile aircraft barricade detail.

100-2.17 PROTECTION OF SAFETY AREAS, OBJECT FREE AREAS, OBJECT FREE ZONES, AND APPROACH/DEPARTURE SURFACES:

a. Runway Safety Areas (RSA) - No work shall be permitted within an active RSA. If required, adjustments to the RSA dimensions through restricted operations shall be coordinated with the FAA airports regional or district office prior to construction. The Contractor shall insure adequate distance protection for blast projection, as needed. All open trenches or excavations within the limits of the RSA shall be back filled or covered prior to opening the runway to operations. In addition, erosion control measures shall be provided in the RSA to prevent ruts, humps, or depressions inside the limits of the RSA.

b. Runway object free areas (ROFA) - No material shall be stockpiled inside the limits of the active ROFA unless approved by air spacing through the appropriate FAA airports regional or district office.

c. Taxiway safety areas (TSA) - No work shall be permitted within an active TSA. If required, adjustments to the taxiway TSA dimensions through restricted operations shall be coordinated with the FAA airports regional or district office prior to construction. All open trenches or excavations within the limits of the TSA shall be back filled or covered prior to opening the taxiway to operations. In addition, erosion control measures shall be provided in the TSA to prevent ruts, humps, or depressions inside the limits of the TSA.

d. Taxiway Object Free Areas (TOFA) - No construction shall be permitted inside an active TOFA unless the taxiway has been restricted to operations requiring a TOFA equal to that of the TOFA available. If required, construction may be permitted inside the TOFA if the taxiway centerline markings are offset with centerline reflectors or lighting, or appropriate NOTAMs are issued. Construction may also be permitted inside the TOFA if a five foot wing tip clearance is maintained for all construction equipment and vehicles. In this scenario, flaggers and wing walkers must be used to direct traffic through the construction site.

e. Obstacle Free Zone (OFZ) - No personnel, material, or equipment shall penetrate the OFZ while the runway is open to operations. The dimensions of the OFZ are as defined in FAA AC 150/5300-13 (www.faa.gov).

f. Approach/Departure Surfaces - All contractor personnel, materials, and equipment shall remain clear of the applicable threshold siting surfaces as defined in Chapter 3 of FAA AC 150/5300-13 (www.faa.gov). Construction activities that require penetration into the threshold siting surface shall be accomplish through displacing or partially closing the runway. Such construction activities shall require coordination with the FAA airports regional or district office.

100-2.18 OTHER LIMITATIONS ON CONSTRUCTION

a. Prohibitions - The use of equipment (i.e. cranes, concrete pumps) over 35 feet in height shall not be used unless approved by the engineer and proper coordination for FAA aeronautical study is completed. The submittal for this coordination shall take place at least 45 days prior to anticipated use.

Open flame welding and torch cutting operations are not permitted unless adequate fire safety precautions are provided and these operations are authorized by the airport operator and the engineer.

Electrical blasting caps shall not be permitted within 1,000-ft of the airport property. Flare pots are not permitted within the air operations area.

MEASUREMENT AND PAYMENT

100-3.1 Adherence to the requirements of the CSPP will not be measured for separate payment.

END OF ITEM SS-100

ITEM SS-101 SAFETY PLAN COMPLIANCE DOCUMENT (SPCD)

DESCRIPTION

101-1.1 The contractor shall thoroughly review the approved Construction Safety and Phasing Plan (CSPP) and shall comply with approved CSPP. The contractor shall certify such compliance by completing the attached SPCD and submitting to the Engineer for approval.

Contractor Safety Plan Compliance Documents

Owner Name: Jefferson County

Airport: Jack Brooks Regional Airport

Project Description: Taxiway 'D' Reconstruction (2016)

Contractor: XXXXXXXXXX

Each item listed below corresponds to a specific section of the approved CSPP. The contractor shall certify that he/she will comply with each section of the approved CSPP. Each certified section with a "no" response must be fully explained in an attachment to the SPCD. The document shall be signed and dated by a principle or owner in the Contractor's company. All other requested information shall be completed by the Contractor and submitted to the Engineer for approval as part of the SPCD.

1. **Section 1 - Correspondence:** This project shall be completed in accordance with Section 1 "Coordination" of the approved Construction Safety Plan Compliance Document.

Owner:	
Contact:	**Phone:**
Engineer:	
Project Manager:	**Phone:**
Project Engineer:	**Phone:**
Construction Observer:	**Phone:**
Materials Testing:	**Phone:**
Contractor:	
Project Manager:	**Phone:**
Superintendent:	**Phone:**
Subcontractors:	
LIST ALL SUBS	

Yes_____No_*

2. **Section 2 - Phasing:** This project shall be completed in accordance with Section 2 "Phasing" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

3. **Section 3 – Areas of Operations Affected by Construction Activity:** This project shall be completed in accordance with Section 3 "Areas of Operations Affected by Construction Activity" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

4. **Section 4 – Protection of Navigational Aids (NAVAIDS):** This project shall be completed in accordance with Section 4 "Protection of Navigational Aids (NAVAIDS)" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

5. **Section 5 – Contractor Access:** This project shall be completed in accordance with Section 5 "Contractor Access" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

6. **Section 6 – Wildlife Management:** This project shall be completed in accordance with Section 6 "Wildlife Management" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

7. **Section 7 – Foreign Object Debris (FOD) Management:** This project shall be completed in accordance with Section 7 "Foreign Object Debris (FOD) Management" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

8. **Section 8 – Hazardous Materials (HAZMAT) Management:** This project shall be completed in accordance with Section 8 "Hazardous Materials (HAZMAT) Management" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

9. **Section 9 – Notification of Construction Activities:** This project shall be completed in accordance with Section 9 "Notification of Construction Activities" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

10. **Section 10 – Inspection Requirements:** This project shall be completed in accordance with Section 10 "Inspection Requirements" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

11. **Section 11 – Underground Utilities:** This project shall be completed in accordance with Section 11 "Underground Utilities" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

12. **Section 12 – Penalties:** This project shall be completed in accordance with Section 12 "Penalties" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

13. **Section 13 – Special Conditions:** This project shall be completed in accordance with Section 13 "Special Conditions" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

14. **Section 14 – Runway and Taxiway Visual Aids:** This project shall be completed in accordance with 14 "Runway and Taxiway Visual Aids" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

15. **Section 15 – Marking and Signs for Access Routes:** This project shall be completed in accordance with Section 15 "Marking and Signs for Access Routes" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

16. **Section 16 – Hazard Marking and Lighting:** This project shall be completed in accordance with Section 16 "Hazard Marking and Lighting" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

17. **Section 17 – Protection of Safety Areas, Object Free Areas, Object Free Zones, and Approach / Departure Surfaces:** This project shall be completed in accordance with Section 17 "Protection of Safety Areas, Object Free Areas, Object Free Zones, and Approach / Departure Surfaces" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

18. **Section 18 – Other Limitations on Construction:** This project shall be completed in accordance with Section 18 "Other Limitations on Construction" of the approved Construction Safety Plan Compliance Document.

Yes_____No_*

I certify that, for the project identified herein, the responses to the foregoing items are correct as marked, and that I shall comply with the approved Construction Safety and Plan.

Signed: _____
Contractor's Authorized Representative

Date: _____

_____
Print Name and Title of Contractor's Representative

END OF ITEM SS-101

ITEM SS-110 STANDARD SPECIFICATIONS

GENERAL

110-1.1 The standard specifications adopted by the Texas Department of Transportation (November 1, 2014) are bound in a book titled "Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges". These specifications are referred to herein as "Standard Specifications." The latest edition shall apply. A copy of these "Standard Specifications" may be purchased or downloaded by going to the Texas Department of Transportation's web page, http://www.txdot.gov, contacting Support Services Division, or calling the Texas Department of Transportation's Support Services Division. For additional information on specifications or information on Departmental Materials Specifications (DMS), Material Producer Lists (MPL), Test Procedures, Material Inspection Guide, and other materials information, go to http://www.txdot.gov.

INCORPORATION AND MODIFICATION

110-2.1 Certain parts of the Standard Specifications are appropriate for inclusion in these Technical Specifications. Such parts are incorporated herein by reference to the proper section or paragraph number. The individual specification numbers noted herein may be different from those in the latest edition of the "Standard Specifications." The most current specification number shall apply. Each such referenced part shall be considered to be a part of these Contract Documents as though copied herein in full.

110-2.2 Certain referenced parts of the Standard Specifications are modified in the Specifications that follow. In case of conflict between the Standard Specifications and the Specifications that follow, the Specifications that follow shall govern.

110-2.3 Individual material test numbers change from time to time. Use the latest applicable test.

110-2.4 Reference in the Standard Specifications to the "Department" is herein changed to the "Owner".

END OF ITEM SS-110

Page Intentionally Left Blank

ITEM SS-120 SITE PREPARATION

DESCRIPTION

120-1.1 This item covers the preparation of the site for construction of the proposed improvements. The attention of the bidder is directed to the necessity for careful examination of the entire project site to determine, at the time of bid preparation, the full extent of work to be done under the item "Site Preparation." The entire job site shall be cleared of all man-made obstructions and debris, of whatever nature, and made ready in all respects for the construction of the proposed improvements.

The item "Site Preparation" shall include:

1. Mobilization
2. Furnishing Temporary Field Office
3. Lighted Barricades and Closed Taxiway and Runway Markings
4. Temporary Relocated Threshold
5. Contractor's Access/Haul Road
6. Contractor's Staging Areas
7. Lockout/Tagout Program
8. Airport Security Requirements
9. Airport Safety Requirements
10. Instrument Control
11. Clean Up

CONSTRUCTION METHODS

120-2.1 MOBILIZATION. The Contractor shall consider and include his cost for providing personnel, equipment, materials, bonds, etc. required for the prosecution of the work under this item. This is in unison with Mobilization as described in the General Conditions Section 105.

120-2.2 FURNISHING TEMPORARY FIELD OFFICE. The building for the temporary field office shall be for the exclusive use by the Engineer as a field office and shall conform to the requirements listed below. The dimensions and other requirements specified herein are minimums and the building may be built by the Contractor for the specific purposes noted herein. It is not intended, however, to prohibit the use of commercially built trailers or prefabricated buildings which may deviate in minor dimension or detail from the requirements listed herein but may in some features exceed the listed requirements and in all major respects be entirely suitable for the purpose intended. The Engineer will determine the suitability of any building furnished. It shall be the responsibility of the Contractor to coordinate and obtain also necessary permits and install all required temporary facilities to provide a complete and usable temporary field office.

Minimum requirements for offices:

a. The building may be portable or other suitable type with 7-ft minimum ceiling height; must be floored, weatherproof and reasonably dustproof; must have at least two glazed sliding windows provided with window latches; must have at least one door provided with a substantial lock and all keys placed in the possession of the Engineer. Doors and windows shall be screened. The building need not be new but the facility furnished under this item shall be neat, clean, sound and usable for the purpose intended.

b. The building shall be provided with electric lights and power outlets arranged as directed by the Engineer. The building shall be provided with equipment in good working order. In cold weather the building shall be provided with adequate vented space heating facilities and fuel for heating. In hot

weather the building shall be equipped with adequate air conditioning units. Heating and cooling and telephone utility service will be furnished at no cost to the Owner or Engineer.

c. The building for the field office shall provide not less than 240 sq. ft. of floor space. At least two tables each suitable for desk and drafting table work shall be provided with approximate dimensions of 30" x 48". These tables may be movable, attached to a wall, or built-in. Each table will be provided with at least two drawers (minimum dimensions: 8" deep x 12" wide by 24" long) or equivalent cabinet or shelf space for storing field books and records.

d. The building shall be provided with internet access with a minimum download speed of 24 megabytes per second. This service shall be provided for the length of the contract or construction project, whichever is greater.

Furnishing the field office will not be measured for separate payment, but will be considered subsidiary to "Site Preparation." The building shall remain the property of the Contractor and be returned to him at the close of the construction period.

120-2.3 LIGHTED BARRICADES AND CLOSED TAXIWAY AND RUNWAY MARKINGS. The Contractor shall furnish, install, maintain, and remove closed taxiway and runway markings and lighted barricades in accordance with details on the plans and as directed by the Engineer. ~~The closed runway markers shall be aviation yellow, nylon reinforced vinyl.~~ The markers shall be secured to the pavement/ground as shown on the plans and as directed by the Engineer. The lighted barricades shall be constructed and installed as shown on the plans. All lighted barricades and closed taxiway and runway markings shall be constructed in accordance with AC 150/5370-2F Operational Safety on Airports During Construction.

All work involved in the furnishing, installation, maintenance, and removal of lighted barricades, ***and*** barrels ~~and closed runway markings~~ will not be measured for separate payment, but will be considered subsidiary to the bid item "Site Preparation."

Runway closure markers are as shown in the plans, and are towable to quickly position and remove. Runway closure markers are to include providing a marker for each runway threshold for the closed runway and will be measured in pairs of units as each runway closure marker. All work involved in the furnishing, installation, maintenance, and removal of lighted runway closure markers will be measured by the day – a twenty-four (24) hour period – of when the closure marker is in use on a runway closure.

120-2.4 CONTRACTOR'S ACCESS/HAUL ROAD. The Contractor shall layout, construct, maintain, and repair all access/haul roads needed to construct the work. The contractor shall video the any intended haul routes from the edge of airport property to the construction work areas. The existing access roads shown on the plans shall be repaired, as determined necessary by the Engineer, at the close of the project. All such work, including all materials and labor, involved in the layout, construction, maintenance, and repair of the Contractor's access/haul roads will not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation." Temporary pipe culverts shall be installed and maintained as required and shall be of the size as directed by the Engineer. The type of pipe used for temporary pipe shall be at the option of the Contractor. Temporary pipe culverts will not be measured for separate payment, but will be considered subsidiary to the access/haul road. All temporary pipe culverts shall be removed by the Contractor and shall remain his property at the close of the project.

120-2.5 CONTRACTOR'S STAGING AREAS. The areas designated in the plans or by the Engineer as the Contractor's staging area shall be cleared and graded by the Contractor as needed for use by the Contractor in constructing the work on this project. All areas used or otherwise occupied by the Contractor for his operations shall be cleaned, regraded, and seeded, as directed by the Engineer, prior to the final acceptance of the project by the Airport. All work involved in the preparation and restoration of areas used or occupied by the Contractor, including clearing, grubbing, regrading, seeding, and installing and removing fence, will not be

measured for separate payment but will be considered subsidiary to the bid item "Site Preparation."

120-2.6 LOCKOUT / TAGOUT PROGRAM. The Contractor shall submit a complete copy of an electrical energy source Lockout/Tagout Program in accordance with Part 1910 – Occupational Safety and Health Standards (OSHA) Subpart S – Electrical, that meets the requirements of 29 CFR 1910.147, The Control of Hazardous Energy (Lockout/Tagout), including requirements listed in 1910.331 through 1910.335. Implementation of the Lockout/Tagout Program and the related safety requirements are the sole responsibility of the Contractor.

120-2.7 AIRPORT SECURITY REQUIREMENTS. The Contractor shall abide by the Airport Security requirements that are outlined in the Construction Safety and Phasing Plan (CSPP) of the plans. Any costs associated with the Airport Security requirements will not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation."

120-2.8 AIRPORT SAFETY REQUIREMENTS. The Contractor shall abide by the Airport Safety requirements that are outlined in the Construction Safety and Phasing Plan (CSPP) of the plans. All costs associated with the Airport Safety requirements will not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation."

120-2.9 INSTRUMENT CONTROL. The Contractor will be furnished survey baselines and benchmarks to control the work as shown on the Plans. The Contractor shall be responsible for the additional instrument control necessary to layout and construct the work. The Contractor shall provide the instrument control as provided for in Section 50 of the General Provisions. The Contractor's instrument control of the work shall not be measured for separate payment, but will be considered subsidiary to the bid item "Site Preparation".

120-2.10 CLEAN UP. From time to time, the Contractor shall clean up the site in order that the site presents a neat appearance and that the progress of work will not be impeded. One such clean up shall immediately precede final inspection.

Immediately following acceptance of the work by the Owner, the Contractor shall remove all temporary equipment, surplus materials, and debris resulting from his operations, and leave the site in a condition fully acceptable to the Owner.

MEASUREMENT AND PAYMENT

120-3.1 Site preparation will be measured as a lump sum complete item. Work completed and accepted under this item will be paid for at the contract lump sum price bid for "Site Preparation," which price shall be full compensation for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

120-3.2 Lighted Runway Closure Markers will be paid for at the contract price bid. This price shall be full compensation for furnishing all labor, tools, equipment and incidentals necessary to provide runway closure markers for those periods of time as called for by time of day and work area.

Payment will be made under:

Item SS-120-1	Site Preparation - per Lump Sum

A minimum of two (2) partial payments will be made for Site Preparation up to a limit based on a percentage of the Total Contract Value and not the amount bid. Periodic payments will be made in proportion to the amount of work accepted for payment in monthly pay applications, as outlined in the table below.

Monthly Pay Application Total exceeds	Partial Payment of Site Preparation
1% of total Contract value	50% of Site Preparation, up to 2.5% of total Contract value, less retainage
5% of total Contract value	100% of Site Preparation, up to 5% of total Contract value, less retainage

Any remaining partial payments for "Site Preparation" will be when the work is completed to 95% of the Contract total value.

Item SS-120-2 Lighted Runway Closure Markers – per day

END OF ITEM SS-120

ITEM SS-300 BASIC ELECTRICAL REQUIREMENTS

DESCRIPTION

300-1.1 This item shall consist of furnishing and installing complete electrical systems as defined in the plans and in these specifications. The work includes the installation, connection and testing of new electrical systems, equipment and all required appurtenances to construct and demonstrate proper operation of the completed electrical systems.

300-1.2 The Contractor shall maintain current copies of all referenced and applicable advisory circulars and standards on the job site. The Contractor is responsible to make known to the Engineer any conflict between plans and specifications that he observes or of which he is made aware.

300-1.3 This work shall consist of lockout/tagout and constant current regulator calibration procedures at the airport electrical vault in accordance with the design and details shown in the plans and in compliance with these specification documents.

EQUIPMENT AND MATERIALS

300-2.1 STANDARDS.

a. Applicable National Fire Protection Association (NFPA) codes, including but not limited to:
   (1) NFPA 70 - National Electrical Code.
   (2) NFPA 70E - Standard for Electrical Safety in the Workplace.
   (3) NFPA 101 - Life Safety Code.
   (4) Internet Website: http://www.nfpa.org

b. Applicable Code of Federal Regulations (CFR) codes, including but not limited to:
   (1) 29 CFR 1910 - Occupational Safety and Health Standards (OSHA)
   (2) 29 CFR 1926 - Safety and Health Regulations for Construction.
   (3) Internet Website: http://www.gpoaccess.gov/cfr/index.html

c. ANSI/IEEE C2 - National Electrical Safety Code.

d. NECA 1 – Standard for Good Workmanship in Electrical Construction.

e. Applicable Federal, State and Local Electrical Codes.

f. Applicable Federal, State and Local Energy Codes.

g. Applicable Federal, State and Local Building Codes.

h. Applicable Federal, State and Local Fire Codes.

i. Applicable City Electrical Code.

j. Applicable City Ordinances pertaining to electrical work.

k. Applicable Federal, State and Local - Environmental, Health and Safety Laws and Regulations.

Contractor shall utilize the most current editions of standards, which are current at time of bid and as recognized by the Authority Having Jurisdiction for the respective standard.

300-2.2 GENERAL.

a. Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified and listed under Advisory Circular (AC) 150/5345-53, Airport Lighting Equipment Certification Program, current version on the date that the submittals are received by the Engineer.

b. Airport lighting equipment and materials shall also meet the Buy American Preference requirements in 49 USC 50101 and the Aviation Safety and Capacity Expansion Act. The equipment

shall be approved and listed on the FAA "Equipment Meeting Buy American Requirements" list located at *www.faa.gov/airports/aip/procurement/federal_contract_provisions/*, current version on the date that the submittals are received by the Engineer, or the Contractor may submit a signed formal letter from the manufacturer that clearly lists the specific equipment, model number, location where it is manufactured, and statement certifying that the equipment and/or materials meet the Buy American Preference requirements.

c. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the Engineer. All equipment and materials shall be new and meet applicable manufacturer's standards. All other electrical components and products, not covered under the FAA equipment certification program, shall be tested and listed by an OSHA accepted, nationally recognized testing laboratory (NRTL) to conform to the standards indicated in these contract documents and to the industry standards required in the NEC, NEMA, IEEE, UL, and applicable FAA advisory circulars.

d. Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

e. All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components or electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.

f. The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the Contract Documents plans and specifications. The Engineer reserves the right to reject any and all equipment, materials or procedures, which, in the Engineer's opinion, does not meet the system design and the standards and codes, specified herein.

g. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

(1) All LED light fixtures, with the exception of obstruction lighting, shall be warranted by the manufacturer for a minimum of 4 years after date of installation, final acceptance testing by the Engineer, and Owner's beneficial use of the equipment, inclusive of all electronics. Refer to FAA Engineering Brief No. 67D for additional requirements.

h. Refer to Special Provisions item C-12 Submittals for electronic or paper submittal requirements for Engineer's review.

i. After approval of submitted equipment, the Contractor shall supply the following Operation and Maintenance Manual documentation to the Owner. Two (2) complete sets of documentation shall be supplied for each model of equipment. The documentation shall be securely bound in heavy-duty 3-ring binders. The information for each piece of equipment shall be indexed using typewritten label tabs. The

spine of each binder shall have a typewritten label, which indicates the included equipment types. The documentation shall include:

(1) Approved Submittals and Shop Drawings
(2) Cable Splicer Qualifications, Type and Voltage
(3) State Contractors License with Electrical Classification
(4) Master, Journeyman and Apprentice Electrician Licenses and Certifications
(5) Lockout/Tagout Program
(6) Regulator Load and Calibration Reports for testing, checking and adjusting all regulators in the electrical vault
(7) Megger Test Reports
(8) Ground Rod Test Reports
(9) Installation Manuals
(10) Operation Manuals
(11) Maintenance Manuals
(12) Parts Lists, including recommended spare parts. Recommended spare parts shall be furnished with the respective equipment.
(13) Bolt torque requirement shop drawings and calculations

j. After approval of the O&M Manuals, the Contractor shall provide three (3) complete electronic copies of all documentation in Adobe PDF file format on CD-R (non-rewriteable) discs storage media. The electronic files shall contain searchable text and include a hyperlink index for ease in locating information with the PDF file.

(1) Electronic PDF copies of the O&M manuals shall be saved within a "specific job number and project name" folder on the ALCMS computer system.

k. All requirements herein Item SS-300 shall be applicable to all referenced sections in these contract documents and applicable to all sections which reference Item SS-300.

l. The Contractor is the single source of responsibility for the installation and integration of the airport's lighting, power, and control systems. New airport lighting equipment and materials shall be fully compatible with all other new and existing airport lighting equipment and systems. Any non-compatible components furnished by the Contractor shall be replaced at no additional cost to the Owner with a similar unit that is approved by the Engineer and compatible with the remainder of the airport lighting system.

300-2.3 OPERATION AND MAINTENANCE DATA.

Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment. Provide bound hard copies and electronic copies as noted in section 300-2.2.

a. Certificate of Substantial Completion, Release and Contractor's Affidavit, executed copies.

b. Final approved equipment submittals, including product data sheets and shop drawings, clearly labeled.

c. Preventive maintenance programs for the visual aid facilities and equipment installed in this project, including the applicable equipment sections within Chapter 5 "Preventive Maintenance" from AC 150/5340-26 (latest edition) "Maintenance of Airport Visual Aid Facilities".

d. Installation manuals: Description of function, installation and calibration manuals, normal operating characteristics and limitations, performance curves, engineering data and tests, and complete nomenclature and commercial numbers of all replaceable parts.

e. Operations manuals: Manufacturer's printed operating instructions and procedures to include start-up, break-in, routine and normal operating instructions; regulation, control, stopping, shutdown, and emergency instructions; summer and winter operating instructions; and all programming and equipment settings.

f. Maintenance manuals: Maintenance procedures for routine preventative maintenance and troubleshooting; disassembly, repair, and reassembly; aligning and adjusting instructions.

g. Service manuals: Servicing instructions and lubrication charts and schedules, including the names and telephone numbers of personnel to contact for both routine periodic and warranty service for equipment and materials provided under this Specification.

h. Final test reports, clearly labeled, including but not limited to, insulation resistance test reports, ground rod impedance test reports, cable pulling tension values logs, and equipment certification tests.

i. Final certified calibration sheets for all equipment and instruments, including but not limited to, constant current regulator calibration reports.

300-2.4 WIRE.

Unless otherwise indicated, conductors No. 10 AWG and smaller shall be solid, and conductors No. 8 AWG and larger shall be stranded.

For electrical work of 600 volts or less, all conductors, terminations, terminal blocks, lugs, connectors, devices and equipment shall be listed, marked, and rated 75 degrees C minimum unless otherwise noted.

Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips that will not damage cables or raceway. Pull ropes and pull wires shall have sufficient tensile strength for the cable(s) to be pulled and installed. Damaged cable or raceway shall be replaced at no additional cost to the Owner.

Install pull wires in empty raceways. Use a polypropylene plastic line with not less than 200 pound tensile strength. Secure and leave at least 12 inches of slack at each end of pull wire to prevent it from slipping back into the conduit. Cap spare raceways with removable tapered plugs, designed for this purpose.

Colorable L-824 cable in solid non-fading colors shall not be used for permanent series circuit identification.

300-2.5 CONCRETE. Concrete shall conform to Item P-610, Structural Portland Cement Concrete, with a minimum 28-day compressive strength of 3500 PSI (unless otherwise noted) using 1-inch (25-mm) maximum size coarse aggregate, as determined by test cylinders made in accordance with ASTM C 31 and tested in accordance with ASTM C 39.

Flowable backfill material may only be used where specifically indicated in the Plan details.

300-2.6 BEACON BATTERY BACKUP SYSTEM. The battery backup system for the beacon shall provide a minimum runtime of twelve (12) hours and shall be provided with a NEMA 3R rated weatherproof enclosure, exterior indicator lights, and automatic battery testing. The system shall consist of batteries, inverter, control panel, and surge suppression for a full and complete system. The system components shall be provided by a single manufacturer. The system shall be provided with a three (3) year warranty. The Contractor shall submit wiring diagrams and shop drawings for review and approval prior to construction.

CONSTRUCTION METHODS

300-3.1 LOCKOUT/TAGOUT PROGRAM. The Contractor shall provide a complete copy of an electrical energy source Lockout/Tagout Program to the Owner, with copy to the Engineer. The document shall clearly identify the on-site master electricians and their contact information, including office and mobile telephone numbers.

The Lockout/Tagout Program shall comply with Part 1910 – Occupational Safety and Health Standards (OSHA) Subpart S – Electrical, and meet the requirements of 29 CFR 1910.147, The Control of Hazardous Energy (Lockout/Tagout), including requirements listed in 1910.331 through 1910.335.

Implementation of the Lockout/Tagout Program and all other related safety requirements are the sole responsibility of the Contractor.

300-3.2 SAFETY PROGRAM. The Contractor shall implement an electrical safety program that complies with NFPA 70E and 29 CFR 1926.

Implementation of the Electrical Safety Program, determining and providing proper Personal Protective Equipment (PPE), training and enforcing personnel to wear the prescribed PPE, conducting work area safety inspections (including correcting deficiencies), and all other related safety requirements are the sole responsibility of the Contractor.

All work involved in the preparation and implementation of the safety program will not be measured for separate payment, but will be considered subsidiary to the lockout/tagout bid item.

300-3.3 PRECONSTRUCTION MEETING.

A preconstruction meeting will be held with the Airport, FAA, Engineer and Contractor, prior to any work. Complete submittals and shop drawings will be submitted at this time for review. An equipment procurement schedule will be provided by the Contractor with an anticipated field construction start date. The progress construction schedule will be submitted for review each week and shall outline all installation, testing and demolition work.

300-3.4 GENERAL. In general, the various electrical equipment and material to be installed by the various trades under this specification shall be run as indicated, as specified herein, as required by particular conditions at the site, and as required to conform to the generally accepted standards so as to complete the work in a neat and satisfactory manner. The following is a general outline concerning the running of various systems and is to be excepted where the drawings or conditions at the buildings necessitate deviating from these standards.

The drawings and specifications are complementary; any work required by one, but not by the other, shall be performed as though required by both.

All conduits shall be run exposed in the equipment rooms, or run concealed as indicated.

The construction details of the building are illustrated on the drawings. Each Contractor shall thoroughly acquaint himself with the details before submitting his bid as no allowances will be made because of the Contractor's unfamiliarity with these details.

The electrical plans do not give exact locations, etc., and do not show all the offsets, control lines, junction boxes, and other installation details. Each Contractor shall carefully lay out his work at the site to conform to the job conditions, to conform to details of installation supplied by the manufacturers of the equipment to be installed, and thereby to provide complete operating systems.

The electrical plans show diagrammatically the locations of the various electrical outlets and apparatus and the method of circulating and controlling them. Exact locations of these outlets and apparatus shall

be determined by reference to the general plans and to all detail drawings, etc., by measurements at the buildings, and in cooperation with other crafts, and in all cases shall be subject to the approval of the Engineer. The Engineer reserves the right to make any reasonable change in location of any outlet or apparatus before installation, without additional cost to the Owner.

These Specifications and the accompanying Drawings are intended to cover systems which will not interfere with the structure of the buildings, which will fit into the several available spaces, and which will insure complete and satisfactory systems. Each bidder shall be responsible for the proper fitting of his material and apparatus into the buildings.

Should the particular equipment which any bidder proposes to install require other space conditions than those indicated on the Drawings, he shall arrange for such space with the Engineer before submitting his bid. Should changes become necessary on account of failure to comply with this clause, the Contractor shall make such changes at the Contractor's expense.

Should the particular equipment which any bidder proposes to install require other installation methods, such as larger light base junction structures, etc., he shall include all such equipment and appurtenances in his bid. Should changes become necessary on account of failure to coordinate equipment requirements and comply with this clause, the Contractor shall make such changes at the Contractor's expense.

The Contractor shall be responsible to see that each party furnishes electrical equipment which meets the electrical requirements specified herein and that all systems work together to produce the specified operation.

Where two or more units of the same kind or class of equipment are required, these shall be products of a single manufacturer; however, the component parts need not be the products of one manufacturer.

Each Contractor shall submit working scale drawings of all his apparatus and equipment which in any way varies from these Specifications and Plans, which shall be checked by the Engineer and approved before the work is started, and interferences with the structural conditions shall be corrected by the Contractor before the work proceeds.

Electrical equipment, such as switchgear, switchboards, panelboards, load centers and other power supply equipment, shall not be used as a common enclosure, pull box or junction box for routing conductors of different systems, unless the equipment is specifically designed for this purpose and indicated as such on the Plans.

All electrical equipment shall be securely mounted as indicated in the plans, as required by the contract specifications, as required by guidelines and codes, and as required by the manufacturer using hardware compliant with the environmental conditions.

Interior components of electrical enclosures shall be securely mounted using appropriate hardware within the enclosure. Adhesives or adhesive tapes/strips are not allowed and are prohibited.

Electrical components, including but not limited to, relays, circuit boards, electronics, etc, shall be installed within approved enclosures.

The Contractor shall keep ends of conduits, including those extending through roofs, equipment and fixtures covered or closed with caps or plugs to prevent foreign material from entering during construction.

Where portions of raceways are known to be subjected to different temperatures, where condensation is a problem, and where passing from interior to exterior of a building, the portion of raceway or sleeve shall be filled with an approved material to prevent the circulation of air, prevent condensation, and prevent

moisture entry. Sealing of raceways shall not occur until after the conductors and cables have been installed, tested and accepted by the Engineer.

The Contractor shall install any temporary lines and connections required to maintain electric services and safely remove and dispose of them when complete.

All temporary wiring shall conform to OSHA standards. Remove temporary services when work is complete. Any damage to electrical equipment caused by the Contractor shall be repaired at no cost to the Owner.

All non-current carrying parts and neutrals shall be grounded as indicated on the Drawings or as required by the Codes.

White and/or gray outer finish conductors may only be used as grounded conductors or neutral conductors in accordance with NEC.

Install insulated green equipment grounding conductors with all feeder and branch circuits.

Provide separate insulated equipment grounding conductors from grounding system to each electrical equipment, telecommunication equipment, other special electrical system equipment, and appurtenance item location in accordance with NFPA 70 and other applicable standard requirements.

The bidder shall inspect the site, thoroughly acquaint himself with conditions to be met and work to be accomplished. Failure to comply with this shall not constitute grounds for any additional payments.

Where electrical equipment is installed that causes electrical noise interference with other systems either existing or installed under this contract, the offending equipment shall be equipped with isolating transformers, filters, reactors, shielding, or any other means as required for the satisfactory suppression of the interferences, as determined by the Engineer.

All junction boxes, expansion joints, flexible connections, instruments and similar items requiring servicing or repairs shall be installed in an accessible location.

All salvage and equipment removed by the work shall remain the property of the Owner. Material removed from the project shall be stored on the project site where and as directed. Debris shall be removed from the job site and disposed of by the Contractor.

The Contractor shall maintain his work area clean and orderly at all times. Debris shall be removed promptly. The electrical system shall be thoroughly cleaned inside and outside of all enclosures to remove all metal shavings or other work debris, dust, concrete splatter, plaster, paint and lint.

The Contractor shall do all excavating and backfilling made necessary by electrical work and shall remove all surplus or supply any earth required to establish the proper finished grade.

The Contractor shall do all cutting and patching made necessary by electrical work, but in no case shall he cut through or into any structural member without written permission of the Engineer.

All steel conduits, supports, channels, fittings, nuts, bolts, etc. shall be galvanized, corrosion-resistant type unless otherwise noted.

An approved anti-seize compound shall be used on all threads to prevent equipment and thread damage.

Equipment shall be installed in accordance with manufacturer's recommendation. Make all final electrical connections and coordinate all items with other trades.

Correct unnecessary damage caused due to installation of work, brought about through carelessness or

lack of coordination. All openings, sleeves, and holes to be properly sealed, fire proofed and water proofed. Any water leaks arising from project construction will be immediately corrected to the satisfaction of the Owner and the Engineer.

300-3.5 BACKFILL, COMPACTION, AND RESTORATION. Refer to the backfill, compaction and restoration requirements within Item P-152 where other compaction requirements are specified (under pavements, embankments, etc.)

Trenches shall be backfilled and compacted in 6" layers to 90% maximum density for cohesive soils and to 100% maximum density for non-cohesive soils, as determined by ASTM D1557. The in-place field density shall be determined in accordance with ASTM D1556, D2167, or D6938.

Backfilling from two directions will not be allowed. No backfilling will be accomplished without the approval of the Engineer or Construction Observer. The Contractor shall ensure all trenches are inspected prior to being covered and prior to encasement. Any uninspected trenches which are prematurely covered shall be exposed for inspection at the Engineer and Owner's convenience at no additional cost to the Owner. The Construction Observer will coordinate with the Contractor for advance scheduling of trench inspection.

Following restoration of all trenching near airport movement surfaces, the Contractor shall thoroughly visually inspect the area for foreign object debris (FOD), and remove any such FOD that is found. This FOD inspection and removal shall be considered incidental to the pay item of which it is a component part.

All concrete/asphalt pavement removal and repair work shall be installed as separate pay items in accordance with Specification P-101 Surface Preparation.

The subgrade below the removed pavement shall be compacted to 90% maximum density for cohesive soils and to 100% maximum density for non-cohesive soils, as determined by ASTM D1557. The in-place field density shall be determined in accordance with ASTM D1556, D2167, or D2922. Subgrade preparation will not be measured for separate payment, but will be considered subsidiary to Specification P-101 Surface Preparation.

300-3.6 CABLE AND UTILITY COORDINATION. The existing and the proposed locations of lighting cable are approximate. The Contractor shall be responsible for field locating and identifying the existing lighting circuits to determine their exact routing. The Contractor shall also be responsible for maintaining the lighting systems in a working condition until the new lighting circuits have been installed and tested. The Contractor shall proactively and expeditiously accomplish this cable identification work prior to performing any modifications to the lighting circuits. Coordinate identification work with the Owner and Engineer and make all corrections, additions, etc. on the as-built drawings.

Underground cable and utilities exist within and adjacent to the limits of construction. An attempt has been made to locate these cables and utilities on the Plans. All existing cable and utilities may not be shown on the Plans and the location of the cables and utilities shown may vary from the location shown on the Plans. Prior to beginning of any type of excavation, the Contractor shall contact the utilities, the airport maintenance staff, FAA field personnel and other organizations as required and make arrangements for the location of the utilities on the ground. The Contractor shall maintain the cable and utility location markings until they are no longer required.

The Contractor shall replace or repair any underground cable or utility that has been damaged by the Contractor during excavation to the satisfaction of the owner of the cable or utility at no additional cost to the Owner.

300-3.7 5 kV CABLE CONNECTIONS.

Cable splicing/terminating personnel shall be licensed electricians who have the minimum continuous experience in terminating/splicing medium voltage cable as listed in Item L-108. The qualifications for these airfield lighting cable splicers shall be submitted for review and approval by the Engineer prior to any work. The Engineer may request sample splices be performed in his presence by the proposed personnel to clearly demonstrate that they have the skill and experience to perform this work. Connector kits and cables shall be provided in sufficient quantity by the Contractor in demonstrating these qualifications at no additional cost to the Owner.

Field-attached plug-in splices using FAA certified L-823 plug and receptacle connector kits, properly sized to the cable being used, shall be installed as shown in the plans. This work shall include the taping and heat shrinking. Refer to Item L-108 for additional requirements.

As an option, the Contractor may utilize enhanced FAA certified L-823 connector kits, such as the Amerace 54Super Kit. These kits do not require taping or heat shrinking. These kits shall be installed in accordance with the manufacturer's installation requirements. Note that the mixing of connector kits is unacceptable. The Contractor shall clearly list and submit the connector kits he proposes to utilize on the project for approval prior to any field construction work, and he shall only install that type during construction unless otherwise noted by the Engineer.

300-3.8 REMOVAL AND RELOCATION OF EXISTING EQUIPMENT. The Contractor shall carefully remove all salvageable equipment as indicated on the Plans. Any equipment which is damaged during the removal operation shall be subject to a reduction in payment for removal of the equipment. All equipment which is removed during this project shall be transported to a site on the Airfield or removed from the Airfield and properly disposed of as directed by the Owner and the Engineer.

The Contractor shall carefully relocate existing equipment as indicated in the Plans. Any equipment that is damaged during the relocation operation shall be replaced at no additional cost to the Owner.

Any existing electrical equipment, conduit, cables, etc. that is damaged during construction shall be replaced at no additional cost to the Owner to the satisfaction of the Owner and the Engineer.

300-3.9 CERTIFICATION AND PERFORMANCE. Equipment and materials covered by FAA Advisory Circulars are referred to by item numbers and approved equipment is listed within the AC 150/5345-53 Airport Lighting Equipment Certification Program's monthly Addendum, which contains a complete and updated listing of the certified equipment and manufacturers, and is listed in the FAA Buy American Preference equipment list, which is also updated monthly. The Contractor shall provide and install new certified equipment that works reliably and efficiently with the existing equipment to remain in service. The Contractor shall provide any additional accessories and/or appurtenances required to provide fully functional electrical systems to the satisfaction of the Owner and Engineer, at no additional cost to the Owner.

The Contractor shall ascertain that all lighting system components furnished (including FAA certified and approved equipment) are compatible in all respects with each other and the remainder of the new and existing systems. Any non-compatible components furnished by the Contractor shall be replaced at no additional cost to the Owner with a similar unit that is approved by the Engineer and compatible with the remainder of the airport lighting system.

300-3.10 AS-BUILT DRAWINGS. Before work is started, the Contractor shall obtain at his expense one (1) full-sized set of prints for As-Built records; the Engineer will supply the tracings at printing cost to the Contractor.

The Contractor shall locate all underground and concealed work, identifying all equipment, conduit, circuit numbers, motors, feeders, breakers, switches, and starters. The Contractor will certify accuracy by endorsement. As-Built drawings shall be correct in every detail, so Owner can properly operate, maintain, and repair exposed and concealed work.

The As-Built drawings shall indicate all control system labeling and marking.

The Contractor shall store the As-Built drawings on the site. Drawings shall not be rolled. Make corrections, additions, etc., with pencil, with date and authorization of change.

As-Built drawings must be submitted to Engineer before project will be accepted.

Minor deviations from the Plans and Specifications shall be as approved by the Engineer.

Upon completion of the installation, the Contractor shall adjust the systems to the satisfaction of the Engineer.

300-3.11 TESTING.

General Electrical Testing: Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification and certify compliance with test parameters. Tests shall be conducted in the presence of the Engineer and shall be to his/her satisfaction. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest. Perform infrared scan tests and inspections of service and power distribution equipment at the respective hangars and provide reports. Electrical equipment will be considered defective if it does not pass tests and inspections. Reports shall include notations of deficiencies, remedial action taken and observations after remedial action.

System and Equipment Testing: All installations shall be fully tested by continuous operation for not less than 24 hours as completed systems prior to acceptance. These tests shall include the functioning of each control not less than 10 times.

Airport lighting equipment and special systems shall be tested in accordance with applicable FAA Advisory Circular requirements and the manufacturer's installation instructions. These tests shall also include those system requirements listed within AC 150/5340-26 Maintenance of Airport Visual Aid Facilities.

Test equipment and instruments utilized by the Contractor shall have been calibrated following the manufacturer's recommended schedule to verify their accuracy prior to performing the testing work. The Contractor shall provide instrument calibration certificates on test equipment when requested by the Engineer. Retesting work due to inaccurate or defective instruments shall be performed by the Contractor to the satisfaction of the Engineer at no additional cost to the Owner.

a. Regulator Calibration:

The Contractor shall check and calibrate both new and existing regulators utilizing the enclosed "Constant Current Regulator Calibration Report". Refer to the material section on constant current regulators for additional requirements.

New regulators are calibrated at the factory prior to shipping, while existing regulators typically need checks and calibrations on a routine basis so that they do not get out of tolerance. The intent is to check and/or calibrate these regulators using a high accuracy meter prior to energizing and placing the airfield lighting system in service.

Utilize a high accuracy true RMS ammeter with high accuracy clamp-on current probe when making these measurements (use round type probes, accuracy + or – 2% required, sized per the cable diameter and circuit ampacity to achieve the best accuracy). Adjust regulators per manufacturer's instructions to meet the output currents on each brightness step as listed in Tables 5-2 and 5-3 in AC 150/5340-26.

b. Megger Testing:

The Contractor shall perform megger testing on each existing regulator circuit prior to any work on the electrical system. This information shall be recorded and documented by the Contractor and submitted to the Engineer. The Contractor shall perform megger tests on each regulator circuit after the acceptance test period. This acceptance test information shall be recorded and documented by the Contractor and submitted to the Engineer. Megger test shall be performed in accordance with the requirements of Item L-108.

The Contractor shall submit his initial megger test reports on the enclosed "Insulation-Resistance Test Report" form prior to any work on the electrical system. This report shall be submitted to the Engineer and approved by the Owner prior to Contractor proceeding with his work.

After final acceptance testing has been completed, the Contractor shall complete and submit his final megger test reports to the Engineer and insert copies of the initial and final megger test reports in the Operation and Maintenance Manuals.

Megger testing shall be performed using an insulation meter, such as a Fluke 1507 Insulation Resistance Multimeter, Ideal 61-797 Digital Insulation Meter, or approved equal having an insulation test range up to 10 Gigohms or greater.

Insulation resistance testers for 5kV series circuits shall utilize the 1000V DC source output for testing. The test equipment shall be submitted for review and approval by the Engineer prior to performing the tests.

The Contractor shall be responsible to maintain an insulation resistance equal to minimum 80% of the initial testing value through the end of the contract warranty period. This requirement is based on AC 150/5340-26C which states that resistance values inevitably decline over the service life of the circuit and that a 10-20 percent decline per year is considered normal. Note that AC 150/5340-26C cancels AC 150/5340-26B; thus refer to the current edition of the maintenance AC for requirements in this project.

For existing circuit insulation resistance requirements, refer to "Existing Circuits" section of Item L-108.

The installations shall be tested in operation as a completed unit prior to acceptance. Tests shall include taking megger and voltage readings in accordance with manufacturer's requirements. Testing equipment shall be furnished by the Contractor. The insulation resistance to ground for 600V rated cables shall be not less than 100 Megohms when measured per NETA standards.

c. Ground Rod Impedance Testing:

The enclosed "Ground Rod Impedance Test Report" form shall be used and testing shall be performed in the presence of the Engineer.

As-Built drawings shall indicate the location of all installed ground rods. Each ground rod shall have a unique identifier that corresponds with its submitted ground impedance test report.

Three-pole fall-of-potential testers that can measure the ground resistance of a ground rod using auxiliary electrodes (staked testing), such as a Fluke 1621 Earth Ground Tester, shall be used for testing individual dedicated equipment ground rods at fixtures and equipment, or for testing isolated counterpoise ground rods not yet connected to the counterpoise wire.

Clamp-on testers that can measure the ground resistance of a ground rod without using auxiliary ground rods (stakeless testing), such as a Fluke 1630 Earth Ground Clamp Meter or approved equal, shall be used for testing counterpoise ground rods which have already been connected to the counterpoise wire, or ground ring ground rods which have already been connected to the established ground ring system.

Ground impedance test equipment shall be submitted for review and approval by the Engineer prior to performing the tests.

If the ground rod's impedance exceeds 25 ohms, an additional rod shall be driven in a location suitable and approved by the Engineer. However, the additional rod must satisfy the requirements of NEC 250.53 and not be less than 6 feet away from any other ground rod electrode. Additional ground rods shall not be measured for separate payment but shall be considered subsidiary to the counterpoise or respective equipment pay item.

The Contractor shall perform additional tests if required and requested by the Engineer at no additional cost.

The Contractor shall coordinate with the resident Engineer to approve tests daily before proceeding. The Contractor shall fill out a separate test report for each date. Test reports shall be submitted weekly to the Engineer.

d. Cable Pulling Tension Values Log:

The enclosed "Cable Pulling Tension Values Log" form shall be used for monitoring cable pull tension values in the presence of the Engineer. Refer to Item L-108 for additional requirements.

For airport rotating beacons, test the completed beacon installation using approved photometric testing equipment. Beacons that require an additional shield or other device to prevent light spillage and thus affect photometric performance shall not be used.

300-3.12 INSPECTION FEES AND PERMITS. Obtain and pay for all necessary permits and inspection fees required for electrical installation.

300-3.13 WORK SUPERVISION.

State of Texas: The electrical contractor (whether the general contractor or a subcontractor) shall be a licensed contractor in the state of Texas having an electrical classification suitable for performing the work required in these contract documents.

The Contractor shall designate in writing the qualified electrical supervisor who shall provide supervision to all electrical work on this project. The minimum qualifications for the electrical supervisor shall be a master electrician as defined by Texas Electrical Safety and Advisory Board. The supervisor or his appointed alternate possessing at least a journeyman electrician license shall be on site whenever electrical work is being performed. The qualifications of the electrical supervisor shall be subject to approval of the Owner and the Engineer.

All master and journeyman electricians shall be licensed in accordance with Texas Board Requirements. The website located at http://www.license.state.tx.us publishes the text of this statutory requirement. No unlicensed electrical workers shall perform electrical work on this project. Apprentice electricians in a ratio of not more than one apprentice per journeyman electrician will be allowed if the apprentices are licensed and actively participating in an apprenticeship program recognized and approved by the Texas Electrical Safety and Advisory Board.

Refer to specification section L-108-2.5 "Splicer Qualifications" for additional requirements.

300-3.14 TRAINING. The training classes shall be coordinated with the Owner and Engineer in advance of the final acceptance testing. Comprehensive operational and maintenance training materials shall be provided by the equipment manufacturer and the Contractor (see section 2.3 OPERATION AND MAINTENANCE DATA).

a. Operations and Maintenance:
   (1) Provide a minimum of one (1) 4-hour class for training.
   (2) The class size shall be maximum of 4 people.
   (3) The location will be at the discretion of the Airport.
   (4) Equipment
      i. L-861T Taxiway Edge Light
      ii. L-850C Flush-Mounted Runway Edge Light
      iii. L-858 Guidance Signs
      iv. L-867 Junction Structures
      v. L-830 Isolation Transformers
      vi. L-823 Connectors
   (5) Provide O&M Manuals for all equipment.
   (6) Review troubleshooting practices.

b. Preventive Maintenance Program Recommendations
   (1) Equipment:
      i. L-861T Taxiway Edge Light
      ii. L-850C Flush-Mount Runway Edge Light
      iii. L-858 Guidance Sign
      iv. L-830 Isolation Transformers
      v. L-823 Connectors
   (2) Review Failure scenarios and what to do.
   (3) Provide technical assistance points of contact and phone numbers.

Schedule the training with the Owner at least 10 days in advance and notify the Engineer.

Provide hands-on demonstrations and training of equipment components and functions, including adjusting, operating and maintaining the lighting equipment and systems. Coordinate the training schedule with the Owner in advance, so that the Owner may record the training if desired. Provide 4-hours training for the operational personnel and 4-hours training for the maintenance personnel.

METHOD OF MEASUREMENT

300-4.1 The quantity of lockout/tagout and constant current regulator calibration procedures to be paid for shall consist of all lockout/tagout procedure work and all constant current regulator calibration work completed in place, accepted and ready for operation. This item does not include measurement for constant current regulator equipment.

300-4.2 The quantity of beacon battery backup system to be paid for shall consist of all work to install the new beacon battery back system along with all accessories and appurtenances for a complete and full operational system, accepted and ready for operation.

BASIS OF PAYMENT

300-5.1 Payment will be made at the contract unit price for each complete item, measured as provided above, and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item to the satisfaction of the Engineer.

Payment will be made under:

Item SS-300-5.1	Lockout/Tagout and Constant Current Regulator Calibration Procedures – per Lump Sum
Item SS-300-5.2	***Beacon Battery Backup System – per Lump Sum***

MATERIAL REQUIREMENTS

Fed.Spec.J-C-30	Cable and Wire, Electrical (Power, Fixed Installation)
Fed. Spec. W-C-1094	Conduit and Conduit Fittings; Plastic, Rigid
Fed. Spec. W-P-115	Panel, Power Distribution
Fed. Std. 595	Colors
Underwriters Laboratories Standard 6	Rigid Metal Conduit
Underwriters Laboratories Standard 514	Fittings for Conduit and Outlet Boxes
Underwriters Laboratories Laboratories Standard 651	Schedule 40 and 80 Rigid PVC Conduit (for Direct Burial)
Underwriters Laboratories Standard 1242	Intermediate Metal Conduit
CFR 1910	Occupational Safety and Health Regulations
CFR 1926	Safety and Health Regulations for Construction
ANSI/IEEE C2	National Electrical Safety Code
NFPA 70	National Electrical Code (NEC)
NFPA 70E	Standard for Electrical Safety in the Workplace
NFPA 101	Life Safety Code
NFPA 780	Standard for the Installation of Lightning Protection Systems
29 CFR 1910	Occupational Safety and Health Standards (OSHA)
29 CFR 1926	Safety and Health Regulations for Construction
Jaquith Industries, Inc.	The Design, Installation, and Maintenance of In-Pavement Airport Lighting

FAA ADVISORY CIRCULARS

AC 150/5300-13	Airport Design
AC 150/5340-18	Standards for Airport Sign Systems
AC 150/5340-26	Maintenance of Airport Visual Aid Facilities
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-3	Specification for L-821 Panels for Control of Airport Lighting
AC 150/5345-5	Specifications for Airport Lighting Circuit Selector Switch
AC 150/5345-7	Specification for L-824 for Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-10	Specification for Constant Current Regulators and Regulator Monitors
AC 150/5345-26	Specification for L-823 Plug and Receptacle, Cable Connectors
AC 150/5345-28	Standard for Precision Approach Path Indicator (PAPI) Systems
AC 150/5345-39	Specification for L-853 Runway and Taxiway Retroreflective Markers
AC 150/5345-42	Specification for Airport Light Base and Transformer Housings, Junction Boxes, and Accessories
AC 150/5345-44	Specification for Taxiway and Runway Signs
AC 150/5345-46	Specification for Runway and Taxiway Light Fixtures
AC 150/5345-47	Isolation Transformers for Airport Lighting Systems
AC 150/5346-49	Specification L-854, Radio Control Equipment
AC 150/5345-51	Specification for Discharge-Type Flashing Light Equipment
AC 150/5345-53	Airport Lighting Equipment Certification Program
AC 150/5345-56	Specification for L-890 Airport Lighting Control and Monitoring System (ALCMS)

END OF ITEM SS-300

CONSTANT CURRENT REGULATOR CALIBRATION REPORT

Standard Requirements: FAA AC 150/5340-26 (latest edition) Maintenance of Airport Visual Aid Facilities

Owner / Sponsor: _____ Engineer: Garver, LLC

Airport: _____ Contractor: _____

Project Title: _____ Garver Project Number: _____

Vault ID / Location: _____ Date: _____

Weather / Site Conditions: _____ Last Two Weeks of Rain: _____ inches

Constant Current Regulator #: _____ Serves: _____

	Completed	Comments
1. Check all control equipment for proper operation.	☐	_____
2. Perform short-circuit test. Record results and recalibrate if necessary.	☐	_____
3. Perform open-circuit test on regulators with open circuit protection. Open circuit protective device should de-energize the regulator. Record results.	☐	_____
4. Check and record regulator input voltage and current.	☐	_____
Input Voltage: _____ Input Current: _____		
5. Check and record regulator output load. (ONLY if regulator has monitoring package)	☐	_____
Volt-Amperes: _____		
6. Check and record output current on each brightness step. If output current is outside of the allowable range, adjust the regulator's on-board potentiometer to re-calibrate the output current within the allowable range. Re-record the new output current on this form.	☐	_____

3-Step CCR: B10: _____ B30: _____ B100: _____

5-Step CCR: 1: _____ 2: _____ 3: _____ 4: _____ 5: _____

Nominal:	4.8A	5.5A	6.6A	2.8A	3.4A	4.1A	5.2A	6.6A

Tested By: _____ (Signature and Date)

Test Equipment: _____ (Manufacturer and Model No.)

Engineer Witness: _____ (Signature and Date)

Owner / Sponsor Witness: _____ (Signature and Date)

INSULATION RESISTANCE TEST REPORT

Owner / Sponsor:_____ Engineer: Garver, LLC

Airport:_____ Contractor: _____

Project Title: _____ Garver Project Number: _____

Vault ID / Location: _____ Date Initial / Final Tests: _____

Weather / Site Conditions (Initial Test): _____ Last Two Weeks of Rain:_____inches

Weather / Site Conditions (Final Test): _____ Last Two Weeks of Rain:_____inches

		Initial Test Results		Final Test Results	
	Circuit Designation and Color Code	Regulator Size (kW)	Megger Reading Before Field Work (Megohms)	Regulator Size (kW)	Megger Reading After Field Work (Megohms)
1					
2					
3					
4					
5					
6					
Tested By:					
Test Equipment:					
Engineer Witness:					
Owner/Sponsor Witness:					

Provide signature/date and manufacturer/model no. as required in the fields above.

Initial Test Record – Owner Disposition

Owner / Sponsor: _____ (Signature and Date)

Check one only: ☐ Proceed with Installation ☐ Hold

GROUND ROD IMPEDANCE TEST REPORT

Owner / Sponsor: _____

Airport: _____

Project Title: _____

Date: _____

Fall-of-Potential Style Tester (F):
Manufacturer: _____

Clamp-On Style Tester (C):
Manufacturer: _____

Engineer: Garver, LLC

Contractor: _____

Garver Project Number: _____

Weather / Site Conditions: _____

Model #: _____

Model #: _____

Ground Rod #	Test Equipment Style (F or C)	Impedance Value (Ohms)	Ground Rod #	Test Equipment Style (F or C)	Impedance Value (Ohms)

Tested By:	
Engineer Witness:	

Provide signature/date in the fields above.

Page _____ of _____

CABLE PULLING TENSION VALUES LOG

Owner / Sponsor: _____

Engineer: Garver, LLC

Airport: _____

Contractor: _____

Project Title: _____

Garver Project Number: _____

Date: _____

Weather / Site Conditions: _____

Dynamometer Manufacturer/Model #: _____

Cable / Wire Manufacturer: _____

From / To Locations	Wire/Cable Size	Length of Pull	Pull Method	Maximum Value	Measured Value

Tested By:	
Engineer Witness:	

Provide signature/date in the fields above.

Page _____ of _____

ITEM SS-301 ELECTRICAL DEMOLITION AND RELOCATION WORK

DESCRIPTION

301-1.1 This item shall consist of the removal and satisfactory disposal of existing runway and taxiway edge lights, in-pavement lights, guidance signs, markers, manholes, handholes, junction structures, racks, pads, equipment, poles, towers, shelters, and other incidentals, all of which are not designated or permitted to remain, in accordance with this specification, the referenced specifications and drawings, and applicable advisory circulars. This work shall include the removal of indicated equipment, materials, and incidentals necessary for a complete item removal, including all restoration work, as a completed unit to the satisfaction of the Engineer.

301-1.2 Additional details pertaining to the lighting system covered in this item are contained in the advisory circular, AC 150/5340-30, Design and Installation Details for Airport Visual Aids.

301-1.3 The Contractor shall maintain current copies of all referenced and applicable advisory circulars on the job site. The Contractor is responsible to make known to the Engineer any conflict between plans and specifications that he observes or of which he is made aware.

MATERIALS

301-2.1 All backfill and repair materials used in electrical demolition, repair and restoration work shall comply with the referenced specifications and be approved by the Engineer.

Airport lighting equipment and materials shall meet the requirements outlined in Item SS-300.

CONSTRUCTION METHODS

301-3.1 GENERAL. No demolition shall be started until the removal and/or relocation work has been laid out and approved by the Engineer. All material shall be disposed of off-site. All hauling and disposal will be considered a necessary and incidental part of the work. Hauling cost shall be considered by the Contractor and included in the contract unit price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work.

The Contractor shall remove all existing underground cable, which is unused or rendered unusable by this project, when such is exposed or made accessible during the course of this work. All such wiring removed shall become property of the Contractor and shall be immediately removed from the project. Wiring in conduit shall be removed as indicated or if new wiring is shown to be installed in its place. Existing wiring shall not be reused or reinstalled.

Wiring not exposed shall be abandoned in place, if a reasonable effort will not remove it. No measurement or payment will be made for this cable removal work. Damage to turf or other systems will not be permitted in order to salvage or retrieve existing cable.

Any damage to electrical equipment, systems, structures, conduits, cables, and accessories or other utilities, designated to remain in place, shall be repaired or replaced expeditiously at no additional cost to the Owner and to the satisfaction of the Owner and Engineer.

Holes, ditches, or other abrupt changes in elevation caused by the removal operations that could obstruct drainage or be considered hazardous or unsightly shall be backfilled, compacted, and left in a workmanlike condition.

Trenches or voids resulting from the removal or demolition of existing electrical equipment or other structures shall be filled with approved material placed in layers in accordance with Item P-152.

Concrete foundations and pads to be removed shall be obliterated full depth.

301-3.2 REMOVAL AND/OR RELOCATION OF LIGHT FIXTURES AND EQUIPMENT. Light fixtures and other equipment which are to be removed shall be carefully excavated. All concrete bases and concrete anchors shall be removed by the Contractor. The removed lights, guidance signs, isolation transformers and wiring harnesses shall then be given to the Owner, or properly disposed of if so directed by the Owner. The ground in the area of the removed lighting equipment shall be backfilled and properly compacted. Light fixtures and equipment which are to be relocated shall be stored on site and reinstalled with new lamps, new transformers, and all other new required accessories as indicated in the plans.

301-3.3 REMOVAL OF EXISTING EQUIPMENT. The Contractor shall carefully remove all salvageable equipment as indicated in the plans. Any equipment that is damaged during the removal and/or relocation operation shall be subject to a reduction in payment for removal and/or relocation of the equipment. All equipment that is removed during this project shall be transported to a site on the Airfield or removed from the Airfield and properly disposed of as directed by the Owner and the Engineer.

301-3.4 RELOCATION OF EXISTING EQUIPMENT. Existing equipment that is to be relocated shall be carefully disconnected from the existing electrical system. The equipment shall be stored on site in an enclosed area protected from the weather as directed by the Owner and Engineer. The Contractor shall remove existing concrete bases and shall backfill and compact these areas to match existing. The electrical power circuit shall be field located and extended to the new installation location unless otherwise noted in the Plans. Coordinate the extension of the electrical service with the extension of the electrical duct serving the equipment and install duct, splice and cable markers to mark the new complete route.

Refer to the plans for additional installation requirements concerning the relocation of existing lights, signs, systems and incidentals.

METHOD OF MEASUREMENT

301-4.1 The quantity of existing beacons, removed, to be measured under this item shall be the number of each complete unit removed, and accepted by the Engineer. This item shall include removing the beacon and its accessories, removing existing conduits, conductors and appurtenances from the existing pole, removal of conduit to below grade, and removal of existing circuits back to source.

301-4.2 The quantity of existing lights or guidance signs, removed, to be measured under this item shall be the number of each complete unit removed, and accepted by the Engineer.

This item shall include removing and storing the existing equipment as directed by the Engineer.

Where the light base and concrete structure are indicated to be removed or demolished, the item shall include restoring the area to match existing, including removing the complete concrete item, filling and tamping all holes with earth, and clearing and leveling the site.

Where the light base and concrete structure are to remain, a new blank cover shall be installed for protecting the light base during the construction work. Blank covers shall be removed when the existing equipment is reinstalled and given to the Owner after completion of construction work in the respective area.

BASIS OF PAYMENT

301-5.1 Payment will be made at the contract unit price for each complete item, measured as provided above, and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and

incidentals necessary to complete this item to the satisfaction of the Engineer.

Payment will be made under:

Item SS-301-5.1	Existing Airport Rotating Beacon, Removed – per Each
Item SS-301-5.2	Existing Concrete Encased, Electrical Junction Structure, Removed –per Each
Item SS-301-5.3	Existing Stake Mounted Edge Light, Removed -- per Each
Item SS-301-5.4	Existing Base Mounted Edge Light, Removed -- per Each
Item SS-301-5.5	Existing Base Mounted Edge Light, Removed, Base to Remain – per Each
Item SS-301-5.6	Existing In-pavement Edge Light, Removed – per Each
Item SS-301-5.7	Abandoned Sign Base, Removed -- per Each
Item SS-301-5.8	Existing Base Mounted Guidance Sign, Removed -- per Each

END OF ITEM SS-301

ITEM SS-310 AIRPORT LIGHTING SYSTEMS

DESCRIPTION

310-1.1 This item shall consist of furnishing and installing airport runway and taxiway edge lighting systems, retroreflective markers, guidance signs, runway centerline and touchdown zone lighting systems, other taxiway lighting systems, and other approach lighting aid systems, in accordance with this specification, the referenced specifications and drawings, and applicable advisory circulars. The system shall be installed at the locations and in accordance with the dimensions, design and details shown on the plans. This work shall include the furnishing of all equipment, materials, services and incidentals necessary to place it in operating condition as a completed unit to the satisfaction of the Engineer.

310-1.2 Additional details pertaining to the lighting system covered in this item are contained in the advisory circular, AC 150/5340-30, Design and Installation Details for Airport Visual Aids.

310-1.3 The Contractor shall maintain current copies of all referenced and applicable advisory circulars on the job site. The Contractor is responsible to make known to the Engineer any conflict between plans and specifications that he observes or of which he is made aware.

EQUIPMENT AND MATERIALS

310-2.1 GENERAL.

a. Airport lighting equipment and materials shall meet the requirements outlined in Item SS-300.

b. For pre-cast or prefabricated concrete encased light base installations, the Contractor shall submit and coordinate the construction of the proposed pre-cast units with the Engineer onsite to review and approve the construction process. The Contractor shall submit his proposed installation process for review and approval by the Engineer. The Contractor shall provide additional items and work if required and requested by the Engineer for the construction and installation of the pre-cast units at no additional cost to the Owner.

Pre-cast or prefabricated concrete encased light bases may only be assembled at the Contactor's staging area at the airport in order to allow the Engineer to check and approve all such construction items. Pre-cast bases assembled offsite will not be allowed.

c. For in-pavement fixture installations, the Contractor shall submit his proposed installation method and technique for correct placement and alignment of all lights for review and approval prior to any work.

In-pavement lighting systems will require an experienced electrical supervisor and experienced installation team, including licensed surveyor. This includes the complete installation, layout, and coordination with paving joints and paving work.

310-2.2 LIGHT FIXTURES. Airfield lights shall be supplied with all features and accessories including isolation transformers, light bases, base covers, safety ground rods, concrete pads and incidentals required for a complete installation as defined in these Specifications and as shown on the plans.

a. Medium Intensity Taxiway Lights (MITL):

(1) Taxiway edge elevated lights shall be L-861T(L), LED lamp, omnidirectional blue

lens.

b. High Intensity Runway Lights (HIRL):

(1) Runway edge elevated lights shall be L-862, 115 Watt/6.6A lamp, omnidirectional lens or bidirectional lens as shown on Plans and as approved.

310-2.3 LAMPS. Lamps for elevated edge lights shall be 6.6A Quartz and/or LED type as specified.

310-2.4 SPARE EQUIPMENT INCLUDING LAMPS, FIXTURES, AND SPARE SIGN REPLACEMENT COMPONENTS. Provide 10 percent spare lamps of each type installed for lights and signs, minimum quantity of 6 required. Spare lamps shall not be measured for separate payment but shall be considered subsidiary to the light fixture and guidance sign pay items.

Provide 10 percent spare fixtures of each type installed for lights. Provide 10 percent spare sign replacement components of each type installed for signs. Spare fixtures and spare sign replacement components shall not be measured for separate payment but shall be considered subsidiary to the respective light fixture or sign pay items.

a. A spare elevated LED fixture unit shall be one complete, ready-to-install fixture, including the coupling, column, head housing assembly, cordset, LED power supply assembly, LED assembly, and lens assembly.

b. A spare elevated quartz fixture unit shall be one complete, ready-to-install fixture, including the coupling, column, head housing assembly, cordset, lamp assembly, and lens assembly.

c. A spare sign replacement component unit shall include the LED light tube assembly and LED power supply assembly.

The spare lamps, spare fixtures and spare sign replacement components shall be delivered and stored as directed by the Owner, with transmittal receipt signed by Owner's representative. A signed copy shall be forwarded to the Engineer with an additional signed copy placed in the O&M manuals.

310-2.5 GUIDANCE SIGNS. Guidance signs shall be L-858(L), meeting the criteria set forth in AC 150/5345-44, Specification for Taxiway and Runway Signs, and suitable for base mounting. Each unit shall be furnished with the required panels, mounting assemblies, frangible couplings, transformer, intensity control, identification tag, metal tethers, fasteners and safety ground rods.

Style 2 and Style 3 signs shall meet the luminance requirements in AC 150/5345-44 throughout the current ranges of the associated series circuit.

Guidance signs shall have an integral on/off switch for airport maintenance use.

Signs shall be furnished with permanent type nameplates that are both weather and sunlight resistant. Nameplates which are completed with ink markers or similar methods will not be accepted.

Refer to the guidance sign index in the Plans for information on each sign's size, style, class and mode.

The complete sign installation shall be designed to withstand a 200-mph wind load.

Guidance signs shall be Size 2 (15" Legend), Style 2 (3-step circuit) or Style 3 (5-step circuit) as noted in the plans, Class 1 (operation range from -4 degrees F to 131 degrees F), Mode 2 (withstand wind loads of 200 mph).

310-2.6 ISOLATION TRANSFORMERS. New isolation transformers shall be Type L-830 and have a wattage rating suitable for the wattage of the fixture and sign lamps. The transformer shall be listed in FAA Circular AC 150/5345-47.

Provide 10 percent spare isolation transformers of each type installed for lights, signs and other equipment. Spare transformers shall not be measured for separate payment but shall be considered subsidiary to the respective light fixture or sign pay items.

310-2.7 FIELD LIGHTNING ARRESTOR. New series circuit field lightning arrestors shall be installed on the airfield series circuits to reduce the risk of lightning damage to the circuits, including cables, isolation transformers and field/vault lighting equipment. The arrestor assembly shall consist of a NEMA 6P rated metal enclosure, using MOV components, rated for 5,000 volts continuous operating voltage with 25,000 A peak surge current, having a minimum 2 giga-ohm insulation resistance, with L-823 connectors, The arrestors shall be designed specifically for protecting 5 kV airfield series circuits and shall be manufactured by ADB, Astronics or Liberty Airport Systems.

Provide 10 percent spare lightning arrestor units, minimum quantity of 2. Spare arrestors shall not be measured for separate payment but shall be considered subsidiary to the respective arrestor pay items.

CONSTRUCTION METHODS

310-3.1 GENERAL. The installation and testing details for the lighting system shall be as specified in the applicable advisory circulars.

The Contractor is responsible for all surveying and measurement which is required to accurately position and aim airfield lighting systems and equipment.

Airfield lighting systems and equipment that are improperly installed shall be removed and re-installed correctly as directed by the Engineer. No payment will be made for the removal and reinstallation of airfield lighting systems and equipment improperly installed. All remedial work shall be to the satisfaction of the Engineer.

310-3.2 LIGHTING LAYOUT PLANS. The Contractor shall stake the airfield lighting systems, prior to installation of any trench, cable or lighting apparatus. The intent is to stake the installation at the locations indicated, noting any deviation from plan dimensions to the Engineer prior to installation. The Contractor shall obtain the services of an experienced and licensed surveyor to perform this work.

The Engineer shall provide electronic CADD files to the Contractor for this staking work. The Contractor shall stake the items and his surveyor shall provide a CADD file submittal back to the Engineer. Based upon this submittal, the Engineer shall coordinate and provide directions on any adjustments necessary to meet existing field condition requirements and comply with FAA Advisory Circular requirements on the layout and spacing of equipment.

The Contractor and his surveyor shall then make any electronic CADD file spacing adjustments and/or field staking adjustments prior to installation at no additional cost to the Owner.

Refer to General Provisions Section 50 Control of Work for additional construction layout and staking requirements.

310-3.3 PLACING THE EQUIPMENT. The equipment shall be mounted on concrete pads as shown in the plans. Secure the equipment and make all final connections.

310-3.4 MOUNTING, LEVELING, AND AIMING. The concrete support to which the equipment is fastened shall be accurately leveled before mounting the equipment. The units shall be properly aimed, as recommended by the manufacturer of the supplied equipment. This adjustment shall be accomplished using factory-approved aiming devices and techniques.

310-3.5 PLACING LIGHTS. All equipment shall be installed at locations indicated in the plans. Lights shall be laid out by locating the two control points by station as indicated on the plans and measuring the indicated individual separation distances. Light bases shall be located within 1 inch +/- longitudinally and 0.5 inches +/- transversely of the location indicated unless deviation is approved by the Engineer. Excavation for installation of light bases shall be backfilled with at least 4 inches of granular leveling course, as approved by the Engineer. Fixture height shall be as indicated on the Drawings.

For pre-cast or prefabricated concrete encased light base installations, a leveling course of sand shall be placed in the bottom of the excavated hole, sufficient for accurately installing, leveling and placing the lights in accordance with the requirements in this specification and AC 150/5340-30. Concrete encased light bases shall be allowed to cure a minimum of 7 days prior to installation.

Utilize a bubble level device to level all light fixtures in the horizontal light plane during the day, and then check at night to ensure uniformity in light output.

310-3.6 PLACING SIGNS. All signs shall be installed at the approximate location indicated in the plans. The specific requirements for sign location are specified in AC 150/5340-18, Standards for Airport Sign Systems. Specific requirements of this AC are also shown on the Plans. Signs shall be located within 1 inch +/- longitudinally or 0.5 inches +/- transversely of the required location unless deviation is approved by the Engineer. The locations for the signs shall be staked by the Contractor and approved by the Engineer before installation begins.

Provide single module signs with one tether. Provide multiple module signs with a tether at both ends.

310-3.7 PLACING FIELD LIGHTNING ARRESTORS. All field lighting arrestors shall be installed at locations indicated in the plans, typically about every 2,000 feet around the series circuit. The arrestors shall be installed in base cans or handholes as noted on the plans. Provide a minimum #4 AWG copper ground wire to connect the arrestor ground lug to dedicated ground rod outside the base can or handhole on the pavement side of the equipment. This ground rod shall be connected to the counterpoise system using exothermic welds only. Provide a permanent type marker at each arrestor listing the date it was placed in service.

310-3.8 TRANSFORMER INSTALLATION. The transformer for base mounted fixtures shall be placed inside the base. The transformer for stake mounted fixtures shall be located uniformly as shown on the plans. The primary cable connections shall be made with L-823 connectors as described in Item L-108 and have 3 feet of slack cable. The secondary leads connected to the lamp leads by means of a disconnecting plug and receptacle provided with the unit, and this joint shall not be taped. The secondary joint shall be fastened with a holding ring provided for this purpose.

310-3.9 UNIT ASSEMBLY. All electrical equipment, including edge lights, guidance signs and other visual aid units shall be assembled in accordance with the manufacturer's installation procedures. Anti-seize compound shall be used on all screws, nuts, and threads, including frangible coupling threads. If coated bolts are used (ceramic metallic/fluoropolymer coating), then do not apply anti-seize compound.

Provide and install all spacers, shims, and gaskets as required, and verify they are in place before installing the light fixture on the base.

Bolts and washers for new and existing bases shall be new. Do not reuse existing hardware. The minimum thread engagement into top flange of the base shall be 0.5 inches.

~~For in-pavement light fixtures, provide Nord-Lock NL-3/8 stainless steel 2-part locking washers or approved equal, as required by the manufacturer.~~

~~Coordinate recommended torque values with the light fixture manufacturer, light base can manufacturer,~~

~~stainless steel bolts and hardware used, and exact anti-seize compound used, in order to prevent light base thread damage. Utilize a dial-type torque wrench for accuracy and to prevent over-tightening bolts. Never use impact wrenches/drills when removing or installing bolts.~~

~~The Contractor shall submit complete installation method shop drawings and calculations to determine the proper torque requirements for review and approval by the Engineer prior to any field removal or installation work for in-pavement light fixtures.~~

~~When installing new or existing light fixtures on existing bases, the following work shall be performed for the removal and reinstallation work:~~

~~a. Remove all bolts including any that are frozen or broken. If necessary, drill out and tap for new bolt. If the can threads are galled but usable, clean threads with a tap.~~
~~b. Remove the light, base plate, transformer, and any foreign object that may be inside the can.~~
~~c. Remove the old cable, mandrel the conduits, and shop-vacuum out the can clean.~~
~~d. Install the new cable, connectors, transformer, gasket, bolts, and other required appurtenances per the fixture type and its location in accordance with FAA Advisory Circular requirements and manufacturer's requirements.~~
~~e. Never use impact wrenches/drills when removing or installing bolts.~~

~~The Contractor shall obtain complete installation manuals for the new airfield lighting equipment and the existing equipment to be reinstalled prior to any removal or installation work. Copies of these manuals shall be maintained in 3-ring binders within the Contractor's onsite field office.~~

~~The Contractor shall provide equipment inventory rehabilitation forms to document the fixture and sign rehabilitation efforts required prior to reinstallation. These forms shall be approved by the Engineer.~~

~~Existing in-pavement fixtures shall be rehabilitated with new prisms/lens and gaskets, then pressure tested to ensure they have been reassembled correctly and are ready for installation. In order to ensure this work is correctly performed, the Contractor, Engineer, Owner and equipment manufacturer shall attend a workshop onsite to review the work required in order to replace prisms/lens and gaskets and how to pressure test the equipment properly in accordance with the manufacturer's installation requirements and FAA AC requirements. Demonstration spare units will be provided by the Airport for hands on work review. The work shall only be performed by the Contractor's specific personnel who attend the workshop and are approved by the Engineer and Owner to perform the work. Tests reports shall be kept by the Contractor to record the work performed, including signature and date of those employees performing the work. The Contractor may only perform this work in a conditioned space environment.~~

~~In-pavement light fixtures that are installed too high will require their complete removal and reinstallation at no additional cost to the Owner. In-pavement fixtures shall be provided with all spacers, shims, gaskets and other appurtenances for complete installations that comply with FAA Advisory Circular requirements and manufacturer's installation instructions. All assemblies and work shall be to the satisfaction of the Engineer.~~

310-3.10 IDENTIFICATION NUMBERS. An identifying number shall be assigned to each light and sign in accordance with the plans or as approved by the Engineer and Owner. This number shall be imprinted with reflective black with 1/2" letters on a non-corrosive metal disc 2" minimum diameter and attached to the pavement side of the fixture with a metal screw.

310-3.11 TEMPORARY AIRFIELD LIGHTING. Refer to the Airfield Lighting Phasing Plans and Details for additional requirements. Existing lighting circuits shall remain operational by use of temporary circuits. New lighting circuits shall also be connected and remain operational by use of temporary circuits. This item shall include all work to maintain the existing and new lighting circuits during construction and allow all taxiways

and runways in operation to remain lighted, including that portion through the construction area, as indicated in the Phasing Plans and as directed by the Engineer.

The Contractor shall perform initial field work including location and verification of existing circuits and submit plans for the temporary airfield lighting required in each work phase, for review and approval by the Engineer and Owner, prior to starting work of that phase. This work shall include megger testing of circuits and circuit segments before and after installation and connection of jumpers.

The Contractor shall install couplings and other required fittings/appurtenances in conduit systems at last pavement joint within each phase for connecting to conduit systems in the next phase, or for connecting to existing conduit systems to remain.

310-3.12 TESTING. The installation shall be tested in operation as a completed unit prior to acceptance. Tests shall include taking megger and voltage readings as outlined in Item SS-300 and Item L-108. Testing equipment shall be furnished by the Contractor. Refer to Item L-108 for additional test requirements.

Tests shall be conducted in the presence of the Engineer and shall be to his/her satisfaction.

All installations shall be fully tested by continuous operation for not less than 24 hours as completed systems prior to acceptance. These tests shall include the functioning of each control not less than 10 times. Equipment and materials covered by FAA Advisory Circulars are referred to by item numbers and approved equipment is listed within the AC 150/5345-53 Airport Lighting Equipment Certification Program's monthly Addendum, which contains a complete and updated listing of the certified equipment and manufacturers, and is listed in the FAA Buy American Preference equipment list, which is also updated monthly. The Contractor shall provide and install new certified equipment that works reliably and efficiently with the existing equipment to remain in service. The Contractor shall provide any additional accessories and/or appurtenances required to provide fully functional electrical systems to the satisfaction of the Owner and Engineer, at no additional cost to the Owner.

The Contractor shall ascertain that all lighting system components furnished (including FAA certified and approved equipment) are compatible in all respects with each other and the remainder of the new and existing systems. Any non-compatible components furnished by the Contractor shall be replaced at no additional cost to the Owner with a similar unit that is approved by the Engineer and compatible with the remainder of the airport lighting system.

METHOD OF MEASUREMENT

310-4.1 The quantity of lights of each type to be measured for under this item shall be the number of each installed, complete with isolation transformers, lamps, junction cans, base plates, gaskets, couplings, specified height columns, concrete bases, cables, connectors, safety ground rods, bolts/hardware, and all other required appurtenances, as completed units in place, ready for operation, and accepted by the Engineer. See section on Spare Equipment for information on spare fixture requirements.

310-4.2 The quantity of guidance signs of each type to be measured for under this item shall be the number of each installed, complete with isolation transformers, lamps, junction cans, concrete bases/pads, cables, connectors, safety ground rods, tethers, and all other required appurtenances, as completed units in place, ready for operation, and accepted by the Engineer. See section on Spare Equipment for information on spare sign component requirements.

310-4.3 The quantity of field lightning arrestors, complete with arrestor, base, connectors, equipment safety ground rod, lightning arrestor ground rod, conductors, and all other required appurtenances, to be measured under this item shall be the number of each type installed, as completed units in place, ready for operation, and accepted by the Engineer.

310-4.4 Temporary airfield lighting shall be measured as a lump sum complete item [per each respective phase work area], including all work completed in place and ready for operation, and including the installation, protection, and removal of all temporary cables, conduits, lighting, grounding, marking, and associated items and appurtenances, as indicated in the Drawings and as directed by the Engineer.

BASIS OF PAYMENT

310-5.1 Payment will be made at the contract unit price for each complete item, measured as provided above, and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item to the satisfaction of the Engineer.

Payment will be made under:

Item SS-310-5.1	L-858(L) Base Mounted, 3-Module Guidance Sign, Installed -- per Each
Item SS-310-5.2	L-862 Base Mounted Runway Edge Light, Installed -- per Each
Item SS-310-5.3	L-861T(L) Base Mounted Taxiway Edge Light, Installed -- per Each
Item SS-310-5.4	L-861T(L) Base Mounted Taxiway Edge Light, Installed on Existing Base – per Each
Item SS-310-5.5	Field Lightning Arrestor, Installed – per Each
Item SS-310-5.6	Temporary Airfield Lighting -- per Lump Sum

END OF ITEM SS-310

ITEM P-101 SURFACE PREPARATION

DESCRIPTION

101-1.1 This item shall consist of preparation of existing pavement surfaces for overlay, removal of existing pavement, and other miscellaneous items. The work shall be accomplished in accordance with these specifications and the applicable drawings.

101-1.2 Limits of pavement removal, pavement repair, joint and crack repair, paint and rubber removal, and cold planing are estimated in the plans. Actual limits of these items shall be coordinated with the Engineer prior to construction.

EQUIPMENT

101-2.1 All equipment shall be specified hereinafter or as approved by the Engineer. The equipment shall not cause damage to the pavement to remain in place.

CONSTRUCTION

101-3.1 REMOVAL OF EXISTING PAVEMENT

a. Concrete Pavement. The existing concrete pavement to be removed shall be freed from the pavement to remain by sawing through the complete depth of the slab 1 foot inside the perimeter of the final removal limits or outside the dowels, whichever is greater when the limits of removal are located on the joints. The pavement between the perimeter of the pavement removal and the saw cut shall be carefully broken up and removed using hand-held jackhammers, weighing 30 pounds or less, or other light-duty equipment which will not cause distress in the pavement which is to remain in place. The Contractor shall have the option of sawing through the dowels at the joint, removing the pavement and installing new dowels. Where the perimeter of the removal limits is not located on the joint and there are no dowels present, then the perimeter shall be sawcut the full depth of the pavement. The pavement inside the sawcut shall be removed by methods suitable to the Engineer which will not cause distress in the pavement which is to remain in place. If the material is to be wasted on the airport site, it shall be reduced to a maximum size designated by the Engineer. The Contractor's removal operation shall not cause damage to cables, utility ducts, pipelines, or drainage structures under the pavement. Concrete slabs that are damaged by under breaking shall be removed. Any damage shall be repaired at the Contractor's expense.

b. Asphalt Concrete Pavement. Asphalt concrete pavement to be removed shall be cut to the full depth of the bituminous material around the perimeter of the area to be removed. The pavement shall be removed so the joint for each layer of pavement replacement is offset 1 foot from the joint in the preceding layer. This does not apply if the removed pavement is to be replaced with concrete or soil. If the material is to be wasted on the airport site, it shall be broken to a maximum size as designated by the airport owner.

c. Disposal. All existing pavement removed shall be disposed of off-site. All hauling will be considered a necessary and incidental part of the work. Its costs shall be considered by the Contractor and included in the contract unit price for the pay items of work involved. No payment will be made separately or directly for hauling on any part of the work.

101-3.2 PREPARATION OF JOINTS AND CRACKS. Remove all vegetation and debris from cracks to a minimum depth of 1 inch. If extensive vegetation exists treat the specific area with a concentrated solution of a water-based herbicide approved by the Engineer. Fill all cracks, ignoring hairline cracks (< 1/4 inch wide) with a crack sealant per ASTM D6690. Cracks and joints wider than 1/4 inch and less than 1/2 inch shall be filled with a hot-poured joint sealing conforming to ASTM D 6690. Wider cracks (over 1-1/2 inch wide) along with soft or sunken spots, indicate that the pavement or the pavement

base should be repaired or replaced as stated below. Any excess joint or crack sealer on the surface of the pavement shall also be removed from the pavement surface.

Cracks and joints may be filled with a mixture of emulsified asphalt and aggregate. The aggregate shall consist of limestone, volcanic ash, sand, or other material that will cure to form a hard substance. The combined gradation shall be as shown in the following table.

Gradation

Sieve Size	Percent Passing
No. 4	100
No. 8	90-100
No. 16	65-90
No. 30	40-60
No. 50	25-42
No. 100	15-30
No. 200	10-20

Up to 3% cement can be added to accelerate the set time. The mixture shall not contain more than 20% natural sand without approval in writing from the Engineer.

The proportions of asphalt emulsion and aggregate shall be determined in the field and may be varied to facilitate construction requirements. Normally, these proportions will be approximately one part asphalt emulsion to five parts aggregate by volume. The material shall be poured or placed into the joints or cracks and compacted to form a voidless mass. The joint or crack shall be filled within 0 to 1/8 inches (0-3 mm) of the surface. Any material spilled outside the width of the joint shall be removed from the pavement surface prior to constructing the overlay. Where concrete overlays are to be constructed, only the excess joint material on the pavement surface and vegetation in the joints need to be removed.

a. Soil Sterilants. Soil sterilants shall contain Bromacil or Prometone and shall be approved by the Engineer. Application rates shall be in accordance with the manufacturer's recommendations.

b. Crack Preparation. A high temperature compressed air lance shall be used at all times to blast out any vegetation, dirt, dampness and loose materials from the cracks. Existing crack sealant which is deteriorated shall be removed as directed by the Engineer. The high velocity hot air shall be not less than 2,000 °F in temperature. The air lance shall operate in a no flame impingment condition and shall have a directional controlled velocity of 330-fps minimum and a combustion temperature at ignition of no less than 2,000 °F. After cleaning of crack, tack coat shall be applied prior to the application of emulsified asphalt and aggregate. Tack coat shall conform to Item P-603 of these specifications.

c. Filler Application. After cracks have been cleaned, received soil sterilant and tack coat, and have been approved by the Engineer, the cracks shall be filled with the emulsified asphalt and aggregate described within this specification. The mix shall be raked in the crack by hand in order to completely fill the entire crack. Once the crack is filled, excess asphalt mix shall be rounded up along the length of the crack, and pinched into the crack using a small asphalt roller. The application and compaction method shall be approved by the Engineer prior to beginning crack cleaning operations.

~~**101-3.3 REMOVAL OF PAINT AND RUBBER.** All paint and rubber over one foot wide that will affect the bond of the new overlay shall be removed from the surface of the existing pavement. Chemicals, high-pressure water, heater-scarifier (asphaltic concrete only), cold milling, or sandblasting may be used. Any methods used shall not cause major damage to the pavement. Major damage is defined as changing the properties of the pavement or removing pavement over 1/8 inch deep. If chemicals are used, they shall comply with the state's environmental protection regulations. No material shall be deposited on the~~

runway shoulders. All wastes shall be disposed of in areas indicated in this specification or shown on the plans.

