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# PROJECT MANUAL

## TERMINAL APRON JOINT RESEAL AND TAXIWAY A AND E POINT REPAIRS

Hammond Northshore Regional Airport

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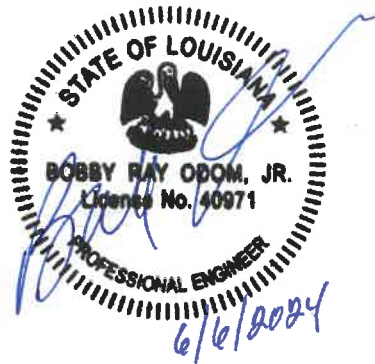


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CITY OF HAMMOND  
HAMMOND NORTHSORE REGIONAL AIRPORT

JUNE 2024



Prepared by

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**ISSUE FOR BID**

**BID SET** \_\_\_\_\_

**HAMMOND NORTHSORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA**

**Terminal Apron Joint Reseal and Taxiway A and E Point Repairs**

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HAMMOND, LOUISIANA**

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**PUBLIC NOTICE**

**INVITATION FOR BIDS  
TERMINAL APRON JOINT RESEAL AND TAXIWAY A AND E POINT REPAIRS**

**CITY OF HAMMOND, LOUISIANA**

The City of Hammond will receive Bids for "Terminal Apron Joint Reseal and Taxiway A and E Point Repairs" at the Purchasing Department, 310 E Charles St, Hammond LA 70401, until **10:00 a.m. Friday, July 12, 2024**, at which time Bids will be publicly opened and read aloud.

This project includes the rehabilitation of the Terminal Apron and point repairs along Taxiways A and E at Hammond Northshore Regional Airport. Base Bid work consists of the rehabilitation of the Terminal Apron and includes the cleaning and sealing of concrete joints, cleaning and sealing of cracks in concrete pavement, and full replacement of concrete slabs damaged beyond repair. Additive Alternate 1 work includes select slab replacement along Taxiway E between Runway 13-31 and Runway 18-36. Additive Alternate 2 work includes select slab replacement along Taxiway E between Taxiway A and Runway 13-31. Additive Alternate 3 work includes select slab replacement along Taxiway A. Contract time to complete this work will be Three Hundred Four (304) consecutive calendar days.

Bid security in the form of a Bid Bond equal to 5% of the total Bid is required. Contract security in the form of 100% Performance and Payment Bonds will be required.

**A Mandatory Pre-Bid Conference will be held at the Hammond Northshore Regional Airport Terminal, 600 Judge Leon Ford Dr, Hammond LA 70401, at 10:00 a.m. Wednesday, June 26, 2024.**

Bid Documents may be examined at the Hammond Northshore Regional Airport Terminal. Please call 985-277-5667 to schedule an appointment. Bid documents may also be downloaded from the City's website ([www.hammond.org](http://www.hammond.org)) and Bid Express ([www.bidexpress.com](http://www.bidexpress.com)).

Each paper Bid must be submitted in a **sealed envelope** addressed to **Purchasing Department, 310 E Charles St, Hammond LA 70401** with **Terminal Apron Joint Reseal and Taxiway A and E Point Repairs**, the **Bidder's Name, Bidder's Address, Bidder's Louisiana Contractor License Number**, and **Bid Opening Date** clearly typed or printed on the outside of the envelope.

Section 3 Businesses/MBEs/WBES/SBES/DBES are encouraged to submit Bids.

The City reserves its right under law to reject any and all Bids for just cause. The City shall incur no obligation to any Contractor relating to this Invitation for Bids until a Contract between the City and the Contractor is fully executed.

To appear:     June 11, 2024  
                  June 18, 2024  
                  June 25, 2024

## NOTICE TO BIDDERS

The City of Hammond will receive proposals for the **Terminal Apron Joint Reseal and Taxiway A and E Point Repairs** project at City Hammond Purchasing Department, 310 E Charles St in Hammond, Louisiana (70401-3324), until July 12, 2024, at 10 AM CST, at which time all proposals received will be publicly opened and read aloud. Bids will not be accepted after this deadline.

The work is generally described as follows:

**This project includes the rehabilitation of the Terminal Apron and point repairs along Taxiway A and E. Base bid work consists of the rehabilitation of the Terminal Apron, which entails the cleaning and sealing of concrete joints, cleaning, and sealing of cracks in the concrete pavement, and full replacement of concrete slabs damaged beyond repair. Additive Alternate 1 work includes select slab replacement along Taxiway E between Runway 13-31 to Runway 18-36. Additive Alternate 2 work includes select slab replacement along Taxiway E between Taxiway A to Runway 13-31. Additive Alternate 3 work includes select slab replacement along Taxiway A.**

No bid may be withdrawn after closing time for the receipt of proposals for a period of one hundred twenty (120) days.

Each paper bid must be submitted in a SEALED ENVELOPE, addressed to the ENGINEER. If the BID is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED for Terminal Apron Joint Reseal" on the face thereof.

### **Contract Time:**

The owner has established a contract time of **304** consecutive calendars days from the date of the Notice-to-Proceed. All project work shall be substantially completed within the stated timeframe. This project is subject to liquidated damages as prescribed within the project manual.

### **Bid Security:**

Bid security in the form of a Bid Bond equal to 5% of the total bid is required. The bid security shall be made payable to The City of Hammond, Louisiana.

### **Bonding Requirements:**

The successful bidder will be required to furnish separate performance and payment bonds each in the amount equal to 100% of the contract price at the time of contract execution.

### **Award of Contract:**

All bids submitted in accordance with the instructions presented herein will be subject to evaluation. Bids may be held by The City of Hammond, Louisiana for a period not to exceed 120 days from the date of the bid opening for the purpose of conducting the bid evaluation.

Award of contract will be based on the lowest bid submitted from those bidders that are confirmed as being responsive and responsible. The City of Hammond reserves the right to waive any informalities or irregularities in or reject any or all bids and to award or refrain from awarding a contract for the work as deemed to be in the City's best interest and permitted by Louisiana Public Bid Law, RS 38:2211 et seq.

**Federal Provisions:**

This project is subject to the following Federal provisions, statutes and regulations;

Equal Employment Opportunity - Executive Order 11246 and 41 CFR Part 60: The Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth within the supplementary provisions. The successful Bidder shall 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.

Goals for Minority and Female Participation – Executive Order 11246 and 41 CFR Part 60:

1. The Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth within the supplementary provisions.
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:

Timetables:

Goals for minority participation for each trade:	<b>27.7%</b>
Goals for female participation in each trade:	<b>6.9%</b>

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 geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its Federally involved and non-federally involved construction.

Certification of Nonsegregated Facilities – 41 CFR Part 60: A certification of Nonsegregated Facilities must 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.

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 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. The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

Davis-Bacon Act, as amended – 29 CFR Part 5: The Contractor is required to comply with wage and labor provisions and to pay minimum wages in accordance with the current schedule of wage rates established by the United States Department of Labor.

Debarment, Suspension, Ineligibility and Voluntary Exclusion – 49 CFR Part 29: The bidder certifies, by submission of a proposal or acceptance of a contract, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. Individuals or companies listed in the General Services Administration’s “Excluded Parties Listing System” will not be considered for award of contract.

Foreign Trade Restriction – 49 CFR Part 30

The Bidder and Bidder’s subcontractors, by submission of an offer and/or execution of a contract, is required to certify 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.

Buy American Certificate – Aviation Safety and Capacity Act of 1990:

This contract is subject to the “Buy American Preferences” of the Aviation Safety and Capacity Act of 1990. Prospective Bidders are required to certify that steel and manufactured products have been produced in the United States and to clearly identify those items produced or manufactured outside of the United States.

**Additional Provisions:**

Modification to the project documents may only be made by written addendum by the Owner or Owner's authorized Representative.

The proposal must be made on the forms provided within the bound project manual. Bidders must supply all required information prior to the time of bid opening.

The following documents are attached to and made a part of this Bid:

- (a) Louisiana Uniform Public Work Bid Form.
- (b) Required Bid Security in the form of a 5% Bid Bond (Base + Additives), payable to the order of the City of Hammond, Louisiana.

Documents to be submitted by the apparent low bidder within (10) business days following the Bid Opening:

- (a) Form of Non-Collusion Affidavit
- (b) EEO Report Statement
- (c) Prohibition of Segregated Facilities
- (d) Tax Delinquency and Felony Convictions
- (e) Performance of Work by Subcontractors
- (f) Certification Regarding Foreign Participation
- (g) Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion
- (h) Certification of Eligibility – Davis Bacon Act
- (i) Certification Regarding Lobbying
- (j) Attestations Affidavit
- (k) Bid Conditions DBE Program

**ALL BIDDERS must be properly licensed under Title 37, Professions and Occupations, of the Louisiana Revised Status (RS 37) and must certify that neither it nor its principle(s) is/are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency or the State of Louisiana.**

**Submittal of Proposals:**

Additional information and instruction for submittal of a proposal are provided within the Instructions-to-Bidders. Envelopes containing bids must be sealed and addressed to:

**City of Hammond  
Purchasing Department  
310 E Charles St  
Hammond, Louisiana 70401-3324**

The upper left-hand corner of the sealed envelope must identify the following information:

- (a) CONTRACT PROPOSAL
- (b) Bid of: (Name of Contractor)
- (c) LA License No.: (LA License Number) for construction improvements at Hammond Northshore Regional Airport, Hammond, LA
- (d) Project No.: \_\_\_\_\_
- (e) To be opened at: (Time and Date of Bid Opening)

## **INSTRUCTIONS TO BIDDERS**

### **1. DEFINED TERMS**

- 1.1 Terms used in these INSTRUCTIONS TO BIDDERS are defined in the General Conditions, and the Supplementary Conditions of the Construction Contract and shall have the intent and meaning assigned them therein. Terms defined in the General Conditions being redefined by modification in the Supplementary conditions shall have the intent and meaning assigned them in the Supplementary Conditions.
- 1.2 The term "Successful Bidder" means the lowest, qualified, responsible, responsive BIDDER to whom OWNER (on the basis of OWNER'S evaluation as hereinafter provided) makes an award.
- 1.3 The term "Bidding Documents" means the Bidding Requirements, Contract Forms, Bid Forms, Conditions of the Contract, Specifications, Drawings, and Addenda issued by the OWNER for the purpose of obtaining a bid on the Work.
- 1.4 A BID is a complete and properly signed proposal to do the work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

### **2. BIDDING DOCUMENTS**

- 2.1 Complete sets of Bidding Documents in the number and for the refundable fee stated in the Notice to Bidders may be obtained from ENGINEER. This deposit shall be refunded in full upon return of the documents in reusable condition within ten (10) days after bid opening.
- 2.2 Complete sets of bidding documents shall be used in preparing bids; neither OWNER nor ENGINEER assume any responsibility for errors or misinterpretations resulting from use of incomplete sets of Bidding documents.
- 2.3 OWNER and ENGINEER in making copies of the bidding Documents available on the above terms do so only for the purpose of obtaining bids on the Work and do not confer a license or grant for any other use.

### **3. QUALIFICATIONS OF BIDDERS**

- 3.1 To demonstrate qualifications to perform the work, the Low (Successful) BIDDER must submit, within seven (7) days after bid date, evidence which may be required by the OWNER, such as, but not limited to, financial data and previous experience.

Each BID must contain evidence of the BIDDER's qualification to do business in the state where the Project is located. Conditional or qualified BIDS will not be accepted. In addition, pertinent provisions of Paragraph 16 of this section determine additional requirements for qualifications of BIDDERS.



3.2 By submission of a BID the BIDDER agrees, that if awarded a contract to perform on the Site and with his own organization, work equivalent to at least FORTY PERCENT (40%) of the total amount of the Work to be performed under the contract. If during the progress of the Work hereunder, the CONTRACTOR requests an adjustment of such percentage and the ENGINEER determines that it would be to the OWNER'S advantage, the percentage of the work required to be performed by the CONTRACTOR'S organization may be adjusted; PROVIDED prior written approval of such adjustment is obtained from the ENGINEER.

3.2.1 Each BIDDER must furnish with his BID a list of items that he will perform with his own forces and the estimated total cost of these items.

3.3 ALL BIDDERS are required to be licensed Contractors in accordance with the Code of Laws of Louisiana. Additional requirements for bid submission are specified in Item 12 of these Instructions to Bidders. **Bidders must indicate their current license number on the outside of the sealed envelope containing their Bid, and on their Bid.**

#### 4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

4.1 It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Bidding Documents thoroughly; (b) visit the site(s) to familiarize himself with local conditions that may in any manner affect costs, progress or performance of the work; (c) familiarize himself of federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work; (d) study and carefully correlate BIDDER's observations with the Drawings and Specifications; and (e) notify ENGINEER of all conflicts, errors or discrepancies.

4.2 Reference is made to the Supplementary Conditions for identification of:

4.2.1. Those reports of explorations and tests of subsurface conditions at the site which have been utilized by engineer in preparation of the Contract Documents. BIDDER may rely upon the accuracy of the technical data contained in such reports but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof for the purpose of bidding or construction.

4.2.2 Information and data reflected in the Contract Documents with respect to Underground Facilities at or contiguous to the site is based upon information and data furnished to OWNER and ENGINEER retain Underground Facilities or others, and OWNER does not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.

4.3 Provisions concerning responsibilities for the adequacy of data furnished to prospective BIDDERS on subsurface conditions, Underground facilities and other physical conditions, and possible changes in the Contract Documents due to differing conditions appear in the General Conditions.

- 4.4 Before submitting a Bid, each BIDDER will, at BIDDER's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress performance or furnishing of the Work and which bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.
- 4.5 On request in advance, OWNER will provide each BIDDER access to the site to conduct such explorations and tests as each BIDDER deems necessary for submission of a Bid. BIDDER shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.
- 4.6 The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by Contractor in performing the work are owned by the OWNER. All additional lands access thereto required for temporary construction facilities or storage of materials and equipment other than at locations indicated on the Drawings are to be provided by Contractor.
- 4.7 The submission of a Bid will constitute an incontrovertible representation by BIDDER that BIDDER has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

## **5. ADDENDA AND INTERPRETATIONS**

- 5.1 All questions about the meaning or intent of the Contract Documents are to be directed to ENGINEER. Interpretations or clarifications considered necessary by ENGINEER in response to such questions will be issued by Addenda emailed, faxed, mailed or delivered to all parties recorded by ENGINEER as having received the Bidding Documents.

Every request for such interpretation should be in writing addressed to the ENGINEER and provided no later than Seven (7) Days prior to the advertised bid opening. Each such interpretation shall be given in writing, separately numbered and dated, and furnished to each interested BIDDER in sufficient time that all interested parties can be notified, the Airport OWNER to be the sole determiner of time. Any request not received in time to accomplish such interpretation and distribution shall not be accepted.

Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

- 5.2 Addenda may also be issued to modify the Bidding Documents as deemed advisable by OWNER or ENGINEER.

5.3 Failure of any BIDDER to receive any such Addendum or interpretation shall not relieve BIDDER from any obligation under this BID as submitted.

## **6. BID SECURITY**

6.1 Each BID must be accompanied by Bid Security made payable to OWNER, in an amount of five (5) percent of the BIDDER's maximum BID PRICE (including all additive alternatives, if applicable), in the form of a Bid Bond prepared on the form included in the BID, duly executed by the BIDDER as principal and issued by a surety meeting the requirements of the General Conditions.

6.2 Attorneys-in-fact who sign the bid Bonds or Contract Bonds must file with each bond a certified and effectively dated copy of their power-of-attorney.

6.3 The Bid Security of the successful BIDDER will be retained until such BIDDER has executed the Agreement and furnished the required Contract Security and Insurance Certificates, whereupon it will be returned; if the Successful BIDDER fails to execute and deliver the Agreement and furnish the required Contract Security and Insurance Certificates within fifteen (15) days of NOTICE OF AWARD, OWNER may annul the NOTICE OF AWARD and the Bid Security of the BIDDER will be forfeited to OWNER as liquidated damages for such withdrawal, failure or refusal. The Bid Security of any BIDDER whom the OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the earlier of the seventh day after the "effective day of the agreement" by OWNER to CONTRACTOR and the required Contract Security and Insurance Certificates are furnished, or Sixty-one (61) days after the Bid Opening or such extension of time mutually agreeable to OWNER and successful Bidder. Bid Security of other BIDDERS may be returned within seven (7) days of the Bid Opening.

## **7. CONTRACT TIME**

7.1 The numbers of days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the Contract Time) are set forth in the Agreement and Section 80 of the General Provisions.

## **8. LIQUIDATED DAMAGES**

8.1 Provisions for Liquidated Damages are set forth in the Agreement, in the Contract, and Section 80-08 of the General Provisions.

## **9. SUBSTITUTE OR "OR-EQUAL" ITEMS**

9.1 The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or

"or-equal" Items. Whenever it is indicated on the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement.

- 9.2 Substitutions and Product Options: BIDDERS are directed to read the statements contained under Section 1600, for substitutions or product options, which specify the conditions under which the material, devices, or equipment to be furnished by the CONTRACTOR are equal to those designated.

## **10. SUBCONTRACTORS, SUPPLIERS AND OTHERS**

- 10.1 All BIDDERS shall submit as part of their BID on the prescribed schedules a list of all subcontractors and other persons and organizations (including those who are to furnish principle items of material and equipment) proposed for those portions of the Work as to which such identification is required. If requested by OWNER, the low BIDDER shall submit an experience statement with pertinent information as to similar projects and other evidence of qualification for each subcontractor, other person or organization. If OWNER after due investigation has reasonable objection to any proposed subcontractor, other person or organization, the OWNER may before giving the NOTICE OF AWARD require the apparent Successful bidder to submit an acceptable substitute without an increase in Bid Price. If the apparent Successful BIDDER declines to make any such substitution, the Contract shall not be awarded to such BIDDER, but his declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. Any subcontractor, other person, or organization so listed and to whom the OWNER does not make written objection prior to giving the NOTICE OF AWARD will be deemed acceptable to OWNER.
- 10.2 NO CONTRACTOR shall be required to employ any subcontractor, other person, or organization against whom he has reasonable objection.

## **11. BID FORM AND SCHEDULES**

- 11.1 One bound copy of the Bid Form and Schedules is included with the Bidding Documents. One additional copy is provided for use in preparing BIDS. DO NOT USE THE FORM FOUND IN THE PROJECT MANUAL FOR SUBMISSION OF BIDS.
- 11.2 Bid Forms and schedules must be completed in ink or by typewriter. Each Bid must be submitted on the prescribed form. All blank spaces and Bid Prices must be filled in. The Bid Price must be stated in words and numerals or as indicated in the BID FORM.
- 11.3 BIDS by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or assistant secretary of the corporation. The corporate address and state of incorporation shall be shown in the space provided.

- 11.4 BIDS by partnerships must be executed in the partnerships name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- 11.5 All names must be typed or printed below the signature.
- 11.6 BIDS by individuals must be signed by the individual owner and the terms "doing business" or "sole Owner" must appear under the signature.
- 11.7 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of all addenda and the date each was received shall be filled in on the BID form).
- 11.8 The address and telephone number to which communications regarding the BID are to be directed must be shown on the Bid Form.
- 11.9 Affidavits: Each BIDDER is required to duly execute the BIDDER's and Non-Collusion Affidavits at the end of the BID.
- 11.10 FAA Statements: Each BIDDER is required to duly furnish all requested information and sign all documents required by the Funding Agency.
- 11.11 The only markings by the BIDDER which will be considered by the OWNER in evaluating the BID are those made on the bid form itself. No markings on the exterior of the envelope or other extraneous marks will be considered as part of the BID.

## **12. SUBMISSION OF BIDS**

- 12.1 BIDS shall be submitted at the time and place indicated in the Notice to Bidders. Each BID shall be enclosed in a sealed envelope and marked and addressed as required in the Notice to Bidders and shall be accompanied by the Bid Security and other required documents. Bidders shall include the following documents as part of their Bid submitted on the Bid Date:
  - a. **Louisiana Uniform Public Work Bid Form.**
  - b. **Bid Schedule (Unit Price Form) when utilized.**
  - c. **Bid Security or Bid Bond.**
  - d. **Bidder's Affidavit (Corporate Resolution)**

If the BID is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "**BID ENCLOSED for Terminal Apron Joint Reseal and Taxiway A and E Point Repairs**" on the face thereof. Submit one (1) copy of the Bid Forms, Schedules and other required documents. DO NOT SUBMIT THE PROJECT MANUAL OR DRAWINGS WITH BID.

- 12.1.1 Indicate the following information on the outside of the sealed envelope containing the bid:

- a. Hammond Northshore Regional Airport – Terminal Apron Joint Reseal and Taxiway A and E Point Repairs
- b. Bidder's Name and Address
- c. Bidder's Current Louisiana License Number

12.1.2 Submit Bids to:

**Purchasing Department  
310 E Charles St  
Hammond, Louisiana 70401-3324**

12.2 Licensure in the State of Louisiana is a requirement for submission of a bid. Bidders are required to obtain all proper license(s) to do business in the state of Louisiana prior to the submission of a bid or the bid will be considered nonresponsive.

### **13. MODIFICATIONS AND WITHDRAWAL OF BIDS**

13.1 BIDS may be modified or withdrawn by an appropriate document duly executed (in the manner that a BID must be executed) and delivered to the place where BIDS are to be submitted at any time prior to the opening of BIDS. Requests for withdrawal or modifications must be in writing or by telegram.

13.2 If within twenty-four (24) hours after the time BIDS are opened, any BIDDER files a duly signed written notice with the OWNER and promptly thereafter demonstrates to the reasonable satisfaction of the OWNER that there was a material and substantial mistake in the preparation of his BID, that BIDDER may withdraw his BID and the BID Security will be returned. Thereafter, that BIDDER will be disqualified from further bidding on the Work.

### **14. OPENING OF BIDS**

14.1 BIDS will be opened and (unless obviously non-responsive) read aloud publicly. An abstract of the amounts of the base BIDS and any major alternates will be made available to BIDDERS after opening of BIDS. BIDS that have been withdrawn will be returned to the BIDDER unopened.

### **15. BIDS TO REMAIN OPEN SUBJECT TO ACCEPTANCE**

15.1 ALL BIDS shall remain open for One Hundred Twenty (120) days after the day of the opening, but OWNER may, in his sole discretion, release any BID and return the BID Security prior to that Date.

### **16. AWARD OF CONTRACT**

16.1 The award of contract will be based on maximizing the available funding for the project.

16.1.1 If a contract is to be awarded, it will be awarded to the lowest most responsive BIDDER without exceeding the available funds for the project, and whose evaluation

by the OWNER indicates to the OWNER that the award will be in the best interest of the project and overall airport use.

16.1.2 Responsiveness shall be defined as:

- a. The completeness and regularity of Bid Form;
- b. A Bid Form without excisions or special conditions;
- c. A Bid Form having no alternative bias for items unless requested in the Specifications
- d. A Bid Form without obviously unbalanced unit prices;
- e. Submission of a properly executed Bid Bond;
- f. A Bid responsive to the requirements of FAR Part 152 of the Federal Aviation Administration Regulations.

OWNER reserves the right to reject any and all BIDS, to waive any and all informalities not involving price, time or changes in the work, and to negotiate contract terms with the Successful BIDDER, and the right to disregard all nonconforming, non-responsive, unbalanced or conditional BIDS. Discrepancies between words and figures will be resolved in favor of words. Also, OWNER reserves the right to reject the BID of any BIDDER if OWNER believes that it would not be in the best interest of the Project to make any award to that BIDDER, whether because the BID is not responsive or the BIDDER is unqualified or of doubtful financial ability or fails to meet any other pertinent standards or criteria established by OWNER. Discrepancies between the indicated sum or any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

16.2 In evaluation of BIDS, OWNER will consider qualifications of the BIDDERS and whether or not the BIDS comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid form or prior to the Notice of Award.

16.2.1 If, a BIDDER submits a BID which lists DBE compliance at a percentage lower than the goal stated in the Bid Documents, that BIDDER shall within 48 hours of the bid opening submit written evidence to the Owner and Engineer, of BIDDER's good faith efforts to comply with the goal. The burden for coming forward with evidence of good faith efforts shall be on the BIDDER, not upon the OWNER or any of its representatives or consultants. Failure to come forward with such evidence shall remove the BIDDER's Bid from further consideration.

16.3 OWNER may consider the qualifications and experience of subcontractors, other persons or organizations (including those who are to furnish the principle items of materials and equipment) proposed for those portions of the work as to which the identity of subcontractors and other persons and organizations must be submitted. OWNER may also consider operating costs, maintenance considerations, performance data and guarantees of materials may also be considered by OWNER, when such data is submitted prior to Notice of Award. OWNER will consider DBE participation and whether or not BIDDER made a good faith effort to meet the specified DBE goal.

16.4 OWNER may conduct such investigations as he deems necessary to assist in the evaluation

of any BID and to establish the responsibility, qualifications and other persons and organizations to do the work in accordance with the contract documents to OWNER's satisfaction within the prescribed time.

16.4.1 Responsibility shall be based on whether the BIDDER:

- a. Maintains a permanent place of business;
- b. Has adequate plant equipment to do the work properly and within the time limit that is established;
- c. Has adequate financial status to meet his obligations contingent to doing the Work.
- d. Has accomplished work similar in the past to the requirements established under this project.

16.4.2 In considering BIDS for this Work, particular attention will be given to the method of construction which the BIDDER plans to follow; the available experienced and skilled men which he plans to use in the prosecution of Work; the types of equipment and materials he plans to install; and, he shall prepare and furnish this information in writing at the OWNER's request.

16.4.3 Furthermore, the successful BIDDER must, prior to the award of the Contract, be prepared to discuss in detail all matters relating to any special features of the Work with the end view of obtaining high grade workmanship and proper performance of the Contract.

16.5 OWNER reserves the right to reject the BID of any BIDDER who does not pass any evaluation to OWNER's satisfaction.

16.6 If a contract is to be awarded, it will be awarded to the lowest BIDDER whose evaluation by OWNER indicates to OWNER that the award will be in the best interests of the Project.

If the lowest or the best bid exceeds the funds available for the work, the OWNER may reject all bids, or reduce the Scope of Work as necessary to diminish the total cost of the project to a sum compatible with the funds available for the specified work.

Award of the Contract, if awarded, will be made by the OWNER, upon the recommendation of the Engineer and approval by the Federal Aviation Administration, to the lowest or best responsible, responsive Bidder, whose bid meets the requirement of the OWNER, and complies with the applicable laws of the State of Louisiana.

16.7 If a contract is to be awarded, OWNER will give the Successful BIDDER a NOTICE OF AWARD within one hundred twenty (120) days after the day of bid Opening, or such mutually agreeable extension of time.

16.8 After bids are opened all communications between the BIDDER and the OWNER or his representatives upon which the BIDDER intends to rely must be in writing. No oral



statements by the OWNER or its representatives will modify or waive any of the requirements of these instructions or other contract documents.

## **17. BID AND CONTRACT SECURITY AND INSURANCE**

- 17.1 The General Conditions set forth OWNER'S requirements as to Bonds and Insurance. When the Successful BIDDER delivers the executed Agreement to OWNER, it shall be accompanied by the required Contract Security and Insurance certificates and Policies.
- 17.2 All Bonds (Bid, Payment and Performance) must be signed or countersigned by the surety company's proper resident agent, authorized to do business in the State of Mississippi, on whom service can be made in the event of litigation.

## **18. SIGNING OF AGREEMENT**

- 18.1 When OWNER gives a NOTICE OF AWARD to the successful BIDDER, it will be accompanied by five (5) unsigned counterparts of the Agreement and all other required Contract Documents. Within fifteen (15) days following the effective date of "Award" CONTRACTOR shall sign and deliver all executed counterparts of the Agreement to the ENGINEER with all other Contract Documents including insurance certificates and executed bonds attached thereto. ENGINEER will review the agreement and once acceptable, will forward to the OWNER for execution.

## **19. ESTIMATED QUANTITIES**

- 19.1 Laws and Regulations: The BIDDER's attention is directed to the fact that applicable Federal and State laws, municipal ordinances and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though therein written out in full.
- 19.2 Estimated Quantities: Where quantities of work are given in the BID these are approximate and are assumed solely for comparison of the BIDS. They are not guaranteed to be accurate statements or estimates of quantities of work that are to be performed under the contract, it being presumed that the BIDDER has verified the quantities necessary to complete the Work of the contract as intended, and any departure therefrom will not be accepted as valid grounds for any claim for damages, for extension of time or for loss of profits; not with any additional payment be made, regardless of the actual quantities required or ordered to complete the Work.

## **21. SALES TAX**

21.1 Unit prices bid shall include all sales taxes, and other applicable taxes and fees.

## **22. PREVAILING WAGE RATES**

22.1 The construction wage rates have been certified by the US Department of Labor to be wages prevailing for construction of the contract. In accordance with the terms of the Proposal, the Contractor agrees to pay to each employee of the corresponding craft at least the wage rate listed.

In addition to the basic hourly rates shown, certain crafts, trades or industries indicate health, welfare, pension, and other fringe benefits which are given employees pursuant to a bonafide Collective Bargaining Agreement for the respective craft, trade, or industry. In the absence of any such Agreement, the basic hourly rates plus the monetary equivalent for the fringe benefit payments indicated, less any legal deductions, shall be paid directly to the employees.

The wage rate determination of the US Department of Labor incorporated on the following pages does not include rates or the requested classification listed below. The BIDDER is responsible for ascertaining the rates payable for such classification and whether area practice requires their use in accomplishing the work. No inference concerning area practice is to be drawn from their omissions. Further, the omission will not, per se, establish any liability for increased labor costs resulting from the use of such classification.

## **23. FUNDING AGENCY REQUIREMENTS**

23.1 BIDDERS are advised that the Work under this Contract will be financed in part by a grant of the Federal Government under the Department of Transportation, Federal Aviation Administration, Airport and Airway Safety and Capacity Expansion Act of 1987.

23.2 To receive funds under the applicable Federal Programs, the OWNER must comply with the requirements of the administering agencies, which are imposed as conditions under which the grants of funds are made.

23.3 It is a condition of the grant of Federal funds that certain provisions be included and be made a part of the Contract Documents for the Work in which these funds are to be used. These provisions are more fully set forth in the Mandatory Federal Contract Provisions section.

23.4 The CONTRACTOR is notified hereby that he must meet all of the terms and conditions related to this Project imposed by the administering agencies named herein, including, but not limited to, the following:

### **23.4.1 Buy American Preference**

- a. Refer to Mandatory Federal Contract Provisions section A4.
- b. Certificate of Buy American Compliance is required with the bid proposal (Page B-19).

#### 23.4.2 Davis-Bacon Requirements.

- a. Refer to Mandatory Federal Contract Provisions section A10.
- b. Certification of Eligibility – David-Bacon Act is required with the bid proposal (Page B-18).
- c. Wage determinations for the project are provided in Supplementary Conditions section 00800. Additional determinations can be provided upon request.

#### 23.4.3 EQUAL EMPLOYMENT OPPORTUNITY (EEO):

- a. Refer to Mandatory Federal Contract Provisions section A16.
- b. The DBE participation goal for this project is (10.5%) ten and one-half percent.
- c. The following documents are required with the bid proposal:
  - Equal Opportunity Report Statement (B-10)
  - Bid Conditions DBE Program (B-27 to B-32)

23.5 **PRECONSTRUCTION CONFERENCE:** Attention of BIDDERS is called to a **mandatory** preconstruction conference to be held with the successful BIDDER and all known subcontractors, prior to the issuance of a NOTICE TO PROCEED. This conference will be held to acquaint the Successful BIDDER with the contract provisions concerning the Labor Standards, Equal Employment Opportunity obligations, and other items related to the contract. Payroll Form WH 347, or an equivalent form, is required to be used on this project. The date of the preconstruction conference will be established after the Contract is awarded to the successful BIDDER.

### 24. **CONSTRUCTION OPERATIONS PLANS:**

24.1 Specific guidelines for working on the airfield apply to this project. These minimum guidelines are set forth on the Drawings and in Section 01030 "Airport Project Procedures" and AC/150/5370-2G "Operational Safety on Airports During Construction", attached is Appendix "A" to this manual.

### 23. **FEDERAL FUNDING**

23.1 No Federal Funds are currently allocated for this project. In advertising for bids OWNER makes no guarantee that a contract will be awarded.

23.2 The OWNER may adjust project scope to match available Funds. If sufficient funds are not available OWNER will reject all bids and return bid security to all Bidders as specified in Article 16 of the Instructions to Bidders.

### **END OF INSTRUCTION TO BIDDERS**

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# LOUISIANA UNIFORM PUBLIC WORK BID FORM

**TO:** City of Hammond  
600 Judge Leon Ford Drive  
Hammond, LA 70401  
  
(Owner to provide name and address of owner)

**BID FOR:** Hammond Northshore Regional Airport  
Terminal Apron Joint Reseal and Taxiway  
A and E Point Repairs  
FAA AIG BIL No. 3-22-0018-0XX-2024  
  
(Owner to provide name of project and other identifying information)

The undersigned bidder hereby declares and represents that she/he: a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: \_\_\_\_\_ and dated: \_\_\_\_\_  
(Owner to provide name of entity preparing bidding documents.)

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA:** (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging) \_\_\_\_\_.

**TOTAL BASE BID:** For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" \* but not alternates) the sum of:  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

**ALTERNATES:** For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

**Alternate No. 1** (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

**Alternate No. 2** (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

**Alternate No. 3** (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

**NAME OF BIDDER:** \_\_\_\_\_

**ADDRESS OF BIDDER:** \_\_\_\_\_

**LOUISIANA CONTRACTOR'S LICENSE NUMBER:** \_\_\_\_\_

**NAME OF AUTHORIZED SIGNATORY OF BIDDER:** \_\_\_\_\_

**TITLE OF AUTHORIZED SIGNATORY OF BIDDER:** \_\_\_\_\_

**SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER \*\*:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

## **THE FOLLOWING ITEMS ARE TO BE INCLUDED WITH THE SUBMISSION OF THIS LOUISIANA UNIFORM PUBLIC WORK BID FORM:**

\* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

\*\* **A CORPORATE RESOLUTION OR WRITTEN EVIDENCE** of the authority of the person signing the bid for the public work as prescribed by LA R.S. 38:2212(B)(5).

**BID SECURITY** in the form of a bid bond, certified check or cashier's check as prescribed by LA R.S. 38:2218(A) attached to and made a part of this bid.