101-3.4 CONCRETE SPALL OR FAILED ASPHALTIC CONCRETE PAVEMENT REPAIR.

a. Repair of Concrete Spalls in Areas to be Overlaid with Asphalt. The Contractors shall repair all spalled concrete as shown on the plans or as directed by the Engineer. The perimeter of the repair shall be sawcut a minimum of 2 inches outside the affected area and 2 inches deep. The deteriorated material shall be removed to a depth where the existing material is firm or cannot be easily removed with a geologist pick. The removed area shall be filled with asphaltic concrete with a minimum Marshall stability of 1,200 lbs. and maximum flow of 20 (units of 0.01 in). The material shall be compacted with equipment approved by the Engineer until the material is dense and no movement or marks are visible. The material shall not be placed in lifts over 4 inches in depth. This method of repair applies only to pavement to be overlaid.

b. Asphaltic Concrete Pavement Repair. The failed areas shall be removed as specified in paragraph 101-3.1b. All failed material including surface, base course, subbase course, and subgrade shall be removed. The base course and subbase shall be replaced if it has been infiltrated with clay, silt, or other material affecting the load-bearing capacity. Materials and methods of construction shall comply with the other applicable sections of this specification.

101-3.5 COLD MILLING. Milling shall be performed with a power-operated milling machine or grinder, capable of producing a finished surface that provides a good bond to the new overlay. The milling machine or grinder shall operate without tearing or gouging the under laying surface. The milling machine or grinder shall be equipped with automatic grade and slope controls. All millings shall be removed and disposed off Airport property, unless otherwise specified. If the Contractor mills or grinds deeper or wider than the plans specify, the Contractor shall replace the material that was removed with new material at no additional cost to the Owner.

a. Patching. The milling machine shall be capable of cutting a vertical edge without chipping or spalling the edges of the remaining pavement and it shall have a positive method of controlling the depth of cut. The Contractor Engineer shall layout the area to be milled with a straightedge in increments of 1 foot widths. The Contractor's layout shall be approved by the Engineer prior to beginning milling operations. The area to be milled shall cover only the failed area. Any excessive area that is milled because the Contractor doesn't have the appropriate milling machine, or areas that are damaged because of his negligence, shall not be included in the measurement for payment.

b. Profiling, Grade Correction, or Surface Correction. The milling machine shall have a minimum width of [7] feet and it shall be equipped with electronic grade control devices that will cut the surface to the grade and tolerances specified. The machine shall cut vertical edges. A positive method of dust control shall be provided. The machine shall have the ability to windrow the millings or cuttings**or** remove the millings or cuttings from the pavement and load them into a truck.

c. Clean-up. The Contractor shall sweep the milled surface daily and immediately after the milling until all residual aggregate and fines are removed from the pavement surface. Prior to paving, the Contractor shall wet down the milled pavement and thoroughly sweep and/or blow the surface to remove any remaining aggregate or fines.

101-3.6 PREPARATION OF ASPHALT PAVEMENT SURFACES. Existing asphalt pavements indicated to be treated with a surface treatment shall be prepared as follows:

a. Patch asphalt pavement surfaces that have been softened by petroleum derivatives or have failed due to any other cause. Remove damaged pavement to the full depth of the damage and replace with new asphalt concrete similar to that of the existing pavement in accordance with paragraph 101-3.4.

~~**b.** Repair joints and cracks in accordance with paragraph 101-3.2.~~

~~**c.** Remove oil or grease that has not penetrated the asphalt pavement by scraping or by scrubbing with a detergent, then wash thoroughly with clean water. After cleaning, treat these areas with an oil spot primer.~~

~~**d.** Clean pavement surface immediately prior to placing the surface treatment by sweeping, flushing well with water leaving no standing water, or a combination of both, so that it is free of dust, dirt, grease, vegetation, oil or any type of objectionable surface film.~~

101-3.7 MAINTENANCE. The Contractor shall perform all maintenance work necessary to keep the pavement in a satisfactory condition until the full section is complete and accepted by the Engineer. The surface shall be kept clean and free from foreign material. The pavement shall be properly drained at all times. If cleaning is necessary or if the pavement becomes disturbed, any work repairs necessary shall be performed at the Contractor's expense.

101-3.8 PREPARATION OF JOINTS IN RIGID PAVEMENT.

101-3.8.1 Removal of Existing Joint Sealant. All existing joint sealants will be removed by plowing or use of hand tools. Any remaining sealant and or debris will be removed by use of wire brushes or other tools as necessary. Resaw joints removing no more than 1/16 inch from each joint face. Immediately after sawing, flush out joint with water and other tools as necessary to completely remove the slurry. Allow sufficient time to dry out joints prior to sealing.

101-3.8.2 Cleaning Prior to Sealing. Immediately before sealing, joints shall be cleaned by removing any remaining laitance and other foreign material. Clean joints by sandblasting, or other method approved by the Engineer, on each joint face with nozzle held at an angle and not more than three inches from face. Following sandblasting, clean joints with air free of oil and water. Joint surfaces will be surface-dry prior to installation of sealant.

~~**101-3.9 PREPARATION OF CRACKS IN FLEXIBLE PAVEMENT.**~~

~~**101-3.9.1 Preparation of Crack.** Widen crack with router random crack saw by removing a minimum of 1/16 inch from each side of crack. Immediately before sealing, joints will be blown out with a hot air lance combined with oil and water-free compressed air.~~

~~**101-3.9.2 Removal of Existing Sealant**. Existing sealants will be removed by routing random crack saw. Following routing sawing any remaining debris will be removed by use of a hot lance combined with oil and water-free compressed air.~~

METHOD OF MEASUREMENT

101-4.1 PAVEMENT REMOVAL. The unit of measurement for pavement removal shall be the number of square yards removed by the Contractor, *regardless of the thickness or composition. Asphalt milling shall be measured by the square yard milled, regardless of thickness.* Any pavement removed outside the limits of removal because the pavement was damaged by negligence on the part of the Contractor shall not be included in the measurement for payment.

~~**101-4.2 JOINT AND CRACK REPAIR.** The unit of measurement for joint and crack repair shall be the linear foot of joint.~~

~~**101-4.3 PAINT AND RUBBER REMOVAL.** The unit of measurement for paint and rubber removal shall be the square foot.~~

~~**101-4.4 SPALLED AND FAILED ASPHALTIC CONCRETE PAVEMENT REPAIR.**~~

~~**a.** The unit of measure for concrete spall repair shall be the number of square feet. The location and average depth of the patch shall be determined and agreed upon by the Engineer and the Contractor.~~

~~**b.** The unit of measure for failed asphaltic concrete pavement shall be square feet.~~

~~**101-4.5 COLD MILLING.** The unit of measure for cold milling shall be [ ] inches of milling per square yard. The location and average depth of the cold milling shall be determined and agreed to by the Engineer and the Contractor prior to beginning the work. If the initial cut doesn't correct the condition and surface correction is required, the Contractor shall re-mill the area and will be paid only once for the total depth of milling.~~

BASIS OF PAYMENT

101-5.1 PAYMENT. Payment shall be made at contract unit price for the unit of measurement as specified above. This price shall be full compensation for furnishing all materials and for all preparation, hauling, and placing of the material and for all labor, equipment, tools, and incidentals necessary to complete this item.

Item P-101-1	Concrete Pavement Removal—per Square Yard
Item P-101-2	Milling and Removal of Asphalt Pavement Surfacing (8" to 0" thickness) – per Square Yard

MATERIAL REQUIREMENTS

ASTM D6690	Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements

END OF ITEM P-101

Page Intentionally Left Blank

ITEM P-152 EXCAVATION, SUBGRADE, AND EMBANKMENT

DESCRIPTION

152-1.1 This item covers excavation, disposal, placement, and compaction of all materials within the limits of the work required to construct safety areas, runways, taxiways, aprons, and intermediate areas as well as other areas for drainage, building construction, parking, or other purposes in accordance with these specifications and in conformity to the dimensions and typical sections shown on the plans.

152-1.2 CLASSIFICATION. All material excavated shall be classified as defined below:

a. Unclassified Excavation. Unclassified excavation shall consist of the excavation and disposal of all material, regardless of its nature which is not otherwise classified and paid for under one of the following items.

~~**b. Rock Excavation.** Rock excavation shall include all solid rock in ledges, in bedded deposits, in unstratified masses, and conglomerate deposits which are so firmly cemented they cannot be removed without blasting or using rippers. All boulders containing a volume of more than 1/2 cubic yard will be classified as "rock excavation."~~

~~**c. Muck Excavation.** Muck excavation shall consist of the removal and disposal of deposits or mixtures of soils and organic matter not suitable for foundation material. Muck shall include materials that will decay or produce subsidence in the embankment. It may consist of decaying stumps, roots, logs, humus, or other material not satisfactory for incorporation in the embankment.~~

~~**d. Drainage Excavation.** Drainage excavation shall consist of all excavation made for the primary purpose of drainage and includes drainage ditches, such as intercepting, inlet or outlet ditches; temporary levee construction; or any other type as shown on the plans.~~

e. Borrow Excavation. Borrow excavation shall consist of approved material required for the construction of embankments or for other portions of the work in excess of the quantity of *potentially* usable material available from required excavations. Borrow material shall be obtained from areas designated by the Engineer within the limits of the airport property but outside the normal limits of necessary grading, or from areas outside the airport boundaries.

152-1.3 Unsuitable Excavation. Any material containing vegetable or organic matter, such as muck, peat, organic silt, or sod shall be considered unsuitable for use in embankment construction. Material, suitable for topsoil may be used on the embankment slope when approved by the Engineer. *Material not considered by the Engineer to be suitable for use on the embankment slope shall be disposed of off-site or as directed by the Engineer. Undercuting of material unsatisfactory for subgrade foundation, roads, shoulders, or areas intended for turfing shall be considered unsuitable excavation and shall be excavated to the depth specified by the Engineer below the subgrade.*

CONSTRUCTION METHODS

152-2.1 General. Before beginning excavation, grading, and embankment operations in any area, the area shall be completely cleared and grubbed in accordance with Item P-151.

The suitability of material to be placed in embankments shall be subject to approval by the Engineer. All unsuitable material shall be disposed of in waste areas shown on the plans. All waste areas shall be graded to allow positive drainage of the area and of adjacent areas. The surface elevation of waste areas shall not extend above the surface elevation of adjacent usable areas of the airport, unless specified on the plans or approved by the Engineer.

When the Contractor's excavating operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued and the Engineer notified per subsection 70-20 *of the General Provisions*. At the direction of the Engineer, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation will be paid for as extra work.

Those areas outside of the limits of the pavement areas where the top layer of soil material has become compacted by hauling or other Contractor activities shall be scarified and disked to a depth of 4 inches, to loosen and pulverize the soil.

If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures, the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the Engineer, who shall arrange for their removal if necessary. The Contractor, at his or her expense, shall satisfactorily repair or pay the cost of all damage to such facilities or structures that may result from any of the Contractor's operations during the period of the contract.

152-2.2 EXCAVATION. No excavation shall be started until the work has been staked out by the Contractor and the Engineer has obtained from the Contractor the survey notes of the elevations and measurements of the ground surface. All areas to be excavated shall be stripped of vegetation and topsoil. Topsoil shall be stockpiled for future use in areas designated on the plans or by the Engineer. All suitable excavated material shall be used in the formation of embankment, subgrade, or other purposes shown on the plans. All unsuitable material shall be disposed of as *described in paragraph 152-1.3* ~~shown on the plans.~~

When the volume of the excavation exceeds that required to construct the embankments to the grades indicated, the excess shall be used to grade the areas of ultimate development or disposed as directed by the Engineer. When the volume of excavation is not sufficient for constructing the embankments to the grades indicated, the deficiency shall be obtained from borrow areas.

The grade shall be maintained so that the surface is well drained at all times. When necessary, temporary drains and drainage ditches shall be installed to intercept or divert surface water that may affect the work.

a. Selective Grading. When *the quality of material varies significantly* ~~selective grading is indicated on the plans~~, the more suitable material designated by the Engineer shall be used in constructing the embankment or in capping the pavement subgrade. If, at the time of excavation, it is not possible to place this material in its final location, it shall be stockpiled in approved areas. ~~so that it can be measured for payment as specified in paragraph 152-3.3~~. *Selective grading will not be measured for separate payment but will be considered subsidiary to "Unclassified Excavation".*

b. Undercutting. Rock, shale, hardpan, loose rock, boulders, or other material unsatisfactory for safety areas, subgrades, roads, shoulders, or any areas intended for turf shall be excavated to a minimum depth of 12 inches below the subgrade or to the depth specified by the Engineer. Muck, peat, matted roots, or other yielding material, unsatisfactory for subgrade foundation, shall be removed to the depth specified. Unsuitable materials shall be disposed of as directed in paragraph 152-1.3. This excavated material shall be paid for at the contract unit price per cubic yard for **unsuitable excavation**. The excavated area shall be backfilled with suitable material obtained from the grading operations or borrow areas and compacted to specified densities. The necessary backfill will constitute a *necessary part of Unsuitable Excavation* ~~part of the embankment~~. Where rock cuts are made, backfill with select material. Any pockets created in the rock surface shall be drained *as directed by the Engineer* ~~in accordance with the details shown on the plans.~~

c. Overbreak. Overbreak, including slides, is that portion of any material displaced or loosened beyond the finished work as planned or authorized by the Engineer. All overbreak shall be graded or removed by the Contractor and disposed of as directed by the Engineer. The Engineer shall determine if the displacement of such material was unavoidable and his or her decision shall be final. Payment will not be

made for the removal and disposal of overbreak that the Engineer determines as avoidable. Unavoidable overbreak will be classified as "Unclassified Excavation."

d. Removal of Utilities. The removal of *some* existing structures and utilities required to permit the orderly progress of work *may* ~~will~~ be accomplished by someone other than the Contractor; for example, the utility unless otherwise shown on the plans. All existing foundations shall be excavated at least 2 feet below the top of subgrade or as indicated on the plans, and the material disposed of as directed by the Engineer. All foundations thus excavated shall be backfilled with suitable material and compacted as specified. *All work associated with the excavation, removal, backfill, disposal, and/or stockpiling of existing structures and culverts will not be measured for separate payment but will be considered subsidiary to "Unclassified Excavation".*

e. Compaction Requirements. The subgrade under areas to be paved shall be compacted to a depth of **8 inches** and to a density of not less than **95** percent of the maximum density as determined by ASTM **D 1557.** The material to be compacted shall be within +/- 2 percent of optimum moisture content before rolled to obtain the prescribed compaction (except for expansive soils).

The in-place field density shall be determined in accordance with ASTM D6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938. Stones or rock fragments larger than 4 inches in their greatest dimension will not be permitted in the top 6 inches of the subgrade. The finished grading operations, conforming to the typical cross-section, shall be completed and maintained at least 1,000 feet ahead of the paving operations or as directed by the Engineer.

All loose or protruding rocks on the back slopes of cuts shall be pried loose or otherwise removed to the slope finished grade line. All cut-and-fill slopes shall be uniformly dressed to the slope, cross-section, and alignment shown on the plans or as directed by the Engineer.

Blasting shall not be allowed.

e. Proof Rolling. After compaction is completed, the subgrade area shall be proof rolled with a heavy pneumatic-tired roller having four or more tires abreast, each tire loaded to a minimum of 30,000 pounds and inflated to a minimum of 125 psi in the presence of the Engineer. Apply a minimum of **2** coverage, or as specified by the Engineer, to all paved areas. A coverage is defined as the application of one tire print over the designated area. Soft areas of subgrade that deflect more than 1 inch or show permanent deformation greater than 1 inch shall be removed and replaced with suitable material or reworked to conform to the moisture content and compaction requirements in accordance with these specifications.

152-2.3 BORROW EXCAVATION. ~~Borrow areas within the airport property are indicated on the plans. Borrow excavation shall be made only at these designated locations and within the horizontal and vertical limits as staked or as directed by the Engineer.~~

When borrow sources are outside the boundaries of the airport property, it shall be the Contractor's responsibility to locate and obtain the borrow sources, subject to the approval of the Engineer. The Contractor shall notify the Engineer at least 15 days prior to beginning the excavation so necessary measurements and tests can be made. All borrow pits shall be opened up to expose the various strata of acceptable material to allow obtaining a uniform product. All unsuitable material shall be disposed of by the Contractor. Borrow pits shall be excavated to regular lines to permit accurate measurements, and they shall be drained and left in a neat, presentable condition with all slopes dressed uniformly.

152-2.4 DRAINAGE EXCAVATION. Drainage excavation shall consist of excavating for drainage ditches such as intercepting; inlet or outlet ditches; for temporary levee construction; or for any other type as designed or as shown on the plans. The work shall be performed in sequence with the other construction. Intercepting ditches shall be constructed prior to starting adjacent excavation operations. All satisfactory material shall be placed in embankment fills; unsuitable material shall be placed in designated waste areas

or as directed by the Engineer. All necessary work shall be performed true to final line, elevation, and cross-section. The Contractor shall maintain ditches constructed on the project to the required cross- section and shall keep them free of debris or obstructions until the project is accepted.

152-2.5 PREPARATION OF EMBANKMENT AREA. Where an embankment is to be constructed to a height of 4 feet or less, all sod and vegetative matter shall be removed from the surface upon which the embankment is to be placed. The cleared surface shall be broken up by plowing or scarifying to a minimum depth of 6 inches and shall then be compacted as indicated in paragraph 152-2.6.

When the height of fill is greater than 4 feet, sod not required to be removed shall be thoroughly disked and recompacted to the density of the surrounding ground before construction of embankment.

Sloped surfaces steeper than one (1) vertical to four (4) horizontal shall be plowed, stepped, benched, or broken up so that the fill material will bond with the existing material. When the subgrade is part fill and part excavation or natural ground, the excavated or natural ground portion shall be scarified to a depth of 12 inches and compacted as specified for the adjacent fill.

No direct payment shall be made for the work performed under this section. The necessary clearing and grubbing and the quantity of excavation removed will be paid for under the respective items of work.

152-2.6 FORMATION OF EMBANKMENTS. Embankments shall be formed in successive horizontal layers of not more than 8 inches in loose depth for the full width of the cross-section, unless otherwise approved by the Engineer.

The layers shall be placed, to produce a soil structure as shown on the typical cross-section or as directed by the Engineer. Materials such as brush, hedge, roots, stumps, grass and other organic matter, shall not be incorporated or buried in the embankment.

Earthwork operations shall be suspended at any time when satisfactory results cannot be obtained because of rain, freezing, or other unsatisfactory weather conditions in the field. Frozen material shall not be placed in the embankment nor shall embankment be placed upon frozen material. Material shall not be placed on surfaces that are muddy, frozen, or contain frost. The Contractor shall drag, blade, or slope the embankment to provide surface drainage at all times.

The material in each layer shall be within ±2% of optimum moisture content before rolling to obtain the prescribed compaction. To achieve a uniform moisture content throughout the layer, the material shall be moistened or aerated as necessary. Samples of all embankment materials for testing, both before and after placement and compaction, will be taken for each **1,000 SY of material placed per layer**. Based on these tests, the Contractor shall make the necessary corrections and adjustments in methods, materials or moisture content to achieve the specified embankment density.

Rolling operations shall be continued until the embankment is compacted to not less than ~~95% of maximum density for noncohesive soils, and~~ 90% of maximum density for cohesive soils *outside of areas to be paved. Maximum density is* as determined by ASTM **D 1557**. *Contractor's laboratory shall perform density test in the Engineer's presence and provide the test results upon completion to the Engineer for review.* Under all areas to be paved, the embankments shall be compacted to a depth of **8 inches** and to a density of not less than **95** percent of the maximum density as determined by ASTM **D 1557**.

On all areas outside of the pavement areas, no compaction will be required on the top 4 inches.

The in-place field density shall be determined in accordance with **ASTM 6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938. The Engineer shall perform all density tests.**

Compaction areas shall be kept separate, and no layer shall be covered by another layer until the proper density is obtained.

During construction of the embankment, the Contractor shall route all construction equipment evenly over the entire width of the embankment as each layer is placed. Layer placement shall begin in the deepest portion of the embankment fill. As placement progresses, the layers shall be constructed approximately parallel to the finished pavement grade line.

When rock and other embankment material are excavated at approximately the same time, the rock shall be incorporated into the outer portion of the embankment and the other material shall be incorporated under the future paved areas. Stones or fragmentary rock larger than 4 inches in their greatest dimensions will not be allowed in the top 6 inches of the subgrade. Rockfill shall be brought up in layers as specified or as directed by the Engineer and the finer material shall be used to fill the voids with forming a dense, compact mass. Rock or boulders shall not be disposed of outside the excavation or embankment areas, except at places and in the manner designated on the plans or by the Engineer.

When the excavated material consists predominantly of rock fragments of such size that the material cannot be placed in layers of the prescribed thickness without crushing, pulverizing or further breaking down the pieces, such material may be placed in the embankment as directed in layers not exceeding 2 feet in thickness. Each layer shall be leveled and smoothed with suitable equipment by distribution of spalls and finer fragments of rock. The layer shall not be constructed above an elevation 4 feet below the finished subgrade.

There will be no separate measurement of payment for compacted embankment. All costs incidental to placing in layers, compacting, discing, watering, mixing, sloping, and other operations necessary for construction of embankments will be included in the contract price for excavation, borrow, or other items.

152-2.7 FINISHING AND PROTECTION OF SUBGRADE. After the subgrade is substantially complete, the Contractor shall remove any soft or other unstable material over the full width of the subgrade that will not compact properly. All low areas, holes or depressions in the subgrade shall be brought to grade with suitable select material. Scarifying, blading, rolling and other methods shall be performed to provide a thoroughly compacted subgrade shaped to the lines and grades shown on the plans.

Grading of the subgrade shall be performed so that it will drain readily. The Contractor shall protect the subgrade from damage and limit hauling over the finished subgrade to only traffic essential for construction purposes. All ruts or rough places that develop in the completed subgrade shall be graded and recompacted.

No subbase, base, or surface course shall be placed on the subgrade until the subgrade has been approved by the Engineer.

152-2.8 HAUL. All hauling will be considered a necessary and incidental part of the work. The Contractor shall include the cost in the contract unit price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work.

152-2.9 TOLERANCES. In those areas upon which a subbase or base course is to be placed, the top of the subgrade shall be of such smoothness that, when tested with a 12-foot straightedge applied parallel and at right angles to the centerline, it shall not show any deviation in excess of 1/2 inch, or shall not be more than 0.05 feet from true grade as established by grade hubs. Any deviation in excess of these amounts shall be corrected by loosening, adding, or removing materials; reshaping; and recompacting.

On safety areas, intermediate and other designated areas, the surface shall be of such smoothness that it will not vary more than 0.10 feet from true grade as established by grade hubs. Any deviation in excess of this amount shall be corrected by loosening, adding or removing materials, and reshaping.

152-2.10 TOPSOIL. When topsoil is specified or required as shown on the plans or under Item T-905, it shall be salvaged from stripping or other grading operations. The topsoil shall meet the requirements of Item T-905. If, at the time of excavation or stripping, the topsoil cannot be placed in its final section of finished construction, the material shall be stockpiled at approved locations. Stockpiles shall not be placed within **500** feet of runway pavement or **250** feet of taxiway pavement and shall not be placed on areas that subsequently will require any excavation or embankment fill. If, in the judgment of the Engineer, it is practical to place the salvaged topsoil at the time of excavation or stripping, the material shall be placed in its final position without stockpiling or further rehandling.

Upon completion of grading operations, stockpiled topsoil shall be handled and placed as directed, or as required in Item T-905.

No direct payment will be made for topsoil under Item P-152. The quantity removed and placed directly or stockpiled shall be paid for at the contract unit price per cubic yard for "Unclassified Excavation."

When stockpiling of topsoil and later rehandling of such material is directed by the Engineer, the material so rehandled shall be paid for at the contract unit price per cubic yard for "topsoiling," as provided in Item T-905.

METHOD OF MEASUREMENT

152-3.1 ~~The quantity of excavation to be paid for shall be the number of cubic yards measured in its original position. Measurement shall not include the quantity of materials excavated without authorization beyond normal slope lines, or the quantity of material used for purposes other than those directed.~~ ~~[The quantity of compacted embankment in place to be paid for shall be the number of cubic yards measured in its final position.~~

Measurement of excavation/embankment shall be based on ***plan quantities****. These quantities are believed to be correct and shall be utilized for final excavation quantity payment not withstanding any adjustments to the project by written direction of the Engineer. Should the contractor find discrepancies and/or errors, he/she shall bring the discrepancy and/or error to the attention of the Engineer immediately and corrections shall be made to the quantity of excavation to be paid for by change order. It is expressly understood by the contractor that upon disturbance of the existing ground and no notification to the engineer of possible errors, that the contractor accepts as final payment the quantities of excavation as detailed on the plans and laid out in the proposal. No adjustment has been made to the plan quantities for the construction or demolition of existing drainage structures. The Contractor shall make his own determination as to the amount of unsuitable excavated material which may be encountered and the resulting additional borrow material required for the construction of the embankment. There will be no adjustment for additional embankment required to construct the project if the excavated material is deemed unsuitable.*

152-3.2 Borrow material shall be paid for on the basis of the number of cubic yards measured in its original position at the borrow pit.

152-3.3 Stockpiled material shall be paid for on the basis of the number of cubic yards measured in the stockpiled position as soon as the material has been stockpiled.

152-3.4 For payment specified by the cubic yard, measurement for all excavation and embankment shall be computed by the average end area method. The end area is that bound by the original ground line established by field cross-sections and the final theoretical pay line established by excavation and

embankment cross-sections shown on the plans, subject to verification by the Engineer. After completion of all excavation and embankment operations and prior to the placing of base or subbase material, the final excavation and embankment shall be verified by the Engineer by means of field cross-sections taken randomly at intervals not exceeding 500 linear feet.

In cut sections, the additional cut required to construct the topsoil layer to the plan grade has not been measured and will not be measured for separate payment but will be subsidiary to "Unclassified Excavation". In fill sections, the additional fill required to replace the stripped material has not been measured and will not be measured for payment but will be subsidiary to "Unclassified Excavation".

No allowance has been made in the measurement for shrink/swell. The Contractor shall make his own determination as to the amount of shrink/swell involved in the construction of the embankment.

The Contractor shall make his own determination as to the suitability of the excavated material to be placed in embankments and the resulting additional off-site material required for the construction of the embankment. Additional off-site material required for the formation of embankment shall not be measured for separate payment but shall be considered subsidiary to "Unclassified Excavation".

***152-3.6** Unsuitable excavation shall be measured from the surface of the ground, after stripping has been accomplished, or from the bottom of the planned excavation, to the depth of the excavation as directed by the Engineer. Measurements will be taken by the Engineer, and the volume of excavation will be calculated by the average end area method. The necessary refillling of unsuitable areas will not be measured for separate payment but will be subsidiary to "Unsuitable Excavation". Only that amount of excavation directed by the Engineer will be measured for payment.*

BASIS OF PAYMENT

152-4.1 "Unclassified excavation" payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

~~**152-4.2** "Rock Excavation" payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.~~

~~**152-4.3** "Muck Excavation" payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.~~

~~**152-4.4** "Drainage Excavation" payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.~~

152-4.5 "Borrow Excavation" payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

~~**152-4.6** "Stockpiled Material" payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.~~

~~**152-4.7** For embankment in place, payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.~~

152-4.8 Unsuitable excavation shall be paid for at the contract unit price bid per cubic yard for "Unsuitable Excavation", which price shall be full compensation for all excavation; for disposal or placement of unsuitable material (in accordance with section 152-1.3), including loading, hauling, spreading, and compaction; for compaction and preparation of subgrade; for the refilling, rolling, and compaction of all undercut areas; and for all equipment, tools, labor, and incidentals necessary to complete the work.

Payment will be made under:

Item P-152-1	Unclassified Excavation—per Cubic Yard
Item P-152-2	Borrow Excavation—per Cubic Yard
Item P-152-3	Unsuitable Excavation—per Cubic Yard

TESTING REQUIREMENTS

ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3)
ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3)
ASTM D2167	Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method
ASTM D6938	Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

END OF ITEM P-152

ITEM P-154 SUBBASE COURSE

DESCRIPTION

154-1.1 This item shall consist of a subbase course composed of granular materials constructed on a prepared subgrade or underlying course in accordance with these specifications, and in conformity with the dimensions and typical cross-section shown on the plans.

MATERIALS

154-2.1 MATERIALS. The subbase material shall consist of hard durable particles or fragments of granular aggregates. This material will be mixed or blended with fine sand, clay, stone dust, or other similar binding or filler materials produced from approved sources. This mixture must be uniform and shall comply with the requirements of these specifications as to gradation, soil constants, and shall be capable of being compacted into a dense and stable subbase. The material shall be free from vegetative matter, lumps or excessive amounts of clay, and other objectionable or foreign substances. Pit-run material may be used, provided the material meets the gradation requirements specified.

GRADATION REQUIREMENTS

Sieve designation (square openings) as per ASTM C136 and ASTM D422	Percentage by weight passing sieves
3 inch (75 mm)	100
No. 10 (2.0 mm)	20-100
No. 40 (0.450 mm)	5-60
No. 200 (0.075 mm)	0-8

The portion of the material passing the No. 40 (0.450 mm) sieve shall have a liquid limit of not more than 25 and a plasticity index of not more than six (6) when tested in accordance with ASTM D 4318.

154-2.2 SAMPLING AND TESTING. Material used on the project shall be sampled per ASTM D75 and tested per ASTM C136 and ASTM C117. Results shall be furnished to the Engineer by the Contractor prior to the start of construction and once per day during construction.

CONSTRUCTION METHODS

154-3.1 GENERAL. The subbase course shall be placed where designated on the plans or as directed by the Engineer. The material shall be shaped and thoroughly compacted within the tolerances specified.

Granular subbases which, due to grain sizes or shapes, are not sufficiently stable to support the construction equipment without movement, shall be mechanically stabilized to the depth necessary to provide stability as directed by the Engineer. The mechanical stabilization shall include the addition of a fine-grained medium to bind the particles of the subbase material sufficiently to furnish a bearing strength, so the course will not deform under construction equipment traffic. The addition of the binding medium to the subbase material shall not increase the soil constants of that material above the specified limits.

154-3.2 OPERATION IN PITS. The subbase material shall be obtained from pits or sources that have been approved by the Engineer. The material in the pits shall be excavated and handled to produce a uniform and satisfactory product. All work involved in clearing and stripping pits and handling unsuitable material encountered shall be performed by the Contractor. The cost of this work is incidental to this item.

154-3.3 PREPARING UNDERLYING COURSE. Prior to constructing the subbase course, clean the underlying course or subgrade of all foreign substances. The surface of the underlying course or subgrade shall meet specified compaction and surface tolerances. Correct ruts, or soft yielding spots, in the underlying courses and subgrade areas having inadequate compaction and deviations of the surface from the specified requirements by loosening and removing soft or unsatisfactory material and by adding approved material, reshaping to line and grade, and recompacting to specified density requirements. For cohesionless underlying courses or subgrades containing sands or gravels, as defined in ASTM D2487, the surface shall be stabilized prior to placement of the overlying course. Accomplish stabilization by mixing the overlying course material into the underlying course, and compacting by approved methods. The finished underlying course shall not be disturbed by traffic or other operations and shall be maintained in a satisfactory condition until the overlying course is placed. The course shall be checked and accepted by the Engineer before placing and spreading operations are started.

To protect the subgrade and to ensure proper drainage, the spreading of the subbase shall begin along the centerline of the pavement on a crowned section or on the high side of pavements with a one-way slope.

154-3.4 MATERIALS ACCEPTANCE IN EXISTING CONDITION. When the entire subbase material is in a uniform and satisfactory condition at approximately the required moisture content, the approved material may be moved directly to the spreading equipment for placing. The material may be obtained from gravel pits, stockpiles, or may be produced from a crushing and screening plant with proper blending. The materials from these sources shall meet the requirements for gradation, quality, and consistency. The intent of the specifications is to secure materials that will not require further mixing. The moisture content of the material shall be approximately that required to obtain maximum density. Any minor deficiency or excess in moisture content may be corrected by surface sprinkling or by aeration. Some mixing or aeration may be required prior to rolling to obtain the required moisture content. Blading or dragging, if necessary, shall be performed to obtain a smooth uniform surface true to line and grade.

154-3.5 PLANT MIXING. When materials from several sources will be blended and mixed, the subbase material shall be processed in a central *or*travel mixing plant. The subbase material, together with any blended material, shall be thoroughly mixed with the required amount of water. After the mixing is complete, the material shall be transported to and spread on the underlying course without undue loss of moisture content.

154-3.6 GENERAL METHODS FOR PLACING. The subbase course shall be constructed in layers of not less than 3 inches nor more than 8 inches of compacted thickness. The subbase material shall be deposited and spread evenly to a uniform thickness and width. The material, as spread, shall be of uniform gradation with no pockets of fine or coarse materials. The subbase, unless otherwise permitted by the Engineer, shall not be spread more than 2,000 square yards in advance of the rolling. Any necessary sprinkling shall be kept within this limit. No material shall be placed in snow or on a soft, muddy, or frozen course.

When more than one layer is required, the construction procedure described here shall apply similarly to each layer.

During the placing and spreading, sufficient caution shall be exercised to prevent the incorporation of subgrade, shoulder, or foreign material in the subbase course mixture.

154-3.7 FINISHING AND COMPACTING. After spreading or mixing, the subbase material shall be thoroughly compacted by rolling and sprinkling, when necessary. Sufficient rollers shall be furnished to adequately handle the rate of placing and spreading of the subbase course.

The field density of the compacted material shall be at least 100% of the maximum density of laboratory specimens prepared from samples of the subbase material delivered to the jobsite. The laboratory specimens shall be compacted and tested in accordance with **ASTM D1557, determined by the**

Contractor in the presence of the Engineer. The in-place field density shall be determined in accordance with **ASTM D 6938 using Procedure A, the direct transmission method, and ASTM D 6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D 6938**. The moisture content of the material at the start of compaction shall be within ±2% of the optimum moisture content. All testing shall be done by **the Contractor's laboratory in the presence of the Engineer, and density test results shall be furnished upon completion to the Engineer for acceptance determination.**

The course shall not be rolled when the underlying course is soft or yielding or when the rolling causes undulation in the subbase. When the rolling develops irregularities that exceed 3/8 inch when tested with a 12 feet straightedge, the irregular surface shall be loosened and then refilled with the same kind of material as that used in constructing the course and again rolled as required above.

Along places inaccessible to rollers, the subbase material shall be tamped thoroughly with mechanical or hand tampers.

Sprinkling during rolling, if necessary, shall be by equipment approved by the Engineer. Water shall not be added in manner or quantity that allows free water to reach the underlying layer and cause it to become soft.

154-3.8 SURFACE TOLERANCE. The surface of the top layer shall show no deviations in excess of 3/8 inch when tested with a 12-foot straightedge. Take measurements in successive positions parallel to the centerline of the area to be paved. Measurements shall also be taken perpendicular to the centerline at 50 foot intervals. Correct deviations exceeding this amount by removing material and replacing with new material, or by reworking existing material and compacting it to meet these specifications.

154-3.9 THICKNESS CONTROL. The completed thickness of the course(s) shall be in accordance with the thickness and grade indicated on the drawings. The completed course shall not be more than 1/2 inch deficient in thickness nor more than 1/2 inch above or below the established grade. Where any of these tolerances are exceeded, correct such areas by scarifying, adding new material of proper gradation or removing material, and compacting, as directed. Where the measured thickness is 1/2 inch or more than shown, the course will be considered as conforming with the specified thickness requirements plus 1/2 inch. The average job thickness shall be the average of the job measurements as specified above but within 1/4 inch of the thickness shown. ***There will be no separate payment for additional thickness.*** The thickness of the completed subbase course shall be determined by **depth tests or sample holes taken at intervals so each test shall represent no more than 500 square yards.**

154-3.10 PROTECTION. Work on subbase course shall not be conducted during freezing temperatures nor when the subgrade is wet. When the subbase material contains frozen material or when the underlying course is frozen, the construction shall be stopped. The Contractor shall protect and maintain the subgrade from yielding until the subbase is accepted.

154-3.11 MAINTENANCE. The Contractor shall maintain the completed course in a satisfactory condition until accepted by the Engineer.

METHOD OF MEASUREMENT

154-4.1 Subbase course shall be measured by the number of **square yards at the thickness indicated on the PLANS** of subbase course material placed, compacted, and accepted in the completed course. The quantity of subbase course material shall be measured in final position based upon **depth tests or cores taken as directed by the Engineer, at the rate of one (1) depth test for each 500 square yard of subbase course**. On individual depth measurements, thicknesses more than 1/2 inch in excess of that shown on the plans shall be considered as the specified thickness plus 1/2 inch in computing the yardage for payment. Subbase materials shall not be included in any other excavation quantities.

BASIS OF PAYMENT

154-5.1 Payment shall be made at the contract unit price per square yard for subbase course. This price shall be full compensation for furnishing all materials; for all preparation, hauling, and placing of these materials; and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-154-1	8" Subbase Course—per Square Yard

TESTING REQUIREMENTS

ASTM C117	Standard Test Method for Materials Finer Than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM D75	Standard Practice for Sampling Aggregates
ASTM D422	Standard Test Method for Particle-Size Analysis of Soils
ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3)
ASTM D2487	Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D4253	Standard Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table
ASTM D4318	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D4718	Standard Practice for Correction of Unit Weight and Water Content for Soils Containing Oversize Particles
ASTM D6938	Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

END OF ITEM P-154

ITEM P-155 LIME-TREATED SUBGRADE

DESCRIPTION

155-1.1 This item shall be used for soil modification to achieve specific needs that require strength gain to a specific level. This item shall consist of constructing one or more courses of a mixture of soil, lime, and water in accordance with this specification, and in conformity with the lines, grades, thicknesses, and typical cross-sections shown on the plans. ***Dry placing of lime shall not be used. Slurry placement of lime will be the only acceptable method of placement.***

MATERIALS

155-2.1 LIME. Quicklime and hydrated lime, either high-calcium dolomitic, or magnesium lime, as defined by ASTM C51, shall conform to the requirements of ASTM C977. Lime not produced from calcining limestone shall not be permitted.

155-2.2 COMMERCIAL LIME SLURRY. Commercial lime slurry shall be a pumpable suspension of solids in water. The water or liquid portion of the slurry shall not contain dissolved material in sufficient quantity naturally injurious or objectionable for the purpose intended. The solids portion of the mixture, when considered on the basis of "solids content," shall consist principally of hydrated lime of a quality and fineness sufficient to meet the following requirements as to chemical composition and residue.

a. **Chemical Composition.** The "solids content" of the lime slurry shall consist of a minimum of 70%, by weight, of calcium and magnesium oxides.

b. **Residue.** The percent by weight of residue retained in the "solids content" of lime slurry shall conform to the following requirements:

Residue retained on a No. 6 sieve = maximum 0.0%
Residue retained on a No. 10 sieve = maximum 1.0%
Residue retained on a No. 30 sieve = maximum 2.5%

c . **Grade.** Commercial lime slurry shall conform to one of the following two grades:

Grade 1 – The "dry solids content" shall be at least 31% by weight, of the slurry.

Grade 2 – The "dry solids content" shall be at least 35%, by weight, of the slurry.

d. Submittals. *The Contractor shall submit to the Engineer certified test results or manufacturer's certification on the quicklime or lime slurry mix to be used before construction. No work shall begin nor shall any lime or lime slurry be placed for payment until the Contractor has submitted samples of the materials intended for use and the materials have been approved by the Engineer.*

155-2.3 WATER. Water used for mixing or curing shall be potable, reasonably clean and free of oil, salt, acid, alkali, sugar, vegetable, or other substances injurious to the finished product.

155-2.4 SOIL. The soil for this work shall consist of inorganic natural materials on the site or selected materials from other sources; uniform in quality and gradation; and shall be approved by the Engineer. The soil shall be free of roots, sod, weeds, and stones larger than 2-1/2 inches.

COMPOSITION

155-3.1 SOIL-LIME MIXTURE. Lime shall be applied at the rate specified on the plans for the depth of subgrade treatment shown.

155-3.2 TOLERANCES. At final compaction, the lime and water content for each course of subgrade treatment shall conform to the following tolerances:

Material	Tolerance
Lime	+ 0.5%
Water	+ 2%, -0%

WEATHER LIMITATIONS

155-4.1 WEATHER LIMITATION. Do not construct subgrade when weather conditions detrimentally affect the quality of the materials. Do not apply lime unless the air temperature is at least 40°F and rising. Do not apply lime to soils that are frozen or contain frost. If the air temperature falls below 35°F, protect completed lime-treated areas by approved methods against the detrimental effects of freezing.

Remove and replace any damaged portion of the completed soil-lime treated area with new soil-lime material in accordance with this specification.

EQUIPMENT

155-5.1 EQUIPMENT. The equipment required shall include all equipment necessary to complete this item such as: grading and scarifying equipment, a spreader for the lime or lime slurry, mixing or pulverizing equipment, sheepsfoot and pneumatic or vibrating rollers, sprinkling equipment, and trucks.

CONSTRUCTION METHODS

155-6.1 GENERAL. This specification is to construct a subgrade consisting of a uniform lime mixture which shall be free from loose or segregated areas. The subgrade shall be of uniform density and moisture content, well mixed for its full depth, and have a smooth surface suitable for placing subsequent courses. The Contractor shall be responsible to meet the above requirements.

Before beginning lime treatment, the subgrade shall be constructed as specified in Item P-152, Excavation, Subgrade and Embankment, and shaped to conform to the typical sections, lines, and grades as shown on the plans. If the Contractor elects to use a cutting and pulverizing machine that will remove the subgrade material accurately to the secondary grade and pulverize the material at the same time, he will not be required to expose the secondary grade nor windrow the material. The machine must give visible indication at all times that it is cutting the material uniformly to the proper depth over the entire width of the cut.

If a cutting and pulverizing machine is not used, the material to be treated shall be excavated to the secondary grade (proposed bottom of lime treatment) and removed or windrowed to expose the secondary grade. The excavated material shall then be spread to the desired cross-section and uniformly mixed and compacted.

155-6.2 APPLICATION. Lime shall be spread only over an area where the initial mixing operations can be completed during the same work day. The application and mixing of lime with the soil shall be accomplished by the methods described as "Dry Placing" or "Slurry Placing." The Contractor may use either method when hydrated lime is specified.

~~**a. Dry Placing.** The lime shall be spread uniformly over the subgrade by an approved screw-type spreader box or other approved spreading equipment. The amount of lime spread shall be the amount required for mixing to the specified depth that will result in the amount determined in the soil-lime mixture~~

~~or as specified on the plans. The material shall be sprinkled until the specified moisture content has been reached.~~

~~The lime shall be distributed in a manner that will minimize scattering by wind. Lime shall not be applied when wind conditions, in the opinion of the Engineer, are detrimental to proper application. A motor grader shall not be used to spread the lime.~~

b. Slurry Placing. The lime shall be mixed with water in trucks with approved distributors and applied as a thin water suspension or slurry. Commercial lime slurry shall be applied with a lime percentage not less than that applicable for the grade used. The distribution of lime shall be by successive passes over a measured section of subgrade until the specified amount of lime has been spread. The amount of lime spread shall be the amount required for mixing to the specified depth that will result in the amount determined in the soil-lime mixture or as shown on the plans. The distributor truck shall continually agitate the slurry to keep the mixture uniform.

155-6.3 MIXING. The mixing procedure shall be the same for "Dry Placing" or "Slurry Placing" as hereinafter described:

a. Preliminary Mixing. The full depth of the treated subgrade shall be mixed with an approved mixing machine. Lime shall not be left exposed for more than six (6) hours. The mixing machine shall make two coverages. Water shall be added to the subgrade during mixing to provide a moisture content approximately 5% above the optimum moisture of the material and to ensure chemical action of the lime and subgrade. After mixing, the subgrade shall be lightly rolled to seal the surface and help prevent evaporation of moisture. The water content of the subgrade mixture shall be maintained at a moisture content above the optimum moisture content for a minimum of 48 hours or until the material becomes friable. During the curing period, the material shall be sprinkled as directed by the Engineer.

b. Final Mixing. After the required curing time, the material shall be uniformly mixed by approved methods. If the mixture contains clods, they shall be reduced in size by blading, discing, harrowing, scarifying, or the use of other approved pulverization methods so that the remainder of the clods shall meet the following requirements when tested dry by laboratory sieves. After curing, pulverize lime treated material until soil particles pass a one inch sieve and 60% pass the No. 4 sieve. If resultant mixture contains clods, reduce their size by scarifying, remixing, or pulverization to meet specified gradation.

155-6.4 COMPACTION. Compaction of the mixture shall immediately follow the final mixing operation with no part of the mixture uncompacted more than 30 minutes after final mixing. The material shall be aerated or sprinkled as necessary to provide the optimum moisture content during compaction. The field density of the compacted mixture shall be at least 93% of the maximum density of laboratory specimens prepared from samples taken from the material in place. The specimens shall be compacted and tested *by the Contractor* in accordance with ASTM D698 to determine maximum density and optimum moisture content. The in- place field density shall be determined in accordance with ASTM D6938, Procedure A, direct transmission method. Testing frequency shall be a minimum of one compaction test per **500** square yards of stabilized base or as directed by the Engineer.

The material shall be sprinkled and rolled as directed by the Engineer. All irregularities, depressions, or weak spots that develop shall be corrected immediately by scarifying the areas affected, adding or removing material as required, and reshaping and recompacting. The surface of the subgrade shall be maintained in a smooth condition, free from undulations and ruts, until other work is placed on it or the work is accepted by the Engineer.

The full depth of the material shown on the plans shall be compacted to remain firm and stable under construction equipment. ~~All~~ *In-place* testing shall be done by the Engineer. Perform in-place density test to determine degree of compaction between 24 and 72 hours after final compaction and 24 hour moist cure period. If the material fails to meet the density requirements, it shall be reworked to meet the density requirements. The shape of the course shall be maintained smooth and shall conform to the typical

section shown on the plans and the established lines and grades. If the material loses the specified stability, density, and finish before the next course is placed or the work is accepted by the Engineer, the material shall be recompacted and refinished by the Contractor, and the cost shall be incidental to this item.

155-6.5 FINISHING AND CURING. After the final layer or course of lime-treated subgrade has been compacted, it shall be brought to the required lines and grades in accordance with the typical sections. The completed section shall then be finished by rolling, as directed by the Engineer, with a pneumatic or other suitable roller sufficiently light to prevent hairline cracking. The finished surface shall not vary more than 3/8 inch when tested with a 12 feet straightedge applied parallel with and at right angles to the pavement centerline. Any variations in excess of this tolerance shall be corrected by the Contractor in a manner satisfactory to the Engineer, and the cost shall be incidental to this item.

The completed section shall be moist-cured for a minimum of seven (7) days before further courses are added or any traffic is permitted, unless otherwise directed by the Engineer. Subsequent courses shall be applied within 14 days after the lime-treated subgrade is cured.

155-6.6 THICKNESS. The thickness of the final lime-treated subgrade shall be not less than the thickness specified. Thickness shall be determined by depth tests or cores taken at intervals so that each test shall represent no more than 300 square yards. When the base deficiency is more than 1/2 inch, the Contractor shall correct such areas in a manner satisfactory to the Engineer. The Contractor shall replace the base material where borings are taken for test purposes. This cost shall be incidental to this item.

155-6.7 MAINTENANCE. The Contractor shall protect and maintain the lime-treated subgrade from yielding until the lime-treated subgrade is covered by placement of the next layer. The cost of this maintenance shall be incidental to this item.

155-6.8 HANDLING AND SAFETY. The Contractor shall obtain and enforce the lime supplier's instructions for proper safety and handling of the lime to prevent physical eye or skin contact with lime during transport or application.

METHOD OF MEASUREMENT

155-7.1 Lime-treated subgrade shall be paid for by the square yard in the completed and accepted work.

155-7.2 Lime shall be paid by the number of tons of Hydrated Lime, or the calculated equivalent, used in the completed and accepted work. "Calculated Equivalent" will be determined by the Engineer as follows:

a. Hydrated lime delivered to the project in dry form will be measured according to the actual tonnage either spread on the subgrade or batched on site into a slurry, whichever is applicable.

b. Lime delivered to the project in slurry form will be paid for on the basis of certified chemical composition tickets and batch weight tickets. The Owner shall reserve the right to have the dry lime content verified by an independent testing laboratory. If the chemical composition is reported on the basis of Pebble Quicklime, the equivalent hydrated lime will be determined in accordance with paragraph c. below.

BASIS OF PAYMENT

155-8.1 Payment shall be made at the contract unit price per square yard for the lime-treated subgrade at the thickness specified. The price shall be full compensation for furnishing all material, except the lime, and for all preparation, delivering, placing and mixing these materials, and all labor, equipment, tools and incidentals necessary to complete this item.

155-8.2 Payment shall be made at the contract unit price per pound of lime. This price shall be full compensation for furnishing, delivery, and placing this material.

Payment will be made under:

Item P-155-1	16" Lime-treated subgrade—per Square Yard
Item P-155-2	Lime—per Ton

TESTING REQUIREMENTS

ASTM D 698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3) (600 kN-m/m3)
ASTM D 1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D 6938	Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

MATERIAL REQUIREMENTS

ASTM C 51	Standard Terminology Relating to Lime and Limestone (as used by the Industry)
ASTM C 977	Standard Specification for Quicklime and Hydrated Lime for Soil Stabilization
ASTM D 3551	Standard Practice for Laboratory Preparation of Soil-Lime Mixtures Using Mechanical Mixer

END OF ITEM P-155

Page Intentionally Left Blank

ITEM P-156 TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION, AND SILTATION CONTROL

DESCRIPTION

156-1.1 This item shall consist of temporary control measures as shown on the plans or as ordered by the Engineer during the life of a contract to control water pollution, soil erosion, and siltation through the use of silt fences, berms, dikes, dams, sediment basins, fiber mats, gravel, mulches, grasses, slope drains, and other erosion control devices or methods.

The temporary erosion control measures contained herein shall be coordinated with the permanent erosion control measures specified as part of this contract to the extent practical to assure economical, effective, and continuous erosion control throughout the construction period.

Temporary control may include work outside the construction limits such as borrow pit operations, equipment and material storage sites, waste areas, and temporary plant sites.

Temporary control measures shall be design, installed and maintained to minimize the creation of wildlife attractants that have the potential to attract hazardous wildlife on or near public-use airports.

156-1.2 *This item covers the application of Temporary Erosion Control items at locations shown on the Plans, as directed by the Engineer, and as required for permit compliance, and the* ***requirement*** *of the Contractor to produce, execute, and maintain a specific Storm Water Pollution Prevention Plan (SWPPP) for the project. The Contractor will also be required to request and obtain all necessary federal, state, and local permits. The temporary erosion control measures shown in the Plans do* ***not*** *represent the extent of work and coordination required by the Contractor under this item.*

MATERIALS

156-2.1 GRASS. Grass that will not compete with the grasses sown later for permanent cover per Item T-901 shall be a quick-growing species (such as ryegrass, Italian ryegrass, or cereal grasses) suitable to the area providing a temporary cover. Selected grass species shall not create a wildlife attractant.

156-2.2 MULCHES. Mulches may be hay, straw, fiber mats, netting, bark, wood chips, or other suitable material reasonably clean and free of noxious weeds and deleterious materials per ItemT-908. Mulches shall not create a wildlife attractant.

156-2.3 FERTILIZER. Fertilizer shall be a standard commercial grade and shall conform to all Federal and state regulations and to the standards of the Association of Official Agricultural Chemists.

156-2.4 SLOPE DRAINS. Slope drains may be constructed of pipe, fiber mats, rubble, Portland cement concrete, bituminous concrete, or other materials that will adequately control erosion.

156-2.5 SILT FENCE. The silt fence shall consist of polymeric filaments which are formed into a stable network such that filaments retain their relative positions. Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life. Silt fence shall meet the requirements of ASTM D6461

156-2.6 OTHER. All other materials shall ~~meet commercial grade standards and shall be approved by the Engineer before being incorporated into the project~~ *be in accordance with SECTION 506 – TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS of the Standard Specifications, except as modified or augmented herein. Heavy Duty silt fencing (with welded wire in the fabric) may be required on steep slopes if the Engineer determines that the silt fence used by the Contractor is not performing satisfactory.*

CONSTRUCTION REQUIREMENTS

156-3.1 GENERAL. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other Federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.

~~The Engineer shall be responsible for assuring compliance to the extent that construction practices, construction operations, and construction work are involved.~~

156-3.2 SCHEDULE. Prior to the start of construction, the Contractor shall submit schedules for accomplishment of temporary and permanent erosion control work for clearing and grubbing; grading; construction; paving; and structures at watercourses. The Contractor shall also submit a proposed method of erosion and dust control on haul roads and borrow pits and a plan for disposal of waste materials. Work shall not be started until the erosion control schedules and methods of operation for the applicable construction have been accepted by the Engineer.

156-3.3 CONSTRUCTION DETAILS. The Contractor will be required to incorporate all permanent erosion control features into the project at the earliest practicable time as outlined in the accepted schedule. Except where future construction operations will damage slopes, the Contractor shall perform the permanent seeding and mulching and other specified slope protection work in stages, as soon as substantial areas of exposed slopes can be made available. Temporary erosion and pollution control measures will be used to correct conditions that develop during construction that were not foreseen during the design stage; that are needed prior to installation of permanent control features; or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with permanent control features on the project.

Where erosion may be a problem, clearing and grubbing operations should be scheduled and performed so that grading operations and permanent erosion control features can follow immediately if project conditions permit; otherwise, temporary erosion control measures may be required.

The Engineer shall limit the area of clearing and grubbing, excavation, borrow, and embankment operations in progress, commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent control measures current with the accepted schedule. If seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately to the extent feasible and justified as directed by the Engineer.

The Contractor shall provide immediate permanent or temporary pollution control measures to minimize contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment as directed by the Engineer. If temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled or directed by the Engineer, the work shall be performed by the Contractor and the cost shall be incidental to this item.

The Engineer may increase or decrease the area of erodible earth material that can be exposed at any time based on an analysis of project conditions.

The erosion control features installed by the Contractor shall be acceptably maintained by the Contractor during the construction period.

Whenever construction equipment must cross watercourses at frequent intervals, temporary structures should be provided.

Pollutants such as fuels, lubricants, bitumen, raw sewage, wash water from concrete mixing operations, and other harmful materials shall not be discharged into any waterways, impoundments or into natural or manmade channels.

156-3.4 INSTALLATION, MAINTENANCE AND REMOVAL OF SILT FENCES. Silt fences shall extend a minimum of 16 inches and a maximum of 34 inches above the ground surface. Posts shall be set no more than 10 feet on center. Filter fabric shall be cut from a continuous roll to the length required minimizing joints where possible. When joints are necessary, the fabric shall be spliced at a support post with a minimum 12-inch overlap and securely sealed. A trench shall be excavated approximately 4 inches deep by 4 inches wide on the upslope side of the silt fence. The trench shall be backfilled and the soil compacted over the silt fence fabric. The Contractor shall remove and dispose of silt that accumulates during construction and prior to establishment of permanent erosion control. The fence shall be maintained in good working condition until permanent erosion control is established. Silt fence shall be removed upon approval of the Engineer.

156-3.5 CONSTRUCTION METHODS. *Providing the temporary erosion control items and devices shown on the Plans is intended to minimize the erosion of soils during construction. However, the items and devices shown are not intended to represent all of the necessary items or procedures required to be implemented by the Contractor. The plans and specifications show the Engineer's estimate of a minimum effort needed to maintain proper erosion control during construction. Additional effort and materials may be required by the Contractor to minimize the erosion of soils during construction. It shall be the Contractor's responsibility to install and maintain all the items shown in the Plans and to coordinate, submit, obtain, and comply with all necessary Federal, State, and local permits. The coordination with governing agencies shall include, but not limited to the following:*

- *Filing the Notice of Intent with TCEQ and paying any fee(s) required with the filing,*
- *Producing and maintaining an approved Storm Water Pollution Prevention Plan,*
- *Coordinating and obtaining all local permits regarding grading operations for the proposed improvements, Contractor's staging area, spoil placement and any other grading operations related to the project as directed by the local governing agency.*
- *Filing the Notice of Termination with TCEQ and paying any fee(s) required with the filing.*

METHOD OF MEASUREMENT

156-4.1 Temporary erosion and pollution control work required will be performed as scheduled or directed by the Engineer. Completed and accepted work will be measured as *one complete item. This work includes obtaining all necessary federal, state, and local permits required to complete this project.* ~~follows:~~

~~**a.** Temporary seeding and mulching will be measured by the square yard.~~

~~**b.** Temporary slope drains will be measured by the linear foot.~~

~~**c.** Temporary benches, dikes, dams, and sediment basins will be measured by the cubic yard of excavation performed, including necessary cleaning of sediment basins, and the cubic yard of embankment placed as directed by the Engineer.~~

~~**d.** All fertilizing will be measured by the ton.~~

~~**e.** Installation and removal of silt fence will be measured by the [linear foot] [Lump sum].~~

156-4.2 Control work performed for protection of construction areas outside the construction limits, such as borrow and waste areas, haul roads, equipment and material storage sites, and temporary plant sites, will not be measured and paid for directly but shall be considered as a subsidiary obligation of the Contractor.

BASIS OF PAYMENT

156-5.1 *Temporary erosion control acceptably completed will be paid for at the unit prices listed below under payment, which shall be full compensation for furnishing all materials, tools, equipment, labor, and incidentals necessary to complete the work. Payment for these items will also include obtaining and compliance with the SWPPP, which shall include compensation for drainage-way inspections, report preparation, housekeeping practices, cleaning and maintenance, and other actions outlined in the SWPPP prepared by the Contractor necessary to execute the plan and meet the requirements of the NOI. Any fines issued to the Owner as a result of the Contractor's insufficient execution of the SWPPP will be assessed to the Contractor. Such deductions shall not be limited to the total contract amounts under this item.*

Payment will be made under:

Item P-156-1	Sediment Control Fence — per Linear Foot
Item P-156-2	Inlet Protection — per Each

~~**156-5.1** Accepted quantities of temporary water pollution, soil erosion, and siltation control work ordered by the Engineer and measured as provided in paragraph 156-4.1 will be paid for under:~~

~~Item P-156-5.1a~~	~~Temporary seeding and mulching — per Square Yard.~~
~~Item P-156-5.1b~~	~~Temporary slope drains — per Linear Foot.~~
~~Item P-156-5.1c~~	~~Temporary benches, dikes, dams and sediment basins — per Cubic Yard~~
~~Item P-156-5.1d~~	~~Fertilizing — per Ton~~
~~Item P-156-5.1e~~	~~Installation and removal of silt fence [per Linear Feet] [Lump Sum]~~

~~Where other directed work falls within the specifications for a work item that has a contract price, the units of work shall be measured and paid for at the contract unit price bid for the various items.~~

~~Temporary control features not covered by contract items that are ordered by the Engineer will be paid for in accordance with Section 90-05 Payment for Extra work.~~

MATERIAL REQUIREMENTS

ASTM D6461	Standard Specification for Silt Fence Materials
AC 150/5200-33	Hazardous Wildlife Attractants

END OF ITEM P-156

ITEM P-501 PORTLAND CEMENT CONCRETE (PCC) PAVEMENT

DESCRIPTION

501-1.1 This work shall consist of pavement composed of portland cement concrete (PCC), with reinforcement constructed on a prepared underlying surface in accordance with these specifications and shall conform to the lines, grades, thickness, and typical cross-sections shown on the plans.

MATERIALS

501-2.1 AGGREGATES.

a. Reactivity. Fine and Coarse aggregates to be used in all concrete shall be evaluated and tested by the Contractor for alkali-aggregate reactivity in accordance with both ASTM C1260 and ASTM C1567. Aggregate and mix proportion reactivity tests shall be performed for each project.

(1) Coarse and fine aggregate shall be tested separately in accordance with ASTM C1260. The aggregate shall be considered innocuous if the expansion of test specimens, tested in accordance with ASTM C1260, does not exceed 0.10% at 28 days (30 days from casting).

(2) Combined coarse and fine aggregate shall be tested in accordance with ASTM C1567, modified for combined aggregates, using the proposed mixture design proportions of aggregates, cementitious materials, and/or specific reactivity reducing chemicals. If lithium nitrate is proposed for use with or without supplementary cementitious materials, the aggregates shall be tested in accordance with Corps of Engineers (COE) Concrete Research Division (CRD) C662. If lithium nitrate admixture is used, it shall be nominal 30% ±0.5% weight lithium nitrate in water.

(3) If the expansion of the proposed combined materials test specimens, tested in accordance with ASTM C1567, modified for combined aggregates, or COE CRD C662, does not exceed 0.10% at 28 days, the proposed combined materials will be accepted. If the expansion of the proposed combined materials test specimens is greater than 0.10% at 28 days, the aggregates will not be accepted unless adjustments to the combined materials mixture can reduce the expansion to less than 0.10% at 28 days, or new aggregates shall be evaluated and tested.

b. Fine Aggregate. Fine aggregate shall conform to the requirements of ASTM C33. Grading of the fine aggregate, as delivered to the mixer, shall conform to the requirements of ASTM C33 and shall have a fineness modulus of not less than 2.50 nor more than 3.40. The soundness loss shall not exceed 10% when sodium sulfate is used or 15% when magnesium sulfate is used, after five cycles, when tested per ASTM C88.

The amount of deleterious material in the fine aggregate shall not exceed the following limits:

Limits for Deleterious Substances in Fine Aggregate for Concrete

Deleterious material	ASTM	Percentage by Mass
Clay Lumps and friable particles	ASTM C142	1.0
Material finer than 0.075mm (No. 200 sieve)	ASTM C117	3.0

Lightweight particles	ASTM C123 using a medium with a density of Sp. Gr. of 2.0	0.5
Total of all deleterious Material		3.0

c. Coarse Aggregate. Gradation, within the separated size groups, shall meet the coarse aggregate grading requirements of ASTM C33 when tested in accordance with ASTM C136. When the nominal maximum size of the aggregate is greater than one inch, the aggregates shall be furnished in two size groups.

Aggregates delivered to the mixer shall consist of crushed stone, crushed or uncrushed gravel, air-cooled iron blast furnace slag, crushed recycled concrete pavement, or a combination. The aggregates should be free of ferrous sulfides, such as pyrite, that would cause "rust" staining that can bleed through pavement markings. Steel blast furnace slag shall not be permitted. The aggregate shall be composed of clean, hard, uncoated particles. Dust and other coating shall be removed from the aggregates by washing.

The percentage of wear shall be no more than 40% when tested in accordance with ASTM C 131.

The quantity of flat, elongated, and flat and elongated particles in any size group coarser than 3/8 sieve (9 mm) shall not exceed 8% by weight when tested in accordance with ASTM D4791. A flat particle is defined as one having a ratio of width to thickness greater than 5. An elongated particle is one having a ratio of length to width greater than 5.

The soundness loss shall not exceed 12% when sodium sulfate is used or 18% when magnesium sulfate is used, after five cycles, when tested per ASTM C88.

The amount of deleterious material in the coarse aggregate shall not exceed the following limits:

Limits for Deleterious Substances in Coarse Aggregate for Concrete

Deleterious material	ASTM	Percentage by Mass
Clay Lumps and friable particles	ASTM C142	1.0
Material finer than No. 200 sieve (0.075mm)	ASTM C117	1.0
Lightweight particles	ASTM C123 using a medium with a density of Sp. Gr. of 2.0	0.5
Chert (less than 2.40 Sp Gr.)	ASTM C123 using a medium with a density of Sp. Gr. of 2.0)	1.0
Total of all deleterious Material		3.0

Table 1. Gradation for Coarse Aggregate (ASTM C33)

Sieve Designations (square openings)		Percentage by Weight Passing Sieves	
inch	mm	#4 1-1/2 inch – 3/4 inch	#67 3/4 inch – No. 4
2-1/2	60	---	---
2	50	100	---
1-1/2	38	90-100	---
1	25	20-55	100
3/4	19	0-15	90-100
1/2	13	---	---
3/8	9	0-5	20-55
No. 4	4.75	---	0-10
No. 8	2.36	---	0-5

(1) Aggregate susceptibility to Disintegration (D) Cracking. Aggregates that have a history of D-cracking shall not be used.

Coarse aggregate may be accepted from sources that have a 20 year service history for the same gradation to be supplied with no durability issues. Aggregates that do not have a record of 20 years of service without major repairs (less than 5% of slabs replaced) in similar conditions without D-cracking shall not be used unless it meets the following:

(a) Material currently being produced shall have a durability factor ≥95 using ASTM C666 procedure B. Coarse aggregates that are crushed granite, calcite cemented sandstone, quartzite, basalt, diabase, rhyolite or trap rock are considered to meet the D-cracking test but must meet all other quality tests. Aggregates meeting State Highway Department material specifications may be acceptable.

(b) The Contractor shall submit a current certification that the aggregate does not have a history of D-cracking and that the aggregate meets the state specifications for use in PCC pavement for use on interstate highways. Certifications, tests and any history reports must be for the same gradation as being proposed for use on the project. Certifications which are not dated or which are over one (1) year old or which are for different gradations will not be accepted. Test results will only be accepted when tests were performed by a State Department of Transportation (DOT) materials laboratory or an accredited laboratory.

(2) Combined aggregate gradation. If substituted for the grading requirements specified for coarse aggregate and for fine aggregate and when approved by the Engineer, the combined aggregate grading shall meet the following requirements:

(a) The materials selected and the proportions used shall be such that when the Coarseness Factor (CF) and the Workability Factor (WF) are plotted on a diagram as described in d. below, the point thus determined shall fall within the parallelogram described therein.

(b) The CF shall be determined from the following equation CF = (cumulative percent retained on the 3/8 in. sieve)(100) / (cumulative percent retained on the No. 8 sieve)

(c) The Workability Factor WF is defined as the percent passing the No. 8 sieve based on the combined gradation. However, WF shall be adjusted, upwards only, by 2.5 percentage points for each 94 pounds of cementitious material per cubic meter yard greater than 564 pounds per cubic yard.

(d) A diagram shall be plotted using a rectangular scale with WF on the Y-axis with units from 20 (bottom) to 45 (top), and with CF on the X-axis with units from 80 (left side) to 30 (right side). On this diagram a parallelogram shall be plotted with corners at the following coordinates (CF-75, WF- 28), (CF-75, WF-40), (CF-45, WF-32.5), and (CF-45, WF-44.5). If the point determined by the intersection of the computed CF and WF does not fall within the above parallelogram, the grading of each size of aggregate used and the proportions selected shall be changed as necessary.

501-2.2 CEMENT. Cement shall conform to the requirements of ASTM C 150 Type I.

If aggregates are deemed innocuous when tested in accordance with paragraph 501-2.1.a.1 and accepted in accordance with paragraph 501-2.1.a.2, higher equivalent alkali content in the cement may be allowed if approved by the Engineer and FAA. If cement becomes partially set or contains lumps of caked cement, it shall be rejected. Cement salvaged from discarded or used bags shall not be used.

501-2.3 CEMENTITIOUS MATERIALS.

a. Fly Ash. Fly ash shall meet the requirements of ASTM C618, with the exception of loss of ignition, where the maximum shall be less than 6%. Fly ash for use in mitigating alkali-silica reactivity shall have a Calcium Oxide (CaO) content of less than 13% and a total available alkali content less than 3% per ASTM C311. Fly ash produced in furnace operations using liming materials or soda ash (sodium carbonate) as an additive shall not be acceptable. The Contractor shall furnish the previous three most recent, consecutive ASTM C618 reports for each source of fly ash proposed in the mix design, and shall furnish each additional report as they become available during the project. The reports can be used for acceptance or the material may be tested independently by the Engineer.

~~**b. Slag cement (ground granulated blast furnace (GGBF)).** Slag cement shall conform to ASTM C989, Grade 100 or Grade 120. Slag cement shall be used only at a rate between 25% and 55% of the total cementitious material by mass.~~

c. Raw or calcined natural pozzolan. Natural pozzolan shall be raw or calcined and conform to ASTM C618, Class N, including the optional requirements for uniformity and effectiveness in controlling Alkali-Silica reaction and shall have a loss on ignition not exceeding 6%. Class N pozzolan for use in mitigating Alkali-Silica Reactivity shall have a total available alkali content less than 3%.

501-2.4 JOINT SEAL. The joint seal for the joints in the concrete pavement shall meet the requirements of **Item P-605** and shall be of the type specified in the plans.

501-2.5 ISOLATION JOINT FILLER. Premolded joint filler for isolation joints shall conform to the requirements of ASTM D1752, Type II or III and shall be where shown on the plans. The filler for each joint shall be furnished in a single piece for the full depth and width required for the joint, unless otherwise specified by the Engineer. When the use of more than one piece is required for a joint, the abutting ends shall be fastened securely and held accurately to shape by stapling or other positive fastening means satisfactory to the Engineer.

501-2.6 STEEL REINFORCEMENT. Reinforcing shall consist of Deformed and Plain Carbon-Steel Bars conforming to the requirements of ASTM A615.

501-2.7 DOWEL AND TIE BARS. Dowel bars shall be plain steel bars conforming to ASTM A615 and shall be free from burring or other deformation restricting slippage in the concrete. Before delivery to the construction site each dowel bar shall be epoxy coated per ASTM A1078. The dowels shall be coated with a bond-breaker recommended by the manufacturer. Dowel sleeves or inserts are not permitted.

Grout retention rings shall be fully circular metal or plastic devices capable of supporting the dowel until the grout hardens.

Tie bars shall be deformed steel bars and conform to the requirements of ASTM A615. Tie bars designated as Grade 60 in ASTM A615 or ASTM A706 shall be used for construction requiring bent bars.

501-2.8 WATER. Water used in mixing or curing shall be potable, clean, free of oil, salt, acid, alkali, sugar, vegetable, or other substances injurious to the finished product, except that non-potable water, or water from concrete production operations, may be used if it meets the requirements of ASTM C1602.

501-2.9 MATERIALS FOR CURING CONCRETE. Curing materials shall conform to one of the following specifications:

a. Liquid membrane-forming compounds for curing concrete shall conform to the requirements of ASTM C309, Type 2, Class B, or Class A if wax base only.

b. White polyethylene film for curing concrete shall conform to the requirements of ASTM C171.

c. White burlap-polyethylene sheeting for curing concrete shall conform to the requirements of ASTM C171.

d. Waterproof paper for curing concrete shall conform to the requirements of ASTM C171.

501-2.10 ADMIXTURES. The Contractor shall submit certificates indicating that the material to be furnished meets all of the requirements indicated below. In addition, the Engineer may require the Contractor to submit complete test data from an approved laboratory showing that the material to be furnished meets all of the requirements of the cited specifications. Subsequent tests may be made of samples taken by the Engineer from the supply of the material being furnished or proposed for use on the work to determine whether the admixture is uniform in quality with that approved.

a. Air-entraining admixtures. Air-entraining admixtures shall meet the requirements of ASTM C260 and shall consistently entrain the air content in the specified ranges under field conditions. The air-entrainment agent and any water reducer admixture shall be compatible.

b. Water-reducing admixtures. Water-reducing admixture shall meet the requirements of ASTM C494, Type A, B, or D. ASTM C494, Type F and G high range water reducing admixtures and ASTM C1017 flowable admixtures shall not be used.

c. Other admixtures. The use of set retarding, and set-accelerating admixtures shall be approved by the Engineer. Retarding shall meet the requirements of ASTM C494, Type A, B, or D and set-accelerating shall meet the requirements of ASTM C494, Type C. Calcium chloride and admixtures containing calcium chloride shall not be used.

d. Lithium Nitrate. The lithium admixture shall be a nominal 30% aqueous solution of Lithium Nitrate, with a density of 10 pounds/gallon, and shall have the approximate chemical form as shown below:

Constituent:	Limit (Percent by Mass):
LiNO3 (Lithium Nitrate)	30 ±0.5
SO4 (Sulfate Ion)	0.1 (max)
Cl (Chloride Ion)	0.2 (max)
Na (Sodium Ion)	0.1 (max)
K (Potassium Ion)	0.1 (max)

Provide a trained manufacturer's representative to supervise the lithium nitrate admixture dispensing and mixing operations.

501-2.11 EPOXY-RESIN. All epoxy-resin materials shall be two-component materials conforming to the requirements of ASTM C881, Class as appropriate for each application temperature to be encountered, except that in addition, the materials shall meet the following requirements:

a. Material for use for embedding dowels and anchor bolts shall be Type IV, Grade 3.

b. Material for use as patching materials for complete filling of spalls and other voids and for use in preparing epoxy resin mortar shall be Type III, Grade as approved.

c. Material for use for injecting cracks shall be Type IV, Grade 1.

d. Material for bonding freshly mixed Portland cement concrete or mortar or freshly mixed epoxy resin concrete or mortar to hardened concrete shall be Type V, Grade as approved.

501-2.12 MATERIAL ACCEPTANCE. Prior to use of materials, the Contractor shall submit certified test reports to the Engineer for those materials proposed for use during construction. The certification shall show the appropriate ASTM test for each material, the test results, and a statement that the material passed or failed.

The Engineer may request samples for testing, prior to and during production, to verify the quality of the materials and to ensure conformance with the applicable specifications.

MIX DESIGN

501-3.1 GENERAL. No concrete shall be placed until the mix design has been submitted to the Engineer for review and the Engineer has taken appropriate action. The Engineer's review shall not relieve the Contractor of the responsibility to select and proportion the materials to comply with this section.

501-3.2 PROPORTIONS. The laboratory preparing the mix design shall be accredited in accordance with ASTM C1077. The mix design for all Portland cement concrete placed under P-501 shall be stamped or sealed by the responsible professional Engineer of the laboratory. Concrete shall be proportioned to achieve a 28-day flexural strength that meets or exceeds the acceptance criteria contained in paragraph 501-5.2 for a flexural strength of **650** psi per ASTM C78. The mix shall be developed using the procedures contained in the Portland Cement Association's (PCA) publication, "Design and Control of Concrete Mixtures".

The minimum cementitious material shall be adequate to ensure a workable, durable mix. The minimum cementitious material (cement plus fly ash, or slag cement) shall be **517** pounds per cubic yard. The ratio of water to cementitious material, including free surface moisture on the aggregates but not including moisture absorbed by the aggregates shall not be more than **0.45** by weight

Flexural strength test specimens shall be prepared in accordance with ASTM C192 and tested in accordance with ASTM C78. The mix determined shall be workable concrete having a maximum allowable slump between one and two inches as determined by ASTM C143. For slip-form concrete, the slump shall be between 1/2 inch and 1-1/2 inch. At the start of the project, the Contractor shall determine a maximum allowable slump for slip-form pavement which will produce in-place pavement to control the edge slump. The selected slump shall be applicable to both pilot and fill-in lanes.

Before the start of paving operations and after approval of all material to be used in the concrete, the Contractor shall submit a mix design showing the proportions and flexural strength obtained from the concrete at seven (7) and 28 days. The mix design shall include copies of test reports, including test dates, and a complete list of materials including type, brand, source, and amount of cement, fly ash, ground slag, coarse aggregate, fine aggregate, water, and admixtures. The mix design shall be submitted to the Engineer at least 30 days prior to the start of operations. The submitted mix design shall not be

more than 90 days old. Production shall not begin until the mix design is approved in writing by the Engineer.

If a change in sources is made, or admixtures added or deleted from the mix, a new mix design must be submitted to the Engineer for approval.

The results of the mix design shall include a statement giving the maximum nominal coarse aggregate size and the weights and volumes of each ingredient proportioned on a one cubic yard (meter) basis. Aggregate quantities shall be based on the mass in a saturated surface dry condition. The recommended mixture proportions shall be accompanied by test results demonstrating that the proportions selected will produce concrete of the qualities indicated. Trial mixtures having proportions, slumps, and air content suitable for the work shall be based on methodology described in PCA's publication, Design and Control of Concrete Mixtures, modified as necessary to accommodate flexural strength.

The submitted mix design shall be stamped or sealed by the responsible professional Engineer of the laboratory and shall include the following items as a minimum:

a. Coarse, fine, and combined aggregate gradations and plots including fineness modulus of the fine aggregate.

b. Reactivity Test Results.

c. Coarse aggregate quality test results, including deleterious materials.

d. Fine aggregate quality test results, including deleterious materials.

e. Mill certificates for cement and supplemental cementitious materials.

f. Certified test results for all admixtures, including Lithium Nitrate if applicable.

g. Specified flexural strength, slump, and air content.

h. Recommended proportions/volumes for proposed mixture and trial water-cementitious materials ratio, including actual slump and air content.

i. Flexural and compressive strength summaries and plots, including all individual beam and cylinder breaks.

j. Correlation ratios for acceptance testing and Contractor Quality Control testing, when applicable.

k. Historical record of test results documenting production standard deviation, when applicable.

501-3.3 CEMENTITIOUS MATERIALS.

a. Fly Ash. When fly ash is used as a partial replacement for cement, the replacement rate shall be determined from laboratory trial mixes, and shall be between 20 and 30% by weight of the total cementitious material. If fly ash is used in conjunction with slag cement the maximum replacement rate shall not exceed 10% by weight of total cementitious material.

b.Slag cement (ground granulated blast furnace (GGBF)). Slag cement may be used. The slag cement, or slag cement plus fly ash if both are used, may constitute between 25 to 55% of the total cementitious material by weight. If the concrete is to be used for slipforming operations and the air temperature is expected to be lower than 55°F the percent slag cement shall not exceed 30% by weight.

c. Raw or calcined natural pozzolan. Natural pozzolan may be used in the mix design. When pozzolan is used as a partial replacement for cement, the replacement rate shall be determined from laboratory trial mixes, and shall be between 20 and 30% by weight of the total cementitious material. If

pozzolan is used in conjunction with slag cement the maximum replacement rate shall not exceed 10% by weight of total cementitious material.

501-3.4 ADMIXTURES.

a. Air-Entraining admixtures. Air-entraining admixture is to be added in such a manner that will ensure uniform distribution of the agent throughout the batch. The air content of freshly mixed air-entrained concrete shall be based upon trial mixes with the materials to be used in the work adjusted to produce concrete of the required plasticity and workability. The percentage of air in the mix shall be **5.5%**. Air content shall be determined by testing in accordance with ASTM C231 for gravel and stone coarse aggregate and ASTM C173 for slag and other highly porous coarse aggregate.

b. Water-reducing admixtures. Water-reducing admixtures shall be added to the mix in the manner recommended by the manufacturer and in the amount necessary to comply with the specification requirements. Tests shall be conducted on trial mixes, with the materials to be used in the work, in accordance with ASTM C494.

c. Other admixtures. Set controlling, and other approved admixtures shall be added to the mix in the manner recommended by the manufacturer and in the amount necessary to comply with the specification requirements. Tests shall be conducted on trial mixes, with the materials to be used in the work, in accordance with ASTM C 494.

d. Lithium nitrate. Lithium nitrate shall be added to the mix in the manner recommended by the manufacturer and in the amount necessary to comply with the specification requirements in accordance with paragraph 501-2.10d.

501-3.5 CONCRETE MIX DESIGN LABORATORY. The Contractor's laboratory used to develop the concrete mix design shall be accredited in accordance with ASTM C1077. The laboratory accreditation must be current and listed on the accrediting authority's website. All test methods required for developing the concrete mix design must be listed on the lab accreditation. A copy of the laboratory's current accreditation and accredited test methods shall be submitted to the Engineer prior to start of construction.

CONSTRUCTION METHODS

501-4.1 EQUIPMENT. Equipment necessary for handling materials and performing all parts of the work shall be approved by the Engineer, but does not relieve the Contractor of the responsibility for the proper operation of equipment and maintaining the equipment in good working condition. The equipment shall be at the jobsite sufficiently ahead of the start of paving operations to be examined thoroughly and approved.

a. Batch Plant and Equipment. The batch plant and equipment shall conform to the requirements of ASTM C94.

b. Mixers and Transportation Equipment.

(1) General. Concrete may be mixed at a central plant, or wholly or in part in truck mixers. Each mixer shall have attached in a prominent place a manufacturer's nameplate showing the capacity of the drum in terms of volume of mixed concrete and the speed of rotation of the mixing drum or blades.

(2) Central plant mixer. Central plant mixers shall conform to the requirements of ASTM C94. The mixer shall be examined daily for changes in condition due to accumulation of hard concrete or mortar or wear of blades. The pickup and throwover blades shall be replaced when they have worn down 3/4 inch or more. The Contractor shall have a copy of the manufacturer's design on hand showing dimensions and arrangement of blades in reference to original height and depth.

(3) Truck mixers and truck agitators. Truck mixers used for mixing and hauling concrete and truck agitators used for hauling central-mixed concrete shall conform to the requirements of ASTM C94.

(4) Nonagitator trucks. Nonagitating hauling equipment shall conform to the requirements of ASTM C94.

(5) Transfer and spreading equipment. Equipment for transferring concrete from the transporting equipment to the paving lane in front of the paver shall be specially manufactured, self-propelled transfer equipment which will accept the concrete outside the paving lane and will transfer and spread it evenly across the paving lane in front of the paver and strike off the surface evenly to a depth which permits the paver to operate efficiently.

c. Finishing Equipment. The standard method of constructing concrete pavements **may** be with an approved slip-form paving equipment designed and operated to spread, consolidate, screed, and float- finish the freshly placed concrete in one complete pass of the machine so that the end result is a dense and homogeneous pavement which is achieved with a minimum of hand finishing. The paver-finisher shall be a heavy duty, self-propelled machine designed specifically for paving and finishing high quality concrete pavements. It shall weigh at least 2,200 lbs per foot of paving lane width and powered by an engine having at least 6.0 horsepower per foot of lane width.

On projects requiring less than **10,000** square yard of cement concrete pavement or requiring individual placement areas of less than 500 square yard, or irregular areas at locations inaccessible to slip-form paving equipment, concrete pavement may be placed with approved placement and finishing equipment using stationary side forms. Hand screeding and float finishing may only be used on small irregular areas as allowed by the Engineer.

d. Vibrators. Vibrator shall be the internal type. Operating frequency for internal vibrators shall be between 8,000 and 12,000 vibrations per minute. Average amplitude for internal vibrators shall be 0.025- 0.05 inch.

The number, spacing, and frequency shall be as necessary to provide a dense and homogeneous pavement and meet the recommendations of American Concrete Institute (ACI) 309, Guide for Consolidation of Concrete. Adequate power to operate all vibrators shall be available on the paver. The vibrators shall be automatically controlled so that they shall be stopped as forward motion ceases. The Contractor shall provide an electronic or mechanical means to monitor vibrator status. The checks on vibrator status shall occur a minimum of two times per day or when requested by the Engineer.

Hand held vibrators may be used in irregular areas only, but shall meet the recommendations of ACI 309R, Guide for Consolidation of Concrete.

e. Concrete Saws. The Contractor shall provide sawing equipment adequate in number of units and power to complete the sawing to the required dimensions. The Contractor shall provide at least one standby saw in good working order and a supply of saw blades at the site of the work at all times during sawing operations. Early-entry saws may be used, subject to demonstration and approval of the Engineer.

f. Side Forms. Straight side forms shall be made of steel and shall be furnished in sections not less than 10 feet in length. Forms shall have a depth equal to the pavement thickness at the edge, and a base width equal to or greater than the depth. Flexible or curved forms of proper radius shall be used for curves of 100-foot radius or less. Forms shall be provided with adequate devices for secure settings so that when in place they will withstand, without visible spring or settlement, the impact and vibration of the consolidating and finishing equipment. Forms with battered top surfaces and bent, twisted or broken forms shall not be used. Built-up forms shall not be used, except as approved by the Engineer. The top face of the form shall not vary from a true plane more than 1/8 inch in 10 feet, and the upstanding leg shall not vary more than 1/4 inch. The forms shall contain provisions for locking the ends of abutting

sections together tightly for secure setting. Wood forms may be used under special conditions, when approved by the Engineer.

g. Pavers. The paver shall be fully energized, self-propelled, and designed for the specific purpose of placing, consolidating, and finishing the concrete pavement, true to grade, tolerances, and cross-section. It shall be of sufficient weight and power to construct the maximum specified concrete paving lane width as shown in the plans, at adequate forward speed, without transverse, longitudinal or vertical instability or without displacement. The paver shall be equipped with electronic or hydraulic horizontal and vertical control devices.

501-4.2 FORM SETTING. Forms shall be set sufficiently in advance of the concrete placement to ensure continuous paving operation. After the forms have been set to correct grade, the underlying surface shall be thoroughly tamped, either mechanically or by hand, at both the inside and outside edges of the base of the forms. Forms shall be staked into place sufficiently to maintain the form in position for the method of placement.

Form sections shall be tightly locked and shall be free from play or movement in any direction. The forms shall not deviate from true line by more than 1/8 inch at any joint. Forms shall be so set that they will withstand, without visible spring or settlement, the impact and vibration of the consolidating and finishing equipment. Forms shall be cleaned and oiled prior to the placing of concrete.

The alignment and grade elevations of the forms shall be checked and corrections made by the Contractor immediately before placing the concrete.

501-4.3 CONDITIONING OF UNDERLYING SURFACE. The compacted underlying surface on which the pavement will be placed shall be widened approximately 3 feet to extend beyond the paving machine track to support the paver without any noticeable displacement. After the underlying surface has been placed and compacted to the required density, the areas that will support the paving machine and the area to be paved shall be trimmed or graded to the plan grade elevation and profile by means of a properly designed machine. The grade of the underlying surface shall be controlled by a positive grade control system using lasers, stringlines, or guide wires. If the density of the underlying surface is disturbed by the trimming operations, it shall be corrected by additional compaction and retested at the option of the Engineer before the concrete is placed except when stabilized subbases are being constructed. If damage occurs on a stabilized subbase, it shall be corrected full depth by the Contractor. If traffic is allowed to use the prepared grade, the grade shall be checked and corrected immediately before the placement of concrete.

The prepared grade shall be moistened with water, without saturating, immediately ahead of concrete placement to prevent rapid loss of moisture from concrete. The underlying surface shall be protected so that it will be entirely free of frost when concrete is placed.

501-4.4 CONDITIONING OF UNDERLYING SURFACE, SIDE-FORM AND FILL-IN LANE CONSTRUCTION. The prepared underlying surface shall be moistened with water, without saturating, immediately ahead of concrete placement to prevent rapid loss of moisture from the concrete. Damage caused by hauling or usage of other equipment shall be corrected and retested at the option of the Engineers. If damage occurs to a stabilized subbase, it shall be corrected full depth by the Contractor. A template shall be provided and operated on the forms immediately in advance of the placing of all concrete. The template shall be propelled only by hand and not attached to a tractor or other power unit. Templates shall be adjustable so that they may be set and maintained at the correct contour of the underlying surface. The adjustment and operation of the templates shall be such as will provide an accurate retest of the grade before placing the concrete thereon. All excess material shall be removed and wasted. Low areas shall be filled and compacted to a condition similar to that of the surrounding grade. The underlying surface shall be protected so that it will be entirely free from frost when the concrete is placed. The use of chemicals to eliminate frost in the underlying surface shall not be permitted.

The template shall be maintained in accurate adjustment, at all times by the Contractor, and shall be checked daily.

501-4.5 HANDLING, MEASURING, AND BATCHING MATERIAL. The batch plant site, layout, equipment, and provisions for transporting material shall assure a continuous supply of material to the work. Stockpiles shall be constructed in such a manner that prevents segregation and intermixing of deleterious materials. Aggregates from different sources shall be stockpiled, weighed and batched separately at the concrete batch plant.

Aggregates that have become segregated or mixed with earth or foreign material shall not be used. All aggregates produced or handled by hydraulic methods, and washed aggregates, shall be stockpiled or binned for draining at least 12 hours before being batched. Rail shipments requiring more than 12 hours will be accepted as adequate binning only if the car bodies permit free drainage.