**LOUISIANA UNIFORM PUBLIC WORK BID FORM**  
**UNIT PRICE FORM**

**TO:** City of Hammond  
600 Judge Leon Ford Drive  
Hammond, LA 70401  
*(Owner to provide name and address of owner)*

**BID FOR:** Hammond Northshore Regional Airport  
Terminal Apron Joint Reseal and Taxiway A and E  
Point Repairs  
*(Owner to provide name of project and other identifying information)*

**UNIT PRICES:** This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION:	<b>CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)</b> <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
<b>C-100</b>	<b>1</b>	<b>LS</b>		

DESCRIPTION:	<b>MOBILIZATION</b> <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
<b>C-105</b>	<b>1</b>	<b>LS</b>		

DESCRIPTION:	<b>PAVEMENT REMOVAL</b> <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
<b>P-101-5.1</b>	<b>660</b>	<b>SY</b>		

DESCRIPTION:	<b>JOINT AND CRACK REPAIR</b> <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
<b>P-101-5.2</b>	<b>36,000</b>	<b>LF</b>		

DESCRIPTION:	<b>CONCRETE SPALL REPAIR</b> <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
<b>P-101-5.3</b>	<b>36</b>	<b>CF</b>		

**Wording for "Description" is to be provided by the Owner.**

**All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.**

DESCRIPTION:	<b>CEMENT CONCRETE PAVEMENT</b>			<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
<b>P-501-8.1</b>	<b>660</b>	<b>SY</b>		

DESCRIPTION:	<b>SURFACE PREPARATION</b>			<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
<b>P-620-5.1A</b>	<b>6,400</b>	<b>SF</b>		

DESCRIPTION:	<b>MARKING, YELLOW</b>			<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
<b>P-620-5.2A</b>	<b>1,500</b>	<b>SF</b>		

DESCRIPTION:	<b>MARKING, BLACK</b>			<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
<b>P-620-5.2B</b>	<b>4,900</b>	<b>SF</b>		

DESCRIPTION:	<b>REFLECTIVE MEDIA</b>			<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
<b>P-620-5.3A</b>	<b>130</b>	<b>LB</b>		

DESCRIPTION:	<b>TIE DOWN ANCHOR</b>			<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
<b>SP-1-1</b>	<b>83</b>	<b>EA</b>		

DESCRIPTION:	<b>MOORING EYE</b>			<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
<b>SP-1-2</b>	<b>4</b>	<b>EA</b>		

DESCRIPTION:	<b>PAVEMENT REMOVAL</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-101-5.1</b>	<b>490</b>	<b>SY</b>			
DESCRIPTION:	<b>UNCLASSIFIED EXCAVATION</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-152-4.1</b>	<b>490</b>	<b>CY</b>			
DESCRIPTION:	<b>EMBANKEMENT IN PLACE</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-152-4.2</b>	<b>490</b>	<b>CY</b>			
DESCRIPTION:	<b>CEMENT CONCRETE PAVEMENT</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-501-8.1</b>	<b>490</b>	<b>SY</b>			
DESCRIPTION:	<b>SURFACE PREPARATION</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-620-5.1A</b>	<b>900</b>	<b>SF</b>			
DESCRIPTION:	<b>MARKING, YELLOW</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-620-5.2A</b>	<b>300</b>	<b>SF</b>			
DESCRIPTION:	<b>MARKING, BLACK</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 1
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-620-5.2B</b>	<b>600</b>	<b>SF</b>			
DESCRIPTION:	<b>REFLECTIVE MEDIA</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 2
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-620-5.3A</b>	<b>30</b>	<b>LB</b>			



DESCRIPTION:	<b>PAVEMENT REMOVAL</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 2
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-101-5.1</b>	<b>790</b>	<b>SY</b>			
DESCRIPTION:	<b>UNCLASSIFIED EXCAVATION</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 2
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-152-4.1</b>	<b>790</b>	<b>CY</b>			
DESCRIPTION:	<b>EMBANKMENT IN PLACE</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 2
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-152-4.2</b>	<b>790</b>	<b>CY</b>			
DESCRIPTION:	<b>CEMENT CONCRETE PAVEMENT</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 2
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-501-8.1</b>	<b>790</b>	<b>SY</b>			
DESCRIPTION:	<b>SURFACE PREPARATION</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 2
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-620-5.1A</b>	<b>1,400</b>	<b>SF</b>			
DESCRIPTION:	<b>MARKING, YELLOW</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 2
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-620-5.2A</b>	<b>500</b>	<b>SF</b>			
DESCRIPTION:	<b>MARKING, BLACK</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 2
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-620-5.2B</b>	<b>900</b>	<b>SF</b>			

DESCRIPTION:	<b>REFLECTIVE MEDIA</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 2
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-620-5.3A</b>	<b>40</b>	<b>LB</b>			
DESCRIPTION:	<b>PAVEMENT REMOVAL</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 3
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-101-5.1</b>	<b>1,275</b>	<b>SY</b>			
DESCRIPTION:	<b>UNCLASSIFIED EXCAVATION</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 3
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-152-4.1</b>	<b>1,275</b>	<b>CY</b>			
DESCRIPTION:	<b>EMBANKMENT IN PLACE</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 3
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-152-4.2</b>	<b>1,275</b>	<b>CY</b>			
DESCRIPTION:	<b>CEMENT CONCRETE PAVEMENT</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 3
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-501-8.1</b>	<b>1,275</b>	<b>SY</b>			
DESCRIPTION:	<b>SURFACE PREPARATION</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 3
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-620-5.1A</b>	<b>1,500</b>	<b>SF</b>			
DESCRIPTION:	<b>MARKING, YELLOW</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 3
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-620-5.2A</b>	<b>500</b>	<b>SF</b>			
DESCRIPTION:	<b>MARKING, BLACK</b>				<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 3
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>	
<b>P-620-5.2B</b>	<b>1,000</b>	<b>SF</b>			

DESCRIPTION:	<b>REFLECTIVE MEDIA</b>			<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 3
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
<b>P-620-5.3A</b>	<b>50</b>	<b>LB</b>		

**Proposal Forms**

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned \_\_\_\_\_  
\_\_\_\_\_ as Principal, and

\_\_\_\_\_ as Surety, are hereby held and firmly bound unto the **City of Hammond** (OWNER) in the penalty sum of \_\_\_\_\_ (\$ \_\_\_\_\_) for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

Signed, this \_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

The conditions of the above obligation is such that whereas the Principal has submitted to the OWNER certain BID, attached hereto and hereby made a part hereof to enter into a Contract in writing for the Construction of **Terminal Apron Joint Reseal and Taxiway A and E Point Repairs**.

NOW THEREFORE,

- (a) If said Bid shall be rejected, or in the alternate,
- (b) If said Bid shall be accepted and the Principal shall execute and deliver a Contract in the Form of Agreement attached hereto (properly completed in accordance with said Bid) and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that obligations of said Surety and its Bonds shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

(The remainder of this page is intentionally left blank)

**Proposal Forms**

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

\_\_\_\_\_(L.S.)  
Principal

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

(SEAL)

- (1) Date of Bond must be same date as Bid.
- (2) Bond must be signed or countersigned by Surety's proper Louisiana Resident Agent. Bonds executed by an attorney-in-fact must include an original sealed power of attorney. Date of Power-of-Attorney shall be same date as date of Bond.
- (3) If a Partnership, all partners shall execute Bond.

**Proposal Forms**

STATE OF LOUISIANA  
PARISH OF \_\_\_\_\_

PROJECT NO.: \_\_\_\_\_

NAME: \_\_\_\_\_

LOCATION: \_\_\_\_\_

**NON-COLLUSION AFFIDAVIT**

Before me, the undersigned authority, duly commissioned and qualified within and for the State and Parish aforesaid, personally came and appeared \_\_\_\_\_ representing \_\_\_\_\_ who, being by me first duly sworn deposed and said that he has read this affidavit and does hereby agree under oath to comply with all provisions herein as follows:

**PART I.**

Section 2224 of Part II of Chapter 10 of Title 38 of the Louisiana Revised Statutes, as amended.

(1) That affiant employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for affiant; and

(2) That no part of the Contract price received by affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the Contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for affiant.

**PART II.**

Section 2190 of Part I of Chapter 10 of Title 38 of the Louisiana Revised Statutes, as amended.

That affiant, if an architect or engineer, or representative thereof, does not own a substantial financial interest, either directly or indirectly, in any corporation, firm, partnership, or other organization which supplies materials for the construction of a public work when the architect or engineer has performed architectural or engineering services, either directly or indirectly, in connection with the public work for which the materials are being supplied.

For the purposes of this Section, a "substantial financial interest" shall exclude any interest in stock being traded on the American Stock Exchange or the New York Stock Exchange.

That affiant, if subject to the provisions of this section, does hereby agree to be subject to the penalties involved for the violation of this section.

\_\_\_\_\_  
AFFIANT

SWORN TO AND SUBSCRIBED BEFORE ME THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2024.

\_\_\_\_\_  
NOTARY

**Proposal Forms**

**EQUAL OPPORTUNITY REPORT STATEMENT  
AS REQUIRED BY 41 CFR 60-1.7(b)**

The Bidder (Proposer) shall complete the following statement by checking the appropriate blanks. Failure to complete these blanks may be grounds for rejection of bid. Reference page FCP-24 for further information.

1. The Bidder (Proposer) has \_\_\_\_\_ has not \_\_\_\_\_ developed and has on file at each establishment affirmative action programs pursuant to 41 CFR 60-1.40 and 41 CFR 60-2.
2. The Bidder (Proposer) has \_\_\_\_\_ has not \_\_\_\_\_ participated in any previous contract or subcontract subject to the equal opportunity clause prescribed by Executive Order 11246, as amended.
3. The Bidder (Proposer) has \_\_\_\_\_ has not \_\_\_\_\_ filed with the Joint Reporting Committee the annual compliance report on Standard Form 100 (EEO-1 Report).
4. The Bidder (Proposer) does \_\_\_\_\_ does not \_\_\_\_\_ employ fifty (50) or more employees.

NAME OF BIDDER: \_\_\_\_\_

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

**Proposal Forms**

**PROHIBITION OF SEGREGATED FACILITIES**

*41 CFR § 60*

- (a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Employment Opportunity clause in this contract.
  
- (b) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, 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 that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.
  
- (c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Employment Opportunity clause of this contract.

\_\_\_\_\_  
Name and Title of Signer

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company

\_\_\_\_\_  
Address



**Proposal Forms**

**TAX DELINQUENCY AND FELONY CONVICTIONS**

*Sections 415 and 416 of Title IV, Division L of the Consolidated Appropriations Act, 2014 (Pub. L. 113-76), and similar provisions in subsequent appropriations acts.*

*DOT Order 4200.6 - Requirements for Procurement and Non-Procurement Regarding Tax Delinquency and Felony Convictions*

**CERTIFICATION OF OFFERER/BIDDER REGARDING TAX DELINQUENCY AND FELONY CONVICTIONS**

The applicant must complete the following two certification statements. The applicant must indicate its current status as it relates to tax delinquency and felony conviction by inserting a checkmark (✓) in the space following the applicable response. The applicant agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

**Certifications**

- 1) The applicant represents that it is ( ) is not ( ) a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.
- 2) The applicant represents that it is ( ) is not ( ) is not a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

**Note**

If an applicant responds in the affirmative to either of the above representations, the applicant is ineligible to receive an award unless the sponsor has received notification from the agency suspension and debarment official (SDO) that the SDO has considered suspension or debarment and determined that further action is not required to protect the Government’s interests. The applicant therefore must provide information to the owner about its tax liability or conviction to the Owner, who will then notify the FAA Airports District Office, which will then notify the agency’s SDO to facilitate completion of the required considerations before award decisions are made.

**Term Definitions**

**Felony conviction:** Felony conviction means a conviction within the preceding twenty-four (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 U.S.C. § 3559.

**Tax Delinquency:** A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

\_\_\_\_\_  
Signature of Contractor

\_\_\_\_\_  
Title



## **Proposal Forms**

### **CERTIFICATION REGARDING FOREIGN PARTICIPATION**

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –

- 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 as published by the Office of the United States Trade Representative (U.S.T.R.);
- 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 included on the list of countries that discriminate against U.S. firms as published by the U.S.T.R; and
- c. has not entered into any subcontract for any product to be used on the Federal on the project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R.

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.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

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 an Offeror or subcontractor:

- (1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the U.S.T.R. or
- (2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such U.S.T.R. list or
- (3) who incorporates in the public works project any product of a foreign country on such U.S.T.R. list;

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.

## ***Proposal Forms***

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by U.S.T.R, unless the Offeror has knowledge that the certification is erroneous.

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

\_\_\_\_\_  
Signature of Contractor

\_\_\_\_\_  
Title

**Proposal Forms**

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION,  
INELIGIBILITY, AND VOLUNTARY EXCLUSION**

*2 CFR part 180 (Subpart C)*

*2 CFR part 1200*

*DOT Order 4200.5*

**CERTIFICATION OF OFFERER/BIDDER REGARDING DEBARMENT**

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

**CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT**

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 Certification of Offerer /Bidder Regarding Debarment, above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the Federal Aviation Administration later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

\_\_\_\_\_  
Signature of Contractor

\_\_\_\_\_  
Title

**Proposal Forms**

**CERTIFICATION OF ELIGIBILITY – DAVIS BACON ACT**

**2 CFR § 200, Appendix II(D)  
29 CFR Part 5**

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).

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).

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

\_\_\_\_\_  
Signature of Contractor

\_\_\_\_\_  
Title

**Proposal Forms**

**LOBBYING AND INFLUENCING FEDERAL EMPLOYEES**

*31 USC § 1352 – Byrd Anti-Lobbying Amendment  
2 CFR part 200, Appendix II(J)  
49 CFR part 20, Appendix A*

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.
- (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, subgrants, 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.

\_\_\_\_\_  
Signature of Contractor

\_\_\_\_\_  
Title

## **Proposal Forms**

### **FAA BUY AMERICAN PREFERENCE STATEMENT**

The Contractor certifies that its bid/offer is in compliance with 49 USC § 50101, BABA and other related Made in America Laws,<sup>1</sup> U.S. statutes, guidance, and FAA policies, which provide that Federal funds may not be obligated unless all iron, steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

The bidder or offeror must complete and submit the certification of compliance with FAA's Buy American Preference, BABA and Made in America laws included herein with their bid or offer. The Airport Sponsor/Owner will reject as nonresponsive any bid or offer that does not include a completed certification of compliance with FAA's Buy American Preference and BABA.

The bidder or offeror certifies that all constructions materials, defined to mean an article, material, or supply other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber; or drywall used in the project are manufactured in the U.S.

### **CERTIFICATION OF COMPLIANCE WITH FAA BUY AMERICAN PREFERENCE – CONSTRUCTION PROJECTS**

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with its proposal. The bidder or offeror must indicate how it intends to comply with 49 USC § 50101, BABA and other related Made in America Laws, U.S. statutes, guidance, and FAA policies, by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (i.e., not both) by inserting a checkmark (✓) or the letter "X".

- Bidder or offeror hereby certifies that it will comply with 49 USC § 50101, BABA and other related U.S. statutes, guidance, and policies of the FAA by:
- a) Only installing iron, steel and manufactured products produced in the United States;

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<sup>1</sup> Per Executive Order 14005 "Made in America Laws" means all statutes, regulations, rules, and Executive Orders relating to federal financial assistance awards or federal procurement, including those that refer to "Buy America" or "Buy American," that require, or provide a preference for, the purchase or acquisition of goods, products, or materials produced in the United States, including iron, steel, and manufactured products offered in the United States.



## **Proposal Forms**

- b) Only installing construction materials defined as: an article, material, or supply – other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber or drywall that have been manufactured in the United States.
- c) Installing manufactured products for which the Federal Aviation Administration (FAA) has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
- d) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

- a) To provide to the Airport Sponsor or the FAA evidence that documents the source and origin of the iron, steel, and/or manufactured product.
- b) To faithfully comply with providing U.S. domestic products.
- c) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.
- d) Certify that all construction materials used in the project are manufactured in the U.S.

The bidder or offeror hereby certifies it cannot comply with the 100 percent Buy American Preferences of 49 USC § 50101(a) but may qualify for a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:

- a) To submit to the Airport Sponsor or FAA within 15 calendar days of being selected as the responsive bidder, a formal waiver request and required documentation that supports the type of waiver being requested.
- b) That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination that may result in rejection of the proposal.
- c) To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.
- d) To furnish U.S. domestic product for any waiver request that the FAA rejects.
- e) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

## ***Proposal Forms***

### **Required Documentation**

**Type 2 Waiver (Nonavailability)** - The iron, steel, manufactured goods or construction materials or manufactured goods are not available in sufficient quantity or quality in the United States. The required documentation for the Nonavailability waiver is

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire
- b) Record of thorough market research, consideration where appropriate of qualifying alternate items, products, or materials including;
- c) A description of the market research activities and methods used to identify domestically manufactured items capable of satisfying the requirement, including the timing of the research and conclusions reached on the availability of sources.

**Type 3 Waiver** – The cost of components and subcomponents produced in the United States is more than 60 percent of the cost of all components and subcomponents of the “facility/project.” The required documentation for a Type 3 waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire including;
- b) Listing of all manufactured products that are not comprised of 100 percent U.S. domestic content (excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety).
- c) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly and installation at project location.
- d) Percentage of non-domestic component and subcomponent cost as compared to total “facility” component and subcomponent costs, excluding labor costs associated with final assembly and installation at project location.

**Type 4 Waiver (Unreasonable Costs)** - Applying this provision for iron, steel, manufactured goods or construction materials would increase the cost of the overall project by more than 25 percent. The required documentation for this waiver is:

- a) A completed Content Percentage Worksheet and Final Assembly Questionnaire from
- b) At minimum two comparable equal bids and/or offers;
- c) Receipt or record that demonstrates that supplier scouting called for in Executive Order 14005, indicates that no domestic source exists for the project and/or component;
- d) Completed waiver applications for each comparable bid and/or offer.

**Proposal Forms**

**False Statements:** Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Title

**Proposal Forms**

**Hammond Northshore Regional Airport  
Terminal Apron Joint Reseal and Taxiway A  
and E Point Repairs**  
Name of Project

**FAA AIG BIL No. 3-22-0018-0XX-2024**  
Project No.

**ATTESTATIONS AFFIDAVIT**

**Before me**, the undersigned notary public, duly commissioned and qualified in and for the parish and state aforesaid, personally came and appeared Affiant, who after being duly sworn, attested as follows:

**LA. R.S. 38:2227 PAST CRIMINAL CONVICTIONS OF BIDDERS**

A. No sole proprietor or individual partner, incorporator, director, manager, officer organizer, or member who has a minimum of a ten percent (10%) ownership in bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes:

- |                                       |                                    |
|---------------------------------------|------------------------------------|
| (a) Public bribery (R.S. 14:118)      | (c) Extortion (R.S. 14:66)         |
| (b) Corrupt influencing (R.S. 14:120) | (d) Money laundering (R.S. 14:230) |

B. Within the past five years from the project date, no sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes, during the solicitation or execution of a contract or bid awarded pursuant to the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes:

- |  |   |
|--|---|
| (a) Theft (R.S. 14:67)                         | (f) Bank fraud (R.S. 14:71.1)                             |
| (b) Identity Theft (R.S. 14:67.16)             | (g) Forgery (R.S. 14:72)                                  |
| (c) Theft of a business record (R.S. 14:67.20) | (h) Contractors; misapplication of payments (R.S. 14:202) |
| (d) False accounting (R.S. 14:70) (R.S. 14:70) | (i) Malfeasance in office (R.S. 14:134)                   |
| (e) Issuing worthless checks (R.S. 14:71)      |   |

**LA. R.S. 38:2212.10 Verification of Employees**

- A. At the time of bidding, Appearer is registered and participates in a status verification system to verify that all new hires in the state of Louisiana are legal citizens of the United States or are legal aliens.
- B. If awarded the contract, Appearer shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.
- C. If awarded the contract, Appearer shall require all subcontractors to submit to it a sworn affidavit verifying compliance with Paragraphs (A) and (B) of this Subsection.

**Proposal Forms**

**Hammond Northshore Regional Airport  
Terminal Apron Joint Reseal and Taxiway A  
and E Point Repairs**  
Name of Project

**FAA AIG BIL No. 3-22-0018-0XX-2024**  
Project No.

**LA. R.S. 23:1726(B) Certification Regarding Unpaid Workers Compensation Insurance**

- A. R.S. 23:1726 prohibits any entity against whom an assessment under Part X of Chapter 11 of Title 23 of the Louisiana Revised Statutes of 1950 (Alternative Collection Procedures & Assessments) is in effect, and whose right to appeal that assessment is exhausted, from submitting a bid or proposal for or obtaining any contract pursuant to Chapter 10 of Title 38 of the Louisiana Revised Statutes of 1950 and Chapters 16 and 17 of Title 39 of the Louisiana Revised Statutes of 1950.
- B. By signing this bid /proposal, Affiant certifies that no such assessment is in effect against the bidding / proposing entity.

\_\_\_\_\_  
NAME OF BIDDER

\_\_\_\_\_  
NAME OF AUTHORIZED SIGNATORY OF BIDDER

\_\_\_\_\_  
DATE

\_\_\_\_\_  
TITLE OF AUTHORIZED SIGNATORY OF BIDDER

\_\_\_\_\_  
SIGNATURE OF AUTHORIZED  
SIGNATORY OF BIDDER/AFFIANT

Sworn to and subscribed before me by Affiant on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public

## **Proposal Forms**

(THIS IS PART OF BID)

### **BID CONDITIONS DISADVANTAGED BUSINESS ENTERPRISE PROGRAM**

#### *49 CFR part 26*

The following bid conditions apply to this United States Department of Transportation assisted contract. Submission of a proposal by a prospective Contractor shall constitute full acceptance of these bid conditions.

The Owner will ensure that the following clauses are included in each DOT assisted contract and subcontract:

- I. Policy - It is the policy of the City of Hammond, Louisiana that Disadvantaged Business Enterprises shall have the maximum practicable opportunity to participate in the performance of contracts. Consequently, the DBE requirements of 49 CFR Part 26, do apply to this agreement. Bidders shall use sufficient and reasonably good faith efforts to carry out this policy in the award of their subcontracts to the fullest extent, consistent with the efficient performance of this contract.

"Disadvantaged Business Enterprise" means a small business which is at least 51 percent owned by one or more socially and economically Disadvantaged individuals, or, in the case of a publicly owned business, at least 51 percent of the stock is owned by one or more socially and economically Disadvantaged individuals and whose Management and daily operations are at least 51 percent controlled by one or more such individuals.

"Disadvantaged Individuals," who are rebuttably presumed to be socially and economically disadvantaged, include, Women, Blacks, Hispanics, Native Americans (American Indians, Eskimos, Aleuts, or Native Hawaiians), Asian Pacific Americans (Japan, China, Taiwan, Korea, Vietnam, Laos, Cambodia, Philippines, Samoa, Guam). Asian-Indian Americans (India, Pakistan, Bangladesh), and members of other groups or other individuals who have been determined as economically and socially disadvantaged and are lawful residents of the United States.

- II. DBE Obligation - The contractor agrees to ensure that Disadvantaged Business Enterprises as defined in 49 CFR Part 26, Subpart D, have the maximum opportunity to participate in the performance of contracts and subcontracts. In this regard, all contractors shall take necessary and reasonable steps in accordance with 49 CFR Part 26 to ensure that Disadvantaged Business Enterprises have the maximum opportunity to compete for and perform contracts. Contractors shall not discriminate on the basis of race, color, national origin or sex.
- III. Compliance - All bidders, potential contractors, or sub-contractors for this contract are hereby notified that failure to carry out the policy and the DBE obligation, as set forth above, shall constitute a breach of contract which may result in non-selection; termination of the contract; or such other remedy as deemed appropriate by the Airport. Agreements between a

## ***Proposal Forms***

bidder/proposer and a DBE, in which the DBE promises not to provide sub-contracting quotations to other BIDDERS/PROPOSERS, are prohibited.

- IV. Sub-contract Clauses - All bidders and potential contractors hereby assure that they will include the above clauses in all sub-contracts which offer further sub-contracting opportunities.
- V. Additional Terms And Conditions

(A) DBE Goal:

Notification is hereby given that a **10.5%** DBE contract goal is established for this prime contract. The overall goal for firms owned and controlled by socially and economically disadvantaged individuals is a minimum **10.5%** percent of the dollar value of this contract, including alternates and change orders. In the event that the bidder for this solicitation is certified and qualifies as a DBE, the contract goal shall be deemed to have been met in accordance with the Section on "COUNTING DBE PARTICIPATION TOWARD MEETING THE DBE GOALS".

BIDDERS/PROPOSERS are strongly encouraged to utilize a mixture of eligible DBE firms from all groups (Blacks, Hispanics, Women, Native Americans, Asian Pacific Americans).

All bidders and proposers hereby assure that they will make sufficient reasonable good faith efforts to meet the above stated goals. Moreover such bidders or proposers hereby assure that they will meet the DBE participation percentages submitted in their respective bids or proposals.

BIDDERS/PROPOSERS, also agree to provide any additional information requested by the Airport to substantiate DBE participation, including but not limited to, the written subcontract agreement between prime bidder and each subcontractor for the work relative to this project.

(B) DBE Substitutions:

All bidders and proposers shall make a good faith effort to replace a DBE sub-contractor who is unable to perform successfully, with another DBE sub-contractor. The DBELO must approve all substitutions. There shall be no substitutions or additions during the time period between the bid opening date and the bid award date, unless required under the Decertification Provision.

Bidders or proposers may not make substitutions of DBE subcontractors after bid award on the grounds that they have solicited a response from another contractor whose price is more reasonable than the DBE submitted at bid opening.

## ***Proposal Forms***

(C) DBE “Regular Dealers”

All BIDDERS/PROPOSERS may count sixty (60) percent of their expenditure for the purchase of materials and supplies obtained from a DBE "Regular Dealer", provided that the DBE supplier(s) perform a commercially useful function in the supply process. A DBE is considered to be performing a commercially useful function when he/she is responsible for execution of a distinct element of work of a contract, and carrying out its responsibilities by actually performing, with its own crew, managing and supervising the work involved.

For the purpose of calculating the percentage rate of participation by DBE(s), those bidders using the service of socially and economically disadvantaged individuals as brokers for the purpose of supplying materials or labor shall be allowed zero (0) credit toward meeting the contract goal (obligation). The term broker is defined as: A buyer and seller of goods or a negotiator between buyer and seller, but without having custody of the property.

(D) COUNTING DBE PARTICIPATION TOWARD MEETING THE DBE GOAL:

BIDDERS/PROPOSERS may count DBE participation toward meeting DBE goal as follows:

- (a) The total dollar value of the contract awarded to an eligible DBE which performs at least fifty-one percent (51%) of the work with their own work force; or the total of fifty-one percent of the work which is performed by the eligible DBE's own work force and another eligible DBE subcontractor will be counted toward the applicable DBE goal.
- (b) Only that portion of the total dollar value of a contract which is actually performed by an eligible DBE's own work force, or a combination of other eligible DBE subcontractors, equates to fifty-one percent (51%) or more.
- (c) A portion of the total dollar value of a contract with a joint venture, eligible under the standards for certification, equal to the percentage of the ownership and control of the DBE partner in the joint venture. A two-party check, payable to the DBE and supplier is acceptable, only if any discounts for early payment, etc. are paid to the DBE.

(E) Contract Award Criteria:

The award selection procedure for this solicitation will ensure that prime contracts are awarded only to competitors who make a good faith effort to meet the established Disadvantaged Business Enterprise (DBE) goal.



## **Proposal Forms**

1. Subject to other applicable provisions herein, bids or proposals will be considered incomplete, and ineligible to receive a contract award unless the following forms (copies are a part of the bid documents) are completed and submitted with the bid:
  - (a) DBE Form 1 – DBE Utilization Form.
  - (b) DBE Form 2 – Letter of Intent to perform as a Disadvantaged Business Enterprise Subcontractor. One form for each MBE/WBE subcontractor listed on Schedules 1 and 2 must be completely filled out and executed by the proposed subcontractor. Failure to submit this with the bid may preclude the bidder from award. Forms are supplied with the contract documents. Additional copies may be obtained from the same place where plans and specifications were received.
  - (c) DBE Form 3 – DBE Unavailability Certification must be submitted with the bid proposal if the DBE goal is not met.
  
2. The Owner will count toward the established DBE project goal only those firms that are certified as a DBE at bid opening.

The Owner reserves the right to "allow" the low bidder who has made an acceptable good faith effort to increase DBE sub-contract goals and other affirmative action efforts, provided same does not increase the bid price of the respective project.

- (F) Reporting Requirements - The awardee shall establish, maintain and submit regular reports, as required, which will identify and assess progress in achieving DBE sub-contract goals and other affirmative action efforts.

Progress reports shall be submitted with each periodic pay request or application for payment. Any invoice not containing same will be disapproved until the information is supplied.

The awardee is required to submit invoices each month for portions of work completed during the month, including all DBE monies due for that period. The awardee is also required to submit a DBE Utilization Form with each monthly invoice.

Failure to comply with this requirement may constitute breach of contract and may result in the termination of this contract or such other remedy as the Owner may deem appropriate.

- VI. Acceptable Good Faith Efforts - If any bidder fails to meet the DBE goals for this solicitation, the bidder shall submit, with the bid, proof of good faith efforts, using the guideline listed in Appendix A to 49 CFR 26, along with a written statement of efforts made and reasons for not meeting said goals. (See DBE Form 4 which must be submitted with bid)

A list of the efforts that a bidder should make, and the Owner may use in making a determination as to the acceptability of the bidder, are as follows:

### ***Proposal Forms***

- (1) Whether the bidder attended any pre-solicitation or pre-bid meetings which were scheduled by the Owner to inform DBEs of contracting and subcontracting opportunities;
- (2) Whether the bidder advertised in general circulation, trade association, and minority-focus media concerning the sub-contracting opportunities;
- (3) Whether the bidder provided written notice to a reasonable number of specific DBEs that their interest in the contract was being solicited, in sufficient time to allow the DBEs to participate effectively;
- (4) Whether the bidder followed up initial solicitations of interest by contracting DBEs to determine, with certainty, whether the DBEs were interested;
- (5) Whether the bidder selected portions of work to be performed by DBEs in order to increase his/her chances of meeting the DBE goal (including, where appropriate, breaking down contracts into economically feasible units to facilitate DBE participation);
- (6) Whether the bidder provided interested DBEs with adequate information about the plans, specifications and requirements of the contract;
- (7) Whether the bidder negotiated in good faith with interested DBEs, not rejecting DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities.
- (8) Whether the bidder made efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance required by the Owner or contractor, and
- (9) Whether the bidder effectively used the services of available minority and women community organizations; minority and women contractors' groups; local, state and Federal minority business assistance offices; and other organizations that provide assistance in the recruitment and placement of socially and economically individuals.

NOTE: The nine (9) items set forth above are not the exclusive criteria, and the Owner may specify that you submit information on certain other actions which were taken to secure DBE participation in an effort to meet the goal. A bidder may also submit to the owner, other information on efforts he/she made to meet the goal.

- VII. Contractor Assurance - The bidder assures that he/she will make a good faith effort to meet, one of the following, as appropriate; the DBE participation goal as established in Paragraph V, Section A.

## ***Proposal Forms***

### General Instructions

1. Contract Goal - All BIDDERS/CONTRACTORS may meet the DBE contract goal by using certified MBEs, WBEs or combinations thereof. Bidders who fail to achieve the contract goal(s) stated in the bid document, must provide (with the bid) an explanation as to why the goal was not achieved and documentation demonstrating that a "Good Faith Effort" was made by the bidder as outlined in DBE Form 3.
  - \*2. DBE Forms 1 & 2- All bidders/contractors shall complete and submit, with their bids, DBE Forms 1 & 2.
  - \*3. DBE Letter of Intent - Each subcontractor shall complete and sign a DBE Letter of Intent.
  4. Certification - BUSINESS/CONTRACTORS seeking to participate as DBEs must be certified at the time of bid submittal. Check the DBE Directory or contact the DBELO.
  5. Copies of Forms - Contractors may duplicate as many forms as needed, or may request additional forms from the Owner; and all DBE Program questions should be directed to the DBELO.
- \*NOTE: Items 2 & 3 ABOVE MUST BE SUBMITTED WITH THE BID IN ORDER TO BE ELIGIBLE TO RECEIVE A CONTRACT AWARD.

**Proposal Forms**

DBE FORM 1 (Reproduce as necessary)

**DISADVANTAGED BUSINESS ENTERPRISE (DBE) UTILIZATION**

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

\_\_\_\_\_ The Bidder / Offerer is committed to a minimum of \_\_\_\_\_% DBE utilization on this contract.

\_\_\_\_\_ The Bidder / Offerer (if unable to meet the DBE goal of \_\_\_\_\_%) is committed to a minimum of \_\_\_\_\_% DBE utilization on this contract and submits documentation as an attachment demonstrating good faith efforts (GFE) in seeking participation by certified DBE Firms.

The undersigned hereby further assures that the information included herein is true and correct, and that the DBE firm(s) listed herein have agreed to perform a commercially useful function in the work items noted for each firm.

The undersigned further understands that no changes to this statement may be made without prior approval from the Civil Right Staff of the Federal Aviation Administration.

\_\_\_\_\_  
Name of Bidder / Offerer's Firm Name:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**DBE UTILIZATION SUMMARY**

	<u>Contract Amount</u>	<u>DBE Amount</u>	<u>Contract Percentage</u>
DBE Prime Contractor	\$ _____ x 1.00 =	\$ _____	_____ %
DBE Subcontractor	\$ _____ x 1.00 =	\$ _____	_____ %
DBE Supplier	\$ _____ x 0.60 =	\$ _____	_____ %
DBE Manufacturer	\$ _____ x 1.00 =	\$ _____	_____ %
Total Amount DBE		\$ _____	_____ %
DBE Goal		\$ _____	_____ %

Note: If the total proposed DBE participation is less than the established DBE goal, Bidder must provide written documentation of the good faith efforts as required by 49 CFR Part 26.

**Proposal Forms**

DBE FORM 2 (Reproduce as necessary)

**DBE LETTER OF INTENT**

Name of bidder / offeror's firm: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Name of DBE Firm: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

DBE Contact Person: Name: \_\_\_\_\_ Phone: (\_\_\_\_) \_\_\_\_\_

DBE Certifying Agency: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

*Each DBE Firm shall submit evidence (such as a photocopy) of their certification status.*

**Classification:**

Prime Contractor

Subcontractor

Joint Venture

Manufacturer

Supplier

Work item(s) to be performed by DBE	Description of Work Item	Quantity	Total

The bidder / offerer is committed to utilizing the above-named DBE firm for the work described above. The estimated participation is

DBE Contract Amount:\$ \_\_\_\_\_ Percent of Total Contract \_\_\_\_\_%

**Affirmation:**

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

By: \_\_\_\_\_  
(Signature) (Title)

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

*(Duplicate and Submit this page for each DBE subcontractor.)*

**Proposal Forms**

DBE FORM 3 (Reproduce as necessary)

**DBE UNAVAILABILITY CERTIFICATION**

I, \_\_\_\_\_, \_\_\_\_\_

of \_\_\_\_\_, certify that on the dates below,

I invited the following DBE Subcontractor(s) to bid work items to be performed on

**Terminal Apron Joint Reseal and Taxiway A and E Point Repairs**

DATE OF REQUEST	MBE/WBE	NAME OF SUBCONTRACTOR	WORK ITEMS SOUGHT
-----------------	---------	-----------------------	-------------------

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

The following Subcontractors submitted bids, which were not the low responsible bid:

_____	\$
_____	\$
_____	\$
_____	\$
_____	\$

***Proposal Forms***

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## CONTRACT FORMS

THIS AGREEMENT dated the \_\_\_\_\_ day of \_\_\_\_\_ in the year 20\_\_\_\_, by and between **City of Hammond** (hereinafter called the OWNER) and \_\_\_\_\_ (hereinafter call the CONTRACTOR). OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

### Article 1 – NOTICE

**TAKE NOTICE: THIS CONTRACT IS SUBJECT TO ARBITRATION PURSUANT TO THE LAWS OF THE STATE OF LOUISIANA.**

**This same Notice shall be placed on all contracts, subcontracts, purchase orders, agreements and bonds relating to the Project or the Work.**

### Article 2 – WORK

Project Name: Terminal Apron Joint Reseal and Taxiway A and E Point Repairs  
Project Location: Hammond Northshore Regional Airport

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

**This project includes the rehabilitation of the Terminal Apron and point repairs along Taxiway A and E. Base bid work consists of the rehabilitation of the Terminal Apron, which entails the cleaning and sealing of concrete joints, cleaning, and sealing of cracks in the concrete pavement, and full replacement of concrete slabs damaged beyond repair. Additive Alternate 1 work includes select slab replacement along Taxiway E between Runway 13-31 to Runway 18-36. Additive Alternate 2 work includes select slab replacement along Taxiway E between Taxiway A to Runway 13-31. Additive Alternate 3 work includes select slab replacement along Taxiway A.**

### Article 3 – ENGINEER

The Project has been designed by:

MICHAEL BAKER INTERNATIONAL  
2600 Citiplace Drive, Suite 450  
Baton Rouge, LA 70808

who is hereinafter called ENGINEER and who is to act as OWNER's representative, assume all duties and responsibilities and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

### Article 4 – CONTRACT TIME

4.1 The Work will be completed and ready for final payment within the time specified in Section 01010, "Scope of Work", as described in the contract drawings for final acceptance in accordance with General Provisions, Paragraph 50-15.



**Contract Forms**

- 4.2 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not substantially complete within the time and phases described in these Contract Documents. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER the amounts stipulated in Section 01010 for each calendar day that expires after the time specified.
- 4.3 CONTRACTOR further understands and hereby expressly agrees that in addition to liquidated damages specified in Article 4.2 above, to pay the OWNER the actual costs to OWNER for any inspector or inspectors necessarily employed by OWNER on the Work and the actual costs to OWNER for the ENGINEER’s observation of construction and project representative services including all travel and subsistence expenses after the date specified for the project completion until the Work is completed and ready for final payment. Further, the CONTRACTOR agrees that the sums to be paid the OWNER may be deducted from the sum due the CONTRACTOR for work performed as provided in Section 90 of the General Provisions.