Batching plants shall be equipped to proportion aggregates and bulk cement, by weight, automatically using interlocked proportioning devices of an approved type. When bulk cement is used, the Contractor shall use a suitable method of handling the cement from weighing hopper to transporting container or into the batch itself for transportation to the mixer, such as a chute, boot, or other approved device, to prevent loss of cement. The device shall be arranged to provide positive assurance that the cement content specified is present in each batch.

501-4.6 MIXING CONCRETE. The concrete may be mixed at the work site, in a central mix plant or in truck mixers. The mixer shall be of an approved type and capacity. Mixing time shall be measured from the time all materials, except water, are emptied into the drum. All concrete shall be mixed and delivered to the site in accordance with the requirements of ASTM C94.

Mixed concrete from the central mixing plant shall be transported in truck mixers, truck agitators, or non-agitating trucks. The elapsed time from the addition of cementitious material to the mix until the concrete is deposited in place at the work site shall not exceed 30 minutes when the concrete is hauled in non-agitating trucks, nor 90 minutes when the concrete is hauled in truck mixers or truck agitators.

Retempering concrete by adding water or by other means will not be permitted. With transit mixers additional water may be added to the batch materials and additional mixing performed to increase the slump to meet the specified requirements provided the addition of water is performed within 45 minutes after the initial mixing operations and provided the water/cementitious ratio specified in the approved mix design is not exceeded, and approved by the Engineer.

501-4.7 LIMITATIONS ON MIXING AND PLACING. No concrete shall be mixed, placed, or finished when the natural light is insufficient, unless an adequate and approved artificial lighting system is operated.

a. Cold Weather. Unless authorized in writing by the Engineer, mixing and concreting operations shall be discontinued when a descending air temperature in the shade and away from artificial heat reaches 40°F and shall not be resumed until an ascending air temperature in the shade and away from artificial heat reaches 35°F.

The aggregate shall be free of ice, snow, and frozen lumps before entering the mixer. The temperature of the mixed concrete shall not be less than 50°F at the time of placement. Concrete shall not be placed on frozen material nor shall frozen aggregates be used in the concrete.

When concreting is authorized during cold weather, water and/or the aggregates may be heated to not more than 150°F. The apparatus used shall heat the mass uniformly and shall be arranged to preclude the possible occurrence of overheated areas which might be detrimental to the materials

b. Hot Weather. During periods of hot weather when the maximum daily air temperature exceeds 85°F, the following precautions shall be taken.

The forms and/or the underlying surface shall be sprinkled with water immediately before placing the concrete. The concrete shall be placed at the coolest temperature practicable, and in no case shall the temperature of the concrete when placed exceed 90°F. The aggregates and/or mixing water shall be cooled as necessary to maintain the concrete temperature at or not more than the specified maximum.

The finished surfaces of the newly laid pavement shall be kept damp by applying a water-fog or mist with approved spraying equipment until the pavement is covered by the curing medium. When necessary, wind screens shall be provided to protect the concrete from an evaporation rate in excess of 0.2 psf per hour. When conditions are such that problems with plastic cracking can be expected, and particularly if any plastic cracking begins to occur, the Contractor shall immediately take such additional measures as necessary to protect the concrete surface. Such measures shall consist of wind screens, more effective fog sprays, and similar measures commencing immediately behind the paver. If these measures are not effective in preventing plastic cracking, paving operations shall be immediately stopped.

c. Temperature Management Program. Prior to the start of paving operation for each day of paving, the contractor shall provide the engineer with a Temperature Management Program for the concrete to be placed to assure that uncontrolled cracking is avoided. As a minimum, the program shall address the following items:

(1) Anticipated tensile strains in the fresh concrete as related to heating and cooling of the concrete material.

(2) Anticipated weather conditions such as ambient temperatures, wind velocity, and relative humidity; and anticipated evaporation rate using Figure 11-8, PCA, Design and Control of Concrete Mixtures.

(3) Anticipated timing of initial sawing of joint.

(4) Anticipated number and type of saws to be used.

501-4.8 PLACING CONCRETE. At any point in concrete conveyance, the free vertical drop of the concrete from one point to another or to the underlying surface shall not exceed 3 feet. The finished concrete product must be dense and homogeneous, without segregation and conforming to the standards in this specification. Backhoes and grading equipment shall not be used to distribute the concrete in front of the paver. Front end loaders will not be used. All concrete shall be consolidated without voids or segregation, including under and around all load-transfer devices, joint assembly units, and other features embedded in the pavement. Hauling equipment or other mechanical equipment can be permitted on adjoining previously constructed pavement when the concrete strength reaches **a flexural strength of 550 psi, based** on the average of four field cured specimens per 2,000 cubic yards of concrete placed. Also, subgrade and subbase planers, concrete pavers, and concrete finishing equipment may be permitted to ride upon the edges of previously constructed pavement when the concrete has attained a minimum flexural strength of 400 psi.

The Contractor shall have available materials for the protection of the concrete during inclement weather. Such protective materials shall consist of rolled polyethylene sheeting at least 4 mils thick of sufficient length and width to cover the plastic concrete slab and any edges. The sheeting may be mounted on either the paver or a separate movable bridge from which it can be unrolled without dragging over the plastic concrete surface. When rain appears imminent, all paving operations shall stop and all available personnel shall begin covering the surface of the unhardened concrete with the protective covering.

a. Slip-Form Construction. The concrete shall be distributed uniformly into final position by a self- propelled slip-form paver without delay. The alignment and elevation of the paver shall be regulated from outside reference lines established for this purpose. The paver shall vibrate the concrete for the full

width and depth of the strip of pavement being placed and the vibration shall be adequate to provide a consistency of concrete that will stand normal to the surface with sharp well defined edges. The sliding forms shall be rigidly held together laterally to prevent spreading of the forms. The plastic concrete shall be effectively consolidated by internal vibration with transverse vibrating units for the full width of the pavement and/or a series of equally placed longitudinal vibrating units. The space from the outer edge of the pavement to longitudinal unit shall not exceed 9 inches for slipform and at the end of the dowels for the fill-in lanes. The spacing of internal units shall be uniform and shall not exceed 18 inches.

The term internal vibration means vibrating units located within the specified thickness of pavement section.

The rate of vibration of each vibrating unit shall be within 8000 to 12000 cycles per minute and the amplitude of vibration shall be sufficient to be perceptible on the surface of the concrete along the entire length of the vibrating unit and for a distance of at least one foot. The frequency of vibration or amplitude shall vary proportionately with the rate of travel to result in a uniform density and air content. The paving machine shall be equipped with a tachometer or other suitable device for measuring and indicating the actual frequency of vibrations.

The concrete shall be held at a uniform consistency. The slip-form paver shall be operated with as nearly a continuous forward movement as possible and all operations of mixing, delivering, and spreading concrete shall be coordinated to provide uniform progress with stopping and starting of the paver held to a minimum. If for any reason, it is necessary to stop the forward movement of the paver, the vibratory and tamping elements shall also be stopped immediately. No tractive force shall be applied to the machine, except that which is controlled from the machine.

When concrete is being placed adjacent to an existing pavement, that part of the equipment which is supported on the existing pavement shall be equipped with protective pads on crawler tracks or rubber-tired wheels on which the bearing surface is offset to run a sufficient distance from the edge of the pavement to avoid breaking the pavement edge.

Not more than 15% of the total free edge of each 500 foot segment of pavement, or fraction thereof, shall have an edge slump exceeding 1/4 inch, and none of the free edge of the pavement shall have an edge slump exceeding 3/8 inch. (The total free edge of 500 feet of pavement will be considered the cumulative total linear measurement of pavement edge originally constructed as nonadjacent to any existing pavement; that is, 500 feet of paving lane originally constructed as a separate lane will have 1,000 feet of free edge, 500 feet of fill-in lane will have no free edge, etc.). The area affected by the downward movement of the concrete along the pavement edge shall be limited to not more than 18 inches from the edge. When excessive edge slump cannot be corrected before the concrete has hardened, the area with excessive edge slump shall be removed and replaced at the expense of the Contractor as directed by the Engineer.to run a sufficient distance from the edge of the pavement to avoid breaking the pavement edge.

b. Side-Form Construction. Side form sections shall be straight, free from warps, bends, indentations, or other defects. Defective forms shall be removed from the work. Metal side forms shall be used except at end closures and transverse construction joints where straight forms of other suitable material may be used.

Side forms may be built up by rigidly attaching a section to either top or bottom of forms. If such build-up is attached to the top of metal forms, the build-up shall also be metal.

Width of the base of all forms shall be equal to or greater than the specified pavement thickness.

Side forms shall be of sufficient rigidity, both in the form and in the interlocking connection with adjoining forms, that springing will not occur under the weight of subgrading and paving equipment or from the pressure of the concrete. The Contractor shall provide sufficient forms so that there will be no delay in placing concrete due to lack of forms.

Before placing side forms, the underlying material shall be at the proper grade. Side forms shall have full bearing upon the foundation throughout their length and width of base and shall be placed to the required grade and alignment of the finished pavement. They shall be firmly supported during the entire operation of placing, compacting, and finishing the pavement.

Forms shall be drilled in advance of being placed to line and grade to accommodate tie bars where these are specified.

Immediately in advance of placing concrete and after all subbase operations are completed, side forms shall be trued and maintained to the required line and grade for a distance sufficient to prevent delay in placing.

Side forms shall remain in place at least 12 hours after the concrete has been placed, and in all cases until the edge of the pavement no longer requires the protection of the forms. Curing compound shall be applied to the concrete immediately after the forms have been removed.

Side forms shall be thoroughly cleaned and oiled each time they are used and before concrete is placed against them.

Concrete shall be spread, screeded, shaped and consolidated by one or more self-propelled machines.

These machines shall uniformly distribute and consolidate concrete without segregation so that the completed pavement will conform to the required cross-section with a minimum of handwork.

The number and capacity of machines furnished shall be adequate to perform the work required at a rate equal to that of concrete delivery.

Concrete for the full paving width shall be effectively consolidated by internal vibrators without causing segregation. Internal type vibrators' rate of vibration shall be not less than 7,000 cycles per minute. Amplitude of vibration shall be sufficient to be perceptible on the surface of the concrete more than one foot from the vibrating element. The Contractor shall furnish a tachometer or other suitable device for measuring and indicating frequency of vibration.

Power to vibrators shall be connected so that vibration ceases when forward or backward motion of the machine is stopped.

The provisions relating to the frequency and amplitude of internal vibration shall be considered the minimum requirements and are intended to ensure adequate density in the hardened concrete.

c. Consolidation. Concrete shall be consolidated with the specified type of lane-spanning, gang-mounted, mechanical, immersion type vibrating equipment mounted in front of the paver, supplemented, in rare instances as specified, by hand-operated vibrators. The vibrators shall be inserted into the concrete to a depth that will provide the best full-depth consolidation but not closer to the underlying material than 2 inches. Excessive vibration shall not be permitted. If the vibrators cause visible tracking in the paving lane, the paving operation shall be stopped and equipment and operations modified to prevent it. Concrete in small, odd-shaped slabs or in isolated locations inaccessible to the gang-mounted vibration equipment shall be vibrated with an approved hand-operated immersion vibrator operated from a bridge spanning the area. Vibrators shall not be used to transport or spread the concrete. Hand-operated vibrators shall not be operated in the concrete at one location for more than 20 seconds. Insertion locations for hand-operated vibrators shall be between 6 to 15 inches on centers. For each paving train, at least one additional vibrator spud, or sufficient parts for rapid replacement and repair of vibrators shall be maintained at the paving site at all times. Any evidence of inadequate consolidation (honeycomb along the edges, large air pockets, or any other evidence) shall require the immediate stopping of the paving operation and adjustment of the equipment or procedures as approved by the Engineer.

If a lack of consolidation of the concrete is suspected by the Engineer, referee testing may be required. Referee testing of hardened concrete will be performed by the Engineer by cutting cores from the finished pavement after a minimum of 24 hours curing. Density determinations will be made by the Engineer based on the water content of the core as taken. ASTM C642 shall be used for the determination of core density in the saturated-surface dry condition. When required, referee cores will be taken at the minimum rate of one for each 500 cubic yards of pavement, or fraction. The Contractor shall be responsible for all referee testing cost if they fail to meet the required density.

The average density of the cores shall be at least 97% of the original mix design density, with no cores having a density of less than 96% of the original mix design density. Failure to meet the referee tests will be considered evidence that the minimum requirements for vibration are inadequate for the job conditions. Additional vibrating units or other means of increasing the effect of vibration shall be employed so that the density of the hardened concrete conforms to the above requirements.

501-4.9 STRIKE-OFF OF CONCRETE AND PLACEMENT OF REINFORCEMENT. Following the placing of the concrete, it shall be struck off to conform to the cross-section shown on the plans and to an elevation that when the concrete is properly consolidated and finished, the surface of the pavement shall be at the elevation shown on the plans. When reinforced concrete pavement is placed in two layers, the bottom layer shall be struck off to such length and depth that the sheet of reinforcing steel fabric or bar mat may be laid full length on the concrete in its final position without further manipulation. The reinforcement shall then be placed directly upon the concrete, after which the top layer of the concrete shall be placed, struck off, and screeded. If any portion of the bottom layer of concrete has been placed more than 30 minutes without being covered with the top layer or if initial set has taken place, it shall be removed and replaced with freshly mixed concrete at the Contractor's expense. When reinforced concrete is placed in one layer, the reinforcement may be positioned in advance of concrete placement or it may be placed in plastic concrete by mechanical or vibratory means after spreading.

Reinforcing steel, at the time concrete is placed, shall be free of mud, oil, or other organic matter that may adversely affect or reduce bond. Reinforcing steel with rust, mill scale or a combination of both will be considered satisfactory, provided the minimum dimensions, weight, and tensile properties of a hand wire- brushed test specimen are not less than the applicable ASTM specification requirements.

501-4.10 JOINTS. Joints shall be constructed as shown on the plans and in accordance with these requirements. All joints shall be constructed with their faces perpendicular to the surface of the pavement and finished or edged as shown on the plans. Joints shall not vary more than 1/2 inch from their designated position and shall be true to line with not more than 1/4 inch variation in 10 feet. The surface across the joints shall be tested with a 12 feet straightedge as the joints are finished and any irregularities in excess of 1/4 inch shall be corrected before the concrete has hardened. All joints shall be so prepared, finished, or cut to provide a groove of uniform width and depth as shown on the plans.

a. Construction. Longitudinal construction joints shall be slip-formed or formed against side forms as shown in the plans.

Transverse construction joints shall be installed at the end of each day's placing operations and at any other points within a paving lane when concrete placement is interrupted for more than 30 minutes or it appears that the concrete will obtain its initial set before fresh concrete arrives. The installation of the joint shall be located at a planned contraction or expansion joint. If placing of the concrete is stopped, the Contractor shall remove the excess concrete back to the previous planned joint.

b. Contraction. Contraction joints shall be installed at the locations and spacing as shown on the plans. Contraction joints shall be installed to the dimensions required by forming a groove or cleft in the top of the slab while the concrete is still plastic or by sawing a groove into the concrete surface after the concrete has hardened. When the groove is formed in plastic concrete the sides of the grooves shall be finished even and smooth with an edging tool. If an insert material is used, the installation and edge finish shall be according to the manufacturer's instructions. The groove shall be finished or cut clean so that

spalling will be avoided at intersections with other joints. Grooving or sawing shall produce a slot at least 1/8 inch wide and to the depth shown on the plans.

c. Isolation (expansion). Isolation joints shall be installed as shown on the plans. The premolded filler of the thickness as shown on the plans, shall extend for the full depth and width of the slab at the joint, except for space for sealant at the top of the slab. The filler shall be securely staked or fastened into position perpendicular to the proposed finished surface. A cap shall be provided to protect the top edge of the filler and to permit the concrete to be placed and finished. After the concrete has been placed and struck off, the cap shall be carefully withdrawn leaving the space over the premolded filler. The edges of the joint shall be finished and tooled while the concrete is still plastic. Any concrete bridging the joint space shall be removed for the full width and depth of the joint.

d. Tie bars. Tie bars shall consist of deformed bars installed in joints as shown on the plans. Tie bars shall be placed at right angles to the centerline of the concrete slab and shall be spaced at intervals shown on the plans. They shall be held in position parallel to the pavement surface and in the middle of the slab depth. When tie bars extend into an unpaved lane, they may be bent against the form at longitudinal construction joints, unless threaded bolt or other assembled tie bars are specified. Tie bars shall not be painted, greased, or enclosed in sleeves. When slip-form operations call for tie bars, two-piece hook bolts can be installed.

e. Dowel bars. Dowel bars or other load-transfer units of an approved type shall be placed across joints as shown on the plans. They shall be of the dimensions and spacings as shown and held rigidly in the middle of the slab depth in the proper horizontal and vertical alignment by an approved assembly device to be left permanently in place. The dowel or load-transfer and joint devices shall be rigid enough to permit complete assembly as a unit ready to be lifted and placed into position. The dowels shall be coated with a bond-breaker or other lubricant recommended by the manufacturer and approved by the Engineer.

f. Dowels bars at longitudinal construction joints shall be bonded in drilled holes.

g. Placing dowels and tie bars. The method used in installing and holding dowels in position shall ensure that the error in alignment of any dowel from its required horizontal and vertical alignment after the pavement has been completed will not be greater than 1/8 inch per feet. Except as otherwise specified below, horizontal spacing of dowels shall be within a tolerance of ±5/8 inch. The vertical location on the face of the slab shall be within a tolerance of ±1/2 inch. The vertical alignment of the dowels shall be measured parallel to the designated top surface of the pavement, except for those across the crown or other grade change joints. Dowels across crowns and other joints at grade changes shall be measured to a level surface. Horizontal alignment shall be checked perpendicular to the joint edge. The horizontal alignment shall be checked with a framing square. Dowels and tie bars shall not be placed closer than 0.6 times the dowel bar or tie bar length to the planned joint line. If the last regularly spaced longitudinal dowel tie bar is closer than that dimension, it shall be moved away from the joint to a location 0.6 times the dowel bar or tie bar length, but not closer than 6 inches to its nearest neighbor. The portion of each dowel intended to move within the concrete or expansion cap shall be wiped clean and coated with a thin, even film of lubricating oil or light grease before the concrete is placed. Dowels shall be installed as specified in the following subparagraphs.

(1) Contraction joints. Dowels and tie bars in longitudinal and transverse contraction joints within the paving lane shall be held securely in place, as indicated, by means of rigid metal frames or basket assemblies of an approved type. The basket assemblies shall be held securely in the proper location by means of suitable pins or anchors. Do not cut or crimp the dowel basket tie wires. At the Contractor's option, in lieu of the above, dowels and tie bars in contraction joints shall be installed near the front of the paver by insertion into the plastic concrete using approved equipment and procedures. Approval will be based on the results of a preconstruction demonstration, showing that the dowels and tie bars are installed within specified tolerances.

(2) Construction joints. Install dowels and tie bars by the cast-in-place or the drill-and-dowel method. Installation by removing and replacing in preformed holes will not be permitted. Dowels and tie bars shall be prepared and placed across joints where indicated, correctly aligned, and securely held in the proper horizontal and vertical position during placing and finishing operations, by means of devices fastened to the forms. The spacing of dowels and tie bars in construction joints shall be as indicated.

(3) Dowels installed in isolation joints and other hardened concrete. Install dowels for isolation joints and in other hardened concrete by bonding the dowels into holes drilled into the hardened concrete. The concrete shall have cured for seven (7) days or reached a minimum **flexural strength of 450 psi** before drilling commences. Holes 1/8 inch greater in diameter than the dowels shall be drilled into the hardened concrete using rotary-core drills. Rotary-percussion drills may be used, provided that excessive spalling does not occur to the concrete joint face. Modification of the equipment and operation shall be required if, in the Engineer's opinion, the equipment and/or operation is causing excessive damage. Depth of dowel hole shall be within a tolerance of ±1/2 inch of the dimension shown on the drawings. On completion of the drilling operation, the dowel hole shall be blown out with oil-free, compressed air. Dowels shall be bonded in the drilled holes using epoxy resin. Epoxy resin shall be injected at the back of the hole before installing the dowel and extruded to the collar during insertion of the dowel so as to completely fill the void around the dowel. Application by buttering the dowel will not be permitted. The dowels shall be held in alignment at the collar of the hole, after insertion and before the grout hardens, by means of a suitable metal or plastic grout retention ring fitted around the dowel. Dowels required to be installed in any joints between new and existing concrete shall be grouted in holes drilled in the existing concrete, all as specified above.

h. Sawing of Joints. Joints shall be cut as shown on the plans. Equipment shall be as described in paragraph 501-4.1. The circular cutter shall be capable of cutting a groove in a straight line and shall produce a slot at least 1/8 inch wide and to the depth shown on the plans. The top of the slot shall be widened by sawing to provide adequate space for joint sealers as shown on the plans. Sawing shall commence, without regard to day or night, as soon as the concrete has hardened sufficiently to permit cutting without chipping, spalling, or tearing and before uncontrolled shrinkage cracking of the pavement occurs and shall continue without interruption until all joints have been sawn. The joints shall be sawn at the required spacing. All slurry and debris produced in the sawing of joints shall be removed by vacuuming and washing. Curing compound or system shall be reapplied in the initial sawcut and maintained for the remaining cure period.

501-4.11 FINISHING. Finishing operations shall be a continuing part of placing operations starting immediately behind the strike-off of the paver. Initial finishing shall be provided by the transverse screed or extrusion plate. The sequence of operations shall be transverse finishing, longitudinal machine floating if used, straightedge finishing, texturing, and then edging of joints. Finishing shall be by the machine method. The hand method shall be used only on isolated areas of odd slab widths or shapes and in the event of a breakdown of the mechanical finishing equipment. Supplemental hand finishing for machine finished pavement shall be kept to an absolute minimum. Any machine finishing operation which requires appreciable hand finishing, other than a moderate amount of straightedge finishing, shall be immediately stopped and proper adjustments made or the equipment replaced. Any operations which produce more than 1/8 inch of mortar-rich surface (defined as deficient in plus U.S. No. 4 (4.75 mm) sieve size aggregate) shall be halted immediately and the equipment, mixture, or procedures modified as necessary. Compensation shall be made for surging behind the screeds or extrusion plate and settlement during hardening and care shall be taken to ensure that paving and finishing machines are properly adjusted so that the finished surface of the concrete (not just the cutting edges of the screeds) will be at the required line and grade. Finishing equipment and tools shall be maintained clean and in an approved condition. At no time shall water be added to the surface of the slab with the finishing equipment or tools, or in any other way, except for fog (mist) sprays specified to prevent plastic shrinkage cracking.

a. Machine finishing with slipform pavers. The slipform paver shall be operated so that only a very minimum of additional finishing work is required to produce pavement surfaces and edges meeting the specified tolerances. Any equipment or procedure that fails to meet these specified requirements shall immediately be replaced or modified as necessary. A self-propelled non-rotating pipe float may be

used while the concrete is still plastic, to remove minor irregularities and score marks. Only one pass of the pipe float shall be allowed. If there is concrete slurry or fluid paste on the surface that runs over the edge of the pavement, the paving operation shall be immediately stopped and the equipment, mixture, or operation modified to prevent formation of such slurry. Any slurry which does run down the vertical edges shall be immediately removed by hand, using stiff brushes or scrapers. No slurry, concrete or concrete mortar shall be used to build up along the edges of the pavement to compensate for excessive edge slump, either while the concrete is plastic or after it hardens.

b. Machine finishing with fixed forms. The machine shall be designed to straddle the forms and shall be operated to screed and consolidate the concrete. Machines that cause displacement of the forms shall be replaced. The machine shall make only one pass over each area of pavement. If the equipment and procedures do not produce a surface of uniform texture, true to grade, in one pass, the operation shall be immediately stopped and the equipment, mixture, and procedures adjusted as necessary.

c. Other types of finishing equipment. Clary screeds, other rotating tube floats, or bridge deck finishers are not allowed on mainline paving, but may be allowed on irregular or odd-shaped slabs, and near buildings or trench drains, subject to the Engineer's approval.

Bridge deck finishers shall have a minimum operating weight of 7500 pounds and shall have a transversely operating carriage containing a knock-down auger and a minimum of two immersion vibrators. Vibrating screeds or pans shall be used only for isolated slabs where hand finishing is permitted as specified, and only where specifically approved.

d. Hand Finishing. Hand finishing methods will not be permitted, except under the following conditions: (1) in the event of breakdown of the mechanical equipment, hand methods may be used to finish the concrete already deposited on the grade and (2) in areas of narrow widths or of irregular dimensions where operation of the mechanical equipment is impractical. Use hand finishing operations only as specified below.

(1) Equipment and screed. In addition to approved mechanical internal vibrators for consolidating the concrete, provide a strike-off and tamping screed and a longitudinal float for hand finishing. The screed shall be at least one foot longer than the width of pavement being finished, of an approved design, and sufficiently rigid to retain its shape, and shall be constructed of metal or other suitable material shod with metal. The longitudinal float shall be at least 10 feet long, of approved design, and rigid and substantially braced, and shall maintain a plane surface on the bottom. Grate tampers (jitterbugs) shall not be used.

(2) Finishing and floating. As soon as placed and vibrated, the concrete shall be struck off and screeded to the crown and cross-section and to such elevation above grade that when consolidated and finished, the surface of the pavement will be at the required elevation. In addition to previously specified complete coverage with handheld immersion vibrators, the entire surface shall be tamped with the strike- off and tamping template, and the tamping operation continued until the required compaction and reduction of internal and surface voids are accomplished. Immediately following the final tamping of the surface, the pavement shall be floated longitudinally from bridges resting on the side forms and spanning but not touching the concrete. If necessary, additional concrete shall be placed, consolidated and screeded, and the float operated until a satisfactory surface has been produced. The floating operation shall be advanced not more than half the length of the float and then continued over the new and previously floated surfaces.

e. Straight-edge Testing and Surface Correction. After the pavement has been struck off and while the concrete is still plastic, it shall be tested for trueness with a Contractor furnished 12-foot straightedge swung from handles 3 feet longer than one-half the width of the slab. The straightedge shall be held in contact with the surface in successive positions parallel to the centerline and the whole area gone over from one side of the slab to the other, as necessary. Advancing shall be in successive stages of not more than one-half the length of the straightedge. Any excess water and laitance in excess of 1/8

inch thick shall be removed from the surface of the pavement and wasted. Any depressions shall be immediately filled with freshly mixed concrete, struck off, consolidated, and refinished. High areas shall be cut down and refinished. Special attention shall be given to assure that the surface across joints meets the smoothness requirements of paragraph 501-5.2e(3). Straightedge testing and surface corrections shall continue until the entire surface is found to be free from observable departures from the straightedge and until the slab conforms to the required grade and cross-section. The use of long-handled wood floats shall be confined to a minimum; they may be used only in emergencies and in areas not accessible to finishing equipment. This straight-edging is not a replacement for the straightedge testing of paragraph 501-5.2e(3), Smoothness.

501-4.12 SURFACE TEXTURE. The surface of the pavement shall be finished with either a brush or broom, burlap drag, or artificial turf finish for all newly constructed concrete pavements. It is important that the texturing equipment not tear or unduly roughen the pavement surface during the operation. Any imperfections resulting from the texturing operation shall be corrected to the satisfaction of the Engineer.

a. Burlap Drag Finish. If a burlap drag is used to texture the pavement surface, it shall be at least 15 ounces per square yard (555 grams per square meter). To obtain a textured surface, the transverse threads of the burlap shall be removed approximately one foot from the trailing edge. A heavy buildup of grout on the burlap threads produces the desired wide sweeping longitudinal striations on the pavement surface. The corrugations shall be uniform in appearance and approximately 1/16 inch in depth.

501-4.13 CURING. Immediately after finishing operations are completed and marring of the concrete will not occur, the entire surface of the newly placed concrete shall be cured for a 7-day cure period in accordance with one of the methods below. Failure to provide sufficient cover material of whatever kind the Contractor may elect to use, or lack of water to adequately take care of both curing and other requirements, shall be cause for immediate suspension of concreting operations. The concrete shall not be left exposed for more than 1/2 hour during the curing period.

When a two-sawcut method is used to construct the contraction joint, the curing compound shall be applied to the sawcut immediately after the initial cut has been made. The sealant reservoir shall not be sawed until after the curing period has been completed. When the one cut method is used to construct the contraction joint, the joint shall be cured with wet rope, wet rags, or wet blankets. The rags, ropes, or blankets shall be kept moist for the duration of the curing period.

a. Impervious Membrane Method. The entire surface of the pavement shall be sprayed uniformly with white pigmented curing compound immediately after the finishing of the surface and before the set of the concrete has taken place. The curing compound shall not be applied during rainfall. Curing compound shall be applied by mechanical sprayers under pressure at the rate of one gallon to not more than 150 sq ft. The spraying equipment shall be of the fully atomizing type equipped with a tank agitator. At the time of use, the compound shall be in a thoroughly mixed condition with the pigment uniformly dispersed throughout the vehicle. During application the compound shall be stirred continuously by mechanical means. Hand spraying of odd widths or shapes and concrete surfaces exposed by the removal of forms will be permitted. When hand spraying is approved by the Engineer, a double application rate shall be used to ensure coverage. The curing compound shall be of such character that the film will harden within 30 minutes after application. Should the film become damaged from any cause, including sawing operations, within the required curing period, the damaged portions shall be repaired immediately with additional compound or other approved means. Upon removal of side forms, the sides of the exposed slabs shall be protected immediately to provide a curing treatment equal to that provided for the surface. Curing shall be applied immediately after the bleed water is gone from the surface.

b. White burlap-polyethylene sheets. The surface of the pavement shall be entirely covered with the sheeting. The sheeting used shall be such length (or width) that it will extend at least twice the thickness of the pavement beyond the edges of the slab. The sheeting shall be placed so that the entire surface and both edges of the slab are completely covered. The sheeting shall be placed and weighted to

remain in contact with the surface covered, and the covering shall be maintained fully saturated and in position for seven (7) days after the concrete has been placed.

~~**c. Water Method.** The entire area shall be covered with burlap or other water absorbing material. The material shall be of sufficient thickness to retain water for adequate curing without excessive runoff. The material shall be kept wet at all times and maintained for seven (7) days. When the forms are stripped, the vertical walls shall also be kept moist. It shall be the responsibility of the Contractor to prevent ponding of the curing water on the subbase.~~

d. Concrete protection for cold weather. The concrete shall be maintained at an ambient temperature of at least 50°F for a period of 72 hours after placing and at a temperature above freezing for the remainder of the curing time. The Contractor shall be responsible for the quality and strength of the concrete placed during cold weather; and any concrete damaged shall be removed and replaced at the Contractor's expense.

e. Concrete protection for hot weather. Concrete should be continuous moisture cured for the entire curing period and shall commence as soon as the surfaces are finished and continue for at least 24 hours. However, if moisture curing is not practical beyond 24 hours, the concrete surface shall be protected from drying with application of a liquid membrane-forming curing compound while the surfaces are still damp. Other curing methods may be approved by the Engineer.

501-4.14 REMOVING FORMS. Unless otherwise specified, forms shall not be removed from freshly placed concrete until it has hardened sufficiently to permit removal without chipping, spalling, or tearing. After the forms have been removed, the sides of the slab shall be cured as per the methods indicated in paragraph 501-4.13. Major honeycombed areas shall be considered as defective work and shall be removed and replaced in accordance with paragraph 501-5.2(f).

~~**501-4.15 SAW-CUT GROOVING.** If shown on the plans, grooved surfaces shall be provided in accordance with the requirements of Item P-621.~~

501-4.16 SEALING JOINTS. The joints in the pavement shall be sealed in accordance with **Item P-605.**

501-4.17 PROTECTION OF PAVEMENT. The Contractor shall protect the pavement and its appurtenances against both public traffic and traffic caused by the Contractor's employees and agents until accepted by the Engineer. This shall include watchmen to direct traffic and the erection and maintenance of warning signs, lights, pavement bridges, crossovers, and protection of unsealed joints from intrusion of foreign material, etc. Any damage to the pavement occurring prior to final acceptance shall be repaired or the pavement replaced at the Contractor's expense.

Aggregates, rubble, or other similar construction materials shall not be placed on airfield pavements. Traffic shall be excluded from the new pavement by erecting and maintaining barricades and signs until the concrete is at least seven (7) days old, or for a longer period if directed by the Engineer.

In paving intermediate lanes between newly paved pilot lanes, operation of the hauling and paving equipment will be permitted on the new pavement after the pavement has been cured for seven (7) days and the joints have been sealed or otherwise protected, and the concrete has attained a minimum field cured flexural strength of 550 psi and approved means are furnished to prevent damage to the slab edge.

All new and existing pavement carrying construction traffic or equipment shall be continuously kept completely clean, and spillage of concrete or other materials shall be cleaned up immediately upon occurrence.

Damaged pavements shall be removed and replaced at the Contractor's expense. Slabs shall be removed to the full depth, width, and length of the slab.

501-4.18 OPENING TO TRAFFIC. The pavement shall not be opened to traffic until test specimens molded and cured in accordance with ASTM C31 have attained a flexural strength of 550 lb / square inch when tested in accordance with ASTM C78. If such tests are not conducted, the pavement shall not be opened to traffic until 14 days after the concrete was placed. Prior to opening the pavement to construction traffic, all joints shall either be sealed or protected from damage to the joint edge and intrusion of foreign materials into the joint. As a minimum, backer rod or tape may be used to protect the joints from foreign matter intrusion.

501-4.19 REPAIR, REMOVAL, REPLACEMENT OF SLABS.

a. General. New pavement slabs that are broken or contain cracks or are otherwise defective or unacceptable shall be removed and replaced or repaired, as directed by the Engineer and as specified hereinafter at no cost to the Owner. Spalls along joints shall be repaired as specified. Removal of partial slabs is not permitted. Removal and replacement shall be full depth, shall be full width of the slab, and the limit of removal shall be normal to the paving lane and to each original transverse joint. The Engineer will determine whether cracks extend full depth of the pavement and may require cores to be drilled on the crack to determine depth of cracking. Such cores shall be 4 inch diameter, shall be drilled by the Contractor and shall be filled by the Contractor with a well consolidated concrete mixture bonded to the walls of the hole with epoxy resin, using approved procedures. Drilling of cores and refilling holes shall be at no expense to the Owner. All epoxy resin used in this work shall conform to ASTM C881, Type V. Repair of cracks as described in this section shall not be allowed if in the opinion of the Engineer the overall condition of the pavement indicates that such repair is unlikely to achieve an acceptable and durable finished pavement. No repair of cracks shall be allowed in any panel that demonstrates segregated aggregate with an absence of coarse aggregate in the upper 1/8 inch of the pavement surface.

b. Shrinkage Cracks. Shrinkage cracks, which do not exceed 4 inches in depth, shall be cleaned and then pressure injected with epoxy resin, Type IV, Grade 1, using procedures as approved by the Engineer. Care shall be taken to assure that the crack is not widened during epoxy resin injection. All epoxy resin injection shall take place in the presence of the Engineer. Shrinkage cracks, which exceed 4 inches in depth, shall be treated as full depth cracks in accordance with paragraphs 4.19b and 4.19c.

c. Slabs With Cracks through Interior Areas. Interior area is defined as that area more than 6 inches from either adjacent original transverse joint. The full slab shall be removed and replaced at no cost to the Owner, when there are any full depth cracks, or cracks greater than 4 inches in depth, that extend into the interior area.

d. Cracks Close To and Parallel To Joints. All cracks essentially parallel to original joints, extending full depth of the slab, and lying wholly within 6 inches either side of the joint shall be treated as specified here. Any crack extending more than 6 inches from the joint shall be treated as specified above in subparagraph c.

(1) Full Depth Cracks Present, Original Joint Not Opened. When the original un-cracked joint has not opened, the crack shall be sawed and sealed, and the original joint filled with epoxy resin as specified below. The crack shall be sawed with equipment specially designed to follow random cracks. The reservoir for joint sealant in the crack shall be formed by sawing to a depth of 3/4 inches, ±1/16 inch, and to a width of 5/8 inch, ±1/8 inch. Any equipment or procedure which causes raveling or spalling along the crack shall be modified or replaced to prevent such raveling or spalling. The joint sealant shall be a liquid sealant as specified. Installation of joint seal shall be as specified for sealing joints or as directed. If the joint sealant reservoir has been sawed out, the reservoir and as much of the lower saw cut as possible shall be filled with epoxy resin, Type IV, Grade 2, thoroughly tooled into the void using approved procedures.

If only the original narrow saw cut has been made, it shall be cleaned and pressure injected with epoxy resin, Type IV, Grade 1, using approved procedures. If filler type material has been used to form a weakened plane in the transverse joint, it shall be completely sawed out and the saw cut pressure

injected with epoxy resin, Type IV, Grade 1, using approved procedures. Where a parallel crack goes part way across paving lane and then intersects and follows the original joint which is cracked only for the remained of the width, it shall be treated as specified above for a parallel crack, and the cracked original joint shall be prepared and sealed as originally designed.

(2) Full Depth Cracks Present, Original Joint Also Cracked. At a joint, if there is any place in the lane width where a parallel crack and a cracked portion of the original joint overlap, the entire slab containing the crack shall be removed and replaced for the full lane width and length.

e. Removal and Replacement of Full Slabs. Where it is necessary to remove full slabs, unless there are dowels present, all edges of the slab shall be cut full depth with a concrete saw. All saw cuts shall be perpendicular to the slab surface. If dowels, or tie bars are present along any edges, these edges shall be sawed full depth just beyond the end of the dowels or tie bars. These joints shall then be carefully sawed on the joint line to within one inch of the depth of the dowel or tie bar.

The main slab shall be further divided by sawing full depth, at appropriate locations, and each piece lifted out and removed. Suitable equipment shall be used to provide a truly vertical lift, and approved safe lifting devices used for attachment to the slabs. The narrow strips along doweled edges shall be carefully broken up and removed using light, hand-held jackhammers, 30 lb or less, or other approved similar equipment.

Care shall be taken to prevent damage to the dowels, tie bars, or to concrete to remain in place. The joint face below dowels shall be suitably trimmed so that there is not abrupt offset in any direction greater than 1/2 inch and no gradual offset greater than one inch when tested in a horizontal direction with a 12-foot straightedge.

No mechanical impact breakers, other than the above hand-held equipment shall be used for any removal of slabs. If underbreak between 1-1/2 and 4 inches deep occurs at any point along any edge, the area shall be repaired as directed before replacing the removed slab. Procedures directed will be similar to those specified for surface spalls, modified as necessary.

If underbreak over 4 inches deep occurs, the entire slab containing the underbreak shall be removed and replaced. Where there are no dowels or tie bars, or where they have been damaged, dowels or tie bars of the size and spacing as specified for other joints in similar pavement shall be installed by epoxy grouting them into holes drilled into the existing concrete using procedures as specified. Original damaged dowels or tie bars shall be cut off flush with the joint face. Protruding portions of dowels shall be painted and lightly oiled. All four (4) edges of the new slab shall contain dowels or original tie bars.

Placement of concrete shall be as specified for original construction. Prior to placement of new concrete, the underlying material (unless it is stabilized) shall be re-compacted and shaped as specified in the appropriate section of these specifications. The surfaces of all four joint faces shall be cleaned of all loose material and contaminants and coated with a double application of membrane forming curing compound as bond breaker. Care shall be taken to prevent any curing compound from contacting dowels or tie bars. The resulting joints around the new slab shall be prepared and sealed as specified for original construction.

f. Repairing Spalls Along Joints. Where directed, spalls along joints of new slabs, and along parallel cracks used as replacement joints, shall be repaired by first making a vertical saw cut at least one inch outside the spalled area and to a depth of at least 2 inch. Saw cuts shall be straight lines forming rectangular areas. The concrete between the saw cut and the joint, or crack, shall be chipped out to remove all unsound concrete and at least 1/2 inch of visually sound concrete. The cavity thus formed shall be thoroughly cleaned with high-pressure water jets supplemented with compressed air to remove all loose material. Immediately before filling the cavity, a prime coat of epoxy resin, Type III, Grade I, shall be applied to the dry cleaned surface of all sides and bottom of the cavity, except any joint face. The prime coat shall be applied in a thin coating and scrubbed into the surface with a stiff-bristle brush. Pooling of epoxy resin shall be avoided. The cavity shall be filled with low slump Portland cement

concrete or mortar or with epoxy resin concrete or mortar. Concrete shall be used for larger spalls, generally those more than 1/2 cu. ft. in size, and mortar shall be used for the smaller ones. Any spall less than 0.1 cu. ft. shall be repaired only with epoxy resin mortar or a Grade III epoxy resin. Portland cement concrete and mortar mixtures shall be proportioned as directed and shall be mixed, placed, consolidated, and cured as directed. Epoxy resin mortars shall be made with Type III, Grade 1, epoxy resin, using proportions and mixing and placing procedures as recommended by the manufacturer and approved by the Engineer. The epoxy resin materials shall be placed in the cavity in layers not over 2 inches thick. The time interval between placement of additional layers shall be such that the temperature of the epoxy resin material does not exceed 140°F at any time during hardening. Mechanical vibrators and hand tampers shall be used to consolidate the concrete or mortar. Any repair material on the surrounding surfaces of the existing concrete shall be removed before it hardens. Where the spalled area abuts a joint, an insert or other bond-breaking medium shall be used to prevent bond at the joint face. A reservoir for the joint sealant shall be sawed to the dimensions required for other joints, or as required to be routed for cracks. The reservoir shall be thoroughly cleaned and sealed with the sealer specified for the joints. If any spall penetrates half the depth of the slab or more, the entire slab shall be removed and replaced as previously specified If any spall would require over 25% of the length of any single joint to be repaired, the entire slab shall be removed and replaced. Repair of spalls as described in this section shall not be allowed if in the opinion of the Engineer the overall condition of the pavement indicates that such repair is unlikely to achieve an acceptable and durable finished pavement. No repair of spalls shall be allowed in any panel that demonstrates segregated aggregate with a significant absence of coarse aggregate in the upper one-eight (1/8th) inch of the pavement surface.

g. Diamond grinding of PCC surfaces. Diamond grinding of the hardened concrete with an approved diamond grinding machine should not be performed until the concrete is 14 days or more old and concrete has reached full minimum strength. When required, diamond grinding shall be accomplished by sawing with saw blades impregnated with industrial diamond abrasive. The saw blades shall be assembled in a cutting head mounted on a machine designed specifically for diamond grinding that will produce the required texture and smoothness level without damage to the pavement. The saw blades shall be 1/8-inch wide and there shall be a minimum of 55 to 60 blades per 12 inches of cutting head width; the actual number of blades will be determined by the Contractor and depend on the hardness of the aggregate. Each machine shall be capable of cutting a path at least 3 feet wide. Equipment that causes ravels, aggregate fractures, spalls or disturbance to the joints will not be permitted. The area corrected by diamond grinding the surface of the hardened concrete should not exceed 10% of the total area of any sublot. The depth of diamond grinding shall not exceed 1/2 inch and all areas in which diamond grinding has been performed will be subject to the final pavement thickness tolerances specified. Grinding will be tapered in all directions to provide smooth transitions to areas not requiring grinding. All pavement areas requiring plan grade or surface smoothness corrections in excess of the limits specified above, may require removing and replacing in conformance with paragraph 501-4.19.

501-4.20 EXISTING CONCRETE PAVEMENT REMOVAL AND REPAIR.

All operations shall be carefully controlled to prevent damage to the concrete pavement and to the underlying material to remain in place. All saw cuts shall be made perpendicular to the slab surface.

a. Removal of Existing Pavement Slab.

When it is necessary to remove existing concrete pavement and leave adjacent concrete in place, unless there are dowels present, the joint between the removal area and adjoining pavement to stay in place, including dowels or tie bars, shall first be cut full depth with a standard diamond-type concrete saw. If dowels are present at this joint, the saw cut shall be made full depth just beyond the end of dowels. The edge shall then be carefully sawed on the joint line to within one inch of the top of the dowel. Next, a full depth saw cut shall be made parallel to the joint at least 24 inches from the joint and at least 12 inches from the end of any dowels. All pavement between this last saw cut and the joint line shall be carefully broken up and removed using hand-held jackhammers, 30 lb or less, or the approved light-duty equipment which will not cause stress to propagate across the joint saw cut and cause distress in

the pavement which is to remain in place. Where dowels are present, care shall be taken to produce an even, vertical joint face below the dowels. If the Contractor is unable to produce such a joint face, or if underbreak or other distress occurs, the Contractor shall saw the dowels flush with the joint. The Contractor shall then install new dowels, of the size and spacing used for other similar joints, by epoxy resin bonding them in holes drilled in the joint face as specified in paragraph 501- 4.10g. All this shall be at no additional cost to the Owner.

Dowels of the size and spacing indicated shall be installed as shown on the drawings by epoxy resin bonding them in holes drilled in the joint face as specified in paragraph 501-4.10g. The joint face shall be sawed or otherwise trimmed so that there is no abrupt offset in any direction greater than 1/2 inches and no gradual offset greater than one inch when tested in a horizontal direction with a 12-foot straightedge.

b. Edge repair.

The edge of existing concrete pavement against which new pavement abuts shall be protected from damage at all times. Areas that are damaged during construction shall be repaired at no cost to the Owner.

(1) Spall repair. Spalls shall be repaired where indicated and where directed by the Engineer. Repair materials and procedures shall be as previously specified in subparagraph 501-4.19f.

(2) Underbreak repair. All underbreak shall be repaired. First, all delaminated and loose material shall be carefully removed. Next, the underlying material shall be recompacted, without addition of any new material. Finally, the void shall be completely filled with paving concrete, thoroughly consolidated. Care shall be taken to produce an even joint face from top to bottom. Prior to placing concrete, the underlying material shall be thoroughly moistened. After placement, the exposed surface shall be heavily coated with curing compound.

(3) Underlying material. The underlying material adjacent to the edge and under the existing pavement which is to remain in place shall be protected from damage or disturbance during removal operations and until placement of new concrete, and shall be shaped as shown on the drawings or as directed. Sufficient material shall be kept in place outside the joint line to prevent disturbance (or sloughing) of material under the pavement that is to remain in place. Any material under the portion of the concrete pavement to remain in place, which is disturbed or loses its compaction shall be carefully removed and replaced with concrete as specified in paragraph 501-4.20b(2). The underlying material outside the joint line shall be thoroughly compacted and moist when new concrete is placed.

MATERIAL ACCEPTANCE

501-5.1 ACCEPTANCE SAMPLING AND TESTING. All acceptance sampling and testing necessary to determine conformance with the requirements specified in this section, with the exception of coring for thickness determination, will be performed by the Engineer at no cost to the Contractor. The Contractor shall bear the cost of providing curing facilities for the strength specimens, per paragraph 501-5.1a(3), and coring and filling operations, per paragraph 501-5.1b(1). Testing organizations performing these tests shall be accredited in accordance with ASTM C1077. The laboratory accreditation must be current and listed on the accrediting authority's website. All test methods required for acceptance sampling and testing must be listed on the lab accreditation. A copy of the laboratory's current accreditation and accredited test methods shall be submitted to the Engineer prior to start of construction.

Concrete shall be accepted for strength and thickness on a lot basis

A lot shall consist of a day's production not to exceed **2,500 square yards.**

a. Flexural Strength.

(1) Sampling. Each lot shall be divided into four equal sublots. One sample shall be taken for each sublot from the plastic concrete delivered to the job site. Sampling locations shall be determined by the Engineer in accordance with random sampling procedures contained in ASTM D3665. The concrete shall be sampled in accordance with ASTM C172.

(2) Testing. Two (2) specimens shall be made from each sample. Specimens shall be made in accordance with ASTM C31 and the flexural strength of each specimen shall be determined in accordance with ASTM C78. The flexural strength for each sublot shall be computed by averaging the results of the two test specimens representing that sublot.

Immediately prior to testing for flexural strength, the beam shall be weighed and measured for determination of a sample unit weight. Measurements shall be made for each dimension; height, depth, and length, at the mid-point of the specimen and reported to the nearest 1/10 inch. The weight of the specimen shall be reported to the nearest 0.1 pound. The sample unit weight shall be calculated by dividing the sample weight by the calculated volume of the sample. This information shall be reported as companion information to the measured flexural strength for each specimen.

The samples will be transported while in the molds. The curing, except for the initial cure period, will be accomplished using the immersion in saturated lime water method.

Slump, air content, and temperature tests will also be conducted by the quality assurance laboratory for each set of strength test samples, per ASTM C31.

(3) Curing. The Contractor shall provide adequate facilities for the initial curing of beams. During the 24 hours after molding, the temperature immediately adjacent to the specimens must be maintained in the range of 60° to 80°F, and loss of moisture from the specimens must be prevented. The specimens may be stored in tightly constructed wooden boxes, damp sand pits, temporary buildings at construction sites, under wet burlap in favorable weather, or in heavyweight closed plastic bags, or using other suitable methods, provided the temperature and moisture loss requirements are met.

(4) Acceptance. Acceptance of pavement for flexural strength will be determined by the Engineer in accordance with paragraph 501-5.2b.

b. Pavement Thickness.

(1) Sampling. Each lot shall be divided into four equal sublots and one core shall be taken by the Contractor for each sublot. Sampling locations shall be determined by the Engineer in accordance with random sampling procedures contained in ASTM D3665. Areas, such as thickened edges, with planned variable thickness, shall be excluded from sample locations.

Cores shall be neatly cut with a core drill. The Contractor shall furnish all tools, labor, and materials for cutting samples and filling the cored hole. Core holes shall be filled by the Contractor with a non-shrink grout approved by the Engineer within one day after sampling.

(2) Testing. The thickness of the cores shall be determined by the Engineer by the average caliper measurement in accordance with ASTM C174.

(3) Acceptance. Acceptance of pavement for thickness shall be determined by the Engineer in accordance with paragraph 501-5.2c.

c. Partial Lots. When operational conditions cause a lot to be terminated before the specified number of tests have been made for the lot, or when the Contractor and Engineer agree in writing to allow overages or minor placements to be considered as partial lots, the following procedure will be used to adjust the lot size and the number of tests for the lot.

Where three sublots have been produced, they shall constitute a lot. Where one or two sublots have been produced, they shall be incorporated into the next lot or the previous lot and the total number of sublots shall be used in the acceptance criteria calculation, that is, n=5 or n=6.

d. Outliers. All individual flexural strength tests within a lot shall be checked for an outlier (test criterion) in accordance with ASTM E178, at a significance level of 5%. Outliers shall be discarded, and the percentage of material within specification limits (PWL) shall be determined using the remaining test values.

501-5.2 ACCEPTANCE CRITERIA.

a. General. Acceptance will be based on the following characteristics of the completed pavement discussed in paragraph 501-5.2e:

(1) Flexural strength
(2) Thickness
(3) Smoothness
(4) Grade
(5) Edge slump

Flexural strength and thickness shall be evaluated for acceptance on a lot basis using the method of estimating PWL. Acceptance using PWL considers the variability (standard deviation) of the material and the testing procedures, as well as the average (mean) value of the test results to calculate the percentage of material that is above the lower specification tolerance limit (L).

Acceptance for flexural strength will be based on the criteria contained in accordance with paragraph 501-5.2e(1). Acceptance for thickness will be based on the criteria contained in paragraph 501-5.2e(2). Acceptance for smoothness will be based on the criteria contained in paragraph 501-5.2e(3). Acceptance for grade will be based on the criteria contained in paragraph 501-5.2e(4).

The Engineer may at any time, notwithstanding previous plant acceptance, reject and require the Contractor to dispose of any batch of concrete mixture which is rendered unfit for use due to contamination, segregation, or improper slump. Such rejection may be based on only visual inspection. In the event of such rejection, the Contractor may take a representative sample of the rejected material in the presence of the Engineer, and if it can be demonstrated in the laboratory, in the presence of the Engineer, that such material was erroneously rejected, payment will be made for the material at the contract unit price.

b. Flexural Strength. Acceptance of each lot of in-place pavement for flexural strength shall be based on PWL. The Contractor shall target production quality to achieve 90 PWL or higher.

c. Pavement Thickness. Acceptance of each lot of in-place pavement shall be based on PWL. The Contractor shall target production quality to achieve 90 PWL or higher.

d. Percentage of Material Within Limits (PWL). The PWL shall be determined in accordance with procedures specified in Section 110 of the General Provisions. The lower specification tolerance limit (L) for flexural strength and thickness shall be:

Lower Specification Tolerance Limit (L)

Flexural Strength	0.93 x strength specified in paragraph 501-3.1
Thickness	Lot Plan Thickness in inches, - 0.50 in

e. Acceptance Criteria.

(1) Flexural Strength. If the PWL of the lot equals or exceeds 90%, the lot shall be acceptable. Acceptance and payment for the lot shall be determined in accordance with paragraph 501-8.1.

(2) Thickness. If the PWL of the lot equals or exceeds 90%, the lot shall be acceptable. Acceptance and payment for the lot shall be determined in accordance with paragraph 501-8.1.

(3) Smoothness. As soon as the concrete has hardened sufficiently, but not later than 48 hours after placement, the surface of each lot shall be tested in both longitudinal and transverse directions for smoothness to reveal all surface irregularities exceeding the tolerances specified. The Contractor shall furnish paving equipment and employ methods that produce a surface for each section of pavement having an average profile index meeting the requirements of paragraph 501-8.1c when evaluated with a profilograph; and the finished surface of the pavement shall not vary more than 1/4 inch when evaluated with a 12-foot straightedge. When the surface smoothness exceeds specification tolerances which cannot be corrected by diamond grinding of the pavement, full depth removal and replacement of pavement shall be to the limit of the longitudinal placement. Corrections involving diamond grinding will be subject to the final pavement thickness tolerances specified.

(a) Transverse measurements. Transverse measurements will be taken for each lot placed. Transverse measurements will be taken perpendicular to the pavement centerline each 50 feet or more often as determined by the Engineer.

(i) Testing shall be continuous across all joints, starting with one-half the length of the straight edge at the edge of pavement section being tested and then moved ahead one-half the length of the straight edge for each successive measurement. Smoothness readings will not be made across grade changes or cross slope transitions; at these transition areas, the straightedge position shall be adjusted to measure surface smoothness and not design grade or cross slope transitions. The amount of surface irregularity shall be determined by placing the freestanding (unleveled) straightedge on the pavement surface and allowing it to rest upon the two highest spots covered by its length, and measuring the maximum gap between the straightedge and the pavement surface in the area between these two high points. Deviations on final pavement > 1/4 inch in transverse direction shall be corrected with diamond grinding per paragraph 501-4.19g or by removing and replacing full depth of pavement.

Grinding will be tapered in all directions to provide smooth transitions to areas not requiring grinding. The area corrected by grinding should not exceed 10% of the total area and these areas shall be retested after grinding.

(ii) The joint between lots shall be tested separately to facilitate smoothness between lots. The amount of surface irregularity shall be determined by placing the freestanding (unleveled) straightedge on the pavement surface, with half the straightedge on one side of the joint and the other half of the straightedge on the other side of the joint. Measure the maximum gap between the straightedge and the pavement surface in the area between these two high points. One measurement shall be taken at the joint every 50 feet or more often if directed by the Engineer. Maximum gap on final pavement surface > 1/4 inch in transverse direction shall be corrected with diamond grinding per paragraph 501-4.19g or by removing and replacing full depth of surface. Each measurement shall be recorded and a copy of the data shall be furnished to the Engineer at the end of each days testing.

(b) Longitudinal measurements. Longitudinal measurements will be taken for each lot placed. Longitudinal tests will be parallel to the centerline of paving; at the center of paving lanes when widths of paving lanes are less than 20 feet; and at the one third points of paving lanes when widths of paving lanes are 20 ft or greater.

(i) Longitudinal Short Sections. Longitudinal Short Sections are when the longitudinal lot length is less than 200 feet and areas not requiring a profilograph. When approved by the

Engineer, the first and last 15 feet of the lot can also be considered as short sections for smoothness. The finished surface shall not vary more than 1/4 inch when evaluated with a 12-foot straightedge. Smoothness readings will not be made across grade changes or cross slope transitions, at these transition areas, the straightedge position shall be adjusted to measure surface smoothness and not design grade or cross slope transitions. Testing shall be continuous across all joints, starting with one-half the length of the straight edge at the edge of pavement section being tested and then moved ahead one-half the length of the straight edge for each successive measurement. The amount of surface irregularity shall be determined by placing the freestanding (unleveled) straightedge on the pavement surface and allowing it to rest upon the two highest spots covered by its length, and measuring the maximum gap between the straightedge and the pavement surface in the area between these two high points. Deviations on final pavement surface > 1/4 inch in longitudinal direction will be corrected with diamond grinding per paragraph 501-4.19g or by removing and replacing full depth of surface. Grinding will be tapered in all directions to provide smooth transitions to areas not requiring grinding. The area corrected by grinding should not exceed 10% of the total area and these areas shall be retested after grinding.

~~**(ii) Profilograph Testing.** Profilograph testing shall be performed by the contractor using approved equipment and procedures as described as ASTM E1274. The equipment shall utilize electronic recording and automatic computerized reduction of data to indicate "must grind" bumps and the Profile Index for the pavement using a 0.2 inch blanking band. The bump template must span one inch with an offset of 0.4 inches. The profilograph must be calibrated prior to use and operated by a factory or State DOT approved operator. Profilograms shall be recorded on a longitudinal scale of one inch equals 25 feet and a vertical scale of one inch equals one inch. A copy of the reduced tapes shall be furnished to the Engineer at the end of each days testing.~~

~~The pavement must have an average profile index meeting the requirements of paragraph 501-8.1c. Deviations on final surface in longitudinal direction shall be corrected with diamond grinding per paragraph 501-4.19g or by removing and replacing full depth of pavement. Grinding will be tapered in all directions to provide smooth transitions to areas not requiring grinding. The area corrected by grinding should not exceed 10% of the total area and these areas shall be retested after grinding.~~

~~Where corrections are necessary, second profilograph runs shall be performed to verify that the corrections produced an average profile index of 15 inches per mile or less. If the initial average profile index was less than 15 inches, only those areas representing greater than 0.4 inch deviation will be re-profiled for correction verification.~~

~~**(iii) Final profilograph of runway.** Final profilograph, full length of runway, shall be performed to facilitate testing of smoothness between lots. Profilograph testing shall be performed by the contractor using approved equipment and procedures as described as ASTM E1274. The pavement must have an average profile index meeting the requirements of paragraph 501-8.1c. The equipment shall utilize electronic recording and automatic computerized reduction of data to indicate "must grind" bumps and the Profile Index for the pavement using a 0.2 inch blanking band. The bump template must span one inch with an offset of 0.4 inches. The profilograph must be calibrated prior to use and operated by a factory or State DOT approved, trained operator. Profilograms shall be recorded on a longitudinal scale of one inch equals 25 feet and a vertical scale of one inch equals one inch. A copy of the reduced tapes shall be furnished to the Engineer at the end of each days testing. Profilograph of final runway shall be performed one foot right and left of runway centerline and 15 feet right and left of centerline. Any areas that indicate "must grind" will be corrected as directed by the Engineer.~~

~~Smoothness testing indicated in the above paragraphs except paragraph (iii) shall be performed within 48 hours of placement of material. Smoothness texting indicated in paragraph (iii) shall be performed within 48 hours final paving completion. The primary purpose of smoothness testing is to identify areas that may be prone to ponding of water which could lead to hydroplaning of aircraft. If the contractor's machines and/or methods are producing significant areas that need corrective actions then production should be stopped until corrective measures can be implemented. If corrective measures are~~

~~not implemented and when directed by the Engineer, production shall be stopped until corrective measures can be implemented.~~

(4) Grade. An evaluation of the surface grade shall be made by the Engineer for compliance to the tolerances contained below. The finish grade will be determined by running levels at intervals of 50 ft or less longitudinally and all breaks in grade transversely (not to exceed 50 ft) to determine the elevation of the completed pavement. The Contractor shall pay the costs of surveying the level runs, and this work shall be performed by a licensed surveyor. The documentation, stamped and signed by a licensed surveyor, shall be provided by the Contractor to the Engineer.

(a) Lateral Deviation. Lateral deviation from established alignment of the pavement edge shall not exceed plus or minus 0.10 foot in any lane.

(b) Vertical Deviation. Vertical deviation from established grade shall not exceed plus or minus 0.04 foot at any point.

(5) Edge Slump. When excessive edge slump cannot be corrected before the concrete has hardened, the area with excessive edge slump shall be removed and replaced at the expense of the Contractor as directed by the Engineer in accordance with paragraph 501-4.8a.

f. Removal and Replacement of Concrete. Any area or section of concrete that is removed and replaced shall be removed and replaced back to planned joints. The Contractor shall replace damaged dowels and the requirements for doweled longitudinal construction joints in paragraph 501-4.10 shall apply to all contraction joints exposed by concrete removal. Removal and replacement shall be in accordance with paragraph 501-4.20.

CONTRACTOR QUALITY CONTROL

501-6.1 QUALITY CONTROL PROGRAM. The Contractor shall develop a Quality Control Program in accordance with Section 100 of the General Provisions. The program shall address all elements that effect the quality of the pavement including but not limited to:

a. Mix Design
b. Aggregate Gradation
c. Quality of Materials
d. Stockpile Management
e. Proportioning
f. Mixing and Transportation
g. Placing and Consolidation
h. Joints
i. Dowel Placement and Alignment
j. Flexural or Compressive Strength
k. Finishing and Curing
l. Surface Smoothness

501-6.2 QUALITY CONTROL TESTING. The Contractor shall perform all quality control tests necessary to control the production and construction processes applicable to this specification and as set forth in the Quality Control Program. The testing program shall include, but not necessarily be limited to, tests for aggregate gradation, aggregate moisture content, slump, and air content.

a. Fine Aggregate.

(1) Gradation. A sieve analysis shall be made at least twice daily in accordance with ASTM C 136 from randomly sampled material taken from the discharge gate of storage bins or from the conveyor belt.

(2) Moisture Content. If an electric moisture meter is used, at least two direct measurements of moisture content shall be made per week to check the calibration. If direct measurements are made in lieu of using an electric meter, two tests shall be made per day. Tests shall be made in accordance with ASTM C 70 or ASTM C 566.

b. Coarse Aggregate.

(1) Gradation. A sieve analysis shall be made at least twice daily for each size of aggregate. Tests shall be made in accordance with ASTM C 136 from randomly sampled material taken from the discharge gate of storage bins or from the conveyor belt.

(2) Moisture Content. If an electric moisture meter is used, at least two direct measurements of moisture content shall be made per week to check the calibration. If direct measurements are made in lieu of using an electric meter, two tests shall be made per day. Tests shall be made in accordance with ASTM C 566.

c. Slump. Four slump tests shall be performed for each lot of material produced in accordance with the lot size defined in paragraph 501-5.1. One test shall be made for each sublot. Slump tests shall be performed in accordance with ASTM C143 from material randomly sampled from material discharged from trucks at the paving site. Material samples shall be taken in accordance with ASTM C172.

d. Air Content. Four air content tests, shall be performed for each lot of material produced in accordance with the lot size defined in paragraph 501-5.1. One test shall be made for each sublot. Air content tests shall be performed in accordance with ASTM C231 for gravel and stone coarse aggregate and ASTM C173 for slag or other porous coarse aggregate, from material randomly sampled from trucks at the paving site. Material samples shall be taken in accordance with ASTM C172.

e. Four unit weight and yield tests shall be made in accordance with ASTM C 138. The samples shall be taken in accordance with ASTM C 172 and at the same time as the air content tests.

501-6.3 CONTROL CHARTS. The Contractor shall maintain linear control charts for fine and coarse aggregate gradation, slump, moisture content and air content.

Control charts shall be posted in a location satisfactory to the Engineer and shall be kept up to date at all times. As a minimum, the control charts shall identify the project number, the contract item number, the test number, each test parameter, the Action and suspension Limits, or Specification limits, applicable to each test parameter, and the Contractor's test results. The Contractor shall use the control charts as part of a process control system for identifying potential problems and assignable causes before they occur. If the Contractor's projected data during production indicates a potential problem and the Contractor is not taking satisfactory corrective action, the Engineer may halt production or acceptance of the material.

a. Fine and Coarse Aggregate Gradation. The Contractor shall record the running average of the last five gradation tests for each control sieve on linear control charts. Specification limits contained in the Lower Specification Tolerance Limit (L) table above and the Control Chart Limits table below shall be superimposed on the Control Chart for job control.

b. Slump and Air Content. The Contractor shall maintain linear control charts both for individual measurements and range (that is, difference between highest and lowest measurements) for slump and air content in accordance with the following Action and Suspension Limits.

CONTROL CHART LIMITS			
Control Parameter	Individual Measurements		Range Suspension Limit
	Action Limit	Suspension Limit	
Slip Form:			
Slump	+0 to -1 inch	+0.5 to -1.5 inch	± 1.5 inch
Air Content	±1.2%	± 1.8%	± 2.5%
Fixed Form			
Slump	+ 0.5 to -1 inch	+1 to -1.5 inch	± 1.5 inch
Air Content	± 1.2%	± 1.8%	± 2.5%

The individual measurement control charts shall use the mix design target values as indicators of central tendency.

501-6.4 CORRECTIVE ACTION. The Contractor Quality Control Program shall indicate that appropriate action shall be taken when the process is believed to be out of control. The Contractor Quality Control Program shall detail what action will be taken to bring the process into control and shall contain sets of rules to gauge when a process is out of control. As a minimum, a process shall be deemed out of control and corrective action taken if any one of the following conditions exists.

a. Fine and Coarse Aggregate Gradation. When two consecutive averages of five tests are outside of the specification limits in paragraph 501-2.1, immediate steps, including a halt to production, shall be taken to correct the grading.

b. Fine and Coarse Aggregate Moisture Content. Whenever the moisture content of the fine or coarse aggregate changes by more than 0.5%, the scale settings for the aggregate batcher and water batcher shall be adjusted.

c. Slump. The Contractor shall halt production and make appropriate adjustments whenever:

(1) one point falls outside the Suspension Limit line for individual measurements or range; or
(2) two points in a row fall outside the Action Limit line for individual measurements.

d. Air Content. The Contractor shall halt production and adjust the amount of air-entraining admixture whenever:

(1) one point falls outside the Suspension Limit line for individual measurements or range; or
(2) two points in a row fall outside the Action Limit line for individual measurements.

Whenever a point falls outside the Action Limits line, the air-entraining admixture dispenser shall be calibrated to ensure that it is operating correctly and with good reproducibility.

METHOD OF MEASUREMENT

501-7.1 Portland cement concrete pavement shall be measured by the number of **square yards** of either plain or reinforced pavement as specified in-place, completed and accepted.

The Contractor's Quality Control Plan shall not be measured separately but shall be considered an incidental aspect of the pavement construction.

BASIS OF PAYMENT

501-8.1 PAYMENT. Payment for concrete pavement meeting all acceptance criteria as specified in paragraph 501-5.2 Acceptance Criteria shall be based on results of smoothness, strength and thickness tests. Payment for acceptable lots of concrete pavement shall be adjusted in accordance with paragraph 501-8.1a for strength and thickness and 501-8.1c for smoothness, subject to the limitation that:

The total project payment for concrete pavement shall not exceed **100 percent** of the product of the contract unit price and the total number of square yards of concrete pavement used in the accepted work (See Note 1 under the Price Adjustment Schedule table below).

Payment shall be full compensation for all labor, materials, tools, equipment, and incidentals required to complete the work as specified herein and on the drawings.

a. Basis of Adjusted Payment. The pay factor for each individual lot shall be calculated in accordance with the Price Adjustment Schedule table below. A pay factor shall be calculated for both flexural strength and thickness. The lot pay factor shall be the higher of the two values when calculations for both flexural strength and thickness are 100% or higher. The lot pay factor shall be the product of the two values when only one of the calculations for either flexural strength or thickness is 100% or higher. The lot pay factor shall be the lower of the two values when calculations for both flexural strength and thickness are less than 100%.

PRICE ADJUSTMENT SCHEDULE [1]

Percentage of Materials Within Specification Limits (PWL)	Lot Pay Factor (Percent of Contract Unit Price)
96 – 100	106
90 – 95	PWL + 10
75 – 90	0.5 PWL + 55
55 – 74	1.4 PWL – 12
Below 55	Reject[2]

[1] Although it is theoretically possible to achieve a pay factor of 106% for each lot, actual payment in excess of 100% shall be subject to the total project payment limitation specified in paragraph 501-8.1.

[2] The lot shall be removed and replaced. However, the Engineer may decide to allow the rejected lot to remain. In that case, if the Engineer and Contractor agree in writing that the lot shall not be removed, it shall be paid for at 50% of the contract unit price and the total project payment limitation shall be reduced by the amount withheld for the rejected lot.

For each lot accepted, the adjusted contract unit price shall be the product of the lot pay factor for the lot and the contract unit price. Payment shall be subject to the total project payment limitation specified in paragraph 501-8.1. Payment in excess of 100% for accepted lots of concrete pavement shall be used to offset payment for accepted lots of concrete pavement that achieve a lot pay factor less than 100%.

b. Payment. Payment shall be made under:

Item P-501-1 12.5 inch Portland Cement Concrete Pavement—per square yard

c. Basis of adjusted payment for Smoothness. Price adjustment for pavement smoothness will apply to the total area of concrete within a section of pavement and shall be applied in accordance the following equation and schedule:

(Square yard in section) × (original unit price per square yard) × PFm = reduction in payment for area within section

Average Profile Index (Inches Per Mile) Pavement Strength Rating			Contract Unit Price Adjustment (PFm)
Over 30,000 lb	30,000 lb or Less	Short Sections	
0 - 7	0 - 10	0 - 15	0.00
7.1 - 9	10.1 - 11	15.1 - 16	0.02
9.1 - 11	11.1 - 12	16.1 - 17	0.04
11.1 - 13	12.1 - 13	17.1 - 18	0.06
13.1 - 14	13.1 - 14	18.1 - 20	0.08
14.1 - 15	14.1 - 15	20.1 - 22	0.10
15.1 and up	15.1 and up	22.1 and up	Corrective work required

TESTING REQUIREMENTS

ASTM C31	Standard Practice for Making and Curing Concrete Test Specimens in the Field
ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C70	Standard Test Method for Surface Moisture in Fine Aggregate
ASTM C78	Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)
ASTM C88	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C117	Standard Test Method for Materials Finer Than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM C138	Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
ASTM C142	Standard Test Method for Clay Lumps and Friable Particles in Aggregates
ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete

ASTM C173	Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method
ASTM C174	Standard Test Method for Measuring Thickness of Concrete Elements Using Drilled Concrete Cores
ASTM C227	Standard Test Method for Potential Alkali Reactivity of Cement-Aggregate Combinations (Mortar-Bar Method)
ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C289	Standard Test Method for Potential Alkali-Silica Reactivity of Aggregates (Chemical Method)
ASTM C295	Standard Guide for Petrographic Examination of Aggregates for Concrete
ASTM C114	Standard Test Methods for Chemical Analysis of Hydraulic Cement
ASTM C311	Standard Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland Cement Concrete
ASTM C566	Standard Test Method for Total Evaporable Moisture Content of Aggregates by Drying
ASTM C642	Standard Test Method for Density, Absorption, and Voids in Hardened Concrete
ASTM C666	Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
ASTM C1077	Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
ASTM C1260	Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)
ASTM C1567	Standard Test Method for Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials and Aggregate (Accelerated Mortar-Bar Method)
ASTM C1602	Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete
ASTM D3665	Standard Practice for Random Sampling of Construction Materials
ASTM D4791	Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
ASTM E178	Standard Practice for Dealing With Outlying Observations
ASTM E1274	Standard Test Method for Measuring Pavement Roughness Using a Profilograph

U.S. Army Corps of Engineers (USACE) Concrete Research Division (CRD) C662 Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials, Lithium Nitrate Admixture and Aggregate (Accelerated Mortar-Bar Method)

MATERIAL REQUIREMENTS

ASTM A184	Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement
ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM A704	Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement
ASTM A706	Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement
ASTM A714	Standard Specification for High-Strength Low-Alloy Welded and Seamless Steel Pipe
ASTM A775	Standard Specification for Epoxy-Coated Steel Reinforcing Bars
ASTM A934	Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars
ASTM A996	Standard Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement
ASTM A1064	Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
ASTM A1078	Standard Specification for Epoxy-Coated Steel Dowels for Concrete Pavement
ASTM C33	Standard Specification for Concrete Aggregates
ASTM C94	Standard Specification for Ready-Mixed Concrete
ASTM C150	Standard Specification for Portland Cement
ASTM C171	Standard Specification for Sheet Materials for Curing Concrete
ASTM C260	Standard Specification for Air-Entraining Admixtures for Concrete
ASTM C309	Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C494	Standard Specification for Chemical Admixtures for Concrete
ASTM C595	Standard Specification for Blended Hydraulic Cements
ASTM C618	Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
ASTM C881	Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete
ASTM C989	Standard Specification for Slag Cement for Use in Concrete and Mortars
ASTM D1751	Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types)

ASTM D1752	Standard Specification for Preformed Sponge Rubber and Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving And Structural Construction
ACI 211.1	Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete
ACI 305R	Guide to Hot Weather Concreting
ACI 306R	Guide to Cold Weather Concreting
ACI 309R	Guide for Consolidation of Concrete
AC 150/5320-6	Airport Pavement Design and Evaluation
PCA	Design and Control of Concrete Mixtures

END ITEM P-501

ITEM P-605 JOINT SEALANTS FOR CONCRETE PAVEMENTS

DESCRIPTION

605-1.1 This item shall consist of providing and installing a resilient and adhesive joint sealing material capable of effectively sealing joints and cracks in rigid pavements.

This item shall also consist of the cleaning and sealing of cracks and joints in existing concrete pavement, at the locations shown in the plans or as directed by the Engineer. The amount of crack filling/sealing designated in the Plans is estimated.

MATERIALS

605-2.1 JOINT SEALERS. Joint sealant materials shall meet the requirements of **ASTM D 5893, Type SL Standard Specifications for Cold Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Concrete Pavements.**

Each lot or batch of sealant shall be delivered to the jobsite in the manufacturer's original sealed container. Each container shall be marked with the manufacturer's name, batch or lot number, the safe heating temperature, and shall be accompanied by the manufacturer's certification stating that the sealant meets the requirements of this specification.

605-2.2 BACKER ROD. The material furnished shall be a compressible, non-shrinking, non-staining, non-absorbing material that is non-reactive with the joint sealant. The material shall have a water absorption of not more than 5% when tested in accordance with ASTM C509. The backer-rod material shall be 25% ± 5 % larger in diameter than the nominal width of the ~~crack~~ joint.

605-2.3 BACKUP MATERIALS. Provide backup material that is a compressible, nonshrinking, nonstaining, nonabsorbing material, nonreactive with the joint sealant. The material shall have a melting point at least 5°F greater than the pouring temperature of the sealant being used when tested in accordance with ASTM D789. The material shall have a water absorption of not more than 5% of the sample weight when tested in accordance with ASTM C509. The backup material shall be 25 ±5% larger in diameter than the nominal width of the crack.

605-2.4 BOND BREAKING TAPES. Provide backup material that is a compressible, nonshrinking, nonstaining, nonabsorbing material, nonreactive with the joint sealant. The material shall have a melting point at least 5°F greater than the pouring temperature of the sealant being used when tested in accordance with ASTM D789. The material shall have a water absorption of not more than 5% of the sample weight when tested in accordance with ASTM C509. The backup material shall be 25 ±5% larger in diameter than the nominal width of the crack.

605-2.5 HERBICIDES. *Submit documentation on all herbicides to be used in the preparation of the joint replacement. Include in submittal proposed application rates in accordance with Texas Department of Agriculture regulations.*

CONSTRUCTION METHODS

605-3.1 TIME OF APPLICATION. Joints shall be sealed as soon after completion of the curing period as feasible and before the pavement is opened to traffic, including construction equipment. The pavement temperature shall be 50°F and rising at the time of application of the poured joint sealing material. Do not apply sealant if moisture is observed in the joint.

Prior to beginning the sealing operation, the Contractor shall have the sealant supplier demonstrate, to the satisfaction of the Engineer, the cleaning and installation procedures for the joint sealant to be installed on the project.

If the pavement must be opened to traffic prior to placement of the sealant, Contractor to temporarily fill the joint with a jute or nylon rope immediately after the joint is sawed and or opened. The rope should be slightly larger than the joint and should be forced into the joint so that the top of the rope is 1/8 inch below the pavement surface. The rope shall be removed immediately prior to cleaning and or sealing.

605-3.2 EQUIPMENT. Machines, tools, and equipment used in the performance of the work required by this section shall be approved before the work is started and maintained in satisfactory condition at all times. Submit a list of proposed equipment to be used in performance of construction work including descriptive data, **15** days prior to use on the project.

605-3.3 PREPARATION OF JOINTS *IN NEW PAVEMENT*.

a. Sawing. All joints shall be sawed in accordance with specifications and plan details. Immediately after sawing the joint, the resulting slurry shall be completely removed from joint and adjacent area by flushing with a jet of water, and by use of other tools as necessary.

b. Sealing. Immediately before sealing, the joints shall be thoroughly cleaned of all remaining laitance, curing compound, and other foreign material. Cleaning shall be accomplished by sandblasting. Sandblasting shall be accomplished in a minimum of two passes. One pass per joint face with the nozzle held at an angle directly toward the joint face and not more than 3 inches from it. Upon completion of cleaning, the joints shall be blown out with compressed air free of oil and water. Only air compressors with operable oil and water traps shall be used to prepare the joints for sealing. The joint faces shall be surface dry when the seal is applied.

Immediately before sealing, the joints shall be thoroughly cleaned of all remaining laitance, curing compound, filler, protrusions of hardened concrete, old sealant and other foreign material from the sides and upper edges of the joint space to be sealed. Cleaning shall be accomplished by sandblasting as specified in paragraph 605-3.2. The newly exposed concrete joint faces and the pavement surface extending a minimum of 1/2 inch from the joint edge shall be sandblasted clean. Sandblasting shall be accomplished in a minimum of two passes. One pass per joint face with the nozzle held at an angle directly toward the joint face and not more than 3 inches from it. After final cleaning and immediately prior to sealing, blow out the joints with compressed air and leave them completely free of debris and water. The joint faces shall be surface dry when the seal is applied.

c. Back-Up Material. When the joint opening is of a greater depth than indicated for the sealant depth, plug or seal off the lower portion of the joint opening using a back-up material to prevent the entrance of the sealant below the specified depth. Take care to ensure that the backup material is placed at the specified depth and is not stretched or twisted during installation.

d. Bond-Breaking Tape. Where inserts or filler materials contain bitumen, or the depth of the joint opening does not allow for the use of a backup material, insert a bond-breaker separating tape to prevent incompatibility with the filler materials and three-sided adhesion of the sealant. Securely bond the tape to the bottom of the joint opening so it will not float up into the new sealant.

605-3.4 INSTALLATION OF SEALANTS *IN NEW PAVEMENT*. Joints shall be inspected for proper width, depth, alignment, and preparation, and shall be approved by the Engineer before sealing is allowed. Sealants shall be installed in accordance with the following requirements:

Immediately preceding, but not more than 50 feet ahead of the joint sealing operations, perform a final cleaning with compressed air. Fill the joints from the bottom up to 1/4 inch ±1/16 inch below the pavement surface. Remove and discard excess or spilled sealant from the pavement by approved methods. Install the sealant in such a manner as to prevent the formation of voids and entrapped air. In no case shall gravity methods or pouring pots be used to install the sealant material. Traffic shall not be permitted over newly sealed pavement until authorized by the Contracting Officer. When a primer is recommended by the manufacturer, apply it evenly to the joint faces in accordance with the manufacturer's instructions. Check the joints frequently to ensure that the newly installed sealant is cured to a tack-free condition within the time specified.

605-3.5 PREPARATION OF JOINTS/CRACKS IN EXISTING PAVEMENT

a. Cleaning and Sealing of Cracks. *Removal of any vegetation, dirt, loose materials, and deteriorated sealant from the cracks shall be accomplished by routing. Cracks shall be routed so that the exposed face of the crack is enlarged to a width of 1/2" and to a depth as detailed in the sealant manufacturer's recommendations. Other methods of crack cleaning and preparation may be used with the approval of the Engineer.*

b. Cleaning and Sealing of Joints. *Removal of any vegetation, dirt, loose materials, and deteriorated sealant from existing joints shall be accomplished via the use of a high temperature compressed air lance. Existing joint sealant which is deteriorated shall be removed as directed by the Engineer. The high velocity hot air shall be not less than 2,000 °F in temperature. The air lance shall operate in a no flame impingment condition and shall have a directional controlled velocity of 330-fps minimum and a combustion temperature at ignition of no less than 2,000 °F. Other methods of joint cleaning and preparation may be used ONLY with the approval of the Engineer.*

If vegetation is a problem a soil sterilant shall be applied. Soil sterilants shall contain Bromacil (or equal) or Diuron (or equal) and shall be approved by the Engineer. Application rates shall be maximum recommended by the manufacturer.

When the cracks/joints are thoroughly dry, and just prior to sealant placement, both vertical faces shall be cleaned by sandblasting with a nozzle attached to an aiming device that directs the sand blast at approximately a 45 degree angle and a maximum of two inches from the face of the crack/joint. Each crack/joint face shall be sandblasted individually. After sandblasting, compressed air shall be used to blow out the crack/joint and remove all residual dust. Air compressors shall be equipped with suitable traps capable of removing all free water and oil from the compressed air and shall be capable of furnishing air with a pressure greater than 90 psi. The cracks/joints shall be thoroughly dry before the sealant is placed.

All cracks/joints shall be sealed the same day of the final sandblasting. Cleaned cracks/joints left open overnight or cracks/joints which become contaminated before sealing shall be re-cleaned as specified above.

605-3.6 INSPECTION. The Contractor shall inspect the joint sealant for proper rate of cure and set, bonding to the joint walls, cohesive separation within the sealant, reversion to liquid, entrapped air and voids. Sealants exhibiting any of these deficiencies at any time prior to the final acceptance of the project shall be removed from the joint, wasted, and replaced as specified at no additional cost to the airport.

605-3.7 CLEAN-UP. Upon completion of the project, remove all unused materials from the site and leave the pavement in a clean condition.

METHOD OF MEASUREMENT

605-4.1 *For joint sealing in newly constructed pavements, there will be no measurement for payment under this item. For joint cleaning and re-sealing in existing concrete pavement,* Joint sealing ~~material~~ shall be measured by the linear foot of sealant in place, completed, and accepted.

BASIS OF PAYMENT

605-5.1 *For joint sealing in newly constructed pavements, there will be no separate payment under this item. Include costs associated in this item as subsidiary to other items.*

605-5.2 *For joint cleaning and re-sealing in existing concrete pavement,* Payment for joint sealing material shall be made at the contract unit price per **linear foot**. The price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-605-1	Concrete Joint Clean and Seal – per Linear Foot

TESTING REQUIREMENTS

ASTM D412	Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension
ASTM C509	Standard Specification for Elastomeric Cellular Preformed Gasket and Sealing Material
ASTM D1644	Standard Test Methods for Nonvolatile Content of Varnishes

MATERIAL REQUIREMENTS

AC 150/5340-30	Design and Installation Details for Airport Visual Aids
ASTM D789	Standard Test Method for Determination of Relative Viscosity of Polyamide (PA)
ASTM D5893	Standard Specification for Cold Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Concrete Pavements
ASTM D6690	Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements
ASTM D5249	Standard Specification for Backer Material for Use with Cold- and Hot-Applied Joint Sealants in Portland-Cement Concrete and Asphalt Joints

END OF ITEM P-605

ITEM P-610 STRUCTURAL PORTLAND CEMENT CONCRETE

DESCRIPTION

610-1.1 This item shall consist of reinforced structural Portland cement concrete (PCC), prepared and constructed in accordance with these specifications, at the locations and of the form and dimensions shown on the plans. This specification shall be used for all structural and miscellaneous concrete including signage bases.

MATERIALS

610-2.1 GENERAL. Only approved materials, conforming to the requirements of these specifications, shall be used in the work. Materials may be subject to inspection and tests at any time during their preparation or use. The source of all materials shall be approved by the Engineer before delivery or use in the work. Representative preliminary samples of the materials shall be submitted by the Contractor, when required, for examination and test. Materials shall be stored and handled to ensure preservation of their quality and fitness for use and shall be located to facilitate prompt inspection. All equipment for handling and transporting materials and concrete must be clean before any material or concrete is placed in them.

The use of pit-run aggregates shall not be permitted unless the pit-run aggregate has been screened and washed, and all fine and coarse aggregates stored separately and kept clean. The mixing of different aggregates from different sources in one storage stockpile or alternating batches of different aggregates shall not be permitted.

a. Reactivity. Fine and Coarse aggregates to be used in all concrete shall be evaluated and tested by the Contractor for alkali-aggregate reactivity in accordance with both ASTM C1260 and C1567. Aggregate and mix proportion reactivity tests shall be performed for each project.

(1) Coarse and fine aggregate shall be tested separately in accordance with ASTM C1260. The aggregate shall be considered innocuous if the expansion of test specimens, tested in accordance with ASTM C1260, does not exceed 0.10% at 28 days (30 days from casting).

(2) Combined coarse and fine aggregate shall be tested in accordance with ASTM C1567, modified for combined aggregates, using the proposed mixture design proportions of aggregates, cementitious materials, and/or specific reactivity reducing chemicals. If lithium nitrate is proposed for use with or without supplementary cementitious materials, the aggregates shall be tested in accordance with Corps of Engineers (COE) CRD C662. If lithium nitrate admixture is used, it shall be nominal 30% ±0.5% weight lithium nitrate in water.

(3) If the expansion of the proposed combined materials test specimens, tested in accordance with ASTM C1567, modified for combined aggregates, or COE CRD C662, does not exceed 0.10% at 28 days, the proposed combined materials will be accepted. If the expansion of the proposed combined materials test specimens is greater than 0.10% at 28 days, the aggregates will not be accepted unless adjustments to the combined materials mixture can reduce the expansion to less than 0.10% at 28 days, or new aggregates shall be evaluated and tested.

610-2.2 COARSE AGGREGATE. The coarse aggregate for concrete shall meet the requirements of ASTM C33. The Engineer may consider and reserve final approval of other State classification procedures addressing aggregate durability.

Coarse aggregate shall be well graded from coarse to fine and shall meet the following gradation shown in the table below when tested per ASTM C136.

Gradation For Coarse Aggregate

Sieve Designation (square openings)	Percentage by Weight Passing Sieves
	1"
No. 4 to 3/4 in. (4.75-19 mm)	100
No. 4 to 1 in. (4.75-25 mm)	90-100
No. 4 to 1-1/2 in. (4.75-38 mm)	--

610-2.2.1 AGGREGATE SUSCEPTIBILITY TO DURABILITY (D) CRACKING. Aggregates that have a history of D-cracking shall not be used.

610-2.3 FINE AGGREGATE. The fine aggregate for concrete shall meet the requirements of ASTM C33.

The fine aggregate shall be well graded from fine to coarse and shall meet the requirements of the table below when tested in accordance with ASTM C136:

Gradation For Fine Aggregate

Sieve Designation (square openings)	Percentage by Weight Passing Sieves
3/8 inch (9 mm)	100
No. 4 (4.75 mm)	95-100
No. 16 (1.18 mm)	45-80
No. 30 (0.60 mm)	25-55
No. 50 (0.30 mm)	10-30
No. 100 (0.15 mm)	2-10

Blending will be permitted, if necessary, to meet the gradation requirements for fine aggregate. Fine aggregate deficient in the percentage of material passing the No. 50 mesh sieve may be accepted, if the deficiency does not exceed 5% and is remedied by the addition of pozzolanic or cementitious materials other than Portland cement, as specified in paragraph 610-2.6, Admixtures, in sufficient quantity to produce the required workability as approved by the Engineer.

610-2.4 CEMENT. Cement shall conform to the requirements of **ASTM C 150** Type **I or** II.

If aggregates are deemed innocuous when tested in accordance with paragraph 610-2.1.a.1 and accepted in accordance with paragraph 610-2.1.a.3, higher equivalent alkali content in the cement may be allowed if approved by the Engineer and FAA. If cement becomes partially set or contains lumps of caked cement, it shall be rejected. Cement salvaged from discarded or used bags shall not be used.

The Contractor shall furnish vendors' certified test reports for each carload, or equivalent, of cement shipped to the project. The report shall be delivered to the Engineer before use of the cement is granted. All test reports shall be subject to verification by testing sample materials received for use on the project.

610-2.5 WATER. The water used in concrete shall be fresh, clean and potable; free from injurious amounts of oils, acids, alkalies, salts, organic materials or other substances deleterious to concrete.

610-2.6 ADMIXTURES AND SUPPLEMENTARY CEMENTITIOUS MATERIAL. The Contractor shall submit certificates indicating that the material to be furnished meets all of the requirements indicated below. In addition, the Engineer may require the Contractor to submit complete test data from an approved laboratory showing that the material to be furnished meets all of the requirements of the cited

specifications. Subsequent tests may be made of samples taken by the Engineer from the supply of the material being furnished or proposed for use on the work to determine whether the admixture is uniform in quality with that approved.

a. Air-Entraining Admixtures. Air-entraining admixtures shall meet the requirements of ASTM C260 and shall consistently entrain the air content in the specified ranges under field conditions. The air-entrainment agent and any water reducer admixture shall be compatible.

b. Water-reducing admixtures. Water-reducing admixture shall meet the requirements of ASTM C494, Type A, B, or D. ASTM C494, Type F and G high range water reducing admixtures and ASTM C1017 flowable admixtures shall not be used.

~~**c. Other chemical admixtures.** The use of set retarding, and set- accelerating admixtures shall be approved by the Engineer. Retarding shall meet the requirements of ASTM C494, Type A, B, or D and set- accelerating shall meet the requirements of ASTM C494, Type C. Calcium chloride and admixtures containing calcium chloride shall not be used.~~

~~**d. Lithium nitrate.** The lithium admixture shall be a nominal 30% aqueous solution of Lithium Nitrate, with a density of 10 pounds/gallon, and shall have the approximate chemical form as shown below:~~

~~Constituent~~	~~Limit (Percent by Mass)~~
~~LiNO3 (Lithium Nitrate)~~	~~30 ±0.5~~
~~SO4 (Sulfate Ion)~~	~~0.1 (max)~~
~~Cl (Chloride Ion)~~	~~0.2 (max)~~
~~Na (Sodium Ion)~~	~~0.1 (max)~~
~~K (Potassium Ion)~~	~~0.1 (max)~~

~~Provide a trained representative to supervise the lithium nitrate admixture dispensing and mixing operations.~~

e. Fly ash. Fly ash shall meet the requirements of ASTM C618, with the exception of loss of ignition, where the maximum shall be less than 6%. Fly ash for use in mitigating alkali-silica reactivity shall have a Calcium Oxide (CaO) content of less than 13%.

610-2.7 PREMOLDED JOINT MATERIAL. Premolded joint material for expansion joints shall meet the requirements of ASTM **D 1752.**

610-2.8 JOINT FILLER. The filler for joints shall meet the requirements of Item P-605, unless otherwise specified.

610-2.9 STEEL REINFORCEMENT. Reinforcing shall consist of **Reinforcing Steel** conforming to the requirements of **ASTM A615.**

610-2.10 MATERIALS FOR CURING CONCRETE: Curing materials shall conform to **one of the following**.

Waterproof paper	**ASTM C171**
Clear or white Polyethylene Sheeting	**ASTM C171**
White-pigmented Liquid Membrane-Forming Compound, Type 2, Class B	**ASTM C309**

CONSTRUCTION METHODS

610-3.1 GENERAL. The Contractor shall furnish all labor, materials, and services necessary for, and incidental to, the completion of all work as shown on the drawings and specified here. All machinery and equipment used by the Contractor on the work, shall be of sufficient size to meet the requirements of the work. All work shall be subject to the inspection and approval of the Engineer.

610-3.2 CONCRETE COMPOSITION. The concrete shall develop a compressive strength of **3,000 psi** in 28 days as determined by test cylinders made in accordance with ASTM C31 and tested in accordance with ASTM C39. The concrete shall contain not less than 470 pounds of cement per cubic yard. The concrete shall contain 5% of entrained air, ±1%, as determined by ASTM C231 and shall have a slump of not more than 4 inches as determined by ASTM C143.

610-3.3 ACCEPTANCE SAMPLING AND TESTING. Concrete for each structure will be accepted on the basis of the compressive strength specified in paragraph 610-3.2. The concrete shall be sampled in accordance with ASTM C172. Concrete cylindrical compressive strength specimens shall be made in accordance with ASTM C31 and tested in accordance with ASTM C39. The Contractor shall cure and store the test specimens under such conditions as directed by the Engineer. The Engineer will make the actual tests on the specimens at no expense to the Contractor.

610-3.4 QUALIFICATIONS FOR CONCRETE TESTING SERVICE. Perform concrete testing by an approved laboratory and inspection service experienced in sampling and testing concrete. Testing agency must meet the requirements of ASTM C1077 or ASTM E329.

610-3.5 PROPORTIONING AND MEASURING DEVICES. When package cement is used, the quantity for each batch shall be equal to one or more whole sacks of cement. The aggregates shall be measured separately by weight. If aggregates are delivered to the mixer in batch trucks, the exact amount for each mixer charge shall be contained in each batch compartment. Weighing boxes or hoppers shall be approved by the Engineer and shall provide means of regulating the flow of aggregates into the batch box so the required, exact weight of aggregates is obtained.

610-3.6 CONSISTENCY. The consistency of the concrete shall be determined by the slump test specified in ASTM C143.

610-3.7 MIXING. Concrete may be mixed at the construction site, at a central point, or wholly or in part in truck mixers. The concrete shall be mixed and delivered in accordance with the requirements of ASTM C94.

610-3.8 MIXING CONDITIONS. The concrete shall be mixed only in quantities required for immediate use. Concrete shall not be mixed while the air temperature is below 40°F without permission of the Engineer. If permission is granted for mixing under such conditions, aggregates or water, or both, shall be heated and the concrete shall be placed at a temperature not less than 50°F nor more than 100°F. The Contractor shall be held responsible for any defective work, resulting from freezing or injury in any manner during placing and curing, and shall replace such work at his expense.

Retempering of concrete by adding water or any other material shall not be permitted.

The rate of delivery of concrete to the job shall be sufficient to allow uninterrupted placement of the concrete.

610-3.9 FORMS. Concrete shall not be placed until all the forms and reinforcements have been inspected and approved by the Engineer. Forms shall be of suitable material and shall be of the type, size, shape, quality, and strength to build the structure as shown on the plans. The forms shall be true to line and grade and shall be mortar-tight and sufficiently rigid to prevent displacement and sagging between supports. The surfaces of forms shall be smooth and free from irregularities, dents, sags, and holes. The Contractor shall be responsible for their adequacy.

The internal form ties shall be arranged so no metal will show in the concrete surface or discolor the surface when exposed to weathering when the forms are removed. All forms shall be wetted with water or with a non-staining mineral oil, which shall be applied immediately before the concrete is placed. Forms shall be constructed so they can be removed without injuring the concrete or concrete surface. The forms shall not be removed until at least 30 hours after concrete placement for vertical faces, walls, slender columns, and similar structures. Forms supported by falsework under slabs, beams, girders, arches, and similar construction shall not be removed until tests indicate the concrete has developed at least 60% of the design strength.

610-3.10 PLACING REINFORCEMENT. All reinforcement shall be accurately placed, as shown on the plans, and shall be firmly held in position during concrete placement. Bars shall be fastened together at intersections. The reinforcement shall be supported by approved metal chairs. Shop drawings, lists, and bending details shall be supplied by the Contractor when required.

610-3.11 EMBEDDED ITEMS. Before placing concrete, all embedded items shall be firmly and securely fastened in place as indicated. All embedded items shall be clean and free from coating, rust, scale, oil, or any foreign matter. The concrete shall be spaded and consolidated around and against embedded items. The embedding of wood shall not be allowed.

610-3.12 PLACING CONCRETE. All concrete shall be placed during daylight hours, unless otherwise approved. The concrete shall not be placed until the depth and condition of foundations, the adequacy of forms and falsework, and the placing of the steel reinforcing have been ~~approved~~ *reviewed by the Engineer*. Concrete shall be placed as soon as practical after mixing, but in no case later than one (1) hour after water has been added to the mix. The method and manner of placing shall avoid segregation and displacement of the reinforcement. Troughs, pipes, and chutes shall be used as an aid in placing concrete when necessary. The concrete shall not be dropped from a height of more than 5 feet. Concrete shall be deposited as nearly as practical in its final position to avoid segregation due to rehandling or flowing. Do not subject concrete to procedures which cause segregation. Concrete shall be placed on clean, damp surfaces, free from running water, or on a properly consolidated soil foundation.

610-3.13 VIBRATION. Vibration shall follow the guidelines in American Concrete Institute (ACI) Committee 309, Guide for Consolidation of Concrete. Where bars meeting ASTM A775 or A934 are used, the vibrators shall be equipped with rubber or non-metallic vibrator heads. Furnish a spare, working, vibrator on the job site whenever concrete is placed. Consolidate concrete slabs greater than 4 inches in depth with high frequency mechanical vibrating equipment supplemented by hand spading and tamping. Consolidate concrete slabs 4 inches or less in depth by wood tampers, spading, and settling with a heavy leveling straightedge. Operate internal vibrators with vibratory element submerged in the concrete, with a minimum frequency of not less than 6000 cycles per minute when submerged. Do not use vibrators to transport the concrete in the forms. Penetrate the previously placed lift with the vibrator when more than one lift is required. Use external vibrators on the exterior surface of the forms when internal vibrators do not provide adequate consolidation of the concrete. Vibrators shall be manipulated to work the concrete thoroughly around the reinforcement and embedded fixtures and into corners and angles of the forms. The vibration at any point shall be of sufficient duration to accomplish compaction but shall not be prolonged to where segregation occurs. Concrete deposited under water shall be carefully placed in a compact mass in its final position by means of a tremie or other approved method and shall not be disturbed after placement.

610-3.14 CONSTRUCTION JOINTS. If the placement of concrete is suspended, necessary provisions shall be made for joining future work before the placed concrete takes its initial set. For the proper bonding of old and new concrete, provisions shall be made for grooves, steps, reinforcing bars or other devices as specified. The work shall be arranged so that a section begun on any day shall be finished during daylight of the same day. Before depositing new concrete on or against concrete that has hardened, the surface of the hardened concrete shall be cleaned by a heavy steel broom, roughened slightly, wetted, and covered with a neat coating of cement paste or grout.

610-3.15 EXPANSION JOINTS. Expansion joints shall be constructed at such points and dimensions as indicated on the drawings. The premolded filler shall be cut to the same shape as the surfaces being joined. The filler shall be fixed firmly against the surface of the concrete already in place so that it will not be displaced when concrete is deposited against it.

610-3.16 DEFECTIVE WORK. Any defective work discovered after the forms have been removed, which in the opinion of the Engineer cannot be repaired satisfactorily, shall be immediately removed and replaced at the expense of the Contractor. Defective work shall include deficient dimensions, or bulged, uneven, or honeycomb on the surface of the concrete.

610-3.17 SURFACE FINISH. All exposed concrete surfaces shall be true, smooth, and free from open or rough areas, depressions, or projections. All concrete horizontal plane surfaces shall be brought flush to the proper elevation with the finished top surface struck-off with a straightedge and floated. Mortar finishing shall not be permitted, nor shall dry cement or sand-cement mortar be spread over the concrete during the finishing of horizontal plane surfaces.

The surface finish of exposed concrete shall be a rubbed finish. If forms can be removed while the concrete is still green, the surface shall be wetted and then rubbed with a wooden float until all irregularities are removed. If the concrete has hardened before being rubbed, a carborundum stone shall be used to finish the surface. When approved, the finishing can be done with a finishing machine.

610-3.18 CURING AND PROTECTION. All concrete shall be properly cured and protected by the Contractor. The concrete shall be protected from the weather, flowing water, and from defacement of any nature during the project. The concrete shall be cured by covering with an approved material as soon as it has sufficiently hardened. Water-absorptive coverings shall be thoroughly saturated when placed and kept saturated for at least three (3) days following concrete placement. All curing mats or blankets shall be sufficiently weighted or tied down to keep the concrete surface covered and to prevent the surface from being exposed to air currents. Wooden forms shall be kept wet at all times until removed to prevent opening of joints and drying out of the concrete. Traffic shall not be allowed on concrete surfaces for seven (7) days after the concrete has been placed.

610-3.19 DRAINS OR DUCTS. Drainage pipes, conduits, and ducts that are to be encased in concrete shall be installed by the Contractor before the concrete is placed. The pipe shall be held rigidly so that it will not be displaced or moved during the placing of the concrete.

610-3.20 COLD WEATHER PLACING. When concrete is placed at temperatures below 40°F, the Contractor shall provide satisfactory methods and means to protect the mix from injury by freezing. The aggregates, or water, or both, shall be heated to place the concrete at temperatures between 50°F and 100°F.

Calcium chloride may be incorporated in the mixing water when directed by the Engineer. Not more than 2 pounds of Type 1 nor more than 1.6 pounds of Type 2 shall be added per bag of cement. After the concrete has been placed, the Contractor shall provide sufficient protection such as cover, canvas, framework, heating apparatus, etc., to enclose and protect the structure and maintain the temperature of the mix at not less than 50°F until at least 60% of the designed strength has been attained.

610-3.21 HOT WEATHER PLACING. Concrete shall be properly placed and finished with procedures previously submitted. The concrete-placing temperature shall not exceed **90°F** when measured in accordance with ASTM C1064. Cooling of the mixing water and aggregates, or both, may be required to obtain an adequate placing temperature. A retarder meeting the requirements of paragraph 610-2.6 may be used to facilitate placing and finishing. Steel forms and reinforcement shall be cooled prior to concrete placement when steel temperatures are greater than 120°F. Conveying and placing equipment shall be cooled if necessary to maintain proper concrete-placing temperature. Submit the proposed materials and

methods for review and approval by the Engineer, if concrete is to be placed under hot weather conditions.

610-3.22 FILLING JOINTS. All joints that require filling shall be thoroughly cleaned, and any excess mortar or concrete shall be cut out with proper tools. Joint filling shall not start until after final curing and shall be done only when the concrete is completely dry. The cleaning and filling shall be done with proper equipment to obtain a neat looking joint free from excess filler.

METHOD OF MEASUREMENT

610-4.1 Portland cement concrete shall be ~~measured by the number of cubic yards of concrete complete in place and accepted. In computing the yardage of concrete for payment, the dimensions used shall be those shown on the plans or ordered by the Engineer.~~ *not be measured for separate payment unless otherwise noted.* No measurements or other allowances shall be made for forms, falsework, cofferdams, pumping, bracing, expansion joints, or finishing of the concrete. No deductions in yardage shall be made for the volumes of reinforcing steel or embedded items.

610-4.2 Reinforcing steel shall be *not be measured for separate payment.* ~~measured by the calculated theoretical number of pounds placed, as shown on the plans, complete in place and accepted. The unit weight used for deformed bars shall be the weight of plain square or round bars of equal nominal size. If so indicated on the plans, the poundage to be paid for shall include the weight of metal pipes and drains, metal conduits and ducts, or similar materials indicated and included.~~

BASIS OF PAYMENT

610-5.1 Payment shall *not be paid for separately but shall be considered subsidiary to the item in which it is contained, unless otherwise noted.* ~~be made at the contract unit price per cubic yard for structural Portland cement concrete and per pound for reinforcing steel. These prices shall be full compensation for furnishing all materials and for all preparation, delivery and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.~~

~~Payment will be made under:~~

~~Item P-610-5.1 Structural Portland Cement Concrete – per Cubic Yard~~

~~Item P-610-5.2 Steel Reinforcement – per Pound~~

TESTING REQUIREMENTS

ASTM C 31	Making and Curing Test Specimens in the Field
ASTM C 39	Compressive Strength of Cylindrical Concrete Specimens
ASTM C 136	Sieve Analysis of Fine and Coarse Aggregates
ASTM C 138	Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
ASTM C 143	Slump of Hydraulic Cement Concrete
ASTM C 231	Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C 666	Resistance of Concrete to Rapid Freezing and Thawing

ASTM C 1077	Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation
ASTM C 1260	Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)
ASTM C31	Standard Practice for Making and Curing Concrete Test Specimens in the Field
ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM C138	Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C666	Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
ASTM C1017	Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete
ASTM C1064	Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete
ASTM C1077	Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
ASTM C1260	Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)
ASTM C1567	Standard Test Method for Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials and Aggregates (Accelerated Mortar- Bar Method)
ASTM E329	Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection

U.S. Army Corps of Engineers (USACE) Concrete Research Division (CRD) C662
Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials, Lithium Nitrate Admixture and Aggregate (Accelerated Mortar-Bar Method)

MATERIAL REQUIREMENTS

ASTM A 184	Specification for Fabricated Deformed Steel Bar or Rod Mats for Concrete Reinforcement
ASTM A 185	Steel Welded Wire Fabric, Plain, for Concrete Reinforcement
ASTM A 497	Steel Welded Wire Fabric, Deformed, for Concrete Reinforcement
ASTM A 615	Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
ASTM A 704	Welded Steel Plain Bars or Rod Mats for Concrete Reinforcement

ASTM C 33	Concrete Aggregates
ASTM C 94	Ready-Mixed Concrete
ASTM C 150	Portland Cement
ASTM C 171	Sheet Materials for Curing Concrete
ASTM C 172	Sampling Freshly Mixed Concrete
ASTM C 260	Air-Entraining Admixtures for Concrete
ASTM C 309	Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C 494	Chemical Admixtures for Concrete
ASTM C 595	Blended Hydraulic Cements
ASTM C 618	Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete
ASTM D 1751	Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types)
ASTM D 1752	Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction
AASHTO T 26	Quality of Water to be Used in Concrete
ASTM A184	Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement
ASTM A185	Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete
ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM A704	Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement
ASTM A706	Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement
ASTM A775	Standard Specification for Epoxy-Coated Steel Reinforcing Bars
ASTM A934	Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars
ASTM A1064	Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
ASTM C33	Standard Specification for Concrete Aggregates
ASTM C94	Standard Specification for Ready-Mixed Concrete
ASTM C150	Standard Specification for Portland Cement

ASTM C171	Standard Specification for Sheet Materials for Curing Concrete
ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete
ASTM C260	Standard Specification for Air-Entraining Admixtures for Concrete
ASTM C309	Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C494	Standard Specification for Chemical Admixtures for Concrete
ASTM C595	Standard Specification for Blended Hydraulic Cements
ASTM C618	Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
ASTM D1751	Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Asphalt Types)
ASTM D1752	Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction
ACI 305R	Hot Weather Concreting
ACI 306R	Cold Weather Concreting
ACI 309R	Guide for Consolidation of Concrete

END OF ITEM P-610

ITEM P-620 RUNWAY AND TAXIWAY PAINTING

DESCRIPTION

620-1.1 This item shall consist of the preparation and painting of numbers, markings, and stripes on the surface of runways, taxiways, and aprons, in accordance with these specifications and at the locations shown on the plans, or as directed by the Engineer. The terms "paint" and "marking material" as well as "painting" and "application of markings" are interchangeable throughout this specification.

MATERIALS

620-2.1 MATERIALS ACCEPTANCE. The Contractor shall furnish manufacturer's certified test reports for materials shipped to the project. The certified test reports shall include a statement that the materials meet the specification requirements. The reports can be used for material acceptance or the Engineer may perform verification testing. The reports shall not be interpreted as a basis for payment. The Contractor shall notify the Engineer upon arrival of a shipment of materials to the site. All material shall arrive in sealed containers 55 gallons or smaller for inspection by the Engineer. Material shall not be loaded into the equipment until inspected by the Engineer.

620-2.2 MARKING MATERIALS. Paint shall be waterborne in accordance with the requirements of paragraph 620-2.2. Paint shall be furnished in **White (37925), Red (31136), Yellow (33538 or 33655), or Black (37038)** in accordance with Federal Standard No. 595.

a. WATERBORNE. Paint shall meet the requirements of Federal Specification TT-P-1952E, Type I. The non- volatile portion of the vehicle for all paint types shall be composed of a 100% acrylic polymer as determined by infrared spectral analysis.

~~**b. EPOXY.** Paint shall be a two component, minimum 99% solids type system conforming to the following:~~

~~**(1) Pigments.** Component A. Percent by weight.~~

~~**(a) White:**~~
~~Titanium Dioxide, ASTM D476, type II shall be 18% minimum (16.5% minimum at 100% purity).~~

~~**(b) Yellow and Colors:**~~
~~Titanium Dioxide, ASTM D476, type II shall be 14 to 17%.~~

~~Organic yellow, other colors, and tinting as required to meet color standard.~~

~~Epoxy resin shall be 75 to 79%.~~

~~**(2) Epoxy Content.** Component A. The weight per epoxy equivalent, when tested in accordance with ASTM D1652 shall be the manufacturer's target ±50.~~

~~**(3) Amine Number.** Component B. When tested in accordance with ASTM D2074 shall be the manufacturer's target ±50.~~

~~**(4) Prohibited Materials.** The manufacturer shall certify that the product does not contain mercury, lead, hexavalent chromium, halogenated solvents, nor any carcinogen as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.~~

~~**(5) Daylight Directional Reflectance:**~~

(a) White: The daylight directional reflectance of the white paint shall not be less than 75% (relative to magnesium oxide), when tested in accordance with ASTM E2302.

(b) Yellow: The daylight directional reflectance of the yellow paint shall not be less than 55% (relative to magnesium oxide), when tested in accordance with ASTM E2302. The x and y values shall be consistent with the Federal Hegman yellow color standard chart for traffic yellow standard 33538, or shall be consistent with the tolerance listed below:

x	.462	x .470	x .479	x .501
y	.438	y .455	y .428	y .452

(6) Accelerated Weathering.

(a) Sample Preparation. Apply the paint at a wet film thickness of 0.013 inch to four 3 x 6 inch aluminum panels prepared as described in ASTM E2302. Air dry the sample 48 hours under standard conditions.

(b) Testing Conditions. Test in accordance with ASTM G154 using both Ultra Violet (UV-B) Light and condensate exposure, 72 hours total, alternating four (4) hour UV exposure at 140°F, and four (4) hours condensate exposure at 104°F.

(c) Evaluation. Remove the samples and condition for 24 hours under standard conditions. Determine the directional reflectance and color match using the procedures in paragraph 620-2.2b(5) above. Evaluate for conformance with the color requirements.

(7) Volatile Organic Content. Determine the volatile organic content in accordance with 40 CFR Part 60 Appendix A, Method 24.

(8) Dry Opacity. Use ASTM E2302. The wet film thickness shall be 0.015 inch. The minimum opacity for white and colors shall be 0.92.

(9) Abrasion Resistance. Subject the panels prepared in paragraph 620-2.2b(6) to the abrasion test in accordance with ASTM D968, Method A, except that the inside diameter of the metal guide tube shall be from 0.747 to 0.750 inch. Five liters (17.5 lb) of unused sand shall be used for each test panel. The test shall be run on two test panels Both baked and weathered paint films shall require not less than 150 liters (525 lbs) of sand for the removal of the paint films.

(10) Hardness, Shore. Hardness shall be at least 80 when tested in accordance with ASTM D2240.]

c. METHACRYLATE. Paint shall be a two component, minimum 99% solids type system conforming to the following:

(1) Pigments. Component A. Percent by weight.

(a) White:

Titanium Dioxide, ASTM D476, type II shall be 8% minimum. Methacrylate resin shall be 18% minimum.

(b) Yellow and Colors:

Titanium Dioxide, ASTM D476, type II shall be 1% minimum.

Organic yellow, other colors, and tinting as required to meet color standard.

Methacrylate resin shall be 18% minimum.

(2) Prohibited Materials. The manufacturer shall certify that the product does not contain mercury, lead, hexavalent chromium, halogenated solvents, nor any carcinogen as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.

(3) Daylight Directional Reflectance:

(a) White: The daylight directional reflectance of the white paint shall not be less than 80% (relative to magnesium oxide), when tested in accordance with ASTM E2302.

(b) Yellow: The daylight directional reflectance of the yellow paint shall not be less than 55% (relative to magnesium oxide), when tested in accordance with ASTM E2302. The x and y values shall be consistent with the Federal Hegman yellow color standard chart for traffic yellow standard 33538, or shall be consistent with the tolerance listed below:

x .462 x .470 x .479 x .501
y .438 y .455 y .428 y .452

(4) Accelerated Weathering.

(a) Sample Preparation. Apply the paint at a wet film thickness of 0.013 inch to four 3 x 6 inch aluminum panels prepared as described in ASTM E2302. Air dry the sample 48 hours under standard conditions.

(b) Testing Conditions. Test in accordance with ASTM G154 using both Ultra Violet (UV-B) Light and condensate exposure, 72 hours total, alternating four (4) hour UV exposure at 140°F, and four (4) hours condensate exposure at 104°F.

(c) Evaluation. Remove the samples and condition for 24 hours under standard conditions. Determine the directional reflectance and color match using the procedures in paragraph 620-2.2c(3) above. Evaluate for conformance with the color requirements.

(5) Volatile Organic Content. Determine the volatile organic content in accordance with 40 CFR Part 60 Appendix A, Method 24.

(6) Dry Opacity. Use ASTM E2302. The wet film thickness shall be 0.015 inch. The minimum opacity for white and colors shall be 0.92.

(7) Abrasion Resistance. Subject the panels prepared in paragraph 620-2.2c(4) to the abrasion test in accordance with ASTM D968, Method A, except that the inside diameter of the metal guide tube shall be from 0.747 to 0.750 inch. Five liters (17.5 lb) of unused sand shall be used for each test panel. The test shall be run on two test panels. Both baked and weathered paint films shall require not less than 150 liters (525 lbs) of sand for the removal of the paint films.

(8) Hardness, Shore. Hardness shall be at least 60 when tested in accordance with ASTM D2240.

d. SOLVENT-BASE. Paint shall meet the requirements of Commercial Item Description A-A-2886B Type I, Type II, and Type III.

e. PREFORMED THERMOPLASTIC AIRPORT PAVEMENT MARKINGS. Markings must be composed of ester modified resins in conjunction with aggregates, pigments, and binders that have been

factory produced as a finished product. The material must be impervious to degradation by aviation fuels, motor fuels, and lubricants.

(1) The markings must be able to be applied in temperatures as low as 35°F without any special storage, preheating, or treatment of the material before application.

(a) The markings must be supplied with an integral, non- reflectorized black border.

(2) Graded Glass Beads.

(a) The material must contain a minimum of 30% intermixed graded glass beads by weight. The intermixed beads shall conform to Federal Specification TT-B-1325D, Type IV .

(b) The material must have factory applied coated surface beads in addition to the intermixed beads at a rate of one (1) lb (±10%) per 10 square feet. These factory applied coated surface beads shall have a minimum of 90% true spheres, minimum refractive index of 1.50, and meet the following gradation.

Size Gradation		Retained, %	Passing, %
US Mesh	µm		
12	1700	0 – 2	98 – 100
14	1400	0 - 3.5	96.5 – 100
16	1180	2 – 25	75 – 98
18	1000	28 – 63	37 – 72
20	850	63 – 72	28 – 37
30	600	67 – 77	23 – 33
50	300	89 – 95	5 – 11
80	200	97 – 100	0 – 3

(3) Heating Indicators. The material manufacturer shall provide a method to indicate that the material has achieved satisfactory adhesion and proper bead embedment during application and that the installation procedures have been followed.

(4) Pigments. Percent by weight.

(a) White:
Titanium Dioxide, ASTM D476, type II shall be 10% minimum.

(b) Yellow and Colors:
Titanium Dioxide, ASTM D476, type II shall be 1% minimum.

Organic yellow, other colors, and tinting as required to meet color standard.

(5) Prohibited Materials. The manufacturer shall certify that the product does not contain mercury, lead, hexavalent chromium, halogenated solvents, nor any carcinogen as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.

(6) Daylight Directional Reflectance.

(a) White:
The daylight directional reflectance of the white paint shall not be less than 75% (relative to magnesium oxide), when tested in accordance with ASTM E2302.

~~**(b) Yellow:** The daylight directional reflectance of the yellow paint shall not be less than 45% (relative to magnesium oxide), when tested in accordance with ASTM E2302. The x and y values shall be consistent with the Federal Hegman yellow color standard chart for traffic yellow standard 33538, or shall be consistent with the tolerance listed below:~~

~~x~~	~~.462~~	~~.470~~	~~.479~~	~~.501~~
~~y~~	~~.438~~	~~.455~~	~~.428~~	~~.452~~

~~**(7) Skid Resistance.** The surface, with properly applied and embedded surface beads, must provide a minimum resistance value of 45 BPN when tested according to ASTM E303.~~

~~**(8) Thickness.** The material must be supplied at a nominal thickness of 65 mil.~~

~~**(9) Environmental Resistance.** The material must be resistant to deterioration due to exposure to sunlight, water, salt, or adverse weather conditions and impervious to aviation fuels, gasoline, and oil.~~

~~**(10) Retroreflectivity.** The material, when applied in accordance with manufacturer's guidelines, must demonstrate a uniform level of nighttime retroreflection when tested in accordance to ASTM E1710.~~

~~**(11) Packaging.** Packaging shall protect the material from environmental conditions until installation.~~

~~**(12) Preformed Thermoplastic Airport Pavement Marking Requirements.**~~

~~**(a)** The markings must be a resilient thermoplastic product with uniformly distributed glass beads throughout the entire cross-sectional area. The markings must be resistant to the detrimental effects of aviation fuels, motor fuels and lubricants, hydraulic fluids, deicers, anti-icers, protective coatings, etc. Lines, legends, and symbols must be capable of being affixed to asphalt and/or Portland cement concrete pavements by the use of a large radiant heater. Colors shall be available as required.~~

~~**(b)** The markings must be capable of conforming to pavement contours, breaks, and faults through the action of airport traffic at normal pavement temperatures. The markings must be capable of fully conforming to grooved pavements, including pavement grooving per advisory circular (AC) 150/5320-12, current version. The markings shall have resealing characteristics, such that it is capable of fusing with itself and previously applied thermoplastics when heated with a heat source per manufacturer's recommendation.~~

~~**(c)** Multicolored markings must consist of interconnected individual pieces of preformed thermoplastic pavement marking material, which through a variety of colors and patterns, make up the desired design. The individual pieces in each large marking segment (typically more than 20 feet long) must be factory assembled with a compatible material and interconnected so that in the field it is not necessary to assemble the individual pieces within a marking segment. Obtaining multicolored effect by overlaying materials of different colors is not acceptable due to resulting inconsistent marking thickness and inconsistent application temperature in the marking/substrate interface.~~

~~**(d)** The marking material must set up rapidly, permitting the access route to be re-opened to traffic after application.~~

~~**(e)** The marking material shall have an integral color throughout the thickness of the marking material.~~

620-2.3 REFLECTIVE MEDIA. Glass beads shall meet the requirements for **Federal Specification TT-B-1325D, Type I, Gradation A**. Glass beads shall be treated with all compatible coupling agents recommended by the manufacturers of the paint and reflective media to ensure adhesion and embedment.

CONSTRUCTION METHODS

620-3.1 WEATHER LIMITATIONS. The painting shall be performed only when the surface is dry and when the surface temperature is at least 45°F and rising and the pavement surface temperature is at least 5°F above the dew point or meets the manufacturer's recommendations. **Painting operations shall be discontinued when the surface temperature exceeds 120°F.** Markings shall not be applied when the wind speed exceeds 10 mph unless windscreens are used to shroud the material guns.

620-3.2 EQUIPMENT. Equipment shall include the apparatus necessary to properly clean the existing surface, a mechanical marking machine, a bead dispensing machine, and such auxiliary hand-painting equipment as may be necessary to satisfactorily complete the job.

The mechanical marker shall be an atomizing spray-type or airless-type marking machine suitable for application of traffic paint. It shall produce an even and uniform film thickness at the required coverage and shall apply markings of uniform cross-sections and clear-cut edges without running or spattering and without over spray.

620-3.3 PREPARATION OF SURFACE. Immediately before application of the paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other foreign material that would reduce the bond between the paint and the pavement. The area to be painted shall be cleaned by **waterblasting** or by other methods as required to remove all contaminants while minimizing damage to the pavement surface. Use of any chemicals or impact abrasives during surface preparation shall be approved in advance by the Engineer. *Grinding of the pavement will not be permitted.* After the cleaning operations, sweeping, blowing, or rinsing with pressurized water shall be performed to ensure the surface is clean and free of grit or other debris left from the cleaning process.

Paint shall not be applied to Portland cement concrete pavement until the areas to be painted are cleaned of curing material. Sandblasting or high-pressure water shall be used to remove curing materials.

At least 24 hours prior to remarking existing markings, the existing markings must be ~~removed~~ *prepared* **such that ~~75% existing markings are removed~~** *any loose or contaminated material that will affect the bond of the new paint are removed.* **After removal, the surface shall be cleaned of all residue or debris either with sweeping or blowing with compressed air or both.** *The preparation is NOT to damage the pavement around and beneath the paint being prepared for remarking. Any damage is to be corrected immediately at no additional cost to the Owner.*

Prior to the application of any markings, the Contractor shall certify in writing that the surface has been prepared in accordance with the paint manufacturer's requirements, that the application equipment is appropriate for the type of marking paint and that environmental conditions are appropriate for the material being applied. This certification along with a copy of the paint manufacturer's surface preparation and application requirements must be submitted and approved by the Engineer prior to the initial application of markings.

620-3.4 LAYOUT OF MARKINGS. The proposed markings shall be laid out in advance of the paint application. The locations of markings to receive glass beads shall be shown on the plans.

620-3.5 APPLICATION. Paint shall be applied at the locations and to the dimensions and spacing shown on the plans. Paint shall not be applied until the layout and condition of the surface has been approved by the Engineer. The edges of the markings shall not vary from a straight line more than 1/2 inch in 50 feet, and marking dimensions and spacings shall be within the following tolerances:

Dimension and Spacing	Tolerance
36 inch or less	±1/2 inch
greater than 36 inch to 6 feet	±1 inch
greater than 6 feet to 60 feet	±2 inch
greater than 60 feet	±3 inch

The paint shall be mixed in accordance with the manufacturer's instructions and applied to the pavement with a marking machine at the rate shown in Table 1. The addition of thinner will not be permitted. A period of **30 days** shall elapse between placement of a bituminous surface course or seal coat and application of the paint.

Prior to the initial application of markings, the Contractor shall certify in writing that the surface has been prepared in accordance with the paint manufacturer's requirements, that the application equipment is appropriate for the marking paint and that environmental conditions are appropriate for the material being applied. This certification along with a copy of the paint manufactures application and surface preparation requirements must be submitted to the Engineer prior to the initial application of markings.

620-3.6 TEST STRIP. Prior to the full application of airfield markings, the Contractor shall produce a test strip in the presence of the Engineer. The test strip shall include the application of a minimum of 5 gallons of paint and application of 35 lbs of Type I/50 lbs of Type III glass beads. The test strip shall be used to establish thickness/darkness standard for all markings. The test strip shall cover no more than the maximum area prescribed in Table 1 (e.g., for 5 gallons of waterborne paint shall cover no more than 575 square feet).

TABLE 1. APPLICATION RATES FOR PAINT AND GLASS BEADS
~~(See Note Regarding Red and Pink Paint)~~

Paint Type	Paint Square feet per gallon, ft^2/gal	Glass Beads, Type I, Gradation A Pounds per gallon of paint—lb./gal.	Glass Beads, Type III Pounds per gallon of paint—lb./gal.	Glass Beads, Type IV Pounds per gallon of paint—lb./gal.
Waterborne Type I	115 ft^2/gal max	7 lb/gal min (0.85 kg/l)	--	--

When pavement markings are required on a newly placed pavement, the pavement markings shall be completed in two applications. The first application shall be 33% of the application rate specified in Table 1. The second application shall be 100% of the application rate specified in Table 1, placed in the opposite direction of the first pass. Glass beads shall only be included in the second application of the pavement markings.

Glass beads shall be distributed upon the marked areas at the locations shown on the plans to receive glass beads immediately after application of the paint. A dispenser shall be furnished that is properly designed for attachment to the marking machine and suitable for dispensing glass beads. Glass beads shall be applied at the rate shown in Table 1. Glass beads shall not be applied to black paint or green paint. Glass beads shall adhere to the cured paint or all marking operations shall cease until corrections are made. Different bead types shall not be mixed. Regular monitoring of glass bead embedment should be performed.

All emptied containers shall be returned to the paint storage area for checking by the Engineer. The containers shall not be removed from the airport or destroyed until authorized by the Engineer.

~~620-3.7 APPLICATION – PREFORMED AIRPORT PAVEMENT MARKINGS.~~

~~**a. Asphalt and Portland Cement** To ensure minimum single-pass application time and optimum bond in the marking/substrate interface, the materials must be applied using a variable speed self- propelled mobile heater with an effective heating width of no less than 16 feet and a free span between supporting wheels of no less than 18 feet. The heater must emit thermal radiation to the marking material in such a manner that the difference in temperature of 2 inches wide linear segments in the direction of heater travel must be within 5% of the overall average temperature of the heated thermoplastic material as it exits the heater. The material must be able to be applied at ambient and pavement temperatures down to 35°F without any preheating of the pavement to a specific temperature. The material must be able to be applied without the use of a thermometer. The pavement shall be clean, dry, and free of debris. A non-volatile organic content (non-VOC) sealer with a maximum applied viscosity of 250 centiPoise must be applied to the pavement shortly before the markings are applied. The supplier must enclose application instructions with each box/package.~~

620-3.8 PROTECTION AND CLEANUP. After application of the markings, all markings shall be protected from damage until dry. All surfaces shall be protected from excess moisture and/or rain and from disfiguration by spatter, splashes, spillage, or drippings. The Contractor shall remove from the work area all debris, waste, loose or unadhered reflective media, and by-products generated by the surface preparation and application operations to the satisfaction of the Engineer. The Contractor shall dispose of these wastes in strict compliance with all applicable state, local, and Federal environmental statutes and regulations.

620-3.9 REMOVAL OF EXISTING MARKINGS. *The existing pavement markings shown on the plans to be removed shall be removed without damaging the existing pavement. The markings shall be removed through the use of high-pressure water or other methods approved by the Engineer before removal operations begin. For areas to be repainted, the existing painted surface shall be cleaned by high-pressure water blasting or sand blasting, as required, to remove all foreign material which would reduce the bond between the new paint and the old paint.*

METHOD OF MEASUREMENT

620-4.1 The quantity of runway and taxiway markings to be paid for shall be **the number of square feet of painting including reflective media when required** ~~**and the number of pounds of reflective media**~~ performed in accordance with the specifications and accepted by the Engineer. *Where multiple pavement marking applications are specified, there will be no separate payment for temporary pavement markings (first pass). If either the temporary or final application of pavement markings are not required, the contract quantity shall be adjusted according to the markings actually completed.*

The quantity of runway and taxiway markings to be paid for shall be the number of square feet of painting including reflective media when required, performed in accordance with the specifications and accepted by the Engineer.

620-5.2 *Payment shall be made at a lump sum price for paint marking removal. The price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item.*

BASIS OF PAYMENT

620-5.1 Payment shall be made at the respective contract **price per square foot** for runway and taxiway painting and for reflective media *and lump sum for pavement marking removal. For paint markings placed on existing pavement markings, there is no separate pay for pavement marking preparation as described in this item and is to be considered inclusive of the pavement markings pay item.* This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-620-1	Retro-Reflective Pavement Markings – per square foot
~~Item P-620-2~~	~~Preformed Runway Hold Sign Markings – per square foot~~
Item P-620-3	Non-Reflective Black Outline – per square foot
Item P-620-4	Pavement Marking Removal – per lump sum

TESTING REQUIREMENTS

ASTM C371	Standard Test Method for Wire-Cloth Sieve Analysis of Nonplastic Ceramic Powders
ASTM D92	Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester
ASTM D711	Standard Test Method for No-Pick-Up Time of Traffic Paint
ASTM D968	Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
ASTM D1652	Standard Test Method for Epoxy Content of Epoxy Resins
ASTM D2074	Standard Test Method for Total, Primary, Secondary, and Tertiary Amine Values of Fatty Amines by Alternative Indicator Method
ASTM D2240	Standard Test Method for Rubber Property - Durometer Hardness
ASTM D7585	Standard Practice for Evaluating Retroreflective Pavement Markings Using Portable Hand-Operated Instruments
ASTM E1710	Standard Test Method for Measurement of Retroreflective Pavement Marking Materials with CEN-Prescribed Geometry Using a Portable Retroreflectometer
ASTM E2302	Standard Test Method for Measurement of the Luminance Coefficient Under Diffuse Illumination of Pavement Marking Materials Using a Portable Reflectometer
ASTM G154	Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials

MATERIAL REQUIREMENTS

ASTM D476	Standard Classification for Dry Pigmentary Titanium Dioxide Products

40 CFR Part 60, Appendix A-7, Method 24
Determination of volatile matter content, water content, density, volume solids, and weight solids of surface coatings

29 CFR Part 1910.1200 Hazard Communication

FED SPEC TT-B-1325D
Beads (Glass Spheres) Retro-Reflective

American Association of State Highway and Transportation Officials (AASHTO) M247 Standard Specification for Glass Beads Used in Pavement Markings

FED SPEC TT-P-1952E
Paint, Traffic and Airfield Marking, Waterborne

Commercial Item Description A-A-2886B
Paint, Traffic, Solvent Based

FED STD 595 Colors used in Government Procurement

AC 150/5340-1 Standards for Airport Markings

END OF ITEM P-620

ITEM D-701 PIPE FOR STORM DRAINS AND CULVERTS

DESCRIPTION

701-1.1 This item shall consist of the construction of pipe culverts and storm drains in accordance with these specifications and in reasonably close conformity with the lines and grades shown on the plans.

MATERIALS

701-2.1 Materials shall meet the requirements shown on the plans and specified below. All reinforced concrete pipe shall be Class III pipe unless otherwise denoted on the plans. No pick-eye holes will be allowed.

701-2.2 PIPE. The pipe shall be of the type called for on the plans or in the proposal and shall be in accordance with the following appropriate requirements:

ASTM C76	Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
ASTM C1433	Standard Specification for Precast Reinforced Concrete Monolithic Box Sections for Culverts, Storm Drains, and Sewers

701-2.3 CONCRETE. Concrete for pipe cradles shall have a minimum compressive strength of 2000 psi at 28 days and conform to the requirements of ASTM C94.

701-2.4 RUBBER GASKETS. Rubber gaskets for rigid pipe shall conform to the requirements of ASTM C443. Rubber gaskets for PVC pipe, polyethylene, and polypropylene pipe shall conform to the requirements of ASTM F477. Rubber gaskets for zinc-coated steel pipe and precoated galvanized pipe shall conform to the requirements of ASTM D1056, for the "RE" closed cell grades. Rubber gaskets for steel reinforced thermoplastic ribbed pipe shall conform to the requirements of ASTM F477.

701-2.5 JOINT MORTAR. Pipe joint mortar shall consist of one part Portland cement and two parts sand. The Portland cement shall conform to the requirements of ASTM C150, Type I. The sand shall conform to the requirements of ASTM C144.

701-2.6 JOINT FILLERS. Poured filler for joints shall conform to the requirements of ASTM D6690.

701-2.7 PLASTIC GASKETS. Plastic gaskets shall conform to the requirements of AASHTO M198 (Type B).

701-2.8. CONTROLLED LOW STRENGTH MATERIAL (CLSM). Controlled low-strength material shall conform to the requirements of Item P-153. When CLSM is used all joints shall have gaskets.

CONSTRUCTION METHODS

701-3.1 EXCAVATION. The width of the pipe trench shall be sufficient to permit satisfactory jointing of the pipe and thorough tamping of the bedding material under and around the pipe, but it shall not be less

than the external diameter of the pipe plus 6 inches on each side. The trench walls shall be approximately vertical. *If subsurface conditions require, provide dewatering to carry out the work.*

The Contractor shall comply with all current Federal, state and local rules and regulations governing the safety of men and materials during the excavation, installation and backfilling operations. Specifically, the Contractor shall observe that all requirements of the Occupational Safety and Health Administration (OSHA) relating to excavations, trenching and shoring are strictly adhered to. The width of the trench shall be sufficient to permit satisfactorily jointing of the pipe and thorough compaction of the bedding material under the pipe and backfill material around the pipe, but it shall not be greater than the widths shown on the plans trench detail. The trench bottom shall be shaped to fully and uniformly support the bottom quadrant of the pipe.

Where rock, hardpan, or other unyielding material is encountered, the Contractor shall remove it from below the foundation grade for a depth of at least 8 inch or 1/2 inch for each foot of fill over the top of the pipe (whichever is greater) but for no more than three-quarters of the nominal diameter of the pipe. The excavation below grade shall be backfilled with selected fine compressible material, such as silty clay or loam, and lightly compacted in layers not over 6 inches in uncompacted depth to form a uniform but yielding foundation.

Where a firm foundation is not encountered at the grade established, due to soft, spongy, or other unstable soil, the unstable soil shall be removed and replaced with approved granular material for the full trench width. The Engineer shall determine the depth of removal necessary. The granular material shall be compacted to provide adequate support for the pipe.

The excavation for pipes placed in embankment fill shall not be made until the embankment has been completed to a height above the top of the pipe as shown on the plans.

701-3.2 BEDDING. The pipe bedding shall conform to the class specified on the plans. The bedding surface for the pipe shall provide a firm foundation of uniform density throughout the entire length of the pipe. When no bedding class is specified or detailed on the plans, the requirements for Class C bedding shall apply.

a. Rigid Pipe. Class A bedding shall consist of a continuous concrete cradle conforming to the plan details.

Class B bedding shall consist of a bed of granular material having a thickness of at least 6 inches below the bottom of the pipe and extending up around the pipe for a depth of not less than *50%* ~~30%~~ of the pipe's vertical outside diameter. The layer of bedding material shall be shaped to fit the pipe for at least *50%*~~10%~~ of the pipe's vertical diameter and shall have recesses shaped to receive the bell of bell and spigot pipe. The bedding material shall be *number 57 stone as defined in ASTM C 33 or approved equal.* ~~sand or select sandy soil with 100% passing a 3/8 inch sieve and not more than 10% passing a No. 200 sieve.~~

Class C bedding shall consist of bedding the pipe in its natural foundation material to a depth of not less than 10% of the pipe's vertical outside diameter. The bed shall be shaped to fit the pipe and shall have recesses shaped to receive the bell of bell and spigot pipe.

b. Flexible Pipe. For flexible pipe, the bed shall be roughly shaped to fit the pipe, and a bedding blanket of sand or fine granular material shall be provided as follows:

Pipe Corrugation Depth	Minimum Bedding Depth
inch	inch

1/2	1
1	2
2	3
2-1/2	3-1/2

c. PVC, Polyethylene, and Polypropylene Pipe. For PVC, polyethylene, and polypropylene pipe, the bedding material shall consist of coarse sands and gravels with a maximum particle size of 3/4 inches. For pipes installed under paved areas, no more than 12% of the material shall pass the No. 200 (0.075 mm) sieve. For all other areas, no more than 50% of the material shall pass the No. 200 (0.075 mm) sieve. The bedding shall have a thickness of at least 6 inches below the bottom of the pipe and extend up around the pipe for a depth of not less than 50% of the pipe's vertical outside diameter.

701-3.3 LAYING PIPE. The pipe laying shall begin at the lowest point of the trench and proceed upgrade. The lower segment of the pipe shall be in contact with the bedding throughout its full length. Bell or groove ends of rigid pipes and outside circumferential laps of flexible pipes shall be placed facing upgrade.

Paved or partially lined pipe shall be placed so that the longitudinal center line of the paved segment coincides with the flow line.

Elliptical and elliptically reinforced concrete pipes shall be placed with the manufacturer's reference lines designating the top of the pipe within five degrees of a vertical plane through the longitudinal axis of the pipe.

701-3.4 JOINING PIPE. Joints shall be made with (1) Portland cement mortar, (2) Portland cement grout, (3) rubber gaskets, (4) plastic gaskets, or (5) coupling bands.

Mortar joints shall be made with an excess of mortar to form a continuous bead around the outside of the pipe and shall be finished smooth on the inside. Molds or runners shall be used for grouted joints to retain the poured grout. Rubber ring gaskets shall be installed to form a flexible watertight seal.

a. Concrete Pipe. Concrete pipe may be either bell and spigot or tongue and groove. The method of joining pipe sections shall be so the ends are fully entered and the inner surfaces are reasonably flush and even. Joints shall be thoroughly wetted before applying mortar or grout.

b. Metal Pipe. Metal pipe shall be firmly joined by form-fitting bands conforming to the requirements of ASTM A760 for steel pipe and AASHTO M196 for aluminum pipe.

c. PVC, Polyethylene, and Polypropylene Pipe. Joints for PVC, Polyethylene, and Polypropylene pipe shall conform to the requirements of ASTM D3212 when water tight joints are required. Joints for PVC and Polyethylene pipe shall conform to the requirements of AASHTO M304 when soil tight joints are required. Fittings for polyethylene pipe shall conform to the requirements of AASHTO M252 or ASTM M294. Fittings for polypropylene pipe shall conform to ASTM F2881, ASTM F2736, or ASTM F2764.

701-3.5 BACKFILLING. Pipes shall be inspected before any backfill is placed; any pipes found to be out of alignment, unduly settled, or damaged shall be removed and relaid or replaced at the Contractor's expense.

Material for backfill shall be fine, readily compatible soil or granular material selected from the excavation or a source of the Contractor's choosing *or* shall meet the requirements of Item P-153 *when called for in the Plans.* It shall not contain frozen lumps, stones that would be retained on a 2-inch (50 mm) sieve, chunks of highly plastic clay, or other objectionable material. Granular backfill material shall have 95% or more passing the a 1/2 inch sieve, with 95% or more being retained on the No. 4 (4.75 mm) sieve.

When the top of the pipe is even with or below the top of the trench, the backfill shall be compacted in layers not exceeding 6 inches on each side of the pipe and shall be brought up one foot above the top of the pipe or to natural ground level, whichever is greater. Thoroughly compact the backfill material under the haunches of the pipe without displacing the pipe. Material shall be brought up evenly on each side of the pipe for the full length of the pipe.

When the top of the pipe is above the top of the trench, the backfill shall be compacted in layers not exceeding 6 inches and shall be brought up evenly on each side of the pipe to one foot above the top of the pipe. The width of backfill on each side of the pipe for the portion above the top of the trench shall be equal to twice the pipe's diameter or 12 feet, whichever is less.

For PVC, polyethylene, and polypropylene pipe, the backfill shall be placed in two stages; first to the top of the pipe and then at least 12 inches over the top of the pipe. The backfill material shall meet the requirements of paragraph 701-3.2c.

All backfill shall be compacted to the density required under Item P-152.

It shall be the Contractor's responsibility to protect installed pipes and culverts from damage due to construction equipment operations. The Contractor shall be responsible for installation of any extra strutting or backfill required to protect pipes from the construction equipment.

When called for in the Plans, remove existing stormwater pipe by excavating, removing pipe, disposing of pipe in a manner consistent with local law and codes, and backfill of the excavation following Item P-152.

METHOD OF MEASUREMENT

701-4.1 The length of pipe shall be measured in linear feet of pipe in place, completed, and approved. It shall be measured along the centerline of the pipe from end or inside face of structure to the end or inside face of structure, whichever is applicable. The several classes, types and size shall be measured separately. All fittings shall be included in the footage as typical pipe sections in the pipe being measured.

701-4.2 *The length of pipe removed shall be measured in linear feet of pipe removed, backfilled, and approved. It shall be measured along the centerline of the pipe from end or inside face of structure to the end or inside face of structure, prior to removal, whichever is applicable.*

~~**701-4.2** The volume of concrete for pipe cradles shall be the number of cubic yards of concrete that is completed in place and accepted.~~

~~***701-4.2*** *The pipe end sections shall be measured for each complete unit installed in place, completed, and approved. Several classes, types and size shall be measured separately. All fittings and curtain walls shall be included as part of the item*~~

~~**701-4.3** The volume of rock shall be the number of cubic yards of rock excavated. No payment shall be made for the cushion material placed for the bed of the pipe.~~

BASIS OF PAYMENT

701-5.1 Payment will be made at the contract unit price per linear foot for each kind of pipe of the type and size designated; *and shall include all costs for excavation, dewatering, bedding, backfill and all other miscellaneous costs for installation of the pipe.* ~~at the contract unit price per cubic yard (cubic meter) of concrete for pipe cradles; and at the contract unit price per cubic yard for rock excavation.~~

These prices shall fully compensate the Contractor for furnishing all materials and for all preparation, excavation, and installation of these materials; and for all labor, equipment, tools, and incidentals necessary to complete the item.

701-5.2 *Payment will be made at the contract unit price per linear foot for removal of pipe of the type and size designated; and shall include all costs for excavation, dewatering, removal and disposal, backfill and all other miscellaneous costs for removal of the pipe.*

Payment will be made under:

Item D-701-1	30" Stormwater Pipe – per Linear Foot
Item D-701-2	Removal of 30" Concrete Pipe – per Linear Foot

MATERIAL REQUIREMENTS

AASHTO M167	Standard Specification for Corrugated Steel Structural Plate, Zinc-Coated, for Field-Bolted Pipe, Pipe-Arches, and Arches
AASHTO M190	Standard Specification for Bituminous-Coated Corrugated Metal Culvert Pipe and Pipe Arches
AASHTO M196	Standard Specification for Corrugated Aluminum Pipe for Sewers and Drains
AASHTO M198	Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants
AASHTO M219	Standard Specification for Corrugated Aluminum Alloy Structural Plate for Field-Bolted Pipe, Pipe-Arches, and Arches
AASHTO M243	Standard Specification for Field Applied Coating of Corrugated Metal Structural Plate for Pipe, Pipe-Arches, and Arches
AASHTO M252	Standard Specification for Corrugated Polyethylene Drainage Pipe
AASHTO M294	Standard Specification for Corrugated Polyethylene Pipe, 300- to 1500-mm (12- to 60-in.) Diameter
AASHTO M304	Standard Specification for Poly (Vinyl Chloride) (PVC) Profile Wall Drain Pipe and Fittings Based on Controlled Inside Diameter
AASHTO MP20	Standard Specification for Steel Reinforced Polyethylene (PE) Ribbed Pipe, 300- to 900-mm (12- to 36-in.) Diameter
ASTM A760	Standard Specification for Corrugated Steel Pipe, Metallic Coated for Sewers and Drains

ASTM A761	Standard Specification for Corrugated Steel Structural Plate, Zinc Coated, for Field-Bolted Pipe, Pipe-Arches, and Arches
ASTM A762	Standard Specification for Corrugated Steel Pipe, Polymer Precoated for Sewers and Drains
ASTM A849	Standard Specification for Post-Applied Coatings, Pavings, and Linings for Corrugated Steel Sewer and Drainage Pipe
ASTM B745	Standard Specification for Corrugated Aluminum Pipe for Sewers and Drains
ASTM C14	Standard Specification for Nonreinforced Concrete Sewer, Storm Drain, and culvert Pipe
ASTM C76	Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
ASTM C94	Standard Specification for Ready Mixed Concrete
ASTM C144	Standard Specification for Aggregate for Masonry Mortar
ASTM C150	Standard Specification for Portland Cement
ASTM C443	Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets
ASTM C506	Standard Specification for Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
ASTM C507	Standard Specification for Reinforced Concrete Elliptical Culvert, Storm Drain and Sewer Pipe
ASTM C655	Standard Specification for Reinforced Concrete D-Load Culvert, Storm Drain and Sewer Pipe
ASTM C1433	Standard Specification for Precast Reinforced Concrete Monolithic Box Sections for Culverts, Storm Drains, and Sewers
ASTM D1056	Standard Specification for Flexible Cellular Materials Sponge or Expanded Rubber
ASTM D3034	Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings
ASTM D3212	Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
ASTM D6690	Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements
ASTM F477	Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe
ASTM F667	Standard Specification for 3 through 24 in. Corrugated Polyethylene Pipe and Fittings

ASTM F714	Standard Specification for Polyethylene (PE) Plastic Pipe (DR PR) Based on Outside Diameter
ASTM F794	Standard Specification for Poly (Vinyl Chloride) (PVC) Profile Gravity Sewer Pipe & Fittings Based on Controlled Inside Diameter
ASTM F894	Standard Specification for Polyethylene (PE) Large Diameter Profile Wall Sewer and Drain Pipe
ASTM F949	Standard Specification for Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe With a Smooth Interior and Fittings
ASTM F2435	Standard Specification for Steel Reinforced Polyethylene (PE) Corrugated Pipe
ASTM F2562	Specification for Steel Reinforced Thermoplastic Ribbed Pipe and Fittings for Non-Pressure Drainage and Sewerage
ASTM F2736	Standard Specification for 6 to 30 in. (152 to 762 mm) Polypropylene (PP) Corrugated Single Wall Pipe and Double Wall Pipe
ASTM F2764	Standard Specification for 30 to 60 in. (750 to 1500 mm) Polypropylene (PP) Triple Wall Pipe and Fittings for Non-Pressure Sanitary Sewer Applications
ASTM F2881	Standard Specification for 12 to 60 in. (300 to 1500 mm) Polypropylene (PP) Dual Wall Pipe and Fittings for Non-Pressure Storm Sewer Applications

END ITEM D-701

Page Intentionally Left Blank

ITEM D-751 MANHOLES, CATCH BASINS, INLETS AND INSPECTION HOLES

DESCRIPTION

751-1.1 This item shall consist of construction of manholes, catch basins, inlets, and inspection holes, in accordance with these specifications, at the specified locations and conforming to the lines, grades, and dimensions shown on the plans or required by the Engineer.

MATERIALS

751-2.1 BRICK. The brick shall conform to the requirements of ASTM C32, Grade MS.

751-2.2 MORTAR. Mortar shall consist of one part Portland cement and two parts sand. The Portland cement shall conform to the requirements of ASTM C150, Type I. The sand shall conform to the requirements of ASTM C144.

751-2.3 CONCRETE. Plain and reinforced concrete used in structures, connections of pipes with structures, and the support of structures or frames shall conform to the requirements of Item P-610.

751-2.4 PRECAST CONCRETE PIPE MANHOLE RINGS. Precast concrete pipe manhole rings shall conform to the requirements of ASTM C478. Unless otherwise specified, the risers and offset cone sections shall have an inside diameter of not less than 36 inches nor more than 48 inches. There shall be a gasket between individual sections and sections cemented together with mortar on the inside of the manhole.

751-2.5 CORRUGATED METAL. Corrugated metal shall conform to the requirements of American Association of State Highway and Transportation Officials (AASHTO) M36.

751-2.6 FRAMES, COVERS, AND GRATES. The castings shall conform to one of the following requirements:

a. ASTM A48	Gray iron castings
b. ASTM A47	Malleable iron castings
c. ASTM A27	Steel castings
d. ASTM A283	Grade D: Structural steel for grates and frames
e. ASTM A536	Grade 65-45-12: Ductile iron castings
f. ASTM A897	Austempered ductile iron castings

All castings or structural steel units shall conform to the dimensions shown on the plans and shall be designed to support the loadings, aircraft gear configuration and/or direct loading, specified.

Each frame and cover or grate unit shall be provided with fastening members to prevent it from being dislodged by traffic but which will allow easy removal for access to the structure.

All castings shall be thoroughly cleaned. After fabrication, structural steel units shall be galvanized to meet the requirements of ASTM A123.

751-2.7 STEPS. The steps or ladder bars shall be gray or malleable cast iron or galvanized steel. The steps shall be the size, length, and shape shown on the plans and those steps that are not galvanized shall be given a coat of bituminous paint, when directed.

751-2.8 PRECAST INLET STRUCTURES. Manufactured in accordance with and conforming to ASTM C1433.

CONSTRUCTION METHODS

751-3.1 UNCLASSIFIED EXCAVATION.

a. The Contractor shall excavate for structures and footings to the lines and grades or elevations, shown on the plans, or as staked by the Engineer. The excavation shall be of sufficient size to permit the placing of the full width and length of the structure or structure footings shown. *If subsurface conditions require, provide dewatering to carry out the work.* The elevations of the bottoms of footings, as shown on the plans, shall be considered as approximately only; and the Engineer may direct, in writing, changes in dimensions or elevations of footings necessary for a satisfactory foundation.

b. Boulders, logs, or any other objectionable material encountered in excavation shall be removed. All rock or other hard foundation material shall be cleaned of all loose material and cut to a firm surface either level, stepped, or serrated, as directed by the Engineer. All seams or crevices shall be cleaned out and grouted. All loose and disintegrated rock and thin strata shall be removed. Where concrete will rest on a surface other than rock, the bottom of the excavation shall not be disturb and excavation to final grade shall not be made until immediately before the concrete or reinforcing is placed.

c. The Contractor shall do all bracing, sheathing, or shoring necessary to implement and protect the excavation and the structure as required for safety or conformance to governing laws. The cost of bracing, sheathing, or shoring shall be included in the unit price bid for the structure.

d. All bracing, sheathing, or shoring involved in the construction of this item shall be removed by the Contractor after the completion of the structure. Removal shall not disturb or damage finished masonry. The cost of removal shall be included in the unit price bid for the structure.

e. After excavation is completed for each structure, the Contractor shall notify the Engineer. No concrete or reinforcing steel shall be placed until the Engineer has approved the depth of the excavation and the character of the foundation material.

751-3.2 BRICK STRUCTURES.

a. Foundations. A prepared foundation shall be placed for all brick structures after the foundation excavation is completed and accepted. Unless otherwise specified, the base shall consist of reinforced concrete mixed, prepared, and placed in accordance with the requirements of Item P-610.

b. Laying Brick. All brick shall be clean and thoroughly wet before laying so that they will not absorb any appreciable amount of additional water at the time they are laid. All brick shall be laid in freshly made mortar. Mortar not used within 45 minutes after water has been added shall be discarded. Retempering of mortar shall not be permitted. An ample layer of mortar shall be spread on the beds and a shallow furrow shall be made in it that can be readily closed by the laying of the brick. All bed and head joints shall be filled solid with mortar. End joints of stretchers and side or cross joints of headers shall be fully buttered with mortar and a shoved joint made to squeeze out mortar at the top of the joint. Any bricks that may be loosened after the mortar has taken its set, shall be removed, cleaned, and relaid with fresh mortar. No broken or chipped brick shall be used in the face, and no spalls or bats shall be used except where necessary to shape around irregular openings or edges; in which case, full bricks shall be placed at ends or corners where possible, and the bats shall be used in the interior of the course. In making closures, no piece of brick shorter than the width of a whole brick shall be used; and wherever practicable, whole brick shall be used and laid as headers.

c. Joints. All joints shall be filled with mortar at every course. Exterior faces shall be laid up in advance of backing. Exterior faces shall be plastered or parged with a coat of mortar not less than 3/8 inch thick before the backing is laid up. Prior to parging, all joints on the back of face courses shall be cut flush. Unless otherwise noted, joints shall be not less than 1/4 inch nor more than 1/2 inch wide and the

selected joint width shall be maintained uniform throughout the work.

d. Pointing. Face joints shall be neatly struck, using the weather-struck joint. All joints shall be finished properly as the laying of the brick progresses. When nails or line pins are used, the holes shall be immediately plugged with mortar and pointed when the nail or pin is removed.

e. Cleaning. Upon completion of the work, all exterior surfaces shall be thoroughly cleaned by scrubbing and washing with water. If necessary to produce satisfactory results, cleaning shall be done with a 5% solution of muriatic acid which shall then be rinsed off with liberal quantities of water.

f. Curing and Cold Weather Protection. The brick masonry shall be protected and kept moist for at least 48 hours after laying the brick. Brick masonry work or pointing shall not be done when there is frost on the brick or when the air temperature is below 50°F unless the Contractor has, on the project ready to use, suitable covering and artificial heating devices necessary to keep the atmosphere surrounding the masonry at a temperature of not less than 60°F for the duration of the curing period.

751-3.3 CONCRETE STRUCTURES. Concrete structures shall be built on prepared foundations, conforming to the dimensions and shape indicated on the plans. The construction shall conform to the requirements specified in Item P-610. Any reinforcement required shall be placed as indicated on the plans and shall be approved by the Engineer before the concrete is placed.

All invert channels shall be constructed and shaped accurately to be smooth, uniform, and cause minimum resistance to flowing water. The interior bottom shall be sloped to the outlet.

751-3.4 PRECAST CONCRETE PIPE STRUCTURES. Precast concrete structures shall conform to ASTM C478. Precast concrete structures shall be constructed on prepared or previously placed slab foundations conforming to the dimensions and locations shown on the plans. All precast concrete sections necessary to build a completed structure shall be furnished. The different sections shall fit together readily. Joints between precast concrete risers and tops shall be full-bedded in cement mortar and shall be smoothed to a uniform surface on both interior and exterior of the structure. The top of the upper precast concrete section shall be suitably formed and dimensioned to receive the metal frame and cover or grate, or other cap, as required. Provision shall be made for any connections for lateral pipe, including drops and leads that may be installed in the structure. The flow lines shall be smooth, uniform, and cause minimum resistance to flow. The metal steps that are embedded or built into the side walls shall be aligned and placed at vertical intervals of 12 inches . When a metal ladder replaces the steps, it shall be securely fastened into position.

751-3.5 CORRUGATED METAL STRUCTURES. Corrugated metal structures shall be prefabricated. All standard or special fittings shall be furnished to provide pipe connections or branches with the correct dimensions and of sufficient length to accommodate connecting bands. The fittings shall be welded in place to the metal structures. The top of the metal structure shall be designed so that either a concrete slab or metal collar may be attached to allow the fastening of a standard metal frame and grate or cover. Steps or ladders shall be furnished as shown on the plans. Corrugated metal structures shall be constructed on prepared foundations, conforming to the dimensions and locations as shown on the plans. When indicated, the structures shall be placed on a reinforced concrete base.

751-3.6 INLET AND OUTLET PIPES. Inlet and outlet pipes shall extend through the walls of the structures a sufficient distance beyond the outside surface to allow for connections. They shall be cut off flush with the wall on the inside surface of the structure, unless otherwise directed. For concrete or brick structures, mortar shall be placed around these pipes to form a tight, neat connection.

751-3.7 PLACEMENT AND TREATMENT OF CASTINGS, FRAMES, AND FITTINGS. All castings, frames, and fittings shall be placed in the positions indicated on the plans or as directed by the Engineer, and shall be set true to line and elevation. If frames or fittings are to be set in concrete or cement mortar,

all anchors or bolts shall be in place before the concrete or mortar is placed. The unit shall not be disturbed until the mortar or concrete has set.

When frames or fittings are placed on previously constructed masonry, the bearing surface of the masonry shall be brought true to line and grade and shall present an even bearing surface so the entire face or back of the unit will come in contact with the masonry. The unit shall be set in mortar beds and anchored to the masonry as indicated on the plans or as directed by the Engineer. All units shall set firm and secure.

After the frames or fittings have been set in final position, the concrete or mortar shall be allowed to harden for seven (7) days before the grates or covers are placed and fastened down.

751-3.8 INSTALLATION OF STEPS. The steps shall be installed as indicated on the plans or as directed by the Engineer. When the steps are to be set in concrete, they shall be placed and secured in position before the concrete is placed. When the steps are installed in brick masonry, they shall be placed as the masonry is being built. The steps shall not be disturbed or used until the concrete or mortar has hardened for at least seven (7) days. After seven (7) days, the steps shall be cleaned and painted, unless they have been galvanized.

When steps are required with precast concrete structures, they shall be cast into the side of the sections at the time the sections are manufactured or set in place after the structure is erected by drilling holes in the concrete and cementing the steps in place.

When steps are required with corrugated metal structures, they shall be welded into aligned position at a vertical spacing of 12 inches.

Instead of steps, prefabricated ladders may be installed. For brick or concrete structures, the ladder shall be held in place by grouting the supports in drilled holes. For metal structures, the ladder shall be secured by welding the top support to the structure and grouting the bottom support into drilled holes in the foundation or as directed by the Engineer.

751-3.9 BACKFILLING.

a. After a structure has been completed, the area around it shall be backfilled with approved material, in horizontal layers not to exceed 8 inches in loose depth, and compacted to the density required in Item P-152. Each layer shall be deposited evenly around the structure to approximately the same elevation. The top of the fill shall meet the elevation shown on the plans or as directed by the Engineer.

b. Backfill shall not be placed against any structure until approved by the Engineer. For concrete structures, approval shall not be given until the concrete has been in place seven (7) days, or until tests establish that the concrete has attained sufficient strength to withstand any pressure created by the backfill and placing methods.

c. Backfill shall not be measured for direct payment. Performance of this work shall be considered an obligation of the Contractor covered under the contract unit price for the structure involved.

751-3.10 CLEANING AND RESTORATION OF SITE. After the backfill is completed, the Contractor shall dispose of all surplus material, dirt, and rubbish from the site. Surplus dirt may be deposited in embankments, shoulders, or as approved by the Engineer. The Contractor shall restore all disturbed areas to their original condition. The Contractor shall remove all tools and equipment, leaving the entire site free, clear, and in good condition.

METHOD OF MEASUREMENT

751-4.1 Manholes, catch basins, inlets, and inspection holes shall be measured by the unit, completed and accepted.

751-4.2 Reinforcing steel shall not be measured for separate payment but shall be considered subsidiary to the structure in which it is contained.

BASIS OF PAYMENT

751-5.1 The accepted quantities of manholes, catch basins, inlets, and inspection holes will be paid for at the contract unit price per each in place when completed. This price shall be full compensation for furnishing all materials and for all preparation, excavation, backfilling and placing of the materials; furnishing and installation of such specials and connections to pipes and other structures as may be required to complete the item as shown on the plans; *dewatering*; and for all labor equipment, tools and incidentals necessary to complete the structure.

Payment will be made under:

Item D-751-1	4'X4' Single Grate Inlet (Heavy-Duty) —per Each

MATERIAL REQUIREMENT

ASTM A27	Standard Specification for Steel Castings, Carbon, for General Application
ASTM A47	Standard Specification for Ferritic Malleable Iron Castings
ASTM A48	Standard Specification for Gray Iron Castings
ASTM A123	Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A283	Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates
ASTM A536	Standard Specification for Ductile Iron Castings
ASTM A897	Standard Specification for Austempered Ductile Iron Castings
ASTM C32	Standard Specification for Sewer and Manhole Brick (Made from Clay or Shale)
ASTM C144	Standard Specification for Aggregate for Masonry Mortar
ASTM C150	Standard Specification for Portland Cement
ASTM C478	Standard Specification for Precast Reinforced Concrete Manhole Sections
ASTM C1433	Standard Specification for Precast Reinforced Concrete Monolithic Box Sections for Culverts, Storm Drains, and Sewers
AASHTO M36	Standard Specification for Corrugated Steel Pipe, Metallic-Coated, for Sewers and Drains

END OF ITEM D-751

Page Intentionally Left Blank

ITEM D-752 CONCRETE CULVERTS, HEADWALLS, AND MISCELLANEOUS DRAINAGE STRUCTURES

DESCRIPTION

752-1.1 This item shall consist of reinforced concrete culverts, headwalls, and miscellaneous drainage structures constructed in accordance with these specifications, at the specified locations and conforming to the lines, grades, and dimensions shown on the plans or required by the Engineer.

MATERIALS

752-2.1 CONCRETE. Reinforced concrete shall meet the requirements of Item P-610.

CONSTRUCTION METHODS

752-3.1 UNCLASSIFIED EXCAVATION.

a. Trenches and foundation pits for structures or structure footings shall be excavated to the lines and grades and elevations shown on the plans. The excavation shall be of sufficient size to permit the placing of the full width and length of the structure or structure footings shown. *If subsurface conditions require, provide dewatering to carry out the work.* The elevations of the bottoms of footings, as shown on the plans, shall be considered as approximate only; and the Engineer may approve, in writing, changes in dimensions or elevations of footings necessary to secure a satisfactory foundation.

b. Boulders, logs, or any other objectionable material encountered in excavation shall be removed. All rock or other hard foundation material shall be cleaned of all loose material and cut to a firm surface either level, stepped, or serrated, as directed by the Engineer. All seams or crevices shall be cleaned out and grouted. All loose and disintegrated rock and thin strata shall be removed. When concrete will rest on a surface other than rock, the bottom of the excavation shall not be disturbed and excavation to final grade shall not be made until immediately before the concrete or reinforcing steel is placed.

c. The Contractor shall do all bracing, sheathing, or shoring necessary to perform and protect the excavation and the structure as required for safety or conformance to governing laws. The cost of bracing, sheathing, or shoring shall be included in the unit price bid for excavation.

d. All bracing, sheathing, or shoring shall be removed by the Contractor after the completion of the structure. Removal shall be not disturb or damage the finished concrete. The cost of removal shall be included in the unit price bid for excavation.

e. After each excavation is completed, the Contractor shall notify the Engineer. No concrete or reinforcing steel shall be placed until the Engineer has approved the depth of the excavation and the character of the foundation material.

752-3.2 BACKFILLING.

a. After a structure has been completed, backfilling with approved material shall be accomplished by applying the fill in horizontal layers not to exceed 8 inches in loose depth, and compacted. The field density of the compacted material shall be at least 90% of the maximum density for cohesive soils and 95% of the maximum density for noncohesive soils. The maximum density shall be determined in accordance with ASTM D698. The field density shall be determined in accordance with ASTM D1556.

b. No backfilling shall be placed against any structure until approved by the Engineer. For concrete, approval shall not be given until the concrete has been in place seven (7) days, or until tests establish that

the concrete has attained sufficient strength to withstand any pressure created by the backfill or the placement methods.

c. Fill placed around concrete culverts shall be deposited on each side at the same time and to approximately the same elevation. All slopes bounding or within the areas to be backfilled shall be stepped or serrated to prevent wedge action against the structure.

d. Backfill will not be measured for direct payment. Performance of this work shall be considered as a subsidiary obligation of the Contractor, covered under the *item in which it is contained.* ~~contract unit price for "unclassified excavation for structures."~~

752-3.3 WEEP HOLES. Weep holes shall be constructed as shown on the plans.

752-3.4 CLEANING AND RESTORATION OF SITE. After the backfill is completed, the Contractor shall dispose of all surplus material, dirt, and rubbish from the site. Surplus dirt may be deposited in embankment, shoulders, or as approved by the Engineer. The Contractor shall restore all disturbed areas to their original condition. The Contractor shall remove all tools and equipment, leaving the entire site free, clear, and in good condition.

METHOD OF MEASUREMENT

~~**752-4.1** The quantity of unclassified excavation for structures shall be the number of cubic yards measured in original position, of material excavated in accordance with the plans, or as approved by the Engineer; but in no case shall any yardage be included in the measurement for payment which is outside of a volume bounded by vertical planes 18 inches outside of and parallel to the neat lines of the footings.~~

~~**752-4.2** Concrete shall be measured by the number of cubic yards of concrete, complete in place and accepted. In computing the yardage of concrete for payment, the dimensions used shall be those shown on the plans or approved by the Engineer. No measurements or other allowances shall be made for forms, false work, cofferdams, pumping, bracing, expansion joints, or finishing of the concrete. No deductions in yardage shall be made for the volumes of reinforcing steel or embedded items.~~

~~**752-4.3** The quantity of reinforcing steel shall be the calculated theoretical number of pounds placed as shown on the plans, complete in place and accepted. The unit weight used for deformed bars shall be the weight of plain square or round bars, as the case may be, of equal nominal size.~~

752-4.1 *Concrete culverts, headwalls, and miscellaneous drainage structures shall be measured by the unit, completed in place and accepted.*

752-4.2 *Reinforcing steel shall not be measured for separate payment but shall be considered subsidiary to the structure in which it is contained.*

BASIS OF PAYMENT

752-5.1 Payment will be made at the contract unit price per *each for concrete culverts, headwalls, and miscellaneous drainage structures* ~~cubic yard for unclassified excavation for structures; at the contract unit price per cubic yard for concrete for the structures; and at the contract unit price per pound for reinforcing steel.~~ These prices shall be full compensation for furnishing all materials and for all preparation, excavation, and placing the materials, *furnishing and installation of such specials and connections to pipes and other structures as may be required to complete the item as shown on the plan; dewatering;* and for all labor, equipment, tools, and incidentals necessary to complete the structure.

Payment will be made under:

Item D-752-1 Connect 30" RCP to Existing Grate Inlet, Complete in-place—per Lump Sum

TESTING REQUIREMENTS

ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lb/ft3 (600 kN-m/m3))
ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand- Cone Method

END OF ITEM D-752

Page Intentionally Left Blank

ITEM T-901 SEEDING

DESCRIPTION

901-1.1 This item shall consist of soil preparation, seeding *fertilizing, and watering* the areas shown on the plans or as directed by the Engineer in accordance with these specifications.

MATERIALS

901-2.1 SEED The species and application rates of grass, legume, and cover-crop seed furnished shall be those stipulated herein. Seed shall conform to the requirements of Federal Specification JJJ-S-181, Federal Specification, Seeds, Agricultural.

Seed shall be furnished separately or in mixtures in standard containers labeled in conformance with the Agricultural Marketing Service (AMS) Seed Act and applicable state seed laws with the seed name, lot number, net weight, percentages of purity and of germination and hard seed, and percentage of maximum weed seed content clearly marked for each kind of seed. The Contractor shall furnish the Engineer duplicate signed copies of a statement by the vendor certifying that each lot of seed has been tested by a recognized laboratory for seed testing within six (6) months of date of delivery. This statement shall include: name and address of laboratory, date of test, lot number for each kind of seed, and the results of tests as to name, percentages of purity and of germination, and percentage of weed content for each kind of seed furnished, and, in case of a mixture, the proportions of each kind of seed. Wet, moldy, or otherwise damaged seed will be rejected.

Seeds shall be applied as follows:

Seed	Minimum Seed Purity (Percent)	Minimum Germination (Percent)	Rate of Application lb/acre (or lb/1,000
Green Sprangletop	*	*	**0.3**
Bermudagrass	*	*	**15.0**
Sideoats Grama (Haskell)	*	*	**4.5**

Seeding shall be performed during the period between **January 15** and **May 15** inclusive, unless otherwise approved by the Engineer.

~~**901-2.2 LIME.** Lime shall be ground limestone containing not less than 85% of total carbonates, and shall be ground to such fineness that 90% will pass through a No. 20 mesh sieve and 50% will pass through a No. 100 mesh sieve. Coarser material will be acceptable, providing the rates of application are increased to provide not less than the minimum quantities and depth specified in the special provisions on the basis of the two sieve requirements above. Dolomitic lime or a high magnesium lime shall contain at least 10% of magnesium oxide. Lime shall be applied at the rate of **[ ]** All liming materials shall conform to the requirements of ASTM C 602.~~

901-2.3 FERTILIZER. Fertilizer shall be standard commercial fertilizers supplied separately or in mixtures containing the percentages of total nitrogen, available phosphoric acid, and water-soluble potash. They shall be applied at the rate and to the depth specified, and shall meet the requirements of applicable state laws. They shall be furnished in standard containers with name, weight, and guaranteed analysis of

contents clearly marked thereon. No cyanamide compounds or hydrated lime shall be permitted in mixed fertilizers.

The fertilizers may be supplied in one of the following forms:

a. A dry, free-flowing fertilizer suitable for application by a common fertilizer spreader;

b. A finely-ground fertilizer soluble in water, suitable for application by power sprayers; or

c. A granular or pellet form suitable for application by blower equipment.

Fertilizers shall be ***30-30-30*** commercial fertilizer and shall be spread at the rate of **150 pounds per acre.**

901-2.4 SOIL FOR REPAIRS. The soil for fill and topsoiling of areas to be repaired shall be at least of equal quality to that which exists in areas adjacent to the area to be repaired. The soil shall be relatively free from large stones, roots, stumps, or other materials that will interfere with subsequent sowing of seed, compacting, and establishing turf, and shall be approved by the Engineer before being placed.

CONSTRUCTION METHODS

901-3.1 ADVANCE PREPARATION AND CLEANUP. After grading of areas has been completed and before applying fertilizer ~~and ground limestone~~, areas to be seeded shall be raked or otherwise cleared of stones larger than 2 inches in any diameter, sticks, stumps, and other debris that might interfere with sowing of seed, growth of grasses, or subsequent maintenance of grass-covered areas. If any damage by erosion or other causes has occurred after the completion of grading and before beginning the application of fertilizer ~~and ground limestone~~, the Contractor shall repair such damage include filling gullies, smoothing irregularities, and repairing other incidental damage.

An area to be seeded shall be considered a satisfactory seedbed without additional treatment if it has recently been thoroughly loosened and worked to a depth of not less than 5 inches as a result of grading operations and, if immediately prior to seeding, the top 3 inches of soil is loose, friable, reasonably free from large clods, rocks, large roots, or other undesirable matter, and if shaped to the required grade.

When the area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, any grass and weeds shall first be *completely eradicated by means of herbicide or tillage* ~~cut or otherwise satisfactorily disposed of~~, and the soil then scarified or otherwise loosened to a depth not less than 5 inches. Clods shall be broken and the top 3 inches of soil shall be worked into a satisfactory seedbed by discing, or by use of cultipackers, rollers, drags, harrows, or other appropriate means.

901-3.2 DRY APPLICATION METHOD.

~~**a. Liming.** Lime shall be applied separately and prior to the application of any fertilizer or seed and only on seedbeds that have previously been prepared as described above. The lime shall then be worked into the top 3 inches of soil after which the seedbed shall again be properly graded and dressed to a smooth finish.~~

b. Fertilizing. Following advance preparations and cleanup fertilizer shall be uniformly spread at the rate that will provide not less than the minimum quantity stated in paragraph 901-2.3.

c. Seeding. Grass seed shall be sown at the rate specified in paragraph 901-2.1 immediately after fertilizing. The fertilizer and seed shall be raked within the depth range stated in the special provisions. Seeds of legumes, either alone or in mixtures, shall be inoculated before mixing or sowing, in accordance with the instructions of the manufacturer of the inoculant. When seeding is required at other than the

seasons shown on the plans or in the special provisions, a cover crop shall be sown by the same methods required for grass and legume seeding.

d. Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted by means of an approved lawn roller, weighing 40 to 65 pounds per foot of width for clay soil (or any soil having a tendency to pack), and weighing 150 to 200 pounds per foot of width for sandy or light soils.

901-3.3 WET APPLICATION METHOD.

a. General. The Contractor may elect to apply seed and fertilizer (and lime, if required) by spraying them on the previously prepared seedbed in the form of an aqueous mixture and by using the methods and equipment described herein. The rates of application shall be as specified in the special provisions.

b. Spraying Equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge calibrated to read in increments not larger than 50 gallons over the entire range of the tank capacity, mounted so as to be visible to the nozzle operator. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The unit shall also be equipped with a pressure pump capable of delivering 100 gallons per minute at a pressure of 100 lb / sq inches. The pump shall be mounted in a line that will recirculate the mixture through the tank whenever it is not being sprayed from the nozzle. All pump passages and pipe lines shall be capable of providing clearance for 5/8 inch solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. There shall be an indicating pressure gauge connected and mounted immediately at the back of the nozzle.

The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There shall be a quick-acting, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture delivered to the nozzle. At least three different types of nozzles shall be supplied so that mixtures may be properly sprayed over distance varying from 20 to 100 feet. One shall be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For case of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means of quick-release couplings.

In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet in length shall be provided to which the nozzles may be connected.

c. Mixtures. Lime, if required, shall be applied separately, in the quantity specified, prior to the fertilizing and seeding operations. Not more than 220 pounds of lime shall be added to and mixed with each 100 gallons of water. Seed and fertilizer shall be mixed together in the relative proportions specified, but not more than a total of 220 pounds of these combined solids shall be added to and mixed with each 100 gallons of water.

All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. Brackish water shall not be used at any time. The Contractor shall identify to the Engineer all sources of water at least two (2) weeks prior to use. The Engineer may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source that is disapproved by the Engineer following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within two (2) hours from the time they were mixed or they shall be wasted and disposed of at approved locations.

d. Spraying. Lime, if required, shall be sprayed only upon previously prepared seedbeds. After the applied lime mixture has dried, the lime shall be worked into the top 3 inches, after which the seedbed shall again be properly graded and dressed to a smooth finish.

Mixtures of seed and fertilizer shall only be sprayed upon previously prepared seedbeds on which the lime, if required, shall already have been worked in. The mixtures shall be applied by means of a high-pressure spray that shall always be directed upward into the air so that the mixtures will fall to the ground like rain in a uniform spray. Nozzles or sprays shall never be directed toward the ground in such a manner as might produce erosion or runoff.

Particular care shall be exercised to ensure that the application is made uniformly and at the prescribed rate and to guard against misses and overlapped areas. Proper predetermined quantities of the mixture in accordance with specifications shall be used to cover specified sections of known area.

Checks on the rate and uniformity of application may be made by observing the degree of wetting of the ground or by distributing test sheets of paper or pans over the area at intervals and observing the quantity of material deposited thereon.

On surfaces that are to be mulched as indicated by the plans or designated by the Engineer, seed and fertilizer applied by the spray method need not be raked into the soil or rolled. However, on surfaces on which mulch is not to be used, the raking and rolling operations will be required after the soil has dried.

901-3.4 MAINTENANCE OF SEEDED AREAS. The Contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the Engineer. Surfaces gullied or otherwise damaged following seeding shall be repaired by regrading and reseeding as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

When either the dry or wet application method outlined above is used for work done out of season, it will be required that the Contractor establish a good stand of grass of uniform color and density to the satisfaction of the Engineer. A grass stand shall be considered adequate when bare spots are one square foot or less, randomly dispersed, and do not exceed 3% of the area seeded.

Watering of the seeded areas shall be coordinated with the Owner and Airport Operations. Contractor will not be permitted to enter the airport secure areas to water without advanced approval.

METHOD OF MEASUREMENT

901-4.1 The quantity of seeding to be paid for shall be the number of units **acres** measured on the ground surface, completed and accepted. *Seeding shall be measured to the nearest tenth (0.1) of an acre. Fertilizer and watering will not be measured for separate payment but will be considered subsidiary to seeding.*

BASIS OF PAYMENT

901-5.1 Payment shall be made at the contract unit price per **acre** or fraction thereof, which price and payment shall be full compensation for furnishing and placing all material and for all labor, equipment, tools, and incidentals necessary to complete the work prescribed in this item.