Article 5 – CONTRACT PRICE

OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents in current funds as follows:

Payment will be made for completed and accepted work items at the unit prices contained in the CONTRACTOR’S Bid dated                     , 2024 and per Unit Bid Prices times the actual approved and accepted quantities with initial contract amount of:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

Article 6 – PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

- 6.1 Progress Payments. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR’s Application for Payment as recommended by the ENGINEER, within thirty (30) days after receipt of the CONTRACTOR’s verified and approved Application for Payment. All progress payments will be on the basis of the progress of the Work based on the number of units completed as determined by the ENGINEER.
- 6.1.1. Progress payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with Section 90 of the General Provisions.

## **Contract Forms**

95% of Work completed as determined by ENGINEER.

95% of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to OWNER as provided in paragraph 90-07 of the General Provisions).

- 6.1.2 With each application (excluding the first pay application) for payment, CONTRACTOR shall submit a certified report stating that each Subcontractor has been paid for 95% of the bid item quantities and/or any stored materials as approved for payment by the ENGINEER in all previous applications for payment.
  - 6.1.3 With each application for payment, the CONTRACTOR shall submit an updated CPM schedule delineating activities completed and those remaining to be completed. Additionally, he needs to identify any logic changes made since submission of his first (baseline) CPM schedule. Detailed Bar Chart, Network Diagram and Standard Report for all activities are required and shall be submitted.
  - 6.1.4 With each application for payment, the Contractor shall submit his DBE expenditures for the month, as well as a total-to-date. The expenditure report shall include the name, date and amounts paid to each DBE subcontractor.
  - 6.1.5 With each application for payment the Contractor shall submit the Certified Payroll Report for his organization as well as all of his Subcontractors. This Report must be current within 14 days of the requested Application for Payment.
  - 6.1.6 Contractor's failure to submit an acceptable DBE expenditure report, or not meeting the requirements for the certified payroll submission schedule, as outlined in 6.1.4 and 6.1.5 above, will result in withholding of his progress payment by the Owner until these requirements are satisfied
- 6.2 Final Payment. Upon final completion and acceptance of the Work in accordance with Section 50 of the General Provisions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in Section 90-09 of the General Provisions.

### Article 7 – CONTRACTOR'S REPRESENTATION

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

- 7.1 CONTRACTOR has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
- 7.2 CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports and studies which pertain to the subsurface or physical conditions at or contiguous to the site or otherwise may affect the cost, progress, performance or furnishing of the Work as

## **Contract Forms**

CONTRACTOR considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by CONTRACTOR for such purposes.

- 7.3 CONTRACTOR has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities.

No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by CONTRACTOR in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents.

- 7.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.
- 7.5 CONTRACTOR has given ENGINEER written notice of all conflicts, error or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

### Article 8 – CONTRACT DOCUMENTS

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 8.1 This Agreement (*Contract Forms*, inclusive).
- 8.2 Performance, Payment and other Bonds (*Contract Forms*, inclusive).
- 8.3 General Provisions and Supplementary Conditions.
- 8.4 Technical Specifications as listed in table of contents of the Project Manual.
- 8.5 Drawings, bearing the following general title:

**Hammond Northshore Regional Airport  
Terminal Apron Joint Reseal and Taxiway A and E Point Repairs**

- 8.6 Addendum Number \_\_ to \_\_, inclusive.
- 8.7 CONTRACTOR'S Bid (*Proposal Forms*, inclusive)
- 8.8 Documentation submitted by CONTRACTOR prior to Notice of Award.

## **Contract Forms**

- 8.9 The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying, or supplementing the Contract Documents pursuant to the General Provisions.

There are no Contract Documents other than those listed in this Article 8. The Contract Documents may only be amended, modified or supplemented as provided in the General Provisions.

### Article 9 – MISCELLANEOUS

- 9.1 Terms used in this Agreement which are defined in the General Conditions will have the meanings indicated in the General Conditions.
- 9.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 9.3 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

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**Contract Forms**

Article 10 – OTHER PROVISIONS

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in five (5) counterparts. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by ENGINEER on their behalf.

This Agreement will be effective on \_\_\_\_\_.

OWNER

CONTRACTOR

**CITY OF HAMMOND**

\_\_\_\_\_

By: \_\_\_\_\_  
(Corporate Seal)

By: \_\_\_\_\_  
(Corporate Seal)

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

Address for giving notices

Address for giving notices

Hammond Northshore Regional Airport

\_\_\_\_\_

600 Judge Leon Ford Drive

\_\_\_\_\_

Hammond, Louisiana 70401

\_\_\_\_\_

**Contract Forms**

**CERTIFICATE OF SECRETARY**

AS TO RESOLUTION ADOPTED BY BOARD OF DIRECTORS ON \_\_\_\_\_  
(date)

I, \_\_\_\_\_, hereby certify that I am the duly authorized  
Secretary of \_\_\_\_\_, charged with keeping the records and  
the seal of said Corporation, and that the following is a true and correct copy of a resolution adopted  
at a meeting of the Board of Directors of the Corporation duly held on \_\_\_\_\_, which  
resolution is now in full force and effect.

RESOLVED, that \_\_\_\_\_, (President, Vice President) of  
\_\_\_\_\_, is hereby authorized to execute contracts, performance  
bonds and labor and materials bonds on behalf of the Corporation.

WITNESS my hand as Secretary, and the seal of the Corporation this \_\_\_\_ day of  
\_\_\_\_\_, 20 \_\_\_\_.

\_\_\_\_\_  
Secretary

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

\_\_\_\_\_  
(Notary Signature)

Notary Public for \_\_\_\_\_ Parish

My Commission Expires: \_\_\_\_\_

**Contract Forms**

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**Contract Forms**

**CONSTRUCTION PERFORMANCE BOND**

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

**CITY OF HAMMOND  
600 JUDGE LEON FORD DRIVE  
HAMMOND, LOUISIANA 70401**

CONTRACT

Date:

Amount: \$

Description (Name and Location):

**TERMINAL APRON JOINT RESEAL AND TAXIWAY A AND E POINT REPAIRS  
HAMMOND NORTHSORE REGIONAL AIRPORT  
FAA AIG BIL No. 3-22-0018-0XX-2024**

BOND

Bond Number:

Date (Not earlier than Contract Date):

Amount: \$

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: \_\_\_\_\_ (Seal)

Name and Title:

\_\_\_\_\_  
Signature and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature and Title  
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Attest: \_\_\_\_\_  
Signature and Title

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: \_\_\_\_\_ (Seal)

Name and Title:

\_\_\_\_\_  
Signature and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature and Title  
(Attach Power of Attorney)

Attest: \_\_\_\_\_  
Signature and Title:

EJCDC No. C-610 (2002 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, and the American Institute of Architects



## Contract Forms

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.
2. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 3.1.
3. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
  - 3.1. Owner has notified Contractor and Surety, at the addresses described in Paragraph 10 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
  - 3.2. Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 3.1; and
  - 3.3. Owner has agreed to pay the Balance of the Contract Price to:
    1. Surety in accordance with the terms of the Contract;
    2. Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.
4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:
  - 4.1. Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
  - 4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
  - 4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and Contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
  - 4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:
    1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
    2. Deny liability in whole or in part and notify Owner citing reasons therefor.
5. If Surety does not proceed as provided in Paragraph 4 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 4.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
6. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To a limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:
  - 6.1. The responsibilities of Contractor for correction of defective Work and completion of the Contract;
  - 6.2. Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions or failure to act of Surety under Paragraph 4; and
  - 6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.
7. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.
8. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.
9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
10. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.
11. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
12. Definitions.
  - 12.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
  - 12.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
  - 12.3 Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
  - 12.4 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY – Name, Address and Telephone  
Surety Agency or Broker  
Owner's Representative (engineer or other party)

**Contract Forms**

**CONSTRUCTION PAYMENT BOND**

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

**CITY OF HAMMOND  
600 JUDGE LEON FORD DRIVE  
HAMMOND, LOUISIANA 70401**

CONTRACT

Date:

Amount: \$

Description (Name and Location):

**TERMINAL APRON JOINT RESEAL AND TAXIWAY A AND E POINT REPAIRS  
HAMMOND NORTHSORE REGIONAL AIRPORT  
FAA AIG BIL No. 3-22-0018-0XX-2024**

BOND

Bond Number:

Date (Not earlier than Contract Date):

Amount: \$

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: \_\_\_\_\_ (Seal)  
Name and Title:

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature and Title  
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Attest: \_\_\_\_\_  
Signature and Title

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: \_\_\_\_\_ (Seal)  
Name and Title:

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature and Title  
(Attach Power of Attorney)

Attest: \_\_\_\_\_  
Signature and Title:

EJCDC No. C-615 (2002 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, the American Institute of Architects, the American Subcontractors Association, and the Associated Specialty Contractors.

## Contract Forms

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.

2. With respect to Owner, this obligation shall be null and void if Contractor:

2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2. Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.

3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.

4. Surety shall have no obligation to Claimants under this Bond until:

4.1. Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the addresses described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2. Claimants who do not have a direct contract with Contractor:

1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and

2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and

3. Not having been paid within the above 30 days, have sent a written notice to Surety and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.

5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety that is sufficient compliance.

6. When a Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at Surety's expense take the following actions:

6.1. Send an answer to that Claimant, with a copy to Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

6.2. Pay or arrange for payment of any undisputed amounts.

7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.

8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.

9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

### 15. DEFINITIONS

15.1. Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

15.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.

15.3. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY – Name, Address and Telephone  
Surety Agency or Broker  
Owner's Representative (engineer or other party)

**Contract Forms**

# **Federal Contract Provisions**

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**FAA  
Airports**

## **MANDATORY FEDERAL CONTRACT PROVISIONS**

### **REQUIRED BID AND CONTRACT PROVISIONS**

(As Issued on May 24, 2023)

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**A1 ACCESS TO RECORDS AND REPORTS**

*2 CFR § 200.334*

*2 CFR § 200.337*

*FAA Order 5100.38*

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Owner, 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.

**A2 AFFIRMATIVE ACTION REQUIREMENT**

*41 CFR Part 60-4*

*Executive Order 11246*

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY**

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:

**Timetables**

Goals for minority participation for each trade: **27.7%**

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 also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor’s compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of 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 of the 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 the 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 *Hammond Northshore Regional Airport, Tangipahoa Parish, Hammond, Louisiana.*

### **A3 BREACH OF CONTRACT TERMS**

*2 CFR Part 200, Appendix II(A)*

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.

Owner will provide Contractor written notice that describes the nature of the breach and corrective actions the Contractor must undertake in order to avoid termination of the contract. Owner reserves the right to withhold payments to Contractor until such time the Contractor corrects the breach or the Owner elects to terminate the contract. The Owner's notice will identify a specific date by which the Contractor must correct the breach. Owner may proceed with termination of the contract if the Contractor fails to correct the breach by the deadline indicated in the Owner's notice.

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.

## **A4 BUY AMERICAN PREFERENCE**

*Title 49 USC § 50101*

Executive Order 14005, *Ensuring the Future is Made in All of America by All of America's Workers*

Bipartisan Infrastructure Law (Pub. L. No. 117-58), Build America, Buy America (BABA)

### **FAA BUY AMERICAN PREFERENCE STATEMENT**

The Contractor certifies that its bid/offer is in compliance with 49 USC § 50101, BABA and other related Made in America Laws,<sup>1</sup> U.S. statutes, guidance, and FAA policies, which provide that Federal funds may not be obligated unless all iron, steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

The bidder or offeror must complete and submit the certification of compliance with FAA's Buy American Preference, BABA and Made in America laws included herein with their bid or offer. The Airport Sponsor/Owner will reject as nonresponsive any bid or offer that does not include a completed certification of compliance with FAA's Buy American Preference and BABA.

The bidder or offeror certifies that all constructions materials, defined to mean an article, material, or supply other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber; or drywall used in the project are manufactured in the U.S.

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<sup>1</sup> Per Executive Order 14005 "Made in America Laws" means all statutes, regulations, rules, and Executive Orders relating to federal financial assistance awards or federal procurement, including those that refer to "Buy America" or "Buy American," that require, or provide a preference for, the purchase or acquisition of goods, products, or materials produced in the United States, including iron, steel, and manufactured products offered in the United States.

## **Certification of Compliance with FAA Buy American Preference – Construction Projects**

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with its proposal. The bidder or offeror must indicate how it intends to comply with 49 USC § 50101, BABA and other related Made in America Laws, U.S. statutes, guidance, and FAA policies, by selecting one of the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (i.e., not both) by inserting a checkmark (✓) or the letter “X”.

- Bidder or offeror hereby certifies that it will comply with 49 USC § 50101, BABA and other related U.S. statutes, guidance, and policies of the FAA by:
- a) Only installing iron, steel and manufactured products produced in the United States;
  - b) Only installing construction materials defined as: an article, material, or supply – other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber or drywall that have been manufactured in the United States.
  - c) Installing manufactured products for which the Federal Aviation Administration (FAA) has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
  - d) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

- a) To provide to the Airport Sponsor or the FAA evidence that documents the source and origin of the iron, steel, and/or manufactured product.
  - b) To faithfully comply with providing U.S. domestic products.
  - c) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.
  - d) Certify that all construction materials used in the project are manufactured in the U.S.
- The bidder or offeror hereby certifies it cannot comply with the 100 percent Buy American Preferences of 49 USC § 50101(a) but may qualify for a Type 3 or Type 4 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:
- a) To submit to the Airport Sponsor or FAA within 15 calendar days of being selected as the responsive bidder, a formal waiver request and required documentation that supports the type of waiver being requested.
  - b) That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination that may result in rejection of the proposal.

- c) To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.
- d) To furnish U.S. domestic product for any waiver request that the FAA rejects.
- e) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

**Required Documentation**

**Type 2 Waiver (Nonavailability)** - The iron, steel, manufactured goods or construction materials or manufactured goods are not available in sufficient quantity or quality in the United States. The required documentation for the Nonavailability waiver is

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire
- b) Record of thorough market research, consideration where appropriate of qualifying alternate items, products, or materials including;
- c) A description of the market research activities and methods used to identify domestically manufactured items capable of satisfying the requirement, including the timing of the research and conclusions reached on the availability of sources.

**Type 3 Waiver** – The cost of components and subcomponents produced in the United States is more than 60 percent of the cost of all components and subcomponents of the “facility/project.” The required documentation for a Type 3 waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire including;
- b) Listing of all manufactured products that are not comprised of 100 percent U.S. domestic content (excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108; products of unknown origin must be considered as non-domestic products in their entirety).
- c) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly and installation at project location.
- d) Percentage of non-domestic component and subcomponent cost as compared to total “facility” component and subcomponent costs, excluding labor costs associated with final assembly and installation at project location.

**Type 4 Waiver (Unreasonable Costs)** - Applying this provision for iron, steel, manufactured goods or construction materials would increase the cost of the overall project by more than 25 percent. The required documentation for this waiver is:

- a) A completed Content Percentage Worksheet and Final Assembly Questionnaire from
- b) At minimum two comparable equal bids and/or offers;
- c) Receipt or record that demonstrates that supplier scouting called for in Executive Order 14005, indicates that no domestic source exists for the project and/or component;
- d) Completed waiver applications for each comparable bid and/or offer.

**False Statements:** Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

---

Date

---

Signature

---

Company Name

---

Title

### **Certification of Compliance with FAA Buy American Preference – Equipment/Building Projects**

As a matter of bid responsiveness, the bidder or offeror must complete, sign, date, and submit this certification statement with their proposal. The bidder or offeror must indicate how they intend to comply with 49 USC § 50101, and other Made in America Laws, U.S. statutes, guidance, and FAA policies by selecting one on the following certification statements. These statements are mutually exclusive. Bidder must select one or the other (not both) by inserting a checkmark (✓) or the letter “X”.

- Bidder or offeror hereby certifies that it will comply with 49 USC § 50101, BABA and other related U.S. statutes, guidance, and policies of the FAA by:
- a) Only installing steel and manufactured products produced in the United States;
  - b) Only installing construction materials defined as: an article, material, or supply – other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber or drywall that have been manufactured in the United States.
  - c) Installing manufactured products for which the Federal Aviation Administration (FAA) has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
  - d) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.108.

By selecting this certification statement, the bidder or offeror agrees:

- a) To provide to the Airport Sponsor or FAA evidence that documents the source and origin of the steel and manufactured product.
  - b) To faithfully comply with providing U.S. domestic product.
  - c) To furnish U.S. domestic product for any waiver request that the FAA rejects.
  - d) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.
- The bidder or offeror hereby certifies it cannot comply with the 100 percent Buy American Preferences of 49 USC § 50101(a) but may qualify for a Type 3 waiver under 49 USC § 50101(b). By selecting this certification statement, the apparent bidder or offeror with the apparent low bid agrees:

- a) To submit to the Airport Sponsor or FAA within 15 calendar days of being selected as the responsive bidder, a formal waiver request and required documentation that supports the type of waiver being requested.
- b) That failure to submit the required documentation within the specified timeframe is cause for a non-responsive determination that may result in rejection of the proposal.
- c) To faithfully comply with providing U.S. domestic products at or above the approved U.S. domestic content percentage as approved by the FAA.
- d) To refrain from seeking a waiver request after establishment of the contract, unless extenuating circumstances emerge that the FAA determines justified.

**Required Documentation**

**Type 2 Waiver (Nonavailability)** - The iron, steel, manufactured goods or construction materials are not available in sufficient quantity or quality in the United States. The required documentation for the Nonavailability waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire
- b) Record of thorough market research, consideration where appropriate of qualifying alternate items, products, or materials including;
- c) A description of the market research activities and methods used to identify domestically manufactured items capable of satisfying the requirement, including the timing of the research and conclusions reached on the availability of sources.

**Type 3 Waiver** – The cost of the item components and subcomponents produced in the United States is more than 60 percent of the cost of all components and subcomponents of the “item”. The required documentation for a Type 3 waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire including;
- b) Listing of all product components and subcomponents that are not comprised of 100 percent U.S. domestic content (Excludes products listed on the FAA Nationwide Buy American Waivers Issued listing and products excluded by Federal Acquisition Regulation Subpart 25.108 (products of unknown origin must be considered as non-domestic products in their entirety).
- c) Cost of non-domestic components and subcomponents, excluding labor costs associated with final assembly at place of manufacture.
- d) Percentage of non-domestic component and subcomponent cost as compared to total “item” component and subcomponent costs, excluding labor costs associated with final assembly at place of manufacture.

**Type 4 Waiver (Unreasonable Costs)** - Applying this provision for iron, steel, manufactured goods or construction materials, would increase the cost of the overall project by more than 25 percent. The required documentation for this waiver is:

- a) Completed Content Percentage Worksheet and Final Assembly Questionnaire from
- b) At minimum two comparable equal bidders and/or offerors;
- c) Receipt or record that demonstrates that supplier scouting called for in Executive Order 14005, indicates that no domestic source exists for the project and/or component;
- d) Completed waiver applications for each comparable bid and/or offer.

**False Statements:** Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

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Date

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Signature

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Company Name

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Title



## **A5 CIVIL RIGHTS - GENERAL**

*49 USC § 47123*

### **GENERAL CIVIL RIGHTS PROVISIONS**

In all its activities within the scope of its airport program, the Contractor agrees to comply with pertinent statutes, Executive Orders, and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

The above provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

## **A6 CIVIL RIGHTS – TITLE VI ASSURANCE**

*49 USC § 47123*

*FAA Order 1400.11*

### **Title VI Solicitation Notice**

The **City of Hammond, Louisiana**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, will be afforded full and fair opportunity to submit bids in response to this invitation and no businesses will be discriminated against on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in consideration for an award.

### **Title VI List of Pertinent Nondiscrimination Acts and Authorities**

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq.*), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);

- The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq.*) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-259) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990 (42 USC § 12101, *et seq*) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations);
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs [70 Fed. Reg. 74087 (2005)];
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC § 1681, *et seq.*).

## **Compliance with Nondiscrimination Requirements/Title VI Clauses for Compliance**

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 Acts 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. **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability 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 Nondiscrimination Acts and Authorities, 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 Nondiscrimination Acts and Authorities 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 Nondiscrimination Acts and Authorities 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.

## **A7 CLEAN AIR AND WATER POLLUTION CONTROL**

*2 CFR Part 200, Appendix II(G)*

*42 USC § 7401, et seq*

*33 USC § 1251, et seq*

Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 USC §§ 7401-7671q) and the Federal Water Pollution Control Act as amended (33 USC §§ 1251-1387). The Contractor agrees to report any violation to the Owner immediately upon discovery. The Owner assumes responsibility for notifying the Environmental Protection Agency (EPA) and the Federal Aviation Administration.

Contractor must include this requirement in all subcontracts that exceed \$150,000.

## **A8 CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS**

*2 CFR Part 200, Appendix II(E)*

*2 CFR § 5.5(b)*

*40 USC § 3702*

*40 USC § 3704*

## **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) of this clause, 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) of this clause, in the sum of \$29 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) of this clause.

### **3. Withholding for Unpaid Wages and Liquidated Damages.**

The Federal Aviation Administration (FAA) or the Owner 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 moneys 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) of this clause.

### **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 clause.

## **A9 COPELAND “ANTI-KICKBACK” ACT**

*2 CFR Part 200, Appendix II(D)*

*29 CFR Parts 3 and 5*

Contractor must comply with the requirements of the Copeland “Anti-Kickback” Act (18 USC 874 and 40 USC 3145), as supplemented by Department of Labor regulation 29 CFR part 3. Contractor and subcontractors are prohibited from inducing, by any means, any person employed on the project to give up any part of the compensation to which the employee is entitled. The Contractor and each Subcontractor must submit to the Owner, a weekly statement on the wages paid to each employee performing on covered work during the prior week. Owner must report any violations of the Act to the Federal Aviation Administration.

## **A10 DAVIS-BACON REQUIREMENTS**

*2 CFR Part 200, Appendix II(D)*

*29 CFR Part 5*

*49 USC § 47112(b)*

*40 USC §§ 3141-3144, 3146, and 3147*

### **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 § 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;
- (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, U.S. Department of Labor, Washington, DC 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 the 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 that 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 <https://www.dol.gov/agencies/whd/government-contracts/construction/payroll-certification> 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, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, 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 Office of Apprenticeship Training, Employer and Labor Services 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 Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, 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 that 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 §§ 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 § 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 USC § 1001.

## **A11 DEBARMENT AND SUSPENSION**

*2 CFR Part 180 (Subpart B)*

*2 CFR Part 200, Appendix II(H)*

*2 CFR Part 1200*

*DOT Order 4200.5*

*Executive Orders 12549 and 12689*

## **CERTIFICATION OF OFFEROR/BIDDER REGARDING DEBARMENT**

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

## **CERTIFICATION OF LOWER TIER CONTRACTORS REGARDING DEBARMENT**

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must confirm 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 Certification of Offeror /Bidder Regarding Debarment, above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract.

If the Federal Aviation Administration later determines that a lower tier participant failed to disclose to a higher tier participant that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedies, including suspension and debarment of the non-compliant participant.

## **A12 DISADVANTAGED BUSINESS ENTERPRISE**

*49 CFR Part 26*

**Bid Information Submitted as a matter of responsiveness:**

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR § 26.53.

As a condition of responsiveness, the Bidder or Offeror must submit the following information with its proposal on the forms provided herein:

- 1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- 2) A description of the work that each DBE firm will perform;
- 3) The dollar amount of the participation of each DBE firm listed under (1);
- 4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal
- 5) Written confirmation from each listed DBE firm that it is participating in the contract in the kind and amount of work provided in the prime contractor's commitment; and
- 6) If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26. The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

**Bid Information submitted as a matter of responsibility:**

The Owner's award of this contract is conditioned upon Bidder or Offeror satisfying the good faith effort requirements of 49 CFR § 26.53.

As a condition of responsibility, every Bidder or Offeror must submit the following information on the forms provided herein within five days after bid opening.

- 1) The names and addresses of Disadvantaged Business Enterprise (DBE) firms that will participate in the contract;
- 2) A description of the work that each DBE firm will perform;
- 3) The dollar amount of the participation of each DBE firm listed under (1);
- 4) Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal;
- 5) Written confirmation from each listed DBE firm that it is participating in the contract in the kind and amount of work provided in the prime contractor's commitment; and
- 6) If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in appendix A to 49 CFR part 26. The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

The requirements of 49 CFR part 26 apply to this contract. It is the policy of the Owner to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this

contract. The Owner encourages participation by all firms qualifying under this solicitation regardless of business size or ownership.

**Contract Assurance (49 CFR § 26.13) –**

The Contractor, subrecipient 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, which may include, but is not limited to:

- 1) Withholding monthly progress payments;
- 2) Assessing sanctions;
- 3) Liquidated damages; and/or
- 4) Disqualifying the Contractor from future bidding as non-responsible.

**Prompt Payment (49 CFR § 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 the Owner. The prime contractor agrees further to return retainage payments to each subcontractor within 30 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.

**Termination of DBE Subcontracts (49 CFR § 26.53(f)) –**

The prime contractor must not terminate a DBE subcontractor listed in response to this project (or an approved substitute DBE firm) without prior written consent of the Owner. This includes, but is not limited to, instances in which the prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

The prime contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent from the Owner. Unless Owner consent is provided, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

The Owner may provide such written consent only if the Owner agrees, for reasons stated in the concurrence document, that the prime contractor has good cause to terminate the DBE firm. For purposes of this paragraph, good cause includes the circumstances listed in 49 CFR §26.53.

Before transmitting to the Owner its request to terminate and/or substitute a DBE subcontractor, the prime contractor must give notice in writing to the DBE subcontractor, with a copy to the Owner, of its intent to request to terminate and/or substitute, and the reason for the request.

The prime contractor must give the DBE five days to respond to the prime contractor's notice and advise the Owner and the contractor of the reasons, if any, why it objects to the proposed termination of its

subcontract and why Owner should not approve the prime contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), the Owner may provide a response period shorter than five days.

In addition to post-award terminations, the provisions of this section apply to preaward deletions of or substitutions for DBE firms put forward by offerors in negotiated procurements.

### **A13 DISTRACTED DRIVING**

*Executive Order 13513*

*DOT Order 3902.10*

### **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 Federal Aviation Administration encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or subgrant.

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding \$10,000 that involve driving a motor vehicle in performance of work activities associated with the project.

### **A14 PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT**

*2 CFR § 200, Appendix II(K)*

*2 CFR § 200.216*

Contractor and Subcontractor agree to comply with mandatory standards and policies relating to use and procurement of certain telecommunications and video surveillance services or equipment in compliance with the National Defense Authorization Act [Public Law 115-232 § 889(f)(1)].

### **A15 DRUG FREE WORKPLACE REQUIREMENTS – NOT USED**

### **A16 EQUAL EMPLOYMENT OPPORTUNITY (EEO)**

*2 CFR Part 200, Appendix II(C)*

*41 CFR § 60-1.4*

*41 CFR § 60-4.3*

*Executive Order 11246*

## **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, sexual orientation, gender identity, 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, sexual orientation, gender identity, 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 consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the Contractor's commitments under this section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) 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.

(6) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any such 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 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.

(8) The Contractor will include the provisions of paragraphs (1) through (8) 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 may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance: *Provided*, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, 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 part 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 must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 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 areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress 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 nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

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 therefor, 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 woman 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 as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

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 work force.

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 nonsegregated 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 (7a through 7p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7a through 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, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

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, sexual orientation, gender identity, 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 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 part 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 numbers, 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)

## **A17 FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)**

*29 USC § 201, et seq*

*2 CFR § 200.430*

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, et seq, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.

The Contractor has full responsibility to monitor compliance to the referenced statute or regulation. The Contractor must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

## **A18 LOBBYING AND INFLUENCING FEDERAL EMPLOYEES**

*31 USC § 1352 – Byrd Anti-Lobbying Amendment*

*2 CFR Part 200, Appendix II(I)*

*49 CFR Part 20, Appendix A*

### **CERTIFICATION REGARDING LOBBYING**

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.
- (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, subgrants, 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.

## **A19 PROHIBITION OF SEGREGATED FACILITIES**

*2 CFR Part 200, Appendix II(C)*

*41 CFR Part 60-1*

(a) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Employment Opportunity clause in this contract.

(b) “Segregated facilities,” as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, 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 that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Employment Opportunity clause of this contract.

## **A20 OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970**

*29 CFR Part 1910*

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. The employer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The employer retains full responsibility to monitor its compliance and their subcontractor’s compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (29 CFR Part 1910). The employer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

## **A21 PROCUREMENT OF RECOVERED MATERIALS**

*2 CFR § 200.323*

*2 CFR Part 200, Appendix II(J)*

*40 CFR Part 247*

*42 USC § 6901, et seq (Resource Conservation and Recovery Act (RCRA))*

Contractor and subcontractor agree to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and the regulatory provisions of 40 CFR Part 247. In the performance of this contract and to the extent practicable, the Contractor and subcontractors are to use products containing the highest percentage of recovered materials for items designated by the Environmental Protection Agency (EPA) under 40 CFR Part 247 whenever:

- 1) The contract requires procurement of \$10,000 or more of a designated item during the fiscal year;  
or
- 2) The contractor has procured \$10,000 or more of a designated item using Federal funding during the previous fiscal year.

The list of EPA-designated items is available at [www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products](http://www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products).

Section 6002(c) establishes exceptions to the preference for recovery of EPA-designated products if the contractor can demonstrate the item is:

- a) Not reasonably available within a timeframe providing for compliance with the contract performance schedule;
- b) Fails to meet reasonable contract performance requirements; or
- c) Is only available at an unreasonable price.

## **A22 RIGHT TO INVENTIONS**

*2 CFR Part 200, Appendix II(F)*

*37 CFR Part 401*

Contracts or agreements that include the performance of experimental, developmental, or research work must provide for the rights of the Federal Government and the Owner in any resulting invention as established by 37 CFR part 401, Rights to Inventions Made by Non-profit Organizations and Small Business Firms under Government Grants, Contracts, and Cooperative Agreements. This contract incorporates by reference the patent and inventions rights as specified within 37 CFR § 401.14. Contractor must include this requirement in all sub-tier contracts involving experimental, developmental, or research work.

## **A23 SEISMIC SAFETY**

*49 CFR Part 41*

The Contractor agrees to ensure that all work performed under this contract, including work performed by subcontractors, conforms to a building code standard that provides a level of seismic safety substantially equivalent to standards established by the National Earthquake Hazards Reduction Program (NEHRP). Local building codes that model their code after the current version of the International Building Code (IBC) meet the NEHRP equivalency level for seismic safety.

## **A24 TAX DELINQUENCY AND FELONY CONVICTIONS**

*Section 8113 of the Consolidated Appropriations Act, 2022 (Public Law 117-103) and similar provisions in subsequent appropriations acts.*

*DOT Order 4200.6 – Appropriations Act Requirements for Procurement and Non-Procurement Regarding Tax Delinquency and Felony Convictions*

### **CERTIFICATION OF OFFEROR/BIDDER REGARDING TAX DELINQUENCY AND FELONY CONVICTIONS**

The applicant must complete the following two certification statements. The applicant must indicate its current status as it relates to tax delinquency and felony conviction by inserting a checkmark (✓) in the space following the applicable response. The applicant agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification in all lower tier subcontracts.

#### **Certifications**

- 1) The applicant represents that it is (  ) is not (  ) a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.
- 2) The applicant represents that it is (  ) is not (  ) a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

#### **Note**

If an applicant responds in the affirmative to either of the above representations, the applicant is ineligible to receive an award unless the Sponsor has received notification from the agency suspension and debarment official (SDO) that the SDO has considered suspension or debarment and determined that further action is not required to protect the Government's interests. The applicant therefore must provide information to the owner about its tax liability or conviction to the Owner, who will then notify the FAA Airports District Office, which will then notify the agency's SDO to facilitate completion of the required considerations before award decisions are made.

#### **Term Definitions**

**Felony conviction:** Felony conviction means a conviction within the preceding twenty four (24) months of a felony criminal violation under any Federal law and includes conviction of an offense defined in a section of the U.S. Code that specifically classifies the offense as a felony and conviction of an offense that is classified as a felony under 18 USC § 3559.

**Tax Delinquency:** A tax delinquency is any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.



## **A25 TERMINATION OF CONTRACT**

*2 CFR Part 200, Appendix II(B)*

*FAA Advisory Circular 150/5370-10, Section 80-09*

### **TERMINATION FOR CONVENIENCE (CONSTRUCTION & EQUIPMENT CONTRACTS)**

The Owner may terminate this contract in whole or in part at any time by providing written notice to the Contractor. Such action may be without cause and without prejudice to any other right or remedy of Owner. Upon receipt of a written notice of termination, except as explicitly directed by the Owner, the Contractor shall immediately proceed with the following obligations regardless of any delay in determining or adjusting amounts due under this clause:

1. Contractor must immediately discontinue work as specified in the written notice.
2. Terminate all subcontracts to the extent they relate to the work terminated under the notice.
3. Discontinue orders for materials and services except as directed by the written notice.
4. Deliver to the Owner all fabricated and partially fabricated parts, completed and partially completed work, supplies, equipment and materials acquired prior to termination of the work, and as directed in the written notice.
5. Complete performance of the work not terminated by the notice.
6. Take action as directed by the Owner to protect and preserve property and work related to this contract that Owner will take possession.

Owner agrees to pay Contractor for:

1. Completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination;
2. Documented expenses sustained prior to the effective date of termination in performing work and furnishing labor, materials, or equipment as required by the contract documents in connection with uncompleted work;
3. Reasonable and substantiated claims, costs, and damages incurred in settlement of terminated contracts with Subcontractors and Suppliers; and
4. Reasonable and substantiated expenses to the Contractor directly attributable to Owner's termination action.

Owner will not pay Contractor for loss of anticipated profits or revenue or other economic loss arising out of or resulting from the Owner's termination action.

The rights and remedies this clause provides are in addition to any other rights and remedies provided by law or under this contract.

### **TERMINATION FOR CAUSE (CONSTRUCTION)**

Section 80-09 of FAA Advisory Circular 150/5370-10 establishes standard language for conditions, rights, and remedies associated with Owner termination of this contract for cause due to default of the Contractor.

### **TERMINATION FOR CAUSE (EQUIPMENT)**

The Owner may, by written notice of default to the Contractor, terminate all or part of this Contract for cause if the Contractor:

1. Fails to begin the Work under the Contract within the time specified in the Notice- to-Proceed;
2. Fails to make adequate progress as to endanger performance of this Contract in accordance with its terms;
3. Fails to make delivery of the equipment within the time specified in the Contract, including any Owner approved extensions;
4. Fails to comply with material provisions of the Contract;
5. Submits certifications made under the Contract and as part of their proposal that include false or fraudulent statements; or
6. Becomes insolvent or declares bankruptcy.

If one or more of the stated events occur, the Owner will give notice in writing to the Contractor and Surety of its intent to terminate the contract for cause. At the Owner's discretion, the notice may allow the Contractor and Surety an opportunity to cure the breach or default.

If within [10] days of the receipt of notice, the Contractor or Surety fails to remedy the breach or default to the satisfaction of the Owner, the Owner has authority to acquire equipment by other procurement action. The Contractor will be liable to the Owner for any excess costs the Owner incurs for acquiring such similar equipment.

Payment for completed equipment delivered to and accepted by the Owner shall be at the Contract price. The Owner may withhold from amounts otherwise due the Contractor for such completed equipment, such sum as the Owner determines to be necessary to protect the Owner against loss because of Contractor default.

Owner will not terminate the Contractor's right to proceed with the work under this clause if the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such acceptable causes include: acts of God, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, and severe weather events that substantially exceed normal conditions for the location.

If, after termination of the Contractor's right to proceed, the Owner determines that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the Owner issued the termination for the convenience the Owner.

The rights and remedies of the Owner in this clause are in addition to any other rights and remedies provided by law or under this contract.

### **A26 TRADE RESTRICTION CERTIFICATION**

*49 USC § 50104*

*49 CFR Part 30*

### **TRADE RESTRICTION CERTIFICATION**

FCP-36

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –

- 1) 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 as published by the Office of the United States Trade Representative (USTR);
- 2) 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 included on the list of countries that discriminate against U.S. firms as published by the USTR; and
- 3) has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

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 USC § 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

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 an Offeror or subcontractor:

- 1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR; or
- 2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list; or
- 3) who incorporates in the public works project any product of a foreign country on such USTR list.

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.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The Contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by USTR, unless the Offeror has knowledge that the certification is erroneous.

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

## **A27 VETERAN'S PREFERENCE**

*49 USC § 47112(c)*

In the employment of labor (excluding executive, administrative, and supervisory positions), the Contractor and all sub-tier contractors must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 USC § 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

## **A28 DOMESTIC PREFERENCES FOR PROCUREMENTS**

*2 CFR § 200.322*

*2 CFR Part 200, Appendix II(L)*

### **CERTIFICATION REGARDING DOMESTIC PREFERENCES FOR PROCUREMENTS**

The Bidder or Offeror certifies by signing and submitting this bid or proposal that, to the greatest extent practicable, the Bidder or Offeror has provided a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including, but not limited to, iron, aluminum, steel, cement, and other manufactured products) in compliance with 2 CFR § 200.322.

# **General Provisions**

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### Section 10 Definition of Terms

When 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 defined as follows:

<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
<b>10-01</b>	<b>AASHTO</b>	The American Association of State Highway and Transportation Officials.
<b>10-02</b>	<b>Access Road</b>	The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public roadway.
<b>10-03</b>	<b>Advertisement</b>	A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.
<b>10-04</b>	<b>Airport</b>	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; airport buildings and facilities located in any of these areas, and a heliport.
<b>10-05</b>	<b>Airport Improvement Program (AIP)</b>	A grant-in-aid program, administered by the Federal Aviation Administration (FAA).
<b>10-06</b>	<b>Air Operations Area (AOA)</b>	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.
<b>10-07</b>	<b>Apron</b>	Area where aircraft are parked, unloaded or loaded, fueled and/or serviced.
<b>10-08</b>	<b>ASTM International (ASTM)</b>	Formerly known as the American Society for Testing and Materials (ASTM).
<b>10-09</b>	<b>Award</b>	The Owner's notice to the successful bidder of the acceptance of the submitted bid.

<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
<b>10-10</b>	<b>Bidder</b>	Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.
<b>10-11</b>	<b>Building Area</b>	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.
<b>10-12</b>	<b>Calendar Day</b>	Every day shown on the calendar.
<b>10-13</b>	<b>Certificate of Analysis (COA)</b>	The COA is the manufacturer's Certificate of Compliance (COC) including all applicable test results required by the specifications.
<b>10-14</b>	<b>Certificate of Compliance (COC)</b>	The manufacturer's certification stating that materials or assemblies furnished fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer's authorized representative.
<b>10-15</b>	<b>Change Order</b>	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 work within the scope of the contract and necessary to complete the project.
<b>10-16</b>	<b>Contract</b>	A written agreement between the Owner and the Contractor that establishes the obligations of the parties including but not limited to performance of work, furnishing of labor, equipment and materials and the basis of payment.  The awarded contract includes but may not be limited to: Advertisement, Contract form, Proposal, Performance bond, payment bond, General provisions, certifications and representations, Technical Specifications, Plans, Supplemental Provisions, standards incorporated by reference and issued addenda.
<b>10-17</b>	<b>Contract Item (Pay Item)</b>	A specific unit of work for which a price is provided in the contract.
<b>10-18</b>	<b>Contract Time</b>	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



<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
		calendar or working days, the contract shall be completed by that date.
<b>10-19</b>	<b>Contractor</b>	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.
<b>10-20</b>	<b>Contractors Quality Control (QC) Facilities</b>	The Contractor's QC facilities in accordance with the Contractor Quality Control Program (CQCP).
<b>10-21</b>	<b>Contractor Quality Control Program (CQCP)</b>	Details the methods and procedures that will be taken to assure that all materials and completed construction required by the contract conform to contract plans, technical specifications and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors.
<b>10-22</b>	<b>Control Strip</b>	A demonstration by the Contractor that the materials, equipment, and construction processes results in a product meeting the requirements of the specification.
<b>10-23</b>	<b>Construction Safety and Phasing Plan (CSPP)</b>	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.
<b>10-24</b>	<b>Drainage System</b>	The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the airport area.
<b>10-25</b>	<b>Engineer</b>	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for engineering, inspection, and/or observation of the contract work and acting directly or through an authorized representative.
<b>10-26</b>	<b>Equipment</b>	All machinery, together with the necessary supplies for upkeep and maintenance; and all tools and apparatus necessary for the proper construction and acceptable completion of the work.
<b>10-27</b>	<b>Extra Work</b>	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 Owner's Engineer or Resident Project Representative (RPR) to be necessary to

Paragraph Number	Term	Definition
		complete the work within the intended scope of the contract as previously modified.
10-28	FAA	The Federal Aviation Administration. When used to designate a person, FAA shall mean the Administrator or their duly authorized representative.
10-29	Federal Specifications	The federal specifications and standards, commercial item descriptions, and supplements, amendments, and indices prepared and issued by the General Services Administration.
10-30	Force Account	<p><b>a.</b> Contract Force Account - A method of payment that addresses extra work performed by the Contractor on a time and material basis.</p> <p><b>b.</b> Owner Force Account - Work performed for the project by the Owner's employees.</p>
10-31	Intention of Terms	<p>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 and/or Resident Project Representative (RPR) 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 and/or RPR, subject in each case to the final determination of the Owner.</p> <p>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.</p>
10-32	Lighting	A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.
10-33	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

Paragraph Number	Term	Definition
		20% of the total amount of the award contract. All other items shall be considered minor contract items.
10-34	<b>Materials</b>	Any substance specified for use in the construction of the contract work.
10-35	<b>Modification of Standards (MOS)</b>	Any deviation from standard specifications applicable to material and construction methods in accordance with FAA Order 5300.1.
10-36	<b>Notice to Proceed (NTP)</b>	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.
10-37	<b>Owner</b>	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. The Owner for this project is the <b>City of Hammond, Louisiana.</b>
10-38	<b>Passenger Facility Charge (PFC)</b>	Per 14 Code of Federal Regulations (CFR) Part 158 and 49 United States Code (USC) § 40117, a PFC is a charge imposed by a public agency on passengers enplaned at a commercial service airport it controls.
10-39	<b>Pavement Structure</b>	The combined surface course, base course(s), and subbase course(s), if any, considered as a single unit.
10-40	<b>Payment bond</b>	The approved form of security furnished by the Contractor and their own 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.
10-41	<b>Performance bond</b>	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will complete the work in accordance with the terms of the contract.
10-42	<b>Plans</b>	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. Plans may also be referred to as 'contract drawings.'

<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
<b>10-43</b>	<b>Project</b>	The agreed scope of work for accomplishing specific airport development with respect to a particular airport.
<b>10-44</b>	<b>Proposal</b>	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.
<b>10-45</b>	<b>Proposal guaranty</b>	The security furnished with a proposal to guarantee that the bidder will enter into a contract if their own proposal is accepted by the Owner.
<b>10-46</b>	<b>Quality Assurance (QA)</b>	Owner's responsibility to assure that construction work completed complies with specifications for payment.
<b>10-47</b>	<b>Quality Control (QC)</b>	Contractor's responsibility to control material(s) and construction processes to complete construction in accordance with project specifications.
<b>10-48</b>	<b>Quality Assurance (QA) Inspector</b>	An authorized representative of the Engineer and/or Resident Project Representative (RPR) assigned to make all necessary inspections, observations, tests, and/or observation of tests of the work performed or being performed, or of the materials furnished or being furnished by the Contractor.
<b>10-49</b>	<b>Quality Assurance (QA) Laboratory</b>	The official quality assurance testing laboratories of the Owner or such other laboratories as may be designated by the Engineer or RPR. May also be referred to as Engineer's, Owner's, or QA Laboratory.
<b>10-50</b>	<b>Resident Project Representative (RPR)</b>	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for all necessary inspections, observations, tests, and/or observations of tests of the contract work performed or being performed, or of the materials furnished or being furnished by the Contractor, and acting directly or through an authorized representative.
<b>10-51</b>	<b>Runway</b>	The area on the airport prepared for the landing and takeoff of aircraft.
<b>10-52</b>	<b>Runway Safety Area (RSA)</b>	A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to aircraft. See the construction safety and phasing plan (CSPP) for limits of the RSA.

<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
<b>10-53</b>	<b>Safety Plan Compliance Document (SPCD)</b>	Details how the Contractor will comply with the CSPP.
<b>10-54</b>	<b>Specifications</b>	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.
<b>10-55</b>	<b>Sponsor</b>	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.
<b>10-56</b>	<b>Structures</b>	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; navigational aids; buildings; vaults; and, other manmade features of the airport that may be encountered in the work and not otherwise classified herein.
<b>10-57</b>	<b>Subgrade</b>	The soil that forms the pavement foundation.
<b>10-58</b>	<b>Superintendent</b>	The Contractor's executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the RPR, and who shall supervise and direct the construction.
<b>10-59</b>	<b>Supplemental Agreement</b>	A written agreement between the Contractor and the Owner that establishes the basis of payment and contract time adjustment, if any, for the work affected by the supplemental agreement. A supplemental agreement is required if: (1) in scope work would increase or decrease the total amount of the awarded contract by more than 25%; (2) in scope work would increase or decrease the total of any major contract item by more than 25%; (3) work that is not within the scope of the originally awarded contract; or (4) adding or deleting of a major contract item.
<b>10-60</b>	<b>Surety</b>	The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds that are furnished to the Owner by the Contractor.
<b>10-61</b>	<b>Taxilane</b>	A taxiway designed for low speed movement of aircraft between aircraft parking areas and terminal areas.

<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
<b>10-62</b>	<b>Taxiway</b>	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.
<b>10-63</b>	<b>Taxiway/Taxilane Safety Area (TSA)</b>	A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an aircraft. See the construction safety and phasing plan (CSPP) for limits of the TSA.
<b>10-64</b>	<b>Work</b>	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.
<b>10-65</b>	<b>Working day</b>	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.
<b>10-66</b>	<b>Owner Defined terms</b>	None

**END OF SECTION 10**

## Section 20 Proposal Requirements and Conditions

### **20-01 Advertisement (Notice to Bidders). Refer to BIDDING REQUIREMENTS.**

**20-02 Qualification of bidders.** Each bidder shall submit evidence of competency and evidence of financial responsibility to perform the work to the Owner at the time of bid opening.

Evidence of competency, unless otherwise specified, shall consist of statements covering the bidder's past experience on similar work, and a list of equipment and a list of key personnel that would be available for the work.

Each bidder shall furnish the Owner satisfactory evidence of their financial responsibility. 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 their 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 they are prequalified with the State Highway Division and are on the current "bidder's list" of the state in which the proposed work is located. Evidence of State Highway Division prequalification may be submitted as evidence of financial responsibility in lieu of the certified statements or reports specified above.

**20-03 Contents of proposal forms.** The Owner's proposal forms state the location and description of the proposed construction; the place, date, and time of opening of the proposals; and the estimated quantities of the various items of work to be performed and materials to be furnished for which unit bid prices are asked. The proposal form states the time in which the work must be completed, and the amount of the proposal guaranty that must accompany the proposal. The Owner will accept only those Proposals properly executed on physical forms or electronic forms provided by the Owner. Bidder actions that may cause the Owner to deem a proposal irregular are given in paragraph 20-09 *Irregular proposals*.

Mobilization is limited to 10 percent of the total project cost.

A prebid conference is required on this project to discuss as a minimum, the following items: material requirements; submittals; Quality Control/Quality Assurance requirements; the construction safety and phasing plan including airport access and staging areas; and unique airfield paving construction requirements. Refer to BIDDING REQUIREMENTS for the time, date, and place of the meeting.

**20-04 Issuance of proposal forms.** The Owner reserves the right to refuse to issue a proposal form to a prospective bidder if the bidder is 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.

**20-05 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 provided in the Section 40, paragraph 40-02, Alteration of Work and Quantities, without in any way invalidating the unit bid prices.

**20-06 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 to the character, quality, and quantities of work to be performed, materials to be furnished, and 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 to the conditions to be encountered in performing the work and 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 their own examination of the boring logs and other records of subsurface investigations and tests that are furnished by the Owner.

**20-07 Preparation of proposal.** The bidder shall submit their proposal on the forms furnished by the Owner. All blank spaces in the proposal forms, unless explicitly stated otherwise, must be correctly filled in where indicated for each and every item for which a quantity is given. The bidder shall state the price (written in ink or typed) both in words and numerals which they propose 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 correctly sign the proposal in ink. If the proposal is made by an individual, their 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 where 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 their authority to do so and that the signature is binding upon the firm or corporation.

**20-08 Responsive and responsible bidder.** A responsive bid conforms to all significant terms and conditions contained in the Owner's invitation for bid. It is the Owner'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 2 CFR § 200.318(h). This includes such matters as Contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

**20-09 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.
- f. If the applicable Disadvantaged Business Enterprise information is incomplete.

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 bid bond, certified check, or other specified acceptable collateral, in the amount specified in the proposal form. Such bond, check, or collateral, shall be made payable to the Owner.

**20-11 Delivery of proposal.** Refer to Bidding Requirements in Section: INSTRUCTIONS TO BIDDERS.

**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 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 paragraph 20-04, *Issuance of Proposal Forms*, of this section.

**20-15 Discrepancies and Omissions.** A Bidder who discovers discrepancies or omissions with the project bid documents shall immediately notify the Owner's Engineer of the matter. A bidder that has doubt as to the true meaning of a project requirement may submit to the Owner's Engineer a written request for interpretation no later than **three (3)** days prior to bid opening.

Any interpretation of the project bid documents by the Owner's Engineer will be by written addendum issued by the Owner. The Owner will not consider any instructions, clarifications or interpretations of the bidding documents in any manner other than written addendum.

**END OF SECTION 20**

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## Section 30 Award and Execution of Contract

**30-01 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 bid 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 Section 20, paragraph 20-09, *Irregular Proposals*.

b. If the bidder is disqualified for any of the reasons specified Section 20, paragraph 20-14, *Disqualification of Bidders*.

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.

**30-02 Award of contract.** The award of a contract, if it is to be awarded, shall be made within **one hundred twenty (120)** calendar days of the date specified for publicly opening proposals, unless otherwise specified herein.

If the Owner elects to proceed with an award of contract, the Owner will make award to the responsible bidder whose bid, conforming with all the material terms and conditions of the bid documents, is the lowest in price.

**30-03 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 paragraph 30-07 *Approval of Contract*.

**30-04 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 paragraph 30-01, *Consideration of Proposals*. 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 paragraph 30-05, *Requirements of Contract Bonds*.

**30-05 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.

**30-06 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 paragraph 30-05, *Requirements of Contract Bonds*, of this section, within **fifteen (15)** calendar days from the date mailed or otherwise delivered to the successful bidder.

**30-07 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.

**30-08 Failure to execute contract.** Failure of the successful bidder to execute the contract and furnish an acceptable surety bond or bonds within the period specified in paragraph 30-06, *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 liquidated damages to the Owner.

**END OF SECTION 30**

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## Section 40 Scope of Work

**40-01 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.

**40-02 Alteration of work and quantities.** The Owner reserves the right to make such changes in quantities and work as may be necessary or desirable to complete, in a satisfactory manner, the original intended work. Unless otherwise specified in the Contract, the Owner's Engineer or RPR shall be and is hereby authorized to make, in writing, such in-scope alterations in the work and variation of quantities as may be necessary to complete the work, provided such action does not represent a significant change in the character of the work.

For purpose of this section, a significant change in character of work means: any change that is outside the current contract scope of work; any change (increase or decrease) in the total contract cost by more than 25%; or any change in the total cost of a major contract item by more than 25%.

Work alterations and quantity variances that do not meet the definition of significant change in character of work shall not invalidate the contract nor release the surety. Contractor agrees to accept payment for such work alterations and quantity variances in accordance with Section 90, paragraph 90-03, *Compensation for Altered Quantities*.

Should the value of altered work or quantity variance meet the criteria for significant change in character of work, such altered work and quantity variance shall be covered by a supplemental agreement. Supplemental agreements shall also require consent of the Contractor's surety and separate performance and payment bonds. If the Owner and the Contractor are unable to agree on a unit adjustment for any contract item that requires a supplemental agreement, the Owner reserves the right to terminate the contract with respect to the item and make other arrangements for its completion.

**40-03 Omitted items.** The Owner, the Owner's Engineer or the RPR may provide written notice to the Contractor to omit from the work any contract item that does not meet the definition of major contract item. 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 Section 90, paragraph 90-04, *Payment for Omitted Items*.

**40-04 Extra work.** Should acceptable completion of the contract require the Contractor to perform an item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, Owner may issue a Change Order to cover the necessary extra work. Change orders for 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 RPR's opinion, is necessary for completion of the extra work.

When determined by the RPR to be in the Owner's best interest, the RPR may order the Contractor to proceed with extra work as provided in Section 90, paragraph 90-05, *Payment for Extra Work*. 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 Section 10, paragraph 10-59, *Supplemental Agreement*.

If extra work is essential to maintaining the project critical path, RPR may order the Contractor to commence the extra work under a Time and Material contract method. Once sufficient detail is available to establish the level of effort necessary for the extra work, the Owner shall initiate a change order or supplemental agreement to cover the extra work.

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.

**40-05 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. The Contractor shall maintain traffic in the manner detailed in the Construction Safety and Phasing Plan (CSPP).

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 their own operations and the operations of all subcontractors as specified in Section 80, paragraph 80-04, *Limitation of Operations*. 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 Section 70, paragraph 70-15, *Contractor's Responsibility for Utility Service and Facilities of Others*.

b. With respect to their 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 in accordance with the construction safety and phasing plan (CSPP) and the safety plan compliance document (SPCD).

c. When the contract requires the maintenance of 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 the road, street, or highway open to all traffic and shall provide maintenance as may be required to accommodate traffic. The Contractor, at their expense, shall be responsible for the repair to equal or better than preconstruction conditions 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.

**40-06 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 Resident Project Representative (RPR) shall be notified prior to disturbing such structure. The disposition of existing structures so encountered shall be immediately determined by the RPR in accordance with the provisions of the contract.

Except as provided in Section 40, paragraph 40-07, *Rights in and Use of Materials Found in the Work*, 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.

**40-07 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 embankment, the Contractor may at their own option either:

- a. Use such material in another contract item, providing such use is approved by the RPR 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 RPR; 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 RPR's approval in advance of such use.

Should the RPR 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 their 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 RPR 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 their own 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.

**40-08 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 the property Owner.

**END OF SECTION 40**

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## Section 50 Control of Work

**50-01 Authority of the Resident Project Representative (RPR).** The RPR has final authority regarding the interpretation of project specification requirements. The RPR shall determine acceptability of the quality of materials furnished, method of performance of work performed, and the manner and rate of performance of the work. The RPR does not have the authority to accept work that does not conform to specification requirements.

**50-02 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 RPR 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 their opinion, result in a finished product having a level of safety, economy, durability, and workmanship acceptable to the Owner, the RPR will advise the Owner of their determination that the affected work be accepted and remain in place. The RPR 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. Changes in the contract price must be covered by contract change order or supplemental agreement as applicable.

If the RPR 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 RPR's written orders.

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 RPR'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 RPR's opinion, such compliance is essential to provide an acceptable finished portion of the work.

The term "reasonably close conformity" is also intended to provide the RPR with the authority, after consultation with the Sponsor and FAA, to use sound engineering judgment in their determinations to accept work that is not in strict conformity, but will provide a finished product equal to or better than that required by the requirements of the contract, plans and specifications.

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

**50-03 Coordination of contract, plans, and specifications.** The contract, plans, specifications, and all referenced standards cited are essential parts of the contract requirements. If electronic files are provided and used on the project and there is a conflict between the electronic files and hard copy plans, the hard copy plans shall govern. 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 RPR for an interpretation and decision, and such decision shall be final.

The Contractor shall not take advantage of any apparent error or omission on the plans or specifications. In the event the Contractor discovers any apparent error or discrepancy, Contractor shall immediately notify the Owner or the designated representative in writing requesting their written interpretation and decision.

**50-04 List of Special Provisions.** Refer to Supplemental Conditions and General Requirements for additional information.

**50-05 Cooperation of Contractor.** The Contractor shall be supplied with **five (5)** hard copies or an electronic PDF of the plans and specifications. The Contractor shall have available on the construction site at all times one hardcopy each of the plans and specifications. Additional hard 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 RPR and their 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 their 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 RPR or their authorized representative.

**50-06 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 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 their own contract and shall protect and hold 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 their work and shall place and dispose of the materials being used to not interfere with the operations of the other Contractors within the limits of the same project. The Contractor shall join their work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

**50-07 Construction layout and stakes.** The Engineer/RPR shall establish necessary horizontal and vertical control. The establishment of Survey Control and/or reestablishment of survey control shall be by a State Licensed Land Surveyor. Contractor is responsible for preserving integrity of horizontal and vertical controls established by Engineer/RPR. In case of negligence on the part of the Contractor or their employees, resulting in the destruction of any horizontal and vertical control, the resulting costs will be deducted as a liquidated damage against the Contractor.

Prior to the start of construction, the Contractor will check all control points for horizontal and vertical accuracy and certify in writing to the RPR that the Contractor concurs with survey control established for the project. All lines, grades and measurements from control points necessary for the proper execution

and control of the work on this project will be provided to the RPR. The Contractor is responsible to establish all layout required for the construction of the project.

Copies of survey notes will be provided to the RPR for each area of construction and for each placement of material as specified to allow the RPR to make periodic checks for conformance with plan grades, alignments and grade tolerances required by the applicable material specifications. Surveys will be provided to the RPR prior to commencing work items that cover or disturb the survey staking. Survey(s) and notes shall be provided in the following format(s): **Station Offset Elevation (SOE) file.**

Laser, GPS, String line, or other automatic control shall be checked with temporary control as necessary. 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.

**50-08 Authority and duties of Quality Assurance (QA) inspectors.** QA inspectors shall be authorized to inspect all work done and all material furnished. Such QA inspection may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. QA inspectors are not authorized to revoke, alter, or waive any provision of the contract. QA inspectors are not authorized to issue instructions contrary to the plans and specifications or to act as foreman for the Contractor.

QA Inspectors are authorized to notify the Contractor or their 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 RPR for a decision.

**50-09 Inspection of the work.** All materials and each part or detail of the work shall be subject to inspection. The RPR 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 RPR 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.

Provide advance written notice to the RPR of work the Contractor plans to perform each week and each day. Any work done or materials used without written notice and allowing opportunity for inspection by the RPR may be ordered removed and replaced at the Contractor's expense.

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 RPR as provided in paragraph 50-02, *Conformity with Plans and Specifications*.

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 Section 70, paragraph 70-14, *Contractor's Responsibility for Work*.

No removal work made under provision of this paragraph shall be done without lines and grades having been established by the RPR. Work done contrary to the instructions of the RPR, work done beyond the lines shown on the plans or as established by the RPR, 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 RPR made under the provisions of this subsection, the RPR will have authority to cause unacceptable work to be remedied or removed and replaced; and unauthorized work to be removed and recover the resulting costs as a liquidated damage against 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, at their own expense, shall be responsible for the repair to equal or better than preconstruction conditions of any damage caused by the Contractor's equipment and personnel.

**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 paragraph 50-12, *Maintenance during Construction*, the RPR 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 RPR'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 recovered as a liquidated damage against 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 RPR to make final inspection of that unit. If the RPR finds upon inspection that the unit has been satisfactorily completed in compliance with the contract, the RPR 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 RPR 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 RPR 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 RPR will notify the Contractor and the Contractor shall correct the unsatisfactory work. 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 RPR 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 RPR in writing of their 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 RPR 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 RPR 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 RPR 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

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## Section 60 Control of Materials

**60-01 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 documentation to the RPR as to the origin, composition, and manufacture of all materials to be used in the work. Documentation shall be furnished promptly after execution of the contract but, in all cases, prior to delivery of such materials.

At the RPR's option, materials may be approved at the source of supply before delivery. 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 meets the requirements of the specifications; and is listed in AC 150/5345-53, *Airport Lighting Equipment Certification Program* and *Addendum*, that is in effect on the date of advertisement.

**60-02 Samples, tests, and cited specifications.** All materials used in the work shall be inspected, tested, and approved by the RPR before incorporation in the work unless otherwise designated. Any work in which untested materials are used without approval or written permission of the RPR 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 RPR, shall be removed at the Contractor's expense.

Unless otherwise designated, quality assurance tests will be made by and at the expense of the Owner 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.

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. Unless otherwise designated, samples for quality assurance will be taken by a qualified representative of the RPR. 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 RPR.

A copy of all Contractor QC test data shall be provided to the RPR 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 RPR showing all test data reports, plus an analysis of all results showing ranges, averages, and corrective action taken on all failing tests.

The Contractor shall employ a Quality Control (QC) testing organization to perform all Contractor required QC tests in accordance with Item C-100 Contractor Quality Control Program (CQCP).

**60-03 Certification of compliance/analysis (COC/COA).** The RPR may permit the use, prior to sampling and testing, of certain materials or assemblies when accompanied by manufacturer's COC 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. The COA is the manufacturer's COC and includes all applicable test results.

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 RPR.

When a material or assembly is specified by “brand name or equal” and the Contractor elects to furnish the specified “or equal,” 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.

The RPR shall be the sole judge as to whether the proposed “or equal” is suitable for use in the work.

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

**60-04 Plant inspection.** The RPR or their 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 RPR conduct plant inspections, the following conditions shall exist:

- a. The RPR shall have the cooperation and assistance of the Contractor and the producer with whom the Contractor has contracted for materials.
- b. The RPR 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 RPR, the Contractor shall arrange for adequate office or working space that may be reasonably needed for conducting plant inspections. Place office or working space in a convenient location 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 RPR shall have the right to reject only material which, when retested, does not meet the requirements of the contract, plans, or specifications.

**60-05 Engineer/ Resident Project Representative (RPR) field office.** An Engineer / RPR Field office is not required.

**60-06 Storage of materials.** Materials shall be stored 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 RPR. 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 and/or CSPP, the storage of materials and the location of the Contractor’s plant and parked equipment or vehicles shall be as directed by the RPR. 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 RPR 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 their expense, except as otherwise agreed to (in writing) by the Owner or lessee of the property.

**60-07 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 RPR.

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 RPR has approved its use in the work.

**60-08 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**

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## Section 70 Legal Regulations and Responsibility to Public

**70-01 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 their 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.

**70-02 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.

**70-03 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.

**70-04 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) must be shown on the plans and is indicated as follows:

**Airport Director: David Lobue – (985) 277-5667**

**Other(s), if required: To Be Determined**

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 RPR.

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 RPR, 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.

**70-05 Federal Participation.** The United States Government has agreed to reimburse the Owner for some portion of the contract costs. The contract work is subject to the inspection and approval of duly authorized representatives of the FAA Administrator. No requirement of this contract shall be construed

as making the United States a party to the contract nor will any such requirement interfere, in any way, with the rights of either party to the contract.

**70-06 Sanitary, health, and safety provisions.** The Contractor's worksite and facilities shall comply with applicable federal, state, and local requirements for health, safety and sanitary provisions.

**70-07 Public convenience and safety.** The Contractor shall control their operations and those of their 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 their own operations and those of their own subcontractors and all suppliers in accordance with Section 40, paragraph 40-05, *Maintenance of Traffic*, and shall limit such operations for the convenience and safety of the traveling public as specified in Section 80, paragraph 80-04, *Limitation of Operations*.

The Contractor shall remove or control debris and rubbish resulting from its work operations at frequent intervals, and upon the order of the RPR. If the RPR determines the existence of Contractor debris in the work site represents a hazard to airport operations and the Contractor is unable to respond in a prompt and reasonable manner, the RPR reserves the right to assign the task of debris removal to a third party and recover the resulting costs as a liquidated damage against the Contractor.

**70-08 Construction Safety and Phasing Plan (CSPP).** The Contractor shall complete the work in accordance with the approved Construction Safety and Phasing Plan (CSPP) developed in accordance with AC 150/5370-2, Operational Safety on Airports During Construction. The CSPP is on sheet(s) **SP1** of the project plans.

**70-09 Use of explosives.** The use of explosives is not permitted on this project.

**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/RPR 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 their 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 hold harmless the Engineer/RPR and the Owner and their officers, agents, 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 their own 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, their own 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.** If it is 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 must be specified below and indicated on the approved Construction Safety and Phasing Plan (CSPP) and the project plans. When so specified, the Contractor shall complete such portions of the work on or before the date specified or as otherwise specified.

<u>Phase</u>	<u>Description</u>	<u>Duration</u>
Phase I	Base Bid	45 Calendar Days
Phase II	Base Bid	60 Calendar Days
Phase III	Base Bid	45 Calendar Days
Phase IV	Additive Alternate 1	35 Calendar Days
Phase V	Additive Alternate 2	28 Calendar Days
Phase VI	Additive Alternate 3	28 Calendar Days
Phase VII	Additive Alternate 3	21 Calendar Days
Phase VIII	Additive Alternate 3	42 Calendar Days

Upon completion of any portion of work listed above, such portion shall be accepted by the Owner in accordance with Section 50, paragraph 50-14, *Partial Acceptance*.

No portion of the work may be opened by the Contractor until directed by the Owner in writing. Should it become necessary to open a portion of the work to traffic on a temporary or intermittent basis, such openings shall be made when, in the opinion of the RPR, 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 their expense.

The Contractor shall make their 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.

The Contractor must conform to safety standards contained AC 150/5370-2 and the approved CSPP.

Contractor shall refer to the plans, specifications, and the approved CSPP to identify barricade requirements, temporary and/or permanent markings, airfield lighting, guidance signs and other safety requirements prior to opening up sections of work to traffic.

**70-14 Contractor’s responsibility for work.** Until the RPR’s final written acceptance of the entire completed work, excepting only those portions of the work accepted in accordance with Section 50,

paragraph 50-14, *Partial Acceptance*, 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 their own 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 paragraph 70-04, *Restoration of Surfaces Disturbed by Others*, 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/or in the contract documents.

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 their plan of operations. Such notification shall be in writing addressed to "The Person to Contact" as provided in this paragraph and paragraph 70-04, *Restoration of Surfaces Disturbed By Others*. A copy of each notification shall be given to the RPR.

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 RPR.

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 RPR 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 RPR 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 their own 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 Owner 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, RPR, their 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 their surety, or both, such overpayment as may be sustained, or by failure on the part of the Contractor to fulfill their 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, asphalts, 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 their 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 RPR. The RPR 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 Section 40, paragraph 40-04, *Extra Work*, and Section 90, paragraph 90-05, *Payment for Extra Work*. If appropriate, the contract change order or supplemental agreement shall include an extension of contract time in accordance with Section 80, paragraph 80-07, *Determination and Extension of Contract Time*.

**70-21 Insurance Requirements.** See Supplemental Condition Section 800, Paragraph SC-27.

## END OF SECTION 70



## Section 80 Execution and Progress

**80-01 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 Resident Project Representative (RPR).

The Contractor shall perform, with his organization, an amount of work equal to at least **twenty five (25%)** percent of the total contract cost.

Should the Contractor elect to assign their 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.

**The Contractor shall provide copies of all subcontracts to the RPR fourteen (14) days prior to being utilized on the project. As a minimum, the information shall include the following:**

- Subcontractor's legal company name.
- Subcontractor's legal company address, including County name.
- Principal contact person's name, telephone and fax number.
- Complete narrative description, and dollar value of the work to be performed by the subcontractor.
- Copies of required insurance certificates in accordance with the specifications.
- Minority/ non-minority status.

**80-02 Notice to proceed (NTP).** The Owners notice to proceed will state the date on which contract time commences. The Contractor is expected to commence project operations within ten (10) days of the NTP date. The Contractor shall notify the RPR at least twenty-four (24) hours in advance of the time contract operations begins. The Contractor shall not commence any actual operations prior to the date on which the notice to proceed is issued by the Owner.

**80-03 Execution and progress.** Unless otherwise specified, the Contractor shall submit their coordinated construction schedule showing all work activities for the RPR's review and acceptance at least **ten (10) days** prior to the start of work. The Contractor's progress schedule, once accepted by the RPR, will represent the Contractor's baseline plan to accomplish the project in accordance with the terms and conditions of the Contract. The RPR will compare actual Contractor progress against the baseline schedule to determine that status of the Contractor's performance. 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 RPR'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 RPR at least **twenty-four (24) hours** in advance of resuming operations.

The Contractor shall not commence any actual construction prior to the date on which the NTP is issued by the Owner.

The project 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. It shall include information on the sequence of work activities, milestone dates, and activity duration. The schedule shall show all work items identified in the project proposal for each work area and shall include the project start date and end date.

The Contractor shall maintain the work schedule and provide an update and analysis of the progress schedule on a 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.

**80-04 Limitation of operations.** The Contractor shall control their operations and the operations of their 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 their operations within an AOA of the airport, the work shall be coordinated with airport operations (through the RPR) at least forty eight (48) hours prior to commencement of such work. The Contractor shall not close an AOA until so authorized by the RPR and until the necessary temporary marking, signage and associated lighting is in place as provided in Section 70, paragraph 70-08, *Construction Safety and Phasing Plan (CSPP)*.

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; and 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 satisfactory conditions are provided. The areas of the AOA identified in the Construction Safety Phasing Plan (CSPP) and as listed below, 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:

**Terminal Apron and Taxiway A and E will be closed on weekends only.**

The Contractor shall be required to conform to safety standards contained in AC 150/5370-2, Operational Safety on Airports During Construction and the approved CSPP.

**80-04.1 Operational safety on airport during construction.** All Contractors' operations shall be conducted in accordance with the approved project Construction Safety and Phasing Plan (CSPP) and the Safety Plan Compliance Document (SPCD) and the provisions set forth within the current version of AC 150/5370-2, Operational Safety on Airports During Construction. 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 SPCD 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 SPCD and that they implement and maintain all necessary measures.

No deviation or modifications may be made to the approved CSPP and SPCD unless approved in writing by the Owner. The necessary coordination actions to review Contractor proposed modifications to an approved CSPP or approved SPCD can require a significant amount of time.

**80-05 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 RPR, does not perform his work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the RPR, be removed immediately by the Contractor or subcontractor employing such person, and shall not be employed again in any portion of the work without approval of the RPR.

Should the Contractor fail to remove such person or persons, or fail to furnish suitable and sufficient personnel for the proper execution of the work, the RPR 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 not cause injury to previously completed work, adjacent property, or existing airport facilities due to 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 otherwise authorized by the RPR. 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 RPR 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 RPR 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 RPR 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 paragraph.

**80-06 Temporary suspension of the work.** The Owner shall have the authority to suspend the work wholly, or in part, for such period or periods the Owner may deem necessary, due to unsuitable weather, or other conditions considered unfavorable for the execution of the work, or for such time 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 written order to suspend work to the effective date of the written order to resume the work. Claims for such compensation shall be filed with the RPR within the time period stated in the RPR's order to resume work. The Contractor shall submit with their own claim information substantiating

the amount shown on the claim. The RPR 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 or for any other delay provided for in the contract, plans, or specifications.

If it becomes 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.

**80-07 Determination and extension of contract time.** The number of calendar days shall be stated in the proposal and contract and shall be known as the Contract Time.

If the contract time requires extension for reasons beyond the Contractor's control, it shall be adjusted as follows:

**80-07.1 Contract time based on calendar days.** 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

**80-08 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 paragraph 80-07, *Determination and Extension of Contract Time*) the sum specified in the contract and proposal as liquidated damages (LD) will be deducted from any money due or to become due the Contractor or their own 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.

Phase	Liquidated Damages Cost	Allowed Construction Time
I	\$1,000.00/day	45
II	\$1,000.00/day	60
III	\$1,000.00/day	45
IV	\$1,000.00/day	35
V	\$1,000.00/day	28
VI	\$1,000.00/day	28
VII	\$1,000.00/day	21
VIII	\$1,000.00/day	42

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

**80-09 Default and termination of contract.** The Contractor shall be considered in default of their 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 Owner consider the Contractor in default of the contract for any reason above, the Owner 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 RPR 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 RPR 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 RPR.