Payment will be made under:

Item T-901-1	Seeding, Including Fertilizing and Watering—per **acres**

MATERIAL REQUIREMENTS

ASTM C 602	Agricultural Liming Materials
ASTM D 977	Emulsified Asphalt
FED SPEC JJJ-S-181	Seeds, Agriculture

END OF ITEM T-901

Page Intentionally Left Blank

ITEM T-904 SODDING

DESCRIPTION

904-1.1 This item shall consist of furnishing, hauling, and placing approved live sod on prepared areas in accordance with this specification at the locations shown on the plans or as directed by the Engineer.

MATERIALS

904-2.1 SOD. Sod furnished by the Contractor shall have a good cover of living or growing grass. This shall be interpreted to include grass that is seasonally dormant during the cold or dry seasons and capable of renewing growth after the dormant period. All sod shall be obtained from areas where the soil is reasonably fertile and contains a high percentage of loamy topsoil. Sod shall be cut or stripped from living, thickly matted turf relatively free of weeds or other undesirable foreign plants, large stones, roots, or other materials that might be detrimental to the development of the sod or to future maintenance. ~~At least 70% of the plants in the cut sod shall be composed of the species stated in the Texas Department of Transportation Standard Specifications, — *Sodding* special provisions, and~~ *Sod may be either of Bermuda grass or buffalo grass.* Any vegetation more than 6 inches in height shall be mowed to a height of 3 inches or less before sod is lifted. Sod, including the soil containing the roots and the plant growth showing above, shall be cut uniformly to a thickness not less than that stated in the ~~special provisions.~~ *Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges, Item 162. Sod must be free from noxious weeds, Johnson grass, seed producing grasses, or any other matter deleterious to the growth and subsistence of the sod.*

~~**904-2.2 LIME.** Lime shall be ground limestone containing not less than 85% of total carbonates, and shall be ground to such fineness that 90% will pass through a No. 20 mesh sieve and 50% will pass through a No. 100 mesh sieve. Coarser material will be acceptable, providing the rates of application are increased to provide not less than the minimum quantities and depth specified in the special provisions on the basis of the two sieve requirements above. Dolomitic lime or a high magnesium lime shall contain at least 10% of magnesium oxide. Lime shall be applied at the rate of [___]. All liming materials shall conform to the requirements of ASTM C602.~~

904-2.3 FERTILIZER. Fertilizer shall be standard commercial fertilizers supplied separately or in mixtures containing the percentages of total nitrogen, available phosphoric acid, and water-soluble potash. They shall be applied at the rate and to the depth specified, and shall meet the requirements of applicable state laws. They shall be furnished in standard containers with name, weight, and guaranteed analysis of contents clearly marked thereon. No cyanamide compounds or hydrated lime shall be permitted in mixed fertilizers.

The fertilizers may be supplied in one of the following forms:

a. A dry, free-flowing fertilizer suitable for application by a common fertilizer spreader;

b. A finely-ground fertilizer soluble in water, suitable for application by power sprayers; or

c. A granular or pellet form suitable for application by blower equipment.

Fertilizers shall be standard commercial fertilizer and shall be spread at the rate *dictated by the representative soils test conducted by the contractor.*

904-2.4 WATER. The water shall be sufficiently free from oil, acid, alkali, salt, or other harmful materials that would inhibit the growth of grass. It shall be subject to the approval of the Engineer prior to use.

904-2.5 SOIL FOR REPAIRS. The soil for fill and topsoiling of areas to be repaired shall be at least of equal quality to that which exists in areas adjacent to the area to be repaired. The soil shall be relatively free from large stones, roots, stumps, or other materials that will interfere with subsequent sowing of seed, compacting, and establishing turf, and shall be approved by the Engineer before being placed.

CONSTRUCTION METHODS

904-3.1 GENERAL. Areas to be solid, strip, or spot sodded shall be shown on the plans. Areas requiring special ground surface preparation such as tilling and those areas in a satisfactory condition that are to remain undisturbed shall also be shown on the plans.

Suitable equipment necessary for proper preparation of the ground surface and for the handling and placing of all required materials shall be on hand, in good condition, and shall be approved by the Engineer before the various operations are started. The Contractor shall demonstrate to the Engineer before starting the various operations that the application of required materials will be made at the specified rates.

904-3.2 PREPARING THE GROUND SURFACE. After grading of areas has been completed and before applying fertilizer and limestone, areas to be sodded shall be raked or otherwise cleared of stones larger than 2 inches in any diameter, sticks, stumps, and other debris which might interfere with sodding, growth of grasses, or subsequent maintenance of grass-covered areas. If any damage by erosion or other causes occurs after grading of areas and before beginning the application of fertilizer and ground limestone, the Contractor shall repair such damage. This may include filling gullies, smoothing irregularities, and repairing other incidental damage.

904-3.3 APPLYING FERTILIZER AND GROUND LIMESTONE. Following ground surface preparation, fertilizer shall be uniformly spread at a rate which will provide not less than the minimum quantity of each fertilizer ingredient, as stated in the special provisions. If use of ground limestone is required, it shall then be spread at a rate that will provide not less than the minimum quantity stated in the special provisions. These materials shall be incorporated into the soil to a depth of not less than 2 inches by discing, raking, or other suitable methods. Any stones larger than 2 inches in any diameter, large clods, roots, and other litter brought to the surface by this operation shall be removed.

904-3.4 OBTAINING AND DELIVERING SOD. After inspection and approval of the source of sod by the Engineer, the sod shall be cut with approved sod cutters to such a thickness that after it has been transported and placed on the prepared bed, but before it has been compacted, it shall have a uniform thickness of not less than 2 inches. Sod sections or strips shall be cut in uniform widths, not less than 10 inches, and in lengths of not less than 18 inches, but of such length as may be readily lifted without breaking, tearing, or loss of soil. Where strips are required, the sod must be rolled without damage with the grass folded inside. The Contractor may be required to mow high grass before cutting sod.

The sod shall be transplanted within 24 hours from the time it is stripped, unless circumstances beyond the Contractor's control make storing necessary. In such cases, sod shall be stacked, kept moist, and protected from exposure to the air and sun and shall be kept from freezing. Sod shall be cut and moved only when the soil moisture conditions are such that favorable results can be expected. Where the soil is too dry, permission to cut sod may be granted only after it has been watered sufficiently to moisten the soil to the depth the sod is to be cut.

904-3.5 LAYING SOD. Sodding shall be performed only during the seasons when satisfactory results can be expected. Frozen sod shall not be used and sod shall not be placed upon frozen soil. Sod may be transplanted during periods of drought with the approval of the Engineer, provided the sod bed is watered to moisten the soil to a depth of at least 4 inches immediately prior to laying the sod.

The sod shall be moist and shall be placed on a moist earth bed. Pitch forks shall not be used to handle sod, and dumping from vehicles shall not be permitted. The sod shall be carefully placed by hand, edge to edge and with staggered joints, in rows at right angles to the slopes, commencing at the base of the area to be sodded and working upward. The sod shall immediately be pressed firmly into contact with the sod bed by tamping or rolling with approved equipment to provide a true and even surface, and ensure knitting without displacement of the sod or deformation of the surfaces of sodded areas. Where the sod may be displaced during sodding operations, the workmen, when replacing it, shall work from ladders or treaded planks to prevent further displacement. Screened soil of good quality shall be used to fill all cracks between sods. The quantity of the fill soil shall not cause smothering of the grass. Where the grades are such that the flow of water will be from paved surfaces across sodded areas, the surface of the soil in the sod after compaction shall be set approximately one inch below the pavement edge. Where the flow will be over the sodded areas and onto the paved surfaces around manholes and inlets, the surface of the soil in the sod after compaction shall be placed flush with pavement edges.

On slopes steeper than one (1) vertical to 2-1/2 horizontal and in v-shaped or flat-bottom ditches or gutters, the sod shall be pegged with wooden pegs not less than 12 inches in length and have a cross-sectional area of not less than 3/4 sq inch. The pegs shall be driven flush with the surface of the sod.

904-3.6 WATERING. Adequate water and watering equipment must be on hand before sodding begins, and sod shall be kept moist until it has become established and its continued growth assured. In all cases, watering shall be done in a manner that will avoid erosion from the application of excessive quantities and will avoid damage to the finished surface.

904-3.7 ESTABLISHING TURF.

a. General. The Contractor shall provide general care for the sodded areas as soon as the sod has been laid and shall continue until final inspection and acceptance of the work.

b. Protection. All sodded areas shall be protected against traffic or other use by warning signs or barricades approved by the Engineer.

c. Mowing. The Contractor shall mow the sodded areas with approved mowing equipment, depending upon climatic and growth conditions and the needs for mowing specific areas. In the event that weeds or other undesirable vegetation are permitted to grow to such an extent that, either cut or uncut, they threaten to smother the sodded species, they shall be mowed and the clippings raked and removed from the area.

904-3.8 REPAIRING. When the surface has become gullied or otherwise damaged during the period covered by this contract, the affected areas shall be repaired to re-establish the grade and the condition of the soil, as directed by the Engineer, and shall then be sodded as specified in paragraph 904-3.5.

METHOD OF MEASUREMENT

904-4.1 This item shall be measured on the basis of the area in square yards of the surface covered with sod and accepted.

BASIS OF PAYMENT

904-5.1 This item will be paid for on the basis of the contract unit price per square yard for sodding, which price shall be full compensation for all labor, equipment, material, staking, and incidentals necessary to satisfactorily complete the items as specified.

Payment will be made under:

Item T-904-1	Sodding—per square yard

MATERIAL REQUIREMENTS

ASTM C 602	Standard Specification for Agricultural Liming Materials

END OF ITEM T-904

ITEM T-905 TOPSOILING

DESCRIPTION

905-1.1 This item shall consist of preparing the ground surface for topsoil application, removing topsoil from designated stockpiles or areas to be stripped on the site or from approved sources off the site, and placing and spreading the topsoil on prepared areas in accordance with this specification at the locations shown on the plans or as directed by the Engineer.

MATERIALS

905-2.1 TOPSOIL. *Topsoil source to be existing topsoil within the limits of the grading as shown on the Plans, and temporarily stockpiling topsoil on the airport property at a location acceptable to the airport and the Engineer.* Topsoil shall be the surface layer of soil with no admixture of refuse or any material toxic to plant growth, and it shall be reasonably free from subsoil and stumps, roots, brush, stones (2 inches or more in diameter), and clay lumps or similar objects. Brush and other vegetation that will not be incorporated with the soil during handling operations shall be cut and removed. Ordinary sod and herbaceous growth such as grass and weeds are not to be removed, but shall be thoroughly broken up and intermixed with the soil during handling operations. Heavy sod or other cover, which cannot be incorporated into the topsoil by discing or other means, shall be removed. ~~The topsoil or soil mixture, unless otherwise specified or approved, shall have a pH range of approximately 5.5 pH to 7.6 pH, when tested in accordance with the methods of testing of the Association of Official Agricultural Chemists in effect on the date of invitation of bids. The organic content shall be not less than 3% nor more than 20% as determined by the wet combustion method (chromic acid reduction). There shall be not less than 20% nor more than 80% of the material passing the 200 mesh sieve as determined by the wash test in accordance with ASTM C 117.~~*~~Topsoil testing shall be completed and paid for by the Contractor.~~*

Natural topsoil may be amended by the Contractor with approved materials and methods to meet the above specifications.

905-2.2 INSPECTION AND TESTS. Within 10 days following acceptance of the bid, the Engineer shall be notified of the source of topsoil to be furnished by the Contractor. The topsoil shall be inspected to determine if the selected soil meets the requirements specified and to determine the depth to which stripping will be permitted. At this time, the Contractor may be required to take representative soil samples from several locations within the area under consideration and to the proposed stripping depths, for testing purposes as specified in paragraph 905-2.1.

CONSTRUCTION METHODS

905-3.1 GENERAL. Areas to be topsoiled shall be shown on the plans. If topsoil is available on the site, the location of the stockpiles or areas to be stripped of topsoil and the stripping depths shall be shown on the plans.

Suitable equipment necessary for proper preparation and treatment of the ground surface, stripping of topsoil, and for the handling and placing of all required materials shall be on hand, in good condition, and approved by the Engineer before the various operations are started.

905-3.2 PREPARING THE GROUND SURFACE. Immediately prior to dumping and spreading the topsoil on any area, the surface shall be loosened by discs or spike-tooth harrows, or by other means approved by the Engineer, to a minimum depth of 2 inches to facilitate bonding of the topsoil to the covered subgrade soil. The surface of the area to be topsoiled shall be cleared of all stones larger than 2 inches in any diameter and all litter or other material which may be detrimental to proper bonding, the rise of capillary moisture, or the proper growth of the desired planting. Limited areas, as shown on the plans, which are too compact to respond to these operations shall receive special scarification.

Grades on the area to be topsoiled, which have been established by others as shown on the plans, shall be maintained in a true and even condition. Where grades have not been established, the areas shall be smooth-graded and the surface left at the prescribed grades in an even and compacted condition to prevent the formation of low places or pockets where water will stand.

905-3.3 OBTAINING TOPSOIL. Prior to the stripping of topsoil from designated areas, any vegetation, briars, stumps and large roots, rubbish or stones found on such areas, which may interfere with subsequent operations, shall be removed using methods approved by the Engineer. Heavy sod or other cover, which cannot be incorporated into the topsoil by discing or other means shall be removed.

When suitable topsoil is available on the site, the Contractor shall remove this material from the designated areas and to the depth as directed by the Engineer. The topsoil shall be spread on areas already tilled and smooth-graded, or stockpiled in areas approved by the Engineer. Any topsoil stockpiled by the Contractor shall be rehandled and placed without additional compensation. Any topsoil that has been stockpiled on the site by others, and is required for topsoiling purposes, shall be removed and placed by the Contractor. The sites of all stockpiles and areas adjacent thereto which have been disturbed by the Contractor shall be graded if required and put into a condition acceptable for seeding.

When suitable topsoil is secured off the airport site, the Contractor shall locate and obtain the supply, subject to the approval of the Engineer. The Contractor shall notify the Engineer sufficiently in advance of operations in order that necessary measurements and tests can be made. The Contractor shall remove the topsoil from approved areas and to the depth as directed. The topsoil shall be hauled to the site of the work and placed for spreading, or spread as required. Any topsoil hauled to the site of the work and stockpiled shall be rehandled and placed without additional compensation.

905-3.4 PLACING TOPSOIL. The topsoil shall be evenly spread on the prepared areas to a uniform depth of inches after compaction, unless otherwise shown on the plans or stated in the special provisions. Spreading shall not be done when the ground or topsoil is frozen, excessively wet, or otherwise in a condition detrimental to the work. Spreading shall be carried on so that turfing operations can proceed with a minimum of soil preparation or tilling.

After spreading, any large, stiff clods and hard lumps shall be broken with a pulverizer or by other effective means, and all stones or rocks (2 inches or more in diameter), roots, litter, or any foreign matter shall be raked up and disposed of by the Contractor. after spreading is completed, the topsoil shall be satisfactorily compacted by rolling with a cultipacker or by other means approved by the Engineer. The compacted topsoil surface shall conform to the required lines, grades, and cross-sections. Any topsoil or other dirt falling upon pavements as a result of hauling or handling of topsoil shall be promptly removed.

METHOD OF MEASUREMENT

905-4.1 Topsoil obtained on the site shall be measured by the ***area in square yards of the specified thickness of topsoil re-handled and placed from the topsoil stockpiled under Item P-152-2.10 as accepted by the Engineer. Topsoiling measured for payment shall only be the planned limits of construction.*** ~~number of cubic yards of topsoil measured in its original position and stripped or excavated. Topsoil stockpiled by others and removed for topsoiling by the Contractor shall be measured by the number of cubic yards of topsoil measured in the stockpile. Topsoil shall be measured by volume in cubic yards computed by the method of end areas.~~

~~**905-4.2** Topsoil obtained off the site shall be measured by the number of cubic yards of topsoil measured in its original position and stripped or excavated. Topsoil shall be measured by volume in cubic yards computed by the method of end areas.~~

BASIS OF PAYMENT

905-5.1 Payment will be made at the contract unit price per ~~cubic yard~~ *square yard of the specified thickness* for topsoiling (obtained on the site). This price shall be full compensation for furnishing all materials and for all *stripping and stockpiling topsoil at the airport, hauling,* preparation, placing, and spreading of the materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

~~**905-5.2** Payment will be made at the contract unit price per cubic yard for topsoiling (obtained off the site). This price shall be full compensation for furnishing all materials and for all preparation, placing, and spreading of the materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.~~

Payment will be made under:

Item T-905-1	Topsoiling (Obtained on Site or Removed from Stockpile; 2" Thickness) —per *square* yard

TESTING MATERIALS

ASTM C 117 Materials Finer than 75-μm (No. 200) Sieve in Mineral Aggregates by Washing

END OF ITEM T-905

Page Intentionally Left Blank

ITEM L-101 AIRPORT ROTATING BEACONS

DESCRIPTION

101-1.1 This item shall consist of furnishing and installing airport rotating beacons. The work shall also include mounting, leveling, wiring, painting, servicing, and testing of the beacon. In addition, this item also includes all materials and incidentals necessary to place the beacon in an operating condition (as a completed unit) to the satisfaction of the Engineer. This item shall include a mounting platform if specified in the plans.

EQUIPMENT AND MATERIALS

101-2.1 GENERAL.

a. Airport lighting equipment and materials covered by advisory circulars (ACs) must be certified and listed in AC 150/5345-53, Airport Lighting Equipment Certification Program.

b. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the Engineer.

c. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials that are per these specifications. Materials supplied and/or installed that do not comply with these specifications shall be removed (when directed by the Engineer and replaced with materials, that are per these specifications, at the Contractor's cost.

d. All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly mark each copy to identify the products or models applicable to this project. Indicate all optional equipment and delete any non-pertinent data. Submittals for components or electrical equipment and systems shall identify the equipment to which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in the project that accrue directly or indirectly from late submissions or resubmissions of submittals.

e. The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the Contract Documents plans and specifications. The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section. The Engineer reserves the right to reject any and all equipment, materials or procedures that do not meet the system design and the standards and codes, specified in this document.

f. All equipment and materials furnished and installed in this section shall be guaranteed against defects in materials and workmanship for at least twelve (12) months from the date of final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

101-2.2 BEACON. The beacon shall be a Type L-802A (standard high intensity rotating beacon, installed at airports having high intensity lighting systems, or at medium intensity airports requiring a high intensity beacon due to high background brightness caused by neighboring lights) Class 1 (temperature

operation range -22 to 131 degrees F) beacon meeting the requirements of AC 150/5345-12, Specification for Airport and Heliport Beacons.

101-2.3 BEACON INSTALLATION. See AC 150/5340-30, Design and Installation Details for Airport Visual Aids, for beacon installation details. Provide two lamp sets as spares.

101-2.4 PANEL BOARDS AND BREAKERS. Panel boards and breakers shall conform to the requirements of Federal Specification W-P-115, Panel, Power Distribution.

101-2.5 WEATHERPROOF CABINETS. The weatherproof cabinets shall conform to National Electrical Manufacturers Association Standards (NEMA) and shall be constructed of steel not less than No. 16 United States Standard (USS) gauge.

101-2.6 WIRE. For ratings up to 600 volts, moisture and heat resistant thermoplastic wire conforming to Commercial Item Description A-A-59544A Type THWN-2 shall be used. The wires shall be the type, size, number of conductors, and voltage shown in the plans or in the proposal.

101-2.7 CONDUIT. Rigid steel conduit and fittings shall be per Underwriters Laboratories Standards 6, 514B, and 1242.

101-2.8 PAINT.

a. Priming paint for non-galvanized metal surfaces shall be a high solids alkyd primer per Society for Protective Coatings (SSPC) Paint 25.

b. Priming paint for galvanized metal surfaces shall be a zinc-rich epoxy primer paint per MIL-DTL-24441/19B, Formula 159, Type III. Use MIL-24441 thinner per paint manufacturer's recommendations.

c. Orange paint for the body and the finish coats on metal and wood surfaces shall consist of a ready-mixed non-fading paint meeting the requirements of Master Painter's Institute (MPI) Reference #9 (gloss). The color shall be per Federal Standard 595, International Orange Number 12197.

d. White paint for body and finish coats on metal and wood surfaces shall be ready-mixed paint per the Master Painter's Institute, Reference #9, Exterior Alkyd, Gloss, volatile organic content (VOC) Range E2.

e. Priming paint for wood surfaces shall be mixed on the job by thinning the above-specified orange or white paint with 1/2 pint (0.24 liter (l)) of raw linseed oil to each gallon (liter).

CONSTRUCTION METHODS

101-3.1. PLACING THE BEACON. The beacon shall be mounted on a beacon tower, platform, or building roof as shown in the plans.

101-3.2 HOISTING AND MOUNTING. The beacon shall be hoisted to the mounting platform by using suitable slings and hoisting tackle. Before fastening the beacon to the mounting platform, the mounting holes shall be checked for correct spacing. Beacon base or mounting legs shall not be strained or forced out of position to fit incorrect spacing of mounting holes. The beacon base shall be raised first, set in position, and bolted in place. The drum shall then be raised and assembled to the base.

101-3.3 LEVELING. After the beacon has been mounted, it shall be accurately leveled following the manufacturer's instructions. The leveling shall be checked in the presence of the Engineer and shall be to the Engineer's satisfaction.

101-3.4 SERVICING. Before placing the beacon in operation, the Contractor shall check the manufacturer's manual for proper servicing requirements. Follow the manufacturer's servicing instructions for each size of beacon.

101-3.5 BEAM ADJUSTMENT. After the beacon has been mounted and leveled, the elevation of the beam shall be adjusted. The final beam adjustments shall be made at night so that results can be readily observed. The beams shall be adjusted to the elevation directed by the Engineer or as shown in the plans. See AC 150/5340-30 for additional information about airport beacon beam adjustment.

101-3.6 BEACON MOUNTING PLATFORM. Where the beacon is to be mounted at a location other than the beacon tower and where a special mounting platform is required, the construction of the mounting platform and any necessary lightning protection equipment shall be per the details shown in the plans.

101-3.7 WIRING. The Contractor shall furnish all necessary labor and materials and shall make complete above ground electrical connections per the wiring diagram furnished with the project plans. The electrical installation shall conform to the requirements of the latest edition of National Fire Protection Association, NFPA-70, National Electrical Code (NEC). Copies of the National Electric Code may be obtained from the NFPA website: http://www.nfpa.org/aboutthecodes/list_of_codes_and_standards.asp

If underground cable for the power feed from the transformer vault to the beacon site and duct for this cable installation is required, the cable, ground rods and duct shall be installed per and paid for as described in Item L-108, Underground Power Cable for Airports, and Item L-110, Airport Underground Electrical Duct Banks and Conduit.

Unless otherwise specified, the Contractor shall connect the tell-tale relay mechanism in the beacon to energize the tower obstruction light circuit when failure of the beacon service (primary) lamp occurs.

If lightning protection is specified in the plans or proposal as a part of this item, it shall be installed per paragraph 103-2.3 in Item L-103, Airport Beacon Towers.

101-3.8 PANEL AND CABINET. Unless otherwise specified, the Contractor shall furnish and install at the top of the beacon tower or mounting platform a circuit-breaker panel consisting of four 15-ampere breakers mounted in a weather-proof cabinet to provide separate protection for the circuits to the beacon lamps, motor, obstruction lights, and other equipment. The cabinet shall be located on the side of the beacon platform, as directed by the Engineer.

101-3.9 CONDUIT. All exposed wiring shall be run in not less than 3/4 inch (19 mm) galvanized rigid steel conduit. Outdoor rated, liquid-tight, flexible metal conduit may be used for final connection at the beacon equipment. No conduit shall be installed on top of a beacon platform floor. All conduits shall be installed to provide for drainage. If mounted on a steel beacon tower, the conduit shall be fastened to the tower members with Wraplock® straps (or equivalent), clamps, or approved fasteners, spaced approximately 5 feet (1.5 m) apart. The conduit shall be fastened to wooden structures with galvanized pipe straps and with galvanized wood screws not less than No. 8 or less than 1-1/4 inches (32 mm) long. There shall be at least two fastenings for each 10 feet (3 m) length.

101-3.10 BOOSTER TRANSFORMER. If shown in the plans or specified in job specifications, a booster transformer to compensate for voltage drop to the beacon shall be installed in a suitable weatherproof housing under or on the tower platform or at the base of the tower. The installation shall be as indicated in the plans and described in the proposal. If the booster transformer is required for installation remote from the beacon, it shall be installed per and paid for as described in Item L-101, Airport Rotating Beacons.

101-3.11 PHOTOELECTRIC CONTROL. If shown in the plans or specified in the job specifications, the Contractor shall furnish and install an automatic control switch at the location indicated in the plans. The switch shall be a photoelectric type. It shall be a standard commercially available unit that will energize when the illumination on a vertical surface facing North decreases to 25 to 35 foot-candles (269 to 377 lux). The photoelectric switch should de-energize when the illumination rises to 50 to 60 foot-candles (538 to 646 lux). The photoelectronic switch shall be installed, connected, and adjusted per the manufacturer's instructions.

101-3.12 OBSTRUCTION LIGHTS. Unless otherwise specified, the Contractor shall install on the top of the beacon tower or mounting platform two L-810 obstruction lights on opposite corners. These lights shall be mounted on conduit extensions to a height of not less than 4 inches (100 mm) above the top of the beacon.

101-3.13 PAINTING. If construction of a wooden mounting platform is stipulated in the proposal as part of this item, all wooden parts of the platform shall be given one priming coat of white or aviation-orange paint after fabrication but before erection and one body and one finish coat of international-orange paint after erection. Steel mounting platforms shall be given one priming coat of corrosion-inhibiting primer before erection and one body and one finish coat of international-orange paint after erection. All equipment installed under this contract and exposed to the weather shall be given one body and one finish coat of international-orange (per Federal Standard 595, Number 12197) or white paint as required. This shall include the beacon (except glass surfaces), beacon base, breaker cabinet, all conduit, and transformer cases. It shall not include lightning protection system air terminals or obstruction light globes.

Skilled painters must apply the paint uniformly at the proper consistency. The finished paint shall be free from sags, holidays, and smears. Each coat of paint shall be given ample time to dry and harden before the next coat of paint is applied. A minimum of three (3) days shall be allowed for drying on wood surfaces, and a minimum of four (4) days shall be allowed for drying on metal surfaces. Painting shall not be performed in cold, damp, foggy, dusty, or frosty atmospheres, or when the air temperature is below 40°F (4°C), nor started when the weather forecast indicates such conditions for the day.

All surfaces shall be cleaned before painting. The surfaces shall be dry and free from scale, grease, rust, dust, and dirt. All knots in wood surfaces shall be covered with shellac immediately before applying the priming coat of paint. Nail holes and permissible imperfections shall be filled with putty. The ready-mixed paint shall be thinned for the priming and body coats per the manufacturer's recommendations. In the absence of such recommendations, the following shall apply:

a. Body coats (for both wood and steel surfaces) - add 1/2 pint (0.24 liter) of turpentine to each gallon (liter) of ready-mixed paint for body coats.

b. Finish coats (for both wood and steel surfaces) the ready-mixed paint shall be used as it comes from the container for finish coats.

101-3.14 TESTING. The beacon installation shall be fully tested as a completed unit prior to acceptance. These tests shall include operation of the lamp-changer and performing insulation resistance and voltage readings. The insulation resistance to ground of the beacon power supply circuit shall be not less than 100 megohms when measured ungrounded. The Contractor must furnish testing equipment. Tests shall be conducted in the presence of the Engineer and shall be to the Engineer's satisfaction.

METHOD OF MEASUREMENT

101-4.1 The quantity to be paid for shall be the number of beacons installed as completed units in place, accepted, and ready for operation.

BASIS OF PAYMENT

101-5.1 Payment will be made at the contract unit price for each completed and accepted job. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

Payment will be made under:

Item L-101-5.1 L-802A, Airport Rotating Beacon, in Place - per Each

MATERIAL REQUIREMENTS

AC 150/5345-7	Specification for L-824 Underground Cable for Airport Lighting Circuits
AC 150/5345-12	Specification for Airport and Heliport Beacons
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-53	Airport Lighting Equipment Certification Program
Commercial Item Description A-A-59544	Cable and Wire, Electrical (Power, Fixed Installation)
FED SPEC W-P-115	Panel, Power Distribution
FED STD 595	Colors Used in Government Procurement
MPI Reference #9	Alkyd, Exterior, Gloss (MPI Gloss Level 6)
MIL-DTL-24441C/19B	Paint, Epoxy-Polyamide, Zinc Primer, Formula 159, Type III
NFPA-70	National Electric Code (NEC)
NFPA-780	Standard for the Installation of Lightning Protection Systems
SSPC Paint 25 BCS	Zinc Oxide, Alkyd, Linseed Oil, Primer for
Underwriters Laboratories Standard 6	Electrical Rigid Metal Conduit – Steel
Underwriters Laboratories Standard 514B	Conduit, Tubing, and Cable Fittings
Underwriters Laboratories Standard 1242	Electrical Intermediate Metal Conduit - Steel

END OF ITEM L-101

Page Intentionally Left Blank

ITEM L-108 UNDERGROUND POWER CABLE FOR AIRPORTS

DESCRIPTION

108-1.1 This item shall consist of furnishing and installing power cables that are direct buried and furnishing and/or installing power cables within conduit or duct banks per these specifications at the locations shown on the plans. It includes excavation and backfill of trench for direct-buried cables only. Also included are the installation of counterpoise wires, ground wires, ground rods and connections, cable splicing, cable marking, cable testing, and all incidentals necessary to place the cable in operating condition as a completed unit to the satisfaction of the Engineer. This item shall not include the installation of duct banks or conduit, trenching and backfilling for duct banks or conduit, or furnishing or installation of cable for FAA owned/operated facilities. Requirements and payment for trenching and backfilling for the installation of underground conduit and duct banks is in Item L-110, Airport Underground Electrical Duct Banks and Conduits.

EQUIPMENT AND MATERIALS

108-2.1 GENERAL.

a. Airport lighting equipment and materials covered by advisory circulars (AC) shall be approved under the Airport Lighting Equipment Certification Program per AC 150/5345-53, current version.

b. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification, when requested by the Engineer.

c. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per these specifications. Materials supplied and/or installed that do not comply with these specifications shall be removed (when directed by the Engineer) and replaced with materials that comply with these specifications at the Contractor's cost.

d. All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify products or models applicable to this project. Indicate all optional equipment and delete any non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment to which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in the project that may accrue directly or indirectly from late submissions or resubmissions of submittals.

e. The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the plans and specifications. The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section. The Engineer reserves the right to reject any and all equipment, materials, or procedures that do not meet the system design and the standards and codes, specified in this document.

f. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for at least twelve (12) months from the date of final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner. The Contractor shall be responsible to maintain a minimum insulation resistance per AC 150/5340-26B, Maintenance Airport Visual aid Facilities, Table 5-

1 and paragraph 5.1.3.1, with isolation transformers connected in new circuits and new segments of existing circuits through the end of the contract warranty period.

108-2.2 CABLE. Underground cable for airfield lighting facilities (runway and taxiway lights and signs) shall conform to the requirements of AC 150/5345-7, Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits latest edition. Conductors for use on 6.6 ampere primary airfield lighting series circuits shall be single conductor, seven strand, #8 American wire gauge AWG), L-824 Type C, 5,000 volts, nonshielded, with cross-linked polyethylene insulation. ~~Conductors for use on 20 ampere primary airfield lighting series circuits shall be single conductor, seven strand, #6 AWG, L-824 Type C, 5,000 volts, nonshielded, with cross-linked polyethylene insulation.~~ L-824 conductors for use on the L-830 secondary of airfield lighting series circuits shall be sized in accordance with the manufacturer's recommendations. All other conductors shall comply with FAA and National Electric Code (NEC) requirements. Conductor sizes noted above shall not apply to leads furnished by manufacturers on airfield lighting transformers and fixtures.

Wire for electrical circuits up to 600 volts shall comply with Specification L-824 and/or Federal Specification J-C-30 and shall be type THWN-2, 75°C. Conductors for parallel (voltage) circuits shall be sized and installed in accordance with NFPA-70, National Electrical Code.

Unless noted otherwise, all 600-volt and less non-airfield lighting conductor sizes are based on a 75°C, THWN-2, 600 volt insulation, copper conductors, not more than three single insulated conductors, in raceway, in free air. The conduit/duct sizes are based on the use of THWN-2, 600 volt insulated conductors. The Contractor shall make the necessary increase in conduit/duct sizes for other types of wire insulation. In no case shall the conduit/duct size be reduced. The minimum power circuit wire size shall be #12 AWG.

Conductor sizes may have been adjusted due to voltage drop or other engineering considerations. Equipment provided by the Contractor shall be capable of accepting the quantity and sizes of conductors shown in the Contract Documents. All conductors, pigtails, cable step-down adapters, cable step-up adapters, terminal blocks and splicing materials necessary to complete the cable termination/splice shall be considered incidental to the respective pay items provided.

Cable type, size, number of conductors, strand and service voltage shall be as specified in the Contract Document.

108-2.3 BARE COPPER WIRE (COUNTERPOISE, BARE COPPER WIRE GROUND AND GROUND RODS). Wire for counterpoise or ground installations for airfield lighting systems shall be No. 6 AWG bare solid copper wire for counterpoise and/or No. 6 AWG insulated stranded for ground wire per ASTM B3 and ASTM B8, and shall be bare copper wire per ASTM B33. See AC 150/5340-30 for additional details about counterpoise and ground wire types and installation. For voltage powered circuits, the equipment ground conductor shall be minimum No. 6 AWG, 600V rated, Type XHHW insulated, green color, stranded copper equipment ground conductor.

Ground rods shall be copper-clad steel. The ground rods shall be of the length and diameter specified on the plans, but in no case be less than 10 feet (2.54 m) long and 3/4 inch (19 mm) in diameter.

108-2.4 CABLE CONNECTIONS. In-line connections or splices of underground primary cables shall be of the type called for on the plans, and shall be one of the types listed below. No separate payment will be made for cable connections.

a. The Cast Splice. A cast splice, employing a plastic mold and using epoxy resin equivalent to that manufactured by 3M™ Company, "Scotchcast" Kit No. 82-B, or as manufactured by Hysol® Corporation, "Hyseal Epoxy Splice" Kit No. E1135, or an approved equivalent, used for potting the splice is acceptable.

b. The Field-Attached Plug-In Splice. Figure 3 of AC 150/5345-26, Specification for L-823 Plug and Receptacle, Cable Connectors, employing connector kits, is acceptable for field attachment to single conductor cable. It shall be the Contractor's responsibility to determine the outside diameter of the cable to be spliced and to furnish appropriately sized connector kits and/or adapters and heat shrink tubing with integral sealant.

c. The Factory-Molded Plug-in Splice. Specification for L-823 Connectors, Factory-Molded to Individual Conductors, is acceptable.

d. The Taped or Heat-Shrink Splice. Taped splices employing field-applied rubber, or synthetic rubber tape covered with plastic tape is acceptable. The rubber tape should meet the requirements of ASTM D4388 and the plastic tape should comply with Military Specification MIL-I-24391 or Commercial Item Description A-A-55809. Heat shrinkable tubing shall be heavy-wall, self-sealing tubing rated for the voltage of the wire being spliced and suitable for direct-buried installations. The tubing shall be factory coated with a thermoplastic adhesive-sealant that will adhere to the insulation of the wire being spliced forming a moisture- and dirt-proof seal. Additionally, heat shrinkable tubing for multi-conductor cables, shielded cables, and armored cables shall be factory kits that are designed for the application. Heat shrinkable tubing and tubing kits shall be manufactured by Tyco Electronics/ Raychem Corporation, Energy Division, or approved equivalent.

In all the above cases, connections of cable conductors shall be made using crimp connectors using a crimping tool designed to make a complete crimp before the tool can be removed. All L-823/L-824 splices and terminations shall be made per the manufacturer's recommendations and listings.

All connections of counterpoise, grounding conductors and ground rods shall be made by the exothermic process or approved equivalent, except that a light base ground clamp connector shall be used for attachment to the light base. See AC 150/5340-30 for additional information about methods of attaching a ground to a galvanized light base. All exothermic connections shall be made per the manufacturer's recommendations and listings.

108-2.5 SPLICER QUALIFICATIONS. Every airfield lighting cable splicer shall be qualified in making airport cable splices and terminations on cables rated at or above 5,000 volts AC. The Contractor shall submit to the Engineer proof of the qualifications of each proposed cable splicer for the airport cable type and voltage level to be worked on. Cable splicing/terminating personnel shall have a minimum of three (3) years continuous experience in terminating/splicing medium voltage cable.

108-2.6 CONCRETE. Concrete for cable markers shall be per Specification Item P-610, Structural Portland Cement Concrete.

108-2.7 FLOWABLE BACKFILL. Flowable material used to backfill trenches for power cable trenches shall conform to the requirements of Item P-153, Controlled Low Strength Material.

108-2.8 CABLE IDENTIFICATION TAGS. Cable identification tags shall be made from a non-corrosive material with the circuit identification stamped or etched onto the tag. The tags shall be of the type as detailed on the plans.

108-2.9 TAPE. Electrical tapes shall be Scotch™ Electrical Tapes –Scotch™ 88 (1-1/2 inch (38 mm) wide) and Scotch™ 130C® linerless rubber splicing tape (2-inch (50 mm) wide), as manufactured by the Minnesota Mining and Manufacturing Company (3M™), or an approved equivalent.

108-2.10 ELECTRICAL COATING. Electrical coating shall be Scotchkote™ as manufactured by 3M™, or an approved equivalent.

108-2.11 EXISTING CIRCUITS. Whenever the scope of work requires connection to an existing circuit, the circuit's insulation resistance shall be tested, in the presence of the Engineer. The test shall be

performed per this item and prior to any activity that will affect the respective circuit. The Contractor shall record the results on forms acceptable to the Engineer. When the work affecting the circuit is complete, the circuit's insulation resistance shall be checked again, in the presence of the Engineer. The Contractor shall record the results on forms acceptable to the Engineer. The second reading shall be equal to or greater than the first reading or the Contractor shall make the necessary repairs to the circuit to bring the second reading above the first reading. All repair costs including a complete replacement of the L-823 connectors, L-830 transformers and L-824 cable, if necessary, shall be borne by the Contractor. All test results shall be submitted in the Operation and Maintenance (O&M) Manual.

108-2.12 DETECTABLE WARNING TAPE. Plastic, detectable, American Public Works Association (APWA) Red (electrical power lines, cables, conduit and lighting cable) with continuous legend magnetic tape shall be polyethylene film with a metalized foil core and shall be 3-6 inches (75-150 mm) wide. Detectable tape is incidental to the respective bid item.

CONSTRUCTION METHODS

108-3.1 GENERAL. The Contractor shall install the specified cable at the approximate locations indicated on the plans. Unless otherwise shown on the plans, all cable required to cross under pavements expected to carry aircraft loads shall be installed in concrete encased duct banks. Wherever possible, cable shall be run without splices, from connection to connection.

Cable connections between lights will be permitted only at the light locations for connecting the underground cable to the primary leads of the individual isolation transformers. The Contractor shall be responsible for providing cable in continuous lengths for home runs or other long cable runs without connections unless otherwise authorized in writing by the Engineer or shown on the plans.

In addition to connectors being installed at individual isolation transformers, L-823 cable connectors for maintenance and test points shall be installed at locations shown on the plans. Cable circuit identification markers shall be installed on both sides of the L-823 connectors installed or at least once in each access point where L-823 connectors are not installed.

Provide not less than 3 feet (1 m) of cable slack on each side of all connections, isolation transformers, light units, and at points where cable is connected to field equipment. Where provisions must be made for testing or for future above grade connections, provide enough slack to allow the cable to be extended at least one foot (30 cm) vertically above the top of the access structure. This requirement also applies where primary cable passes through empty light bases, junction boxes, and access structures to allow for future connections, or as designated by the Engineer.

Primary airfield lighting cables installed shall have cable circuit identification markers attached on both sides of each L-823 connector and on each airport lighting cable entering or leaving cable access points, such as manholes, hand holes, pull boxes, junction boxes, etc. Markers shall be of sufficient length for imprinting the cable circuit identification legend on one line, using letters not less than 1/4 inch (6 mm) in size. The cable circuit identification shall match the circuits noted on the construction plans.

108-3.2 INSTALLATION IN DUCT BANKS OR CONDUITS. This item includes the installation of the cable in duct banks or conduit per the following paragraphs. The maximum number and voltage ratings of cables installed in each single duct or conduit, and the current-carrying capacity of each cable shall be per the latest version of the National Electric Code, or the code of the local agency or authority having jurisdiction.

The Contractor shall make no connections or splices of any kind in cables installed in conduits or duct banks.

Unless otherwise designated in the plans, where ducts are in tiers, use the lowest ducts to receive the cable first, with spare ducts left in the upper levels. Check duct routes prior to construction to obtain assurance that the shortest routes are selected and that any potential interference is avoided.

Duct banks or conduits shall be installed as a separate item per Item L-110, Airport Underground Electrical Duct Banks and Conduit. The Contractor shall run a mandrel through duct banks or conduit prior to installation of cable to ensure that the duct bank or conduit is open, continuous and clear of debris. The mandrel size shall be compatible with the conduit size. The Contractor shall swab out all conduits/ducts and clean light bases, manholes, etc., interiors immediately prior to pulling cable. Once cleaned and swabbed, the light bases and all accessible points of entry to the duct/conduit system shall be kept closed except when installing cables. Cleaning of ducts, light bases, manholes, etc., is incidental to the pay item of the item being cleaned. All raceway systems left open, after initial cleaning, for any reason shall be re-cleaned at the Contractor's expense. The Contractor shall verify existing ducts proposed for use in this project as clear and open. The Contractor shall notify the Engineer of any blockage in the existing ducts.

The cable shall be installed in a manner that prevents harmful stretching of the conductor, damage to the insulation, or damage to the outer protective covering. The ends of all cables shall be sealed with moisture-seal tape providing moisture-tight mechanical protection with minimum bulk, or alternately, heat shrinkable tubing before pulling into the conduit and it shall be left sealed until connections are made. Where more than one cable is to be installed in a conduit, all cable shall be pulled in the conduit at the same time. The pulling of a cable through duct banks or conduits may be accomplished by hand winch or power winch with the use of cable grips or pulling eyes. Maximum pulling tensions shall not exceed the cable manufacturer's recommendations. A non-hardening cable-pulling lubricant recommended for the type of cable being installed shall be used where required.

The Contractor shall submit the recommended pulling tension values to the Engineer prior to any cable installation. If required by the Engineer, pulling tension values for cable pulls shall be monitored by a dynamometer in the presence of the Engineer. Cable pull tensions shall be recorded by the Contractor and reviewed by the Engineer. Cables exceeding the maximum allowable pulling tension values shall be removed and replaced by the Contractor at the Contractor's expense.

The manufacturer's minimum bend radius or NEC requirements (whichever is more restrictive) shall apply. Cable installation, handling and storage shall be per manufacturer's recommendations. During cold weather, particular attention shall be paid to the manufacturer's minimum installation temperature. Cable shall not be installed when the temperature is at or below the manufacturer's minimum installation temperature. At the Contractor's option, the Contractor may submit a plan, for review by the Engineer, for heated storage of the cable and maintenance of an acceptable cable temperature during installation when temperatures are below the manufacturer's minimum cable installation temperature.

Cable shall not be dragged across base can or manhole edges, pavement or earth. When cable must be coiled, lay cable out on a canvas tarp or use other appropriate means to prevent abrasion to the cable jacket.

108-3.3 INSTALLATION OF DIRECT-BURIED CABLE IN TRENCHES. Unless otherwise specified, the Contractor shall not use a cable plow for installing the cable. Cable shall be unreeled uniformly in place alongside or in the trench and shall be carefully placed along the bottom of the trench. The cable shall not be unreeled and pulled into the trench from one end. Slack cable sufficient to provide strain relief shall be placed in the trench in a series of S curves. Sharp bends or kinks in the cable shall not be permitted.

Where cables must cross over each other, a minimum of 3 inches (75 mm) vertical displacement shall be provided with the topmost cable depth at or below the minimum required depth below finished grade.

a. Trenching. Where turf is well established and the sod can be removed, it shall be carefully stripped and properly stored. Trenches for cables may be excavated manually or with mechanical trenching equipment. Walls of trenches shall be essentially vertical so that a minimum of surface is disturbed. Graders

shall not be used to excavate the trench with their blades. The bottom surface of trenches shall be essentially smooth and free from coarse aggregate. Unless otherwise specified, cable trenches shall be excavated to a minimum depth of 18 inches (0.5 m) below finished grade per NEC Table 300.5, except as follows:

(1) When off the airport or crossing under a roadway or driveway, the minimum depth shall be 36 inches (91 cm) unless otherwise specified.

(2) Minimum cable depth when crossing under a railroad track, shall be 42 inches (1 m) unless otherwise specified.

Dewatering necessary for cable installation, erosion and turbidity control, per Federal, state, and local requirements is incidental to its respective pay items as part of Item L-108. The cost of all excavation regardless of type of material encountered, shall be included in the unit price bid for the L-108 Item.

The Contractor shall excavate all cable trenches to a width not less than 6 inches (150 mm). Unless otherwise specified on the plans, all cables in the same location and running in the same general direction shall be installed in the same trench.

When rock is encountered, the rock shall be removed to a depth of at least 3 inches (75 mm) below the required cable depth and it shall be replaced with bedding material of earth or sand containing no mineral aggregate particles that would be retained on a 1/4 inch (6 mm) sieve. Flowable backfill material may alternatively be used. The Contractor shall ascertain the type of soil or rock to be excavated before bidding. All such rock removal shall be performed and paid for under *and subsidiary to the respective trenching or conduit or duct bank pay item.*

Duct bank or conduit markers temporarily removed for trench excavations shall be replaced as required.

It is the Contractor's responsibility to locate existing utilities within the work area prior to excavation. Where existing active cables cross proposed installations, the Contractor shall ensure that these cables are adequately protected. Where crossings are unavoidable, no splices will be allowed in the existing cables, except as specified on the plans. Installation of new cable where such crossings must occur shall proceed as follows:

(1) Existing cables shall be located manually. Unearthed cables shall be inspected to assure absolutely no damage has occurred.

(2) Trenching, etc., in cable areas shall then proceed, with approval of the Engineer, with care taken to minimize possible damage or disruption of existing cable, including careful backfilling in area of cable.

In the event that any previously identified cable is damaged during the course of construction, the Contractor shall be responsible for the complete repair or replacement.

b. Backfilling. After the cable has been installed, the trench shall be backfilled. The first layer of backfill in the trench shall be 3 inches (75 mm) deep, loose measurement, and shall be either earth or sand containing no mineral aggregate particles that would be retained on a 1/4 inch (6 mm) sieve. This layer shall not be compacted. The second layer shall be 5 inches (125 mm) deep, loose measurement, and shall contain no particles that would be retained on a one inch (25 mm) sieve. The remaining third and subsequent layers of backfill shall not exceed 8 inches (20 cm) of loose measurement and be excavated or imported material and shall not contain stone or aggregate larger than 4 inches (100 mm) maximum diameter.

The second and subsequent layers shall be thoroughly tamped and compacted to at least the density of the adjacent undisturbed soil, and to the satisfaction of the Engineer. If necessary to obtain the desired compaction, the backfill material shall be moistened or aerated as required.

If the cable is to be installed in locations or areas where other compaction requirements are specified (under pavements, embankments, etc.) the compaction requirements per Item P-152 for that area shall be followed.

Trenches shall not contain pools of water during backfilling operations. The trench shall be completely backfilled and tamped level with the adjacent surface, except that when turf is to be established over the trench, the backfilling shall be stopped at an appropriate depth consistent with the type of turfing operation to be accommodated. A proper allowance for settlement shall also be provided. Any excess excavated material shall be removed and disposed of per the plans and specifications.

Underground electrical warning (caution) tape shall be installed in the trench above all direct-buried cable. Contractor shall submit a sample of the proposed warning tape for acceptance by the Engineer. If not shown on the plans, the warning tape shall be located 6 inches (150 mm) above the direct-buried cable or the counterpoise wire if present. A 3-6 inch (75 - 150 mm) wide polyethylene film detectable tape, with a metalized foil core, shall be installed above all direct buried cable or counterpoise. The tape shall be of the color and have a continuous legend as indicated on the plans. The tape shall be installed 8 inch (200 mm) minimum below finished grade.

c. Restoration. Following restoration of all trenching near airport movement surfaces, the Contractor shall visually inspect the area for foreign object debris (FOD) and remove any that is found. Where soil and sod has been removed, it shall be replaced as soon as possible after the backfilling is completed. All areas disturbed by work shall be restored to its original condition. The restoration shall include the sodding, topsoiling, and seeding as shown on the plans. The Contractor shall be held responsible for maintaining all disturbed surfaces and replacements until final acceptance. When trenching is through paved areas, restoration shall be equal to existing conditions and compaction shall meet the requirements of Item P-152. Restoration shall be considered incidental to the pay item of which it is a component part.

108-3.4 CABLE MARKERS FOR DIRECT-BURIED CABLE. The location of direct buried circuits shall be marked by a concrete slab marker, 2 feet (60 cm) square and 4-6 inch (10 - 15 cm) thick, extending approximately one inch (25 mm) above the surface. Each cable run from a line of lights and signs to the equipment vault shall be marked at approximately every 200 feet (61 m) along the cable run, with an additional marker at each change of direction of cable run. All other direct-buried cable shall be marked in the same manner. Cable markers shall be installed directly above the cable. The Contractor shall impress the word "CABLE" and directional arrows on each cable marking slab. The letters shall be approximately 4 inches (100 mm) high and 3 inches (75 mm) wide, with width of stroke 1/2 inch (12 mm) and 1/4 inch (6 mm) deep.

At the location of each underground cable connection, except at lighting units, or isolation transformers, or power a concrete marker slab must mark adapters placed above the connection. The Contractor shall impress the word "SPLICE" on each slab. The Contractor also shall impress additional circuit identification symbols on each slab as directed by the Engineer. All cable markers and splice markers shall be painted international orange. Paint shall be specifically manufactured for uncured exterior concrete. After placement, all cable or splice markers shall be given one coat of high-visibility aviation orange paint as approved by the Engineer. Furnishing and installation of cable markers is incidental to the respective cable pay item.

108-3.5 SPLICING. Connections of the type shown on the plans shall be made by experienced personnel regularly engaged in this type of work and shall be made as follows:

a. Cast splices. These shall be made by using crimp connectors for jointing conductors. Molds shall be assembled, and the compound shall be mixed and poured per the manufacturer's instructions and to the satisfaction of the Engineer.

b. Field-attached plug-in splices. These shall be assembled per the manufacturer's instructions. These splices shall be made by plugging directly into mating connectors. In all cases the joint where the connectors come together shall be wrapped with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one-half lapped, extending at least 1-1/2 inches (38 mm) on each side of the joint.

c. Factory-molded plug-in splices. These shall be made by plugging directly into mating connectors. In all cases, the joint where the connectors come together shall be wrapped with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one-half lapped, extending at least 1-1/2 inches (38 mm) on each side of the joint.

d. Taped or heat-shrink splices. A taped splice shall be made in the following manner:

Bring the cables to their final position and cut so that the conductors will butt. Remove insulation and jacket allowing for bare conductor of proper length to fit compression sleeve connector with 1/4 inch (6 mm) of bare conductor on each side of the connector. Prior to splicing, the two ends of the cable insulation shall be penciled using a tool designed specifically for this purpose and for cable size and type. Do not use emery paper on splicing operation since it contains metallic particles. The copper conductors shall be thoroughly cleaned. Join the conductors by inserting them equidistant into the compression connection sleeve. Crimp conductors firmly in place with crimping tool that requires a complete crimp before tool can be removed. Test the crimped connection by pulling on the cable. Scrape the insulation to assure that the entire surface over which the tape will be applied (plus 3 inches (75 mm) on each end) is clean. After scraping wipe the entire area with a clean lint-free cloth. Do not use solvents.

Apply high-voltage rubber tape one-half lapped over bare conductor. This tape should be tensioned as recommended by the manufacturer. Voids in the connector area may be eliminated by highly elongating the tape, stretching it just short of its breaking point. Throughout the rest of the splice less tension should be used. Always attempt to exactly half-lap to produce a uniform buildup. Continue buildup to 1-1/2 times cable diameter over the body of the splice with ends tapered a distance of approximately one inch (25 mm) over the original jacket. Cover rubber tape with two layers of vinyl pressure-sensitive tape one-half lapped. Do not use glyptol or lacquer over vinyl tape as they react as solvents to the tape. No further cable covering or splice boxes are required.

Heat shrinkable tubing shall be installed following manufacturer's instructions. Direct flame heating shall not be permitted unless recommended by the manufacturer. Cable surfaces within the limits of the heat-shrink application shall be clean and free of contaminates prior to application.

Surfaces of equipment or conductors being terminated or connected shall be prepared in accordance with industry standard practice and manufacturer's recommendations. All surfaces to be connected shall be thoroughly cleaned to remove all dirt, grease, oxides, nonconductive films, or other foreign material. Paints and other nonconductive coatings shall be removed to expose base metal. Clean all surfaces at least 1/4 inch (6.4 mm) beyond all sides of the larger bonded area on all mating surfaces. Use a joint compound suitable for the materials used in the connection. Repair painted/coated surface to original condition after completing the connection.

108-3.6 BARE COUNTERPOISE WIRE INSTALLATION FOR LIGHTNING PROTECTION AND GROUNDING. If shown on the plans or included in the job specifications, bare solid #6 AWG copper counterpoise wire shall be installed for lightning protection of the underground cables. The Engineer shall select one of two methods of lightning protection for the airfield lighting circuit based on the frequency of local lightning:

a. Equipotential. – may be used by the Engineer for areas that have high rates of lightning strikes. This is where the counterpoise is bonded to the light base (edge lights included) and counterpoise size is determined by the Engineer.

b. Isolation – used in areas where lightning strikes are not common. The counterpoise is not bonded to edge light fixtures, in-pavement fixtures are bonded to the counterpoise. Counterpoise size is selected by the Engineer.

Counterpoise wire shall be installed in the same trench for the entire length of buried cable, conduits and duct banks that are installed to contain airfield cables.

For edge light fixtures installed in turf (stabilized soils) and for raceways or cables adjacent to the full strength pavement edge, the counterpoise conductor shall be installed halfway between the pavement edge and the light base, mounting stake, raceway, or cable.

The counterpoise conductor shall be installed 8 inches (203 mm) minimum below grade.

Each light base or mounting stake shall be provided with a grounding electrode.

When a metallic light base is used, the grounding electrode shall be bonded to the metallic light base or mounting stake with a No. 6 AWG bare, annealed or soft drawn, solid copper conductor.

~~When a nonmetallic light base is used, the grounding electrode shall be bonded to the metallic light fixture or metallic base plate with a No. 6 AWG bare, annealed or soft drawn, solid copper conductor.~~

For raceways installed under pavement; for raceways and cables not installed adjacent to the full strength pavement edge; for fixtures installed in full strength pavement and shoulder pavement ~~and for optional method of edge lights installed in turf (stabilized soils)~~; and for raceways or cables adjacent to the full strength pavement edge, the counterpoise conductor shall be centered over the raceway or cable to be protected as described below.

The counterpoise conductor shall be installed no less than 8 inches (203 mm) above the raceway or cable to be protected, except as permitted below.

The minimum counterpoise conductor height above the raceway or cable to be protected shall be permitted to be adjusted subject to coordination with the airfield lighting and pavement designs.

Where raceway is installed by the directional bore, jack and bore, or other drilling method, the counterpoise conductor shall be permitted to be installed concurrently with the directional bore, jack and bore, or other drilling method raceway, external to the raceway or sleeve.

The counterpoise conductor shall be installed no more than 12 inches (305 mm) above the raceway or cable to be protected.

The counterpoise conductor height above the protected raceway(s) or cable(s) shall be calculated to ensure that the raceway or cable is within a 45-degree area of protection.

The counterpoise conductor shall be bonded to each metallic light base, mounting stake, and metallic airfield lighting component.

All metallic airfield lighting components in the field circuit on the output side of the constant current regulator (CCR) or other power source shall be bonded to the airfield lighting counterpoise system.

The counterpoise wire shall also be exothermically welded to ground rods installed as shown on the plans but not more than 500 feet (150 m) apart around the entire circuit. The counterpoise system shall be continuous and terminate at the transformer vault or at the power source. It shall be securely attached to the vault or equipment external ground ring or other made electrode-grounding system. The connections shall be made as shown on the plans and in the specifications.

If shown on the plans or in the specifications, a separate equipment (safety) ground system shall be provided in addition to the counterpoise wire using one of the following methods:

c. A ground rod installed at and securely attached to each light fixture base, mounting stake, and to all metal surfaces at junction/access structures via #6 AWG wire.

d. For parallel voltage systems only, install a #6 AWG green insulated equipment ground conductor internal to the conduit system and securely attached it to each light fixture base internal grounding lug and to all metal surfaces at junction/access structures. Dedicated ground rods shall be installed and exothermically welded to the counterpoise wires at each end of a duct bank crossing under pavement.

Where an existing airfield lighting system is being extended or modified, the new counterpoise conductors shall be interconnected to existing counterpoise conductors at each intersection of the new and existing airfield lighting counterpoise systems.

108-3.7 COUNTERPOISE INSTALLATION ABOVE MULTIPLE CONDUITS AND DUCT BANKS. Counterpoise wires shall be installed above multiple conduits/duct banks for airfield lighting cables, with the intent being to provide a complete area of protection over the airfield lighting cables. When multiple conduits and/or duct banks for airfield cable are installed in the same trench, the number and location of counterpoise wires above the conduits shall be adequate to provide a complete cone of protection measured 22-1/2 degrees each side of vertical.

Where duct banks pass under pavement to be constructed in the project, the counterpoise shall be placed above the duct bank. Reference details on the construction plans.

108-3.8 COUNTERPOISE INSTALLATION AT EXISTING DUCT BANKS. When airfield lighting cables are indicated on the plans to be routed through existing duct banks, the new counterpoise wiring shall be terminated at ground rods at each end of the existing duct bank where the cables being protected enter and exit the duct bank. The new counterpoise conductor shall be bonded to the existing counterpoise system.

108-3.9 EXOTHERMIC BONDING. Bonding of counterpoise wire shall be by the exothermic welding process. Only personnel experienced in and regularly engaged in this type of work shall make these connections.

Contractor shall demonstrate to the satisfaction of the Engineer, the welding kits, materials and procedures to be used for welded connections prior to any installations in the field. The installations shall comply with the manufacturer's recommendations and the following:

a. All slag shall be removed from welds.

b. Using an exothermic weld to bond the counterpoise to a lug on a galvanized light base is not recommended unless the base has been specially modified. Consult the manufacturer's installation directions for proper methods of bonding copper wire to the light base. See also AC 150/5340-30 for galvanized light base exception.

c. If called for in the plans, all buried copper and weld material at weld connections shall be thoroughly coated with 6 mm of 3M™ Scotchkote™, or approved equivalent, or coated with coal tar Bitumastic® material to prevent surface exposure to corrosive soil or moisture.

108-3.10 TESTING. The Contractor shall furnish all necessary equipment and appliances for testing the airport electrical systems and underground cable circuits before and after installation. The Contractor shall perform all tests in the presence of the Engineer. The Contractor shall demonstrate the electrical characteristics to the satisfaction of the Engineer. All costs for testing are incidental to the respective item being tested. For phased projects, the tests must be completed by phase. The Contractor must maintain the test results throughout the entire project as well as during the warranty period that meet the following:

a. Earth resistance testing methods shall be submitted to the Engineer for approval. Earth resistance testing results shall be recorded on an approved form and testing shall be performed in the presence of the Engineer. All such testing shall be at the sole expense of the Contractor.

b. Should the counterpoise or ground grid conductors be damaged or suspected of being damaged by construction activities the Contractor shall test the conductors for continuity with a low resistance ohmmeter. The conductors shall be isolated such that no parallel path exists and tested for continuity. The Engineer shall approve of the test method selected. All such testing shall be at the sole expense of the Contractor.

After installation, the Contractor shall test and demonstrate to the satisfaction of the Engineer the following:

c. That all affected lighting power and control circuits (existing and new) are continuous and free from short circuits.

d. That all affected circuits (existing and new) are free from unspecified grounds.

e. That the insulation resistance to ground of all new non-grounded high voltage series circuits or cable segments is not less than 500 megohms.

f. That the insulation resistance to ground of all new non-grounded conductors of new multiple circuits or circuit segments is not less than 100 megohms.

g. That all affected circuits (existing and new) are properly connected per applicable wiring diagrams.

h. That all affected circuits (existing and new) are operable. Tests shall be conducted that include operating each control not less than 10 times and the continuous operation of each lighting and power circuit for not less than 1/2 hour.

i. That the impedance to ground of each ground rod does not exceed 25 ohms prior to establishing connections to other ground electrodes. The fall-of-potential ground impedance test shall be used, as described by American National Standards Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) Standard 81, to verify this requirement. As an alternate, clamp-on style ground impedance test meters may be used to satisfy the impedance testing requirement. Test equipment and its calibration sheets shall be submitted for review and approval by the Engineer prior to performing the testing.

Two copies of tabulated results of all cable tests performed shall be supplied by the Contractor to the Engineer. Where connecting new cable to existing cable, ground resistance tests shall be performed on the new cable prior to connection to the existing circuit.

There are no approved "repair" procedures for items that have failed testing other than complete replacement.

METHOD OF MEASUREMENT

108-4.1 Trenching shall be measured by the linear feet (meters) of trench, including the excavation, backfill, and restoration, completed, measured as excavated, and accepted as satisfactory. When specified, separate measurement shall be made for trenches of various specified widths.

The cost of all excavation, backfill, dewatering and restoration regardless of the type of material encountered shall be included in the unit price bid for the work.

108-4.2 Cable or counterpoise wire installed in trench, duct bank or conduit shall be measured by the number of linear feet (meters) installed and grounding connectors, and trench marking tape ready for operation, and accepted as satisfactory. Separate measurement shall be made for each cable or counterpoise wire installed in trench, duct bank or conduit. The measurement for this item shall include additional quantities required for slack.

~~**108-4.3** Ground rods shall be measured by each [10-foot] section installed complete.~~

BASIS OF PAYMENT

108-5.1 Payment will be made at the contract unit price for trenching, cable and bare counterpoise wire installed in trench (direct-buried), or cable and equipment ground installed in duct bank or conduit, in place by the Contractor and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation and installation of these materials, and for all labor, equipment, tools, and incidentals, including ground rods and ground connectors and trench marking tape, necessary to complete this item.

Payment will be made under:

Item L-108-5.1	Trenching for Direct-Buried Cable, 18 Inch Minimum Depth - per Linear Foot
Item L-108-5.2	No. 8 AWG, 5 kV, L-824, Type C Cable, Installed in Trench, Duct Bank, or Conduit - per Linear Foot
Item L-108-5.3	No. 6 AWG, Solid, Bare Counterpoise Wire, Installed in Trench, Above the Duct Bank or Conduit, Including Ground Rods and Ground Connectors - per Linear Foot
Item L-108-5.4	Trenching for Direct-Buried Bare Counterpoise Wire, 8" Minimum Depth – per Linear Foot

MATERIAL REQUIREMENTS

AC 150/5340-26	Maintenance of Airport Visual Aid Facilities
AC 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-7	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
AC 150/5345-26	Specification for L-823 Plug and Receptacle, Cable Connectors
AC 150/5345-53	Airport Lighting Equipment Certification Program
Commercial Item Description A-A-59544	Cable and Wire, Electrical (Power, Fixed Installation)
Commercial Item Description A-A-55809	Insulation Tape, Electrical, Pressure-Sensitive Adhesive, Plastic
ASTM B3	Standard Specification for Soft or Annealed Copper Wire
ASTM B8	Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft

ASTM B33	Standard Specification for Tin-Coated Soft or Annealed Copper Wire for Electrical Purposes
ASTM D33	*Tinned Soft of Annealed Copper Wire for Electrical Purposes*
ASTM D4388	Standard Specification for Nonmetallic Semi-Conducting and Electrically Insulating Rubber Tapes
FED SPEC J-C-30	Cable and Wire, Electrical (Power, Fixed Installation)
MIL-I-24391	Insulation Tape, Electrical, Plastic, Pressure Sensitive
MIL-P-21035	*Paint High Zinc Duct Content, Galvanizing Repair*

REFERENCE DOCUMENTS

NFPA-70	National Electrical Code (NEC)
NFPA-780	Standard for the Installation of Lightning Protection Systems
MIL-S-23586F	Performance Specification: Sealing Compound (with Accelerator), Silicone Rubber, Electrical
ANSI/IEEE STD 81	IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System

END OF ITEM L-108

Intentionally Left Blank

ITEM L-110 AIRPORT UNDERGROUND ELECTRICAL DUCT BANKS AND CONDUITS

DESCRIPTION

110-1.1 This item shall consist of underground electrical conduits and duct banks (single or multiple conduits encased in concrete or buried in sand) installed per this specification at the locations and per the dimensions, designs, and details shown on the plans. This item shall include furnishing and installing of all underground electrical duct banks and individual and multiple underground conduits. It shall also include all turfing trenching, backfilling, removal, and restoration of any paved or turfed areas; concrete encasement, mandrelling, pulling lines, duct markers, plugging of conduits, and the testing of the installation as a completed system ready for installation of cables per the plans and specifications. This item shall also include furnishing and installing conduits and all incidentals for providing positive drainage of the system. Verification of existing ducts is incidental to the pay items provided in this specification.

EQUIPMENT AND MATERIALS

110-2.1 GENERAL.

a. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the Engineer.

b. Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, that comply with these specifications, at the Contractor's cost.

c. All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (highlighting is not acceptable). The Contractor is solely responsible for delays in project that accrue directly or indirectly from late submissions or resubmissions of submittals.

d. The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the plans and specifications. The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section. The Engineer reserves the right to reject any and all equipment, materials or procedures that do not meet the system design and the standards and codes specified in this document.

e. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

110-2.2 STEEL CONDUIT. Rigid galvanized steel (RGS) conduit and fittings shall be hot dipped galvanized inside and out and conform to the requirements of Underwriters Laboratories Standards 6, 514B, and 1242. All RGS conduits or RGS elbows installed below grade, in concrete, permanently wet locations or other similar environments shall be painted with a 10 mil thick coat of asphaltum sealer or shall have a factory bonded polyvinyl chloride (PVC) cover. Any exposed galvanizing or steel shall be coated with 10

mil of asphaltum sealer. When using PVC coated RGS conduit, care shall be exercised not to damage the factory PVC coating. Damaged PVC coating shall be repaired per the manufacturer's written instructions.

110-2.3 PLASTIC CONDUIT. Plastic conduit and fittings-shall conform to the following requirements:

- UL 514B covers W-C-1094-Conduit fittings all types, classes 1 thru 3 and 6 thru 10.
- UL 514C covers W-C-1094- all types, Class 5 junction box and cover in plastic (PVC).
- UL 651 covers W-C-1094-Rigid PVC Conduit, types I and II, Class 4.
- UL 651A covers W-C-1094-Rigid PVC Conduit and high density polyethylene (HDPE) Conduit type III and Class 4.

Underwriters Laboratories Standards UL-651 and Article 352 of the current National Electrical Code shall be one of the following, as shown on the plans:

a. Type I – Schedule 40 PVC suitable for underground use either direct-buried or encased in concrete.

b. Type II – Schedule 40 PVC suitable for either above ground or underground use.

c. Type III – Schedule 80 PVC suitable for either above ground or underground use either direct-buried or encased in concrete.

d. Type III – HDPE pipe, minimum standard dimensional ratio (SDR) 11, suitable for placement with directional boring under pavement.

The type of solvent cement shall be as recommended by the conduit/fitting manufacturer.

~~**110-2.4 SPLIT CONDUIT.** Split conduit shall be pre-manufactured for the intended purpose and shall be made of steel or plastic.~~

110-2.5 CONDUIT SPACERS. Conduit spacers shall be prefabricated interlocking units manufactured for the intended purpose. They shall be of double wall construction made of high grade, high density polyethylene complete with interlocking cap and base pads, They shall be designed to accept No. 4 reinforcing bars installed vertically.

110-2.6 CONCRETE. Concrete shall conform to Item P-610, Structural Portland Cement Concrete, using 1 inch maximum size coarse aggregate with a minimum 28-day compressive strength of 3500 psi. Where reinforced duct banks are specified, reinforcing steel shall conform to ASTM A615 Grade 60. Concrete and reinforcing steel are incidental to the respective pay item of which they are a component part.

110-2.7 FLOWABLE BACKFILL. Flowable material used to back fill conduit and duct bank trenches shall conform to the requirements of Item P-153, Controlled Low Strength Material. Fill shall be designed to achieve a 28-day compressive strength of 200 psi (1.4 MPa) under pavement.

110-2.8 DETECTABLE WARNING TAPE. Plastic, detectable, American Public Works Association (APWA) Red (electrical power lines, cables, conduit and lighting cable) with continuous legend magnetic tape shall be polyethylene film with a metallized foil core and shall be 3-6 inches (75-150 mm) wide. Detectable tape is incidental to the respective bid item.

CONSTRUCTION METHODS

110-3.1 GENERAL. The Contractor shall install underground duct banks and conduits at the approximate locations indicated on the plans. The Engineer shall indicate specific locations as the work progresses, if required to differ from the plans. Duct banks and conduits shall be of the size, material, and

type indicated on the plans or specifications. Where no size is indicated on the plans or in the specifications, conduits shall be not less than 2 inches (50 mm) inside diameter or comply with the National Electrical Code based on cable to be installed, whichever is larger. All duct bank and conduit lines shall be laid so as to grade toward access points and duct or conduit ends for drainage. Unless shown otherwise on the plans, grades shall be at least 3 inches (75 mm) per 100 feet (30 m). On runs where it is not practicable to maintain the grade all one way, the duct bank and conduit lines shall be graded from the center in both directions toward access points or conduit ends, with a drain into the storm drainage system. Pockets or traps where moisture may accumulate shall be avoided. No duct bank or underground conduit shall be less than 18 inches (0.5 m) below finished grade. Where under pavement, the top of the duct bank shall not be less than 18 inches (0.5 m) below the subgrade.

The Contractor shall mandrel each individual conduit whether the conduit is direct-buried or part of a duct bank. An iron-shod mandrel, not more than 1/4 inch (6 mm) smaller than the bore of the conduit shall be pulled or pushed through each conduit. The mandrel shall have a leather or rubber gasket slightly larger than the conduit hole.

The Contractor shall swab out all conduits/ducts and clean base can, manhole, pull boxes, etc., interiors IMMEDIATELY prior to pulling cable. Once cleaned and swabbed the light bases, manholes, pull boxes, etc., and all accessible points of entry to the duct/conduit system shall be kept closed except when installing cables. Cleaning of ducts, base cans, manholes, etc., is incidental to the pay item of the item being cleaned. All raceway systems left open, after initial cleaning, for any reason shall be recleaned at the Contractor's expense. All accessible points shall be kept closed when not installing cable. The Contractor shall verify existing ducts proposed for use in this project as clear and open. The Contractor shall notify the Engineer of any blockage in the existing ducts.

For pulling the permanent wiring, each individual conduit, whether the conduit is direct-buried or part of a duct bank, shall be provided with a 200 pound (90 kg) test polypropylene pull rope. The ends shall be secured and sufficient length shall be left in access points to prevent it from slipping back into the conduit. Where spare conduits are installed, as indicated on the plans, the open ends shall be plugged with removable tapered plugs, designed for this purpose.

All conduits shall be securely fastened in place during construction and shall be plugged to prevent contaminants from entering the conduits. Any conduit section having a defective joint shall not be installed. Ducts shall be supported and spaced apart using approved spacers at intervals not to exceed 5 feet (1.5 m).

Unless otherwise shown on the plans, concrete encased duct banks shall be used when crossing under pavements expected to carry aircraft loads, such as runways, taxiways, taxilanes, ramps and aprons. When under paved shoulders and other paved areas, conduit and duct banks shall be encased using flowable fill for protection.

All conduits within concrete encasement of the duct banks shall terminate with female ends for ease in current and future use. Install factory plugs in all unused ends. Do not cover the ends or plugs with concrete.

Where turf is well established and the sod can be removed, it shall be carefully stripped and properly stored.

Trenches for conduits and duct banks may be excavated manually or with mechanical trenching equipment unless in pavement, in which case they shall be excavated with mechanical trenching equipment. Walls of trenches shall be essentially vertical so that a minimum of shoulder surface is disturbed. Blades of graders shall not be used to excavate the trench.

When rock is encountered, the rock shall be removed to a depth of at least 3 inches (75 mm) below the required conduit or duct bank depth and it shall be replaced with bedding material of earth or sand containing no mineral aggregate particles that would be retained on a 1/4 inch (6 mm) sieve. Flowable backfill may alternatively be used The Contractor shall ascertain the type of soil or rock to be excavated

before bidding. All such rock removal shall be performed and paid for under *and subsidiary to the respective trenching or conduit or duct bank pay item.*

Underground electrical warning (Caution) tape shall be installed in the trench above all underground duct banks and conduits in unpaved areas. Contractor shall submit a sample of the proposed warning tape for approval by the Engineer. If not shown on the plans, the warning tape shall be located 6 inches above the duct/conduit or the counterpoise wire if present.

Joints in plastic conduit shall be prepared per the manufacturer's recommendations for the particular type of conduit. Plastic conduit shall be prepared by application of a plastic cleaner and brushing a plastic solvent on the outside of the conduit ends and on the inside of the couplings. The conduit fitting shall then be slipped together with a quick one-quarter turn twist to set the joint tightly. Where more than one conduit is placed in a single trench, or in duct banks, joints in the conduit shall be staggered a minimum of 2 feet (60 cm).

Changes in direction of runs exceeding 10 degrees, either vertical or horizontal, shall be accomplished using manufactured sweep bends.

Whether or not specifically indicated on the drawings, where the soil encountered at established duct bank grade is an unsuitable material, as determined by the Engineer, the unsuitable material shall be removed per Item P-152 and replaced with suitable material. Alternatively, additional duct bank supports that are adequate and stable shall be installed, as approved by the Engineer.

All excavation shall be unclassified and shall be considered incidental to the respective L-110 pay item of which it is a component part. Dewatering necessary for duct installation, erosion and turbidity control, per Federal, state, and local requirements is incidental to its respective pay item as a part of Item L-110. The cost of all excavation regardless of type of material encountered, shall be included in the unit price bid for the L-110 Item.

Unless otherwise specified, excavated materials that are deemed by the Engineer to be unsuitable for use in backfill or embankments shall be removed and disposed of offsite.

Any excess excavation shall be filled with suitable material approved by the Engineer and compacted per Item P-152.

It is the Contractor's responsibility to locate existing utilities within the work area prior to excavation. Where existing active cables) cross proposed installations, the Contractor shall ensure that these cables are adequately protected. Where crossings are unavoidable, no splices will be allowed in the existing cables, except as specified on the plans. Installation of new cable where such crossings must occur shall proceed as follows:

a. Existing cables shall be located manually. Unearthed cables shall be inspected to assure absolutely no damage has occurred.

b. Trenching, etc., in cable areas shall then proceed with approval of the Engineer, with care taken to minimize possible damage or disruption of existing cable, including careful backfilling in area of cable.

In the event that any previously identified cable is damaged during the course of construction, the Contractor shall be responsible for the complete repair.

110-3.2 DUCT BANKS. Unless otherwise shown in the plans, duct banks shall be installed so that the top of the concrete envelope is not less than 18 inches (0.5 m) below the bottom of the base or stabilized base course layers where installed under runways, taxiways, aprons, or other paved areas, and not less than 18 inches (0.5 m) below finished grade where installed in unpaved areas.

Unless otherwise shown on the plans, duct banks under paved areas shall extend at least 3 feet (1 m) beyond the edges of the pavement or 3 feet (1 m) beyond any under drains that may be installed alongside the paved area. Trenches for duct banks shall be opened the complete length before concrete is placed so that if any obstructions are encountered, provisions can be made to avoid them. Unless otherwise shown on the plans, all duct banks shall be placed on a layer of concrete not less than 3 inches (75 mm) thick prior to its initial set. The Contractor shall space the conduits not less than 3 inch (75 mm) apart (measured from outside wall to outside wall). All such multiple conduits shall be placed using conduit spacers applicable to the type of conduit. As the conduit laying progresses, concrete shall be placed around and on top of the conduits not less than 3 inches (75 mm) thick unless otherwise shown on the plans. All conduits shall terminate with female ends for ease of access in current and future use. Install factory plugs in all unused ends. Do not cover the ends or plugs with concrete.

Conduits forming the duct bank shall be installed using conduit spacers. No. 4 reinforcing bars shall be driven vertically into the soil a minimum of 6 inches (150 mm) to anchor the assembly into the earth prior to placing the concrete encasement. For this purpose, the spacers shall be fastened down with locking collars attached to the vertical bars. Spacers shall be installed at 5-foot (1.5-m) intervals. Spacers shall be in the proper sizes and configurations to fit the conduits. Locking collars and spacers shall be submitted to the Engineer for review prior to use.

When specified, the Contractor shall reinforce the bottom side and top of encasements with steel reinforcing mesh or fabric or other approved metal reinforcement. When directed, the Contractor shall supply additional supports where the ground is soft and boggy, where ducts cross under roadways, or where shown on the plans. Under such conditions, the complete duct structure shall be supported on reinforced concrete footings, piers, or piles located at approximately 5-foot (1.5-m) intervals.

All pavement surfaces that are to have ducts installed therein shall be neatly saw cut to form a vertical face. All excavation shall be included in the contract with price for the duct.

Install a plastic, detectable, color as noted, 3 to 6 inches (75 to 150 mm) wide tape, 8 inches (200 mm) minimum below grade above all underground conduit or duct lines not installed under pavement. Utilize the 3-inch (75-mm) wide tape only for single conduit runs. Utilize the 6-inch (150-mm) wide tape for multiple conduits and duct banks. For duct banks equal to or greater than 24 inches (600 mm) in width, utilize more than one tape for sufficient coverage and identification of the duct bank as required.

When existing cables are to be placed in split duct, encased in concrete, the cable shall be carefully located and exposed by hand tools. Prior to being placed in duct, the Engineer shall be notified so that he may inspect the cable and determine that it is in good condition. Where required, split duct shall be installed as shown on the drawings or as required by the Engineer.

110-3.3 CONDUITS WITHOUT CONCRETE ENCASEMENT. Trenches for single-conduit lines shall be not less than 6 inches (150 mm) nor more than 12 inches (300 mm) wide. The trench for 2 or more conduits installed at the same level shall be proportionately wider. Trench bottoms for conduits without concrete encasement shall be made to conform accurately to grade so as to provide uniform support for the conduit along its entire length.

Unless otherwise shown on the plans, a layer of fine earth material, at least 4 inches (100 mm) thick (loose measurement) shall be placed in the bottom of the trench as bedding for the conduit. The bedding material shall consist of soft dirt, sand or other fine fill, and it shall contain no particles that would be retained on a 1/4 inch (6 mm) sieve. The bedding material shall be tamped until firm. Flowable backfill may alternatively be used.

Unless otherwise shown on plans, conduits shall be installed so that the tops of all conduits within the Airport's secured area where trespassing is prohibited are at least 18 inches (0.5 m) below the finished grade. Conduits outside the Airport's secured area shall be installed so that the tops of the conduits are at least 24 inches (60 cm) below the finished grade per National Electric Code (NEC), Table 300.5.

When two or more individual conduits intended to carry conductors of equivalent voltage insulation rating are installed in the same trench without concrete encasement, they shall be spaced not less than 3 inches (75 mm) apart (measured from outside wall to outside wall) in a horizontal direction and not less than 6 inches (150 mm) apart in a vertical direction. Where two or more individual conduits intended to carry conductors of differing voltage insulation rating are installed in the same trench without concrete encasement, they shall be placed not less than 3 inches (75 mm) apart (measured from outside wall to outside wall) in a horizontal direction and lot less than 6 inches (150 mm) apart in a vertical direction.

Trenches shall be opened the complete length between normal termination points before conduit is installed so that if any unforeseen obstructions are encountered, proper provisions can be made to avoid them.

Conduits shall be installed using conduit spacers. No. 4 reinforcing bars shall be driven vertically into the soil a minimum of 6 inches (150 mm) to anchor the assembly into the earth while backfilling. For this purpose, the spacers shall be fastened down with locking collars attached to the vertical bars. Spacers shall be installed at 5-foot (1.5-m) intervals. Spacers shall be in the proper sizes and configurations to fit the conduits. Locking collars and spacers shall be submitted to the Engineer for review prior to use.

110-3.4 MARKERS. The location of each end and of each change of direction of conduits and duct banks shall be marked by a concrete slab marker 2 feet (60 cm) square and 4 - 6 inches (100 - 150 mm) thick extending approximately one inch (25 mm) above the surface. The markers shall also be located directly above the ends of all conduits or duct banks, except where they terminate in a junction/access structure or building. Each cable or duct run from a line of lights and signs to the equipment vault must be marked at approximately every 200 feet (61 m) along the cable or duct run, with an additional marker at each change of direction of cable or duct run.

The Contractor shall impress the word "DUCT" or "CONDUIT" on each marker slab. Impression of letters shall be done in a manner, approved by the Engineer, for a neat, professional appearance. All letters and words must be neatly stenciled. After placement, all markers shall be given one coat of high-visibility orange paint, as approved by the Engineer. The Contractor shall also impress on the slab the number and size of conduits beneath the marker along with all other necessary information as determined by the Engineer. The letters shall be 4 inches (100 mm) high and 3 inches (75 mm) wide with width of stroke 1/2 inch (12 mm) and 1/4 inch (6 mm) deep or as large as the available space permits. Furnishing and installation of duct markers is incidental to the respective duct pay item.

110-3.5 BACKFILLING FOR CONDUITS. For conduits, 8 inches (200 mm) of sand, soft earth, or other fine fill (loose measurement) shall be placed around the conduits ducts and carefully tamped around and over them with hand tampers. The remaining trench shall then be backfilled and compacted per Item P-152 "Excavation and Embankment" except that material used for back fill shall be select material not larger than 4 inches (100 mm) in diameter.

Flowable backfill may alternatively be used.

Trenches shall not contain pools of water during back filling operations.

The trench shall be completely backfilled and tamped level with the adjacent surface; except that, where sod is to be placed over the trench, the backfilling shall be stopped at a depth equal to the thickness of the sod to be used, with proper allowance for settlement.

Any excess excavated material shall be removed and disposed of per instructions issued by the Engineer.

110-3.6 BACKFILLING FOR DUCT BANKS. After the concrete has cured, the remaining trench shall be backfilled and compacted per Item P-152 "Excavation and Embankment" except that the material used for backfill shall be select material not larger than 4 inches (100 mm) in diameter. In addition to the requirements of P-152, where duct banks are installed under pavement, one moisture/density test per lift shall be made for each 250 linear feet (76 m) of duct bank or one work period's construction, whichever is less.

Flowable backfill may alternatively be used.

Trenches shall not contain pools of water during backfilling operations.

The trench shall be completely backfilled and tamped level with the adjacent surface; except that, where sod is to be placed over the trench, the backfilling shall be stopped at a depth equal to the thickness of the sod to be used, with proper allowance for settlement.

Any excess excavated material shall be removed and disposed of per instructions issued by the Engineer.

110-3.7 Restoration. Where sod has been removed, it shall be replaced as soon as possible after the backfilling is completed. All areas disturbed by the work shall be restored to its original condition. The restoration shall include sodding, topsoiling, and seeding shown on the plans. The Contractor shall be held responsible for maintaining all disturbed surfaces and replacements until final acceptance. All restoration shall be considered incidental to the respective L-110 pay item. Following restoration of all trenching near airport movement surfaces, the Contractor shall thoroughly visually inspect the area for foreign object debris (FOD), and remove any such FOD that is found. This FOD inspection and removal shall be considered incidental to the pay item of which it is a component part.

METHOD OF MEASUREMENT

110-4.1 Underground conduits and duct banks shall be measured by the linear feet (meter) of conduits and duct banks installed, including encasement, locator tape, trenching and backfill with designated material, and for drain lines, the termination at the drainage structure, all measured in place, completed, and accepted. Separate measurement shall be made for the various types and sizes.

BASIS OF PAYMENT

110-5.1 Payment will be made at the contract unit price per linear foot for each type and size of conduit and duct bank completed and accepted, including trench and backfill with the designated material, and, for drain lines, the termination at the drainage structure. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item per the provisions and intent of the plans and specifications.

Payment will be made under:

Item L-110-5.1	Non-Encased Electrical Conduit, 1W-2"C- per Linear Foot
Item L-110-5.2	Encased Electrical Conduit, 1W-2"C, With Flowable Fill and Sawcut Pavement Repair – per Linear Foot

MATERIAL REQUIREMENTS

Advisory Circular (AC) 150/5340-30	Design and Installation Details for Airport Visual Aids
AC 150/5345-53	Airport Lighting Equipment Certification Program
ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement

ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3(2,700 kN-m/m^3))
ASTM D2167	Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method
ASTM D2922	Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
NFPA-70	National Electrical Code (NEC)
Underwriters Laboratories Standard 6	Electrical Rigid Metal Conduit - Steel
Underwriters Laboratories Standard 514B	Conduit, Tubing, and Cable Fittings
Underwriters Laboratories Standard 514C	Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers
Underwriters Laboratories Standard 1242	Electrical Intermediate Metal Conduit Steel
Underwriters Laboratories Standard 651	Schedule 40, 80, Type EB and A Rigid PVC Conduit and Fittings
Underwriters Laboratories Standard 651A	Type EB and A Rigid PVC Conduit and HDPE Conduit

END OF ITEM L-110

AIA® Document G701™ – 2001

Change Order

PROJECT *(Name and address)*:
Jefferson County Courthouse Phase 5
Mechanical and Safety Upgrades
1149 Pearl Street
Beaumont, Texas 77701

CHANGE ORDER NUMBER: 005R1
DATE: 10/31/16

OWNER: ☐
ARCHITECT: ☐
CONTRACTOR: ☐
FIELD: ☐
OTHER: ☐

TO CONTRACTOR *(Name and address)*:
N&T Construction Company, Inc.
1376 Lauren Avenue
Beaumont, Texas 77701

ARCHITECT'S PROJECT NUMBER: 4806.000 (former BAI Project #13018.001)
CONTRACT DATE: January 06, 2015
CONTRACT FOR: General Construction

THE CONTRACT IS CHANGED AS FOLLOWS:
(Include, where applicable, any undisputed amount attributable to previously executed Construction Change Directives)
Reduce retainage to 2%

The original Contract Sum was	$	4,182,253.10
The net change by previously authorized Change Orders	$	461,945.00
The Contract Sum prior to this Change Order was	$	4,644,198.10
The Contract Sum will be increased by this Change Order in the amount of	$	0.00
The new Contract Sum including this Change Order will be	$	4,644,198.10

The Contract Time will be increased by Zero (0) days.
The date of Substantial Completion as of the date of this Change Order therefore is unchanged

NOTE: This Change Order does not include changes in the Contract Sum, Contract Time or Guaranteed Maximum Price which have been authorized by Construction Change Directive until the cost and time have been agreed upon by both the Owner and Contractor, in which case a Change Order is executed to supersede the Construction Change Directive.

NOT VALID UNTIL SIGNED BY THE ARCHITECT, CONTRACTOR AND OWNER.