Termination of the contract or a portion thereof shall neither relieve the Contractor of their responsibilities for the completed work nor shall it relieve their 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 RPR 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 work in accordance with the approved CSPP and SPCD.

**END OF SECTION 80**

## Section 90 Measurement and Payment

**90-01 Measurement of quantities.** All work completed under the contract will be measured by the RPR, or their authorized representatives, using United States Customary Units of Measurement.

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 RPR.

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.

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.

When requested by the Contractor and approved by the RPR 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 RPR and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

### Measurement and Payment Terms

Term	Description
<b>Excavation and Embankment Volume</b>	In computing volumes of excavation, the average end area method will be used unless otherwise specified.
<b>Measurement and Proportion by Weight</b>	The term “ton” will mean the short ton consisting of 2,000 pounds (907 kg) avoirdupois. All materials that are measured or proportioned by weights shall be weighed on accurate, independently certified scales by competent, qualified personnel at locations designated by the RPR. 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 RPR directs, and each truck shall bear a plainly legible identification mark.
<b>Measurement by Volume</b>	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

Term	Description
	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.
<b>Asphalt Material</b>	Asphalt 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. 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 asphalt material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work. When asphalt materials are shipped by truck or transport, net certified weights by volume, subject to correction for loss or foaming, will be used for computing quantities.
<b>Cement</b>	Cement will be measured by the ton (kg) or hundredweight (km).
<b>Structure</b>	Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.
<b>Timber</b>	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.
<b>Plates and Sheets</b>	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.
<b>Miscellaneous Items</b>	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.
<b>Scales</b>	Scales must be tested for accuracy and serviced before use. 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. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end.  Scales shall be accurate within 0.5% of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the RPR 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 0.1% of the nominal rated capacity of the scale, but not less than one pound (454 grams). The use of spring balances will not be permitted.



Term	Description
	<p>In the event inspection reveals the scales have been “overweighing” (indicating more than correct weight) they will be immediately adjusted. All materials received subsequent to the last previous correct weighting-accuracy test will be reduced by the percentage of error in excess of 0.5%.</p> <p>In the event inspection reveals the scales have been under-weighing (indicating less than correct weight), they shall be immediately adjusted. No additional payment to the Contractor will be allowed for materials previously weighed and recorded.</p> <p>Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the RPR can safely and conveniently view them.</p> <p>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.</p> <p>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.</p>
<b>Rental Equipment</b>	<p>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 in connection with extra work will be measured as agreed in the change order or supplemental agreement authorizing such work as provided in paragraph 90-05 <i>Payment for Extra Work</i>.</p>
<b>Pay Quantities</b>	<p>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 RPR. 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.</p>

**90-02 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 Section 70, paragraph 70-18, *No Waiver of Legal Rights*.

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.

**90-03 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 Section 40, paragraph 40-02, *Alteration of Work and Quantities*, 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 their own unbalanced allocation of overhead and profit among the contract items, or from any other cause.

**90-04 Payment for omitted items.** As specified in Section 40, paragraph 40-03, *Omitted Items*, the RPR 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 RPR 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 RPR'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 RPR'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 RPR'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.

**90-05 Payment for extra work.** Extra work, performed in accordance with Section 40, paragraph 40-04, *Extra Work*, will be paid for at the contract prices or agreed prices specified in the change order or supplemental agreement authorizing the extra work.

**90-06 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 RPR, 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 paragraph 90-07, *Payment for Materials on Hand*. No partial payment will be made when the amount due to the Contractor since the last estimate amounts to less than five hundred dollars.

- a. From the total of the amount determined to be payable on a partial payment, **10%** percent of such total amount will be deducted and retained by the Owner for protection of the Owner's interests. Unless otherwise instructed by the Owner, the amount retained by the Owner will be in effect until the final payment is made except as follows:
  - (1) Contractor may request release of retainage on work that has been partially accepted by the Owner in accordance with Section 50-03. Contractor must provide a certified invoice to the RPR that supports the value of retainage held by the Owner for partially accepted work.
  - (2) In lieu of retainage, the Contractor may exercise at its option the establishment of an escrow account per paragraph 90-08.
- b. 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. Contractor must provide the Owner evidence of prompt and full payment of retainage held by 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.

- c. When at least 95% of the work has been completed to the satisfaction of the RPR, the RPR 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 RPR 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 paragraph 90-09, *Acceptance and Final Payment*.

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.

**90-07 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 RPR at or on an approved site.
- b. The Contractor has furnished the RPR with acceptable evidence of the quantity and quality of such stored or stockpiled materials.
- c. The Contractor has furnished the RPR 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 stored or stockpiled.
- e. The Contractor has furnished the Owner evidence that the material 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 their 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 paragraph.

**90-08 Payment of withheld funds.** At the Contractor's option, if an Owner withholds retainage in accordance with the methods described in paragraph 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.

**90-09 Acceptance and final payment.** When the contract work has been accepted in accordance with the requirements of Section 50, paragraph 50-15, *Final Acceptance*, the RPR will prepare the final estimate of the items of work actually performed. The Contractor shall approve the RPR's final estimate or advise the RPR 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 RPR 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 RPR's final estimate. If, after such 30-day period, a dispute still exists, the Contractor may approve the RPR'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 Section 50, paragraph 50-16, *Claims for Adjustment and Disputes*.

After the Contractor has approved, or approved under protest, the RPR's final estimate, and after the RPR's receipt of the project closeout documentation required in paragraph 90-11, *Contractor Final Project Documentation*, 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 Section 50, paragraph 50-16, *Claims for Adjustments and Disputes*, or under the provisions of this paragraph, 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, except as noted. 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.

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 the Contractor's failure to conform to contract requirements; or 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 seven (7) days after the discovery of any failure, defect, or damage.

f. If the Contractor fails to remedy any failure, defect, or damage within fourteen (14) 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 Contractor Final Project Documentation.** 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 RPR 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 Section 40, paragraph 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(s).

k. Security for Construction Warranty.

l. Equipment commissioning documentation submitted, if required.

## END OF SECTION 90

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# **GENERAL CONSTRUCTION ITEMS**

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**ITEM C-100**  
**CONTRACTOR QUALITY CONTROL PROGRAM(CQCP)**

**100-1 General.** Quality is more than test results. Quality is the combination of proper materials, testing, workmanship, equipment, inspection, and documentation of the project. Establishing and maintaining a culture of quality is key to achieving a quality project. The Contractor shall establish, provide, and maintain an effective Contractor Quality Control Program (CQCP) 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 Contractor shall establish a CQCP that will:

- a. Provide qualified personnel to develop and implement the CQCP.
- b. Provide for the production of acceptable quality materials.
- c. Provide sufficient information to assure that the specification requirements can be met.
- d. Document the CQCP process.

The Contractor shall not begin any construction or production of materials to be incorporated into the completed work until the CQCP has been reviewed and approved by the Resident Project Representative (RPR). No partial payment will be made for materials subject to specific quality control (QC) requirements until the CQCP has been reviewed and approved.

The QC requirements contained in this section and elsewhere in the contract technical specifications are in addition to and separate from the quality assurance (QA) testing requirements. QA testing requirements are the responsibility of the RPR or Contractor as specified in the specifications.

A Quality Control (QC)/Quality Assurance (QA) workshop with the Engineer, Resident Project Representative (RPR), Contractor, subcontractors, testing laboratories, and Owner's representative must be held prior to start of construction. The QC/QA workshop will be facilitated by the Contractor. The Contractor shall coordinate with the Airport and the RPR on time and location of the QC/QA workshop. Items to be addressed, at a minimum, will include:

- a. Review of the CQCP including submittals, QC Testing, Action & Suspension Limits for Production, Corrective Action Plans, Distribution of QC reports, and Control Charts.
- b. Discussion of the QA program.

c. Discussion of the QC and QA Organization and authority including coordination and information exchange between QC and QA.

d. Establish regular meetings to discuss control of materials, methods and testing.

e. Establishment of the overall QC culture.

### **100-2 Description of program.**

**a. General description.** The Contractor shall establish a CQCP to perform QC inspection and testing of all items of work required by the technical specifications, including those performed by subcontractors. The CQCP shall ensure conformance to applicable specifications and plans with respect to materials, off-site fabrication, workmanship, construction, finish, and functional performance. The CQCP 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 QC.

**b. Contractor Quality Control Program (CQCP).** The Contractor shall describe the CQCP in a written document that shall be reviewed and approved by the RPR prior to the start of any production, construction, or off-site fabrication. The written CQCP shall be submitted to the RPR for review and approval at least 15 calendar days before the CQCP Workshop. The Contractor's CQCP and QC testing laboratory must be approved in writing by the RPR prior to the Notice to Proceed (NTP).

The CQCP shall be organized to address, as a minimum, the following:

1. QC organization and resumes of key staff
2. Project progress schedule
3. Submittals schedule
4. Inspection requirements
5. QC testing plan
6. Documentation of QC activities and distribution of QC reports
7. Requirements for corrective action when QC and/or QA acceptance criteria are not met
8. Material quality and construction means and methods. Address all elements applicable to the project that affect the quality of the pavement structure including subgrade, subbase, base, and surface course. Some elements that must be addressed include, but is not limited to mix design, aggregate grading, stockpile management, mixing and transporting, placing and finishing, quality control testing and inspection, smoothness, laydown plan, equipment, and temperature management plan.

The Contractor must add any additional elements to the CQCP that is necessary to adequately control all production and/or construction processes required by this contract.

**100-3 CQCP organization.** The CQCP shall be implemented by the establishment of a QC organization. An organizational chart shall be developed to show all QC personnel, their authority, and how these personnel integrate with other management/production and construction functions and personnel.

The organizational chart shall identify all QC staff by name and function and shall indicate the total staff required to implement all elements of the CQCP, 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 CQCP, the personnel assigned shall be subject to the qualification requirements of paragraphs 100-03a and 100-03b. The organizational chart shall indicate which personnel are Contractor employees and which are provided by an outside organization.

The QC organization shall, as a minimum, consist of the following personnel:

**a. Program Administrator.** The Contractor Quality Control Program Administrator (CQCPA) must be a full-time employee of the Contractor, or a consultant engaged by the Contractor. The CQCPA must have a minimum of five (5) years of experience in QC pavement construction with prior QC experience on a project of comparable size and scope as the contract.

Included in the five (5) years of paving/QC experience, the CQCPA must meet 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) National Institute for Certification in Engineering Technologies (NICET) Civil Engineering Technology Level IV with three (3) years of airport paving experience.
- (4) An individual with four (4) years of airport paving experience, with a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology or Construction.

The CQCPA must have full authority to institute any and all actions necessary for the successful implementation of the CQCP to ensure compliance with the contract plans and technical specifications. The CQCPA authority must include the ability to immediately stop production until materials and/or processes are in compliance with contract specifications. The CQCPA must report directly to a principal officer of the construction firm. The CQCPA 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. QC technicians.** A sufficient number of QC technicians necessary to adequately implement the CQCP must be provided. These personnel must be either Engineers, engineering technicians, or experienced craftsman with qualifications in the appropriate field equivalent to NICET Level II in Civil Engineering Technology or higher and shall have a minimum of two (2) years of experience in their area of expertise.

The QC technicians must report directly to the CQCPA 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 paragraph 100-6.

(2) Performance of all QC tests as required by the technical specifications and paragraph 100-8.

(3) Performance of tests for the RPR when required by the technical specifications.

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

**c. Staffing levels.** The Contractor shall provide sufficient qualified QC 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 CQCP shall state where different technicians will be required for different work elements.

**100-4 Project progress schedule.** Critical QC activities must be shown on the project schedule as required by Section 80, paragraph 80-03, *Execution and Progress*.

**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 as a minimum:

- 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.** QC 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 paragraph 100-9.

Inspections shall be performed as needed to ensure continuing compliance with contract requirements until completion of the particular feature of work. Inspections shall include the following minimum requirements:

**a.** During plant operation for material production, QC 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 CQCP shall detail how these and other QC functions will be accomplished and used.

**b.** During field operations, QC 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 CQCP shall document how these and other QC functions will be accomplished and used.

#### **100-7 Contractor QC testing facility.**

**a.** For projects that include Item P-401, Item P-403, and Item P-404, the Contractor shall ensure facilities, including all necessary equipment, materials, and current reference standards, are provided that meet requirements in the following paragraphs of ASTM D3666, *Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials*:

- 8.1.3 Equipment Calibration and Checks;
- 8.1.9 Equipment Calibration, Standardization, and Check Records;
- 8.1.12 Test Methods and Procedures

**b.** For projects that include P-501, the Contractor shall ensure facilities, including all necessary equipment, materials, and current reference standards, are provided that meet requirements in the following paragraphs of ASTM C1077, *Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation*:

- 7 Test Methods and Procedures
- 8 Facilities, Equipment, and Supplemental Procedures

**100-8 QC testing plan.** As a part of the overall CQCP, the Contractor shall implement a QC 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 QC tests that the Contractor deems necessary to adequately control production and/or construction processes.

The QC testing plan can be developed in a spreadsheet fashion and shall, as a minimum, include the following:

- a. Specification item number (e.g., P-401)
- b. Item description (e.g., Hot Mix Asphalt Pavements)
- c. Test type (e.g., gradation, grade, asphalt content)
- d. Test standard (e.g., ASTM or American Association of State Highway and Transportation Officials (AASHTO) test number, as applicable)
- e. Test frequency (e.g., as required by technical specifications or minimum frequency when requirements are not stated)
- f. Responsibility (e.g., plant technician)
- g. Control requirements (e.g., target, permissible deviations)

The QC testing plan shall contain a statistically-based procedure of random sampling for acquiring test samples in accordance with ASTM D3665. The RPR shall be provided the opportunity to witness QC sampling and testing.

All QC test results shall be documented by the Contractor as required by paragraph 100-9.

**100-9 Documentation.** The Contractor shall maintain current QC records of all inspections and tests performed. These records shall include factual evidence that the required QC 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 RPR daily. The records shall cover all work placed subsequent to the previously furnished records and shall be verified and signed by the CQCPA.

Contractor QC records required for the contract shall include, but are not necessarily limited to, the following records:

**a. Daily inspection reports.** Each Contractor QC 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 QC 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) Summary of any necessary corrective actions
- (7) Safety inspection.
- (8) Photographs and/or video

The daily inspection reports shall identify all QC inspections and QC tests 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 QC technician and the CQCPA. The RPR shall be provided at least one copy of each daily inspection report on the work day following the day of record. When QC inspection and test results are recorded and transmitted electronically, the results must be archived.

**b. Daily test reports.** The Contractor shall be responsible for establishing a system that will record all QC 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 RPR prior to the start of the next day's work period. When required by the technical specifications, the Contractor shall maintain statistical QC charts. When QC daily test results are recorded and transmitted electronically, the results must be archived.

**100-10 Corrective action requirements.** The CQCP 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 CQCP as a whole, and for individual items of work contained in the technical specifications.

The CQCP shall detail how the results of QC inspections and tests will be used for determining the need for corrective action and shall contain clear 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 QC charts for individual QC tests. The requirements for corrective action shall be linked to the control charts.

**100-11 Inspection and/or observations by the RPR.** All items of material and equipment are subject to inspection and/or observation by the RPR at the point of production, manufacture or shipment to determine if the Contractor, producer, manufacturer or shipper maintains an adequate QC 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 inspection and/or observation by the RPR at the site for the same purpose.

Inspection and/or observations by the RPR does not relieve the Contractor of performing QC inspections of either on-site or off-site Contractor's or subcontractor's work.

#### **100-12 Noncompliance.**

**a.** The Resident Project Representative (RPR) will provide written notice to the Contractor of any noncompliance with their CQCP. After receipt of such notice, the Contractor must take corrective action.

**b.** When QC activities do not comply with either the CQCP or the contract provisions or when the Contractor fails to properly operate and maintain an effective CQCP, and no effective corrective actions have been taken after notification of non-compliance, the RPR will recommend the Owner take the following actions:

- (1)** Order the Contractor to replace ineffective or unqualified QC personnel or subcontractors and/or
- (2)** Order the Contractor to stop operations until appropriate corrective actions are taken.

### **METHOD OF MEASUREMENT**

**100-13 Basis of measurement and payment.** Contractor Quality Control Program (CQCP) is for the personnel, tests, facilities and documentation required to implement the CQCP. The CQCP will be paid as a lump sum with the following schedule of partial payments:

- a.** With first pay request, 25% with approval of CQCP and completion of the Quality Control (QC)/Quality Assurance (QA) workshop.
- 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 20%.
- d.** When 75% or more of the original contract is earned, an additional 20%
- e.** After final inspection and acceptance of project, the final 10%.



## **BASIS OF PAYMENT**

### **100-14 Payment will be made under:**

Item C-100 Contractor Quality Control Program (CQCP) - per lump Sum

## **REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

National Institute for Certification in Engineering Technologies (NICET)

ASTM International (ASTM)

ASTM C1077 Standard Practice for Agencies Testing Concrete and Concrete Aggregates  
for Use in Construction and Criteria for Testing Agency Evaluation

ASTM D3665 Standard Practice for Random Sampling of Construction Materials

ASTM D3666 Standard Specification for Minimum Requirements for Agencies Testing and  
Inspecting Road and Paving Materials

**END OF ITEM C-100**

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**ITEM C-102**  
**TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION, AND SILTATION CONTROL**

**102-1.** This item shall consist of temporary control measures as shown on the plans or as ordered by the Resident Project Representative (RPR) during the life of a contract to control pollution of air and water, 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.

Temporary erosion control shall be in accordance with the approved erosion control plan; the approved Construction Safety and Phasing Plan (CSPP) and AC 150/5370-2, *Operational Safety on Airports During Construction*. 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 designed, installed and maintained to minimize the creation of wildlife attractants that have the potential to attract hazardous wildlife on or near public-use airports.

**MATERIALS**

**102-2.1 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.

**102-2.2 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 Item T-908. Mulches shall not create a wildlife attractant.

**102-2.3 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.

**102-2.4 Slope drains.** Slope drains may be constructed of pipe, fiber mats, rubble, concrete, asphalt, or other materials that will adequately control erosion.

**102-2.5 Silt fence.** 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.

**102-2.6 Other.** All other materials shall meet commercial grade standards and shall be approved by the RPR before being incorporated into the project.

## **CONSTRUCTION REQUIREMENTS**

**102-3.1 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 RPR shall be responsible for assuring compliance to the extent that construction practices, construction operations, and construction work are involved.

**102-3.2 Schedule.** Prior to the start of construction, the Contractor shall submit schedules in accordance with the approved Construction Safety and Phasing Plan (CSPP) and the plans 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 RPR.

**102-3.3 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 plans and approved CSPP. 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, schedule and perform clearing and grubbing operations so that grading operations and permanent erosion control features can follow immediately if project conditions permit. Temporary erosion control measures are required if permanent measures cannot immediately follow grading operations. The RPR 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 RPR.

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 RPR. 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 RPR, the work shall be performed by the Contractor and the cost shall be incidental to this item.

The RPR 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 maintained by the Contractor during the construction period.

Provide temporary structures whenever construction equipment must cross watercourses at frequent intervals. 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.

**102-3.4 Installation, maintenance and removal of silt fence.** 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 RPR.

## METHOD OF MEASUREMENT

**102-4.1** Temporary erosion and pollution control work required will be performed as scheduled or directed by the RPR. Completed and accepted work will be measured as 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 RPR.
- d. All fertilizing will be measured by the ton.
- e. Installation and removal of silt fence will be measured by the linear foot.

**102-4.2** 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**

**102-5.1** Accepted quantities of temporary water pollution, soil erosion, and siltation control work ordered by the RPR and measured as provided in paragraph 102-4.1 will be paid for under:

**Payment shall be made under:**

Item C-102 Temporary Inlet Protection – per Each.

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 RPR will be paid for in accordance with Section 90, paragraph 90-05 *Payment for Extra Work*.

### **REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Advisory Circulars (AC)

AC 150/5200-33 *Hazardous Wildlife Attractants on or Near Airports*

AC 150/5370-2 *Operational Safety on Airports During Construction*

ASTM International (ASTM)

ASTM D6461 *Standard Specification for Silt Fence Materials*

United States Department of Agriculture (USDA)

FAA/USDA Wildlife Hazard Management at Airports, A Manual for Airport Personnel

### **END OF ITEM C-102**

**ITEM C-105  
MOBILIZATION**

**105-1 Description.** This item of work shall consist of, 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.

**105-2 Mobilization limit.** Mobilization shall be limited to 10 percent of the total project cost.

**105-3 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.

**105-4 Engineer/RPR field office.** An Engineer/RPR field office is not required.

**METHOD OF MEASUREMENT**

**105-5 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 Section 90, paragraph 90-11, *Contractor Final Project Documentation*, the final 10%.

**BASIS OF PAYMENT**

**105-6 Payment will be made under:**

Item C-105      Mobilization - per Lump Sum

**REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Office of Federal Contract Compliance Programs (OFCCP)

Executive Order 11246, as amended

EEOC-P/E-1 – Equal Employment Opportunity is the Law Poster

United States Department of Labor, Wage and Hour Division (WHD)

WH 1321 – Employee Rights under the Davis-Bacon Act Poster

**END OF ITEM C-105**



## SECTION C-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 ( $\bar{X}$ ) 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,  $Q_L$  for Lower Quality Index and/or  $Q_U$  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 subplot 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 subplot test values within the lot by using the following formula:

$$X = (x_1 + x_2 + x_3 + \dots + x_n) / n$$

Where:  $X$  = Sample average of all subplot test values within a lot

$x_1, x_2, \dots, x_n$  = Individual subplot test values

$n$  = Number of subplot test values

**e.** Find the sample standard deviation ( $S_n$ ) by use of the following formula:

$$S_n = [(d_1^2 + d_2^2 + d_3^2 + \dots + d_n^2)/(n-1)]^{1/2}$$

Where:  $S_n$  = Sample standard deviation of the number of subplot test values in the set

$d_1, d_2, \dots, d_n$  = Deviations of the individual subplot test values  $x_1, x_2, \dots$  from the average value  $X$

that is:  $d_1 = (x_1 - X), d_2 = (x_2 - X) \dots d_n = (x_n - X)$

$n$  = Number of subplot test values

**f.** For single sided specification limits (i.e.,  $L$  only), compute the Lower Quality Index  $Q_L$  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  $Q_L$ , using the column appropriate to the total number ( $n$ ) of measurements. If the value of  $Q_L$  falls between values shown on the table, use the next higher value of PWL.

**g.** For double-sided specification limits (i.e.,  $L$  and  $U$ ), compute the Quality Indexes  $Q_L$  and  $Q_U$  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.

$$X = (x_1 + x_2 + x_3 + \dots + x_n) / n$$

$$X = (96.60 + 97.55 + 99.30 + 98.35) / 4$$

$$X = 97.95\% \text{ density}$$

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  $Q_L = 1.44$  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.

$$X = (x_1 + x_2 + x_3 \dots .n) / n$$

$$X = (5.00 + 3.74 + 2.30 + 3.25) / 4$$

$$X = 3.57\%$$

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  $n = 4$ .

$$P_L = 97$$

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. From ASTM E178, Table 1, for  $n=4$  an upper 5% significance level, 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  $(97.95 + 1.463 \times 1.15) = 99.63\%$

OR

less than  $(97.95 - 1.463 \times 1.15) = 96.27\%$ .

**Table 1. Table for Estimating Percent of Lot Within Limits (PWL)**

Percent Within Limits (P <sub>L</sub> and P <sub>U</sub> )	Positive Values of Q (Q <sub>L</sub> and Q <sub>U</sub> )							
	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

Percent Within Limits (P <sub>L</sub> and P <sub>U</sub> )	Positive Values of Q (Q <sub>L</sub> and Q <sub>U</sub> )							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
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 <sub>L</sub> and P <sub>U</sub> )	Negative Values of Q (Q <sub>L</sub> and Q <sub>U</sub> )							
	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

Percent Within Limits (P <sub>L</sub> and P <sub>U</sub> )	Negative Values of Q (Q <sub>L</sub> and Q <sub>U</sub> )							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
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

### REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM E178                      Standard Practice for Dealing with Outlying Observations

**END OF ITEM C-110**

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# **Supplementary Conditions**

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**SECTION 00800****SUPPLEMENTARY CONDITIONS**

The following conditions amend or supplement the referenced "Standard Federal Aviation Administration General Provisions". All provisions which are not so amended or supplemented remain in full force and effect.

**SECTION 10 DEFINITION OF TERMS****SC-1 NOT APPLICABLE.****SC-2 AFTER THE LAST DEFINITION OF SECTION 10, ADD THE FOLLOWING NEW DEFINITIONS:**

10-67 ADVISORY CIRCULAR. A document issued by the FAA containing informational material and guidance. When referred to in the plans and specifications, advisory circulars shall have the same force as supplemental specifications.

10-68 FEDERAL AVIATION REGULATION (FAR). A document issued by the FAA containing informational material and guidance. When referred to in the plans and specifications, FARs shall have the same force as supplemental specifications.

10-69 GENERAL PROVISIONS. Standard FAA conditions of the Contract identified as Sections 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, and 105.

10-70 MIL SPECIFICATION. The Military Specifications and Standards, and indices thereto, prepared and issued by the Department of Defense. Military Specifications may be obtained from Standardization Document Order Desk, 700 Robbins Avenue, Building #4, Section D, Philadelphia, Pennsylvania 19111-5094, Telephone (215) 697-2179.

10-71 PRODUCTS. The materials, systems and equipment to be incorporated into the work.

10-72 PROJECT MANUAL. The bound documents comprising Bidding Requirements, Bid Forms, Contract Forms, General Conditions, Supplementary Conditions, Specifications, Addenda and modifications.

10-73 SAFETY AREA. A designated area abutting the edges of a runway or taxiway intended to reduce the risk of damage to an aircraft that inadvertently leaves the runway or taxiway.

10-74 SUBCONTRACTOR. The pre-qualified (where required) individual, partnership or corporation, or a combination thereof, undertaking the execution of a part of the work under

the terms of the contract, by virtue of an agreement with the Contractor approved by the Owner.

10-75 SUBSTANTIAL COMPLETION. The Work (or a specified part thereof) has progressed to the point where, in the opinion of Owner as evidenced by the definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part) can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due in accordance with Section 90. The terms "substantially complete" and "substantially completed" as applied to any Work refer to "Substantial Completion thereof."

10-76 SUPPLEMENTARY CONDITIONS. The part of the Contract Documents which amends or supplements these Standard FAA General Provisions.

**SC-3 NOT APPLICABLE.**

### **SECTION 20 PROPOSAL REQUIREMENTS AND CONDITIONS**

**SC-4 REFER TO INSTRUCTIONS TO BIDDERS FOR BID PREPARATION AND SUBMISSION REQUIREMENTS AS WELL AS EVALUATION OF BIDS AND BIDDERS.**

**SC-5 EXAMINATION OF PLANS, SPECIFICATIONS AND PHYSICAL CONDITIONS:**

The Bidder is expected to carefully examine the site of the proposed work, the bidding requirements, plans, specifications, and contract forms. He shall satisfy himself as to the character, quality, and quantities of work to be performed, materials to be furnished, and as to the requirements of the proposed contract. The submission of a bid shall be a binding representation 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.

**SC-6 NOT APPLICABLE.**

**SC-7 NOT APPLICABLE.**

**SC-8 NOT APPLICABLE.**

### **SECTION 30 AWARD AND EXECUTION OF CONTRACT**

**SC-9 REFER TO ARTICLES 16, 17 AND 18 OF THE INSTRUCTIONS TO BIDDERS FOR PROCEDURES FOR AWARD AND SIGNING OF CONTRACTS, AND DISPOSITION OF BID SECURITY.**

**SC-10 PERFORMANCE AND OTHER BONDS:**

a. Contractor shall furnish Performance and Payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all Contractor's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as otherwise provided by Law or Regulation or by the Contract Documents. Contractor shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall be in the forms prescribed by the Contract Documents and be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act.

b. If the Surety on any Bond furnished by Contractor is declared a bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located, or it ceases to meet the requirements of paragraph a. above, the Contractor shall within five days thereafter substitute another Bond and Surety, both of which must be acceptable to Owner.

#### **SECTION 40 SCOPE OF WORK**

##### **SC-11 ADD THE FOLLOWING PARAGRAPHS TO THE END OF SUBSECTION 40-02 "ALTERATION OF WORK AND QUANTITIES":**

For AIP contracts, supplemental agreements shall be approved by the FAA and shall include valid wage determinations of the U.S. Secretary of Labor when the amount of the supplemental agreement exceeds \$2,000. However, if the Contractor elects to waive the limitations on work that increases or decreases the originally awarded contract or any major contract item by more than 25 percent, the supplemental agreement shall be subject to the same U.S. Secretary of Labor wage determination as was included in the originally awarded contract.

All supplemental agreements shall require consent of the Contractor's surety and separate performance and payment bonds.

##### **SC-12 ADD THE FOLLOWING SENTENCE TO THE END OF SUBSECTION 40-08 "FINAL CLEANUP":**

See Section 01710 CLEANING AND DISPOSAL for additional project requirements.

##### **SC-13 ADD THE FOLLOWING SUBSECTION TO THE END OF SECTION 40 "SCOPE OF WORK":**

**40-09 ACCESS TO THE WORK.** Access to the work will be via the access routes shown on the plans or as directed by the Owner. The Contractor shall identify access routes with suitable signs, barricades and similar equipment.

The entire access route and construction site shall be kept free and clean of all debris at all times and maintained in good repair by the Contractor. All damage to the access route caused by the actions of the Contractor or his agents shall be immediately repaired to the satisfaction of the Owner.

No additional payment will be made to the Contractor for complying with the requirements of this subsection.

## **SECTION 50 CONTROL OF WORK**

**SC-14 NOT APPLICABLE.**

**SC-15 NOT APPLICABLE.**

**SC-16 NOT APPLICABLE.**

**SC-17 ADD THE FOLLOWING PARAGRAPHS TO THE END OF SUBSECTION 50-16 "CLAIMS FOR ADJUSTMENT AND DISPUTES":**

The following documentation and information must be presented in order for the Owner to properly evaluate such claim:

- a. Definition of the basis of the claim, including a detailed identification of which materials and what work is considered to represent a change to the original contract, an explanation of why the work or material is different than what was called for by the original contract, and an identification of the contract provisions and anything else which the Contract relied upon;
- b. An explanation of how and why the work, which is considered a change, resulted in any additional cost or performance time for the Contractor;
- c. An identification of the categories of additional costs which were incurred, an estimate of the dollar magnitude of each, and a statement of the impact this work will have on the construction schedule, including the contract completion dates;
- d. An indication of how the additional costs which is believed that were incurred can be, and are to be, quantified;
- e. Documentation of any actual additional costs and any actual impact to the construction schedule due to this work;

- f. Documentation of the cost of performing all similar "unchanged" work, to provide the Owner a basis for comparison;
- g. All backup and other documentation which are believed to support or relate to the claim;
- h. Documentation quantifying the amount of work which is believed to constitute this "changed" work, and the time period and the areas where such work was performed.

#### **SC-18 NOT APPLICABLE**

#### **SC-19 ADD THE FOLLOWING SUBSECTIONS TO THE END OF SECTION 50 "CONTROL OF WORK":**

50-17 RETEST OF WORK. When as provided for in the contract documents, the Owner performs sampling and tests of the work and the tests show a failure to meet the requirements of the contract documents, the expense of retesting, after reworking or substitution by the Contractor will be at the expense of the Contractor and such costs will be deducted from the payments otherwise due to the Contractor.

50-18 CORRECTION OF WORK AFTER FINAL PAYMENT. Neither the final certificate nor payment, nor any provision in the contract documents shall relieve the Contractor of responsibility for faulty materials or workmanship and, unless otherwise specified, he shall remedy any defect due thereto and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from date of final acceptance. Wherever the word "acceptance" occurs, it shall be understood to mean final acceptance.

The Owner shall give notice of observed defects with reasonable promptness. If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after the 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. With respect to all warranties, expressed or implied, from subcontractors, manufacturer, or suppliers for work performed and materials furnished under this Contract, the Contractor shall:

- a. Obtain all warranties that would be given in normal commercial practice;
- b. Require all warranties to be executed, in writing, for the benefit of the Owner.

50-19 VENUE. This contract has been executed by, delivered to and accepted by the Owner (or the Authority) in the state where the Airport is located, and the provisions hereof shall be governed by the laws of that state. Any disputes arising out of or related to this contract shall be resolved in accordance with said laws.

The parties agree that any action or legal proceeding arising out of or related to this contract shall be brought in the state courts of the county in which the Airport lies, or in the federal

court in the district where the Airport is located; and the parties hereby consent to and waive any objection to jurisdiction or venue in said courts.

### **SECTION 60 CONTROL OF MATERIALS**

#### **SC-20 ADD THE FOLLOWING PARAGRAPH TO THE END OF SUBSECTION 60-02 "SAMPLES, TESTS, AND CITED SPECIFICATIONS":**

In the event that any tests show a failure to meet the requirements of the contract documents, the expense of retesting, after substitution or modification by the Contractor, will be at the expense of the Contractor and such costs will be deducted from the payments otherwise due to the Contractor. The Contractor shall give sufficient notification of the placing of orders for materials to permit testing.

### **SECTION 70 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC**

#### **SC-21 ADD THE FOLLOWING PARAGRAPH TO THE END OF SUBSECTION 70-01 "LAWS TO BE OBSERVED":**

If the Contractor observes that the drawings and specifications are at variance with any laws, codes, ordinances, and regulations, he shall promptly notify the Owner in writing, and any necessary changes shall be adjusted as provided in the contract for changes in the work. If the Contractor performs any work contrary to such laws, codes, ordinances, and regulations, and without such notice to the Owner, he shall bear all costs arising therefrom.

#### **SC-22 ADD THE FOLLOWING PARAGRAPH TO THE END OF SUBSECTION 70-05 "FEDERAL AID PARTICIPATION":**

The attention of the Contractor is also invited to the fact that the State in which this project is located may pay a portion of the cost of this improvement. In accordance with said State's rules and regulations, work will be subject to such inspection of the State, or its representative, as deemed necessary to protect the interests of the people of the State. The Contractor shall furnish the inspecting party with every reasonable assistance to ascertain whether or not the requirements and intent of the contract are being met. Such inspections will in no way infer that the State is party to the contract, except for those contracts wherein the State is a signatory.

#### **SC-23 ADD THE FOLLOWING PARAGRAPHS TO THE END OF SUBSECTION 70-07 "PUBLIC CONVENIENCE AND SAFETY":**

The Contractor shall provide initial and continuing instructions to all supervisors, employees, subcontractors, and suppliers to enable them to conduct their work in a manner that will provide the maximum safety with the least hindrance to air and ground traffic, the general public, airport employees, and to the workmen employed on the site.



All safety provisions specified by the plans and documents or received from the Owner, and those required by laws, codes and ordinances, shall be thoroughly disseminated and rigidly enforced.

**SC-24 NOT APPLICABLE.**

**SC-25 NOT APPLICABLE.**

**SC-26 ADD THE FOLLOWING PARAGRAPHS TO THE END OF SUBSECTION 70-10 "PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE":**

Work that is to remain in place which is damaged or defaced by reasons of work performed under this contract, shall be restored at no additional cost to the Owner.

Items removed, intended to be salvaged for Owner or reused in new work, which are damaged beyond repair, shall be replaced with equal new materials under this contract at no additional cost to the Owner.

Existing pavement or other existing work not specified for removal which is temporarily removed, damaged, exposed, or in any way disturbed or altered by work under this contract shall be repaired, patched, or replaced to the complete satisfaction of the Owner at no additional cost to the Owner.

Where it is necessary to cut, alter, remove, or temporarily remove and replace existing property or equipment, the cost shall be included in the contract price for the item creating such work.

It is recognized that the Owner will incur the costs for employees' salaries, and otherwise in connection with the damage and inspection and repair of any such damage, caused by the Contractor; consequently, the Owner may incur loss of income by reason of the diversion of aircraft traffic from the airport resulting from interruption of the use of airport facilities; and that such expenses and loss of income are not measurable now and may not be reasonably ascertainable at the time of any incident caused by the Contractor. The Owner and the Contractor hereby agree to the assessment of liquidated damages in lieu of such expenses or other damages incurred by the Owner. In addition to the obligation of the Contractor to immediately repair any cables or facilities damaged by the Contractor, as set forth above, the sum of not greater than \$1,000.00 per incident may be deducted from any money due the Contractor, or if no money is due the Contractor, the Owner shall have the right to recover said sum or sums from the Contractor, from the surety, or from both. The amount of these deductions is to cover liquidated damages to the sponsor incurred by additional and other expenses and damages arising from the incident or incidents caused by the Contractor, and such deductions are not considered as penalties.

**SC-27 ADD THE FOLLOWING TO SECTION 70-21 "INSURANCE REQUIREMENTS":**

a. INSURANCE:

Contractor shall purchase and maintain such comprehensive general liability, comprehensive automobile liability and other insurance as is appropriate for the Work being performed and furnished and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance and furnishing of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed or furnished by Contractor, by any Subcontractor, by anyone directly or indirectly employed by any of them to perform or furnish any of the Work, or by anyone for whose acts any of them may be liable:

- (1) Claims under workers' or workmen's compensation, disability benefits and other similar employee benefit acts;
- (2) Claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
- (3) Claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
- (4) Claims for damages insured by personal injury liability coverage which are sustained (a) by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or (b) by any other person for any other reason;
- (5) Claims for damages other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use of resulting therefrom;
- (6) Claims arising out of operation of Laws or Regulations for damages because of bodily injury or death of any person or for damage to property; and
- (7) Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The insurance required by this paragraph 70-21.1 shall include the specific coverages and be written for no less than the limits of liability and coverages specified in 70-21.3 or required by law, whichever is greater. The comprehensive general liability insurance shall include completed operations insurance. All of the policies of insurance so required to be purchased and maintained (or the certificates or other evidence thereof) shall contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty days prior written notice has been given to Owner by certified mail. All such insurance shall remain in effect until final payment and at all times thereafter when Contractor may be correcting, removing or replacing defective Work in accordance with subsection 50-15. In addition, contractor shall maintain such completed operations

insurance for at least two years after final payment and furnish Owner with evidence of continuation of such insurance at final payment and one year thereafter, with the exception of Owner's Protective Liability coverage.

**b. INDEMNIFICATION:**

- (1) The Contractor shall indemnify and hold harmless Owner and their consultants, agents and employees from and against all claims, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of Contractor, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any or them may be liable, regardless of whether or not it is caused by a party indemnified hereunder or arises by or is imposed by Law or Regulations regardless of the negligence of any such party.
- (2) In any and all claims against Owner or any of their consultants, agents or employees by any employee of Contractor, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 21.2.1 above shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any such Subcontractor or other person or organization under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

**c. COVERAGES:**

The limits of liability for the insurance required by Paragraphs 70-21.1 shall provide coverage for not less than the following amounts or greater where required by law:

- |     |   |             |
|-----|---|-------------|
| (1) | Workers' Compensation, etc.:                    |             |
|     | (a) State:                                      | Statutory   |
|     | (b) Applicable Federal<br>(e.g. Longshoreman's) | Statutory   |
|     | (c) Employer's Liability                        | \$1,000,000 |

- (2) Comprehensive General Liability:
  - (a) Bodily Injury and Property Damage:

\$1,000,000                      Combined Single Limit (Per Occurrence)
  - (b) The Contractor's General Liability insurance shall provide coverage for the following: (1) Premises - Operations, (2) Independent Contractors, (3) Products/Completed Operations Hazard, (5) Underground Hazard, (6) Broad Form Property Damage, (7) Where applicable, Explosion and Collapse Hazard, and (8) Personal Injury.
- (3) Comprehensive Automobile Liability:
  - (a) Bodily Injury and Property Damage:

\$1,000,000                      Combined Single Limit (Per Occurrence)
  - (b) The Contractor's Comprehensive Automobile Liability Insurance shall provide coverage for Bodily Injury and Property Damage Per Occurrence for owned, hired and non-owned vehicles.
- (4) The City of Hammond, Louisiana, its officials and staff; and Michael Baker International, Inc., its staff and consultants shall be required to be named as additional insureds with right of notice in the policy with respect to General Liability and Automobile Liability.
- (5) The Contractor shall obtain in the name of the Owner, Owner's Protective Liability Insurance which will have the same limits of coverage for the same period as that required in paragraph 70-11.c(2) above for the Contractor's general liability coverage, including liability for acts of Subcontractors and Subordinate Contractors.
- (6) Contractor shall purchase and maintain such Protective and Contractual Bodily Injury Liability Insurance and such Protective and Contractual Property Damage Liability Insurance as shall be required by any public bodies or utility companies whose property, facilities, or right-of-way may be affected by the Work to be done under this Contract.
- (7) Contractor will provide such additional information in respect of insurance provided by him as the Owner may reasonably request. Failure by Owner to give any such notice of objection within the time provided shall constitute an acceptance of such insurance purchased by Contractor as complying with the Contract Documents.

- (8) Certificates in triplicate from the insurance carrier stating the limits of liability and expiration date shall be filed with Owner before operations are begun. Certificates shall not merely name the types of policy provided but shall specifically refer to this Contract and shall contain a separate express statement of compliance with each of the requirements as set forth in this subsection. The certificates shall, in addition to the information relative to the insurance required, contain the following:
- (a) Inception and expiration dates of insurance policy.
  - (b) Limits of liability provided (Public Liability and Property Damage).
  - (c) Coverage provided, including special hazards if required.
  - (d) Name of insurance company.
  - (e) Policy Number.
  - (f) Additional insureds' interests covered.
  - (g) Statement that the Explosion, Collapse, and Underground exclusions do not apply.
  - (h) Certificate shall reflect self-insured retention applicable to any contract of insurance.
  - (i) Excess liability certified contracts must state underlying insurance requirements.
  - (j) Project number and nature of work.
  - (k) Proof of endorsement for additional insured.

No certificate will be accepted which exculpates the issuer or reduces any rights conferred on the Owner by the above certificates, nor will they be accepted unless the certificates bear a live signature of a direct representative of a company authorized to do business in the state where the work is located.

No certificate will be accepted unless the person signing the certificate certifies, in a separate letter, his exact relationship with the insurance carrier or carriers indicated in the certificate.

The Owner may, at his discretion, modify or waive any of the foregoing requirements.

No contract of insurance containing a "claims made" insuring agreement will be acceptable unless the contractor offering such insurance to fulfill the requirements of this Contract agrees that each such contract of insurance shall be renewed for the entire existence of the Contractor, their successors or assigns; and that on termination of such coverage which is not replaced by a similar contract with the required limits of liability, a "tail policy" will be purchased with limits not less than those required by this Contract."

**SC-28 ADD THE FOLLOWING PARAGRAPHS TO THE END OF THE SUBSECTION 70-19 "ENVIRONMENTAL PROTECTION":**

In the event of conflict between Federal, State or local laws, codes, ordinances, rules and regulations concerning pollution control, the most restrictive applicable ones shall apply.

- a. The Contractor shall pay special attention to the pollution control requirements of the several specifications. Work items which may cause excessive pollution and shall be closely controlled by the Contractor are:
  - (1) Clearing, grubbing, burning or other disposal.
  - (2) Stripping, excavation, and embankment.
  - (3) Drainage and ditching.
  - (4) Aggregate production, handling and placing.
  - (5) Cement, lime, or other stabilization.
  - (6) Concrete and bituminous materials handling, production, and paving.
  - (7) Seeding, fertilizing, mulching and use of herbicides or insecticides.
  - (8) Contractor's own housekeeping items, haul roads, sanitary facilities, water supply, equipment fueling, servicing and cleaning, job clean up, and disposal.

When the Contractor submits his tentative progress schedule in accordance with PROSECUTION and PROGRESS, Section 80, he shall also submit for acceptance of the Owner, his schedules for accomplishment of temporary and permanent erosion control work, as are applicable for clearing, grading, structures at watercourses, construction, and paving, and his proposed method of erosion control on haul roads and borrow pits and his plan for disposal of waste materials. No work shall be started until the erosion control schedules and methods of operations have been accepted by the Owner.

All bituminous and portland cement concrete proportioning and mixing plants shall meet state requirements.

- b. The following stipulations shall apply to this contract unless more restrictive ones are specified by the plans, special provisions, laws, codes, ordinances, etc. Cost of pollution control shall be incidental to the appropriate work items unless otherwise specified.

(1) Control of Water Pollution and Siltation.

- (a) All work of water pollution and siltation control is subject to inspection by the local and/or state government enforcing agent.
- (b) All applicable regulations of fish and wildlife agencies and statutes relating to the prevention and abatement of pollution shall be complied with in the performance of the contract.
- (c) Construction operations shall be conducted in such manner as to reduce erosion to the practicable minimum and to prevent damaging siltation of watercourses, streams, lakes or reservoirs. The surface area of erodible land, either on or off the airport site, exposed to the elements by clearing, grubbing or grading operations, including gravel pits, waste or disposal areas and haul roads, at any one time, for this contract, shall be subject to approval of the Owner and the duration of such exposure prior to final trimming and finishing of the areas shall be held to the minimum practical. The Owner shall have full authority to order the suspension of grading and other operations pending adequate and proper performance of trimming, finishing and maintenance work or to restrict the area of erodible land exposed to the elements.
- (d) Materials used for permanent erosion control measures shall meet the requirements of the applicable specifications. Gravel or stone, consisting of durable particles, shall be used for construction pads, haul roads and temporary roads in or across streams.
- (e) Where called for on the plans, a stilling basin shall be constructed to prevent siltation in the stream from construction operations.
- (f) The disturbance of lands and waters that are outside the limits of construction as staked is prohibited, except as found necessary and approved by the Owner.

- (g) The Contractor shall conduct his work in such manner as to prevent the entry of fuels, oils, bituminous materials, chemicals, sewage or other harmful materials into streams, rivers, lakes or reservoirs.
- (h) Water from aggregate washing or other operations containing sediment shall be treated by filtration, by use of a settling basin or other means to reduce the sediment content to a level acceptable to the local and/or state governmental enforcing agent.
- (i) All waterways shall be cleared as soon as practicable of falsework, piling, debris or other obstructions placed during construction operations and not a part of the finished work. Care shall be taken during construction and removal of such barriers to minimize the muddying a stream.
- (j) The Contractor shall care for the temporary erosion and siltation control measures during the period that the temporary measures are required and for the permanent erosion control measures until the contract has been completed and accepted. Such care shall consist of the repair of areas damaged by erosion, wind, fire or other causes.
- (k) Permanent and temporary erosion control work that is damaged due to the Contractor's operations or where the work required is attributed to the Contractor's negligence, carelessness, or failure to install permanent controls at the proper time, shall be repaired at the Contractor's expense.

(2) Open Burning of Combustible Wastes

Burning will not be permitted at the airport.

(3) Control of Other Air Pollutants.

- (a) Minimum possible areas of open grading, borrow or aggregate excavation shall be exposed at one time, consistent with the progress of the work.
- (b) Grading areas shall be kept at proper moisture conditions.
- (c) Sand or dust blows shall be temporarily mulched, with or without seeding, or otherwise controlled with stabilizing agents.
- (d) Temporary roads, haul routes, traffic or work areas shall be maintained so as to create no dust.



- (e) Cements, fertilizers, chemicals, volatiles, etc., shall be stored in proper containers or with proper coverings to prevent accidental discharge into the air.
- (f) Aggregate bins, cement bins, and dry material batch trucks shall be properly covered to prevent loss of material to the air.
- (g) Drilling, grinding, and sand blasting apparatus shall be equipped with water, chemical, or vacuum dust controlling systems except where otherwise permitted by the Owner in writing.
- (h) Applications of chemicals and bitumens shall be held to recommended rates.
- (i) Bituminous mixing plants shall be equipped with dust collectors as noted in the specifications.
- (j) Quarrying, batching, and mixing operations and the transfer of materials between trucks, bins, or stockpiles shall be properly controlled to minimize dust diffusion.
- (k) When necessary, certain operations shall be delayed until proper wind or climatic conditions exist to dissipate or inhibit potential pollutants to the satisfaction of the Owner.

**SC-29 ADD THE FOLLOWING SUBSECTION TO THE END OF SECTION 70 "LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC":**

70-22 NO DAMAGES FOR DELAY. In all cases where the Contractor is delayed, obstructed, or hindered in the execution of the work, or any part thereof, for any reason whatsoever, the Contractor shall not be entitled to claim or recover any damages or additional payment from the Owner. However, it is the intent of this Contract that in all cases where the Contractor is substantially delayed, obstructed, or hindered in the execution of the work through no fault of the Contractor and because of conditions beyond the Contractor's control, the Owner may recommend an extension on the contract time under Subsection 80-07 by such amount as conditions, in the judgement of the Owner, justify, and such extension of the contract time shall be the exclusive remedy of the Contractor for delay, hindrance or obstruction occurring through no fault of the Contractor and because of conditions beyond the Contractor's control.

**SECTION 80 PROSECUTION AND PROGRESS**

**SC-30 DEFAULT AND TERMINATION OF CONTRACT:**

Should the Engineer consider the Contractor in default of the contract for any reason herein before, he shall immediately give written notice to the Contractor and the Contractor's surety

as to the reasons for considering the Contractor in default and the Engineer's intention to advise the Owner that sufficient grounds exist to terminate the contract. Upon such consultation, the Owner may, as an alternative to immediate termination of the contract, give the Contractor, through the Engineer, with copy to the surety, specific notice of what conditions must be met to avoid termination.

**SC-31 ADD THE FOLLOWING TO THE END OF SECTION 80-06 "TEMPORARY SUSPENSION OF THE WORK":**

After the last paragraph, add the following new sentences:

If the Contractor requests a suspension of the work in whole or part for such period or periods as he may need, due to unsuitable weather or such other conditions as Contractor considers unfavorable for the prosecution of the work, or if ordered by OWNER or ENGINEER due to inclement weather or the failure on the part of the Contractor to carry out orders given, or to perform any or all provisions of the contract, a suspension may be granted provided the Contractor shall perform the following without additional compensations:

1. Suitably store all materials.
2. Implement measures to protect existing work from damage or deterioration.
3. Erect such temporary structures and barricades as ENGINEER may require to provide for traffic on, to, or from the airport and air operations area.
4. Periodically inspect and maintain the work and temporary measures during the suspension period.
5. Pay all costs of OWNER associated with the suspension including but not limited to cost of ENGINEER, inspection and OWNER'S testing laboratory to perform their contractual requirements with respect to the project during the work suspension.
6. Maintain all insurance and bond coverages.
7. Perform such other work as required by the Contract Documents with respect to the Project.

**SC-32 NOT APPLICABLE:**

**SECTION 90 MEASUREMENT AND PAYMENT**

**SC-33 ADD THE FOLLOWING TO SECTION 90-05 "PAYMENT FOR EXTRA WORK":**

When the change order or supplemental agreement authorizing the extra work requires that it be done by force account, such force account shall be measured and paid for as follows: (THE FOLLOWING PAYMENT PROVISIONS APPLY ONLY WHERE THE NATURE OF THE EXTRA WORK IS SUCH THAT IT CANNOT BE MEASURED AND PAID FOR ACCORDING TO THE CONTRACT UNIT PRICES)

- a. Labor. For all labor (skilled and unskilled) and foremen in direct charge of a specific force account item, the Contractor shall receive the rate of wage (or scale) for every hour that such labor or foreman is actually engaged in the specified force account work. Such wage (or scale) shall be agreed upon in writing before the beginning of the work.

The Contractor shall receive the actual costs paid to, or in behalf of, workers by reason of subsistence and travel allowances, health and welfare benefits, pension fund benefits or other benefits, when such amounts are required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the work.

An amount equal to 15 percent of the sum of the above items will also be paid to the Contractor.

- b. Insurance and Taxes. For property damage, liability, and workmen's compensation insurance premiums, unemployment insurance contributions, and social security taxes on the force account work the Contractor shall receive the actual cost, to which cost (sum) 5 percent will be added. The Contractor shall furnish satisfactory evidence of the rate or rates paid for such insurance and taxes.
- c. Materials. For materials accepted by the Owner and then used, the Contractor shall receive the actual cost of such material delivered on the work, including transportation charges paid by him (exclusive of machinery rentals as hereinafter set forth), to which cost (sum) 15 percent will be added.
- d. Equipment. For any machinery or special equipment (other than small tools) including fuel and lubricants, plus transportation costs, the use of which has been authorized by the Owner, the Contractor shall receive the rental rates agreed upon in writing before such work is begun for the actual time that such equipment is committed to the work, to which rental sum 15 percent will be added.
- e. Miscellaneous. No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.

- f. Comparison of Record. The Contractor and the Owner shall compare records of the cost of force account work at the end of each day. Agreement shall be indicated by signature of the Contractor and the Owner or their duly authorized representatives.
- g. Statement. No payment will be made for work performed on a force account basis until the Contractor has furnished the Owner with duplicate itemized statements of the cost of such force account work detailed as follows:

- (1) Name, classification, date, daily hours, total hours, rate and extension for each laborer and foreman.
- (2) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment
- (3) Quantities of materials.
- (4) Transportation of materials.
- (5) Cost of property damage, liability and workman's compensation insurance premiums, unemployment insurance contributions, and social security tax. Statements shall be accomplished and supported by a receipted invoice for all materials used and transportation charges. However, if material used on the

force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices the Contractor shall

furnish an affidavit certifying that such materials were taken from his/her stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

The additional payment, based on the percentages specified above, shall constitute full compensation for all items of expense not specifically provided for the force account work. The total payment made as provided above shall constitute full compensation for such work.

**SC-34 IN SUBSECTION 90-07 "PAYMENT FOR MATERIALS ON HAND", AFTER PARAGRAPH e., INSERT THE FOLLOWING:**

- f. The value of the delivered material is to be used in one item of work exceeds \$3,000 and is not scheduled to be incorporated into the work within 60 days after delivery.

**SC-35 ADD THE FOLLOWING PARAGRAPH TO THE END OF SUBSECTION 90-09 "ACCEPTANCE AND FINAL PAYMENT":**

Prior to final payment the Contractor shall submit to the Owner a sworn affidavit that all bills

for labor, materials, equipment, service, subcontractors and incidentals have been paid and that there are no suits pending in connection with the work done or labor and materials furnished under the contract.

**SC-36 ADD THE FOLLOWING SENTENCE TO THE END OF SUBSECTION 90-11 "CONTRACTOR FINAL PROJECT DOCUMENTATION":**

See Section 01700 CONTRACT CLOSEOUT and Section 01720 PROJECT RECORD DOCUMENTS for additional project requirements.

**SC-37 ADD THE FOLLOWING SUBSECTION TO THE END OF SECTION 90 "MEASUREMENT AND PAYMENT":**

90-12 LIENS. Neither the final payment nor any part of the retained percentage shall become due until the Contractor delivers to the Owner: (a) an affidavit stating, if that be in fact, that all subcontractors and suppliers have been paid in full, or if the fact be otherwise, showing the name of each subcontractor and supplier who has not been paid in full and the amount due or to become due each for labor, service or material furnished; (b) consent of surety, if any, to final payment; and (c) if required by Owner, other data establishing payment for satisfaction of all obligations, such as receipt, releases, and waivers of lien arising out of the Contract to the extent and in such form as designated by the Owner.

**SC-38 COPIES OF CONSTRUCTION DOCUMENTS**

OWNER will furnish at no charge to each Contractor four (4) complete sets of plans and specifications including cross-sections for Contractor's use during construction. One set shall be maintained as the Project Record Documents. Additional sets of plans and specifications or individual sheets of plans will be furnished to Contractor at cost of reproduction.

**SC-39 WAGE AND LABOR PROVISIONS**

The minimum wages to be paid all classifications of laborers or mechanics employed or working upon the site of the work are specified in the following U.S. Department of Labor **Wage Decision No. LA20240014, dated 01/05/2024** (see attached Appendix A – Wage Rates)

The Contractor is responsible for determining if any classification of laborer or mechanic is not listed in the referenced wage determination and shall request from the Department of Labor such additional wage decision(s) for the unlisted classification(s) prior to performing any work at the site with the unlisted employees or mechanics classifications.

**END OF SECTION 00800**

"General Decision Number: LA20240014 01/05/2024

Superseded General Decision Number: LA20230014

State: Louisiana

Construction Type: Highway

Counties: Acadia, Allen, Assumption, Avoyelles, Beauregard, Evangeline, Iberia, Jefferson Davis, St James, St Landry, St Mary, Tangipahoa, Vermilion, Vernon and Washington Counties in Louisiana.

#### HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number      Publication Date  
 0                              01/05/2024

SULA2011-006 08/17/2011

	Rates	Fringes
CARPENTER (Includes Form Work)		
Acadia, Allen, Assumption, Avoyelles, Beauregard, Evangeline, Jefferson Davis, St. James, St. Landry, St. Mary, Tangipahoa, Vermilion, Washington.....	\$ 13.56 **	1.85
Iberia.....	\$ 11.55 **	1.85
CEMENT MASON/CONCRETE FINISHER...	\$ 13.52 **	
IRONWORKER, REINFORCING.....	\$ 13.58 **	
LABORER:		
Common or General		
Acadia.....	\$ 9.68 **	
Allen, Assumption, Avoyelles, Beauregard, Evangeline, Jefferson Davis, St. James, St. Landry, St. Mary, Tangipahoa, Vermilion, Washington.....	\$ 10.60 **	
Iberia.....	\$ 10.86 **	
Vernon.....	\$ 10.44 **	
Pipelayer.....	\$ 12.69 **	
Traffic Control/Flagger.....	\$ 9.00 **	

PILED RIVERMAN.....\$ 13.07 \*\*

POWER EQUIPMENT OPERATOR

Asphalt Paver.....\$ 14.52 \*\*

Asphalt Spreader.....\$ 16.50 \*\*

Backhoe/Excavator/Trackhoe

Acadia, Allen,  
Assumption, Avoyelles,  
Beauregard, Evangeline,  
Jefferson Davis, St.  
James, St. Landry, St.  
Mary, Tangipahoa,

Vermilion, Washington.....\$ 14.15 \*\*

Iberia.....\$ 13.09 \*\*

Vernon.....\$ 14.24 \*\*

Broom.....\$ 13.00 \*\*

Bulldozer

Acadia, Allen,  
Assumption, Avoyelles,  
Beauregard, Evangeline,  
Iberia, Jefferson Davis,  
St. James, St. Landry,  
St. Mary, Tangipahoa,

Vermilion, Washington.....\$ 14.74 \*\*

Vernon.....\$ 14.63 \*\*

Crane.....\$ 17.72

Grader/Blade

Acadia.....\$ 19.67

Allen, Assumption,  
Avoyelles, Beauregard,  
Evangeline, Iberia,  
Jefferson Davis, St.  
James, St. Landry, St.  
Mary, Tangipahoa,

Vermilion, Washington.....\$ 17.19 \*\*

Vernon.....\$ 15.66 \*\*

Loader (Front End).....\$ 13.68 \*\*

Mechanic.....\$ 15.15 \*\*

Milling Machine.....\$ 13.31 \*\*

Roller (Dirt and Grade  
Compaction)

Acadia.....\$ 13.42 \*\*

Allen, Assumption,  
Avoyelles, Beauregard,  
Evangeline, Iberia,  
Jefferson Davis, St.  
James, St. Landry, St.  
Mary, Tangipahoa,

Vermilion, Washington.....\$ 11.94 \*\*

Vernon.....\$ 11.49 \*\*



Screed.....\$ 15.13 \*\*  
 Shuttle Buggy.....\$ 14.21 \*\*  
 Soil Stabilizer  
   Acadia, Allen,  
   Assumption, Avoyelles,  
   Beauregard, Evangeline,  
   Iberia, Jefferson Davis,  
   St. James, St. Landry,  
   St. Mary, Tangipahoa,  
   Vermilion, Washington.....\$ 12.34 \*\*  
   Vernon.....\$ 13.08 \*\*  
 Tractor.....\$ 10.36 \*\*

TRUCK DRIVER

Dump Truck  
   Acadia, Allen,  
   Assumption, Avoyelles,  
   Beauregard, Evangeline,  
   Jefferson Davis, St.  
   James, St. Landry, St.  
   Mary, Tangipahoa,  
   Vermilion, Vernon,  
   Washington.....\$ 12.22 \*\*  
   Iberia.....\$ 12.00 \*\*  
 Lowboy Truck.....\$ 13.93 \*\*  
 Tack Truck.....\$ 16.13 \*\*  
 Water Truck  
   Acadia.....\$ 11.95 \*\*  
   Allen, Assumption,  
   Avoyelles, Beauregard,  
   Evangeline, Iberia,  
   Jefferson Davis, St.  
   James, St. Landry, St.  
   Mary, Tangipahoa,  
   Vermilion, Washington.....\$ 12.41 \*\*  
   Vernon.....\$ 12.69 \*\*

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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\*\* Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including

their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

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) (iii)).

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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.

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## 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 National Office because National Office has 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.

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END OF GENERAL DECISION"

# **Division 1 - General Requirements**

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## SECTION 01010

### SUMMARY OF WORK

#### PART 1 GENERAL

##### 1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General Provisions and Supplementary Conditions and other Division 1 Specification sections, apply to work of this section.

##### 1.02 PROJECT IDENTIFICATION:

- A. The Project name is: **Terminal Apron Joint Reseal and Taxiway A and E Point Repairs** at Hammond Northshore Regional Airport, as shown on the Contract Documents prepared by Michael Baker International, Inc. Drawings and Specifications are dated: **2024**.

##### 1.03 WORK COVERED BY CONTRACT DOCUMENTS:

- A. These documents indicate the work of the Contract and related requirements and conditions that have an impact on the project. Related requirements and conditions that are indicated on the Contract Documents include, but are not necessarily limited to the following:
1. Existing site conditions and restrictions on use of the site.
  2. Mandatory staging/sequencing.
  3. Requirements for partial utilization of various elements prior to substantial completion of the Work.
- B. Division 1 - General Requirements of the contract specifications is an integral part of the Contract Documents for each of the Contracts.

##### 1.04 SUMMARY BY REFERENCES:

- A. Work of the Contract can be summarized by references to the Contract, General Provisions, Supplementary Conditions, Specification Sections, Drawings, addenda and modifications to the contract documents issued subsequent to the initial printing of this project manual and including but not necessarily limited to printed material referenced by any of these. It is recognized that work of the Contract is also unavoidably affected or influenced by governing regulations, natural phenomenon including weather conditions and other forces outside the contract documents.



- B. Federal Aviation Advisory Circulars. Where work or other requirements are specified by reference to Federal Aviation Advisory Circulars the reference shall be considered to mean the latest change effective on the date bids are received.

## **1.05**

### **CONSTRUCTION TIME:**

- A. Time Schedule: The work as described by the contract specifications and as shown on the plans shall be completed and ready for use by the Owner within the awarded number of consecutive calendar days after the date of Notice-to-Proceed. The time schedule for completion of this project is critical due to the impact to aircraft operations. Liquidated damages as prescribed in the Contract will be enforced.
- B. Material Delivery: Upon approval of the bid and securing the necessary funding by Owner, the Engineer will issue a Notice-of-Award. The Contractor shall immediately prepare material and equipment submittals and deliver to the Engineer for review. Immediately upon approval of the material and equipment, the Contractor shall commence with the procurement of the material and equipment items required to accommodate the successful completion of the respective phase of work.

The Contractor shall furnish documentations confirming order dates and material delivery dates to the Engineer upon placing material and equipment orders. No extensions of contract times will be made by the Owner for procurement issues relating to the Contractor's work.

- C. The Contractor shall complete all punch list items determined by the Owner and Engineer within 30 consecutive calendar days from the date of the final inspection. Failure to do so will result in additional liquidated damages of \$750.00 per calendar day beyond the 30 day allotted period (in addition to any additional damages assessed at that time, if any).

## **1.06**

### **WORK RESTRICTION:**

- A. NAVAID Areas: During the time of construction, the Contractor may be restricted from working in or around certain essential electronic navigational aids necessary to the safe operation of the airport. The Contractor is hereby notified that the Engineer may restrict construction operations in those areas closest to the active runway and taxiways.
- B. Radio Communication: Contractor shall maintain two-way radio communication with the Airport air operations personnel, on their frequency, at all times during construction. Contractor will have a working radio on site at all times during

construction and shall assign responsible personnel to continuously monitor the radio.

- C. Notice to Airmen (NOTAMS): The Contractor will provide the necessary information on construction conditions so that the Owner can advise the Flight Service Station to issue a NOTAM in accordance with established criteria.
- D. Turf Restoration: All non-paved areas outside the specified limits of grassing that are disturbed by the Contractor's work, staging area, haul roads, etc. shall be reseeded and restored to original condition by the Contractor. There will be no separate pay item for this work; and shall be considered incidental to and included in the various other items of work.
- E. Security: Contractor will provide security within his construction area and will keep all unauthorized personnel out.
- F. Access Points: All construction traffic shall enter and exit the project area only through the project access point(s) shown on the plans or approved by the Engineer. Contractor will be responsible for security of entrance gates.
- G. Construction Stake-Out: The Contractor shall perform construction stake-out in accordance with Article 50-06 of the General Provisions.
- H. Haul Route: The Contractor shall be responsible for establishing haul routes suitable for supporting all necessary transportation and construction equipment for the duration of the project. Any existing roads or other areas that are used as part of the haul route will be restored to their original condition after completion of the project. The Contractor will be responsible for all clean up operations of debris that may be on the haul route and for watering and/or other dust preventive measures to preclude fugitive dust from affecting buildings, occupants, or airfield operations. No separate payment will be made for seeding or mulching, or pavement restoration; such costs shall be incidental to and included in the price bid for various other items of the work.
- I. Airfield Safety Devices: Contractor shall maintain all airfield safety devices such as staked limit lines for the duration of the project as required. Damaged stakes or flagging shall be replaced immediately.
- J. Vehicular Markings: All vehicles and equipment used on the airfield shall meet airport requirements for marking and lighting.

**1.07**            **COORDINATION:**

The work of this Contract includes coordination by the Contractor of the entire work of the project, including preparation of general coordination drawings, diagrams and schedules, and control of site utilization, from beginning of construction activity through project close-out and warranty periods.

**1.08**            **PARTIAL OWNER OCCUPANCY OR USE:**

The Owner reserves the right to use completed and accepted work provided such use does not interfere with completion of other work. Such use will not affect warranty stipulations addressed elsewhere in the contract documents.

**PART 2.**        **PRODUCTS (Not Used.)**

**PART 3.**        **EXECUTION**

**3.01**            **MEASUREMENT AND PAYMENT:**

Except as otherwise specified, no separate measurement or payment will be made for work set forth in this section; such costs will be considered as incidental to and included in the price for other items of the work as appropriate.

**END OF SECTION 01010**

## SECTION 01030

### AIRPORT PROJECT PROCEDURES

#### (Construction Safety Plan)

#### PART 1: GENERAL

##### 1.01 INTRODUCTION:

- A. This project will involve Contractor operations within active Air Operations Areas (AOA). The Airport will conduct normal aircraft operations during the course of this project, subject to certain restrictions called out in this section or elsewhere in the specifications. Therefore, to provide for the security and safety of Airport users and the Contractor's forces, as well as to minimize interruptions to aircraft operations, the Contractor shall limit his work within the areas designated and conduct his operations as specified.
- B. UNAUTHORIZED CROSSING OF ACTIVE AIRFIELD OPERATIONS AREAS (AOA): Any fines or assessments levied against the Sponsor as a result of intrusions in the AOA or other violations by the Contractor's personnel or those of his subcontractors and material suppliers will be passed on to the Contractor. In addition, the Contractor will be subject to a fine of \$10,000.00 per incident, assessed by the Sponsor.

##### 1.02 AIR OPERATION AREA (AOA) SAFETY REQUIREMENTS:

- A. Barricades: Existing aprons, taxiways and runways outside the limits of construction shall be separated from construction areas with barricades as shown on the plans and described in Section 01530.
- B. Radio Communication: The Contractor shall maintain radio communication with Air Traffic Control (ATC) at all times during construction, and shall immediately obey all instructions to vacate areas when directed. Contractor shall have a sufficient number of working radios on site at all times during construction and shall assign responsible personnel to continuously monitor the radio(s).
- C. Runway and Taxiway Closures: Closures of runways and taxiways will be made only by the Owner. The Owner shall contact the appropriate FAA Flight Service Station prior to issuing the Notice-to-Proceed so that a Notice-to-Airmen (NOTAM) for runway or taxiway closure can be issued in accordance with established criteria. Construction operations within the runway or taxiway safety zone as defined in paragraph 1.03-B(1) of this section shall not begin until the Contractor receives clearance from the Owner and Engineer assuring that the adjoining runway or taxiway has been closed or that adequate barricades and marking have been provided.

- D. Navigation Aid Equipment: The project will be phased to permit work outside of and around certain FAA navigational aid (NAVAID) equipment such as approach light systems, localizer antenna, glide slope antenna, RVR projectors, middle and inner markers, etc. The Contractor shall notify the Engineer at least 7 days prior to disassembling or working around any NAVAID equipment so that a NOTAM can be issued indicating that the affected NAVAID will be impacted.

### 1.03 CONSTRUCTION SAFETY REQUIREMENTS:

A. General:

1. Safety Officer: The Contractor is required to employ a Safety Officer who will be the liaison between the Contractor, the Engineer and the Owner in all safety related matters for the duration of the project. The Safety Officer shall be on call 24 hours per day for emergency maintenance of airport hazard lighting, barricades, and other safety features.
2. Protection of Utilities: The Contractor shall be responsible for field marking and protecting all utilities within the construction limits.
3. Storage of Equipment, Vehicles, and Materials: All equipment, vehicles, and materials must be stored in the designated storage or staging area or in areas acceptable to the Engineer.
4. Vehicular Markings: Contractor vehicles and equipment shall be marked with checkered flags and lighted with flashing beacons to comply with requirements of FAA AC 150/5210-5D.
5. Construction Methods Limitation:
  - a. No open flames or burning will be allowed on Airport property.
  - b. Stockpiled material shall be constrained in a manner to prevent displacement by jet blast, prop blast, or wind and shall be kept to a height so as to not penetrate FAR Part 77 imaginary air space.

6. Safety and Accident Protection:
  - a. The Contractor shall comply with all applicable federal, state, and local laws, ordinances, and regulations governing safety, health, and sanitation; shall provide barricades; and shall take any other needed actions, on his own responsibility, that are reasonably necessary to protect the life and health of employees on the job, the safety of airport users, and the safety of moving and parked aircraft, and other property during the performance of the work.
  - b. The Safety Officer's duties shall include accident prevention.
7. Navigational Aids: Airport navigational aid critical areas are shown on the drawings. The Contractor shall not enter these areas without the Engineer's approval.
8. FAA Advisory Circular: Except as otherwise specified, FAA AC 150/5370-2G and all its references shall be used in maintaining airport operational safety during construction. A copy of this circular is reproduced and attached herein as Appendix "A".

B. Runway and Taxiway Safety Zones:

1. Limitations: When necessary to accomplish construction in areas adjacent to runways and taxiways, the construction equipment, vehicles, and men are authorized to operate without interruption within the project limits, except within the following areas and as specified otherwise:
  - Distance from Runway centerline - within 250 feet
  - Distance from taxiway centerline – as noted on plans
  - Distance from parked aircraft – within 150 feet
  - Runway approach areas within 34:1 slope approach surface, in such a manner that the approach surface is penetrated.
2. Request for Facility Closures: Construction activities on runways or taxiways or within the above restricted areas shall only be performed at times when the runway or taxiways are closed to aircraft. Closure of a runway or taxiway or any portion thereof must be requested in writing by the Contractor through the Engineer. This request must indicate the areas needed and a schedule of operations and time(s) required for operations within the area. The Owner reserves the right, however, to shift any approved closure periods to alleviate aircraft congestion or when inclement weather conditions dictate.