Shepley Bulfinch	N&T Construction Company, Inc.	Jefferson County Texas
ARCHITECT *(Firm name)*	**CONTRACTOR** *(Firm name)*	**OWNER** *(Firm name)*
55 Waugh Drive, Suite 450, Houston, Texas 77007	1376 Lauren Avenue, Beaumont, Texas 77701	1149 Pearl Street, Beaumont, TX 77701
ADDRESS	**ADDRESS**	**ADDRESS**
BY *(Signature)*	**BY** *(Signature)*	**BY** *(Signature)*
Mark C. Boone	Elaine Labbia	Honorable Jeff R. Branick, County Judge
(Typed name)	*(Typed name)*	*(Typed name)*
10/31/16	10/31/2016	October 31, 2016
DATE	**DATE**	**DATE**

REGISTERED ARCHITECT MARK C. BOONE 5293 STATE OF TEXAS

COMMISSIONERS COURT JEFFERSON COUNTY, TEXAS

ATTEST Carolyn L Guidry
DATE 10/31/16

AIA Document G701™ – 2001. Copyright © 1979, 1987, 2000 and 2001 by The American Institute of Architects. **All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.** This document was produced by AIA software at 06:05:19 on 10/31/2016 under Order No.2970451840_1 which expires on 12/18/2016, and is not for resale.
User Notes: (1833331787)

Certificate of Substantial Completion

Project: McFaddin National Wildlife Refuge Dune Ridge Restoration	
Owner: Jefferson County, Texas	Owner's Contract No.: BID 15-016/JW
Contract: Ike Round 2.2 BP225701-1_BID1	Engineer's Project No.: B395-1003

This [~~tentative~~] [definitive] Certificate of Substantial Completion applies to:

■ All Work under the Contract Documents: The following specified portions of the Work:

Including all increases/decreases in work as previously authorized by Change Orders 1 through 3

10/13/2016

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A [~~tentative~~] [definitive] list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:

□ Amended Responsibilities ■ Not Amended

Owner's Amended Responsibilities:

Contractor's Amended Responsibilities:

The following documents are attached to and made part of this Certificate:

Engineer's Substantial Completion Punch List

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

W. L. Wordham, P.E. — October 19, 2016

Executed by Engineer — Date

Vice President — 10/19/16

Accepted by Contractor — Date

Donald M. Rhea — 10/24/16

Accepted by Owner — Date

ATTEST:

Carolyn L. Guidry

Carolyn L. Guidry, County Clerk

JEFFERSON COUNTY, TEXAS

Jeff R. Branick, County Judge

Date: October 31, 2016

COMMISSIONERS COURT JEFFERSON COUNTY, TEXAS

BISHOP REAL ESTATE APPRAISERS, INC

4749 ODOM ROAD, SUITE 101
BEAUMONT, TEXAS 77706
409/898-8800

October 19, 2016

Ms. Jamey West
Assistant Purchasing Agent
1149 Pearl Street, First Floor
Beaumont, Texas 77701

Re: Appraisal Report of property on Viterbo Road, Jefferson County, Texas

Dear Ms. West,

In compliance with your request, I will provide an Appraisal Report of part of the former asphalt plant on Viterbo Road. The report will be in compliance with the rules and regulations of USPAP as well as those of the State of Texas. The fee for the Appraisal Report will be $2,000.00 with delivery within three weeks from the time I am authorized to begin. I understand there are some environmental issues but my valuation will be directed towards the underlying land valuation.

Please advise if you need printed copies otherwise we will email a PDF file to you. Should you have any questions, please contact me.

Respectively submitted,

BISHOP REAL ESTATE APPRAISERS, INC.

Jimmy W. Bishop

Jimmy W. Bishop, MAI
State Certified #TX-1320188-G
General Real Estate Appraiser

From: Lee Wheeler [mailto:lwheeler@wheeler-commercial.com]
Sent: Tuesday, October 25, 2016 10:19 AM
To: 'Jamey West'
Subject: RE: Jefferson County: Request for Quote - Listing of Property Located on Viterbo Road

Jamey,

We can list this property for the County based on the following terms:

- 12 months listing term
- 6% commission for the first $1M and 3% of everything thereafter to be paid at closing if another broker is involved.
- If no other broker is involved then we will only charge 4% commission to be paid at closing.

If you have any questions please contact me.

Texas law requires all license holders to provide the Information About Brokerage Services form to prospective clients.

Lee Y. Wheeler, III, CCIM
President
lwheeler@wheeler-commercial.com

Wheeler Commercial
470 Orleans 12th Floor
Beaumont, TX 77701
Wheeler-Commercial.com

o: 409.899.3300
f: 409.899.3301

JEFFERSON COUNTY PURCHASING DEPARTMENT
Deborah Clark, Purchasing Agent

1149 Pearl Street, Beaumont, TX 77701 Phone: 409-835-8593 Fax: 409-835-8456

MEMORANDUM

To: Commissioners' Court

From: Deborah Clark
Purchasing Agent

Date: October 25, 2016

Re: Disposal of Salvage Property

Consider and possibly approve disposition of salvage property as authorized by Local Government Code §263.152 (3), for broken or obsolete items.

Thank you.

JEFFERSON COUNTY, TEXAS
1149 PEARL STREET
BEAUMONT, TX 77701

DISPOSAL OF SALVAGE PROPERTY
October 31,2016

DEPARTMENT	DESCRIPTION OF PROPERTY	SERIAL NO.	ASSET NO.
COUNTY CLERK	(2) CHAIRS		
contact person: Jessica Grammer			
LAW LIBRARY	(40) WOODEN BOOKSHELVES		
contact person: Sylvia Moore			
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32765
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32766
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32767
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32768
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32769
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32770
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32773
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32774
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32775
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32776
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32777
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32778
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32779
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32780
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32781
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32782
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32783
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR		32784
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR	4171119	
EMERGENCY MANAGEMENT	BURDICK CARDIOVIVE DEFIBRILLATOR	4171146	
AIRPORT	CARDIAC SCIENCE DEFIBRILLATOR	4363273	
AIRPORT	LIFE PAC 500 DEFIBRILLATOR	12886638	

Approved by Commissioners' Court: _____

JEFFERSON COUNTY, TEXAS
1149 PEARL STREET
BEAUMONT, TX 77701

DISPOSAL OF SALVAGE PROPERTY
October 31,2016

DEPARTMENT	DESCRIPTION OF PROPERTY	SERIAL NO.	ASSET NO.
ENVIRONMENTAL CONTROL	LEGAL FILE CABINET		17209
ENVIRONMENTAL CONTROL	LEGAL FILE CABINET		
contact person: Heather Marshall-Dore			

Approved by Commissioners' Court: _____

DAKTRONICS QUOTE # 536773-1-4

FORD PARK
Danny Broussard
5115 Interstate 10 S
Beaumont, TX USA 77705
Phone: (409)951-5425
Fax: (409)951-5429
Email: dbroussard@fordpark.com

5/Aug/2016
Quote valid for: 120 days
Terms: Net 30 days from shipment
FOB: DESTINATION
Delivery: Call for Production Time

Reference: Baseball - BuyBoard Contract #423-13

Item No.	Model	Description	Qty	Price
1	**BA-2518-A-PV-F**	**PanaView® Baseball/Softball Scoreboard; Scoreboard Color: _____; Caption Color: _____** Cabinet Dimensions: 4' 0" H X 9' 0" W X 0' 8" D (Approx. Dimensions) Digit Type: PANAVIEW Digit Color: AMBER Max Power: 150 watts/display Weight: Unpackaged 96 lbs per display; Packaged 141 lbs per display	**12**	**$88,283.00**
	ID_24x108_O	24in x 9ft non-backlit sponsor/identification panel Weight: Packaged 60 lbs per display	12	
	AS-1600 Kit	All Sport® 1600 Control Console Kit	12	
	Outdoor Scoreboard Wire Communication	Communication Type: Wire (Cable not included)	12	
	Stripe; 0A-1091-0184	Border Stripe for BA-2518 Scoreboards; Color:_____	12	
	I-Beam Mounting Method (A)	For 2 I-Beams	12	
	Wire Outdoor 4 Conductor W-1234	22 AWG Twisted Pair Shielded Wire (Per Foot)	4500	
	Installation Supervision	On site installation supervision, service, and operator training. (Not to exceed 2 field days)	1	
	Physical Installation	See attachment A.	1	
2	**FREIGHT**	**Shipping to site**	**1**	**$1,217.00**
Services				
3	**G5C5-W**	**Five Year Warranty - Parts Coverage - G5G5**	**1**	
	On-site Labor	One Year Extended Service for on-site labor coverage	1	

Total Price Excluding Sales Tax: $89,500.00

Please reference listed sales literature: DD1569120 for On-site Labor, DD1628383 for G5C5-W, DD1739303 for BA-2518-A-PV-F, SL-04352 for AS-1600 Ki

Options

Please contact your sales representative for additional information

Angle Clamp Mounting Method (A)	**For 2 Tubes**	**12**	
Taxes	**Subject to change - Taxes will be charged if the buyer is not able to provide a tax exempt certificate. 8.25% Taxes**	**1**	**$7,544.00**

DAKTRONICS QUOTE # 536773-1-4

Leasing Program
If your purchase exceeds $25,000, you may qualify for our leasing program allowing you more flexibility to spread out the cost of your Daktronics display over of a period up to five (5) years. Benefits of our leasing program include fixed rate financing, non-appropriation clause, no prepayment penalty, and customizable payment schedules. Plus, at the end of the lease, the equipment is yours to keep with no additional balloon payments.

Sample payment options as follows:
$50,000 in total equipment cost = $10,700 per year
$100,000 in total equipment cost = $21,199 per year
$250,000 in total equipment cost = $52,899 per year
Payments based on 5 year/annual payment in advance structure. **Leasing is subject to credit approval and agreed upon documentation with Daktronics lending partner. Contact your Daktronics representative for additional options and details.

Exclusions:

- **Electrical Installation**
- **Foundation**
- **Hoist**
- **Signal Conduit**
- **Applicable Permits**
- **Electrical Switch Gear or Distribution Equipment**
- **Structure**
- **Power**
- **Engineering Certification**
- **Labor to Pull Signal Cable**
- **Taxes**
- **Front End Equipment**

Unless expressly stated otherwise in this Quote # 536773-1 Rev 4 or the attachments, If Daktronics performs installation of the Equipment, the price quoted does not include the following services pertaining to physical installations: digging of footings (including dirt removal), any materials fabrication, installation of steel cages, rebar, or bolt attachments, or pouring and finishing of concrete footings. Those service may be provided for an additional cost beyond the quoted price. Purchaser shall be fully responsible for any and all additional costs plus overhead in the event anything unexpected of any nature whatsoever is found while digging the footings including but are not limited to rock, water, utility lines, pipes or any other unforeseen circumstance. The Purchaser acknowledges and agrees that it is fully responsible for all site conditions.

Installation Responsibilities:

If applicable please reference Attachment A for Installation Responsibilities.

Ad/ID Copy Approval Process

Daktronics will process your proofs on orders that include advertising and identification panels. Your digital files and copy layouts should conform to graphic file standards document, SL-04116. The digital data files and copy layouts must be submitted at the time of your order and our proofs need to be approved two weeks prior to your initial anticipated ship date. Advertising and identification panels not receiving proof approvals in time will be shipped without copy in our standard finish.

Matt Braegelmann
PHONE: 443-545-4342
FAX: 605-697-4746
EMAIL: Matt.Braegelmann@daktronics.com

Jess Martin
PHONE: 605-692-0200
FAX:
EMAIL: Jess.Martin@daktronics.com

Terms And Conditions:

The Terms and Conditions which apply to this order available on request.

SL-02375 Standard Terms and Conditions of Sale	(www.daktronics.com/terms_conditions/SL-02375.pdf)
SL-02374 Standard Warranty and Limitation of Seller's Liability	(www.daktronics.com/terms_conditions/SL-02374.pdf)
SL-07862 Software License Agreement	(www.daktronics.com/terms_conditions/SL-07862.pdf)
SL-04116 Graphic File Standards	(www.daktronics.com/terms_conditions/SL-04116.pdf)

Acceptance:

The Undersigned has actual authority to execute this document and Daktronics, Inc is relying upon such authority.

The parties hereby acknowledge and agree that the terms and conditions contained within this Quote along with the terms and conditions of the Daktronics Standard Terms and Conditions, the Standard Warranty and Limitations of Liability, and/or the Software License Agreement (together, the "Terms and Conditions") constitute the full and final understanding of the parties regarding the sale of equipment and/or the provision of services and entirely replace and supersede any previous understanding or agreement between the parties. By executing this agreement, Purchaser acknowledges that it has had opportunity and means to review the Terms and Conditions as provided in the website addresses above. In the alternative, hardcopy of these Terms and Conditions will be provided upon request. Further it is acknowledged and agreed that the price of the equipment and/or the provision of services contained within this agreement are expressly conditioned upon Purchaser's acceptance of the Terms and Conditions without change. Any modification of the Terms and Conditions may require a corresponding change in price. Accordingly, the Purchaser acknowledges and agrees to these Terms and Conditions as evidenced by its attestation below.

Customer Signature _____ Date _____

Print Name _____ Title _____

DAKTRONICS QUOTE # 536773-1-4

Purchase Order Information:

FORD PARK PO# _____ PO Date _____

Purchaser hereby confirms that the equipment is to be delivered to, and may be installed by Purchaser or Daktronics (as indicated elsewhere herein) at the address indicated on page one (1) of the agreement unless otherwise specified below:

☐ Same as Bill to

Ship To:

Company

Contact Person

Address

City

State Zip

Telephone

Fax

Email

☐ Same as Ship to

End User:

*Company

Contact Person

Address

*City

*State *Zip

Telephone

Fax

Email

*Required Information

BILL TO (if different from quoted address):

Company

Contact Person

Address

City

State Zip

Telephone

Fax

Email

DAKTRONICS QUOTE # 536773-1-4

ATTACHMENT A
Installation Responsibilities Checklist: Outdoor

Responsible Party		Description
Daktronics	Customer	
	✓	1. Provide payment and performance Bond.
	✓	2. Secure necessary construction permits.
	✓	3. Provide existing utility drawings.
✓		4. Removal of existing equipment.
✓		5. Disposal of existing equipment.
✓		6. Generate and issue standard product attachment drawings.
✓		7. Generate and issue standard product electrical and signal drawings.
	✓	8. Provide approval of all engineering drawings, electrical drawings, shop drawings, equipment locations, color renderings, and ad copy layouts.
	✓	9. Provide soil investigation report at time of order.
	✓	10. Customer is responsible to ensure the existing structure/building is adequate, including any necessary modifications, for the installation of the Equipment, including but not limited to (i) obtaining certified engineer drawings to the extent required by law and (ii) providing Daktronics, upon reasonable request, documentation relating to the existing structure and modifications necessary for Daktronics perform its work.
	✓	11. Unobstructed access to equipment and control room installation site until display is 100%.
	✓	12. Mark location of the new Equipment as delineated in the quote.
	✓	13. Locate public underground utilities.
	✓	14. Locate private underground utilities.
	✓	15. Landscaping to include all.
	✓	16. Provide camera-ready artwork for ad panels, and logos at time of order.
✓		17. Provide all landscape protection, track, sidewalk, path, site restoration, and/or sprinkler system repair work.
✓		18. Site clean-up after Daktronics work.
✓		19. Crating and shipping of all equipment to facility via common or independent carrier.
✓		20. Accept, lift, unload, and inspect all scoring equipment and control equipment from carrier.
	✓	21. Provide storage of scoring equipment and control equipment in a safe, dry, and secure location until installation.
✓		22. Provide Equipment attachment hardware.
✓		23. Install Equipment attachment hardware.

DAKTRONICS QUOTE # 536773-1-4

✓		24. Excavation of direct imbed drilled pier foundation(s) including spoils removal. Pouring and finishing of concrete for footings. (Note: Daktronics assumes class 3 soil per the International Building Code to determine footing / structure estimates included in this quotation. In the event rock, water, or if soil conditions other than class 3 soil are encountered (including soft soils, unstable or collapsing soils, expansive soils, organic materials, or anything unexpected condition is encountered, the Customer will be responsible for any additional costs, plus overhead and profit of 20%).
✓		25. Steel fabrication and install support structure - excluding catwalk(s), ladder-way(s).
✓		26. Fabricate and install substructure.
✓		27. Prime and paint main support structure.
✓		28. Prime and paint substructure
✓		29. Lift and mount Equipment listed in this quotation.
	✓	30. Provide primary power feed up to and including demarcation point in the form of transformer and electrical disconnect with over current protection per all applicable electrical codes and regulations. Note: Maximum voltage of 120 volts line to neutral for all display systems.
✓		31. Provide secondary power conduits, distribution panel, power cable and power hook-up from the demarcation point to all Daktronics supplied load centers/termination panel at/within the Equipment.
	✓	32. Provide and install signal cable conduit, with pull string, from control location to each equipment location. Conduit to be located five (5) feet off grade on the structure, as delineated in the electrical and signal drawings.
✓		33. Provide and install signal cable conduit, with pull string, from five (5) feet off grade on structure to Equipment signal termination points, as delineated in the electrical and signal drawings.
✓		34. Furnish signal cable as delineated on the quote.
✓		35. Labor to pull all new signal cable (and remove existing cable, if required).
✓		36. Terminate signal cable at control location and scoring Equipment.
	✓	37. Provide a climate controlled and secure control room for all control systems. Normal operating temperature should be between 40° to 90° Fahrenheit (4° to 32° Celsius). Normal operating humidity should be less than 80% non-condensing. Storage temperature should be between -10° to 105° Fahrenheit (-23° to 41° Celsius). Storage humidity should be less than 95% non-condensing. Keep computers and monitors out of direct sunlight during storage. Allow control equipment taken out of storage to return to operating temperature range prior to turning it on (24 hours recommended).
	✓	38. Required power outlets on clean dedicated circuit(s) for all scoring and control equipment.
✓		39. Unpack, set-up, hook-up, and testing of control system.
✓	✓	40. Provide personnel for maintenance and operator training.
✓		41. Perform maintenance training during installation.
✓		42. Perform operator training.
✓		43. Perform final systems testing and commissioning.
	✓	44. Final acceptance, per DF-1252.

DAKTRONICS QUOTE # 536773-1-4

✓	✓	45. Walk-thru inspection at Substantial Completion and identification of punchlist items
✓		46. Completion of punch list items.

NOTE: All change order work performed by Daktronics or Daktronics subcontractor will be performed at cost plus 20% overhead and profit.

LJA Engineering, Inc.

3120 Fannin Street
Beaumont, Texas 77701
www.ljaengineering.com

Phone 409.833.3363
Fax 409.833.0317
TBPE № F-1386

September 14, 2016

Steve Stafford
Engineering Superintendent
Jefferson County
1149 Pearl Street
Beaumont, Texas 77701

Re: Environmental Consulting Services (Proposal No. 16-01464)
Stormwater Management Program Implementation

Mr. Stafford:

Submitted for your review is an estimated budget/scope of services, rate schedule, and the associated professional services agreement for the continued implementation of Jefferson County's Stormwater Management Program.

Costs for this project will be billed on a time and materials basis with an estimated cost of **$13,651.67**. These cost will not be exceeded without prior approval. Time will be billed according to the attached rate sheet.

We appreciate your consideration of our firm for this project. If this proposal meets with your approval, please provide a signature on the attached agreement and return to our office.

Sincerely,

John Concienne

John Concienne, CPESC
Senior Environmental Project Manager
LJA Engineering, Inc.
3120 Fannin Street
Beaumont, Texas 77701
Office: (409) 833-3363
Direct: (409) 554-8980
Cell: (409) 720-8818
Email: jconcienne@ljaengineering.com

LJA Engineering, Inc.

2929 Briarpark Drive
Suite 600
Houston, Texas 77042
TBPE № F-1386

Phone 713 953 5200
Fax 713 953 5026
www.ljaengineering.com
TBPLS № 10110501

PROFESSIONAL SERVICES AGREEMENT

This Agreement is by and between Jefferson County **(CLIENT)** and LJA Engineering, Inc. **(LJA)** who agree as follows: Client engages **LJA** to perform the services described in Part I ("Services") and **LJA** agrees to perform the Services for the compensation set forth in Part III. **LJA** shall be authorized to commence the Services upon execution of this Agreement. Client and **LJA** agree that this Agreement and attachments referred to herein, constitute the entire Agreement between them relating to the Project ("Agreement") and is only applicable to services provided by **LJA's Environmental Division**.

Project: Jefferson County Stormwater Quality Coalition FY 2017

Location: Jefferson County

Job No. / Proposal No.: 16-01464

I. **LJA ENGINEERING, INC.'S RESPONSIBILITIES: LJA** shall perform or furnish the services described under this Agreement.

See Attached Proposal No. 16-01464 Dated September 14, 2016

II. **CLIENT'S RESPONSIBILITIES:** Client, at its expense, shall do the following in a timely manner so as not to delay the Services.

1. **INFORMATION/REPORTS:** Furnish **LJA** with all reports, studies, site characterizations, regulatory orders, and similar information in its possession relating to the Project. Unless otherwise specified in Part I, **LJA** may rely upon Client-furnished information without independent verification in performing the Services.

2. **REPRESENTATIVE:** Designate a representative for the Project who shall have the authority to transmit instructions, receive information, interpret and define Client's policies, and make decisions with respect to the Services.

3. **DECISIONS:** Provide all criteria and full information as to Client requirements for the Project, obtain (with **LJA**'s assistance, if applicable) necessary approvals and permits, attend Project-related meetings, provide interim reviews on an agreed-upon schedule, make decisions on Project alternatives, and generally participate in the Project to the extent necessary to allow **LJA** to perform the Services.

III. **COMPENSATION, BILLING, AND PAYMENT:** Client shall pay **LJA** for Services in accordance with the following Billing Schedule.

1. **SERVICES:**
- X — Hourly Rates with An Estimated Fee $ **$13,651.67**
- _____ — Percentage of Construction Cost $ _____
- _____ — Lump Sum $ _____
- _____ — Other (Specify) _____

(Engineer's Hourly Rate Schedule is Attached as Attachment "A")

2. **REIMBURSABLE EXPENSES:** Reproduction, telephone, out-of-town travel expenses, and other non-labor charges directly related to the Project will be billed at cost in addition to the fees agreed upon for services rendered. Filing fees, permit fees, and other special charges which are advanced on behalf of the Client will be billed with the appropriate documentation attached.

3. **PAYMENTS:** Billings for services rendered will be made monthly and payment is requested within fifteen (15) days of receipt of invoice. Unless special arrangements are made, a finance charge of 1.5% per month will be added to unpaid balances more than thirty (30) days old as well as any costs of collections. **LJA** reserves the right to suspend work should invoices not be paid within the stated terms. The amount of any excise, VAT, or gross receipts tax that may be imposed for professional services shall be added to the compensation as determined above.

IV. **STANDARD TERMS AND CONDITIONS:**

1. **STANDARD OF CARE.** Services shall be performed in accordance with the standard of professional practice ordinarily exercised by the applicable profession at the time and within the locality where the Services are performed. Professional services are not subject to, and **LJA** cannot provide, any warranty or guarantee, express or implied, including warranties or guarantees contained in any uniform commercial code. Any such warranties or guarantees contained in any purchase orders, requisitions, or notices to proceed issued by Client are specifically objected to.

2. **CHANGE OF SCOPE.** The scope of Services set forth in this Agreement is based on facts known at the time of execution of this Agreement, including, if applicable, information supplied by Client. For some Projects involving conceptual or process development services, scope may not be fully definable during initial phases. As the Project progresses, facts discovered may indicate that scope must be redefined.

3. **SAFETY.** **LJA** has established and maintains corporate programs and procedures for the safety of its employees. Unless specifically included as a service to be provided under this Agreement, **LJA** specifically disclaims any authority or responsibility for general job site safety and safety of persons other than **LJA** employees.

4. **DELAYS.** If events beyond the control of Client or **LJA**, including, but not limited to, fire, flood, explosion, riot, strike, war, process shutdown, act of God or the public enemy, and act or regulation of any government agency, result in delay to any schedule established in this Agreement, such schedule shall be amended to the extent necessary to compensate for such delay. In the event such delay exceeds 60 days, **LJA** shall be entitled to an equitable adjustment in compensation.

5. **TERMINATION/SUSPENSION.** Either party may terminate this Agreement upon 30 days written notice to the other party. Client shall pay **LJA** for all Services, including profit relating thereto, rendered prior to termination, plus any expenses of termination.

In the event either party defaults in its obligations under this Agreement (including Client's obligation to make the payments required hereunder), the non-defaulting party may, after 7 days written notice stating its intention to suspend performance under the Agreement if cure of such default is not commenced and diligently continued, and failure of the defaulting party to commence cure within such time limit and diligently continue, suspend performance under this Agreement.

6. **INSURANCE.** LJA will maintain insurance coverage for Professional, Comprehensive, General, Automobile, Worker's Compensation, and Employer's Liability in amounts in accordance with legal, and LJA's business requirements. Certificates evidencing such coverage will be provided to Client upon request. For Projects involving construction, Client agrees to require its construction contractor, if any, to include LJA as an additional insured on its policies relating to the Project. LJA's coverages referenced above shall, in such case, be excess over contractor's primary coverage.

7. **INDEMNITY.** To the fullest extent permitted by law, LJA shall indemnify and hold harmless Client from and against loss, liability, and damages sustained by Client, its agents, employees, and representatives by reason of injury or death to persons or damage to tangible property to the extent caused directly by the failure to adhere to the standard of care described in Part IV Paragraph 1 above of LJA, its agents or employees.

   To the fullest extent permitted by law, Client shall defend, indemnify, and hold harmless LJA from and against loss, liability, and damages sustained by LJA, its agents, employees, and representatives by reason of claims for injury or death to persons, damages to tangible property, to the extent caused directly by any of the following: (a) any substance, condition, element, or material or any combination of the foregoing 1) produced, emitted or released from the Project or tested by LJA under this Agreement, or (b) operation or management of the Project. Client also agrees to require its construction contractor, if any, to include LJA as an indemnitee under any indemnification obligation to Client.

8. **LIMITATIONS OF LIABILITY.** No employee or agent of LJA shall have individual liability to Client. Client agrees that, to the fullest extent permitted by law, LJA's total liability to Client for any and all injuries, claims, losses, expenses or damages whatsoever arising out of or in any way related to the Project or this Agreement from any causes including, but not limited to, LJA's negligence, errors, omissions, strict liability, or breach of contract and whether claimed directly or by way of contribution shall not exceed the total compensation received by LJA for specific Project assignments. If Client desires a limit of liability greater than that provided above, Client and LJA shall include in Part III of this Agreement the amount of such limit and the additional compensation to be paid to LJA for assumption of such additional risk.

   IN NO EVENT AND UNDER NO CIRCUMSTANCES SHALL LJA BE LIABLE TO CLIENT FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES.

9. **ACCESS.** Client shall provide LJA safe access to any premises necessary for LJA to provide the Services.

10. **REUSE OF PROJECT DELIVERABLES.** Reuse of any documents or other deliverables, including electronic media, pertaining to the Project by Client for any purpose other than that for which such documents or deliverables were originally prepared, or alteration of such documents or deliverables without written verification or adaptation by LJA for the specific purpose intended, shall be at the Client's risk. Client agrees to defend, indemnify, and hold harmless LJA from all claims, damages, and expenses (including reasonable litigation costs) arising out of such reuse or alteration by Client or others acting through Client.

11. **AMENDMENT.** This Agreement, upon execution by the parties hereto, can be amended only by a written instrument signed by the parties.

12. **ASSIGNMENT.** Except for assignments (a) to entities which control, or are controlled by, the parties hereto or (b) resulting from operation of law, the rights and obligations of this Agreement cannot be assigned by any party without written permission of each other party. This Agreement shall be binding upon and inure to the benefit of any permitted assigns.

13. **STATUTES OF LIMITATION.** To the fullest extent permitted by law, the parties agree that, except for claims for indemnification, the time period for bringing claims under this Agreement shall expire one year after Project completion.

14. **DISPUTE RESOLUTION.** The parties shall attempt to settle disputes arising under this Agreement by discussion between the parties' senior representatives of management. If any dispute cannot be resolved in this manner, within a reasonable length of time, the parties agree to attempt non-binding mediations or any other method of alternative dispute resolution prior to filing any legal proceedings. In the event any actions are brought to enforce this Agreement, the prevailing party shall be entitled to collect its litigation costs including attorney's fees from the other party.

15. **NO WAIVER.** No waiver by either party of any default by the other party in the performance of any particular section of this Agreement shall invalidate any other section of this Agreement or operate as a waiver of any future default, whether like or different in character.

16. **NO THIRD-PARTY BENEFICIARY.** Nothing contained in this Agreement, nor the performance of the parties hereunder, is intended to benefit, nor shall inure to the benefit of, any third party, including Client's contractors, if any.

17. **SEVERABILITY.** The various terms, provisions and covenants herein contained shall be deemed to be separate and severable, and the invalidity or unenforceability of any of them shall not affect or impair the validity or enforceability of the remainder.

18. **AUTHORITY.** The persons signing this Agreement warrant that they have the authority to sign as, or on behalf of, the party for whom they are signing.

APPROVED FOR JEFFERSON COUNTY

By: _____

Printed Name: JEFF BRANICK

Title: County Judge

Date: 10-26-16

APPROVED FOR LJA ENGINEERING, INC.

By: _____

Printed Name: Calvin T. Ladner, PE

Title: President

Date: 9/15/16

ATTEST _____

DATE 10/31/16

D:\PROPOSAL\2016\Jefferson County\16-01464psa.doc
Revised 8/30/11

Attachment A

Jefferson County Stormwater Quality Coalition

Nederland, Port Neches, Groves, Port Arthur, Jefferson County, Jefferson County DD7

Estimated Budget

Key Implementation Tasks by MCM	Permit Year 4 FY (2017)
1.0 Public Education, Outreach, and Involvement	
Development of Public Education Materials	$13,027.00
Media Campaign	
Contractor Training and Outreach Program	
Reproduction Costs for Brochures, Flyers and other materials	
Conduct Public Meetings	
SWMP Committee Meetings	
Record Maintenance/Data Entry	
2.0 Illicit Discharge Detection and Elimination	
Ordinance Enforcement Assistance	$12,665.00
Outfall Screening	
Maintain/Update Outfall Inventory Map	
Record Maintenance/Data Entry	
3.0 Construction Site Stormwater Runoff Control	
Ordinance Enforcement Assistance	$24,962.00
Construction SWPPP Review	
Training Programs for Permitting Personnel	
Monitor Permittee Owned Construction Projects	
Construction Site Inspections and Enforcement	
Record Maintenance/Data Entry	
4.0 Post-Construction Stormwater Management	
Ordinance Enforcement Assistance	$11,237.00
Inspection of Post-Construction Controls	
Training Programs for Plan Review Personnel	
Plan Review Assistance	
Record Maintenance/Data Entry	
5.0 Good Housekeeping for Municipal Operations	
Employee Training Programs	$9,931.00
Municipal Facility Inspections	
Parking Lot Inspections	
Record Maintenance/Data Entry	
Additional Services	
Stakeholder Representation	$10,088.00
Development/Submittal of Annual Reports	
Total Annual Cost for Combined Activities	**$81,910.00**
Cost per participant (based on 6)	**$13,651.67**

*Items will be conducted according to the implementation schedules established in the SWMP.

LJA Engineering, Inc.

3120 Fannin Street
Beaumont, Texas 77701
www.ljaengineering.com

Phone 409.833.3363
Fax 409.833.0317
TBPE № F-1386

ENVIRONMENTAL DIVISION RATE SCHEDULE

Labor Classification	Hourly Rate
Senior Environmental Project Manager	$175.00
Senior Environmental Scientist	$175.00
Environmental Project Manager	$139.00
Environmental Scientist	$125.00
Environmental Technician I	$ 83.00
Environmental Technician II	$ 95.00
CADD Technician	$100.00

MEMORANDUM

TO: COMMISSIONERS COURT

FROM: **FRAN LEE**

SUBJECT: BUDGET TRANSFER

DATE: OCTOBER 26, 2016

The following FY 2016 budget transfer for the District Attorney is necessary for additional cost for books.

120-2030-412-3010	Books	$1,000	
120-2030-412-4052	Postage		$1,000

MEMORANDUM

TO: COMMISSIONERS COURT

FROM: **FRAN LEE**

SUBJECT: BUDGET TRANSFER

DATE: OCTOBER 26, 2016

The following FY 2016 budget transfer for the Beaumont Maintenance is necessary for additional cost for electricity.

120-6083-416-4056	Electricity	$25,000	
120-6083-416-2003	Employees Insurance		$25,000

G. MITCH WOODS

SHERIFF

JEFFERSON COUNTY CORRECTIONAL FACILITY
5030 HWY. 69 SOUTH
BEAUMONT, TEXAS 77705
Phone (409) 726-2500
Fax: (409) 726-2511

DEPUTY CHIEFS
Tim Smith – Law Enforcement
George Miller – Corrections

DEPUTY CHIEFS
Mark Dubois - Services
Ron Hobbs - Narcotics

TO: Fran Lee
Jefferson County Auditing Department

FROM: Deputy Chief Mark Dubois
Jefferson County Sheriff's Department

RE: Transfer Funds

DATE: October 25, 2016

Please transfer $6,950.00 from budget account 120-3062-423-40-11 (Equipment Miscellaneous) to budget account 120-3062-423-60-02 (Computer Equipment). This is for the purchase of a server for the IP Telephone System Voice Recording requested by MIS.

NAME	AMOUNT	CHECK NO.	TOTAL
JURY FUND			
TRI-CITY COFFEE SERVICE	499.10	426737	
			499.10**
ROAD & BRIDGE PCT.#1			
MUNRO'S	28.65	426709	
AT&T	64.56	426733	
S.E. TEXAS AUTO EQUIPMENT	598.58	426742	
SOUTHERN TIRE MART, LLC	171.80	426743	
DEPARTMENT OF INFORMATION RESOURCES	.03	426750	
UNITED STATES POSTAL SERVICE	.40	426765	
EDDIE ARNOLD	293.64	426789	
			1,157.66**
ROAD & BRIDGE PCT.#2			
APAC, INC. - TROTTI & THOMSOM	81.15	426670	
ENTERGY	87.85	426693	
MUNRO'S	20.00	426709	
RITTER @ HOME	69.90	426726	
DEPARTMENT OF INFORMATION RESOURCES	.10	426750	
BUMPER TO BUMPER	24.53	426787	
			283.53**
ROAD & BRIDGE PCT. # 3			
ADAMS BACKHOE SERVICE	453.00	426659	
CERTIFIED LABORATORIES	986.38	426676	
MUNRO'S	15.00	426709	
MUSTANG CAT	81,500.00	426710	
OFFICE DEPOT	522.32	426715	
AT&T	72.07	426733	
HOWARD'S AUTO SUPPLY	348.75	426747	
DEPARTMENT OF INFORMATION RESOURCES	.23	426750	
KNIFE RIVER	244.80	426798	
RELADYNE	511.43	426845	
FELIX AAA AUTO & TRUCK PARTS LLC	10.16	426868	
			84,664.14**
ROAD & BRIDGE PCT.#4			
A&A EQUIPMENT	192.36	426655	
ABLE FASTENER, INC.	6.11	426656	
CITY OF BEAUMONT - WATER DEPT.	19.60	426679	
ENTERGY	1,122.95	426693	
CASH ADVANCE ACCOUNT	659.90	426700	
M&D SUPPLY	362.93	426704	
MUNRO'S	77.80	426709	
OIL CITY TRACTORS, INC.	228.60	426716	
DEPARTMENT OF INFORMATION RESOURCES	.21	426750	
UNITED STATES POSTAL SERVICE	.80	426765	
G-BLAST SERVICE & SUPPLY	905.00	426780	
GALETON	48.40	426806	
GCR TIRES & SERVICE	155.00	426855	
			3,779.66**
ENGINEERING FUND			
ESRI - ENVIRONMENTAL SYSTEMS	2,000.00	426657	
BENTLEY SYSTEMS, INC.	1,754.00	426783	
			3,754.00**
PARKS & RECREATION			
ADAMS BACKHOE SERVICE	1,860.00	426659	
ENTERGY	342.99	426693	
M&D SUPPLY	109.19	426704	
TRACTOR SUPPLY CO	299.98	426797	
NORTHERN TOOL AND EQUIPMENT	275.69	426829	
			2,887.85**
GENERAL FUND			
TAX OFFICE			
KIRKSEY'S SPRINT PRINTING	24.95	426702	
OFFICE DEPOT	1,495.96	426715	
PITNEY BOWES, INC.	21.00	426721	

NAME	AMOUNT	CHECK NO.	TOTAL
POSTMASTER	215.00	426723	
ACE IMAGEWEAR	21.35	426731	
UNITED STATES POSTAL SERVICE	503.80	426765	
SUPERIOR PRESS	140.39	426821	
ROCHESTER ARMORED CAR CO INC	352.00	426824	
CINTAS CORPORATION	198.40	426876	
SOUTHERN SUPPLY	41.55	426877	
			3,014.40*
COUNTY HUMAN RESOURCES			
MOORMAN & ASSOCIATES, INC.	150.00	426708	
UNITED STATES POSTAL SERVICE	2.26	426765	
SOUTHEAST TEXAS OCCUPATIONAL MEDICI	75.00	426874	
			227.26*
AUDITOR'S OFFICE			
UNITED STATES POSTAL SERVICE	14.79	426765	
			14.79*
COUNTY CLERK			
OFFICE DEPOT	51.83	426715	
CDW COMPUTER CENTERS, INC.	54.38	426748	
UNITED STATES POSTAL SERVICE	297.78	426765	
WESTERN MICROGRAPHICS & IMAGING	795.00	426832	
			1,198.99*
COUNTY JUDGE			
CATHERINE BRUNEY	500.00	426697	
JOHN E MACEY	500.00	426705	
UNITED STATES POSTAL SERVICE	2.59	426765	
FRANCES BLAIR BETHEA	500.00	426814	
P DEAN BRINKLEY	500.00	426822	
WILLIAM MARCUS WILKERSON	500.00	426837	
WILLIAM FORD DISHMAN	500.00	426848	
JAN GIROUARD & ASSOCIATES LLC	400.00	426872	
			3,402.59*
RISK MANAGEMENT			
UNITED STATES POSTAL SERVICE	5.93	426765	
KIM ISAACS	28.89	426784	
			34.82*
COUNTY TREASURER			
UNITED STATES POSTAL SERVICE	217.54	426765	
			217.54*
PRINTING DEPARTMENT			
OLMSTED-KIRK PAPER	171.32	426717	
			171.32*
PURCHASING DEPARTMENT			
UNITED STATES POSTAL SERVICE	29.78	426765	
			29.78*
GENERAL SERVICES			
SPINDLETOP MHMR	32,990.75	426703	
OLMSTED-KIRK PAPER	2,260.00	426717	
TIME WARNER COMMUNICATIONS	606.89	426734	
NATIONAL ASSN. OF COUNTIES	5,045.00	426744	
CROWN CASTLE INTERNATIONAL	1,456.22	426782	
ROCHESTER ARMORED CAR CO INC	3,775.42	426824	
DYNAMEX INC	198.54	426849	
			46,332.82*
DATA PROCESSING			
SOUTHERN COMPUTER WAREHOUSE	1,269.16	426669	
OFFICE DEPOT	58.23	426715	
CDW COMPUTER CENTERS, INC.	529.24	426748	
VERIZON WIRELESS	75.98	426763	
GRAPHIC WORKS ADVERTISING & DESIGN	150.00	426881	
			2,082.61*
VOTERS REGISTRATION DEPT			

NAME	AMOUNT	CHECK NO.	TOTAL
GWEN GREEN	55.18	426691	
UNITED STATES POSTAL SERVICE	436.28	426765	
IHEART MEDIA	3,548.00	426860	
			4,039.46*
ELECTIONS DEPARTMENT			
HART INTER CIVIC	958.33	426694	
OFFICE DEPOT	119.90	426715	
UNITED STATES POSTAL SERVICE	407.16	426765	
SIERRA SPRING WATER CO. - BT	59.50	426767	
CAROLYN GUIDRY	27.04	426792	
WESTERN MICROGRAPHICS & IMAGING	757.58	426832	
			2,329.51*
DISTRICT ATTORNEY			
JEFFERSON CTY. YOUNG LAWYER'S ASSOC	100.00	426665	
FED EX	14.75	426689	
JEFFERSON CTY. BAR ASSOCIATION	153.00	426699	
CASH ADVANCE ACCOUNT	282.21	426700	
KIRKSEY'S SPRINT PRINTING	36.40	426702	
NELL MCCALLUM & ASSOC., INC.	239.48	426706	
NATIONAL DISTRICT ATTORNEY'S ASSN.	373.00	426712	
OFFICE DEPOT	493.11	426715	
ELIZABETH PARKS	300.70	426718	
UNITED STATES POSTAL SERVICE	179.88	426765	
THOMSON REUTERS-WEST	1,005.39	426840	
GEIGER LORIA FILLUS MCLUCAS REPORTI	335.00	426886	
			3,512.92*
DISTRICT CLERK			
OFFICE DEPOT	205.10	426715	
UNITED STATES POSTAL SERVICE	249.64	426765	
			454.74*
CRIMINAL DISTRICT COURT			
SECOND AD JUD REGION	1,121.73	426729	
KEVIN S. LAINE	2,681.00	426745	
JOHN D WEST	800.00	426751	
STEVEN GREENE	793.97	426847	
			5,396.70*
58TH DISTRICT COURT			
SECOND AD JUD REGION	1,121.73	426729	
UNITED STATES POSTAL SERVICE	.80	426765	
			1,122.53*
60TH DISTRICT COURT			
SECOND AD JUD REGION	1,121.73	426729	
UNITED STATES POSTAL SERVICE	.40	426765	
			1,122.13*
136TH DISTRICT COURT			
SECOND AD JUD REGION	1,121.73	426729	
UNITED STATES POSTAL SERVICE	.80	426765	
			1,122.53*
172ND DISTRICT COURT			
SECOND AD JUD REGION	1,121.73	426729	
			1,121.73*
252ND DISTRICT COURT			
EDWARD B. GRIPON, M.D., P.A.	595.00	426692	
PENGAD	114.31	426719	
SECOND AD JUD REGION	1,121.73	426729	
KEVIN S. LAINE	800.00	426745	
UNITED STATES POSTAL SERVICE	151.78	426765	
JUDGE RAQUEL WEST	24.90	426775	
LANGSTON ADAMS	900.00	426776	
			3,707.72*
279TH DISTRICT COURT			
DAVID GROVE	150.00	426663	
OFFICE DEPOT	371.09	426715	

NAME	AMOUNT	CHECK NO.	TOTAL
ANITA F. PROVO	75.00	426724	
SECOND AD JUD REGION	1,121.73	426729	
UNITED STATES POSTAL SERVICE	.40	426765	
LEXIS-NEXIS	56.00	426766	
LANGSTON ADAMS	75.00	426776	
JOEL WEBB VAZQUEZ	75.00	426786	
KIMBERLY PHELAN, P.C.	712.50	426795	
ANGELA L MORMAN	210.00	426799	
JONATHAN L. STOVALL	75.00	426826	
WILLIAM MARCUS WILKERSON	75.00	426837	
MELANIE AIREY	150.00	426863	
LAW OFFICE OF J SCOTT FREDERICK	75.00	426864	
ANDREW P GERTZ	150.00	426866	
GORDON D FRIESZ	225.00	426867	
			3,596.72*
317TH DISTRICT COURT			
ALISA RAUMAKER, CSR	74.40	426666	
PHILLIP DOWDEN	625.00	426667	
TERRENCE HOLMES	75.00	426696	
OFFICE DEPOT	157.69	426715	
SECOND AD JUD REGION	1,121.73	426729	
KEVIN PAULA SEKALY PC	325.00	426730	
GLEN M. CROCKER	150.00	426771	
LANGSTON ADAMS	500.00	426776	
JUDY PAASCH	2,323.90	426788	
TONYA CONNELL TOUPS	150.00	426801	
MATUSKA LAW FIRM	325.00	426853	
TARA SHELANDER	75.00	426854	
MELANIE AIREY	575.00	426863	
LAW OFFICE OF J SCOTT FREDERICK	75.00	426864	
			6,552.72*
JUSTICE COURT-PCT 1 PL 1			
UNITED STATES POSTAL SERVICE	32.40	426765	
			32.40*
JUSTICE COURT-PCT 4			
DEPARTMENT OF INFORMATION RESOURCES	.36	426750	
			.36*
JUSTICE COURT-PCT 6			
UNITED STATES POSTAL SERVICE	19.96	426765	
			19.96*
JUSTICE COURT-PCT 7			
AT&T	31.17	426733	
DEPARTMENT OF INFORMATION RESOURCES	.28	426750	
			31.45*
JUSTICE OF PEACE PCT. 8			
OFFICE DEPOT	901.57	426715	
			901.57*
COUNTY COURT AT LAW NO.1			
SECOND AD JUD REGION	1,121.72	426729	
UNITED STATES POSTAL SERVICE	1.40	426765	
SIERRA SPRING WATER CO. - BT	78.21	426769	
JOHN WOOLDRIDGE	125.84	426858	
			1,327.17*
COUNTY COURT AT LAW NO. 2			
CASH ADVANCE ACCOUNT	1,173.98	426700	
OFFICE DEPOT	1,066.65	426715	
SECOND AD JUD REGION	1,121.72	426729	
CHARLES ROJAS	250.00	426749	
UNITED STATES POSTAL SERVICE	4.79	426765	
SAMUEL & SON LAW FIRM PLLC	250.00	426857	
AMY TOMLINSON	250.00	426870	
JANSON ELLIOTT BAILEY	250.00	426873	
ASHLEY CEDILLO	250.00	426875	
			4,617.14*
COUNTY COURT AT LAW NO. 3			

NAME	AMOUNT	CHECK NO.	TOTAL
GAYLYN COOPER	250.00	426661	
DAVID GROVE	250.00	426663	
SECOND AD JUD REGION	1,121.72	426729	
UNITED STATES POSTAL SERVICE	12.04	426765	
ALEX BILL III	250.00	426827	
			1,883.76*
COURT MASTER			
SECOND AD JUD REGION	1,121.72	426729	
VERIZON WIRELESS	136.87	426763	
UNITED STATES POSTAL SERVICE	45.91	426765	
			1,304.50*
MEDIATION CENTER			
UNITED STATES POSTAL SERVICE	4.79	426765	
			4.79*
COMMUNITY SUPERVISION			
OFFICE DEPOT	629.99	426715	
			629.99*
SHERIFF'S DEPARTMENT			
GUARDIAN FORCE	111.00	426660	
CHEMAX CORP.	7,259.79	426677	
EQUINE MEDICINE & SURGERY	84.00	426687	
JEFFERSON CTY. SHERIFF'S DEPARTMENT	818.00	426698	
MOORMAN & ASSOCIATES, INC.	1,200.00	426708	
NATIONAL DIRECTORY OF LAW ENFOR.	894.00	426711	
OFFICE DEPOT	77.44	426715	
DEPARTMENT OF INFORMATION RESOURCES	.77	426750	
UNITED STATES POSTAL SERVICE	980.37	426765	
BEAUMONT OCCUPATIONAL SERVICE, INC.	131.80	426772	
FIVE STAR FEED	193.40	426781	
TEXAS CODE BLUE LLC	148.00	426785	
SIMCOM TRAINING CENTER	7,860.00	426794	
GUIDANCE SOFTWARE	654.54	426820	
RITA HURT	275.00	426831	
SOUR LAKE VETERINARY CLINIC	86.00	426836	
SILSBEE FORD INC	33,726.25	426850	
			54,500.36*
CRIME LABORATORY			
GUARDIAN FORCE	156.00	426660	
OFFICE DEPOT	14.09	426715	
VERIZON WIRELESS	113.97	426762	
AIRGAS SOUTHWEST	168.03	426804	
FITZCO	250.75	426816	
DPS REPROGRAPHICS & DISTRIBUTION	195.00	426834	
JULIE HANNON	600.00	426841	
			1,497.84*
JAIL - NO. 2			
HILO / O'REILLY AUTO PARTS	174.15	426658	
CITY OF BEAUMONT - WATER DEPT.	12,747.94	426679	
ECOLAB	399.90	426686	
FAST SIGNS, INC.	133.47	426688	
W.W. GRAINGER, INC.	112.60	426690	
HERNANDEZ OFFICE SUPPLY, INC.	519.96	426695	
M&D SUPPLY	76.92	426704	
SHERWIN-WILLIAMS	38.35	426732	
SOUTHERN TIRE MART, LLC	2,138.20	426743	
DEPARTMENT OF INFORMATION RESOURCES	2.27	426750	
LOWE'S HOME CENTERS, INC.	49.41	426773	
INTERCONTINENTAL JET CORP	4,771.02	426790	
BELT SOURCE	15.76	426796	
WORLD FUEL SERVICES	416.96	426813	
FIVE STAR CORRECTIONAL SERVICE	17,636.00	426818	
A1 FILTER SERVICE COMPANY	737.60	426830	
TROOP INDUSTRIAL	105.00	426835	
CONMED INC	261,359.83	426838	
KROPP HOLDINGS INC	722.33	426844	
AERO PERFORMANCE	8,957.30	426852	
CLEAR HANDBAGS & MORE	400.00	426865	

NAME	AMOUNT	CHECK NO.	TOTAL
LONE STAR UNIFORMS	2,613.00	426869	
SOUTHERN SUPPLY	289.10	426877	
			314,417.07*
JUVENILE PROBATION DEPT.			
CASH ADVANCE ACCOUNT	706.70	426700	
VERIZON WIRELESS	66.80	426763	
UNITED STATES POSTAL SERVICE	8.01	426765	
			781.51*
JUVENILE DETENTION HOME			
AMERICAN RED CROSS, INC.	103.00	426668	
CITY OF BEAUMONT - WATER DEPT.	2,352.80	426679	
EPS	160.00	426685	
SANITARY SUPPLY, INC.	1,817.56	426728	
JOHN C. WHITE, D.D.S.	150.00	426740	
			4,583.36*
CONSTABLE PCT 1			
VERIZON WIRELESS	227.94	426763	
UNITED STATES POSTAL SERVICE	53.46	426765	
SILSBEE FORD INC	332.70	426850	
ENGINEERING INNOVATION	209.26	426885	
			823.36*
CONSTABLE-PCT 2			
VERIZON WIRELESS	113.97	426763	
			113.97*
CONSTABLE-PCT 4			
DEPARTMENT OF INFORMATION RESOURCES	.02	426750	
VERIZON WIRELESS	113.97	426763	
			113.99*
CONSTABLE-PCT 6			
VERIZON WIRELESS	113.97	426763	
UNITED STATES POSTAL SERVICE	11.23	426765	
			125.20*
CONSTABLE PCT. 7			
KAY ELECTRONICS, INC.	308.00	426701	
AT&T	31.17	426733	
VERIZON WIRELESS	113.97	426763	
			453.14*
CONSTABLE PCT. 8			
VERIZON WIRELESS	113.97	426763	
THE PRODUCTIVITY CENTER	317.00	426770	
			430.97*
AGRICULTURE EXTENSION SVC			
UNITED STATES POSTAL SERVICE	11.19	426765	
TEXAS PLANT PROTECTION ASSOCIATION	85.00	426861	
TEXAS PLANT PROTECTION ASSOCIATION	85.00	426862	
CHINATU GLADRICH	264.54	426878	
			445.73*
HEALTH AND WELFARE NO. 1			
BROUSSARD'S MORTUARY	122.05	426672	
CALVARY MORTUARY	1,500.00	426675	
CLAYBAR FUNERAL HOME, INC.	2,749.00	426681	
AUSTIN CECIL WALKES MD PA	3,245.08	426739	
UNITED STATES POSTAL SERVICE	100.42	426765	
			7,716.55*
HEALTH AND WELFARE NO. 2			
BROUSSARD'S MORTUARY	3,000.00	426673	
CLAYBAR FUNERAL HOME, INC.	999.00	426682	
MERCY FUNERAL HOME	1,500.00	426707	
AT&T	31.17	426733	
TIME WARNER COMMUNICATIONS	112.37	426736	
AUSTIN CECIL WALKES MD PA	3,245.08	426739	
HEB - PORT ARTHUR	72.42	426803	

NAME	AMOUNT	CHECK NO.	TOTAL
ATTABOY TERMITE & PEST CONTROL	40.50	426811	
			9,000.54*
NURSE PRACTITIONER			
GEORGE V. ZUZUKIN, M.D.	1,000.00	426664	
SIERRA SPRING WATER CO. - BT	15.59	426768	
LESLIE LITTLE	30.00	426859	
			1,045.59*
ENVIRONMENTAL CONTROL			
CASH ADVANCE ACCOUNT	1,147.34	426700	
POSTMASTER	282.00	426722	
DEPARTMENT OF INFORMATION RESOURCES	.08	426750	
			1,429.42*
INDIGENT MEDICAL SERVICES			
OFFICE DEPOT	345.87	426715	
CARDINAL HEALTH 110 INC	3,938.16	426843	
			4,284.03*
EMERGENCY MANAGEMENT			
VERIZON WIRELESS	150.00	426761	
			150.00*
MAINTENANCE-BEAUMONT			
GUARDIAN FORCE	872.00	426660	
CITY OF BEAUMONT - WATER DEPT.	13,662.94	426679	
COBURN'S, BEAUMONT BOWIE (1)	602.06	426683	
W.W. GRAINGER, INC.	776.45	426690	
ENTERGY	45,633.17	426693	
M&D SUPPLY	24.24	426704	
OFFICE DEPOT	375.27	426715	
RALPH'S INDUSTRIAL ELECTRONICS	8.82	426727	
SANITARY SUPPLY, INC.	2,862.89	426728	
ACE IMAGEWEAR	390.78	426731	
AT&T	5,150.63	426733	
DEPARTMENT OF INFORMATION RESOURCES	5,275.41	426750	
ULTRA-CHEM, INC.	583.77	426777	
			76,218.43*
MAINTENANCE-PORT ARTHUR			
GUARDIAN FORCE	407.04	426660	
CITY OF PORT ARTHUR - WATER DEPT.	530.90	426680	
AT&T	1,342.86	426733	
DEPARTMENT OF INFORMATION RESOURCES	.29	426750	
TEXAS GAS SERVICE	317.15	426779	
DRAGO SUPPLY	295.60	426815	
CARRIER ENTERPRISE LLC	51.54	426842	
			2,945.38*
MAINTENANCE-MID COUNTY			
ENTERGY	424.98	426693	
ACE IMAGEWEAR	60.24	426731	
A1 FILTER SERVICE COMPANY	99.50	426830	
			584.72*
SERVICE CENTER			
SPIDLE & SPIDLE	7,675.50	426662	
MUNRO'S	39.45	426709	
PHILPOTT MOTORS, INC.	38.58	426720	
VIN'S PAINT & BODY, INC.	10,870.48	426746	
JEFFERSON CTY. TAX OFFICE	7.50	426753	
JEFFERSON CTY. TAX OFFICE	7.50	426754	
JEFFERSON CTY. TAX OFFICE	16.75	426755	
JEFFERSON CTY. TAX OFFICE	16.75	426756	
JEFFERSON CTY. TAX OFFICE	16.75	426757	
JEFFERSON CTY. TAX OFFICE	7.50	426758	
JEFFERSON CTY. TAX OFFICE	7.50	426759	
JEFFERSON CTY. TAX OFFICE	7.50	426760	
BUMPER TO BUMPER	453.50	426787	
TASCO	163.07	426793	
LIBERTY TIRE RECYCLING LLC	127.05	426809	
			19,455.38*
VETERANS SERVICE			

NAME	AMOUNT	CHECK NO.	TOTAL
OFFICE DEPOT	107.76	426715	
UNITED STATES POSTAL SERVICE	1.78	426765	
HILARY GUEST	114.26	426778	
			223.80*
			602,899.76**
MOSQUITO CONTROL FUND			
MUNRO'S	82.20	426709	
TIME WARNER COMMUNICATIONS	75.33	426735	
DEPARTMENT OF INFORMATION RESOURCES	.05	426750	
AIRGAS SOUTHWEST	46.24	426804	
INTERSTATE ALL BATTERY CENTER - BMT	117.95	426810	
JEFFERSON COUNTY AGRICUTLURE COMM	50.00	426819	
			371.77**
J.C. FAMILY TREATMENT			
JUDY PAASCH	50.00	426788	
PATRICIA VELASCO	20.00	426871	
			70.00**
LAW LIBRARY FUND			
LEXISNEXIS MATTHEW BENDER	992.71	426774	
THOMSON REUTERS-WEST	2,619.68	426839	
			3,612.39**
EMPG GRANT			
VERIZON WIRELESS	43.54	426761	
ALL ABOUT COINS	1,148.00	426879	
			1,191.54**
JUVENILE GRANT R			
CDW COMPUTER CENTERS, INC.	237.58	426748	
			237.58**
JUVENILE PROB & DET. FUND			
VERIZON WIRELESS	33.90	426763	
			33.90**
GRANT A STATE AID			
VERIZON WIRELESS	32.15	426763	
			32.15**
COMMUNITY SUPERVISION FND			
BEAUMONT TROPHIES	60.70	426671	
TDCJ - CASHIER'S OFFICE	786.00	426674	
DEPARTMENT OF INFORMATION RESOURCES	1.36	426750	
VERIZON WIRELESS	121.08	426763	
UNITED STATES POSTAL SERVICE	123.23	426765	
JCCSC	366.00	426825	
STACY TULLIER	57.24	426828	
			1,515.61**
JEFF. CO. WOMEN'S CENTER			
ENTERGY	1,374.68	426693	
FRED PRYOR SEMINARS & CAREER TRACK	99.00	426725	
BURT WALKER PARTNERS, LTD	4,500.00	426738	
DEPARTMENT OF INFORMATION RESOURCES	.42	426750	
VERIZON WIRELESS	32.15	426763	
DAVID HELTON	120.00	426817	
LATOYA MCCOY	9.72	426882	
			6,135.97**
DRUG DIVERSION PROGRAM			
WILLIAM LOFTON	49.00	426805	
			49.00**
LAW OFFICER TRAINING GRT			
OVERTON'S INC	5,324.44	426807	
			5,324.44**
REGIONAL COMM. SAVNS			
DEPARTMENT OF INFORMATION RESOURCES	533.28	426750	
			533.28**
COUNTY RECORDS MANAGEMENT			

NAME	AMOUNT	CHECK NO.	TOTAL
CDW COMPUTER CENTERS, INC.	1,643.17	426748	
			1,643.17**
UNCLAIMED FUNDS MGMT FUND			
ANTHONY DENARD MAYO	75.00	426884	
			75.00**
J.P. COURTROOM TECH. FUND			
VERIZON WIRELESS	189.95	426763	
			189.95**
HOTEL OCCUPANCY TAX FUND			
DEPARTMENT OF INFORMATION RESOURCES	4.56	426750	
UNITED STATES POSTAL SERVICE	3.04	426765	
			7.60**
AIRPORT FUND			
SPIDLE & SPIDLE	768.20	426662	
WORTH HYDROCHEM	120.00	426741	
DEPARTMENT OF INFORMATION RESOURCES	.42	426750	
E. SULLIVAN ADVERTISING & DESIGN	14,215.00	426752	
VERIZON WIRELESS	75.98	426763	
UNITED STATES POSTAL SERVICE	.40	426765	
AMERICAN FLAG STORE	413.00	426808	
UNIFIRST HOLDINGS INC	126.26	426812	
MEMBER'S BUILDING MAINTENANCE LLC	4,340.22	426846	
SOUTHEAST TEXAS PARTS AND EQUIPMENT	123.15	426851	
EASTERN AVIATION FUELS INC	29,607.97	426856	
			49,790.60**
AIRPORT IMPROVE. GRANTS			
TOLUNAY-WONG ENGINEERS INC	250.00	426823	
			250.00**
SETEC FUND			
INDUSTRIAL & COMMERCIAL MECHANICAL	1,652.00	426833	
			1,652.00**
WORKER'S COMPENSATION FD			
TRISTAR RISK MANAGEMENT	4,776.23	426791	
			4,776.23**
BAIL BONDING FUND			
ROBERT STONE	100.00	426883	
			100.00**
APPELLATE JUDICIAL SYSTEM			
9TH COURT OF APPEALS	2,325.00	426802	
			2,325.00**
CNTY & DIST COURT TECH FD			
VERIZON WIRELESS	227.98	426763	
			227.98**
MARINE DIVISION			
DEPARTMENT OF INFORMATION RESOURCES	202.24	426750	
THE DINGO GROUP-PETE JORGENSON MARI	511.58	426800	
			713.82**
SHERIFF - COMMISSARY			
CURTIS 1000, INC.	1,109.89	426684	
			1,109.89**
FY 2016 PORT SECURITY GRT			
PARAVION TECHNOLOGY INC	23,680.00	426880	
			23,680.00**
			805,574.57***

AGENDA ITEM **October 31, 2016**

Consider, possibly approve and authorize the County Judge to execute the Jefferson County/Ford Park Use License Agreement between Jefferson County and the Julie Rogers Gift of Life Program for the use of the Ford Park premises for April 18-19, 2017 for the Champagne & Ribs Benefit.

JEFFERSON COUNTY/ FORD PARK
USE LICENSE AGREEMENT

THIS **USE LICENSE AGREEMENT** (the "Agreement") is made this **20th** day of **October, 2016**, by and between Jefferson County, TX ("LICENSOR") and **The Julie Rogers Gift of Life Program,** whose current address is **2390 Dowlen Road, Beaumont, TX 77706** ("LICENSEE").

NOTE: NO ALTERATIONS MAY BE MADE TO THIS AGREEMENT WITHOUT NOTICE TO AND APPROVAL BY LICENSOR.

NOW, THEREFORE, in consideration of the foregoing, and the mutual promises, covenants and agreements herein contained the parties hereto, intending to be legally bound, hereby agree as follows:

1) GRANT OF LICENSE. Jefferson County hereby grants LICENSEE, upon the terms and conditions hereinafter expressed, a license:
   a) To use the area(s) of the Facility described here: **Ford Arena, Lobby, South End of the Arena, Dressing Rooms, Midway Lot**
   b) Solely for the purpose of the presentation of: **Champagne & Ribs**
   c) Effective on the following dates and times, unless earlier terminated as set forth in the "Default, Termination and Other Remedies" Section of this license or otherwise herein,

Authorized Area	Day, Date and Time of Use	Purpose
Ford Arena, Lobby, Midway Lot, South End of Arena, Dressing Rooms	Tuesday- Wednesday, April 18-19, 2017 8am – 5pm	Move-in
	Thursday, April 20, 2017 8am-5pm	Move-in
Ford Arena	Thursday, April 20, 2017 5:30pm – 6:30pm	VIP Reception
	6:30pm – 10:00pm	Main Event
	10pm – midnight	Move-out
Ford Arena	Friday, April 21, 2017 8am-5pm	Move-out

The use of the Facility as described in 1) a), b) and c) above shall hereinafter be referred to as the "Event".

2) LICENSE FEE AND OTHER EXPENSES. In consideration of the grant of this license, LICENSEE shall pay to Jefferson County a License Fee and other prescribed amounts, and shall reimburse Jefferson County for certain expenses ("Reimbursable Services Expenses"), as described and prescribed in this section 2), as follows:

a) (i) **License Fee**. LICENSEE shall pay to LICENSOR a fee of **Six Thousand and No/100 Dollars ($6,000.00) as rental fee for the Authorized Areas for this event which includes a 50% rental discount for 501c3 status.**

Fee:

- The License Fee **includes** the following items: Rental fee for two move-in days, one event day and one move-out day; facility-owned tables/chairs; facility-owned curtaining and pipe/drape; staging/risers; use of facility-owned scissor-lift (driver fee not included). This is not an all-in fee.

Licensee Initials

- The License Fee does **not include,** among other exclusions, the following: staffing (housekeeping, event services, set-up/tear-down labor, alcohol ID stations) catering, officers, phone & internet connections, A/V or any rented furniture or equipment.
- Costs for Ford Park staffing listed above will be billed at prevailing rates; officers are billed at Ford Park cost which is $35/hr*; costs will be billed at settlement.

  *Officers must be at events which serve alcohol. Gift of Life may provide officers on their own if officers send a letter on letterhead stating they are donating their time, will be in uniform and will not be participating in the event.

b) **Reimbursable Services Expense**.

LICENSOR shall provide, as required for each Event, the following services and equipment, the expenditure for, and costs of, which are reimbursable by LICENSEE to LICENSOR ("Reimbursable Services Expense") unless specifically included in the License Fee as described in 2 (a) above. These Reimbursable Services Expenses include, but are not limited to, the following expenses, costs and charges**:** event services staff, electricians, ushers, supervisors, and any other LICENSOR employee necessary for the preparation and presentation of the Event; and services provided by LICENSOR, including police officer(s), fire marshal(s), EMT(s) (required for all events serving alcohol and/or sporting events), catering, food and beverage services, insurance coverage, security personnel, electricians. All equipment or services will be billed at prevailing rates and all staff will be billed at prevailing wage rate for positions held and tasks performed for the time period worked as furnished by LICENSOR at the request of LICENSEE or required by LICENSOR to properly prepare for and present the Event. Notwithstanding anything contained herein to the contrary, LICENSOR shall determine the level of staffing necessary for the Event in its sole discretion, after consultation with, and input from, LICENSEE. LICENSEE shall inform LICENSOR at least two weeks in advance of the Event, in writing, of its requirements for services and equipment in support of the Event. In the event LICENSEE fails to so inform LICENSOR, then the decisions of LICENSOR as to necessary services and support shall control.

c) It is understood and agreed that there will be food and beverage and/or alcoholic beverage sales during the Event, and that LICENSOR, or its designated concessionaire, shall retain exclusively any and all revenues from the sale thereof, and LICENSEE shall have no rights to or claims thereon.

Deposit & contract due dates:

d) LICENSEE shall pay to LICENSOR Jefferson County a ***non-refundable deposit*** in the amount of **One Thousand and No/100 Dollars ($1,000.00)** in the form of a cashier's check, wire transfer, cash, or other immediately negotiable form, which is due **at contract execution**. Upon receipt by, and a majority vote to approve by Jefferson County Commissioners' Court, a fully executed copy of this Agreement will then be forwarded to LICENSEE. Any other amounts due to hereunder for Reimbursable Services Expenses, or other amounts as specified herein, will be due upon Final Settlement.

Licensee Initials

e) If LICENSEE cancels said Event, the LICENSEE shall reimburse **LICENSOR** for its actual costs and expenses incurred in connection with scheduling personnel and services, and advertising and marketing expenses, if applicable, and LICENSOR shall retain the deposit as described above.

3. ADVERTISING

A) LICENSEE, having been so informed by LICENSOR, understands that LICENSOR has entered into and/or may hereafter (prior to the Event) enter into agreements with parties other than LICENSEE providing for, among other things, exclusive naming rights, exclusive event sponsorship rights, exclusive category advertising rights, exclusive signage and display rights and/or exclusive product brand, pouring and/or service rights in and relating to the Facility and that LICENSOR may be required, pursuant to one or more of such other agreements, to give notice of all booked events in the Facility to the holders of such rights for the purpose of initiating consideration and communications, at the option of such holders, regarding sponsorship of such events, the Facility. Neither LICENSOR nor such sponsors have any rights relating specifically to the Event without the prior written approval and consent of LICENSEE. With such understanding, LICENSEE acknowledges and agrees (i) that LICENSEE and its officers, employees, agents, contractors and subcontractors, including but not limited to all persons producing, promoting, advertising, staging, directing, performing, presenting, conducting and/or otherwise participating in the Event, shall, subject to performing artist approval, cooperate fully with LICENSOR in its adherence to and performance of such other agreements to the extent that adherence does not compromise or unreasonably interfere with the performance or production of the Event or conflict with any tour sponsorship requirements of the performing artists and comply with all requirements imposed by LICENSOR arising from or relating to such other agreements in connection with LICENSEE's use of the Facility, including but not limited to due observance of all Facility branding and naming rights and proper use of the Facility name and logos and the LICENSOR name and logo in all advertising and other communications concerning or relating to the Event; (ii) that LICENSEE shall not for any reason or purpose cover or otherwise alter or interfere with any displays, advertising, graphics, signage and/or other electronic or printed media in or about the Facility without the prior written approval of LICENSOR; and (iii) that all rights to place advertising on ticket backs, ticket stubs and

all other parts of LICENSEE's tickets are reserved in favor of LICENSOR. All communications and media pertaining to the Event shall be submitted to the Facility Marketing Department for approval prior to production, printing, or distribution.

Use of Ford Park logo agreed upon:

Licensee Initials

f) B) NAMING RIGHTS; REFERENCE TO NAME OF FACILITY. When referring to the Facility during the term of this Agreement, **LICENSEE shall use the name and logo "Ford Park" or "Ford Arena"** (or such replacement name, as designated by the Facility Marketing Department) and no other name and shall use reasonable efforts to require third parties that it contracts with in connection with the Facility to do the same. **The use and designation of the Facility's name and logo shall include, but not be limited to, printed materials, advertising, admission tickets and public relations or promotional press releases.** Inadvertent failures to use the name as set forth herein shall not be deemed a breach of this Agreement. Notwithstanding anything to the contrary in this Agreement, the parties hereto acknowledge that Southeast Texas Ford Dealers is a third party beneficiary of only this Section of this Agreement and that Southeast Texas Ford Dealers shall have all of the rights of a third party beneficiary allowed by applicable law.

4) TAXES. LICENSOR shall not be liable for the payment of taxes, late charges, or penalties of any nature relating to the Event or otherwise, or any revenue received by or payments made to LICENSEE in respect of the Event, except as provided by law or as otherwise specified herein. LICENSEE shall pay and discharge, as they become due, promptly and before delinquency, all taxes, assessments, rates, damages, license fees, municipal liens, levies, excises, or imposts, whether general or special, or ordinary or extraordinary, of every name, nature, and kind whatsoever, including all governmental charges of whatsoever name, nature, or kind, which may be levied, assessed, charged, or imposed, or which may become a lien or charge against this Agreement or any other improvements now or hereafter owned by LICENSEE.

5) INSURANCE.

a) LICENSEE shall, at its own expense, secure and deliver to LICENSOR not less than thirty (30) days prior to the Event and shall keep in force at all times during the duration of this Agreement:

i) A comprehensive general liability insurance policy in a form acceptable to LICENSOR, including public liability and property damage, covering its activities hereunder, in an amount not less than one million dollars ($1,000,000) for bodily injury and one million dollars ($1,000,000) for property damage, including blanket contractual liability and independent contractors. The foregoing general liability insurance policy shall not contain exclusions from coverage relating to the following participants legal liability activities or issues related to the Event hereunder: sporting events, rap concerts, open floor, performers, volunteers, animals, off-premise activities and fireworks or other pyrotechnical devices;

b) The following shall apply to the insurance policies described in clauses (i) and (ii) above:

Insurance agreed upon:

i) **Jefferson County, TX shall be listed as additional insured hereunder**. Not less than thirty (30) days prior to the Event, LICENSEE shall deliver to LICENSOR

Licensee Initials

certificates of insurance evidencing the existence thereof, in such a form as LICENSOR may reasonably require. Each such policy or certificate shall contain a valid provision or endorsement stating, "**This policy will not be canceled or materially changed or altered without first giving thirty (30) days written notice thereof to the County Judge's office at 1149 Pearl Street, 4th Floor, Beaumont, TX 77701.** If any of the insurance policies covered by the foregoing certificates of insurance will expire prior to or during the time of the Event, LICENSEE shall deliver to LICENSOR at least thirty (30) days prior to such expiration a certificate of insurance evidencing the renewal of such policy or policies.

ii) The coverage provided under such policies shall be occurrence based, and not claims made.

iii) The coverage limits on such policies shall be on a per-occurrence basis only; there shall be no aggregate limit with respect to the aggregate amount of coverage provided thereunder.

iv) LICENSEE hereby acknowledges that the coverage limits contained in any policy, whether such limits are per occurrence or in the aggregate, shall in no way limit the liabilities or obligations of LICENSEE under this Agreement, including, without limitation, LICENSEE's indemnification obligations under the "Indemnification" Section below.

c) The terms of all insurance policies referred to in this Section shall preclude subrogation claims against LICENSOR and Owner and their respective officers, employees and agents.

6) RESERVATION OF RIGHTS.

NOTE: An addendum addressing the food & beverage issues for this particular event can be negotiated at a later date.

LICENSOR reserves all rights not specifically granted to LICENSEE under the terms hereof, including but not limited to the sole right to sell or give away food and beverage items and souvenir merchandise, to conduct check rooms, to take photographs and other privileges. LICENSEE shall not engage in, permit to occur or undertake the sale or distribution (either purchased or complimentary) of any of the aforesaid or similar articles or privileges, without the prior written consent of the LICENSOR. LICENSOR is responsible for providing all personnel and/or subcontracted personnel (at LICENSOR's sole discretion) to operate all food and beverage concessions (including the preparation, selling or distribution of any kind), and merchandise sales, and to retain all proceeds from same. LICENSOR will have the sole right to determine whether alcoholic beverages (beer, wine and assorted mixed drinks) will be sold during the Event. LICENSEE shall not cause or permit beer, wine or liquors of any kind to be sold, given away, or brought into the Facility or used upon the Facility except upon prior written permission of LICENSOR.

7) USE OF THE FACILITY.

a) In the event LICENSEE desires to use the Authorized Areas specified in Section 1), or any other portion of the Facility, at any time other than during the dates and times specified in 1) above, LICENSEE shall request from LICENSOR prior written permission to use such areas. In the event such permission is granted, LICENSEE shall pay as additional rent an amount equal to the sum of LICENSOR's actual costs for performing its obligations under this Agreement during the date(s) and time(s) requested, and a fee in an amount determined by LICENSOR to represent fair value for use of such additional areas of the Facility during such date(s) and time(s).

b) In rendering the Facility to LICENSEE, LICENSOR does not relinquish the right to control the management thereof, and to enforce all the necessary and proper rules for the management and operation of the same; and that LICENSOR, their agents, their employees and the General Manager of said Facility may enter the same, and all of the Authorized Areas, at any time and on any occasion. LICENSOR reserves the right, but not the responsibility, through its General Manager and its representatives to eject any objectionable person(s) from said Facility, and upon the exercise of this authority through the General Manager, agents or police, the LICENSEE hereby waives any right and all claims for damages against LICENSOR. Unless otherwise specified in writing, LICENSOR shall be privileged to schedule other similar events both before and after date(s) of the Event specified in this Agreement without notice to LICENSEE.

c) LICENSEE shall not use the Facility or permit the Facility to be used by any of its officers, agents, employees, guests or invitees, for any unlawful or immoral purpose or in any manner so as to injure persons or property in, on or near the Facility. If LICENSOR, in consultation with local law enforcement, believes, in its sole discretion, that such acts are reasonably likely to occur, or that the event could pose imminent safety risks to artists, patrons, or venue staff, LICENSOR (through its general manager) may in its sole discretion take any legal means to necessary prevent such occurrences, including immediate termination of this Agreement. LICENSEE agrees to indemnify and hold harmless LICENSOR from any claims relating to actions or omissions by LICENSOR in conformity with this Section 10(c).

8) CONDITION OF FACILITY.

a) LICENSEE acknowledges that LICENSEE has inspected the Facility and that LICENSEE is satisfied with and has accepted the Facility in its present condition.

b) LICENSOR shall have the continuing obligation and responsibility to maintain and keep the Facility in good order and repair, normal wear and tear excepted; provided, however, that said LICENSEE shall not injure nor mar, nor in any manner deface, said premises and shall not cause nor permit anything to be done whereby said premises shall be in any manner injured or marred or defaced nor shall LICENSEE drive nor permit to be driven, any nails, hooks, tacks or screws in any part of said Facility nor shall LICENSEE make or allow to be made any alteration of any kind therein. That if said premises, or any portion of said Facility or grounds, during the term of this Agreement shall be damaged by the act, default or negligence of LICENSEE or by the LICENSEE's agents, employees, contractors, subcontractors, patrons or any person or persons admitted to said premises by said LICENSEE, the LICENSEE will pay to LICENSOR upon demand, such sum as shall

be necessary to restore said premises to their original condition. LICENSEE hereby assumes full responsibility for the character, acts and conduct of all persons admitted to said Facility, or to any portion of said Facility and grounds by consent of LICENSEE or by or with the consent of LICENSEE's employees or any person acting for or on behalf of said LICENSEE and said LICENSEE agrees to have on hand at all times sufficient security (including but not limited to Facility event staff and door guards, contracted security and/or Jefferson County Sheriff Department officers) to maintain order and protect persons and property. If LICENSOR deems necessary a refundable damage deposit will withheld during settlement and will be refunded upon a walk through of the Facility if LICENSOR deems no damage has been incurred.

c) LICENSEE shall not make any alterations or improvements to the Facility without the prior written consent of LICENSOR. Any alterations or improvements of whatever nature made or placed by LICENSEE to or on the Facility, except movable trade fixtures, shall, at the option of LICENSOR:

i) Be removed by LICENSEE, at LICENSEE's expense, immediately upon the conclusion of the Event; or become the property of Owner.

ii) The LICENSEE shall reimburse LICENSOR for any cost LICENSOR incurs in the removal or storage of alterations or improvements not promptly removed by LICENSEE.

9) RESPONSIBILITY FOR PROPERTY IN THE FACILITY.

a) LICENSOR assumes no responsibility whatsoever for any property placed in Facility, and LICENSOR is hereby expressly relieved and discharged from any and all liability for any loss, injury or damage to persons or property that may be sustained by reason of the occupancy of Facility or any part thereof under this Agreement and all watchmen or other protective service desired by LICENSEE must be arranged for by special agreement with LICENSOR. LICENSOR shall have the sole right to collect and have the custody of articles left in the Facility by persons attending any performance, exhibition or entertainment given or held in the demised premises and the LICENSEE or any person in LICENSEE's employ shall not collect nor interfere with the collection or custody of such articles.

b) In the event that the Authorized Areas of the Facility are not vacated by LICENSEE on the date named at the end of the duration for which said portions of Facility are to be used by LICENSEE in accordance with this Agreement, LICENSOR shall be and is hereby authorized to move from Facility at the expense of the LICENSEE, goods, wares, merchandise and property of any and all kinds and description, which may be then occupying the portion of Facility on which the duration of this Agreement has expired, and LICENSOR shall not be liable for any damages or loss to goods, wares, merchandise or other property which may be sustained, either by reason of such removal or by the place to which it may be removed to and LICENSOR is hereby expressly released from any and all claims for damages of whatever kind or nature. For such additional period beyond the term of this Agreement any effects of LICENSEE remain in the Facility, LICENSOR shall be entitled to charge the sum per day as provided in this Agreement as the payment to be made for time for load in and load out. Vendors are not allowed to

load out any materials using land or pushcarts before the event has ended and the general public has cleared the arena floor.

10) INDEMNIFICATION.

a) LICENSEE shall indemnify, defend, and hold harmless LICENSOR, Owner, and their respective officers, agents and employees from and against any and all losses, arising from:

i) LICENSEE's failure to comply with any and all federal, state, foreign, local and municipal regulations, ordinances, statutes, rules, laws and constitutional provisions (collectively, the "Laws") applicable to LICENSEE's performance of this Agreement.

ii) Any unlawful acts on the part of LICENSEE, its officers, agents, employees, contractors or subcontractors.

iii) Personal or bodily injury to or death of persons or damage to the property of LICENSOR or Owner or loss of income to LICENSOR or Owner to the extent caused or alleged to be caused by the negligent acts, errors and/or omissions or the willful misconduct of LICENSEE, its officers, agents, employees, contractors or subcontractors; or LICENSEE, or invitees; provided, however, that LICENSEE's obligations under this Section 13(a) shall not extend to losses solely arising from the willful misconduct (or gross negligence) of LICENSOR.

iv) The material breach or default by LICENSEE, its officers, agents, employees, contractors or subcontractors of any provisions of this Agreement.

b) LICENSOR shall indemnify, defend and hold harmless LICENSEE, its officers, agents and employees from and against any and all losses arising from:

i) Personal or bodily injury to or death of persons or damage to the property of LICENSEE to the extent caused by the negligent acts errors and/or omissions or willful misconduct of LICENSOR, its officers or employees; or

ii) The material breach or default by LICENSOR, its officers or employees of any provisions of this Agreement; provided, however, that the foregoing indemnification shall not extend to losses to the extent such losses:

(1) Arise from any default or breach by LICENSEE of its obligations under this Agreement, including, without limitation, subparagraph (a), of this Section; or

(2) Are caused by or arise out of the services provided by contractors and other agents retained by Owner in connection with the management of the Facility; or

(3) Are caused by or arise out of the services provided by independent contractors used by LICENSOR in connection with the management of the Facility.

c) The provisions set forth in subparagraphs (a) and (b) of this Section shall survive termination of this Agreement.

11) DEFAULT, TERMINATION AND OTHER REMEDIES.

a) Default.

i) LICENSEE shall be in default under this Agreement if any of the following occur:

(1) LICENSEE fails to pay any amount when due hereunder (including, without limitation, the License Fee, the required deposits, or the Reimbursable Services Expense) when the same are required to be paid hereunder; or

(2) LICENSEE, its officers, employees or agents fails to perform or fulfill any other term, covenant or condition contained in this Agreement and LICENSEE fails to commence a cure thereof within two (2) business days after LICENSEE has been served with written notice of same; or

(3) LICENSEE makes a general assignment for the benefit of creditors.

ii) LICENSOR shall be in default under this Agreement if LICENSOR fails to perform or fulfill any term; covenant or condition contained in this Agreement and LICENSOR fails to commence a cure thereof within two (2) business days after LICENSOR has been served with written notice of such default.

iii) Nothing herein shall be construed as excusing either party from diligently commencing and pursuing a cure within a lesser time if reasonably possible. Notwithstanding clause (ii) in "Indemnification" Section above, if the breach by LICENSEE, its officers, employees or agents of such other term, covenant or condition is such that it threatens the health, welfare or safety of any person or property, then LICENSOR may, in its discretion, require that such breach be cured in less than two (2) business days or immediately.

b) Termination. Upon a default pursuant to subparagraph (a) above, the non-breaching party may, at its option, upon written notice or demand upon the other party, cancel and terminate this Agreement and the obligations of the parties with respect thereto.

c) Injunctive Relief. In addition to any other remedy available at law, equity or otherwise, LICENSOR shall have the right to seek to enjoin any breach or threatened breach and/or obtain specific performance of this Agreement by LICENSEE upon meeting its burden of proof of such breach or threatened breach as required by applicable statute or rule of law.

d) Unique Qualities. The parties agree and acknowledge that the Event is a unique entity and, therefore, the rights and benefits that will accrue to LICENSOR by reason of this Agreement are unique and that LICENSOR cannot be adequately compensated in money damages for LICENSEE's failure to comply with the material obligations of LICENSEE under this Agreement and that therefore LICENSOR shall have the right to seek equitable relief (whether it be injunctive relief, specific performance or otherwise) in the event that LICENSEE fails to fulfill its obligation to hold the Event at the Facility.

e) Late Charges. If LICENSEE fails to pay any amounts when due under this Agreement, LICENSOR may choose any or all of the following options, at it's sole option, without the restriction or limitation to pursue other remedies:

i) Cancel this LICENSEE Agreement,

ii) Require LICENSEE to pay, in full, the entire outstanding balance due on all fees, projected expenses, etc., immediately.

iii) Require LICENSEE pay to LICENSOR a late charge of one and a half percent (1.5%) per month on the unpaid balance.

12) REPRESENTATIONS AND WARRANTIES. Each party hereby represents and warrants to the other party, and agrees as follows:

a) It has the full power and authority to enter into this Agreement and perform each of its obligations hereunder;

b) It is legally authorized and has obtained all necessary regulatory approvals for the execution, delivery and performance of this Agreement; and

c) No litigation or pending or threatened claims or litigation exist which do or might adversely affect its ability to fully perform its obligations hereunder or the rights granted by it to the other party under this Agreement.

13) COVENANTS. LICENSEE hereby covenants and agrees as follows:

NOTE: b) i) (8) and g) below do not apply to this particular event.

a) LICENSEE shall not occupy or use the Facility except as provided in this Agreement.

b) LICENSEE shall comply with all legal requirements that arise in respect to the Facility and the use and occupation thereof.

i) The following items are prohibited within any areas of the Facility without written permission by LICENSOR:

(1) Propane and propane powered vehicles, equipment and displays.

(2) Possession, application or distribution of any self-adhesive stickers, promotional items, posters or similar items on the ingress or egress of the Event or inside the Facility.

(3) Any self-adhesive material including tape, stickers, etc. in general and specifically not used to display banners and/or posters of any kind for events, radio station promotions, etc.

(4) Guns, knives, electronic shock devices or other weapons that could be used to harm another individual or property.

(5) Food or food products, either for sale or sample distribution (free samples).

(6) Helium or other lighter than air filled balloons.

(7) Open flame candles or other fixtures with an open flame.

(8) Recording devices (video, audio or photographic) for the intent to distribute or to re-sell.

(9) Laser pens or other laser light-type pointing devices.

c) LICENSEE shall not advertise, paint, post or exhibit, nor allow to be advertised, painted, posted or exhibited, signs, advertisements, show bills, lithographs, posters or cards of any description inside or outside or on any part of the Facility except upon written permission of LICENSOR and for such time and in such location as designated by LICENSOR Management. Which permission/consent/approval shall not be unreasonably withheld or

delayed. LICENSEE shall take down and remove forthwith all signs, advertisements, show bills, lithographs, posters or cards of any description objected to by LICENSOR.

d) With respect to any Event at the Facility, Licensee shall comply fully with any and all local, state, and federal laws, regulations, rules, constitutional provisions, common laws, and rights of others applicable to the reproduction, display, or performance of proprietary or copyrighted materials and works of third parties (the "Works"), and to the protection of the intellectual property rights associated with such Works.

e) LICENSEE shall not operate or use any equipment or materials belonging to LICENSOR without the prior written approval of LICENSOR.

f) No portion of any passageway or exit shall be blocked or obstructed in any manner whatsoever, and no exit door or any exit shall be locked, blocked or bolted while the Facility is in use. Moreover, all designated exit ways shall be maintained in such manner as to be visible at all times.

g) No collections, whether for charity or otherwise, shall be made, attempted or announced at the Facility, without first having made a written request and received the prior written consent of LICENSOR.

h) Utilities.

i) Electric.

(1) Representative of LICENSOR or the approved LICENSOR electrical contractor must make all electrical connections other than one hundred ten (110) volt wall connections. Multiple plugs per standard one hundred ten (110) volt outlet such as twin sockets, cube taps, and etc. will not be permitted. All electrical equipment shall be properly wired and meet Fire Underwriters Laboratory specifications.

ii) Water.

(1) LICENSOR agrees to furnish water by means of the appliance installed for ordinary toilet or janitor purposes, but for no other purpose, unless otherwise specifically provided for in this contract. Water closets and water apparatus will not be used for any purpose other than for which they are constructed and no sweepings, rubbish, paper or other substances shall be thrown therein. LICENSEE shall pay any damage resulting to them on account of misuse of any nature or character whatever.

iii) Lighting. Normal lighting provided by fixed Facility fixtures will be maintained throughout the Event at no additional cost to LICENSEE. Work-level lighting will be provided during load-in and load-out and additional lighting provided at other times as determined to be necessary by LICENSOR.

14) CIVIL RIGHTS ACT. During the performance of this Agreement, LICENSEE shall comply fully with Title VI and Title VII of the Civil Rights Act of 1964, as amended, and all other regulations promulgated thereunder, in addition to all applicable state and local ordinances concerning Civil Rights and Human Rights and opportunities.

15) AMERICANS WITH DISABILITIES ACT. LICENSOR shall be responsible for ensuring that, within reason based on current structural limitations or equipment and Facility limitations, access into the Facility complies with the Americans With Disabilities Act, as amended ("ADA"). LICENSOR shall also be responsible for ensuring, to the extent reasonably possible, that the common areas inside the Facility (i.e. elevator access, ramp access, restrooms) are accessible to, and usable by, individuals with disabilities to an extent possible within any current limitations of the Facility. With respect to any Event at the Facility, LICENSEE recognizes that it is subject to the provisions of Title III of the ADA. LICENSEE represents that it has viewed or otherwise appraised itself of the access into the Facility, together with the common areas inside, and accepts such access, common areas and other conditions of the Facility as adequate for LICENSEE's responsibilities under the ADA. LICENSEE shall be responsible for ensuring that the Facility complies and continues to comply in all respects with the ADA, including accessibility, usability and configuration insofar as LICENSEE modifies, rearranges or sets up in the Facility in order to accommodate LICENSEE's usage. LICENSEE shall be responsible for any violations of the ADA that arise from LICENSEE's reconfiguration of the seating areas or modification of other portions of the Facility in order to accommodate LICENSEE's usage. LICENSEE shall be responsible for providing auxiliary aids and services that are ancillary to its usage and for ensuring that the policies, practices and procedures it applies in connection with an Event are in compliance with the ADA.

16) CONSTRUCTION OF THIS AGREEMENT.

a) Choice of Law. This Agreement shall be deemed to be made, governed by, and construed in accordance with the Laws of the United States of America and State of Texas, and all of the ordinances of the City of Beaumont, Texas and the rules and regulations of LICENSOR for the government and management of said Facility, together with all rules and regulations of the Police and Fire Departments of the City of Beaumont, and if the attention of said LICENSEE is called to such violation on the part of the LICENSEE, said LICENSEE will immediately desist from and correct said violation.

b) Paragraph Headings. The paragraph headings are inserted herein only as a matter of convenience and for reference and in no way are intended to be a part of this Agreement or to define, limit or describe the scope or intent of this Agreement or the particular paragraphs hereof to which they refer.

c) Entire Agreement; Amendments. This Agreement (including all Exhibits and other documents and matters annexed hereto or made a part hereof by reference) contains all of the covenants, agreements, terms, provisions and conditions relating to the rights and obligations of LICENSOR and LICENSEE with respect to the Facility. No alterations, amendments or modifications hereof shall be valid unless executed by an instrument in writing by the parties hereto.

d) Severability. If any provision or a portion of any provision of this Agreement is held to be unenforceable or invalid by a court of competent jurisdiction, the validity and enforceability of the enforceable portion of any such provision and/or the remaining provisions shall not be affected thereby.

e) Time. Time is of the essence hereof, and every term, covenant and condition shall be deemed to be of the essence hereof.

f) Successors. This Agreement shall be binding upon, and shall inure to, the benefit of the successors and assigns of LICENSOR, and to such successors and assigns of LICENSEE as are permitted to succeed to the LICENSEE's right upon and subject to the terms hereof.

g) Independent Contractor; No Partnership. LICENSOR and LICENSEE shall each be and remain an independent contractor with respect to all rights and obligations arising under this Agreement. Nothing herein contained shall make, or be construed to make, LICENSOR or LICENSEE a partner of one another, nor shall this Agreement be construed to create a partnership or joint venture between and of the parties hereto or referred to herein.

h) Singular and Plural. Whenever the context shall so require, the singular shall include the plural, and the plural shall include the singular.

17) MISCELLANEOUS.

a) Waiver. The failure of any party to enforce any of the provisions of this Agreement, or any rights with respect hereto, or the failure to exercise any election provided for herein, will in no way be considered a waiver of such provisions, rights or elections, or in any way affect the validity of this Agreement. The failure of any party to enforce any of such provisions, rights or elections will not prejudice such party from later enforcing or exercising the same or any other provisions, rights or elections which it may have under this Agreement.

b) Assignment. Neither this Agreement nor any of the rights or obligations hereunder may be assigned or transferred in any manner whatsoever by LICENSEE without the prior written consent of LICENSOR. LICENSOR shall be entitled to assign its rights and obligations hereunder to Owner or to any other management company retained by Owner to manage the Facility, and in such event, LICENSOR shall have no further liability to LICENSEE hereunder for the performance of any obligations or duties arising after the date of such assignment.

c) Notices. Any notice, consent or other communication given pursuant to this Agreement shall be in writing and shall be effective either:

i) When delivered personally to the party for whom intended.

ii) Upon delivery by an overnight courier services that is generally recognized as reliable, and the written records maintained by the courier shall be prima facie evidence of delivery; or

iii) On delivery by certified or registered mail, return receipt requested, postage prepaid, as of the date shown by the return receipt; in any case addressed to such party as set forth below or as a party may designate by written notice given to the other party in accordance herewith.

If to LICENSOR, to:
LICENSOR/Ford Park
1149 Pearl Street, 4th Floor
Beaumont, TX 77701
Attention: County Judge

If to LICENSEE, to:
The Julie Rogers Gift of Life Program
2390 Dowlen Road
Beaumont, TX 77706
Attn: Norma Sampson

18) NON-EXCLUSIVE USE. LICENSOR shall have the right, in its sole discretion, to use or permit the use of any portion of the Facility other than the Authorized Areas to any person, firm or other entity regardless of the nature of the use of such other space.

19) FORCE MAJEURE. If the Facility is damaged from any cause whatsoever or if any other casualty or unforeseeable cause beyond the control of LICENSOR, including, without limitation, acts of God, fires, floods, epidemics, quarantine restrictions, terrorist acts from a foreign or domestic source, strikes, failure of public utilities or unusually severe weather, prevents occupancy and use, or either, as granted in this Agreement, LICENSOR is hereby released by LICENSEE from any damage so caused thereby.

IN WITNESS WHEREOF, the parties hereto as of the day and year first written above have duly executed this Agreement along with attached Reimbursable Services Expense Estimate, which is hereby made an integral part of this Agreement.

Jefferson County, Texas,
owner of Ford Park

Signature: _____

Printed Name: Jeff Branick

Title: County Judge

Date: 10-31-2016

("LICENSOR"/Jefferson County, Texas)

The Julie Rogers Gift of Life Program

Signature: _____

Printed Name: _____

Title: _____

Date: _____

("LICENSEE")

AGENDA ITEM **October 31, 2016**

Consider, possibly approve, authorize the County Judge to execute and receive and file the Jefferson County/Ford Park Use License Agreement between Jefferson County and the March of Dimes, Houston Market for the use of the Ford Park premises for April 21-22, 2017 for the March of Dimes Walk Benefit.

JEFFERSON COUNTY/ FORD PARK
USE LICENSE AGREEMENT

THIS **USE LICENSE AGREEMENT** (the "Agreement") is made this **18th** day of **October, 2016**, by and between Jefferson County, TX ("LICENSOR") and **March of Dimes, Houston Market**, whose current address is **5420 Dashwood Dr., Suite 302, Houston, TX 77081** ("LICENSEE").

NOTE: NO ALTERATIONS MAY BE MADE TO THIS AGREEMENT WITHOUT NOTICE TO AND APPROVAL BY LICENSOR.

NOW, THEREFORE, in consideration of the foregoing, and the mutual promises, covenants and agreements herein contained the parties hereto, intending to be legally bound, hereby agree as follows:

1) GRANT OF LICENSE. Jefferson County hereby grants LICENSEE, upon the terms and conditions hereinafter expressed, a license:
   a) To use the area(s) of the Facility described here: **Ford Park grounds west of the waterway**
   b) Solely for the purpose of the presentation of: **March of Dimes Walk**
   c) Effective on the following dates and times, unless earlier terminated as set forth in the "Default, Termination and Other Remedies" Section of this license or otherwise herein,

Authorized Area	Day, Date and Time of Use	Purpose
Ford Park grounds west of the waterway	Friday, April 21, 2016 8am – 5pm Saturday, April 22, 2016 6am-10am 10am-1 or 2pm 2pm – 4pm	Move-in Move-in/Registration Event Move-out

The use of the Facility as described in 1) a), b) and c) above shall hereinafter be referred to as the "Event".

2) LICENSE FEE AND OTHER EXPENSES. In consideration of the grant of this license, LICENSEE shall pay to Jefferson County a License Fee and other prescribed amounts, and shall reimburse Jefferson County for certain expenses ("Reimbursable Services Expenses"), as described and prescribed in this section 2), as follows:
   a) (i) **License Fee**. LICENSEE shall pay to LICENSOR a fee of **Two Thousand and No/100 Dollars ($2,000.00) for the event day and One Thousand and No/100 Dollars**

for a move-in day ($1,000.00) which includes the 50% discount for 501c3 federal status, for rental of the Authorized Area.

Fee

Licensee Initials

- The License Fee **includes** the following items: One move-in day to lay out the course and sponsor set-up, one event day, ground preparation (mowing), 2-3 event staff, an EMT, housekeeping and one overnight security personnel on April 21.
- Licensee will provide everything necessary for the production of the event including generators, if power if required, tables, chairs, portable toilets, waste cans, tents, etc.
- Licensee will be allowed to bring in water for participants and to have sponsors set up tents and cook food for participants to eat after the walk. Licensee will be responsible for securing inspector from City of Beaumont Environmental Control to inspect food in a raw state prior to cooking and will ensure all food vendors adhere to City of Beaumont regulations. It is agreed that this food and drink is **complimentary** for participants of the walk.
- The License Fee does **not include**, among other exclusions, the following: AV, insurance, catering, phone & internet connections (if requested), entertainment, uniformed officers, any rented furniture or equipment or anything not specifically mentioned above.

b) **Reimbursable Services Expense.**

LICENSOR shall provide, as required for each Event, the following services and equipment, the expenditure for, and costs of, which are reimbursable by LICENSEE to LICENSOR ("Reimbursable Services Expense") unless specifically included in the License Fee as described in 2 (a) above. These Reimbursable Services Expenses include, but are not limited to, the following expenses, costs and charges: event services staff, electricians, ushers, supervisors, and any other LICENSOR employee necessary for the preparation and presentation of the Event; and services provided by LICENSOR, including police officer(s), fire marshal(s), EMT(s) (required for all events serving alcohol and/or sporting events), catering, food and beverage services, insurance coverage, security personnel, electricians. All equipment or services will be billed at prevailing rates and all staff will be billed at prevailing wage rate for positions held and tasks performed for the time period worked as furnished by LICENSOR at the request of LICENSEE or required by LICENSOR to properly prepare for and present the Event. Notwithstanding anything contained herein to the contrary, LICENSOR shall determine the level of staffing necessary for the Event in its sole discretion, after consultation with, and input from, LICENSEE. LICENSEE shall inform LICENSOR at least two weeks in advance of the Event, in writing, of its requirements for services and equipment in support of the Event. In the event LICENSEE fails to so inform LICENSOR, then the decisions of LICENSOR as to necessary services and support shall control.

c) It is understood and agreed that there will be food and beverage and/or alcoholic beverage sales during the Event, and that LICENSOR, or its designated concessionaire, shall retain exclusively any and all revenues from the sale thereof, and LICENSEE shall have no rights to or claims thereon.

Deposit & contract due dates:

Licensee Initials

d) LICENSEE shall pay to LICENSOR Jefferson County a ***non-refundable deposit*** in the amount of **Five Hundred and No/100 Dollars ($500.00)** in the form of a cashier's check, wire transfer, cash, or other immediately negotiable form, which is due **upon contract execution**. Upon receipt by, and a majority vote to approve by Jefferson County Commissioners' Court, a fully executed copy of this Agreement will then be forwarded to LICENSEE. Any other amounts due to hereunder for Reimbursable Services Expenses, or other amounts as specified herein, will be due upon Final Settlement.

e) If LICENSEE cancels said Event, the LICENSEE shall reimburse LICENSOR for its actual costs and expenses incurred in connection with scheduling personnel and services, and advertising and marketing expenses, if applicable, and LICENSOR shall retain the deposit as described above.

3. ADVERTISING

A) LICENSEE, having been so informed by LICENSOR, understands that LICENSOR has entered into and/or may hereafter (prior to the Event) enter into agreements with parties other than LICENSEE providing for, among other things, exclusive naming rights, exclusive event sponsorship rights, exclusive category advertising rights, exclusive signage and display rights and/or exclusive product brand, pouring and/or service rights in and relating to the Facility and that LICENSOR may be required, pursuant to one or more of such other agreements, to give notice of all booked events in the Facility to the holders of such rights for the purpose of initiating consideration and communications, at the option of such holders, regarding sponsorship of such events, the Facility. Neither LICENSOR nor such sponsors have any rights relating specifically to the Event without the prior written approval and consent of LICENSEE. With such understanding, LICENSEE acknowledges and agrees (i) that LICENSEE and its officers, employees, agents, contractors and subcontractors, including but not limited to all persons producing, promoting, advertising, staging, directing, performing, presenting, conducting and/or otherwise participating in the Event, shall, subject to performing artist approval, cooperate fully with LICENSOR in its adherence to and performance of such other agreements to the extent that adherence does not compromise or unreasonably interfere with the performance or production of the Event or conflict with any tour sponsorship requirements of the performing artists and comply with all requirements imposed by LICENSOR arising from or relating to such other agreements in connection with LICENSEE's use of the Facility, including but not limited to due observance of all Facility branding and naming rights and proper use of the Facility name and logos and the LICENSOR name and logo in all advertising and other communications concerning or relating to the Event; (ii) that LICENSEE shall not for any reason or purpose cover or otherwise alter or interfere with any displays, advertising, graphics, signage and/or other electronic or printed media in or about the Facility without the prior written approval of LICENSOR; and (iii) that all rights to place advertising on ticket backs, ticket stubs and all other parts of LICENSEE's tickets are reserved in favor of LICENSOR. All communications and media pertaining to the Event shall be submitted to the Facility Marketing Department for approval prior to production, printing, or distribution.

f) B) NAMING RIGHTS; REFERENCE TO NAME OF FACILITY. When referring to the Facility during the term of this Agreement, **LICENSEE shall use the name and logo "Ford Park" or "Ford Arena"** (or such replacement name, as designated by the Facility Marketing Department) and no other name and shall use reasonable efforts to require third parties that it contracts with in connection with the Facility to do the same. **The use and designation of the Facility's name and logo shall include, but not be limited to, printed materials, advertising, admission tickets and public relations or promotional press releases.** Inadvertent failures to use the name as set forth herein shall not be deemed a breach of this Agreement. Notwithstanding anything to the contrary in this Agreement, the parties hereto acknowledge that Southeast Texas Ford Dealers is a third party beneficiary of only this Section of this Agreement and that Southeast Texas Ford Dealers shall have all of the rights of a third party beneficiary allowed by applicable law.

Use of Ford Park logo agreed upon:



Licensee Initials

4) TAXES. LICENSOR shall not be liable for the payment of taxes, late charges, or penalties of any nature relating to the Event or otherwise, or any revenue received by or payments made to LICENSEE in respect of the Event, except as provided by law or as otherwise specified herein. LICENSEE shall pay and discharge, as they become due, promptly and before delinquency, all taxes, assessments, rates, damages, license fees, municipal liens, levies, excises, or imposts, whether general or special, or ordinary or extraordinary, of every name, nature, and kind whatsoever, including all governmental charges of whatsoever name, nature, or kind, which may be levied, assessed, charged, or imposed, or which may become a lien or charge against this Agreement or any other improvements now or hereafter owned by LICENSEE.

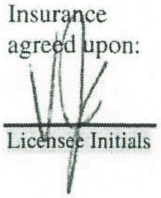
5) INSURANCE.

a) LICENSEE shall, at its own expense, secure and deliver to LICENSOR not less than thirty (30) days prior to the Event and shall keep in force at all times during the duration of this Agreement:

i) A comprehensive general liability insurance policy in a form acceptable to LICENSOR, including public liability and property damage, covering its activities hereunder, in an amount not less than one million dollars ($1,000,000) for bodily injury and one million dollars ($1,000,000) for property damage, including blanket contractual liability and independent contractors. The foregoing general liability insurance policy shall not contain exclusions from coverage relating to the following participants legal liability activities or issues related to the Event hereunder: sporting events, rap concerts, open floor, performers, volunteers, animals, off-premise activities and fireworks or other pyrotechnical devices;

b) The following shall apply to the insurance policies described in clauses (i) and (ii) above:

Insurance agreed upon:



Licensee Initials

i) **Jefferson County, TX shall be listed as additional insured here under.** Not less than thirty (30) days prior to the Event, LICENSEE shall deliver to LICENSOR certificates of insurance evidencing the existence thereof, in such a form as LICENSOR may reasonably require. Each such policy or certificate shall contain a valid provision or endorsement stating, "**This policy will not be canceled or**

materially changed or altered without first giving thirty (30) days written notice thereof to the County Judge's office at 1149 Pearl Street, 4th Floor, Beaumont, TX 77701. If any of the insurance policies covered by the foregoing certificates of insurance will expire prior to or during the time of the Event, LICENSEE shall deliver to LICENSOR at least thirty (30) days prior to such expiration a certificate of insurance evidencing the renewal of such policy or policies.

ii) The coverage provided under such policies shall be occurrence based, and not claims made.

iii) The coverage limits on such policies shall be on a per-occurrence basis only; there shall be no aggregate limit with respect to the aggregate amount of coverage provided thereunder.

iv) LICENSEE hereby acknowledges that the coverage limits contained in any policy, whether such limits are per occurrence or in the aggregate, shall in no way limit the liabilities or obligations of LICENSEE under this Agreement, including, without limitation, LICENSEE's indemnification obligations under the "Indemnification" Section below.

c) The terms of all insurance policies referred to in this Section shall preclude subrogation claims against LICENSOR and Owner and their respective officers, employees and agents.

6) RESERVATION OF RIGHTS.

LICENSOR reserves all rights not specifically granted to LICENSEE under the terms hereof, including but not limited to the sole right to sell or give away food and beverage items and souvenir merchandise, to conduct check rooms, to take photographs and other privileges. LICENSEE shall not engage in, permit to occur or undertake the sale or distribution (either purchased or complimentary) of any of the aforesaid or similar articles or privileges, without the prior written consent of the LICENSOR. LICENSOR is responsible for providing all personnel and/or subcontracted personnel (at LICENSOR's sole discretion) to operate all food and beverage concessions (including the preparation, selling or distribution of any kind), and merchandise sales, and to retain all proceeds from same. LICENSOR will have the sole right to determine whether alcoholic beverages (beer, wine and assorted mixed drinks) will be sold during the Event. LICENSEE shall not cause or permit beer, wine or liquors of any kind to be sold, given away, or brought into the Facility or used upon the Facility except upon prior written permission of LICENSOR.

7) USE OF THE FACILITY.

a) In the event LICENSEE desires to use the Authorized Areas specified in Section 1), or any other portion of the Facility, at any time other than during the dates and times specified in 1) above, LICENSEE shall request from LICENSOR prior written permission to use such areas. In the event such permission is granted, LICENSEE shall pay as additional rent an amount equal to the sum of LICENSOR's actual costs for performing its obligations under this Agreement during the date(s) and time(s) requested, and a fee in

an amount determined by LICENSOR to represent fair value for use of such additional areas of the Facility during such date(s) and time(s).

b) In rendering the Facility to LICENSEE, LICENSOR does not relinquish the right to control the management thereof, and to enforce all the necessary and proper rules for the management and operation of the same; and that LICENSOR, their agents, their employees and the General Manager of said Facility may enter the same, and all of the Authorized Areas, at any time and on any occasion. LICENSOR reserves the right, but not the responsibility, through its General Manager and its representatives to eject any objectionable person(s) from said Facility, and upon the exercise of this authority through the General Manager, agents or police, the LICENSEE hereby waives any right and all claims for damages against LICENSOR. Unless otherwise specified in writing, LICENSOR shall be privileged to schedule other similar events both before and after date(s) of the Event specified in this Agreement without notice to LICENSEE.

c) LICENSEE shall not use the Facility or permit the Facility to be used by any of its officers, agents, employees, guests or invitees, for any unlawful or immoral purpose or in any manner so as to injure persons or property in, on or near the Facility. If LICENSOR, in consultation with local law enforcement, believes, in its sole discretion, that such acts are reasonably likely to occur, or that the event could pose imminent safety risks to artists, patrons, or venue staff, LICENSOR (through its general manager) may in its sole discretion take any legal means to necessary prevent such occurrences, including immediate termination of this Agreement. LICENSEE agrees to indemnify and hold harmless LICENSOR from any claims relating to actions or omissions by LICENSOR in conformity with this Section 10(c).

8) CONDITION OF FACILITY.

a) LICENSEE acknowledges that LICENSEE has inspected the Facility and that LICENSEE is satisfied with and has accepted the Facility in its present condition.

b) LICENSOR shall have the continuing obligation and responsibility to maintain and keep the Facility in good order and repair, normal wear and tear excepted; provided, however, that said LICENSEE shall not injure nor mar, nor in any manner deface, said premises and shall not cause nor permit anything to be done whereby said premises shall be in any manner injured or marred or defaced nor shall LICENSEE drive nor permit to be driven, any nails, hooks, tacks or screws in any part of said Facility nor shall LICENSEE make or allow to be made any alteration of any kind therein. That if said premises, or any portion of said Facility or grounds, during the term of this Agreement shall be damaged by the act, default or negligence of LICENSEE or by the LICENSEE's agents, employees, contractors, subcontractors, patrons or any person or persons admitted to said premises by said LICENSEE, the LICENSEE will pay to LICENSOR upon demand, such sum as shall be necessary to restore said premises to their original condition. LICENSEE hereby assumes full responsibility for the character, acts and conduct of all persons admitted to said Facility, or to any portion of said Facility and grounds by consent of LICENSEE or by or with the consent of LICENSEE's employees or any person acting for or on behalf of said LICENSEE and said LICENSEE agrees to have on hand at all times sufficient security (including but not limited to Facility event staff and door guards, contracted

security and/or Jefferson County Sheriff Department officers) to maintain order and protect persons and property. If LICENSOR deems necessary a refundable damage deposit will withheld during settlement and will be refunded upon a walk through of the Facility if LICENSOR deems no damage has been incurred.

c) LICENSEE shall not make any alterations or improvements to the Facility without the prior written consent of LICENSOR. Any alterations or improvements of whatever nature made or placed by LICENSEE to or on the Facility, except movable trade fixtures, shall, at the option of LICENSOR:

i) Be removed by LICENSEE, at LICENSEE's expense, immediately upon the conclusion of the Event; or become the property of Owner.

ii) The LICENSEE shall reimburse LICENSOR for any cost LICENSOR incurs in the removal or storage of alterations or improvements not promptly removed by LICENSEE.

9) RESPONSIBILITY FOR PROPERTY IN THE FACILITY.

a) LICENSOR assumes no responsibility whatsoever for any property placed in Facility, and LICENSOR is hereby expressly relieved and discharged from any and all liability for any loss, injury or damage to persons or property that may be sustained by reason of the occupancy of Facility or any part thereof under this Agreement and all watchmen or other protective service desired by LICENSEE must be arranged for by special agreement with LICENSOR. LICENSOR shall have the sole right to collect and have the custody of articles left in the Facility by persons attending any performance, exhibition or entertainment given or held in the demised premises and the LICENSEE or any person in LICENSEE's employ shall not collect nor interfere with the collection or custody of such articles.

b) In the event that the Authorized Areas of the Facility are not vacated by LICENSEE on the date named at the end of the duration for which said portions of Facility are to be used by LICENSEE in accordance with this Agreement, LICENSOR shall be and is hereby authorized to move from Facility at the expense of the LICENSEE, goods, wares, merchandise and property of any and all kinds and description, which may be then occupying the portion of Facility on which the duration of this Agreement has expired, and LICENSOR shall not be liable for any damages or loss to goods, wares, merchandise or other property which may be sustained, either by reason of such removal or by the place to which it may be removed to and LICENSOR is hereby expressly released from any and all claims for damages of whatever kind or nature. For such additional period beyond the term of this Agreement any effects of LICENSEE remain in the Facility, LICENSOR shall be entitled to charge the sum per day as provided in this Agreement as the payment to be made for time for load in and load out. Vendors are not allowed to load out any materials using land or pushcarts before the event has ended and the general public has cleared the arena floor.

10) INDEMNIFICATION.

a) LICENSEE shall indemnify, defend, and hold harmless LICENSOR, Owner, and their respective officers, agents and employees from and against any and all losses, arising from:

i) LICENSEE's failure to comply with any and all federal, state, foreign, local and municipal regulations, ordinances, statutes, rules, laws and constitutional provisions (collectively, the "Laws") applicable to LICENSEE's performance of this Agreement.

ii) Any unlawful acts on the part of LICENSEE, its officers, agents, employees, contractors or subcontractors.

iii) Personal or bodily injury to or death of persons or damage to the property of LICENSOR or Owner or loss of income to LICENSOR or Owner to the extent caused or alleged to be caused by the negligent acts, errors and/or omissions or the willful misconduct of LICENSEE, its officers, agents, employees, contractors or subcontractors; or LICENSEE, or invitees; provided, however, that LICENSEE's obligations under this Section 13(a) shall not extend to losses solely arising from the willful misconduct (or gross negligence) of LICENSOR.

iv) The material breach or default by LICENSEE, its officers, agents, employees, contractors or subcontractors of any provisions of this Agreement.

b) LICENSOR shall indemnify, defend and hold harmless LICENSEE, its officers, agents and employees from and against any and all losses arising from:

i) Personal or bodily injury to or death of persons or damage to the property of LICENSEE to the extent caused by the negligent acts errors and/or omissions or willful misconduct of LICENSOR, its officers or employees; or

ii) The material breach or default by LICENSOR, its officers or employees of any provisions of this Agreement; provided, however, that the foregoing indemnification shall not extend to losses to the extent such losses:

(1) Arise from any default or breach by LICENSEE of its obligations under this Agreement, including, without limitation, subparagraph (a), of this Section; or

(2) Are caused by or arise out of the services provided by contractors and other agents retained by Owner in connection with the management of the Facility; or

(3) Are caused by or arise out of the services provided by independent contractors used by LICENSOR in connection with the management of the Facility.

c) The provisions set forth in subparagraphs (a) and (b) of this Section shall survive termination of this Agreement.

11) DEFAULT, TERMINATION AND OTHER REMEDIES.

a) Default.

i) LICENSEE shall be in default under this Agreement if any of the following occur:

(1) LICENSEE fails to pay any amount when due hereunder (including, without limitation, the License Fee, the required deposits, or the Reimbursable Services Expense) when the same are required to be paid hereunder; or

(2) LICENSEE, its officers, employees or agents fails to perform or fulfill any other term, covenant or condition contained in this Agreement and LICENSEE fails to commence a cure thereof within two (2) business days after LICENSEE has been served with written notice of same; or

(3) LICENSEE makes a general assignment for the benefit of creditors.

ii) LICENSOR shall be in default under this Agreement if LICENSOR fails to perform or fulfill any term; covenant or condition contained in this Agreement and LICENSOR fails to commence a cure thereof within two (2) business days after LICENSOR has been served with written notice of such default.

iii) Nothing herein shall be construed as excusing either party from diligently commencing and pursuing a cure within a lesser time if reasonably possible. Notwithstanding clause (ii) in "Indemnification" Section above, if the breach by LICENSEE, its officers, employees or agents of such other term, covenant or condition is such that it threatens the health, welfare or safety of any person or property, then LICENSOR may, in its discretion, require that such breach be cured in less than two (2) business days or immediately.

b) Termination. Upon a default pursuant to subparagraph (a) above, the non-breaching party may, at its option, upon written notice or demand upon the other party, cancel and terminate this Agreement and the obligations of the parties with respect thereto.

c) Injunctive Relief. In addition to any other remedy available at law, equity or otherwise, LICENSOR shall have the right to seek to enjoin any breach or threatened breach and/or obtain specific performance of this Agreement by LICENSEE upon meeting its burden of proof of such breach or threatened breach as required by applicable statute or rule of law.

d) Unique Qualities. The parties agree and acknowledge that the Event is a unique entity and, therefore, the rights and benefits that will accrue to LICENSOR by reason of this Agreement are unique and that LICENSOR cannot be adequately compensated in money damages for LICENSEE's failure to comply with the material obligations of LICENSEE under this Agreement and that therefore LICENSOR shall have the right to seek equitable relief (whether it be injunctive relief, specific performance or otherwise) in the event that LICENSEE fails to fulfill its obligation to hold the Event at the Facility.

e) Late Charges. If LICENSEE fails to pay any amounts when due under this Agreement, LICENSOR may choose any or all of the following options, at it's sole option, without the restriction or limitation to pursue other remedies:

i) Cancel this LICENSEE Agreement,

ii) Require LICENSEE to pay, in full, the entire outstanding balance due on all fees, projected expenses, etc., immediately.

iii) Require LICENSEE pay to LICENSOR a late charge of one and a half percent (1.5%) per month on the unpaid balance.

12) REPRESENTATIONS AND WARRANTIES. Each party hereby represents and warrants to the other party, and agrees as follows:

a) It has the full power and authority to enter into this Agreement and perform each of its obligations hereunder;

b) It is legally authorized and has obtained all necessary regulatory approvals for the execution, delivery and performance of this Agreement; and

c) No litigation or pending or threatened claims or litigation exist which do or might adversely affect its ability to fully perform its obligations hereunder or the rights granted by it to the other party under this Agreement.

13) COVENANTS. LICENSEE hereby covenants and agrees as follows:

a) LICENSEE shall not occupy or use the Facility except as provided in this Agreement.

b) LICENSEE shall comply with all legal requirements that arise in respect to the Facility and the use and occupation thereof.

i) The following items are prohibited within any areas of the Facility without written permission by LICENSOR:

(1) Propane and propane powered vehicles, equipment and displays.

(2) Possession, application or distribution of any self-adhesive stickers, promotional items, posters or similar items on the ingress or egress of the Event or inside the Facility.

(3) Any self-adhesive material including tape, stickers, etc. in general and specifically not used to display banners and/or posters of any kind for events, radio station promotions, etc.

(4) Guns, knives, electronic shock devices or other weapons that could be used to harm another individual or property.

(5) Food or food products, either for sale or sample distribution (free samples).

(6) Helium or other lighter than air filled balloons.

(7) Open flame candles or other fixtures with an open flame.

(8) Recording devices (video, audio or photographic) for the intent to distribute or to re-sell.

(9) Laser pens or other laser light-type pointing devices.

c) LICENSEE shall not advertise, paint, post or exhibit, nor allow to be advertised, painted, posted or exhibited, signs, advertisements, show bills, lithographs, posters or cards of any description inside or outside or on any part of the Facility except upon written permission of LICENSOR and for such time and in such location as designated by LICENSOR Management. Which permission/consent/approval shall not be unreasonably withheld or delayed. LICENSEE shall take down and remove forthwith all signs, advertisements, show bills, lithographs, posters or cards of any description objected to by LICENSOR.

d) With respect to any Event at the Facility, Licensee shall comply fully with any and all local, state, and federal laws, regulations, rules, constitutional provisions, common laws, and rights of others applicable to the reproduction, display, or performance of proprietary

or copyrighted materials and works of third parties (the "Works"), and to the protection of the intellectual property rights associated with such Works.

e) LICENSEE shall not operate or use any equipment or materials belonging to LICENSOR without the prior written approval of LICENSOR.

f) No portion of any passageway or exit shall be blocked or obstructed in any manner whatsoever, and no exit door or any exit shall be locked, blocked or bolted while the Facility is in use. Moreover, all designated exit ways shall be maintained in such manner as to be visible at all times.

g) No collections, whether for charity or otherwise, shall be made, attempted or announced at the Facility, without first having made a written request and received the prior written consent of LICENSOR.

h) Utilities.

i) Electric.

(1) Representative of LICENSOR or the approved LICENSOR electrical contractor must make all electrical connections other than one hundred ten (110) volt wall connections. Multiple plugs per standard one hundred ten (110) volt outlet such as twin sockets, cube taps, and etc. will not be permitted. All electrical equipment shall be properly wired and meet Fire Underwriters Laboratory specifications.

ii) Water.

(1) LICENSOR agrees to furnish water by means of the appliance installed for ordinary toilet or janitor purposes, but for no other purpose, unless otherwise specifically provided for in this contract. Water closets and water apparatus will not be used for any purpose other than for which they are constructed and no sweepings, rubbish, paper or other substances shall be thrown therein. LICENSEE shall pay any damage resulting to them on account of misuse of any nature or character whatever.

iii) Lighting. Normal lighting provided by fixed Facility fixtures will be maintained throughout the Event at no additional cost to LICENSEE. Work-level lighting will be provided during load-in and load-out and additional lighting provided at other times as determined to be necessary by LICENSOR.

14) CIVIL RIGHTS ACT. During the performance of this Agreement, LICENSEE shall comply fully with Title VI and Title VII of the Civil Rights Act of 1964, as amended, and all other regulations promulgated thereunder, in addition to all applicable state and local ordinances concerning Civil Rights and Human Rights and opportunities.

15) AMERICANS WITH DISABILITIES ACT. LICENSOR shall be responsible for ensuring that, within reason based on current structural limitations or equipment and Facility limitations, access into the Facility complies with the Americans With Disabilities Act, as amended ("ADA"). LICENSOR shall also be responsible for ensuring, to the extent reasonably possible, that the common areas inside the Facility (i.e. elevator access, ramp access, restrooms) are accessible to, and usable by, individuals with disabilities to an extent

possible within any current limitations of the Facility. With respect to any Event at the Facility, LICENSEE recognizes that it is subject to the provisions of Title III of the ADA. LICENSEE represents that it has viewed or otherwise appraised itself of the access into the Facility, together with the common areas inside, and accepts such access, common areas and other conditions of the Facility as adequate for LICENSEE's responsibilities under the ADA. LICENSEE shall be responsible for ensuring that the Facility complies and continues to comply in all respects with the ADA, including accessibility, usability and configuration insofar as LICENSEE modifies, rearranges or sets up in the Facility in order to accommodate LICENSEE's usage. LICENSEE shall be responsible for any violations of the ADA that arise from LICENSEE's reconfiguration of the seating areas or modification of other portions of the Facility in order to accommodate LICENSEE's usage. LICENSEE shall be responsible for providing auxiliary aids and services that are ancillary to its usage and for ensuring that the policies, practices and procedures it applies in connection with an Event are in compliance with the ADA.

16) CONSTRUCTION OF THIS AGREEMENT.

a) Choice of Law. This Agreement shall be deemed to be made, governed by, and construed in accordance with the Laws of the United States of America and State of Texas, and all of the ordinances of the City of Beaumont, Texas and the rules and regulations of LICENSOR for the government and management of said Facility, together with all rules and regulations of the Police and Fire Departments of the City of Beaumont, and if the attention of said LICENSEE is called to such violation on the part of the LICENSEE, said LICENSEE will immediately desist from and correct said violation.

b) Paragraph Headings. The paragraph headings are inserted herein only as a matter of convenience and for reference and in no way are intended to be a part of this Agreement or to define, limit or describe the scope or intent of this Agreement or the particular paragraphs hereof to which they refer.

c) Entire Agreement; Amendments. This Agreement (including all Exhibits and other documents and matters annexed hereto or made a part hereof by reference) contains all of the covenants, agreements, terms, provisions and conditions relating to the rights and obligations of LICENSOR and LICENSEE with respect to the Facility. No alterations, amendments or modifications hereof shall be valid unless executed by an instrument in writing by the parties hereto.

d) Severability. If any provision or a portion of any provision of this Agreement is held to be unenforceable or invalid by a court of competent jurisdiction, the validity and enforceability of the enforceable portion of any such provision and/or the remaining provisions shall not be affected thereby.

e) Time. Time is of the essence hereof, and every term, covenant and condition shall be deemed to be of the essence hereof.

f) Successors. This Agreement shall be binding upon, and shall inure to, the benefit of the successors and assigns of LICENSOR, and to such successors and assigns of LICENSEE as are permitted to succeed to the LICENSEE's right upon and subject to the terms hereof.

g) Independent Contractor; No Partnership. LICENSOR and LICENSEE shall each be and remain an independent contractor with respect to all rights and obligations arising under this Agreement. Nothing herein contained shall make, or be construed to make, LICENSOR or LICENSEE a partner of one another, nor shall this Agreement be construed to create a partnership or joint venture between and of the parties hereto or referred to herein.

h) Singular and Plural. Whenever the context shall so require, the singular shall include the plural, and the plural shall include the singular.

17) MISCELLANEOUS.

a) Waiver. The failure of any party to enforce any of the provisions of this Agreement, or any rights with respect hereto, or the failure to exercise any election provided for herein, will in no way be considered a waiver of such provisions, rights or elections, or in any way affect the validity of this Agreement. The failure of any party to enforce any of such provisions, rights or elections will not prejudice such party from later enforcing or exercising the same or any other provisions, rights or elections which it may have under this Agreement.

b) Assignment. Neither this Agreement nor any of the rights or obligations hereunder may be assigned or transferred in any manner whatsoever by LICENSEE without the prior written consent of LICENSOR. LICENSOR shall be entitled to assign its rights and obligations hereunder to Owner or to any other management company retained by Owner to manage the Facility, and in such event, LICENSOR shall have no further liability to LICENSEE hereunder for the performance of any obligations or duties arising after the date of such assignment.

c) Notices. Any notice, consent or other communication given pursuant to this Agreement shall be in writing and shall be effective either:

i) When delivered personally to the party for whom intended.

ii) Upon delivery by an overnight courier services that is generally recognized as reliable, and the written records maintained by the courier shall be prima facie evidence of delivery; or

iii) On delivery by certified or registered mail, return receipt requested, postage prepaid, as of the date shown by the return receipt; in any case addressed to such party as set forth below or as a party may designate by written notice given to the other party in accordance herewith.

If to LICENSOR, to:

LICENSOR/Ford Park
1149 Pearl Street, 4th Floor
Beaumont, TX 77701
Attention: County Judge

If to LICENSEE, to:

March of Dimes, Houston Market
Attn: Veronica James vjames@marchofdimes.org
5420 Dashwood Dr., Suite 302
Houston, TX 77801

18) NON-EXCLUSIVE USE. LICENSOR shall have the right, in its sole discretion, to use or permit the use of any portion of the Facility other than the Authorized Areas to any person, firm or other entity regardless of the nature of the use of such other space.

19) FORCE MAJEURE. If the Facility is damaged from any cause whatsoever or if any other casualty or unforeseeable cause beyond the control of LICENSOR, including, without limitation, acts of God, fires, floods, epidemics, quarantine restrictions, terrorist acts from a foreign or domestic source, strikes, failure of public utilities or unusually severe weather, prevents occupancy and use, or either, as granted in this Agreement, LICENSOR is hereby released by LICENSEE from any damage so caused thereby.

IN WITNESS WHEREOF, the parties hereto as of the day and year first written above have duly executed this Agreement along with attached Reimbursable Services Expense Estimate, which is hereby made an integral part of this Agreement.

Jefferson County, Texas,
owner of Ford Park

Signature: _____

Printed Name: Jeff Branick

Title: County Judge

Date: 10-31-2016

("LICENSOR"/Jefferson County, Texas)

March of Dimes, Houston Market

Signature: _____

Printed Name: Veronica James

Title: Development Director

Date: 10/21/2016

("LICENSEE")

RECEIVED OCT 26 2016

EVERETTE "BO" ALFRED
COUNTY COMMISSIONER
PRECINCT 4
P.O. Box 4025
Beaumont, Texas 77704-4025

SHEDRICK D. EVANS
Executive Assistant

KENNETH MINKINS
Superintendent
Precinct 4 - Service Center

MEMO

TO: Ms. Loma George
Hon. Jeff Branick's Office

FROM: Commissioner Everette Alfred

DATE: October 26, 2016

RE: Agenda Item

Please place this item on the Agenda for Monday, October 31, 2016:

Consider appointing Bart L. Owens to the Drainage District #6 Board of Directors to fill the unexpired term of Judge James McNicholas. This is an appointment of Commissioner Alfred.

Thank you.

EA/nr

RESOLUTION

BE IT RESOLVED PURSUANT TO THE TEXAS PROPERTY TAX CODE, SECTION 26.09, THAT COMMISSIONERS' COURT OF JEFFERSON COUNTY HEREBY APPROVE THE 2016 TAX ROLL THIS 24 DAY OF October, 2016.

JEFF BRANICK
County Judge

EDDIE ARNOLD
Commissioner, Precinct No. 1

MICHAEL SINEGAL
Commissioner, Precinct No. 3

BRENT WEAVER
Commissioner, Precinct No. 2

EVERETTE D. ALFRED
Commissioner, Precinct No. 4

Sworn to and subscribed before me, the undersigned authority, this 24TH day of OCTOBER, 2016.

CAROLYN GUIDRY, County Clerk

COMMISSIONERS COURT
JEFFERSON COUNTY, TEXAS

Tax Collection System - JEFFERSON COUNTY
Certified Roll Jurisdiction Summary
Processing For Tax Year: 2016 County Code: ALL Tax Unit: ALL

Jurisdiction: 1 **JEFFERSON COUNTY**

Total Parcels:	152,759	**Tax Rate:**	0.3650000		
Market Value:	30,834,343,421	**State Hom:**	0	**Opt Hom:**	0.2000000
		State O65:	0	**Opt O65:**	40,000
		Disabled:	40,000	**Opt Disabled:**	0
AG Exclusion Count:	3,952	**AG Exclusion Amt:**	397,021,258		
Timber Exclusion Count:	424	**Timber Exclusion Amt:**	19,177,343		
HS Capped Count:	2,286	**HS Capped Amt:**	17,476,404		
Assessed Value:	30,400,668,416				

Prorated-Exxv Count/Amt:	6,875	1,521,731,165	**Prorated-Exxa Count/Amt:**	2	96,469
100% Exempt Vet Count/Amt:	470	52,612,890	**Charitable Org Count/Amt:**	1	69,020
Chdo Count/Amt:	68	3,964,422	**Low Income Housing Count/Amt:**	2	3,355,100
Pro Youth Associations Count/Amt:	21	7,775,710	**Abatement Count/Amt:**	16	1,091,948,438
Prorated-Exxl Count/Amt:	5	2,169,080	**Pollution Control Count/Amt:**	169	1,333,169,312
Pro Schools Count/Amt:	93	41,458,885	**Hb366 Count/Amt:**	118	25,877
Pro Misc Exempts Count/Amt:	128	6,635,430	**Goods In Transit Count/Amt:**	1	28,710
Pro Charitable Functions Count/Amt:	35	4,998,570			

State Homestead Count:	0	**State Homestead Amt:**	0
Local Homestead Count:	52,718	**Local Homestead Amt:**	1,173,587,667
State Over 65 Count:	0	**State Over 65 Amt:**	0
Local Over 65 Count:	18,200	**Local Over 65 Amt:**	675,505,409
Surviving Spouse Count:	115	**Surviving Spouse Amt:**	4,330,739
State Disabled Count:	0	**State Disabled Amt:**	0
Local Disabled Count:	4,373	**Local Disabled Amt:**	155,331,093
Total VET Count:	1,157	**Total VET Amt:**	11,142,480
***VET Surviving Spouse Count:**	30	***VET Surviving Spouse Amt:**	288,040
***included in the Total VET Count/Amt**			

Partial Exempt Values:	2,019,897,388		
Taxable Value:	24,310,731,950		
Total Levy Amt:	88,047,145.07		
Late AG Penalty Count:	34	**Late AG Penalty Amt:**	730.47
Late Rendition Penalty Count:	2,703	**Late Rendition Penalty Amt:**	80,561.15
Frozen Account Count:	21,598		
Frozen Homesite Value:	2,208,950,993		
Frozen Taxable Value:	964,000,757		
Unfrozen Levy Amt:	3,518,603.10		
Frozen Levy Amt:	2,758,307.36		
Frozen Levy Loss Amt:	760,295.74		
Total Non-Exempt Parcel Count:	152,759		

ALLISON NATHAN GETZ
TAX ASSESSOR-COLLECTOR

TERRY WUENSCHEL
CHIEF DEPUTY

October 13, 2016

Patrick Swain
County Auditor
Jefferson County
Beaumont, TX

Dear Patrick:

Attached is the ***2016 Certified Tax Roll Summary.*** Pursuant to the Texas Property Tax Code, Section 26.09, this certified tax roll summary should be approved at the next Commissioners' Court meeting. After the approval, please return the resolution for retention in the Tax Office.

If you should have any questions or require further information, please feel free to call.

Sincerely,

Allison Nathan Getz

ALLISON NATHAN GETZ, PCC
Assessor-Collector of Taxes
Jefferson County, Texas

ANG:db

Attachment

cc: Fran Lee

grandrcp.ltr.16

State Case Registry and Local Customer Service
Cooperative Agreement
between
The Office of the Attorney General
of the State of Texas
and
Jefferson County, Texas

CONTRACT NO. 17-C0045

1. INTRODUCTION

1.1. This contract ("Contract") is entered into, by and between the Office of the Attorney General ("OAG") and Jefferson County ("County"). OAG and County are referred to individually as a "Party" and collectively as the "Parties" in this Contract.

1.2. This Contract, including its attachments (all of which are made a part hereof and expressly included herein), is entered into under the authority of Texas Family Code Section 231.002 and Texas Government Code Section 791.011.

1.3. PURPOSE. County and OAG shall cooperate to:

1.3.1. Create or Update Registry-Only Case(s) on the OAG Case Management System with Child Support court order and Family Violence information.

1.3.2. Gather and enter sufficient information on the OAG Case Management System to satisfy the requirements for State Case Registry (SCR).

1.3.3. Provide quality local customer service as described in this Contract.

1.4. ACRONYMS, TERMS, AND DEFINITIONS. The following terms have the meaning set forth below. All other terms have the meaning set forth in the *Merriam Webster's Collegiate® Dictionary*, Eleventh edition.

Acronym/Term	Definition
Child Support Case	A collection of data associated with a particular child support order, court hearing, and/or request for IV-D services that typically includes data regarding a Custodial Parent (CP), Non-Custodial Parent (NCP), a Dependent(s) (DP) and/or presumed father. Every Child Support Case is stored on the OAG Case Management System and has a unique OAG Case Number, names and identifying information about its members, court order details, and payment history.
Cause Number	A unique case identifier randomly assigned by the District Clerk at the time the original petition is filed.
Custodial Parent (CP)	The person who has primary care, custody, and control of the Dependent(s).
Contract	Any contract resulting from this procurement.
Dependent	The minor or adult child who is under the primary care, custody and control of the Custodial Parent.
Federal Disallowance Percentage	The Federal Office of Child Support Enforcement (OCSE) does not reimburse OAG for Registry-Only customer service activities on Child Support Cases without wage withholding in effect. OAG calculates the percentage of customer service activities disallowed each month using the following formula: Total non-wage withheld receipts/Total receipts processed.

Acronym/Term	Definition
Full-Service (FS)	A Child Support Case for which the OAG is providing all IV-D child support services pursuant to: 1) a signed application for services submitted by a CP or NCP; 2) an automatic referral for services pursuant to a county's local rule; or 3) an automatic referral from the Health and Human Services Commission (HHSC) when a CP is certified to receive public assistance.
FVI	Family Violence Indicator
HHSC	Health and Human Services Commission
IV-D (also referred to as Title IV-D)	Title IV-D of the Social Security Act, [42 U.S.C. 651 et seq.] which requires that each state create a program to locate NCPs, to establish paternity, to establish and enforce child support obligations, and collect and distribute support payments. All recipients of public assistance (usually Temporary Assistance for Needy Families (TANF)) are referred to their state's IV-D child support program. States must also accept applications from families who do not receive public assistance, if requested, to assist in collection of child support. Title IV-D also established the Federal Office of Child Support Enforcement (OCSE).
Non-Custodial Parent (NCP)	The parent who does not have primary care, custody, or control of the Dependent(s).
OAG-CSD (also referred to as OAG)	Office of the Attorney General, Child Support Division
OAG Case Management System	A federally certified case management system for the IV-D program. Also referred as the "Texas Child Support Enforcement System" or TXCSES, T1, or T2.
Registry-Only (RO)	A case for which the IV-D services provided by the OAG are limited to recording and disbursing child support payments.
Remitter	NCPs, employers, counties, other states, other countries, other entities, individuals, responding jurisdictions, or other third parties who have forwarded a child support payment to the appropriate child support registry.
SSN	Social Security Number
Start Date of Cause	The date the judge signed the order for child support.
State Case Registry (SCR)	A federally mandated database maintained by each state that contains information on Child Support Cases established or modified after October 1, 1998.
State Disbursement Unit (SDU)	The centralized payment collection site in Texas where all child support payments are received and processed.

2. CONTRACT TERM

2.1. The Contract becomes effective on September 1, 2016 and, unless sooner terminated as provided herein, ends on August 31, 2018 (the "initial term"). The Contract shall be automatically renewed for three (3), one (1) year terms with the first one (1) year term beginning on September 1, 2018, unless one (1) party notifies the other in writing of its intention not to renew this Contract. Such renewal shall be subject to all specifications and terms and conditions of this Contract, with the sole and limited exception that the original date of termination may be extended pursuant to this provision. The parties agree to be bound, for the initial term of the Contract and for any and all renewal terms which the OAG may elect to exercise, by the terms of this Agreement, including the County performance of the within described services at the rates specified herein.

3. REQUIREMENTS

3.1. COUNTY OBLIGATIONS.

3.1.1. Confidentiality. This Contract provides for the sharing of confidential and/or sensitive information between OAG and County. In consideration of OAG providing confidential and/or sensitive information to County in order to perform Contract services, County agrees to assume responsibility for compliance with, and to work closely in cooperation with, OAG to ensure compliance with all applicable state

and federal statutory requirements for confidentiality and information security. See Section 7 INFORMATION PROTECTION PROVISIONS below for more information.

3.1.2. Customer Identification. .County shall adhere to the OAG Procedures for Customer Identification (*Attachment A*) prior to responding to an inquiry or updating case and member information.

3.1.3. State Disbursement Unit. County agrees that all court orders with child support rendered by a court on or after January 1, 1994, must direct child support payments to the SDU in accordance with Section 154.004 of the Texas Family Code and 42 USC 654b. Where County identifies a pattern of court orders from a particular court or attorney that fail to comply with Section 154.004 of the Texas Family Code and 42 USC 654b, County will notify the OAG of same.

3.1.4. State Case Registry.

3.1.4.1. County shall, in accordance with the time frames set forth in the "Timeframe Requirements" section below:

3.1.4.1.1. enter into the OAG Case Management System the "State Case Registry Complete" data listed in in the "State Case Registry Complete" section below;

3.1.4.1.2. enter into the OAG Case Management System all additional data, as described in the "Update Activities" section below, that County has obtained; and

3.1.4.1.3. update all of the above data for Child Support Cases as County receives updated information.

3.1.4.2. County may use the original court order to obtain the relevant information for entry to the OAG Case Management System or may use the "Record of Support" Form 1828 (*Attachment B*) that summarizes the relevant court-ordered child support information. Form 1828 is published on the OAG-CSD's webpage, www.texasattorneygeneral.gov, under "Child Support Forms/TAC Forms."

3.1.4.3. State Case Registry Complete.

3.1.4.3.1. The following are the minimum required data elements necessary for a Child Support Case to be considered "State Case Registry Complete":

3.1.4.3.1.1. Participant Information

- Type (Dependent, Custodial Parent, Non-Custodial Parent)
- First and Last Name
- Gender
- Social Security Number (SSN) and/or Date of Birth (DOB)
- Family Violence Indicator (FVI) (if applicable)
- Custodial Parent's Complete Address

3.1.4.3.1.2. Case and Cause Information

- Cause Number; and
- Start Date of Cause

3.1.4.4. Update Activities.

3.1.4.4.1. County shall:

3.1.4.4.1.1. update the State Case Registry data entered in accordance with the "State Case Registry Complete" section above with updated data obtained by County after the initial entry; and

3.1.4.4.1.2. enter into the OAG Case Management System additional case and/or member data to a Child Support Case as County receives such data from the Custodial Parent, Non-Custodial Parent, employer, court or attorney of record. This additional case and/or member data includes but is not limited to the following:

- Complete Address for Custodial Parent, Non-Custodial Parent, Dependent, and any other parties to the Child Support Case;
- Protective Orders;
- Order Modification Date;
- Dependent Status;
- Case Closures; and
- Jurisdictional Transfer of Court Orders.

3.1.4.5. Timeframe Requirements.

3.1.4.5.1. County shall create new Child Support Cases on the OAG Case Management System within five (5) business days from the "date received" time stamped on the Temporary or Final order indicating that the order was received by the District Clerk or Local Registry's office.

3.1.4.5.2. If a payment has been received by the SDU and a Child Support Case has not been created, County shall create a new Child Support Case on the OAG Case Management System, updating all available information, within five (5) business days from notification by the SDU.

3.1.4.5.3. County shall provide new and updated "State Case Registry Complete" data and any additional data on existing Child Support Cases within three (3) business days after receipt of the data.

3.1.4.5.4. County shall forward all misdirected child support payments to the SDU within one (1) business day of receipt and shall notify the Remitter of the correct payment address.

3.1.4.6. Protective Orders.

3.1.4.6.1. County shall update the FVI for Registry-Only Cases in the OAG Case Management System within one (1) business day after a protective order is filed.

3.1.4.6.2. County shall provide the local OAG field office with a copy of a protective order on a Full-Service Case within one (1) business day after it is filed, pursuant to TFC § 85.042(a).

3.1.4.7. New Orders for Existing Full Service Cases.

3.1.4.7.1. OAG and County will develop a mutually agreeable process to ensure that the OAG local field office has copies of new and subsequent orders on existing full service cases.

3.1.5. Local Customer Service.

3.1.5.1. County shall provide the resources necessary to accomplish allowable Customer Service Activities on Child Support Cases, as described below. County resources include, but are not limited to, personnel, office space, equipment, phones and phone lines.

3.1.5.2. Customer Service Activities.

3.1.5.2.1. Allowable Customer Service Activities must relate to the following categories:

3.1.5.2.1.1. Payment Inquiry;

3.1.5.2.1.2. Payment Research;

3.1.5.2.1.3. Employer Payment Related Calls;

3.1.5.2.1.4. OAG Payment Related Calls; and

3.1.5.2.1.5. Wage Withholding Inquiry (Employer, Custodial Parent, Non-Custodial Parent).

3.1.5.2.2. Examples of Allowable Customer Service Activities include:

3.1.5.2.2.1. Researching payments on Child Support Cases that should have been, but were not, received by OAG.

3.1.5.2.2.2. Researching disbursements on Child Support Cases that should have been, but were not, received by the Custodial Parent.

3.1.5.2.2.3. Providing payment records on Child Support Cases to the court, the guardian ad litem for the child, the Custodial Parent and Non-Custodial Parent and their attorneys, a person authorized by the Custodial Parent or Non-Custodial Parent to receive the payment history information, and a District or County attorney for purposes of pursuing prosecution for criminal non-support of a child.

3.1.5.2.2.4. Providing a certified copy of the court order to OAG upon request without delay.

3.1.5.3. Customer Service Requirements.

3.1.5.3.1. County shall:

3.1.5.3.1.1. Respond to written inquiries within five (5) business days after receipt.

3.1.5.3.1.2. Take action on information received within three (3) business days after receipt.

3.1.5.3.1.3. Document allowable customer service activities on the OAG Case Management System.

3.1.5.3.1.4. Return phone calls within three (3) business days after receipt.

3.1.5.3.1.5. Resolve or respond to telephone inquiries within three (3) business days after receipt.

3.1.5.3.1.6. Attend to a walk in customer the same day or schedule appointment within three (3) business days after request.

3.1.5.3.1.7. Provide customers with the OAG's toll free Enterprise Customer Service Center number (800-252-8014) when needed.

3.2. INTERFACE CONTROL DOCUMENT FILE SHARING SERVICES.

3.2.1. This Section is applicable only if County exchanges interface control document ("ICD") files

3.2.2. The Parties will work to reduce the number of files exchanged, eliminate redundancy, modernize the technology, and streamline the exchange process, thus improving efficiency for all involved.

3.2.3. The OAG may, with sufficient notice to County, cease processing of any or all of the ICD's listed below.

3.2.3.1. Interface Control Document Files

3.2.3.1.1. ICD012, Full-Service and Registry-Only Collections

3.2.3.1.2. ICD013, Registry-Only Disbursement Data.

3.2.3.1.3. ICD015, Full-Service and Registry-Only Collection Adjustments.

3.2.3.1.4. ICD050, Registry-Only Case Data for Local Registries.

3.2.3.1.5. ICD035, Local Customer Service Registry Activities

3.2.3.1.5.1. County may provide the ICD035 ICD to OAG for processing in the OAG Case Management System.

3.2.3.1.5.2. At the request of OAG, County shall provide additional documentation to support the Customer Service Activity claims submitted on the ICD035. Said documentation shall be in the format designated by OAG and shall include the following data elements:

- Customer Service Date
- Customer Service Time
- Cause Number
- OAG Case ID
- Name of caller
- Caller's relationship to the case
- Description of Customer Service Activity

3.3. CHANGES TO OAG CASE MANAGEMENT SYSTEM.

3.3.1. OAG reserves the right to:

3.3.1.1. Make changes to the design of the OAG Case Management System.

3.3.1.1.1. OAG will make every effort to provide advance notice of any planned system changes that may impact the business operations or processes of County.

3.3.1.2. Make changes to OAG procedures and training material.

3.3.2. Any changes to the OAG Case Management System or OAG policy and procedures that impact the County's ability to provide Contract Services will be documented through Controlled Correspondence.

3.4. PERFORMANCE REVIEW. County shall allow OAG access to county's case management system, imaging system, and county facilities for the purpose of reviewing and inspecting county processes related to the requirements of this contract.

3.4.1. OAG and County will work together to plan for the performance review.

3.4.2. County shall complete an OAG self-assessment questionnaire prior to the review.

3.4.3. OAG and County will select a random sample of cases prior to the review.

3.4.4. OAG will review a random sample of Child Support Cases to ensure that:

3.4.4.1. All court orders, whether a Temporary Order or a Final Order that involves child support, are entered on the OAG Case Management System.

3.4.4.2. Child Support Case information is entered on the OAG Case Management System within the timeframes set forth in the "Timeframe Requirements" section above.

3.4.4.3. Child Support Case information is entered accurately on the OAG Case Management System.

3.4.4.4. Child Support Orders direct child support payments to the SDU.

3.4.5. OAG will offer assistance with contract, statutory and operational issues.

3.4.6. OAG will provide training during the performance review as needed.

3.4.7. OAG and County will review the most current list of authorized County Agents, as defined in the "Information Protection Provision", "Applicability" section of this Contract.

3.5. TRAINING.

3.5.1. Mandatory Training.

3.5.1.1. County shall ensure that, upon notification by OAG, all County staff performing Contract Services comply with mandatory OAG training requirements.

3.5.2. OAG Case Management System.

3.5.2.1. All County staff performing Contract Services must be trained on the OAG Case Management System. Upon request from County, OAG will provide training materials (Reference Guide, CD ROMs, and/or Scenario Guide) on the OAG Case Management System. Training (via phone/webinar or classroom at an OAG regional training center) will be scheduled by OAG Regional Trainers by the end of the quarter following such request. County shall be responsible for any and all travel related costs associated with this training, including, but not limited to, costs for travel, lodging, meals and per diem. County shall direct training requests to:

Larry Acevedo (or successor in office)
Office of the Attorney General
Mail Code 053
PO Box 12017
Austin, TX 78711-2017
Email address: CSD-TRN@texasattorneygeneral.gov

4. REMEDIES FOR UNSATISFACTORY PERFORMANCE

4.1. DETERMINATION OF UNSATISFACTORY PERFORMANCE AND CORRECTIVE ACTION.

4.1.1. Failure of County to perform Contract Services shall be considered unsatisfactory performance. Unsatisfactory performance issues shall be communicated to County in writing by the OAG Contract Manager.

4.1.2. County must provide a written response to the OAG Contract Manager within a reasonable timeframe as determined by the OAG.

4.1.3. The OAG Contract Manager will review the County's written response and supporting documentation to make a final determination.

4.1.4. Final determination of performance findings will be documented in controlled correspondence to the County. If the OAG Contract Manager issues a final determination of unsatisfactory performance, County shall provide a corrective action plan.

4.1.4.1. County's corrective action plan must be submitted to the OAG Contract Manager within fifteen (15) business days of the final determination from the OAG of unsatisfactory performance.

4.1.4.2. The corrective action plan must include a timeline for implementation and must be approved by the OAG Contract Manager.

4.2. RIGHT TO WITHHOLD PAYMENTS.

4.2.1. OAG may withhold payment in whole or in part if County fails to:

4.2.1.1. Respond to the OAG's initial correspondence regarding contract service performance issues;

4.2.1.2. Submit a corrective action plan to OAG within the specified time frame; or,

4.2.1.3. Implement the approved corrective action plan within the specified time frame.

4.2.2. If the County's performance does not return to a satisfactory status within four (4) months after implementation of the corrective action plan, OAG may withhold payments in whole or in part.

4.2.3. If the unsatisfactory status persists for a total of six (6) months after implementation of the corrective action plan, OAG may terminate this Contract (in accordance with the Termination Section below) without payment to County for any costs incurred by County from the time that OAG commenced withholding payments.

4.2.4. OAG will resume payments to County at such time as OAG finds County has complied with the provisions enumerated in the "Determination of Unsatisfactory Performance and Corrective Action" section above. The first payment after resumption shall include all costs accrued during the period in which payments were withheld.

5. FINANCIAL MATTERS

5.1. MAXIMUM LIABILITY OF THE OAG.

5.1.1. Notwithstanding any other provision of this Contract, the maximum liability of OAG under this Contract is **Twenty Two Thousand Dollars and No Cents ($22,000.00)**.

5.2. REIMBURSEMENT RATES.

5.2.1. Federal Share.

5.2.1.1. OAG shall be financially liable to County for the federal share of County's Contract associated cost. "Federal Share" means the portion of County's Contract associated cost that the federal Office of Child Support Enforcement reimburses the state as federal financial participation under Title IV-D; for purpose of reference only the federal share on the effective date of this Contract is 66%.

5.2.2. State Case Registry.

5.2.2.1. State Case Registry Complete Fee. County agrees that the per activity fee for each Child Support Case in which County initially entered sufficient data on the OAG Case Management System to deem the case "State Case Registry Complete", as defined in the "State Case Registry Complete" section of this Contract, is $12.89.

5.2.2.2. State Case Registry Complete Update Fee. County agrees that the per activity fee for each update of State Case Registry Complete data or entry of additional information on the OAG Case Management System, pursuant to the "Update Activities" section of this Contract, on a Child Support Case previously deemed State Case Registry Complete is $4.09.

5.2.2.3. County agrees that, for the purposes of this Contract, all of County's reimbursable Contract associated State Case Registry costs for any given calendar month is equal to the Federal Share of the number of State Case Registry Complete activities during the calendar month multiplied by the State Case Registry Complete Fee plus the number of State Case Registry Complete Updates during the calendar month multiplied by the State Case Registry Complete Update Fee.

5.2.2.3.1. Thus, OAG's liability for County's Contract associated State Case Registry costs will be calculated as follows:

[(Calendar Month State Case Registry Complete activities x $12.89) + (Calendar Month State Case Registry Complete Update activities x $4.09)] x Federal Share = OAG Liability.

5.2.3. Local Customer Service.

5.2.3.1. County agrees that, for the purposes of this Contract, all of County's reimbursable Contract associated Local Customer Service costs for any given calendar month is equal to the Federal Share of number of Allowable Customer Service Activities performed on Full Service and Registry-Only Child Support Cases during the calendar month minus the number of Allowable Customer Service Activities performed on Registry-Only Cases during the calendar month multiplied by the Federal Disallowance Percentage, multiplied by a per inquiry fee of $4.12. For purpose of reference only the Federal Disallowance Percentage for SFY 2015 annualized is 22.31%.

5.2.3.1.1. Thus, OAG's liability for County's Contract associated Local Customer Service costs will be calculated as follows:

[((Calendar Month Full Service Inquiries Handled by County Personnel + Calendar Month Registry-Only Inquiries Handled by County Personnel) – (Calendar Month Registry-Only Inquiries x Federal Disallowance Percentage)) x $4.12] x Federal Share = OAG Liability.

5.3. REIMBURSEMENT PROCESS.

5.3.1. OAG will forward a Summary and Reimbursement Voucher for any particular month's activities to County for review and approval by the 25th day of the following month.

5.3.2. If County approves the Summary and Reimbursement Voucher, County shall sign the voucher and return it to OAG for payment within ten (10) County business days after County's receipt of voucher. County's signature constitutes approval of the voucher and certification that all services provided during the period covered by the voucher are included on the voucher. OAG shall process the invoice for payment in accordance with the state procedures for issuing state payments.

County shall submit the invoice via email to:

CSD-CountyInvoicing@texasattorneygeneral.gov

Or via USPS mail to:

Jamie Lala, OAG Contract Manager (or successor in office)
Mail Code 062
Office of the Attorney General
PO Box 12017
Austin, TX 78711-2017

Or via facsimile to: (512) 460-6654

5.3.3. If County does not approve the Summary and Reimbursement Voucher, County shall return the voucher to OAG within ten (10) County business days after receipt of voucher, detailing the basis of any disputed item, and include supporting documentation. OAG shall review the returned voucher. If the dispute is resolved in County's favor, OAG shall make payment as set forth in the preceding subsection. If the dispute is not resolved in County's favor, OAG shall make payment in accordance with the voucher originally sent to County and forward a letter of explanation to County.

5.4. LIMITATION OF OAG LIABILITY.

5.4.1. OAG shall be liable only for Contract associated costs incurred after commencement of this Contract and before termination of this Contract.

5.4.2. OAG may decline to reimburse costs which are submitted for reimbursement more than sixty (60) calendar days after the State Fiscal Year calendar quarter in which such costs are incurred.

5.4.3. County shall refund to OAG within thirty (30) calendar days any sum of money which has been paid to County which OAG and County agree has resulted in an overpayment to County, provided that such sums may be offset and deducted from any amount owing but unpaid to County.

5.4.4. OAG shall not be liable for reimbursing County if County fails to comply with the requirements of the "State Case Registry" and "Local Customer Service" sections above.

5.4.5. OAG shall not be liable for reimbursing County for any activity currently eligible for reimbursement as of right without the necessity for a prior existing contract e.g., sheriff/processor fees. Nor shall OAG be liable for reimbursing County for any activities eligible for reimbursement under another contract or Cooperative Agreement with OAG e.g., customer service related to cases in the same County's Integrated Child Support System ("ICSS") caseload, when County has an ICSS contract with OAG. Nor shall OAG be liable for reimbursing County for information correcting erroneous information previously provided by County.

5.5. AUDIT AND INVESTIGATION.

5.5.1. County understands that acceptance of funds under this Contract acts as acceptance of the authority of the State Auditor's Office, or any successor agency, to conduct an audit or investigation in connection with those funds. County further agrees to cooperate fully with the State Auditor's office or its successor in the conduct of the audit or investigation, including providing all records requested. County shall ensure that this clause concerning the authority to audit funds received indirectly by subcontractors through County and the requirement to cooperate is included in any subcontract it awards.

5.6. FINANCIAL TERMS.

5.6.1. Buy Texas. In accordance with §2155.4441, Texas Government Code, County shall, in performing any services under this Contract, purchase products and materials produced in Texas when they are available at a comparable price and in a comparable period of time to products and materials produced outside Texas.

5.6.2. Legislative Appropriations. All obligations of OAG are subject to the availability of legislative appropriations and, for federally funded procurements, to the availability of federal funds applicable to this procurement. The parties acknowledge that the ability of the OAG to make payments under this contract is contingent upon the continued availability of funds for the Child Support Enforcement Strategy and the State Disbursement Unit Strategy (collectively "Strategies"). The parties acknowledge that funds are not specifically appropriated for this contract and the OAG's continual ability to make payments under this Contract is contingent upon the funding levels appropriated to the OAG for the Strategies for each particular appropriation period. The OAG will use all reasonable efforts to ensure that such funds are available. The parties agree that if future levels of funding for the OAG Child Support Enforcement Strategy and/or the State Disbursement Unit Strategy are not sufficient to continue operations without any operational reductions, the OAG, in its discretion, may terminate this Contract, either in whole or in part. In the event of such termination, the OAG will not be considered to be in default or breach under this Contract, nor shall it be liable for any further payments ordinarily due under this Contract, nor shall it be liable for any damages or any other amounts which are caused by or associated with such termination. The OAG shall make best efforts to provide reasonable written advance notice to County of any such

termination. In the event of such a termination, County shall, unless otherwise mutually agreed upon in writing, cease all work immediately upon the effective date of termination. OAG shall be liable for payments limited only to the portion of work the OAG authorized in writing and which the County has completed, delivered to the OAG, and which has been accepted by the OAG. All such work shall have been completed, per the contract requirements, prior to the effective date of termination.

5.6.3. Provision of Funding by the United States. It is expressly understood that any and all of the OAG's obligations and liabilities hereunder are contingent upon the existence of a state plan for child support enforcement approved by the United States Department of Health and Human Services providing for the statewide program of child support enforcement, pursuant to the Social Security Act, and on the availability of Federal Financial Participation for the activities described herein. In the event that such approval of the state plan or the availability of Federal Financial Participation should lapse or otherwise terminate, OAG shall promptly notify County of such fact in writing. Upon such occurrence, OAG shall discontinue payment hereunder.

5.6.4. Antitrust and Assignment of Claims. Pursuant to 15 U.S.C. §1, et seq., and Tex. Bus. & Comm. Code §15.01, et seq., County affirms that it has not violated the Texas antitrust laws or federal antitrust laws and has not communicated its bid for this Contract directly or indirectly to any competitor or any other person engaged in such line of business. County hereby assigns to OAG any claims for overcharges associated with this Contract under 15 U.S.C. §1, et seq., and Tex. Bus. & Comm. Code §15.01, et seq.

6. CONTRACT MANAGEMENT

6.1. CONTROLLED CORRESPONDENCE.

6.1.1. In order to track and document requests for decisions and/or information pertaining to this Contract, and the subsequent response to those requests, OAG and County shall use Controlled Correspondence. OAG shall manage the Controlled Correspondence for this Contract. For each Controlled Correspondence document, OAG shall assign a tracking number and the document shall be signed by the appropriate Party's Contract Manager.

6.1.2. Controlled Correspondence shall not be used to change pricing or alter the terms of this Contract. Controlled Correspondence shall not be the basis of a claim for equitable adjustment of pricing. Any changes that involve the pricing or the terms of this Contract must be by a Contract amendment. However, the Controlled Correspondence process may be used to document refinements and interpretations of the provisions of this Contract and to document the cost impacts of proposed changes.

6.1.3. Controlled Correspondence documents shall be maintained by both parties in on-going logs. Any communication not generated in accordance with such process shall not be binding upon the parties and shall be of no effect.

6.2. NOTICES.

6.2.1. Written Notice Delivery. Any notice required or permitted to be given under this Contract by one (1) party to the other party shall be in writing and shall be addressed to the receiving party at the address hereinafter specified. The notice shall be deemed to have been given immediately if delivered in person to the recipient's address hereinafter specified. It shall be deemed to have been given on the date of certified receipt if placed in the United States Mail, postage prepaid, by registered or certified mail with return receipt requested, addressed to the receiving party at the address hereinafter specified.

6.2.1.1. County Address. The address of County for all purposes under this Contract and for all notices hereunder shall be:

Ms. Marcile Aunspaugh (or successor in office)
Jefferson County C.S. Supervisor
P.O. Box 3586
Beaumont, TX 77704

6.2.1.2. OAG Address. The address of OAG for all purposes under this Contract and for all notices hereunder shall be:

Mara Flanagan Friesen (or successor in office)
Deputy Attorney General for Child Support (IV-D Director)
Office of the Attorney General
PO Box 12017
Austin, TX 78711-2017

With copies to:

Clayton Richter (or successor in office)
Managing Attorney,
Policy, Legal and Program Operations
Transactional Attorneys
PO Box 12017 (Mail Code 044)
Austin, TX 78711-2017

6.3. CONTRACT MANAGERS.

6.3.1. OAG Contract Manager. The OAG Contract Manager is:

Jamie Lala (or successor in office)
CSD-Government Contracts
Office of the Attorney General
PO Box 12017 (Mail Code 062)
Austin, TX 78711
Email adress: jamie.lala@texasattorneygeneral.gov
Phone: (512) 460-6768

6.3.1.1. Any changes to the above assignment shall be documented by Controlled Correspondence. The OAG Contract Manager has the authority to:

- sign Controlled Correspondence
- serve as the day-to-day point of contact
- coordinate quality control reviews
- approve invoices
- coordinate meetings with the County
- investigate complaints

6.3.1.2. The OAG Contract Manager shall have no authority to agree to any:

- Contract amendment
- pricing change

6.3.2. County Contract Manager. Unless otherwise notified by County, OAG shall consider the District Clerk, Domestic Relations Office Director or Local Registry's office manager as County Contract Manager.

6.3.2.1. Any changes to this assignment shall be documented by Controlled Correspondence. The County's Contract Manager has the authority to:

- make decisions regarding the deliverables required by this Contract
- sign Controlled Correspondence
- serve as the day to day point of contact
- coordinate quality control reviews
- coordinate meetings with the OAG
- investigate complaints

6.4. SUBCONTRACTING.

6.4.1. It is contemplated by the parties hereto that County shall conduct the performances provided by this contract substantially with its own resources and through the services of its own staff. In the event that County should determine that it is necessary or expedient to subcontract for any of the performances specified herein, County shall subcontract for such performances only after County has transmitted to the OAG a true copy of the subcontract County proposes to execute with a subcontractor and has obtained the OAG's written approval for subcontracting the subject performances in advance of executing a subcontract. County, in subcontracting for any performances specified herein, expressly understands and acknowledges that in entering into such subcontract(s), the OAG is in no manner liable to any subcontractor(s) of County. In no event shall this provision relieve County of the responsibility for ensuring that the performances rendered under all subcontracts are rendered so as to comply with all terms of this procurement.

6.5. NO ASSIGNMENT BY COUNTY.

6.5.1. County will not assign its rights under this contract or delegate the performance of its duties under this contract without prior written approval from the OAG. Notwithstanding anything to the contrary in the Texas Business Organizations Code or any other Texas or other state statute a merger shall not act to cause the assumption, by the surviving entity or entities, of this Contract and/or its associated rights and duties without the prior written approval of the OAG. The term "merger" as used in this Section includes, without limitation, the combining of two corporations into a single surviving corporation, the combining of two existing corporations to form a third newly created corporation; or the combining of a corporation with another form of business organization.

6.6. REPORTING FRAUD, WASTE, OR ABUSE.

6.6.1. County must report any suspected incident of fraud, waste or abuse associated with the performance of this Contract to any one (1) of the following listed entities:

- the Contract Manager;
- the Deputy Director for Contract Operations, Child Support Division;
- the Deputy Director, Child Support Division;
- the Director, Child Support Division;
- the OAG Ethics Advisor;
- the OAG's Fraud, Waste and Abuse Prevention Program ("FWAPP") Hotline (866-552-7937) or the FWAPP E-mailbox (FWAPP@texasattorneygeneral.gov); and
- the State Auditor's Office hotline for fraud (1-800-892-8348).

6.6.2. The report of suspected misconduct shall include (if known):

- the specific suspected misconduct;
- the names of the individual(s)/entity(ies) involved;
- the date(s)/location(s) of the alleged activity(ies);
- the names and all available contact information (phone numbers, addresses) of possible witnesses or other individuals who may have relevant information; and
- any documents which tend to support the allegations.

6.6.3. The words fraud, waste or abuse as used in this Section have the following meanings:

- Fraud is the use of one's position for obtaining personal benefit (including benefit for family/friends) through the deliberate misuse or misapplication of resources or assets.
- Waste is the extravagant careless or needless expenditure of funds or consumption of property that results from deficient practices, system controls, or decisions.
- Abuse is the misuse of one's position, title or authority to obtain a personal benefit (including benefit for family/friends) or to attempt to damage someone else.

6.7. COOPERATION WITH THE OAG.

6.7.1. County must ensure that it cooperates with OAG and other state or federal administrative agencies, at no charge to the OAG, for purposes relating to the administration of this Contract. County agrees to reasonably cooperate with and work with the OAG's contractors, subcontractors, and third party representatives as requested by the OAG.

6.8. DISPUTE RESOLUTION PROCESS FOR COUNTY BREACH OF CONTRACT CLAIM.

6.8.1. The dispute resolution process provided for in Chapter 2260 of the Government Code shall be used, as further described herein, by OAG and County to attempt to resolve any claim for breach of contract made by County.

6.8.2. A claim for breach of Contract that the parties cannot resolve in the ordinary course of business shall be submitted to the negotiation process provided in Chapter 2260, Subchapter B, of the Government Code. To initiate the process, County shall submit written notice, as required by subchapter B, to the Deputy Attorney General for Child Support (IV-D Director), Office of the Attorney General, PO Box 12017 (Mail Code 033), Austin, Texas 78711-2017. The notice shall specifically state that the provisions of Chapter 2260, Subchapter B, are being invoked. A copy of the notice shall also be given to all other representatives of the parties otherwise entitled to notice. Compliance with Subchapter B is a condition precedent to the filing of a contested case proceeding under Chapter 2260, Subchapter C, of the Government Code.

6.8.3. The contested case process provided in Chapter 2260, Subchapter C, of the Government Code is the sole and exclusive process for seeking a remedy for any and all alleged breaches of contract by OAG if the parties are unable to resolve their disputes under the negotiation process.

6.8.4. Compliance with the contested case process is a condition precedent to seeking consent to sue from the Legislature under Chapter 107 of the Civil Practices and Remedies Code. Neither the execution of this Contract by OAG nor any other conduct of any representative of OAG relating to the Contract shall be considered a waiver of sovereign immunity to suit.

6.8.5. The submission, processing and resolution of a claim for breach of contract is governed by the published rules adopted by OAG pursuant to Chapter 2260, as currently effective, hereafter enacted or subsequently amended.

6.8.6. Neither the occurrence of an event nor the pendency of a claim constitutes grounds for the suspension of performance by County, in whole or in part.

7. INFORMATION PROTECTION PROVISIONS

7.1. GENERAL.

7.1.1. Survival of Provisions.

7.1.1.1. Perpetual Survival and Severability

7.1.1.1.1. OAG rights and privileges applicable to OAG Data shall survive expiration or any termination of this contract, and shall be perpetual.

7.1.1.1.2. As an exception to the foregoing perpetual survival, if certain OAG Data become publicly known and made generally available through no action or inaction of County, then County may use such publicly known OAG Data to the same extent as any other member of the public.

7.1.1.1.3. If any term or provision of this contract, including these Information Protection Provisions, shall be found to be illegal or unenforceable, it shall be deemed independent and divisible, and notwithstanding such illegality or unenforceability, all other terms or provisions in this contract, including these Information Protection Provisions, shall remain in full force and effect and such term or provision shall be deemed to be deleted.

7.1.2. Applicability.

7.1.2.1. References in the Information Protection Provisions.

7.1.2.1.1. All references to "OAG" shall mean the Office of the Attorney General.

7.1.2.1.2. All references to "OAG-CSD ISO" shall mean the Office of the Attorney General-Child Support Division Information Security Officer.

7.1.2.1.3. All references to "County" shall mean {business name and address}.

7.1.2.1.4. All references to "County's Agents" shall mean County's officials, employees, agents, consultants, subcontractors, and representatives, and all other persons that perform Contract Services on County's behalf.

7.1.2.1.5. All references to "Contract Services" shall include activities within the scope of the executed contract.

7.1.2.1.6. All references to "OAG Data" shall mean all data and information (i) originated by OAG or, (ii) which County accesses from OAG information systems. This contract requires County to retrieve data from the courts and other sources and create data within the Texas Child Support Enforcement System. OAG Data does not include data and information originated by County in the performance of its statutory responsibilities. Gov't Code Chapter 552 defines the exclusive mechanism for determining whether OAG Data are subject to public disclosure. However, data that is publicly known and generally available to the public is not subject to these Information Protection Provisions.

7.1.2.1.7. All references to "OAG Customers" shall mean any person or entity that delivers, receives, accesses, or uses OAG Data.

7.1.2.1.8. The term "Security Incident" means an occurrence or event where the confidentiality, integrity or availability of OAG Data may have been compromised and includes, without limitation, a failure by County to perform its obligations under section 7.2, Data Security, and section 7.3, PHYSICAL AND SYSTEM SECURITY, subsections below.

7.1.2.2. Inclusion in all Subcontracts.

7.1.2.2.1. The requirements of these Information Protection Provisions shall be included in, and apply to, all subcontracts and any agreements County has with anyone performing Contract Services on County's behalf.

7.1.2.3. Third Parties.

7.1.2.3.1. This contract is between County and OAG, and is not intended to create any independent cause of action by any third party, individual, or entity against OAG or County.

7.1.3. Termination for Non-Compliance.

7.1.3.1. In the event that either County or County's Agent fails to comply with any of the Information Protection provisions, OAG may exercise any remedy, including immediate termination of this contract.

7.1.4. Personnel Briefings Training and Acknowledgments.

7.1.4.1. County shall ensure that all persons having access to data obtained from OAG Systems are thoroughly briefed on related security procedures, restricted usage, and instructions requiring their awareness and compliance. County's Agents shall only be granted access to OAG Systems after they have received all required security training and have executed all required security agreements, acknowledgments, and certifications.

7.1.4.2. County shall ensure that all County personnel having access to OAG Data receive annual reorientation sessions when offered by OAG and all County personnel that perform or are assigned to perform Contract Services shall re-execute, and/or renew their acceptance of, all applicable security documents to ensure that they remain current regarding all security requirements.

7.1.5. Key Person Dependence or Collusion. County shall protect against any key-person dependence or collusion by enforcing policies of separation of duties, restricted job responsibilities, audit logging, and job rotation.

7.2. DATA SECURITY.

7.2.1. Rights in OAG Data.

7.2.1.1. County and County's Agents possess no special right to access, use or disclose OAG Data as a result of County's contractual or fiduciary relationship with OAG. As between OAG and County, all OAG Data shall be considered the property of OAG and shall be deemed confidential. County hereby irrevocably assigns, transfers, and conveys, and shall cause County's Agents to irrevocably assign, transfer, and convey to OAG without further consideration all of its and their right title and interest to OAG Data. Upon request by OAG, County shall execute and deliver and shall cause County's Agents to execute and deliver to OAG any documents that may be necessary or desirable under any law to preserve or enable OAG to enforce its rights with respect to OAG Data.

7.2.2. Use of OAG Data.

7.2.2.1. OAG Data have been, or will be, provided to County and County's Agents solely for use in connection with providing the Contract Services. Re-use of OAG Data in any form is not permitted. County agrees that it will not access, use or disclose OAG Data for any purpose not necessary for the performance of its duties under this contract. Without OAG's approval (in its sole discretion), neither County nor County's Agents shall: (i) use OAG Data other than in connection with providing the Contract Services; (ii) disclose, sell, assign, lease, or otherwise provide OAG Data to third parties, including any local, state, or Federal legislative body; (iii) commercially exploit OAG Data or allow OAG Data to be commercially exploited; or (iv) create, distribute, or use any electronic or hard copy mailing list of OAG Customers for purposes other than in connection with providing the Contract Services. However, nothing in this contract is intended to restrict County from performing its other authorized duties. For example, the duty to disseminate copies of court orders to requesting parties that necessarily includes data such as names and addresses.

7.2.2.2. County or County's Agents may, however, disclose OAG Data to the extent required by law or by order of a court or governmental agency; provided that County shall give OAG, and shall cause County's Agents to give OAG, notice as soon as it or they are aware of the requirement; and use its or their best efforts to cooperate with OAG if OAG wishes to obtain a protective order or otherwise protect the confidentiality of such OAG Data. OAG reserves the right to obtain a protective order or otherwise protect the confidentiality of OAG Data.

7.2.2.3. In the event of any unauthorized disclosure or loss of OAG Data, County shall immediately comply with the Notice subsection of the Security Incidents subsection set forth below.

7.2.3. Statutory, Regulatory and Policy Compliance.

7.2.3.1. County agrees to comply with all OAG policies, standards and requirements, state and federal statutes, rules, regulations, and standards regarding the protection and confidentiality of OAG Data, for which it has received written notice, as currently effective, subsequently enacted or as may be amended. The existing requirements that are applicable to County's obligations under this contract are included in this Contract.

7.2.4. Data Retention and Destruction.

7.2.4.1. Within six (6) months of contract award, County and OAG shall develop, and mutually agree upon, a detailed schedule for the retention and possible destruction of OAG Data. The schedule will be based upon the Contract Services being performed and County's limited authorization to access, use, and disclose OAG Data. Subsequent to developing and agreeing upon that schedule, County shall:

(i) Retain and destroy OAG Data in accordance with the detailed schedule for its retention and destruction; (According to OAG Data Sanitization standards)
(ii) Destroy or purge OAG Data in a manner consistent with state policy and Federal regulations for destruction of private or confidential data and in such a way so that the Data are unusable and irrecoverable;

(iii) Destroy all hard copy OAG Data by shredding to effect 5/16 inch wide or smaller strips and then either incinerating or pulping the shredded material; and

(iv) Within five (5) calendar days, excluding weekends and holidays, of destruction or purging, provide OAG with a completed OAG-Child Support Division "Certificate of Destruction for Counties and Vendors;" a copy of which is attached hereto and included herein (*Attachment C*).

7.2.4.2. In the event of contract expiration or termination for any reason, all hard-copy OAG Data shall, in accordance with the detailed retention schedule agreed to by County and OAG under Section 7.2.4 above, either be destroyed or returned to OAG. If immediate purging of all data storage components is not possible, County agrees that any OAG Data remaining in any storage component will be protected to prevent unauthorized disclosures.

7.2.4.2.1. Within twenty (20) business days of contract expiration or termination, County shall provide OAG with a signed statement detailing the nature of OAG Data retained, type of storage media, physical location(s), and any planned destruction date.

7.2.4.3. In its sole discretion, OAG may waive notification requirements or request reasonable changes to the detailed schedule for the retention and destruction of OAG Data.

7.2.5. Requests to County for Confidential or Public Information.

7.2.5.1. County and County's Agents expressly do not have any actual or implied authority to determine whether any OAG Data are public or exempted from disclosure. Tex. Gov't Code Chapter 552 defines the exclusive mechanism for determining whether OAG Data are subject to public disclosure. County is not authorized to respond to public information requests on behalf of the OAG. County agrees to forward to the OAG, by facsimile within one (1) business day from receipt all request(s) for information associated with the County's services under this contract. County shall forward any information requests to:

Office of the Attorney General, Public Information Coordinator
Fax (512) 494-8017
Email address: Publicrecords@texasattorneygeneral.gov

7.3. PHYSICAL AND SYSTEM SECURITY.

7.3.1. General/Administrative Protections.

7.3.1.1. At all times County shall be fully responsible to OAG for the security of the storage, processing, compilation, or transmission of all OAG Data to which it has access, and of all equipment, storage facilities, and transmission facilities on which or for which such OAG Data are stored, processed, compiled, or transmitted.