3. Equipment Operation Restrictions: Contractor may be permitted to operate trenching machines and other equipment in the runway and taxiway safety zones provided all of the following conditions are satisfied:
  - a. The equipment operator and/or crew foreman monitors the ATC ground frequency continuously, using a two way radio transceiver.
  - b. All equipment shall be cleared from the Runway or Taxiway Safety Zones during aircraft operations (landings, take-offs, and taxiing).
  - c. All equipment within the Runway and Taxiway Safety Zones is manned and being used. No unnecessary or parked equipment will be allowed within the Runway and Taxiway Safety Zones.
  - d. All excavated trenches and holes shall be backfilled, tamped and leveled to match existing grades before workmen leave the site at the end of each work day.
  - e. Proper NOTAMS have been requested, approved, and filed by the Owner. The Contractor shall be responsible for verifying NOTAMS with the sponsor prior to start of each work shift.
4. Stockpiles: Stockpiled materials shall not be permitted within the runway or taxiway safety zones.
5. Grading Requirements: All construction within a restricted area shall be performed in such a manner that, at the end of the closure period, it will leave the safety area with no abrupt grade changes or grades in excess of 5 percent and with no trenches with depth or width greater than 3 inches, unless in the case of taxiway safety areas, the safety area has been marked and barricaded in accordance with FAA AC 150/5370-2G and as approved by the Engineer.

C. Obstructions to Navigation:

1. Violation of Safety Zone Surfaces: Penetration of equipment, vehicles, materials, or men into the safety zones and approach surfaces requires the preparation and distribution of Notices of Airmen (NOTAM) in advance to the actual penetration.
2. Scheduling: When part of the work in this project is in violation of FAR Part 77, the clearance distance requirements from runway and taxiway edges shall be incorporated into the construction sequence schedule. At no time shall the construction limits of the area under construction violate the safety zones without prior notification to and approval by the Engineer.

3. Coordination and Communication: Work within and adjacent to active AOA's shall be coordinated with the Engineer prior to commencement of the activity. Work crews in these areas shall be accompanied by the construction superintendent and the resident inspector, both of which shall be in constant radio contact with ATC.

#### **1.04 SAFETY PLANNING:**

- A. The Contractor shall integrate and maintain requirements of airport operational safety into each of his planning and work schedules. The Contractor's Safety Officer shall continuously monitor all planning schedules and work underway for compliance to AC 150/5370-2G (Provided as Appendix A); he shall maintain vigilance to detect areas needing attention due to oversight or altered construction activities. Airport operational safety during construction will be on the agenda at the preconstruction conference and each coordination and progress meeting.
- B. Background check: Contractor is responsible for the actions of his employees and subcontractors. If requested by the Owner, the Contractor shall furnish Owner with a notarized statement detailing 5-year background information for all supervisory personnel. Contractor shall furnish Owner a certification that Contractor has checked the backgrounds of all employees that work at site and that Contractor is satisfied with their backgrounds. Contractor shall require a similar certification from each subcontractor. This shall be submitted to Owner and Engineer at the preconstruction Conference prior to Notice-To-Proceed date.
- C. Contractor Training: All construction personnel are required to attend a mandatory Air Operations Area (AOA) Training class (conducted by Northwest Alabama Airport Authority) prior to the start of construction. The class will address airport familiarization, procedures, communications, and requirements for operating on the airport during construction. Personnel will be required to pass an exam to prove competence prior to working within the Airport Operations Area (AOA).

**1.05 SECURITY REQUIREMENTS:** The Contractor has the responsibility for maintaining control of the access gates or any other entrance to the AOA. The Contractor may utilize a gate guard or install an automatic operated gate controller with limited access with numeric keypad. The Contractor may be required to erect temporary fencing to project the AOA during construction. The Contractor's method of maintaining security shall be set forth in his Security Plan and shall comply with the airport's rules and regulations concerning work in the airport restricted areas. There will be no separate measurement or payment for gate guards or temporary fencing required maintaining the integrity of the AOA.

**1.06 TEMPORARY RELOCATED AND DISPLACED THRESHOLD:** Prior to initiating work in any area or phase of the project where a temporary relocated runway threshold is required, the Contractor shall provide the relocated runway threshold as indicated and



scheduled. The relocated threshold shall remain in effect until all work in the area or phase is complete and accepted by the Engineer.

**1.07 BARRICADES:** Contractor shall provide FAA approved low profile barricades as shown on the plans or as directed by the Engineer. Barricades shall be placed and relocated as necessary during the course of the work to clearly identify areas closed to aircraft traffic. Barricades spacing shall be as noted on plans.

**1.08 RUNWAY AND TAXIWAY CLOSURES:**

- A. When a runway is required to be closed during any phase of the work and aircraft must access another runway during this period, at least one taxiway must remain open for this purpose at all times. The Contractor shall schedule his work to provide continuous access as described above. Barricades and/or closed taxiway markers shall be placed as directed by the Engineer.
- B. The Contractor shall coordinate and schedule runway and taxiway closures and temporary relocation of any runway threshold with Owner through Engineer before closure is required so that Owner can issue appropriate NOTAMS.
- C. Runway and taxiway closures shall be scheduled in advance. Contractor shall identify taxiway closures with barricades and by covering taxiway lights within the closure limits. Remove barricades and covers when no longer needed or as directed by Engineer.

**PART 2: PRODUCTS**

**2.01 BARRICADES AND CLOSED RUNWAY MARKERS:** Barricades and Closed Runway Markers, when required, shall be constructed as specified in Section 01530.

**PART 3: EXECUTION**

**3.01 LIMITATION OF CLOSURES:**

- A. Airfield pavement closures will be made only by the OWNER through the Engineer. The Contractor shall request the closure through the OWNER, to issue the order to close an active airfield pavement.
- B. The Contractor shall provide at least forty-eight (48) hour notice for all closure requests.

**3.02 BARRICADE AND CLOSED RUNWAY MARKERS INSTALLATION:**

- A. Install barricades and closed runway markers at location shown on the drawings and where directed by Engineer. Anchor all barricades and closed runway markers by sand bags. Maintain barricades and closed runway markers until removal is directed by Engineer.
  
- B. Barricade batteries shall be checked and maintained on a weekly basis to insure the adequate operation of the flashers during the night. Replace batteries as required. Upon removal of barricades and closed runway markers, repair any damage to pavement or surrounding area caused by markers or barricades.

**3.03 PAYMENT:** Except as otherwise specified in Item 01530, no measurement or payment shall be made for this item of work, and it will be considered as on incidental cost to Mobilization, Section C-105.

**END OF SECTION 01030**

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## SECTION 01040

### PROJECT COORDINATION

#### **PART 1: GENERAL**

**1.01 RELATED DOCUMENTS:** All contract documents and drawings apply to work of this section.

**1.02 DESCRIPTION OF WORK:** Minimum administrative and supervisory requirements necessary for coordination of work on the project include but are not necessarily limited to the following:

1. Coordination and meetings.
2. Surveys and records or reports.
3. Limitations on use of site.
4. Special reports.
5. General installation provisions.
6. Cleaning and protection.
7. Conservation and salvage.

#### **PART 2: PRODUCTS (Not applicable.)**

#### **PART 3: EXECUTION**

##### **3.01 COORDINATION AND MEETINGS:**

A. **General:** The Contractor shall prepare a written memorandum on required coordination activities and include such items as required notices, reports and attendance at meetings. Distribute this memorandum to each entity performing work at the Project site. Prepare similar memorandum for separate Contractors where interfacing of their work is required.

B. **Preconstruction Conference:** A Preconstruction Conference will be scheduled after award of Contract and prior to issuance of a Notice to Proceed. Key Project personnel representing the Prime Contractor and all major Subcontractors will be required to attend this Conference. All other parties involved with this Project, such as the Owner, Engineer, MDOT and FAA, will also be represented. The entire Construction Schedule will be reviewed carefully by all affected parties at the Preconstruction Conference.

The Contractor(s) shall prepare a detailed Construction Schedule for review prior to and at the Preconstruction Conference.

C. **Coordination Meetings:** The Contractor shall hold General Project Coordination Meetings at regularly scheduled times convenient for all parties involved. These

meetings may be as often as weekly if required. These meetings are in addition to specified meetings held for other purposes, such as regular Project meetings and special Pre-installation Meetings. Request representation at each meeting by every party currently involved in coordination or planning for the work of the entire Project. Conduct meetings in a manner which will resolve coordination problems. Record results of the meeting and distribute copies to everyone in attendance and to others affected by decision or actions resulting from each meeting.

1. The Contractor shall conduct daily coordination meetings with the Engineer's representative, FAA and designated Owner's representative to coordinate construction and airport operations.
- D. Progress Meetings: Conduct progress meetings by teleconference weekly and at the project site monthly. Notify the Owner and Engineer of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request.
- E. Attendees: In addition to representatives of the Owner and Engineer, each subcontractor, supplier or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall be represented at these meetings by persons familiar with the project and authorized to conclude matters relating to progress.
- F. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the current status of the project, and to airport operational safety during construction.
1. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
  2. Other: Review the present and future needs of each entity present, including such items as:
    - Interface requirements.
    - Time.
    - Sequences.
    - Deliveries.
    - Off-site fabrication problems.
    - Access.

Site utilization.  
Temporary facilities and services.  
Hours of work.  
Hazards and risks.  
Housekeeping.  
Quality and work standards.  
Change orders.  
Documentation of information for payment requests.

- G. Reporting: No later than 3 days after each progress meeting date, distribute copies of minutes of the meeting to each party present and to other parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.
- H. Schedule Updating: Revise the construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.

### **3.02 SURVEYS AND RECORDS/REPORTS:**

- A. Construction Staking: The Engineer has performed preliminary construction surveying using datum noted on plans. Contractor shall be responsible for verifying horizontal and vertical control as well as layouts and inverts prior to initiating major items of work. In conjunction with the Engineer, the Contractor will validate the limits of the actual work to be performed and mark the pavement on-site. Contractor shall verify benchmark information prior to commencing work. Contractor shall immediately notify the Engineer of any apparent discrepancies between the existing facilities shown in the plan set and the actual site condition.
- B. Survey Procedures: Before proceeding with the layout of actual work, the Contractor shall verify the layout information shown on the drawings, in relation to the property survey and existing benchmarks. As work proceeds, check every major element for line, level and plumb. Maintain a surveyor's log or record book of such checks; make this log or record book available for the Engineer's reference. Record deviations from required lines and levels, and advise the Engineer promptly upon detection of deviations that exceed indicated or recognized tolerances. Record deviations which are accepted, and not corrected, on record drawings. Survey work shall be performed by and under supervision of a professional (registered) land surveyor in the State of Mississippi.
- C. Quality of Work: The elevations of permanent and temporary benchmarks shall be determined and recorded to the nearest 0.01 foot. Differential leveling and transit traverses shall be of such precision that the error of vertical closure in feet shall not exceed plus or minus 0.1 foot in 5000 feet. The angular error of closure for transit traverses shall not exceed 1.0 minute times the square root of the number of angles turned.

Slope stakes shall be placed, as a minimum, at 100 foot stations, breaks in the original ground surface, and at any other intermediate stations necessary to insure accurate location for construction layout and measurement. Slope stakes and cross sections shall be perpendicular to the centerline. Significant breaks in grade shall be determined for cross sections. Distances shall be measured horizontally and recorded to the nearest 0.1 foot. Side shots for interim construction stakes may be taken with a hand level.

- D. Records: All survey data shall be recorded in fully identified, standard hard-bound engineering survey field notebooks with consecutively numbered pages. All field notes and printed data shall include the purpose or description of the work, the date the work was performed, weather data, sketches and the personnel who performed and checked the work. Electronically generated survey data and computations shall be bound, page numbered and cross referenced in a bound field notebook containing the index for all survey data.

The construction survey records shall be available at all times during the progress of the work for examination and use by the Engineer and copies shall be made available to the Engineer upon request. The original field notebooks and other records shall be turned over to and become the property of the Owner prior to final acceptance of the work.

- E. QA Survey Services: Contractor shall furnish surveying services required to establish horizontal and vertical control. Engineer will furnish available benchmark and coordinate information at no cost to Contractor.
- F. Refer to General Provisions Section 50 for additional survey requirements.

### **3.03 LIMITATIONS ON USE OF THE SITE:**

- A. General: Limitations on site usage as well as specific requirements that impact site utilization are indicated on the drawings and by other contract documents. Schedule deliveries so as to minimize space and time requirements for storage of materials and equipment on site.
- B. Waste Disposal: Waste materials shall be disposed of as specified elsewhere in Contract Documents.

### **3.04 MEASUREMENT AND PAYMENT:** No measurement or payment will be made for work in this item; it will be considered as incidental cost to Mobilization and other items of work.

**END OF SECTION 01040**

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## SECTION 01060

### CONTROL OF EROSION, SILTATION AND POLLUTION

#### **PART 1 GENERAL**

##### **1.01 GENERAL REQUIREMENTS:**

Erosion and pollution control measures and plans shall be developed in accordance with FAA Item C-102 *Temporary Air and Water Pollution, Soil Erosion, and Siltation Control* and this section.

The Contractor shall take whatever measures are necessary to minimize soil erosion and siltation, water pollution and air pollution caused by his operations. The Contractor shall also comply with the applicable regulations of all legally constituted authorities relating to pollution prevention and control. The Contractor shall keep himself fully informed of all such regulations which in any way affect the conduct of the work, and shall at all times observe and comply with all such regulations. In the event of conflict between such regulations and the requirements of the specifications, the more restrictive requirements shall apply.

The Engineer will limit the area over which clearing and grubbing, excavation, borrow, and embankment operations are performed whenever the Contractor's operations do not make effective use of construction practices and temporary measures which will minimize erosion, or whenever effective erosion control features are not being completed as soon as permitted by construction operations.

##### **1.02 PERMITTING REQUIREMENTS:**

- A. Federal Permitting: The Owner will be responsible for securing federal permitting required for the project. The Contractor shall ensure all permitting and mitigation is in place prior to start of work.
- B. State and Local Permitting: The Contractor shall be responsible for state and local permitting, including but not limited to Louisiana DEQ Stormwater, Land Disturbance, etc.

##### **1.03 EROSION CONTROL PLAN:**

- A. Prior to start of work, the Contractor shall develop an erosion control plan and submit to the Engineer for review. The plan shall be all inclusive for storm events up to and including a 25-year event as defined by the Rainfall Intensity Chart. The chart is attached as Appendix A at the end of this section. In the case the event is above a 25-year storm, and at the discretion of the Owner, the Contractor may request

additional compensation for erosion control. Cost shall be fair and reasonable.

- B. The Erosion Control Plan shall be based on the project Construction Phasing Plan and the Contractor's means and methods of work. The plan shall be developed by a Louisiana licensed Professional Engineer, specifically for this project.
- C. The Erosion Control Plan shall include, at a minimum, a detailed drawing and Construction Best Management Practices Plan (CBMPP) in accordance with the latest version of the Louisiana DEQ Erosion and Sediment Control Manual.

## **PART 2 PRODUCTS (Not Used)**

## **PART 3 EXECUTION**

### **3.01 EROSION AND SILTATION CONTROL:**

The Contractor shall exercise every reasonable precaution throughout the life of the project to prevent the eroding of soil and silting of rivers, streams, lakes, reservoirs, other impoundments, ground surfaces, or other property.

Prior to suspension of operations on the project or any portion thereof, the Contractor shall take all necessary measures to protect the construction area from erosion during the period of suspension.

### **3.02 COORDINATION OF EROSION CONTROL OPERATIONS:**

Temporary and permanent erosion control measures shall be provided as shown on the Contractor's plans or as directed by the Engineer. All permanent erosion control work shall be incorporated into the project at the earliest practicable time. Temporary erosion control measures shall be coordinated with permanent erosion control measures and all other work on the project to assure economical, effective, and continuous erosion control throughout the construction and post construction period and to minimize siltation of rivers, streams, lakes, reservoirs, other water impoundments, ground surfaces, or other property.

Temporary erosion control measures shall include but not be limited to the use of temporary berms, dikes, dams, silt fences, drainage ditches, silt basins, diversion ditches, slope drains, structures, vegetation, mulches, mats, netting, gravel, rip rap, or any other methods or devices that are necessary. Temporary erosion control measures may include work outside the construction limits where such work is necessary as a result of construction such as borrow pit operations, haul roads, plant sites, equipment storage sites, and disposal of waste or debris. The Contractor shall be liable for all damages to public or private property caused by silting or slides originating in waste areas furnished by the Contractor.

Materials for temporary erosion control measures shall have been approved by the Engineer

before being used or shall be as directed by the Engineer.

Erosion control measures installed by the Contractor shall be acceptably maintained by the Contractor.

### **3.03 WATER AND AIR POLLUTION:**

The Contractor shall exercise every reasonable precaution throughout the life of the project to prevent pollution of rivers, streams, and water impoundments. Pollutants such as chemicals, fuels, lubricants, bitumens, raw sewage, and other harmful waste shall not be discharged into or alongside of rivers, streams, or impoundments, or into natural or manmade channels leading thereto.

The Contractor shall comply with all Federal, State or local air pollution regulations throughout the life of the project.

### **3.04 DUST CONTROL:**

The Contractor shall control dust throughout the life of the project within the project area and at all other areas affected by the construction of the project, including, but not specifically limited to unpaved roads, haul roads, access roads, disposal sites, borrow and material pits, and production sites. Dust control shall not be considered effective where the amount of dust creates a potential or actual unsafe condition, public nuisance, or condition endangering the value, utility, or appearance of any property.

The Contractor will not be directly compensated for any dust control measures necessary, as this work will be considered incidental to the work covered by the various contract times.

### **3.05 APPLICATION OF SPECIFICATIONS:**

The provisions of this section shall apply to all construction operations. Further references and detailed requirements concerning erosion, siltation, and pollution prevention and control, may be given in other sections of the specifications and on the drawings.

### **3.06 CONTRACTOR'S INSPECTION AND REPORT:**

The Contractor shall make an inspection of the construction site on a weekly basis and after each potentially damaging rainfall. All possible petroleum leaks and construction exists must be inspected daily. Note shall be taken of any damage to existing erosion control features and of siltation problems encountered during the inspection. In a report to the Engineer, the Contractor shall outline his corrective measures to be undertaken and the date of implementation.

### **3.07 TEMPORARY SUSPENSION OF WORK:**

Failure of the Contractor to fulfill any of the requirements of this section may result in the Engineer ordering the stopping of construction operations in accordance with the following:

- A. The Engineer shall have the authority to suspend the work wholly or in part by written order, for such periods as he may deem necessary due to conditions considered unfavorable for the suitable prosecution of the work, or to failure on the part of the Contractor to correct conditions unsafe for workmen or the general public or to carry out orders given or to perform any provisions of the contract. Such suspension of operations will not justify an extension of contract time.
- B. Failure on the part of the Contractor to perform the necessary measures to control erosion, siltation, and pollution will result in the Engineer notifying the Contractor to take such measures. Any fine, penalty or other cost assessed by State, local or other governmental agencies for non-performance of erosion, siltation or pollution controls against the Owner shall become the responsibility of the Contractor; such assessments, if not paid by the Contractor, shall be deducted from monies due the Contractor at the completion of the job. In the event that the Contractor fails to perform such measures within 24 hours after receipt of such notice, the Engineer may suspend the work as provided above, or may proceed to have such measures performed by others. The cost of such work performed by others will be deducted from monies due the Contractor on his contract.

**3.08 METHOD OF MEASUREMENT:**

See FAA Specification C-102 *Temporary Air and Water Pollution, Soil Erosion and Siltation Control*.

**3.09 BASIS OF PAYMENT:**

See FAA Specification C-102 *Temporary Air and Water Pollution, Soil Erosion and Siltation Control*.

**END OF SECTION 01060**

**SECTION 01060**  
**APPENDIX A**  
**HAMMOND RAINFALL DATA BASE**

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**NOAA Atlas 14, Volume 9, Version 2**  
**Location name: Hammond, Louisiana, USA\***  
**Latitude: 30.5202°, Longitude: -90.4154°**  
**Elevation: 40 ft\*\***  
 \* source: ESRI Maps  
 \*\* source: USGS



**POINT PRECIPITATION FREQUENCY ESTIMATES**

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerals](#)

**PF tabular**

<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)<sup>1</sup></b>										
<b>Duration</b>	<b>Average recurrence interval (years)</b>									
	<b>1</b>	<b>2</b>	<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>	<b>200</b>	<b>500</b>	<b>1000</b>
<b>5-min</b>	<b>0.530</b> (0.425-0.668)	<b>0.606</b> (0.485-0.764)	<b>0.734</b> (0.587-0.927)	<b>0.845</b> (0.672-1.07)	<b>1.00</b> (0.777-1.31)	<b>1.13</b> (0.856-1.49)	<b>1.27</b> (0.926-1.69)	<b>1.41</b> (0.989-1.91)	<b>1.60</b> (1.08-2.22)	<b>1.75</b> (1.15-2.45)
<b>10-min</b>	<b>0.776</b> (0.623-0.978)	<b>0.887</b> (0.711-1.12)	<b>1.08</b> (0.859-1.36)	<b>1.24</b> (0.984-1.57)	<b>1.47</b> (1.14-1.92)	<b>1.66</b> (1.25-2.18)	<b>1.86</b> (1.36-2.48)	<b>2.06</b> (1.45-2.80)	<b>2.34</b> (1.59-3.25)	<b>2.57</b> (1.69-3.58)
<b>15-min</b>	<b>0.946</b> (0.759-1.19)	<b>1.08</b> (0.867-1.36)	<b>1.31</b> (1.05-1.66)	<b>1.51</b> (1.20-1.91)	<b>1.80</b> (1.39-2.34)	<b>2.03</b> (1.53-2.66)	<b>2.26</b> (1.65-3.02)	<b>2.52</b> (1.76-3.42)	<b>2.86</b> (1.93-3.96)	<b>3.13</b> (2.06-4.37)
<b>30-min</b>	<b>1.42</b> (1.14-1.78)	<b>1.62</b> (1.30-2.04)	<b>1.97</b> (1.58-2.49)	<b>2.28</b> (1.81-2.89)	<b>2.72</b> (2.10-3.54)	<b>3.07</b> (2.32-4.04)	<b>3.44</b> (2.52-4.60)	<b>3.83</b> (2.69-5.21)	<b>4.37</b> (2.95-6.05)	<b>4.79</b> (3.15-6.68)
<b>60-min</b>	<b>1.88</b> (1.51-2.37)	<b>2.18</b> (1.74-2.74)	<b>2.67</b> (2.14-3.38)	<b>3.11</b> (2.47-3.94)	<b>3.74</b> (2.89-4.88)	<b>4.25</b> (3.21-5.58)	<b>4.78</b> (3.50-6.39)	<b>5.35</b> (3.76-7.27)	<b>6.13</b> (4.15-8.49)	<b>6.74</b> (4.44-9.41)
<b>2-hr</b>	<b>2.35</b> (1.90-2.94)	<b>2.73</b> (2.20-3.41)	<b>3.37</b> (2.72-4.23)	<b>3.94</b> (3.15-4.95)	<b>4.76</b> (3.71-6.16)	<b>5.43</b> (4.13-7.08)	<b>6.13</b> (4.51-8.12)	<b>6.86</b> (4.86-9.26)	<b>7.89</b> (5.38-10.8)	<b>8.70</b> (5.78-12.0)
<b>3-hr</b>	<b>2.64</b> (2.14-3.28)	<b>3.08</b> (2.49-3.82)	<b>3.82</b> (3.09-4.77)	<b>4.48</b> (3.60-5.60)	<b>5.45</b> (4.27-7.02)	<b>6.24</b> (4.77-8.09)	<b>7.06</b> (5.23-9.32)	<b>7.93</b> (5.65-10.7)	<b>9.15</b> (6.28-12.5)	<b>10.1</b> (6.75-13.9)
<b>6-hr</b>	<b>3.17</b> (2.59-3.91)	<b>3.70</b> (3.02-4.56)	<b>4.62</b> (3.76-5.71)	<b>5.44</b> (4.41-6.74)	<b>6.65</b> (5.25-8.51)	<b>7.64</b> (5.89-9.85)	<b>8.69</b> (6.49-11.4)	<b>9.80</b> (7.04-13.1)	<b>11.4</b> (7.87-15.5)	<b>12.6</b> (8.50-17.3)
<b>12-hr</b>	<b>3.76</b> (3.10-4.60)	<b>4.38</b> (3.60-5.35)	<b>5.46</b> (4.48-6.68)	<b>6.43</b> (5.25-7.89)	<b>7.87</b> (6.27-10.0)	<b>9.06</b> (7.05-11.6)	<b>10.3</b> (7.78-13.4)	<b>11.7</b> (8.47-15.5)	<b>13.6</b> (9.50-18.4)	<b>15.1</b> (10.3-20.5)
<b>24-hr</b>	<b>4.38</b> (3.64-5.31)	<b>5.12</b> (4.24-6.20)	<b>6.40</b> (5.29-7.76)	<b>7.54</b> (6.20-9.18)	<b>9.24</b> (7.42-11.6)	<b>10.6</b> (8.34-13.5)	<b>12.1</b> (9.21-15.6)	<b>13.7</b> (10.0-18.0)	<b>15.9</b> (11.2-21.3)	<b>17.7</b> (12.2-23.8)
<b>2-day</b>	<b>5.03</b> (4.20-6.03)	<b>5.90</b> (4.93-7.09)	<b>7.43</b> (6.18-8.93)	<b>8.77</b> (7.27-10.6)	<b>10.7</b> (8.69-13.4)	<b>12.4</b> (9.76-15.5)	<b>14.1</b> (10.8-18.0)	<b>15.9</b> (11.7-20.7)	<b>18.4</b> (13.1-24.4)	<b>20.4</b> (14.1-27.2)
<b>3-day</b>	<b>5.47</b> (4.60-6.53)	<b>6.38</b> (5.36-7.62)	<b>7.98</b> (6.67-9.54)	<b>9.40</b> (7.82-11.3)	<b>11.5</b> (9.35-14.3)	<b>13.2</b> (10.5-16.5)	<b>15.1</b> (11.6-19.2)	<b>17.0</b> (12.6-22.1)	<b>19.8</b> (14.1-26.1)	<b>22.0</b> (15.3-29.2)
<b>4-day</b>	<b>5.84</b> (4.92-6.95)	<b>6.77</b> (5.70-8.06)	<b>8.41</b> (7.06-10.0)	<b>9.88</b> (8.25-11.8)	<b>12.1</b> (9.86-14.9)	<b>13.9</b> (11.1-17.3)	<b>15.8</b> (12.2-20.1)	<b>17.9</b> (13.3-23.1)	<b>20.8</b> (15.0-27.4)	<b>23.2</b> (16.2-30.7)
<b>7-day</b>	<b>6.80</b> (5.76-8.02)	<b>7.80</b> (6.61-9.22)	<b>9.58</b> (8.10-11.3)	<b>11.2</b> (9.40-13.3)	<b>13.6</b> (11.2-16.7)	<b>15.6</b> (12.5-19.3)	<b>17.7</b> (13.8-22.3)	<b>20.0</b> (15.0-25.7)	<b>23.3</b> (16.8-30.4)	<b>25.9</b> (18.2-34.0)
<b>10-day</b>	<b>7.68</b> (6.54-9.02)	<b>8.75</b> (7.44-10.3)	<b>10.6</b> (9.02-12.5)	<b>12.3</b> (10.4-14.6)	<b>14.8</b> (12.2-18.1)	<b>16.9</b> (13.6-20.8)	<b>19.1</b> (15.0-24.0)	<b>21.5</b> (16.2-27.4)	<b>24.8</b> (18.1-32.3)	<b>27.5</b> (19.5-36.0)
<b>20-day</b>	<b>10.3</b> (8.85-12.0)	<b>11.5</b> (9.90-13.4)	<b>13.7</b> (11.7-15.9)	<b>15.5</b> (13.2-18.1)	<b>18.1</b> (15.0-21.8)	<b>20.2</b> (16.4-24.6)	<b>22.4</b> (17.7-27.7)	<b>24.8</b> (18.8-31.2)	<b>28.0</b> (20.5-36.0)	<b>30.5</b> (21.8-39.6)
<b>30-day</b>	<b>12.6</b> (10.8-14.6)	<b>14.0</b> (12.1-16.2)	<b>16.4</b> (14.0-19.0)	<b>18.4</b> (15.7-21.4)	<b>21.1</b> (17.6-25.2)	<b>23.3</b> (19.0-28.0)	<b>25.5</b> (20.2-31.3)	<b>27.8</b> (21.2-34.8)	<b>30.8</b> (22.7-39.4)	<b>33.2</b> (23.8-42.9)
<b>45-day</b>	<b>15.5</b> (13.4-17.8)	<b>17.2</b> (14.9-19.8)	<b>20.0</b> (17.3-23.1)	<b>22.3</b> (19.2-25.8)	<b>25.4</b> (21.2-30.0)	<b>27.8</b> (22.7-33.1)	<b>30.1</b> (23.8-36.5)	<b>32.4</b> (24.7-40.1)	<b>35.3</b> (26.1-44.8)	<b>37.5</b> (27.1-48.3)
<b>60-day</b>	<b>18.0</b> (15.6-20.6)	<b>20.1</b> (17.4-23.0)	<b>23.4</b> (20.2-26.8)	<b>26.0</b> (22.4-30.0)	<b>29.4</b> (24.5-34.5)	<b>32.0</b> (26.2-38.0)	<b>34.5</b> (27.4-41.6)	<b>36.9</b> (28.2-45.5)	<b>39.9</b> (29.5-50.3)	<b>42.0</b> (30.5-53.9)

<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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**PF graphical**

## SECTION 01070

### ABBREVIATIONS AND SYMBOLS

#### PART 1 GENERAL

##### 1.01 DESCRIPTION:

- A. Abbreviations that may be used in the Contract Documents including the drawings are listed in this section and have the identifications and meanings shown herein except where otherwise indicated.
- B. Symbols are identified on the drawings.
- C. Related requirements in other parts of the Contract Documents.
  - 1. Drawing symbols: Contract drawings
  - 2. Drawing abbreviations: Contract drawings.

##### 1.02 ABBREVIATIONS:

A. Agencies, Codes, Standards, etc.:

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AF	Air Force
AGC	Associated General Contractors of America
AI	Asphalt Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANG	Air National Guard
ANSI	American National Standard Institute
API	American Petroleum Institute
AREA	American Railway Engineering Association
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers Association
AWG	American Wire Gage
AWS	American Welding Society
AWWA	American Water Works Association
COE	Corps of Engineers
CRSI	Concrete Reinforcing Steel Institute
FAA	Federal Aviation Administration



FHWA	Federal Highway Administration
FS	Federal Specifications
MDOT	Mississippi Department of Transportation
MUTCD	Manual on Uniform Traffic Control Devices for Streets and Highways
NEMA	National Electrical Manufacturers Association
NEC	National Electrical Code
NWS	National Weather Service
OSHA	Occupational Safety and Health Act
PCA	Portland Cement Association
UL	Underwriter's Laboratories, Inc.

B. Drawing Abbreviations:

1. The following list is not necessarily all inclusive; additional abbreviations may be used and defined on the drawings.
2. Some abbreviations used on the drawings may not have the same meaning as that identified in the following list; the non-conforming meanings are identified on the drawings when not self-evident.
3. Some variation in use of periods and capitalization may be found on the drawings.

Abbreviations	Meaning	Abbreviations	Meaning
<b>A</b>			
AB	Anchor Bolt	ABT	About
ABV	Above	AC	Advisory Circular (FAA)
AC	Alternating Current	AC	Asphaltic concrete
ACFT	Aircraft	ADDN.	Addition
AF	Air Force	AGG.	Aggregate
AIP	Airport Improvement Program	ALIGN	Alignment
ALP	Airport Layout Plan	ALS	Approach lighting system
ALT	Alternate	ANT.	Antenna
AOA	Air operational area	AP	Airport
APPROX.	Approximate	ARCH.	Architecture
ARP	Airport reference point	ASPH	Asphalt
ATC	Air traffic control	ATCT	Air traffic control tower
AVE	Avenue	AVG	Average
AWG	American wire gage	AWOS	Automatic weather observing systems
<b>B</b>			
B TO B	Back to back	BCN	Beacon
BDY	Boundary	BET.	Between
BF	Both faces	BIT. or BITUM	Bituminous
BLDG	Building	BL	Base line
BM	Benchmark	BOT	Bottom
BRL	Building restriction line	BRK	Brick
Abbreviations	Meaning	Abbreviations	Meaning
BS	Both sides	BTW	Between

BW	Both ways		
<b>C</b>			
C	Centigrade	C TO C	Center to center
CA	Cable	CB	Catch basin
CBM	Construction bench mark	CD	Check dam
CEM	Cement	CFM	Cubic feet per minute
CFS	Cubic feet per second	CHAM	Chamfer
CHG	Change	CHK	Check
CI	Cast iron	CIP	Cast iron pipe
CJ	Construction joint	CL	Clear
C/L	Center line	CLR	Clearance
CMP	Corrugated metal pipe	CO	Cleanout
CONC	Concrete	CONST	Construction
CONT	Continue	CORR	Corrugate
CPP	Corrugated Polyethylene	CPS	Cycles per second
CTB	Cement Treated Base Course	CULV	Culvert
CY. or CU.YD.	Cubic yard		
<b>D</b>			
D	Depth	DAT	Datum
DBL	Double	DBST	Double bituminous surface treatment
DC	Direct current	DEF. ANG.	Deflection angle
DEG	Degree	DEMO.	Demolish
DI	Drop inlet	DIA	Diameter
DIP	Ductile iron pipe	DIM.	Dimension
DIR	Direction	DIST	Distant
DIV	Division	DO	Ditto
DSGN	Design	DTD	Dated
DWG	Drawing		
<b>E</b>			
EA	Each	EF	Each face
EG	For example	EJ or EXP JT	Expansion joint
EL or ELEV	Elevation	ENGR	Engineer
EOP	Edge of pavement	EQ	Equal
EQUIP	Equipment	EQUIV	Equivalent
EST	Estimate	EW	Each way
EXC	Excavate	EXIST	Existing
EXT	Exterior		
<b>F</b>			
F	Fahrenheit	F TO F	Face to face
FAB	Fabricate	FAR	Federal Aviation Regulation
FBO	Fixed base operator	FDN	Foundation
FF	Finish floor	FG	Finish grade
FH	Fire hydrant	FIG	Figure
FIN	Finish	FLD	Field
FOD	Foreign object damage	FPM	Feet per minute

<b>Abbreviations</b>	<b>Meaning</b>	<b>Abbreviations</b>	<b>Meaning</b>
FPS	Feet per second	FS	Federal Specification
FT	Foot or feet	FTG	Footing

FW	Fresh water	FWD	Forward
<b>G</b>			
GA	Gage or Gauge	GAL	Gallon
GALV	Galvanize	GEN	General
GFE	Government-furnished equipment	GOVT	Government
GPM	Gallons per minute	GPS	Gallons per second
GRD	Ground or grade	GV	Gate valve
GVGI	Generic visual	GVGI	Glideslope indicator
<b>H</b>			
HP	High point	HGT	Height
HGR	Hangar	HH	Handhole
HIRL	High intensity lighting system	HMAC	Hot mix asphaltic concrete
HOR or HORIZ	Horizontal	HWY	Highway
<b>I</b>			
ID	Inside diameter	IDENT	Identification
IFR	Instrument flight rule	ILS	Instrument landing system
IN	Inch	INCL	Include
INT	Intersect	INV	Invert
IP	Inlet protection	IP	Iron pipe
<b>J</b>			
JB	Junction Box	JFR	Jet fuel resistant
JMF	Job mix formula	JT	Joint
<b>K</b>			
K	Kip (1,000 lb)	KWY	Keyway
<b>L</b>			
L	Left	LAT	Latitude
LB	Pound	LC	Length of curve
LF	Linear feet	LG	Length or long
LIN	Linear	LITL	Low intensity taxiway lights
LOA	Length over-all	LOC	Localizer
LONG	Longitudinal	LP	Low point
LS	Lump sum	LT	Light
LVC	Length of vertical curve		
<b>M</b>			
MAINT	Maintenance	MALS	Maximum Runway lights Intensity approach
MATL	Material	MAX	Maximum
MH	Handhole	MHW	Mean high water
MIN	Minimum	MIRL	Medium intensity runway lights
MITL	Medium intensity	MISC	Miscellaneous
MLS	Microwave landing system	MLW	Mean low water
MON	Monument	MSL	Mean sea level
MTL	Metal		
<b>N</b>			
NATL	National	NAVAID	Navigational aid
<b>Abbreviations</b>	<b>Meaning</b>	<b>Abbreviations</b>	<b>Meaning</b>
NIC	Not in contract	NO	Number
NOM	Nominal	NOTAM	Notice to airmen
NTS	Not to scale		

**O**

OA	Over-all	OC	On center
OD	Outside diameter	OFZ	Obstacle free zone
OPS	Operations	ORIG	Original

**P**

PAPI	Precision approach path	PAR	Precision approach radar
PAV'T	Pavement	PC	Point of curve
PCC	Portland cement concrete	PFC	Porous friction course
PI	Point of intersection	PIV	Post indicator valve
PJF	Premolded joint filler	POL	Petroleum fuel, oil, and/or lubricants
PL	Plate	PREP	Prepare
PROJ	Project	PROP	Proposed
PSI	Pounds per square inch	PT	Point
PT	Point of tangency	PVC	Polyvinyl chloride
PVC	Point of vertical curve	PVI	Point of vertical intersection
PVT	Point of taxiway lights vertical tangency	PVMT	Pavement

**Q**

QA	Quality assurance	QC	Quality control
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**R**

R	Right	R or RAD	Radius
RAIL	Runway alignment indicator light	R/W or RW	Runway
RC	Reinforced concrete	RCP	Reinforced concrete pipe
RD	Road	REF	Reference
REIL	Runway end identifier	REIN	Reinforce
RELOC	Relocated	REP	Repair
REQD	Required	RET	Return
REV	Revise	ROC	Run of crusher
ROW	Right of way	RPM	Revolutions per minute
RPZ	Runway protection zone	RR	Railroad

**S**

S	Slope	SABC	Stabilized aggregate base course
SALV	Salvage	SAN	Sanitary
SB	Straw bale	SBST	Single bituminous surface treatment
SCHED	Schedule	SEC	Second slope indicator
SEC Cor	Section corner	SECT	Section
SEP	Separate	SF	Silt fence
SF or SQ. FT.	Square feet	SHT	Sheet
SHLD	Shoulder rules	SIM	Similar
SK	Sketch	SP	Space(s)
SPEC	Specification	SQ	Square
SS	Stainless steel	STA	Station
STD	Standard	STL	Steel
STR	Structural fabric	SUPP	Supplement
SWG	Swing	SYM	Symbol

<b>Abbreviations</b>	<b>Meaning</b>	<b>Abbreviations</b>	<b>Meaning</b>
SYM	Symmetrical	SY or SQ. YD.	Square yards between
SYS	System		

**T**

T	Thick	T	Ton
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T&B	Top and bottom	TBM	Temporary bench mark
TECH	Technical	TEL	Telephone
TEMP	Temperature	THK	Thick
THRU	Through	T/L or TL	Taxilane
TOC	Top of curb	TOG	Top of grate
TOL	Tolerance	TOP	Top of pavement
TRANS	Transformer	TSD	Temporary slope drain
T/W or TW	Taxiway	TYP	Typical
<b>U</b>			
UD	Underdrain	UG	Underground
UGT	Underground telephone line	USGS	United States Geodetic Survey
<b>V</b>			
VASI	Visual approach	VB	Valve box
VC	Vertical curve	VCP	Vitrified clay
VERT	Vertical	VFR	Visual flight
VS	Versus		
<b>W</b>			
W	Water	W/	With
WGT	Weight	W/O	Without
WL	Water line	WWF	Welded wire
WP	Working point		
<b>X</b>			
X	By (used dimensions)	XSECT	Cross section
<b>Y</b>			
YD	Yard		

### **1.03      SYMBOLS:**

A.      As outlined on drawings.

### **PART 2      PRODUCTS (Not Applicable)**

### **PART 3      EXECUTION (Not Applicable)**

**END OF SECTION 01070**

## SECTION 01090

### REGULATIONS AND DEFINITIONS

#### PART 1 GENERAL

##### 1.01 RELATED DOCUMENTS:

Drawings, General Provisions, Supplementary Conditions, Specifications, and other contract documents apply to work of this section. See Section 10 of General Provisions for additional definitions.