7.3.1.2. County (and County's Agents) shall develop and implement internal protection systems, including information security access lists and physical security access lists (the "access protection lists"), designed to protect OAG Data in accordance with applicable law and the provisions for Data Security, Physical Security, and Logical/Information System Protections contained in this contract. The access protection lists shall document the name and other identifying data for any individual authorized to access, use or disclose OAG Data, as well as any special conditions and limitations applicable to each authorization.

7.3.1.2.1. County shall remove individuals from or change the access rights of individuals on the applicable access protection list immediately upon such individual no longer requiring certain access. At least quarterly, OAG shall send County a list of Texas Child Support Enforcement System users and County shall review and update its access protection lists and ensure that the access protection lists accurately reflect the individuals and their access level currently authorized.

7.3.1.2.2. OAG shall have the right to review County's internal protection systems and access protection lists for all areas of the work site(s). OAG may, with or without cause, and without cost or liability, deny or revoke an individual's access to OAG Data and information and any of its systems. If any authorization is revoked or denied by OAG, then County shall immediately use its best efforts to assist OAG in preventing access, use or disclosure of OAG Data and County shall be given written notice of the denial.

7.3.1.2.3. OAG, in its sole discretion and without consulting County, may immediately terminate OAG system access for anyone performing services under this contract.

7.3.1.2.4. County shall immediately notify OAG Contract Manager when any person County authorized to access OAG systems is no longer authorized to have such access. This notice includes re-assigned or terminated individuals.

7.3.1.3. County's physical access security and logical access security systems must track and log all access attempts and failures. The access security systems must produce access logs on request. These logs must identify all access failures and breaches. Notwithstanding anything to the contrary in this Contract, the physical access and logical access security systems access logs for any particular calendar year must be retained for a period of seven (7) calendar years after the last calendar day of the calendar year in which they were created. Thus a log created on January 1, 2007 may be disposed of, with all other systems access logs created in 2007, on January 1, 2015. All physical access and logical access security systems logs must be stored to electronic media. Any stored log must be produced for viewing access and copying upon request of OAG within five (5) business days of the request.

7.3.1.4. County shall maintain appropriate audit trails to provide accountability for use and updates to OAG Data, charges, procedures, and performances. Audit trails maintained by County shall, at a minimum, identify the supporting documentation prepared by County to permit an audit of the system by tracing the activities of individuals through the system. County's automated systems must provide the means whereby authorized personnel have the ability to audit and to verify contractually required performances and to establish individual accountability for any action that can potentially cause access to, generation of, or modification of OAG Data. County agrees that County's failure to maintain adequate audit trails and corresponding documentation shall create a presumption that the services or performances were not performed.

7.3.2. Physical Security.

7.3.2.1. The computer site and related infrastructures (e.g., information system servers, protected interface equipment, associated peripherals, communications equipment, wire closets, patch panels, etc.) must have physical security that at all times protects OAG Data against any unauthorized access to, or routine viewing of, computer devices, access devices, and printed and stored data.

7.3.2.2. Data accessed shall always be maintained in a secure environment (with limited access by authorized personnel both during work and non-work hours) using devices and methods such as, but not limited to: alarm systems, locked containers of various types, fireproof safes, restricted areas, locked rooms, locked buildings, identification systems, guards, or other devices reasonably expected to prevent loss or unauthorized removal of manually held data. County shall also protect against unauthorized use of passwords, keys, combinations, access logs, and badges.

7.3.2.3. County agrees that the systems operation room (which houses network equipment, servers and other centralized processing hardware) shall be accessible only by authorized IT personnel or executive management.

7.3.2.4. In situations such as remote terminals, or office work sites where all of the requirements of a secure area with restricted access cannot be maintained, the equipment shall receive the highest level of protection. This protection must include (where communication is through an external, non-organization-controlled network [e.g., the Internet]) multifactor authentication that is compliant with NIST SP 800-63, Electronic Authentication Guidance level 3 or 4.

7.3.2.5. County shall protect information systems against environmental hazards and provide appropriate environmental protection in facilities containing information systems.

7.3.3. Logical/Information System Protections.

7.3.3.1. County shall take all reasonable steps to ensure the logical security of all information systems used in the performance of this Contract, including:

(i) Independent oversight of systems administrators and programmers;
(ii) Restriction of user, operator, and administrator accounts in accordance with job duties;
(iii) Authentication of users to the operating system and application software programs;
(iv) County shall adhere to OAG-approved access methods, and the protection and use of unique identifiers such as user identifications and passwords;
(v) County shall have an authorization process for user access and privileges. Any access not granted is prohibited;
(vi) County shall maintain an access protection list that details the rights and privileges with respect to each such user;
(vii) Audit trails for user account adds, deletes, and changes, as well as, access attempts and updates to individual data records; and
(viii) Protection to prevent unauthorized processing in or changes to software, systems, and OAG Data in the production environment.

7.3.3.2. County shall implement protection for the prevention, detection and correction of processing failure, or deliberate or accidental acts that may threaten the confidentiality, availability, or integrity of OAG Data.

7.3.3.3. County shall implement counter-protection against malicious software on County's internal systems used in contract performance.

7.3.3.4. County shall ensure that relevant Security Incidents are identified, monitored, analyzed, and addressed.

7.3.3.5. County shall apply a high-level of protection toward hardening all security and critical server communications platforms and ensure that operating system versions are kept current.

7.3.3.6. County shall adhere to mutually agreed upon procedures for authorizing hardware and software changes, and for evaluation of their security impact.

7.3.3.7. County shall institute a process that provides for immediate revocation of a user's access rights and the termination of the connection between systems, if warranted by the nature of any Security Incident.

7.4. ENCRYPTION.

7.4.1. OAG Data must be encrypted while at rest on any media (e.g., USB drives, laptops, workstations, and server hard drives), in transmission, and during transport (i.e. the physical moving of media containing OAG Data). OAG Data must be encrypted using current FIPS validated cryptographic modules. OAG will specify the minimum encryption level necessary. Any change to this minimum encryption level will be communicated in writing to County by the OAG Contract Manager. County shall adhere to mutually agreed upon procedures for data transmission.

7.4.2. OAG Data are not allowed on mobile/remote/portable storage devices; nor may storage media be removed from the facility used by County. County may submit, to the OAG Contract Manager, a written request for an exception to these prohibitions. A granted exception will be communicated in writing to County by the OAG Contract Manager. If OAG finds it necessary to allow storage media to be removed from a facility used by County, OAG will specify the circumstance(s) under which storage media may be removed. This prohibition does not apply to County Information Systems backup procedure.

7.5. SECURITY AUDIT.

7.5.1. Right to Audit, Investigate and Inspect.

7.5.1.1. Without notice, County shall permit, and shall require County's Agents to, permit OAG, the State Auditor of Texas, the United States Internal Revenue Service, the United States Department of Health and Human Services and the Comptroller General of the United States to:

(i) Monitor and observe the operations of, and to perform security investigations, audits, and reviews of the operations and records of, County and County's Agents;
(ii) Inspect its information system in order to assess security at the operating system, network, and application levels; provided, however, that such assessment shall not interfere with the daily operations of managing and running the system; and
(iii) Enter into the offices and places of business of County and County's Agents for a security inspection of the facilities and operations used in the performance of Contract Services. Specific remedial measures may be required in cases where County or County's Agents are found to be noncompliant with physical and/or data security protection.

7.5.1.2. When OAG performs any of the above monitoring, observations, and inspections, OAG will provide County with reasonable notice that conforms to standard business audit protocol. However prior notice is not always possible when such functions are performed by the State Auditor of Texas, the United States Internal Revenue Service, the United States Department of Health and Human Services and the Comptroller General of the United States. In those instances OAG will endeavor to provide as much notice as possible but the right to enter without notice is specifically reserved.

7.5.1.3. Any audit of documents shall be conducted at County's principal place of business and/or the location(s) of County's operations during County's normal business hours and at OAG's expense. County shall provide to OAG and such auditors and inspectors as OAG may designate in writing, on County's premises, (or if the audit is being performed of a County's Agent, the Agent's premises, if necessary) the physical and technical support reasonably necessary for OAG auditors and inspectors to perform their work.

7.5.1.4. County shall supply to OAG and the State of Texas any data or reports rendered or available in conjunction with any security audit of County or County's Agents if those reports pertain, in whole or in part, to the Contract Services. This obligation shall extend to include any report(s) or other data generated by any security audit conducted up to one (1) year after the date of termination or expiration of the contract.

7.6. SECURITY INCIDENTS.

7.6.1. Response to Security Incidents.

7.6.1.1. County shall respond to detected Security Incidents. County shall maintain an internal incident response plan to facilitate a quick, effective and orderly response to information Security Incidents. The incident response plan should cover such topics as:

(i) Initial responders;
(ii) Containment;
(iii) Management Notification;
(iv) Documentation of Response Actions;
(v) Expeditious confirmation of system integrity;
(vi) Collection of audit trails and similar evidence;
(vii) Cause analysis;
(viii) Damage analysis and mitigation;
(ix) Internal Reporting Responsibility;
(x) External Reporting Responsibility; and
(xi) OAG Contract Manager's and OAG-CSD ISO's name, phone number and email address. *Attachment D* is County's current internal incident response plan. Any changes to this incident response plan requires OAG approval (which approval shall not be unreasonably withheld) and may be made by Controlled Correspondence.

7.6.2. Notice.

7.6.2.1. Within one (1) hour of discovering or having any reason to believe that there has been, any physical, personnel, system, or OAG Data Security Incident County shall initiate risk mitigation and notify the OAG-CSD ISO and the OAG Contract Manager, by telephone and by email, of the Security Incident and the initial risk mitigation steps taken.

7.6.2.2. Within twenty-four (24) hours of the discovery, County shall conduct a preliminary risk analysis of the Security Incident; commence an investigation into the incident; and provide a written report utilizing the attached Security Incident Report (*Attachment E*) to the OAG-CSD ISO, with a copy to the OAG Contract Manager fully disclosing all information relating to the Security Incident and the results of the preliminary risk analysis. This initial report shall include, at a minimum: nature of the incident (e.g., data loss/corruption/intrusion); cause(s); mitigation efforts; corrective actions; and estimated recovery time.

7.6.2.3. Each day thereafter until the investigation is complete, County shall:

(i) Provide the OAG-CSD ISO, or the OAG-CSD ISO's designee, with a daily oral or email report regarding the investigation status and current risk analysis; and
(ii) Confer with the OAG-CSD ISO or the OAG-CSD ISO's designee, regarding the proper course of the investigation and risk mitigation.

7.6.2.4. Whenever daily oral reports are provided, County shall provide, by close of business each Friday, an email report detailing the foregoing daily requirements.

7.6.3. Final Report.

7.6.3.1. Within five (5) business days of completing the risk analysis and investigation, County shall submit a written Final Report to the OAG-CSD ISO with a copy to the OAG Contract Manager, which shall include:

7.6.3.1.1. A detailed explanation of the cause(s) of the Security Incident;

7.6.3.1.2. A detailed description of the nature of the Security Incident, including, but not limited to, extent of intruder activity (such as files changed, edited or removed; Trojans), and the particular OAG Data affected; and

7.6.3.1.3. A specific cure for the Security Incident and the date by which such cure shall be implemented, or if the cure has been put in place, a certification to OAG that states the date that County implemented the cure and a description of how the cure protects against the possibility of a recurrence.

7.6.3.2. If the cure has not been put in place by the time the report is submitted, County shall within thirty (30) calendar days after submission of the final report, provide a certification to OAG that states: the date that County implemented the cure and a description of how the cure protects against the possibility of a recurrence.

7.6.3.3. If County fails to provide a Final Report and Certification within forty-five (45) calendar days, or as otherwise agreed to, of the Security Incident, County agrees OAG may exercise any remedy in equity, provided by law, or identified in the contract. The exercise of any of the foregoing remedies will not constitute a termination of this contract unless OAG notifies County in writing prior to the exercise of such remedy.

7.6.4. Independent Right to Investigate.

7.6.4.1. OAG reserves the right to conduct an independent investigation of any Security Incident, and should OAG choose to do so, County shall cooperate fully, making resources, personnel and systems access available. If at all possible, OAG will provide reasonable notice to County that it is going to conduct an independent investigation.

7.7. REMEDIAL ACTION.

7.7.1. Remedies Not Exclusive and Injunctive Relief.

7.7.1.1. The remedies provided in this section are in addition to, and not exclusive of, all other remedies available within this contract, or at law or in equity. OAG's pursuit or non-pursuit of any one remedy for a Security Incident(s) does not constitute a waiver of any other remedy that OAG may have at law or equity.

7.7.1.2. If injunctive or other equitable relief is available, then County agrees that OAG shall not be required to post bond or other security as a condition of such relief.

7.7.2. Notice and Compensation to Third Parties.

7.7.2.1. In the event of a Security Incident, third-party or individual data may be compromised.

7.7.2.2. Subject to OAG review and approval, County shall provide notice of the Security Incident, with such notice to include:

(i) A brief description of what happened;
(ii) A description, to the extent possible, of the types of personal data that were involved in the security breach (e.g., full name, SSN, date of birth, home address, account number, etc.);
(iii) A brief description of what is being done to investigate the breach, mitigate losses, and to protect against any further breaches;
(iv) Contact procedures for those wishing to ask questions or learn additional data, including a telephone number, website, if available, and postal address; and
(v) Instructions for accessing the Consumer Protection Identity Theft section of the OAG website.

7.7.2.3. County and OAG shall mutually agree on the methodology for providing the notice required in this subsection. Neither party shall unreasonably withhold such agreement; however the notice method must comply with the notification requirements of Section 521.053, Texas Business and Commerce Code (as currently enacted or subsequently amended). Provided further that County must also comply with Section 521.053's "consumer reporting agency" notification requirements.

7.7.2.4. If County does not provide the required notice, OAG may elect to provide notice of the Security Incident. County and OAG shall mutually agree on the methodology for providing the notice. However, the notice method must comply with Section 521.053, Texas business and Commerce Code (as currently enacted or subsequently amended). Costs (excluding personnel costs) associated with providing notice shall be reimbursed to OAG by County. If County does not reimburse such cost within thirty (30) calendar days of request, OAG shall have the right to collect such cost. Additionally, OAG may collect such cost by offsetting or reducing any future payments owed to County.

7.8. COMMENCEMENT OF LEGAL ACTION.

7.8.1. County shall not commence any legal proceeding on OAG's behalf without OAG's express written consent.

8. AMENDMENT

8.1. This Contract shall not be amended or modified except by written amendment executed by duly authorized representatives of OAG and County.

9. TERMINATION OF THE CONTRACT

9.1. CONVENIENCE OF THE STATE OF TEXAS.

9.1.1. OAG reserves the right to terminate the contract at any time, in whole or in part, without penalty, by providing thirty (30) calendar days advance written notice, if OAG determines that such termination is in its best interest. In the event of such a termination, County shall, unless otherwise mutually agreed upon in writing, cease all work immediately upon the effective date of termination. OAG shall be liable for payments limited only to the portion of work the OAG authorized in writing and which the County has completed, delivered to the OAG, and which has been accepted by the OAG. All such work shall have been completed, per the contract requirements, prior to the effective date of termination. The OAG shall have no other liability including no liability for any costs associated with the termination.

9.2. TERMINATION FOR DEFAULT/CAUSE.

9.2.1. If County fails to provide the services required under this Contract according to the provisions of this Contract, or fails to comply with any of the terms or conditions of this Contract, OAG may, upon written notice of default to County, terminate the Contract. Termination is not an exclusive remedy, but will be in addition to any other rights and remedies provided in equity, by law or under this Contract.

9.2.2. OAG may exercise any other right, remedy or privilege which may be available to it under applicable law of the State and any other applicable law or proceed by appropriate court action to enforce the provisions of this Contract, or to recover damages for the breach of any agreement being derived from this Contract. The exercise of any of the foregoing remedies will not constitute a termination of this Contract unless OAG notifies County in writing prior to the exercise of such remedy. County will remain liable for all covenants under the aforesaid agreement. County and OAG will each be responsible for the payment of its own legal fees, and other costs and expenses, including attorney's fees and court costs, incurred with respect to the enforcement of any of the remedies listed herein.

9.3. CHANGE IN FEDERAL OR STATE REQUIREMENTS.

9.3.1. If federal or state laws, rules or regulations, or other federal or state requirements or guidelines are amended or judicially interpreted so that either party cannot reasonably fulfill this Contract and if the parties cannot agree to an amendment that would enable substantial continuation of the Contract, the parties shall be discharged from any further obligations under this Contract.

9.4. RIGHTS UPON TERMINATION.

9.4.1. In the event that this Contract is terminated for any reason, or upon its expiration, OAG shall retain ownership of all associated work products and documentation with any order that results from or is associated with this contract in whatever form that they exist.

9.5. SURVIVAL OF TERMS.

9.5.1. Termination of this Contract for any reason shall not release County from any liability or obligation set forth in this Contract that is expressly stated to survive any such termination or by its nature would be intended to be applicable following any such termination.

10. TERMS AND CONDITIONS

10.1. FEDERAL TERMS AND CONDITIONS.

10.1.1. Compliance with Law and Conforming Amendments. County shall comply with all federal and state laws, rules, regulations, requirements and guidelines applicable to County: (1) performing its obligations hereunder and to assure, with respect to its performances hereunder, that OAG is fully and completely meeting obligations imposed by all laws, rules, regulations, requirements, and guidelines upon OAG in carrying out the program of child support enforcement pursuant to Title IV, Part D, of the Social Security Act of 1935, as amended*;* (2) providing services to OAG as these laws, rules, regulations, requirements and guidelines currently exist and as they are amended throughout the term of this Contract. The OAG reserves the right, in its sole discretion, to unilaterally amend this Contract throughout its term to incorporate any modifications necessary for the OAG's or County's compliance with all applicable state and federal laws, rules, regulations, requirements and guidelines.

10.1.2. Civil Rights. County agrees that no person shall, on the ground of race, color, religion, sex, national origin, age, disability, political affiliation, or religious belief, be excluded from the participation in, be denied the benefits of, be subjected to discrimination under, or be denied employment in the administration of, or in connection with, any program or activity funded in whole or in part with funds available under this Contract. County shall comply with Executive Order 11246, “Equal Employment Opportunity” as amended by Executive Order 11375, “Amending Executive Order 11246 relating to Equal Employment Opportunity”, and as supplemented by regulations at 41 C.F.R. Part 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity Department of Labor”. County shall ensure that all subcontracts comply with the above referenced provisions.

10.1.3. Certification Regarding Debarment, Suspension, Ineligibility, and Exclusion from Participation in Contracts. County certifies by entering into this Contract, that neither it nor its principals are debarred, suspended, proposed for debarment, declared ineligible, or otherwise excluded from participation in this transaction by any federal department or agency. The certification requirement of this provision shall be included in all subcontracts.

10.1.4. Records Retention. County shall retain all financial records, supporting documents, statistical records, and any other records or books relating to the performances called for in this Contract. County shall retain all such records for a period of five (5) years after the expiration of the term of this Contract, or until OAG or the United States are satisfied that all audit and litigation matters are resolved, whichever period is longer. County shall grant access to all such records to the OAG, the State Auditor of Texas, the United States Department of Health and Human Services and the Comptroller General of the United States (or any of their duly authorized representatives) for the purposes of inspecting, auditing, or copying such records. The requirements of this provision shall be included in all subcontracts.

10.1.5. Environmental Protection. County shall be in compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 USC 1857(h)) Section 508 of the Clean Water Act (33 USC 1368) Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15). The certification requirement of this provision shall be included in all subcontracts that exceed $100,000.

10.1.6. Lobbying Disclosure. County shall comply with the provisions of a federal law known generally as the Lobbying Disclosure Acts of 1989, and the regulations of the United States Department of Health and Human Services promulgated pursuant to said law, and shall make all disclosures and certifications as required by law. Upon execution of this Contract, County must sign the Certification Regarding Lobbying attached as *Attachment F* and return it to OAG along with the executed copy of this Contract. This certification certifies that County will not and has not used federally appropriated funds to pay any person or organization for influencing or attempting to influence any officer or employee of any Federal agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal Contract, grant or any other award covered by 31 U.S.C. §1352. It also certifies that County will disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award by completing and submitting Standard Form LLL. The certification requirement of this provision shall be included in all subcontracts that exceed $100,000.

10.1.7. Certification Concerning Dealings with Public Servants. County, by signing the Agreement, certifies that it has not given nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor or service to a public servant in connection with this transaction.

10.2. GENERAL RESPONSIBILITIES.

10.2.1. Independent Contractor. This Contract shall not render County an employee, officer, or agent of the OAG for any purpose. County is and shall remain an independent contractor in relationship to the OAG. The OAG shall not be responsible for withholding taxes from payments made under this Contract. County shall have no claim against the OAG for vacation pay, sick leave, retirement benefits, social security, worker's compensation, health or disability benefits, unemployment insurance benefits, or employee benefits of any kind.

10.2.2. No Implied Authority. Any authority delegated to County by OAG is limited to the terms of this Contract. County shall not rely upon implied authority and specifically is not delegated authority under this Contract to:

(1) Make public policy;
(2) Promulgate, amend, or disregard OAG Child Support program policy; or
(3) Unilaterally communicate or negotiate, on behalf of the OAG, with any member of the U.S. Congress or any member of their staff, any member of the Texas Legislature or any member of their staff, or any federal or state agency. However, County is required to cooperate fully with OAG in communications and negotiations with federal and state agencies, as directed by the OAG.

10.2.3. Force Majeure. OAG shall not be responsible for performance of the Contract should it be prevented from performance by an act of war, order of legal authority, act of God, or other unavoidable cause not attributable to the fault or negligence of the OAG.

10.2.3.1. County shall not be liable to OAG for non-performance or delay in performance of a requirement under this Contract if such non-performance or delay is due to one of the following occurrences, which occurrence must not be preventable through the exercise of reasonable diligence, be beyond the control of County, cannot be circumvented through the use of alternate sources, work-around plans, or other means and occur without its fault or negligence: fire; flood; lightning strike; weather damage; earthquake; tornado; hurricane; snow or ice storms; equipment break down; acts of war, terrorism, riots, or civil disorder; strikes and disruption or outage of communications, power, or other utility.

10.2.3.2. In the event of an occurrence under the preceding paragraph, County will be excused from any further performance or observance of the requirements so affected for as long as such circumstances prevail and County continues to use commercially reasonable efforts to recommence performance or observance whenever and to whatever extent possible without delay. County shall immediately notify the OAG Contract Manager by telephone (to be confirmed in writing within five calendar days of the inception of such occurrence) and describe at a reasonable level of detail the circumstances causing the non-performance or delay in performance.

10.2.4. News Releases or Pronouncements. The OAG does not endorse any Contractor, commodity, or service. No public disclosures or news releases pertaining to this Contract shall be made without prior written approval of the OAG.

10.3. OFFSHORING. All work to be performed under this Contract shall be performed within the United States and its territories.

10.4. RIGHT OF REMOVAL. OAG expects all services under this Contract to be competently and professionally performed. County and County's subcontractor personnel and agents shall comply with all OAG policy, procedures and requirements relating to standards of conduct and shall be courteous and professional in all communications during their performance of the requirements of this Contract. Any actions deemed incompetent or unprofessional must be remedied to the satisfaction of the OAG Contract Manager. OAG reserves the right, in its sole discretion, to require the immediate removal from the performance of services under this Contract and replacement of any County and/or County subcontractor personnel and agents deemed by OAG to be discourteous, unprofessional, incompetent, careless, unsuitable or otherwise objectionable. Any replacement personnel assigned by County to perform services under this Contract must have qualifications for the assigned position that equal or exceed those of the person being replaced.

10.5. BACKGROUND REVIEWS.

10.5.1. By entering into this contract, County acknowledges that the OAG will perform background reviews, to include criminal history record information, of all County Agents before allowing a County Agent to provide contract services. Prior to allowing a county agent to provide contract services, County shall provide the OAG with a completed "New County User Access form" (See *Attachment G*) which includes:

- the County Agent's name (including any other names used);
- day time phone number;
- responsibilities under the contract;
- date of birth;
- driver license number; and
- social security number.

10.5.2. County shall provide the "Request for New County User" form via email to: CSD-CountyAccess@texasattorneygeneral.gov.

10.5.3. The term County Agent as used in this "Background Reviews" provision means: all persons who perform contract services on County's behalf including County's officials, employees, agents, consultants, subcontractors and representatives.

10.5.4. A County Agent who is a registered sex offender or has been convicted of a felony for crimes involving violence, child abuse or neglect, sexual offenses, theft or fraud may NOT perform contract services.

10.5.5. No County Agent shall commence performance of contract services or assume new responsibilities regarding contract services until OAG consents to such County Agent performing such service or new responsibility. This prohibition pertains to performance of contract services and is not intended to preclude County from continuing to engage County Agent's services for non-contract services.

10.5.6. The Child Support Division of the Office of the Texas Attorney General is the Title IV-D agency for the State of Texas. Pursuant to Texas Government Code Section 411.127 the Child Support Division has the right to obtain criminal history record information that relates to an entity who proposes to enter into a contract with or that has a contract with the Child Support Division. OAG shall have the right under this contract to perform initial and periodic detailed background reviews, to include a criminal history records check, on any of County's Agents that are assigned to provide services to OAG or are authorized to access, or are requesting access to OAG Data. OAG is prohibited from revealing the results of any criminal history records check to County.

10.5.7. County must require all County Agents to notify County of any arrest (to include the date of arrest, arresting entity, and charges) at the earliest possible opportunity but no later than the end of the first business day following an arrest. Within one (1) business day after such notification, County in turn shall notify OAG of such arrest. County must also require any County Agent who has been arrested to provide an official offense report to County as soon as possible but no later than thirty (30) calendar days after the date of the arrest. Within one (1) business day after receipt, County in turn shall provide OAG with a copy of such offense report.

10.6. NON-WAIVER OF RIGHTS. Failure of a party to require performance by another party under this Contract will not affect the right of such party to require performance in the future. No delay, failure, or waiver of either party's exercise or partial exercise of any right or remedy under this Contract shall operate to limit, impair, preclude, cancel, waive or otherwise affect such right or remedy. A waiver by a party of any breach of any term of this Contract will not be construed as a waiver of any continuing or succeeding breach. Should any provision of this Contract be invalid or unenforceable, the remainder of the provisions will remain in effect.

10.7. NO WAIVER OF SOVEREIGN IMMUNITY. THE PARTIES EXPRESSLY AGREE THAT NO PROVISION OF THIS CONTRACT IS IN ANY WAY INTENDED TO CONSTITUTE A WAIVER BY OAG, THE STATE OF TEXAS OR COUNTY OF ANY IMMUNITIES FROM SUIT OR FROM LIABILITY THAT OAG, THE STATE OF TEXAS OR COUNTY MAY HAVE BY OPERATION OF LAW.

10.8. SEVERABILITY. If any provision of this contract is construed to be illegal or invalid, such construction will not affect the legality or validity of any of its other provisions. The illegal or invalid provision will be deemed severable and stricken from the contract as if it had never been incorporated herein, but all other provisions will continue in full force and effect.

10.9. APPLICABLE LAW AND VENUE. County agrees that this Contract in all respects shall be governed by and construed in accordance with the laws of the State of Texas, except for its provisions regarding conflicts of laws. County also agrees that the exclusive venue and jurisdiction of any legal action or suit brought by County concerning this Contract is, and that any such legal action or suit shall be brought, in a court of competent jurisdiction in Travis County, Texas. OAG agrees that any legal action or suit brought by OAG concerning this Contract shall be brought in a court of competent jurisdiction in Jefferson County.

10.10. ENTIRE AGREEMENT. This instrument constitutes the entire Contract between the parties hereto, and all oral or written agreements between the parties hereto relating to the subject matter of this Contract that were made prior to the execution of this Contract have been reduced to writing and are contained herein.

10.11. ORIGINALS AND COUNTERPARTS. This contract may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

10.12. ATTACHMENTS.

10.12.1. Attachment A: OAG Procedures for Customer Identification

10.12.2. Attachment B: Record of Support, Form 1828

10.12.3. Attachment C: Certificate of Destruction for Counties and Vendors

10.12.4. Attachment D: County's Incident Response Plan

10.12.5. Attachment E: Security Incident Report

10.12.6. Attachment F: Certification Regarding Lobbying

10.12.7. Attachment G: New County User Access form

THIS CONTRACT IS HEREBY ACCEPTED

OFFICE OF THE ATTORNEY GENERAL	**JEFFERSON COUNTY**
_____	_____
Mara Flanagan Friesen Deputy Attorney General for Child Support (IV-D Director)	The Honorable Jeff Branick County Judge, Jefferson County
_____	_____
Signed Date	Signed Date

ATTACHMENT A

OAG Procedures
For
Customer Identification

County shall adhere to the OAG Procedures when a request is received for member and/or case information.

Identifying Walk-In or Caller

Before updating member and/or case information, such as home address, phone number, etc., verify the caller or walk-in's identity. Ask the person for the following identifiers:

- Name
- Case Identification Number (CIN)
- Social Security Number (if CIN unavailable)
- Date of Birth
- Home address

Unidentifiable Walk-In or Caller

If there is any doubt about the caller's identity after these identifiers have been obtained, ask for the children names and date of birth.

When pertinent information is unavailable on registry-only (RO) cases, county staff are prevented from verifying a caller's identity. Once all attempts to verify the caller's identity have been exhausted, instruct the caller/walk-in to take one of the following actions in order to have the member/case information updated on OAG Case Management System:

Provide proof of identity via Mail, Fax or Email

Provide proof of identity by providing the supporting documents:

- A copy of a valid photo ID (i.e. driver's license)

Provide a scanned copy of the information to be updated:

- Bill with home address (i.e. utility bill)
- SSN card
- DOB
- Name change – photo ID with new name

ATTACHMENT B

Figure: 1 TAC §55.121

CHILD SUPPORT DIVISION

Record of Support

This form is used by counties to provide the record of support data needed by the state case registry as required by the Texas Family Code § 105.008. (Counties may use the TXCSES Web Portal to provide this information in lieu of completing this form.) Send the completed form to the State Case Registry/County Contact Team by fax 877-924-6872, e-mail csd-sdu@texasattorneygeneral.gov , or mail to TxCSDU, P.O. Box 659400, San Antonio, TX 78265.

Order Information

County Name:	Court Number:	Cause Number:
Attorney General Case Number:	Date of Hearing:	Order Sign Date:
Order Type: ☐ New Order	☐ Modified Order	
Payment Location: ☐ SDU	☐ County	☐ Other

Obligee/Custodial Parent Information

☐ Family Violence Protection (FV) *(Check if individual below is a victim of family violence)*

Name:	Date of Birth:	Social Security Number:	
Address:	City:	State:	Zip:
Sex: ☐ Male ☐ Female	Driver's License Number:		
Home Phone:	Work Phone:	Cell Phone:	Relationship to Child(ren):
Employer Name:			
Address:	City:	State:	Zip:

Obligor/Non-Custodial Parent Information

☐ Family Violence Protection (FV) *(Check if individual below is a victim of family violence)*

Name:	Date of Birth:	Social Security Number:	
Address:	City:	State:	Zip:
Sex: ☐ Male ☐ Female	Driver's License Number:		
Home Phone:	Work Phone:	Cell Phone:	Relationship to Child(ren):
Employer Name:			
Address:	City:	State:	Zip:

ATTACHMENT B

Figure: 1 TAC §55.121

CHILD SUPPORT DIVISION

Dependent Information			
☐ Family Violence Protection (FV) *(Check if dependent below is a victim of family violence)*			
Name:	Sex: ☐ Male ☐ Female	Date of Birth:	Social Security Number:
☐ Family Violence Protection (FV) *(Check if dependent below is a victim of family violence)*			
Name:	Sex: ☐ Male ☐ Female	Date of Birth:	Social Security Number:
☐ Family Violence Protection (FV) *(Check if dependent below is a victim of family violence)*			
Name:	Sex: ☐ Male ☐ Female	Date of Birth:	Social Security Number:
☐ Family Violence Protection (FV) *(Check if dependent below is a victim of family violence)*			
Name:	Sex: ☐ Male ☐ Female	Date of Birth:	Social Security Number:
Attach additional forms if there are more children for this cause			

Attorney Information			
Obligee Attorney:	Phone:	Obligor Attorney:	Phone:

Form prepared by: _____ Phone: _____ Date: _____

ATTACHMENT C

Office of the Attorney General – Child Support Division

Certificate of Destruction for Contractors and Vendors

Hard copy and electronic media must be sanitized prior to disposal or release for reuse. The OAG tracks, documents, and verifies media sanitization and disposal actions. The media must be protected and controlled by authorized personnel during transport outside of controlled areas. Approved methods for media sanitization are listed in the NIST Special Publication 800-88, Guidelines for Media Sanitization. http://csrc.nist.gov/publications/nistpubs/800-88/NISTSP800-88_with-errata.pdf

Contact Name	Title	Company Name and Address	Phone

You may attach an inventory of the media if needed for bulk media disposition or destruction.

Media Type				Media Title / Document Name
	HARD COPY		ELECTRONIC	
Media Description (Paper, Microfilm, Computer Media, Tapes, etc.)				
Dates of Records				

Document / Record Tracking Number	OAG Item Number	Make / Model	Serial Number

Item Sanitization		CLEAR	Who Completed?		Who Verified?	
		PURGE	Phone		Phone	
		DESTROY	DATE Completed			
Sanitization Method and/or Product Used →						
Final Disposition of Media		Reused Internally			Destruction / Disposal	
		Reused Externally			Returned to Manufacturer	
		Other:				

Comments:

If any OAG Data is **retained**, indicate the type of storage media, physical locations(s), and any planned destruction date.

Description of OAG Data Retained and Retention Requirements:		
Proposed method of destruction for OAG approval:	Type of storage media?	
	Physical location?	
	Planned destruction date?	

Within five (5) days of destruction or purging, provide the OAG with a signed statement containing the date of clearing, purging or destruction, description of OAG data cleared, purged or destroyed and the method(s) used.

Authorized approval has been received for the destruction of media identified above and has met all OAG Records Retention Schedule requirements including state, federal and/or internal audit requirements and is not pending any open records requests.

Records Destroyed by:			Records Destruction Verified by:	
Signature	Date		Signature	Date

Be sure to enter name and contact info for who completed the data destruction and who verified data destruction in the fields above.

Send the signed Certificate of Destruction to:

OAG: Child Support Division, Information Security Office, PO Box 12017, Austin, TX 78711-2017

Office of the Attorney General – Child Support Division
Certificate of Destruction for Contractors and Vendors

INSTRUCTIONS FOR CERTIFICATE OF DESTRUCTION

Hard copy and electronic media must be sanitized prior to disposal or release for reuse. The OAG tracks, documents, and verifies media sanitization and disposal actions. The media must be protected and controlled by authorized personnel during transport outside of controlled areas. Approved methods for media sanitization are listed in the NIST Special Publication 800-88, Guidelines for Media Sanitization. http://csrc.nist.gov/publications/nistpubs/800-88/NISTSP800-88_with-errata.pdf

IRS Publication 1075 directs us to the FISMA requirements and NIST guidelines for sanitization and disposition of media used for federal tax information **(FTI).** These guidelines are also required for sensitive or confidential information that may include personally identifiable information **(PII)** or protected health information **(PHI).** NIST 800-88, Appendix A contains a matrix of media with minimum recommended sanitization techniques for clearing, purging, or destroying various media types. This appendix is to be used with the decision flow chart provided in NIST 800-88, Section 5.

There are two primary types of media in common use:

- **Hard Copy**. Hard copy media is physical representations of information. Paper printouts, printer and facsimile ribbons, drums, and platens are all examples of hard copy media.
- **Electronic (or soft copy).** Electronic media are the bits and bytes contained in hard drives, random access memory (RAM), read-only memory (ROM), disks, memory devices, phones, mobile computing devices, networking equipment, and many other types listed in NIST SP 800-88, Appendix A.

1. For media being reused within your organization, use the **CLEAR** procedure for the appropriate type of media. Then validate the media is cleared and document the media status and disposition.

2. For media to be reused outside your organization or if leaving your organization for any reason, use the PURGE procedure for the appropriate type of media. Then validate the media is purged and document the media status and disposition. Note that some **PURGE** techniques such as degaussing will typically render the media (such as a hard drive) permanently unusable.

3. For media that will not be reused, use the **DESTRUCTION** procedure for the appropriate type of media. Then validate the media is destroyed and document the media status and disposition.

4. For media that has been damaged (i.e. crashed drive) and can not be reused, use the **DESTRUCTION** procedure for the appropriate type of media. Then validate the media is destroyed and document the media status and disposition.

5. If immediate purging of all data storage components is not possible, data remaining in any storage component will be protected to prevent unauthorized disclosures. Within twenty (20) business days of contract expiration or termination, provide OAG with a signed statement detailing the nature of OAG data retained type of storage media, physical location, planned destruction date, and the proposed methods of destruction for OAG approval.

6. Send the signed Certificate of Destruction to:

OAG: Child Support Division
Information Security Office
PO Box 12017
Austin, TX 78711-2017

FAX to: 512-460-6070

or send as an email attachment to:

Arthur.Cantrell@texasattorneygeneral.gov

Final Distribution of Certificate	Original to:	Arthur Cantrell, Information Security Officer 512-460-6061
	Copy to:	1. Your Company Records Management Liaison - or - Information Security Officer 2. CSD Contract Manager

ATTACHMENT D

Jefferson County
Incident Response Plan

Adopted Date: August 2016

Overview

This Incident Response Plan is designed to provide general guidance to county staff, both technical and managerial, to:

- enable quick and efficient recovery in the event of security incidents which may threaten the confidentiality of OAG Data;
- respond in a systematic manner to incidents and carry out all necessary steps to handle an incident;
- prevent or minimize disruption of mission-critical services; and,
- minimize loss or theft of confidential data.

The plan identifies and describes the roles and responsibilities of the Incident Response Team and outlines steps to take upon discovery of unauthorized access to confidential data. The Incident Response Team is responsible for putting the Plan into action.

Incident Response Team

The Incident Response Team is established to provide a quick, effective and orderly response to any threat to confidential data. The Team's mission is to prevent a serious loss of information assets or public confidence by providing an immediate, effective and skillful response to any unexpected event involving computer information systems, networks or databases. The Team is responsible for investigating suspected security incidents in a timely manner and reporting findings to management and the appropriate authorities.

ATTACHMENT D

Incident Response Team Roles and Responsibilities

Position	Roles and Responsibilities
Chief Information Security Officer (CISO)	Immediately report incident directly to OAG CISO and OAG Contract Manager Determine nature and scope of the incident Contact members of the Incident Response Team Determine which Team members play an active role in the investigation Escalate to executive management as appropriate Contact other departments as appropriate Monitor and report progress of investigation to OAG CISO Ensure evidence gathering and preservation is appropriate Prepare and provide a written summary of the incident and corrective action taken to OAG CISO
Information Technology Operations Center	Central point of contact for all computer incidents Notify CISO to activate Incident Response Team
Information Privacy Office	Document the types of personal information that may have been breached Provide guidance throughout the investigation on issues relating to privacy of customer and employee personal information Assist in developing appropriate communication to impacted parties Assess the need to change privacy policies, procedures and/or practices as a result of the breach
Network Architecture	Analyze network traffic for signs of external attack Run tracing tool and event loggers Look for signs of firewall breach Contact external internet service provider for assistance as appropriate Take necessary action to block traffic from suspected intruder Prepare Incident Containment Report, as appropriate, and forward to County CISO
Operating Systems Architecture	Ensure all service packs and patches are current on mission-critical computers Ensure backups are in place for all critical systems Examine system logs of critical systems for unusual activity Prepare Incident Containment Report, as appropriate, and forward to County CISO
Business Applications	Monitor business applications and services for signs of attack Review audit logs of mission-critical servers for signs of suspicious activity Contact the Information Technology Operations Center with any information relating to a suspected breach Collect pertinent information regarding the incident at the request of the CISO
Internal Auditing	Review systems to ensure compliance with information security policy and controls Perform appropriate audit test work to ensure mission-critical systems are current with service packs and patches Report any system control gaps to management for corrective action Prepare Incident Eradication Report and forward to County CISO

ATTACHMENT D

Incident Contact List

OAG Contact Information

Position	Name	Phone Number	Email address
OAG Information Security Officer	Arthur Cantrell	512-460-6061	arthur.cantrell@texasattorneygeneral.gov
OAG Contract Manager	Jamie Lala	512-460-6768	jamie.lala@texasattorneygeneral.gov

County Contact Information

Position	Name	Phone Number	Email address
Chief of Information Security Officer	**Marcile Aunspaugh**	**409-835-8687**	**maunspaugh@co.jefferson.tx.us**
County Contract Manager	**Marcile Aunspaugh**	**409-835 8687**	**maunspaugh@co.jefferson.tx.us**
Information Technology Operations Center	**Paul Helegda**	**409-835-8447**	**helegda@co.jefferson.tx.us**
Information Privacy Office			
Network Architecture			
Operating Systems Architecture			
Business Applications			
Internal Auditing			

CHILD SUPPORT DIVISION

ATTACHMENT E

SECURITY INCIDENT REPORT

For Contractors or Vendors

To immediately report an incident please contact:

Arthur Cantrell
OAG-CS Information Security Officer
Arthur.Cantrell@texasattorneygeneral.gov
Office (512) 460-6061
Fax (512) 460-6850

Instructions: Each Contractor or business partner (Contractor) is required to provide timely reporting of security incidents to the Office of the Attorney General, Child Support Division (OAG-CS) Information Security Officer (ISO). Together, the Contractor and OAG-CS ISO will assess the significance and criticality of a security incident based on the business impact to affected resources and the current and potential effect of the incident (*e.g., loss of access to services, revenue, productivity, reputation; unauthorized disclosure of confidential or private information; loss of data or network integrity; or propagation to other networks*).

Depending on the criticality of the incident, it will not always be feasible to gather all the information prior to reporting to OAG-CS. In such cases, incident response teams should make an initial report and then continue to report information to the OAG-CS daily until the incident has been resolved and the OAG-CS ISO has closed the incident. All security incident reports provided to OAG-CS will be classified and handled as Confidential per *Chapter 2059.055 Texas Government Code (TGC)* and *Chapter 552.139 Texas Business and Commerce Code (TB&CC)*.

1. Contact Information	
Company Name:	
Full Name:	
Job Title:	
Division or office:	
Work phone:	
Mobile phone:	
E-mail address:	
Fax number:	

Additional contact information: (e.g., subject matter experts; incident response team members)

Area of Specialty	Name	Email	Phone #

CHILD SUPPORT DIVISION

ATTACHMENT E

SECURITY INCIDENT REPORT

For Contractors or Vendors

2. Type of Incident *(Check all that apply)*	
☐ Account compromise *(e.g., lost password)*	☐ Social engineering *(e.g., phishing, scams)*
☐ Denial of service *(including distributed)*	☐ Technical vulnerability *(e.g., 0-day attacks)*
☐ Malicious code *(e.g., virus, worm, Trojan)*	☐ Theft/loss of equipment/media/document
☐ Misuse of systems *(e.g., acceptable use)*	☐ Unauthorized access *(e.g., systems, devices)*
☐ Reconnaissance *(e.g., scanning, probing)*	☐ Unknown/Other *(Please describe below)*
Description of incident:	

3. Scope of Incident *(Check one)*	
☐ Critical *(e.g., affects public safety or Federal/State/Individual confidential or private information)* ☐ High *(e.g., affects Contractor's entire network or critical business or mission systems)* ☐ Medium *(e.g., affects Contractor's network infrastructure, servers, or admin accounts)* ☐ Low *(e.g., affects Contractor's workstations or standard user accounts only)* ☐ Unknown/Other *(Please describe below)*	
Estimated number of systems affected: *(e.g., workstations, servers, mainframes, applications, switches, routers)*	
Estimated number of users and/or customers affected:	
Third-parties involved or affected: *(e.g., vendors, contractors, partners)*	
Additional scope information:	

4. Impact of Incident *(Check all that apply)*	
☐ Loss of access to services	☐ Propagation to other networks
☐ Loss of productivity	☐ Unauthorized disclosure of data/information
☐ Loss of revenue	☐ Unauthorized modification of data/information
☐ Loss of reputation	☐ Unknown/Other *(Please describe below)*
Estimated total cost incurred: *(e.g., cost to contain incident, restore systems, notify data owners, notify customers, credit monitoring fees, fines)*	

CHILD SUPPORT DIVISION

ATTACHMENT E

SECURITY INCIDENT REPORT

For Contractors or Vendors

Additional impact information:

5. Sensitivity of Affected Data/Information *(Check all that apply)*	
☐ Confidential/Sensitive/IRS data/info ☐ Financial data/info ☐ Non-sensitive data/info ☐ Publicly available data/info	☐ Personally identifiable information (PII/PHI) ☐ Intellectual property/copyrighted data/info ☐ Critical infrastructure/Key resources ☐ Unknown/Other *(Please describe below)*
Quantity of data/information affected: *(e.g., file sizes, number of records)*	
Describe the data and/or information that may have been compromised:	

6. Users and/or Customers Affected by Incident *(Provide as much detail as possible)*			
Number of affected **Users**		Number of affected **Customers**	
User Name	User Job Title	System access levels or rights of affected users: *(e.g., regular user, domain administrator, root)*	
Additional User and/or Customer details:			

7. Systems Affected by Incident *(Provide as much detail as possible)*	
Attack sources *(e.g., IP address, port)*:	
Attack destinations *(e.g., IP address, port)*:	
IP addresses of affected systems:	
Domain names of affected systems:	
Primary functions of affected systems: *(e.g., web server, domain controller)*	
Operating systems of affected systems: *(e.g., version, service pack, configuration)*	
Patch level of affected systems: *(e.g., latest patches loaded, hotfixes)*	

CHILD SUPPORT DIVISION

ATTACHMENT E

SECURITY INCIDENT REPORT

For Contractors or Vendors

Security software loaded on affect systems: *(e.g., anti-virus, anti-spyware, firewall, versions, date of latest definitions)*	
Physical location of affected systems: *(e.g., state, city, building, room, desk)*	
Additional system details:	

8. Remediation of Incident *(Provide as much detail as possible – include dates)*	
Actions taken by Contractor to identify affected resources:	
Actions taken by Contractor to contain & investigate incident:	
Actions taken by Contractor to remediate incident:	
Actions taken by Contractor to verify successful remediation: (e.g., perform vulnerability scan, code review, system tests)	
Actions planned by Contractor to prevent similar incidents: *(provide timeline)*	
Additional remediation details:	

9. Timeline of Incident *(Provide as much detail as possible)*	
a. Date and time when Contractor first detected, discovered, or was notified about the incident:	
b. Date and time when the actual incident occurred: *(estimation if exact date and time unknown)*	
c. Date and time when the incident was contained, or when all affected systems or functions were restored: *(use whichever date and time is later)*	
d. Elapsed time between the incident and discovery: *(e.g., difference between a. and b. above)*	
e. Elapsed time between the discovery and restoration: *(e.g., difference between a. and c. above)*	

CHILD SUPPORT DIVISION

ATTACHMENT E

SECURITY INCIDENT REPORT

For Contractors or Vendors

Detailed incident timeline:		
Date	Time	Event/Action/Comment

10. Miscellaneous / Lessons Learned *(Provide any other relevant information)*

11. List of Attachments *(Include the name and date of each attachment)*

Please submit the completed form, attachments and all updates to:

Arthur Cantrell
OAG-CS Information Security Officer
Mail Code 033-1
5500 E. Oltorf : P.O. Box 12017
Austin, TX 78741 : Austin, TX 78711-2017
Office (512) 460-6061
Fax (512) 460-6850
Arthur.Cantrell@texasattorneygeneral.gov

***PLEASE NOTE:**

- All Security Incident Reporting Forms and accompanying documentation must be transmitted to OAG-CS in a safe and secure manner.
- **Please encrypt all documents prior to transmission.**
- Please contact the ISO via phone to coordinate your fax transmission or decryption password.

OAG will contact the **TIGTA** and the **IRS** immediately, but no later than 24-hours after the identification of a possible issue involving FTI. OAG should not wait to conduct an internal investigation to determine if FTI was involved. If FTI may have been involved, OAG must contact **TIGTA** and the **IRS** immediately. **TIGTA contact for Texas: 972-308-1400** (Dallas).

If criminal action is suspected (e.g., violations of *Chapter 33, Penal Code, Computer Crimes*, or *Chapter 33A, Penal Code, Telecommunications Crimes*) the Contractor is also responsible for contacting the appropriate law enforcement and investigative authorities.

ATTACHMENT F

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid by, or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an office or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub grants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

_____
(Respondent Signature)

_____
(Respondent Printed Name)

_____
(Respondent Title)

_____
(Date)

_____
(Organization)

CHILD SUPPORT DIVISION

Request for New County User

A criminal background review will be conducted prior to providing access to TXCSES systems. This form must be completed and returned to CSD-CountyAccess@texasattorneygeneral.gov before access can be granted.

Employee Name: _____

Other Names (i.e. maiden, etc.) _____

_____

County: _____

Daytime Phone Number: _____

Responsibilities under the contract: _____

Date of Birth: _____

Driver's License Number: _____

Social Security Number: _____

_____ _____

Supervisor's Signature Date

_____

Title

Ron Westphal

From: Ron Westphal <ronaldw@co.jefferson.tx.us>
Sent: Tuesday, October 25, 2016 8:46 AM
To: 'Commissioner Brent Weaver - Precinct No. 2'; 'Commissioner Eddie Arnold - Precinct No. 1'; 'Commissioner Everette Alfred - Precinct No. 4'; 'Commissioner Michael Sinegal - Precinct No. 3'; 'County Judge Jeff Branick'; Jody Jannise, Prct 1 Foreman; Kenneth Minkins; 'Mark Redwine, Prct 3 Foreman'; 'Mike Trahan, Prct 2 Foreman'; Rhonda Conlin, Environmental Control; Shedrick Evans, Prct 4 Executive Asst
Subject: Plat - Prect #3
Attachments: 2016 10 25 - Bergeron Add - Phase 3.pdf

Gentlemen,

Attached is a plat of Bergeron Addition Phase 3, located in Precinct #3 off of Hamshire Road. This plat is not in any ETJ and has met all Engineering requirements.

I will be placing this on the agenda for Monday, October 31, 2016. If you have any questions please give Don or I a call.

Ron

Ronald Westphal
Jefferson County Engineering
1149 Pearl 5th Floor
Beaumont, TX 77701
Offc. 409 835-8584
Fax. 409 835-8718
email: ronaldw@co.jefferson.tx.us

STATE OF TEXAS
COUNTY OF JEFFERSON

I, _____, DIRECTOR OF ENGINEERING OF JEFFERSON COUNTY, DO HEREBY CERTIFY THAT THE PLAT OF THIS SUBDIVISION COMPLIES WITH ALL EXISTING RULES AND REGULATIONS OF THIS OFFICE AS ADOPTED BY COMMISSIONERS' COURT OF JEFFERSON COUNTY, TEXAS.

DIRECTOR OF ENGINEERING

STATE OF TEXAS
COUNTY OF JEFFERSON

APPROVED BY THE COMMISSIONERS COURT OF JEFFERSON COUNTY, TEXAS ON THIS ___ DAY OF _____, 2016, AUTHORIZING THE FILING FOR RECORD OF THIS PLAT. JEFFERSON COUNTY ASSUMES NO OBLIGATION FOR THE MAINTENANCE OF STREETS, ROADS, DRAINAGE, OR ANY OTHER IMPROVEMENTS.

COMMISSIONER, PRECINCT 1

COMMISSIONER, PRECINCT 2

COMMISSIONER, PRECINCT 3

COMMISSIONER, PRECINCT 4

COUNTY JUDGE

STATE OF TEXAS
COUNTY OF JEFFERSON

I, _____, COUNTY CLERK OF JEFFERSON COUNTY, TEXAS DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT OF WRITING WITH ITS CERTIFICATE OF AUTHENTICATION WAS FILED FOR RECORD IN MY OFFICE ON _____ DAY OF _____, 2016 AT _____ O'CLOCK _.M. AND DULY RECORDED ON THE _____ DAY OF _____, 2016 AT ____O'CLOCK _.M. IN CLERK'S FILE NO. _____ JEFFERSON COUNTY OFFICIAL PUBLIC RECORDS.

COUNTY CLERK
JEFFERSON COUNTY, TEXAS

SURVEYOR'S CERTIFICATION

BE, JAMA GROUP, LLC ACTING BY AND THROUGH MICHAEL KETHAN, A REGISTERED PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT THE DRAWING SHOWN HEREON IS A TRUE AND CORRECT REPRESENTATION OF A SURVEY MADE ON THE GROUND, UNDER MY SUPERVISION, BEING SITUATED IN CHRISTOPHER TEAL SURVEY, A-204 OF JEFFERSON COUNTY, TEXAS.

SURVEYED: JULY, 2016

MICHAEL KETHAN
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 5709

STATE OF TEXAS · REGISTERED · MICHAEL KETHAN · 5709 · PROFESSIONAL · LAND SURVEYOR

SUBSCRIBED AND SWORN TO BEFORE ME BY MICHAEL KETHAN AND GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS 17th DAY OF October, 2016.

Shelby Reed Gibbs III
NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS.
MY COMMISSION EXPIRES: 4/27/2020

SHELBY REED GIBBS, III · Notary Public, State of Texas · Comm. Expires 04-27-2020 · Notary ID 124881393

FINAL PLAT
OF
BERGERON ADDITION PHASE III
BEING
5.634 ACRES
OUT OF THE
CHRISTOPHER TEAL SURVEY
ABSTRACT NO. 204
JEFFERSON COUNTY, TEXAS
JULY 2016

JAMA GROUP LLC
7485 Phelan Boulevard
Beaumont, Texas 77706
Office (409) 899-5050
TBPLS Firm #10130400



LEGEND & ABBREVIATIONS

UTIL	UTILITY
ESMT	EASEMENT
FND	FOUND
I.	IRON
ROW	RIGHT-OF-WAY
POB	POINT OF BEGINNING
JCOPR	JEFFERSON COUNTY OFFICIAL PUBLIC RECORDS
JCMR	JEFFERSON COUNTY MAP RECORDS
●	PROPERTY CORNER (AS NOTED)

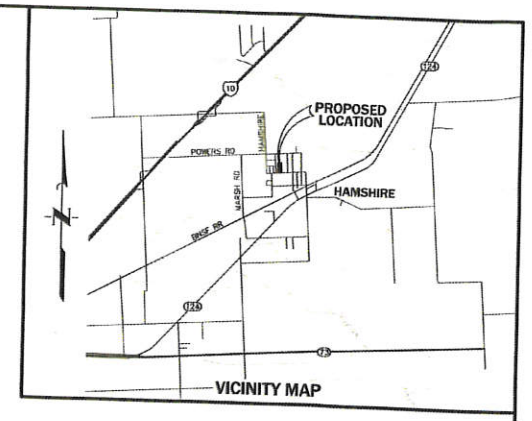
LINE	BEARING	DISTANCE
L1	N 87°03'06" E	128.80'
L2	N 02°57'03" W	101.83'
L3	N 86°41'11" E	60.16'
L4	N 86°52'32" E	130.06'
L5	N 87°02'28" E	76.43'
L6	S 87°39'48" W	130.06'
L7	S 87°23'05" W	60.06'
L8	S 87°06'53" W	130.48'
L9	S 87°10'25" W	145.43'
L10	N 02°48'51" W	102.07'
L11	N 87°09'38" E	128.55'

GENERAL NOTES

1. All horizontal control is referenced to the Texas State Plane Coordinate System, Lambert Projection, North American datum of 1983 (NAD 83), South Central Zone (U.S. Survey Foot).
2. 5/8-inch iron rods with caps stamped "JAMA LLC" have been set at all lot corners unless otherwise noted hereon.
3. This survey does not provide any determination concerning wetlands, fault lines, toxic waste or any other environmental issues. Such matters should be directed by the client or prospective purchaser to an expert consultant.
4. According to Map No. 48039S 0355C of the Federal Emergency Management Agency's Flood Insurance Rate Maps for Jefferson County, Texas (Unincorporated Areas), dated August 8, 2007, the subject tract is situated within: Unshaded Zone "X", defined as areas determined to be outside the 500-year flood plain and Shaded Zone "X", defined as areas of 500-year flood, areas of 100-year flood with average depths of less than 1-foot or with drainage areas less than 1 square mile, and areas protected by levees from 100-year flood. This flood statement does not imply that the property or structures thereon will be free from flooding or flood damage. On rare occasions floods can and will occur and flood heights may be increased by man-made or natural causes. This flood statement shall not create liability on the part of the surveyor. Location of the subject tract on said maps were determined by scale. JAMA Group, LLC does not warrant nor subscribe to the accuracy or scale of said maps.
5. Research for Adjoiner Tracts was performed by JAMA Group, LLC.
6. All Vertical Control is referenced to the North American Vertical Datum of 1988 (NAVD 88) as determined by GPS observations and are based on NGS Monument PID DL0195 with a published elevation of 40.81'.
7. This subdivision plat was prepared without the benefit of a current Commitment for Title Insurance or Abstractor's Certificate and therefore easements or encumbrances may exist which are not shown hereon. No research of the Public Records of Jefferson County regarding these easements or encumbrances was performed by JAMA Group, LLC.
8. Building setbacks are as follows:
   25 Feet FRONT OF EACH LOT
   5 Feet SIDES OF EACH LOT
   10 Feet REAR OF EACH LOT
   7.5 Feet SIDE FOR HAMSHIRE ROAD ABUTING LOTS No. 7 & 15
9. All utility easements shown hereon include the right to trim overhanging trees and shrubs located in the property belonging to or being upon of this addition.
10. No portion of this subdivision or other development within this subdivision may begin until all Jefferson County development requirements have been met.
11. No portion of this subdivision lies within the boundaries of any municipality's corporate city limits or area of extra territorial jurisdiction.
12. This subdivision lies within the boundaries of the Hamshire-Fannett Independent School District.
13. No structure in this subdivision shall be occupied until connected to a public sewer system or to an on-site wastewater system, which has been approved by Jefferson County.
14. No structure in this subdivision shall be occupied until connected to an individual water supply, state approved community water system, or engineered rainwater collection system.
15. West Jefferson County Municipal Water District, an approved public water supply system, has adequate quantity to supply the subdivision and provisions have been made to provide service to each lot in accordance with the policies of the water supply system.

Water Supply Representative

16. All existing Powers easements within the limits of the subdivision have been shown.
17. All drainage easements shown hereon shall be kept clear of fences, buildings, plantings, and other obstructions to the operation and maintenance of the drainage facilities.
18. Benchmark is a brass disk set in concrete at the northwest corner of Lot 1 stamped "BENCHMARK – BERGERON ADD'N PHASE III – NAVD 1988 – GEOID 12" with an elevation of 13.09' – NAVD 1988 (Geoid 2012) and is based on NGS Monument PID DL0195 with a published elevation of 40.81'
19. Electric utility service will be provided by: ENTERGY TEXAS, INC.
    Telephone utility service will be provided by: WINDSTREAM
    Gas utility service will be provided by: N/A
    Water utility service will be provided by: WEST JEFFERSON COUNTY MUNICIPAL WATER DISTRICT
    Sewer utility service will be provided by: WEST JEFFERSON COUNTY MUNICIPAL WATER DISTRICT
    Cable utility service will be provided by: TIME WARNER CABLE



FIELD NOTE DESCRIPTION

Being a 5.634 acre tract of land as situated in the Christopher Teal Survey, Abstract No. 204 of Jefferson County, Texas and being out of and a part of a called 102.942 acre tract as conveyed to Virginia Rita Bergeron by a Deed dated April 12, 1978 and filed for record under Volume 2068, Page 139 of the Jefferson County Deed Records and all of a called 1.119 acre tract as conveyed to Jefferson County by a Donation Deed dated October 12, 2004 and filed for record under Clerk's File No. 2004042151 of the Jefferson County Official Public Records. Said 5.634 acre tract being more particularly described by metes and bounds as follows:

BEGINNING at a 1-inch iron pipe found in the north right-of-way of Hamshire Road for the southwest corner of said Virginia Rita Bergeron called 102.942 acre tract and the southeast corner of the Final Plat of Bergeron Addition as shown on a plat filed for record under Volume 9, Page 181 of the Jefferson County Map Records;

THENCE, North 02°48'51" West, a distance of 706.26 feet, along the east line of said Final Plat of Bergeron Addition and a west line of said Virginia Rita Bergeron called 102.942 acre tract, to a 5/8-inch iron rod set (with cap stamped "JAMA LLC") for the most westerly northwest corner of the herein described tract, from which a 1/2-inch pipe found for the most westerly northwest corner of said Virginia Rita Bergeron called 102.942 acre tract and the northeast corner of said Final Plat of Bergeron Addition, same being located in the south line of the residue of a called 15.000 acre tract as conveyed to Clifton J. Bergeron, Trustee by a Quit Claim Deed dated February 17, 2000 and filed for record under Clerk's File No. 2000007258 of said Jefferson County Official Public Records bears North 02°48'51" West, a distance of 102.07 feet;

THENCE, North 87°03'06" East, a distance of 128.80 feet, over and across said Virginia Rita Bergeron called 102.942 acre tract, to a 5/8-inch iron rod set (with cap stamped "JAMA LLC") in the west right-of-way of Cliff Street (called 60-feet right-of-way) and the west line of said Jefferson County called 1.119 acre tract, for an interior "ell" corner of the herein described tract;

THENCE, North 02°57'03" West, a distance of 101.83 feet, along the west right-of-way of Cliff Street (called 60-feet right-of-way) and the west line of said Jefferson County called 1.119 acre tract, to a 5/8-inch iron rod set (with cap stamped "JAMA LLC") in the east right-of-way of Cliff Street (called 60-feet right-of-way) for the most northwest corner of the herein described tract, the northwest corner of said Jefferson County called 1.119 acre tract, the southwest corner of a called 0.0047 acre tract as conveyed to Jefferson County by a Donation Deed dated October 18, 2004 and filed for record under Clerk's File No. 2004042152 of said Jefferson County Official Public Records;

THENCE, North 86°41'11" East, a distance of 60.16 feet, along the north line of said Virginia Rita Bergeron called 102.942 acre tract, the north line of said Jefferson County called 1.119 acre tract, and the south line of said Jefferson County called 0.0047 acre tract, to a 5/8-inch iron rod found in the east right-of-way of said Cliff Street for the southeast corner of said Jefferson County called 0.0047 acre tract, the northwest corner of said Clifton J. Bergeron, Trustee tract, an angle corner of the herein described tract, and the southwest corner of said Jefferson County called 1.119 acre tract, from which a brass disk set in concrete at the northwest corner of Lot 1 stamped "BENCHMARK – BERGERON ADD'N PHASE III – NAVD 1988 – GEOID 12" with an elevation of 13.09' – NAVD 1988 (Geoid 2012) and is based on NGS Monument PID DL0195 with a published elevation of 40.81' bears North 02°57'03" West, a distance of 1.119 acre tract, to a 5/8-inch iron rod found for the most northwest corner of said Jefferson County called 1.119 acre tract, the northeast corner of said Jefferson County called 0.0047 acre tract, and the southeast corner of said Jerry Wayne Meeks called 0.279 acre tract as conveyed to Jerry Wayne Meeks by a Warranty Deed with Vendor's Lien dated July 7, 1989 and filed for record under Film Code No. 102-76-1184 of said Jefferson County Official Public Records;

THENCE, North 86°52'32" East, a distance of 130.06 feet, along the north line of said Virginia Rita Bergeron called 102.942 acre tract and the south line of said Jerry Wayne Meeks called 0.279 acre tract, to a 5/8-inch iron rod found for the southeast corner of same and the northeast corner of the herein described tract;

THENCE, South 02°56'54" East, a distance of 809.61 feet, over and across said Virginia Rita Bergeron called 102.942 acre tract, to a 5/8-inch iron rod set (with cap stamped "JAMA LLC") in the north right-of-way of said Hamshire Road for the southeast corner of the herein described tract;

THENCE, South 87°09'38" West, a distance of 130.06 feet, along the north right-of-way of said Hamshire Road, to a 1/2-inch iron rod found at the intersection of same with the east right-of-way of said Cliff Street for the southeast corner of said Jefferson County called 1.119 acre tract and an angle corner of the herein described tract;

THENCE, South 87°23'05" West, a distance of 60.06 feet, along the north right-of-way of said Hamshire Road, to a 1/2-inch iron rod found at the intersection of same with the east right-of-way of said Cliff Street for the southeast corner of said Jefferson County called 1.119 acre tract and an angle corner of the herein described tract;

THENCE, South 87°06'53" West, a distance of 130.48 feet, along the north right-of-way of said Hamshire Road to the PLACE OF BEGINNING, CONTAINING 5.634 acres of land in Jefferson County, Texas.

STATE OF TEXAS
COUNTY OF JEFFERSON

KNOW ALL MEN BY THESE PRESENTS, THAT WE, RAYMOND DALE BERGERON, CLIFTON J. BERGERON, JR., JANA K. ELLISON AND JADA K. MELANCON, OWNERS OF AN 5.634 ACRE OF LAND OUT OF THE CHRISTOPHER TEAL SURVEY, ABSTRACT NO. 204, JEFFERSON COUNTY, TEXAS, AS CONVEYED TO ME BY DEEDS DATED APRIL 12, 1968 AND RECORDED IN VOLUME 2068, PAGE 139, JEFFERSON COUNTY DEED RECORDS, DO HEREBY SUBDIVIDE SAID 5.634 ACRES OF LAND OUT OF THE CHRISTOPHER TEAL SURVEY, ABSTRACT NO. 204 TO BE KNOWN AS BERGERON ADDITION, PHASE III, IN ACCORDANCE WITH THE PLAT SHOWN HEREON, SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS HERETO FORE GRANTED AND DEDICATE TO THE PUBLIC THE STREETS AND EASEMENTS SHOWN HEREON.

THIS IS TO CERTIFY THAT WE, RAYMOND DALE BERGERON, CLIFTON J. BERGERON, JR., JANA K. ELLISON AND JADA K. MELANCON HAVE COMPLIED WITH OR WILL COMPLY WITH THE EXISTING REGULATIONS HERETOFORE ON FILE WITH THE JEFFERSON COUNTY ENGINEER AND ADOPTED BY THE COMMISSIONER'S COURT OF JEFFERSON COUNTY.

WITNESS OUR HAND IN JEFFERSON COUNTY, TEXAS THIS THE 14 DAY OF OCTOBER, 2016.

RAYMOND DALE BERGERON A/K/A DALE BERGERON, INDIVIDUALLY AND AS THE INDEPENDENT EXECUTOR OF THE ESTATE OF VIRGINIA RITA BERGERON, DECEASED

SUBSCRIBED AND SWORN TO BEFORE ME BY RAYMOND DALE BERGERON a/k/a DALE BERGERON AND GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS 24 DAY OF OCTOBER, 2016.

NOTARY PUBLIC
A NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS.
MY COMMISSION EXPIRES: 4/27/2020

SHELBY REED GIBBS, III · Notary Public, State of Texas · Comm. Expires 04-27-2020 · Notary ID 124881393

CLIFTON J. BERGERON, JR., INDIVIDUALLY

SUBSCRIBED AND SWORN TO BEFORE ME BY CLIFTON J. BERGERON, JR. AND GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS 24 DAY OF OCTOBER, 2016.

NOTARY PUBLIC
A NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS.
MY COMMISSION EXPIRES: 4/27/2020

SHELBY REED GIBBS, III · Notary Public, State of Texas · Comm. Expires 04-27-2020 · Notary ID 124881393

JANA K. ELLISON, INDIVIDUALLY AND AS THE INDEPENDENT EXECUTRIX OF THE ESTATE OF JACKIE K. BERGERON A/K/A JACQUELINE K. BERGERON, DECEASED

SUBSCRIBED AND SWORN TO BEFORE ME BY JANA K. ELLISON AND GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS 14 DAY OF OCTOBER, 2016.

NOTARY PUBLIC
A NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS.
MY COMMISSION EXPIRES: 07-31-2020

TERESA HERNANDEZ · Notary Public, State of Texas · Comm. Expires 07-31-2020 · Notary ID 126609311

JADA K. MELANCON, INDIVIDUALLY

SUBSCRIBED AND SWORN TO BEFORE ME BY JADA K. MELANCON AND GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS 11 DAY OF October, 2016.

NOTARY PUBLIC
A NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS.
MY COMMISSION EXPIRES: 2/10/2018

MELISSA PARHAM · Notary Public · State of Texas

Permit No. 09-4-16

Precinct No. 4

NOTICE OF PROPOSED PLACEMENT OF
PUBLIC UTLITY LINE/COMMON CARRIER PIPELINE WITHIN
JEFFERSON COUNTY RIGHT-OF-WAY
(2003 REVISION)

Date 10-26-16

HONORABLE COMMISSIONERS' COURT
JEFFERSON COUNTY
BEAUMONT, TEXAS 77701

Gentlemen:

AT+T (Company) does hereby made application to use lands belonging to Jefferson County, for the purpose of constructing, maintaining or repairing a utility or common carrier pipeline for the distribution of Fiber, location of which is fully described as follows: AT+T will be burying a fiber optic cable on Industrial Rd in Beaumont, starting in front of 6817 Industrial Rd. Boring Industrial Rd and ending at 6454 Industrial Rd. Total length of fiber cable is 1,650 ft. see attachment for more detail

1 pages of drawings attached.

Construction will begin on or after 11-7, 20 16.

It is understood that all work will comply with the requirements of the Utility and Common Carrier Pipeline Policy adopted by Jefferson County Commissioners' Court on _____, and all subsequent revisions thereof to date.

Company AT+T

By Jay Romero

Title Design Engineer

Address 555 Main St.

Beaumont, TX 77701

Telephone (409) 839-6123

Fax No. (409) 839-6904

FOR COMMON CARRIER PIPELINE COMPANY ONLY

1. Common Carrier Determination form must be attached to application.
2. Corporation/Person product is to be purchased from/delivered to:

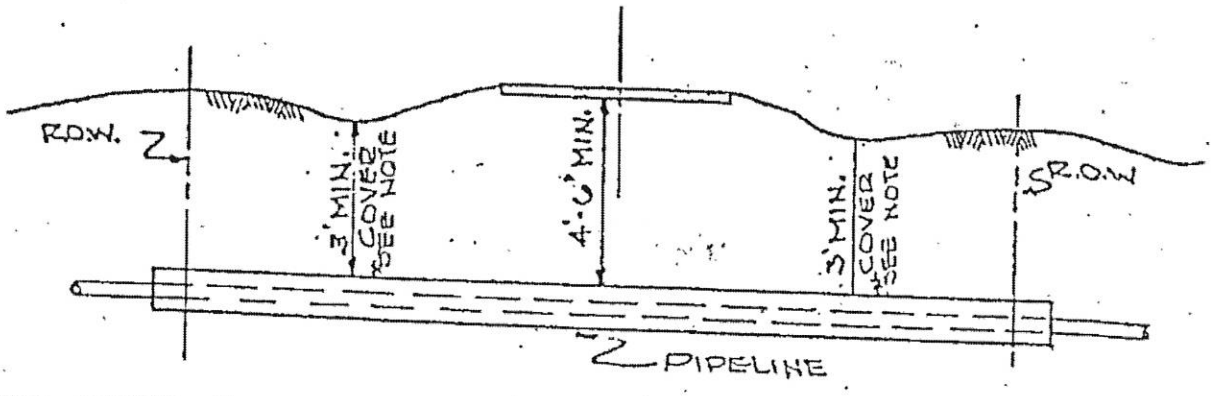
Enclosed, please find the required application fee:

1 road crossing @ $100.00 _____ $ N/A

N/A miles parallel @ $150.00/mile or fraction _____ $ N/A

TOTAL _____ $ N/A

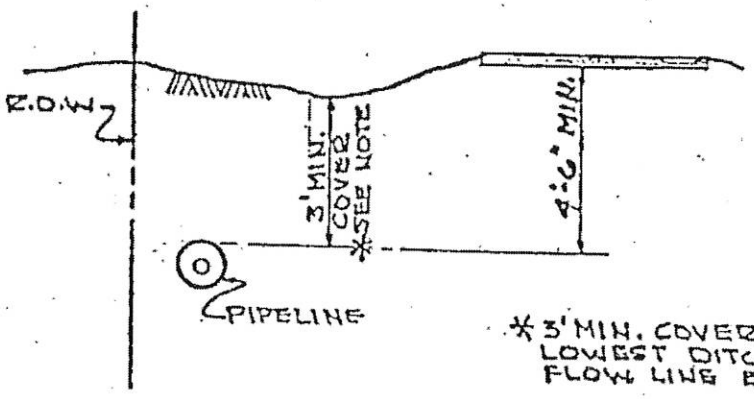
We understand that a Performance Bond will be required to protect against damage to Jefferson County's property. This will be $5,000.00 per crossing and $50,000.00 per mile or fraction thereof for parallel construction unless a special hazard to Jefferson County's property is judged to exist. No work will begin until the County Engineer has been furnished such bonds as Jefferson County Commissioners' Court may choose to require.



*3' MIN. COVER AT LOWEST DITCH FLOW LINE ELEV.

NOTE: CASING TO EXTEND 10' OUTSIDE R.O.W EACH SIDE OF ROAD.

1. STANDARD PIPELINE CROSSING



*3' MIN. COVER AT LOWEST DITCH FLOW LINE ELEV.

2. STANDARD PARALLEL LINE

JEFFERSON COUNTY ENGINEERING DEPARTMENT.		
PIPELINE DETAILS (STD.)		
12-7-79	NO SCALE	

ENGINEERING ACTION FORM

The minimum standard bond required is $ N/A

Donald M. Ray
Director of Engineering

10/31/16
Date

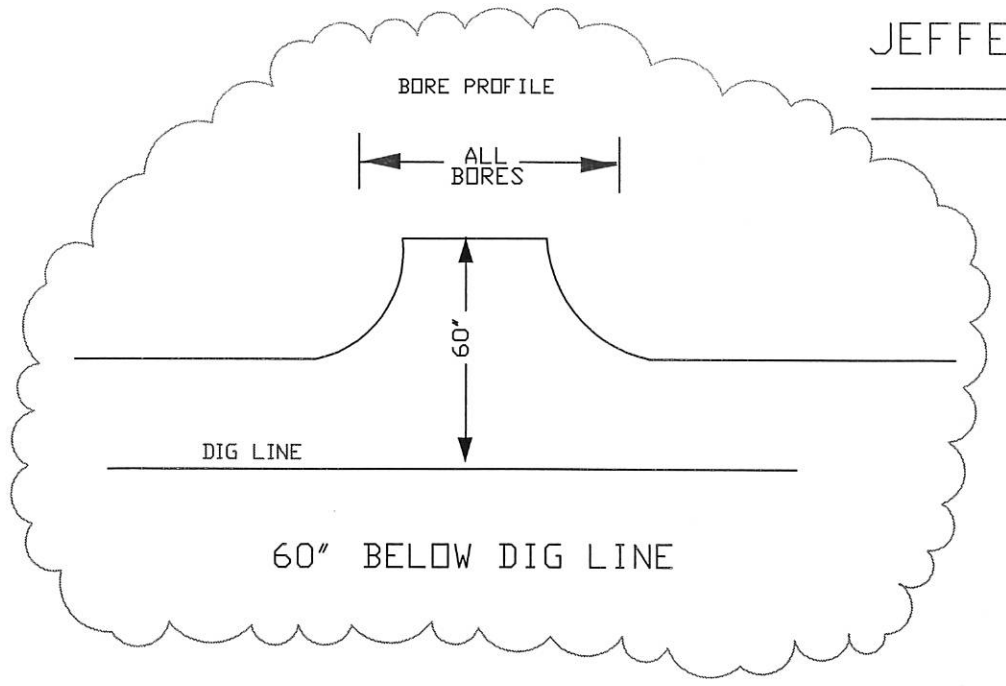
COMMISSIONERS COURT ORDER

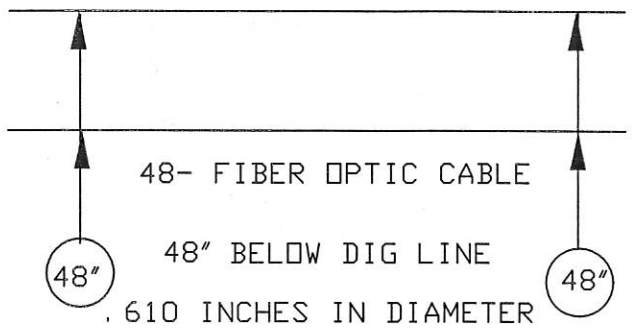
On this date the attached application of a utility or common carrier pipeline came on for the Courts consideration, and the Court having considered the application is of the opinion that the applicant is a utility or common carrier pipeline company meeting all the requirements of County Policy for installation of a line in County roads and that the plans or details presented with said application did not appear to violate the County Regulations. It is ORDERED that said applicant shall comply with all provisions of the Pipe Line Policy adopted by this Court, and all subsequent revisions. The bond required shall be $ N/A. Special conditions of construction (are/are not) attached hereto.

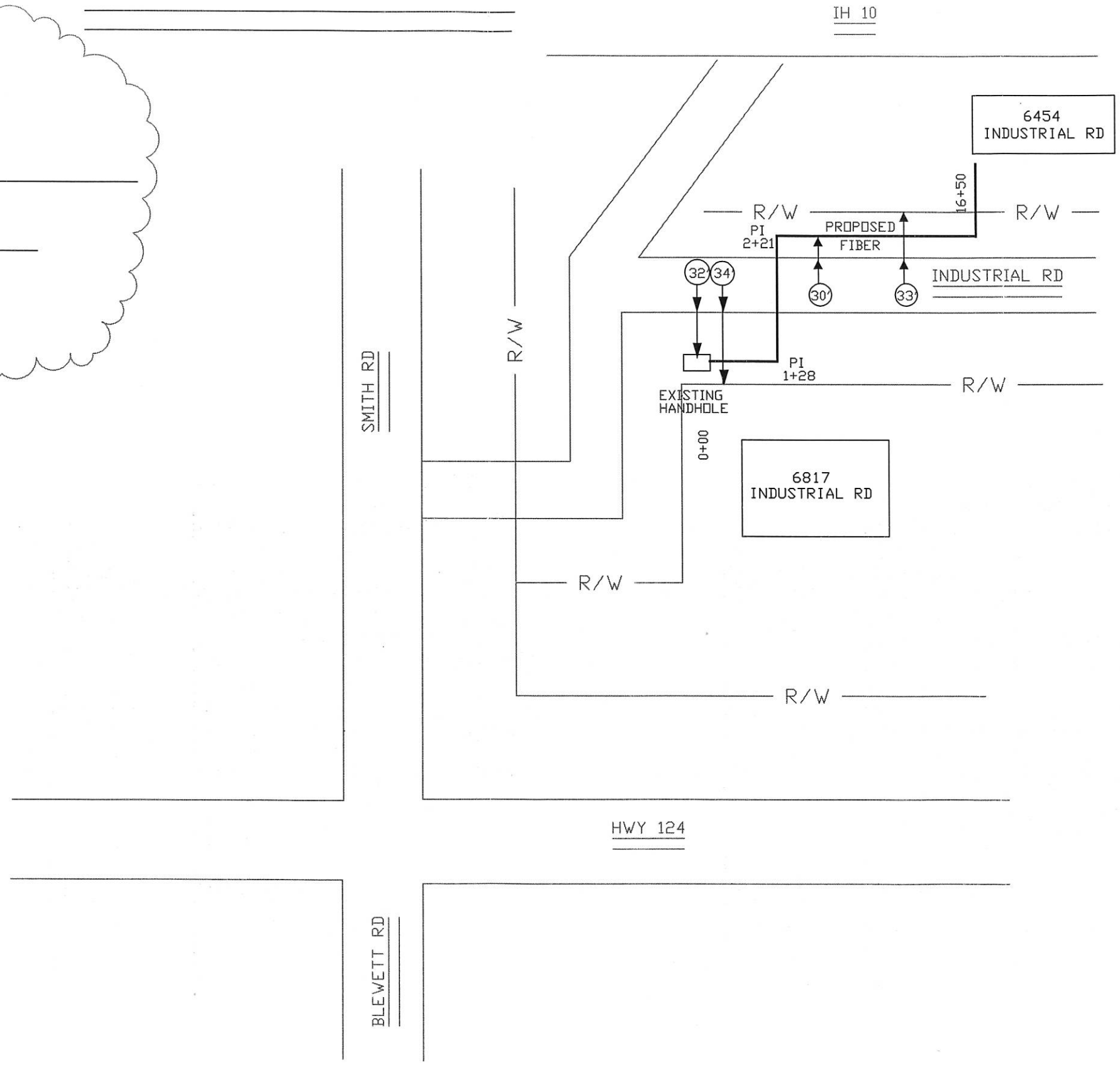
COMMISSIONERS COURT

By _____
County Judge

JEFFERSON COUNTY PERMIT







SPECIAL CIRCUITS	N
6203 FORWARDED	N
PERMIT REQUIRED	Y

NORTH ARROW

OPERATING RANGE OF JOB STEPS

TASK ____ TO ____

MFRC 845C

TRANSMISSION ZONE

RZ 0 CZ 9 TAPER CODE 314403

CAUTION HIGH VOLTAGE

KV 7.60 AERIAL Y BURIED N

HIGHWAY PERMIT NO.

Utility CO EGSI - ENTERGY GULF STATES, INC.
REP NAME BOBBY BROWN
REP TEL NO. (409) 785-2134
POLE CONTACTS (+) 0 (-) 0

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+) 0 (-) 0

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+) 0 (-) 0

PROJECT NO A00HNJR

TOT.PRINTS 14 PRINT NO. 101
NPA/NNX: 409-842 PRT:409842
EXCH. BEAUMONT VICTOR
TAX DIST. JE010
GEO LOC. WZ3842
ENGR. DR DRAWN DR
TELEPHONE NO. (409) 839-6123
REC. REF. 382-315-25-1
MAP REF. 518-C5
SCALE NONE
ISSUE DATE 10/20/2016
PROJ TITLE 6454 INDUSTRIAL RD - FBR/ASE
REV. NUMBER
DATE REV.

--Proprietary--
Not for use or disclosure outside the AT&T companies except under written agreement.

G. MITCH WOODS
SHERIFF
JEFFERSON COUNTY CORRECTIONAL FACILITY
5030 HWY. 69 SOUTH
BEAUMONT, TEXAS 77705
Phone (409) 726-2500
Fax: (409) 726-2511

DEPUTY CHIEFS
Tim Smith – Law Enforcement
George Miller – Corrections

DEPUTY CHIEFS
Mark Dubois - Services
Ron Hobbs - Narcotics

TO: Chief Dubois

FROM: Mistey Reeves

RE: Purchase Request

DATE: October 13, 2016

I have three requests out of our budget that are greater than 1/12th of the line item. Listed below are the requests:

1. 120-3062-423-40-54 (Telephone) – We are requesting the purchase of a new server for the voice capture on the IP telephones. The cost is $6,949.56.
2. 120-3062-423-30-57 (Identification Supplies) – We are requesting the purchase of 11 new badges for the correctional facility to replace broken badges. The cost is $1,078.00.
3. 120-3062-423-30-23 (Kitchen) – We are requesting the purchase of miscellaneous kitchen utensils, cookware and serving items for the kitchen. The cost is $3,099.83.

Budget Account

Acct. #	Description	Vendor	Amount	Explanation
865-3054-421-	**Marine Division**			
40-09	Buildings and Grounds	Otis Elevator Company	2,589.60	Annual Monitoring of Elevator for Marine Building

Resolution

STATE OF TEXAS § COMMISSIONERS COURT
§
COUNTY OF JEFFERSON § OF JEFFERSON COUNTY, TEXAS

BE IT REMEMBERED at a meeting of Commissioners Court of Jefferson County, Texas, held on the 31st day of October, 2016, on motion made by Everette D. Alfred, Commissioner of Precinct No. 4, and seconded by Michael S. Sinegal, Commissioner of Precinct No. 3, the following Resolution was adopted:

WHEREAS, ***PAMELA A. HAWTHORNE***, has devoted 20 years of her life serving the people of Jefferson County with pride and professionalism; and

WHEREAS, ***PAMELA A. HAWTHORNE***, has dedicated her talents and pledged her services as an Office Specialist for the Jefferson County Sheriff's Office; and

WHEREAS, ***PAMELA A. HAWTHORNE***, pledged her services as an Office Specialist in the Book-In Unit at the Correctional Facility performing a wide range of duties in the areas of records security and maintenance and data management; and

WHEREAS, through hard work and commitment to excellence, ***PAMELA A. HAWTHORNE,*** has earned the respect of her colleagues and the citizens of Jefferson County; and

WHEREAS, having made a significant contribution to the Jefferson County Sheriffs' Office, ***PAMELA A. HAWTHORNE,*** is recognized for her unselfish devotion to the common good and welfare of the citizens of Jefferson County; and will always be missed by her friends and co-workers.

NOW THEREFORE, BE IT RESOLVED that the Jefferson County Commissioners Court does hereby honor and commend ***PAMELA A. HAWTHORNE***, for her dedicated service as a valuable employee of Jefferson County and wishes her well in her retirement.

SIGNED this 31st day of October, 2016.

JUDGE JEFF R. BRANICK
County Judge

COMMISSIONER EDDIE ARNOLD
Precinct No. 1

COMMISSIONER MICHAEL S. SINEGAL
Precinct No. 3

COMMISSIONER BRENT WEAVER
Precinct No. 2

COMMISSIONER EVERETTE D. ALFRED
Precinct No. 4

G. MITCH WOODS

SHERIFF

JEFFERSON COUNTY CORRECTIONAL FACILITY
5030 HWY. 69 SOUTH
BEAUMONT, TEXAS 77705
Phone (409) 726-2500
Fax: (409) 726-2511

DEPUTY CHIEFS
Tim Smith – Law Enforcement
George Miller – Corrections

DEPUTY CHIEFS
Mark Dubois - Services
Ron Hobbs - Narcotics

TO: Chief Dubois

FROM: Mistey Reeves

RE: Purchase Request

DATE: October 13, 2016

I have three requests out of our budget that are greater than 1/12th of the line item. Listed below are the requests:

1. 120-3062-423-~~40-54 (Telephone)~~ 60-02 (Computer Equipment) – We are requesting the purchase of a new server for the voice capture on the IP telephones. The cost is $6,949.56.
2. 120-3062-423-30-57 (Identification Supplies) – We are requesting the purchase of 11 new badges for the correctional facility to replace broken badges. The cost is $1,078.00.
3. 120-3062-423-30-23 (Kitchen) – We are requesting the purchase of miscellaneous kitchen utensils, cookware and serving items for the kitchen. The cost is $3,099.83.

Fran Lee

From: Dana Aguillard <daguillard@co.jefferson.tx.us>
Sent: Friday, October 28, 2016 9:51 AM
To: 'Fran Lee'
Cc: 'Mark Dubois'

This request is for our budget line item that exceeds 1/12.

Acct. # 865-3054-421-4009 $2,589.60

For the purpose of monitoring of elevator maintenance for Otis Elevator Company.

Dana Aguillard
Jefferson County Sheriff's Office
Services Division
1001 Pearl Street, Suite 103
Beaumont, Texas 77701
Office (409) 835-8734
Fax (409) 835-8784
daguillard@co.jefferson.tx.us

Special, October 31, 2016

There being no further business to come before the Court at this time, same is now here adjourned on this date, October 31, 2016