##### 1.02 DESCRIPTION OF REQUIREMENTS:

- A. General: This section specifies procedural and administrative requirements for compliance with governing regulations, codes and standards imposed upon the work. These requirements include obtaining permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with regulations, codes and standards.

The term "Regulations" is defined to include laws, statutes, ordinances and lawful orders issued by governing authorities, as well as those rules, conventions and agreements within the construction industry which effectively control the performance of the work regardless of whether they are lawfully imposed by governing authority or not.

- B. Governing Regulations: Refer to General Provisions, Supplementary Conditions, and General Requirements for requirements related to compliance with governing regulations.

##### 1.03 DEFINITIONS:

- A. General Explanation: Certain terms used in contract documents are defined in this article. Definitions and explanations contained in this section are not necessarily complete, but are general for the work to the extent that they are not stated more explicitly in another element of the contract documents.
- B. General Requirements: Provisions and requirements of Division 1 sections apply to the entire work of the contract and, where so indicated, to other elements which are included in the project.
- C. Indicated: The term "indicated" is a cross-reference to graphic representations, notes or schedules on the drawings, to other paragraphs or

schedules in the specifications, and to similar means of recording requirements in contract documents. Where terms such as "shown", "noted", "scheduled", and "specified" are in lieu of "indicated", it is for the purpose of helping the reader locate the cross-reference, and no limitation of locations is intended except as specifically noted.

- D. Directed, Requested, etc.: Terms such as "directed", "requested", "authorized", "selected", "approved", "required", "accepted", and "permitted" mean "directed by the Engineer", "requested by the Engineer", and similar phrases. However, no such implied meaning will be interpreted to extend the Engineer's responsibility into the Contractor's area of construction supervision.
- E. Approved: Where used in conjunction with the Engineer's response to submittals, requests, applications, inquiries, reports and claims by the Contractor, the term "approved" will be held to limitations of the Engineer's responsibilities and duties as specified in General Provisions and Supplementary Conditions. In no case will the Engineer's approval be interpreted as a release of the Contractor from responsibilities to fulfill requirements of contract documents or acceptance of the work, unless otherwise provided by requirements of the contract documents.
- F. Project Site: The term "project site" means the space available to the Contractor for performance of the work, either exclusively or in conjunction with others performing other construction as part of the project. The extent of the project site is shown on the drawings.
- G. Furnish: The term "furnish" is used to mean "supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations."
- H. Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations."
- I. Provide: The term "provide" means "to furnish and install, complete and ready for the intended use."
- J. Installer: The "installer" is the "the entity" (person or firm) engaged by the Contractor, its subcontractor or sub-subcontractor for performance of a particular element of construction at the project site, including installation, erection, application and similar required operations. It is a requirement that installers are experienced in the operations they are engaged to perform.

**1.04**            **SUBMITTALS:**

Permits, Licenses, and Certificates: For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the work.

**PART 2**        **PRODUCTS** (Not Applicable)

**PART 3**        **EXECUTION** (Not Applicable)

**END OF SECTION 01090**



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## SECTION 01150

### MEASUREMENT AND PAYMENT

#### PART 1 GENERAL

##### 1.01 DESCRIPTION:

- A. Method of Measurement and Payment: This section supplements Section 90 of the General Provisions and establishes the method of measurement and payment for work performed under this contract.
- B. Unit Price: Except where lump sum is indicated, payment for work performed shall be made on a unit price basis in accordance with the accepted bid and the method of payment provided in the General Provisions.
- C. Related Requirements in Other Parts of the Specifications:
  - 1. Bid (Proposal).
  - 2. Agreement.
  - 3. Conditions of the Contract.
- D. Related Requirements Specified in Other Sections:
  - 1. Summary of Work - Section 01010.
  - 2. Submittals - Section 01300.
  - 3. Contract Closeout - Section 01700.
- E. Work With No Identified Payment Items: No additional payment will be made for items of work for which a separate payment item is not specified or contained in the Bid Schedule; such work shall be deemed incidental to the project and payment for said work shall be considered as included in the various unit bid prices.

##### 1.02 APPLICATIONS FOR PAYMENT:

- A. Submittal Schedule: Submit Applications for Payment to the Engineer in accordance with the schedule established by Conditions of the Contract and Agreement between Owner and Contractor.
- B. Format and Data Required:
  - 1. Submit Applications for Partial Payment on the form required by

Owner with itemized data typed on 8 1/2 x 11 inch white paper continuation sheets.

2. Provide itemized data on continuation sheet: Format, schedules, line items and values: Those of the Schedule of Values accepted by the Engineer.

C. Preparation of Application for Each Progress Payment:

1. Application Form:
  - a. Fill in required information, including that for Change Orders executed prior to the date of submittal of application.
  - b. Fill in summary of dollar values to agree with the respective totals indicated on the continuation sheets.
  - c. Execute certification with the signature of a responsible officer of the contract firm.
2. Continuation Sheets:
  - a. Fill in total list of all scheduled component items of work, with item number and the scheduled dollar value for each item.
  - b. Fill in the dollar value in each column for each scheduled line item when work has been performed or products stored. Round off values to the nearest dollar, or as provided in the bid.
3. List each Change Order executed prior to the date of submission, at the end of the continuation sheets.
  - a. List by Change Order and description, as for an original component item of work.
4. Submit Applications for Payment to Owner at the times stipulated in the Agreement.
  - a. Number: Four copies of each Application.

D. Substantiating Data:

1. When the Owner or Engineer require substantiating data, Contractor shall submit suitable information with cover letter identifying:
  - a. Project.
  - b. Application number and date.
  - c. Detailed list of enclosures.
  - d. For stored products: Item number and identification as shown on application.
  - e. Description of specific material.
2. Submit one copy of data and cover letter for each copy of application.

E. Preparation of Application for Final Payment:

1. Fill in application form as specified for progress payments.
2. Use continuation sheet for presenting the final statement of accounting as specified in Section 01700 - Contract Closeout.

**1.03**

**CHANGE ORDER PROCEDURES:**

A. Format and Data Required:

1. Change Orders shall be prepared and submitted and will be processed in accordance with requirements of General Provisions and Funding Agency Requirements.
2. Engineer will transmit Certificate for Change to Owner and Agency for approval.
3. When Owner and Agency approval is received, Change Order will be included under next partial Application for Payment.

**1.04**

**MEASURES AND WEIGHTS:**

- A. Contractor Assistance: To aid the Owner in determining all quantities, the Contractor shall, whenever so requested, provide scales, equipment and assistance for weighing or for measuring any of the materials at no cost to the Owner.
- B. Weights and Measures: Quantities for payment will be the actual weight or actual measure, and no special or trade or so-termed customary allowances will be made, nor will any material which is lost or misplaced be included for payment.

- C. Use of Planimeter: For estimating quantities in which computation of areas by geometric methods would be comparatively laborious, it is agreed that the planimeter shall be considered an instrument of precision to the measurement of such areas.
  
- D. Precedence of Dimensions: Figured dimensions on drawings shall take precedence over measurement by scale, and detailed working drawings are to take precedence over general drawings and shall be considered as explanatory of them and not as indicating extra work.

**PART 2      PRODUCTS** (Not Applicable)

**PART 3      EXECUTION** (Not Applicable)

**END OF SECTION 01150**

## SECTION 01300

### SUBMITTALS

#### PART 1 GENERAL

##### 1.01 SUBMITTALS BY CONTRACTOR:

- A. Construction Progress Schedule.
- B. Certifications as specified in the various sections.
- C. Shop Drawings and Project Data as specified in the various sections.
- D. Miscellaneous:
  - 1. Equipment Manuals.
  - 2. Weekly Payroll.
  - 3. EEO Reports.
  - 4. DBE Expenditure Report.
  - 5. Safety Plan.
  - 6. Security Plan.
  - 7. Warranties and Bonds.
  - 8. QC Plan.
  - 9. Other(s) as required.

##### 1.02 PROGRESS SCHEDULE:

- A. Bar-Chart Schedule: Submit a CPM type bar-chart schedule 7 calendar days prior to the preconstruction conference date established for the work. On the schedule, indicate a time bar for each major category or unit of work to be performed at the site, properly sequenced and coordinated with other elements of work. Show completion of the work sufficiently in advance of the date established for substantial completion of work. Progress Payments may be held if the Contractor fails to provide original and/or updated project schedules for review and approval by the Engineer.
- B. Phasing: Arrange schedule with notations to show how sequence of work is affected by requirements for phased completion, limitations of continued utilization, non-interruptible services, use prior to substantial completion, site

restrictions, apron and taxiway closures, provisions for future work, seasonal variations, environmental control, and similar provisions of total project. Phase I schedule is required at the preconstruction meeting. Each subsequent phasing schedule is required at least two weeks before the phase is to begin. Refer to other sections of Division 1 and other contract documents for requirements.

- C. Distribution: Following the initial submittal to and response by the Engineer, print and distribute progress schedules to the Engineer (3 copies), Owner, separate contractors, principal subcontractors and suppliers or fabricators, and others with a need-to-know schedule-compliance requirement. Post copies in the project meeting room and temporary field office. When revisions are made, distribute updated issues to the same entities and post updated issues in the same locations. Delete entities from distribution when they have completed their assigned work and are no longer involved in the performance of scheduled work.
- D. Update: Contractor shall update the schedule monthly for duration of construction.

### **1.03 SHOP DRAWINGS AND PRODUCT DATA:**

- A. Scope: Submit certifications and product data for all products to be incorporated in the work.
- B. Shop Drawings Shall:
  - 1. Be original drawings, prepared by the Contractor, subcontractor, supplier, or distributor, which illustrate some portion of the work; showing fabrication, layout, setting or erection details.
  - 2. Be prepared by a qualified detailer.
  - 3. Identify details by reference to sheet and detail numbers shown on Contract Drawings.
  - 4. Be sheet size 8 ½ in. X 11 in.
- C. Product Data Shall:
  - 1. Include manufacturer's standard schematic drawings. The Contractor will:
    - a. Modify drawings to delete information which is not applicable to project.

- b. Supplement standard information to provide additional information applicable to project.
  2. Include manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data. The Contractor shall:
    - a. Clearly mark each copy to identify pertinent materials or products.
    - b. Show dimensions and clearances required.
    - c. Show performance characteristics and capacities.

D. The Contractor Shall:

1. Be responsible for all submittals.
2. Review shop drawings and product data prior to submission.
3. Verify:
  - a. Field measurements.
  - b. Field construction criteria.
4. Coordinate each submittal with the requirements of the work and of the Contract Documents.
5. Notify the Engineer, in writing at time of submission, of deviations in submittals from requirements of the Contract Documents.
6. Begin no work which requires submittals until the return of submittals with the Engineer's stamp and initials or signature indicating review.
7. After the Engineer's review, distribute copies.

E. Contractor's Responsibilities:

1. Contractor's responsibility for errors and omissions in submittals is not relieved by the Engineer's review of submittals.
2. Contractor's responsibility for deviations in submittals from requirements of the Contract Documents is not relieved by the



Engineer's review of submittal, unless the Engineer gives written acceptance of specific deviations.

F. Submission Requirements Include:

1. The product data and shop drawings shall be submitted in sufficient time to allow discussion and correction prior to beginning the work. Work shall not be performed nor materials ordered prior to the review of the drawings except at the Contractor's risk.
2. Submit **5** copies of all product data and shop drawings after which one copy will be returned for correction or marked reviewed as noted. Any drawings returned for correction must be resubmitted with same number of copies as required above.
3. All submittals must be accompanied by a transmittal letter, in duplicate, containing:
  - a. Date.
  - b. Project title and number.
  - c. Contractor's name and address.
  - d. The number of each shop drawing and product data submitted.
  - e. Notification of deviations from Contract Documents.
  - f. Other pertinent data.
4. Submittals shall include the following, as applicable:
  - a. Date and revision dates.
  - b. Project title and number.
  - c. The names of:
    - (1) Engineer.
    - (2) Contractor.
    - (3) Subcontractor.
    - (4) Supplier.
    - (5) Manufacturer.

- (6) Separate detailer when pertinent.
- d. Identification of product or material.
- e. Relation to adjacent structure or materials.
- f. Field dimensions, clearly identified as such.
- g. Specification item or section number.
- h. Applicable standards, such as ASTM number or Federal Specification.
- i. A blank space, 5 in. x 5 in., for the Engineer's stamp.
- j. Identification of deviations from the Contract Documents.
- k. Contractor's stamp, initialed or signed, certifying Contractor's review of submittal, verification of field measurements, and compliance with Contract Documents.

G. Resubmission Requirements Include:

- 1. Revision of initial drawings as required and resubmittal as specified for initial submittal.
- 2. An indication on the drawings of any changes which have been made, other than those requested by the Engineer.
- 3. On product data resubmittals, include new data as required for initial submittal.

H. Distribution to Others:

After review and approval, the Contractor will distribute copies of shop drawings and product data which carry the Engineer's stamp to others as may be required.

I. Shop Drawings and Product Data:

- 1. Submit notarized certifications cosigned by manufacturer/supplier and Contractor for:
  - a. Pavement sub-base, base, surfacing and related materials.
  - b. Grass seed.

- c. Pavement marking paint.
  - d. All other products as required by the drawings, specifications, and Engineer.
2. Submit product data for:
    - a. Concrete and asphalt mix designs.
    - b. All other products as required by the drawings, specifications, and Engineer.

#### **1.04 MISCELLANEOUS:**

##### A. Weekly Payrolls:

1. In accordance with Federal Contract Provisions submit certified weekly payrolls for prime contractor and all subcontractors working at project site.
2. Submit payrolls no later than 7 calendar days after pay period. Payrolls will be considered current if received within 10 calendar days after last work day of payroll work week. A work week is the seven day period between midnight Sunday and midnight the following Sunday.
3. The Contractor is responsible for submission of payrolls by his subcontractors.
4. Submit a typed summary sheet with each payroll submission listing by week when contractor and each subcontractor worked at site.
5. A payroll submission is only required for weeks when Contractor or subcontractor is actually working at the site.

##### C. EEO Reports:

1. Contractor shall submit Monthly Employment Utilization Report and Annual EEO-1 Report to the appropriate Federal Labor Area Office in accordance with Federal Contract Provisions. Submit copy of submittal to Owner for his records.
2. Prime Contractor shall insure that all his first tier subcontractors submit these reports and shall submit a sworn statement to Owner monthly certifying that all subcontractor reports have been submitted as required.

D. DBE Expenditure Reports:

With each application for payment, the Contractor shall submit his DBE expenditure report indicating the name, date and amount disbursed to his DBE subcontractors for the period as well as for the project to date expenditure.

E. Security Plan:

At preconstruction conference submit for approval, proposed security plan describing specifically how security will be maintained at each access point and work area by Contractor's forces.

F. Warranties and Bonds:

Submit as specified in Section 01740.

**PART 2 PRODUCTS** (Not Applicable)

**PART 3 EXECUTION** (Not Applicable)

**END OF SECTION 01300**

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## SECTION 01400

### QUALITY CONTROL SERVICES

#### PART 1 GENERAL

**1.01 RELATED DOCUMENTS:** Drawings, General Provisions, Supplementary Conditions, Specifications, and other Contract Documents apply to work of this section.

**1.02 DESCRIPTION OF REQUIREMENTS:**

- A. General: Required inspection and testing services are intended to assist in the determination of probable compliance of the work with requirements specified or indicated. These required services do not relieve the Contractor of responsibility for compliance with these requirements or for compliance with requirements of the Contract Documents.
- B. Specified Inspection and Tests: Inspection, tests and related actions specified in this section and elsewhere in the Contract Documents are not intended to limit the Contractor's own quality control procedures which facilitate overall compliance with requirements of the Contract Documents.
- C. Contractor Quality Control: Requirements for the Contractor to provide quality control services as required by the Engineer, the Owner, governing authorities or other authorized entities are not limited by the provisions of this section.

**1.03 RESPONSIBILITIES:**

- A. Contractor Responsibilities: Contractor is responsible for his own quality control testing and inspection to insure the quality of his means and methods of construction will produce the specified quality of work, and for any tests and inspections required by regulatory agencies. Costs for these services shall be included in the contract sum. The Contractor may employ and pay an independent agency, testing laboratory or other qualified firm to perform quality control services specified, or these services may be performed by qualified contractor personnel.
  - 1. The Contractor shall submit for Engineer's approval a Quality Control (QC) Plan delineating his methods for each item requiring inspections, tests, and similar services.
- B. Quality Assurance: The Owner will engage and pay for the services of an independent agency to perform inspections and tests of materials for Quality Assurance.

- C. Retest Responsibility: Where results of required inspections, tests, or similar services prove unsatisfactory and do not indicate compliance with the requirements of the Contract Documents, then retests are the responsibility of the Contractor, and shall be deducted from monies due the Contractor on his monthly pay request, regardless of whether the original test was the Contractor's responsibility. Retesting of work revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original work.
- D. Responsibility for Associated Services: The Contractor is required to cooperate with the independent agencies performing required inspections, tests, and similar services. Provide such auxiliary services as are reasonably requested. Notify the testing agency sufficiently in advance of operations to permit assignment of personnel. These auxiliary services include but are not necessarily limited to the following:
1. Providing access to the work.
  2. Taking samples or providing assistance with taking samples.
  3. Delivery of samples to test laboratories.
  4. Security and protection of samples and test equipment at the project site.
  5. Surveying services required to establish horizontal and vertical location of tests by Engineer's quality assurance testing laboratory.

#### **1.04 SCHEDULE OF SERVICES:**

Schedule of Inspections and Tests: Each specification section identifies principal inspections, tests and similar services required by the Contractor Documents.

#### **PART 2 PRODUCTS** (Not Applicable)

#### **PART 3 EXECUTION**

##### **3.01 REPAIR AND PROTECTION:**

General: Upon completion of inspection, testing, sample-taking, and similar services performed on the work, repair damaged work and test sites to eliminate deficiencies. Protect work exposed by or for quality control service activities, and protect repaired work. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

**END OF SECTION 01400**

## SECTION 01510

### TEMPORARY FACILITIES

#### **PART 1 GENERAL**

##### **1.01 DESCRIPTION:**

- A. Contractor shall furnish, install and maintain temporary utilities required for construction and other temporary facilities as indicated; remove on completion of work.
- B. Related requirements are specified in other sections of the specifications.
- C. **An Engineers Field Office will NOT be required for this project.**

##### **1.02 REQUIREMENTS OF REGULATORY AGENCIES:**

- A. Comply with National Electric Code.
- B. Comply with Federal, State, and Local codes and regulations and with utility company requirements.

#### **PART 2 PRODUCTS**

##### **2.01 MATERIALS, GENERAL:**

Materials, furniture, and equipment may be new or used, but must be adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards. Acceptability of all items will be determined by the Engineer.

#### **PART 3 EXECUTION**

##### **3.01 TEMPORARY ELECTRICITY AND LIGHTING:**

Provide temporary electrical service required for power and lighting, and pay all costs for service and for power used.

##### **3.02 TEMPORARY WATER:**

- A. Provide water for construction purposes; pay all costs for installation, maintenance and removal, and service charges for water used.



- B. The site is served by a municipal water system. The Contractor shall make arrangements for securing and providing necessary water as required for the performance of work.

### **3.03**

#### **TEMPORARY SANITARY FACILITIES:**

- A. Provide sanitary facilities in compliance with laws and regulations.
- B. Service, clean and maintain facilities and enclosures.

### **3.04**

#### **TEMPORARY SUPPORT FACILITIES:**

- A. General: Provide reasonably neat and uniform in appearance temporary support facilities acceptable to the Engineer and the Owner.
- B. Siting: Locate storage and fabrication sheds and other support facilities for easy access to the work.
- C. Maintenance: Maintain storage and fabrication sheds, temporary sanitary facilities, waste collection and disposal systems, and project identification and temporary signs until project completion.

#### **D. Airfield Communications:**

- 1. Contractor shall furnish his construction personnel with sufficient truck and hand-held radios to allow all construction locations to be in radio contact with the Unicom Frequency. The Contractor shall furnish one (1) hand-held radio for use by the Engineer. All radios shall be capable of two-way communications and shall be iCOM IC-A6 VHF Air Band Transceivers or approved equal. When working within active runway or taxiway safety areas, project superintendents shall be in constant radio contact and shall be responsible for controlling the movement of project equipment, vehicles and personnel.

Provide the following accessories: 114 VAC wall charger, plug-in earphone, car cigarette lighter DC charger, one spare battery, case with belt loop, antenna, and operating manual. Radio shall cover Aviation NAV band 108-118 mH, and COM band 118-136 mH.

- 2. The radios will remain the property of the Contractor.
- 3. The Contractor will not be directly compensated for providing two-way radios as this work is considered incidental to the work covered by the various contract items.

- E. Staging Area: Contractor, if required, shall prepare his staging area and access road by grading, drainage, and placing a four (4) inch thick stone base of coarse aggregate (i.e. commonly-used road stone) over the entire staging area and access road(s). The Contractor shall apply a periodic top dressing to the stone base in order to minimize any fugitive dust or mud during the construction period. Upon completion of the project, the stone base shall be completely removed, the site graded to drain, and then topsoiled, seeded and mulched in accordance with project specifications.

The Contractor may, at his option, erect fencing around the staging area. Any such fencing shall be removed at the end of the project.

F. Access and Haul Roads:

1. Locations of access and haul roads will be approved by the Engineer and are shown on the drawings. These roads will be located to minimize conflict with Airport operations and shall be maintained, well defined, and confined to the minimum area required. Damaged roads shall be promptly repaired by the Contractor to the satisfaction of the Engineer at no cost to the Owner.
2. The Contractor shall utilize existing access and haul roads and shall maintain the roads as required to create no dust. All project traffic must be routed through these areas. The Contractor shall provide all markings required to clearly define the access and haul roads.
3. The Contractor shall be responsible for obtaining any necessary driveway permit(s) from local or state agencies for access and haul roads.
4. If access or haul roads cross a utility, the Contractor shall protect the utility as directed by the Owner of the utility.
5. There shall be no direct payment for the construction, maintenance, and removal of access and haul roads.

**3.05 EXECUTION, GENERAL:**

Maintain and operate systems to assure continuous service.

**3.06 REMOVAL:**

- A. Completely remove temporary materials and equipment when their use is no longer required.

- B. Clean and repair damage caused by temporary installations or use of temporary facilities. Restore grassed and paved areas to their pre-construction condition.

**3.07**

**MEASUREMENT AND PAYMENT:**

There shall be no separate measurement and payment for Temporary Facilities. All provision and maintenance costs shall be included in the various items of associated work.

**END OF SECTION 01510**

## SECTION 01530

### AIRFIELD BARRICADES

#### PART 1 GENERAL

##### 1.01 DESCRIPTION:

- A. Provide temporary barricades and runway closure markers as required for safety of aircraft and contractor's work forces, and to maintain use of the various portions of the air operations area during construction.
- B. Comply with the referenced FAA Advisory Circulars and the safety and staging plan.
- C. Related work specified elsewhere:
  - 1. Construction safety: General Provisions and General Requirements.
  - 2. Staging and safety plan: Contract Drawings and General Requirements.

#### PART 2 PRODUCTS

##### 2.01 BARRICADES:

Type I Barricades: 8' long x 8" x 8" water ballast base, with alternating diagonal white and orange stripes, two 20" x 20" orange flags, and two battery powered flashing red lights. Flags shall be framed and installed so that they are always in the extended position and oriented along the long axis of the barricade. Overall barricade height shall not exceed 36". Provide lateral support and weight ballast to prevent over-turning and displacement from wind gusts, prop wash, and jet blast.

##### 2.02 CLOSED RUNWAY MARKERS:

Portable lighted runway closure markers shall be available for use on this project as provided by Owner. These markers will supplement the markers as noted above and as shown on the plans. Contractor will be required to maintain equipment and provide service or maintenance as required. All cost to operate will be the responsibility of the Contractor. Equipment must be returned to Owner in its original pre-construction condition at the completion of work. A photo inventory/documentation is required of equipment (pre-construction) by Contractor.

**2.03**            **RUNWAY NUMBER COVERS:**

Waterproof paper, opaque polyethylene film, burlap-polyethylene sheets, or other material approved by Engineer. Anchor in place with sandbags or other approved means.

**2.04**            **PAVEMENT PAINT MARKINGS:**

As per FAA Section P-620 specification.

**PART 3**        **EXECUTION**

**3.01**            **GENERAL:**

- A.     Install at locations shown on the drawings and where directed by Engineer. Unless otherwise noted, place barricades a maximum of 25 feet on centers and not less than two per taxiway and three per runway. Anchor barricades with sandbags or other methods approved by Engineer.
- B.     Maintain barricades until removal is directed by Engineer. The barricade flasher batteries shall be checked daily to ensure that flashers are operational. Replace batteries as required.
- C.     Remove barricades as directed by Engineer. Repair any damage to pavement or surrounding area caused by barricades.

**3.02**            **MEASUREMENT AND PAYMENT:**

Work in this section will not be measured. All work and materials covered by this section will be considered and included in the lump sum price for Mobilization, Section C-105.

**END OF SECTION 01530**

## SECTION 01600

### MATERIAL AND EQUIPMENT

#### PART 1      GENERAL

##### 1.01      GENERAL:

- A.    Material and Equipment (Products) Incorporated Into the Work:
  - 1.    Shall conform to applicable specifications and standards.
  - 2.    Shall comply with size, make, type and quality specified, or as specifically approved in writing by the Engineer.
  - 3.    Shall not be used for any purpose other than that for which it is designed or is specified.
  
- B.    Manufactured and Fabricated Products:
  - 1.    Design, fabricate and assemble in accord with the best engineering and shop practices.
  - 2.    Manufacture like parts of duplicate units to standard sizes and gages, to be interchangeable.
  - 3.    Products shall be suitable for service conditions.
  - 4.    Equipment capacities, sizes and dimensions shown or specified shall be adhered to unless variations are specifically approved by Engineer in writing.
  
- C.    Related Requirements in Other Parts of the Project Manual:
  - 1.    Conditions of the Contract.
  
- D.    Standardization:
  - 1.    Unless otherwise approved by the Engineer, items and equipment of a similar type and function shall be furnished by one manufacturer to standardize on replacement parts, service calls, operation and maintenance matters, and to avoid a division of responsibility among several manufacturers.

2. A single supplier shall be used on principal items of equipment and systems where one or more components are not manufactured by the principal supplier; this is required to place performance and service responsibilities for the entire unit or system with only one supplier or manufacturer.

## **1.02**

### **PRODUCTS SUBSTITUTIONS AND OPTIONS:**

#### **Products List:**

1. Contractor shall submit a complete list of products to be incorporated into the work (with the name of the installing contractor) at the Preconstruction Conference required by these specifications.

#### **B. Contractor's Options:**

1. For products specified only by reference standard, select any product meeting that standard.
2. For products specified by naming several products or manufacturers, select any one of the products or manufacturers named, which complies with the specifications.
3. Airport lighting and materials covered by FAA specifications require prior approval of the FAA and shall be listed in the latest edition of Advisory Circular 150/5345-53, "Approved Airport Equipment". Select any FAA approved equipment.

#### **C. Product Substitutions:**

1. Contractor shall submit, at the Preconstruction Conference, all requests for product substitutions. No requests for substitutions will be accepted from manufacturers or suppliers.
2. Submit a separate written request for each product, supported with complete data, with drawings and samples as appropriate, including:
  - a. Comparison of the qualities of the proposed substitution with that specified.
  - b. Changes required in other elements of the work because of the substitution.

- c. Effect on the construction schedule.
  - d. Cost data comparing the proposed substitution with the product specified.
  - e. Any required license fees or royalties.
  - f. Availability of maintenance service, and source of replacement materials.
3. Engineer shall be the judge of the equality and acceptability of the proposed substitution.
  4. If Engineer determines the proposed substitute product is not "equal" to the specified product, the Contractor must provide the specified product, subject to Engineer's shop drawing review and approval.
  5. No further requests for substitutions will be considered after Preconstruction Conference.
- D. Contractor's Representation: A request for a substitution constitutes a representation that Contractor:
1. Has investigated the proposed product and determined that it is equal to or superior in all respects to that specified.
  2. Will provide the same warranties or bonds for the substitution as for the product specified.
  3. Will coordinate the installation of an accepted substitution into the work, and make such other changes as may be required to make the work complete in all respects.
  4. Waives all claims for additional costs, under his responsibility, which may subsequently become apparent.
- E. Engineer's Review: Engineer will review requests for substitutions with reasonable promptness and notify Contractor, in writing, of the decision to accept or reject the requested substitution.

### **1.03**

### **MANUFACTURER'S INSTRUCTIONS:**



- A. Printed Instructions: When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, Contractor shall obtain and distribute copies of such instructions to parties involved in the installation, including copies to Engineer.
  - 1. Maintain one set of complete instructions at the job site during installation and until completion.
- B. Strict Compliance: Handle, install, connect, clean, condition, and adjust products in strict accord with such instructions and in conformity with specified requirements.
  - 1. Should job conditions or specified requirements conflict with manufacturer's instruction, consult with Engineer for further instructions.
  - 2. Do not proceed with work without clear instructions.
- C. Complete Compliance: Perform work in accord with manufacturer's instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.

#### **1.04**

#### **TRANSPORTATION AND HANDLING:**

- A. Deliveries: Contractor shall arrange deliveries of products in accord with construction schedules; coordinate to avoid conflict with work and conditions at the site.
  - 1. Deliver products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
  - 2. Immediately on delivery, inspect shipments to assure compliance with requirements of contract documents and approved submittals, and that products are properly protected and undamaged.
- B. Handling: Provide equipment and personnel to handle products by methods to prevent soiling or damage of products or packaging.

#### **1.05**

#### **STORAGE AND PROTECTION:**

- A. Storage: Store products in accord with manufacturer's instructions, with seals and labels intact and legible.

1. Store products subject to damage by the elements in weather tight enclosures.
2. Maintain temperature and humidity within the ranges required by manufacturer's instructions.

B. Exterior Storage:

1. Store fabricated products above the ground, on blocking or skids; prevent soiling or staining. Cover products which are subject to deterioration with impervious sheet coverings; provide adequate ventilation to avoid condensation.
2. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter.

C. Storage Inspection: Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to assure that products are maintained under specified conditions, and free from damage or deterioration.

D. Protection After Installations: Provide substantial coverings as necessary to protect installed products from damage from traffic and subsequent construction operations. Remove when no longer needed.

**PART 2 PRODUCTS** (Not Applicable)

**PART 3 EXECUTION** (Not Applicable)

**END OF SECTION 01600**

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## SECTION 01700

### CONTRACT CLOSEOUT

#### **1.01**

#### **GENERAL:**

- A. Comply with requirements stated in conditions of the contract and in specifications for administrative procedures in closing out the work.
- B. Related requirements in other parts of the Project Manual:
  - 1. Fiscal provisions, legal submittals and additional administrative requirements: Conditions of the contract.
- C. Related Requirements Specified in Other Sections.
  - 1. Closeout submittals required of trades: The respective sections of specifications.
  - 2. Project Record Documents: Section 01720.
  - 3. Warranties and Bonds: Section 01740.

#### **1.02**

#### **SUBSTANTIAL COMPLETION:**

- A. The conditions and procedures for inspection; and Contractor's and Owner's responsibilities pertaining to Substantial Completion are as specified in the General Provisions.

#### **1.03**

#### **FINAL INSPECTION:**

- A. Shall be in accordance with conditions and procedures outlined in the General Provisions.
- B. When Owner finds that the work is acceptable under the Contract Documents, he will request required Contractor's Closeout Submittals.

#### **1.04**

#### **REINSPECTION FEES:**

- A. Should Engineer perform reinspections due to failure of the work to comply with the claims of status of completion made by the Contractor:
  - 1. Owner will compensate Engineer for such additional services.
  - 2. Owner will deduct the amount of such compensation from the final payment due the Contractor.

**1.05**

**CONTRACTOR'S CLOSEOUT SUBMITTALS TO OWNER:**

- A. Evidence of compliance with requirements of governing authorities: Certificates of Inspection.
- B. Project Record Documents: Conform to requirements of Section 01720.
- C. Warranties and Bonds: Conform to requirements of Section 01740.
- D. Evidence of payment and release of liens: To requirements of General Provisions and Supplementary Conditions.
- E. Certificates of Insurance for products and completed operations.
- F. Once the Engineer has determined the work is acceptable under the Contract Documents, he will furnish the Contractor appropriate number of copies of the following forms, copies of which are attached:
  - 1. Contractor Warranty Form
  - 2. Affidavit of Payment
  - 3. Affidavit of Release of Liens
  - 4. Final Waiver of Lien
  - 5. Consent of Surety for Final Payment
  - 6. DBE Participation Report

See General Provision Section 90, Paragraph 90-11 *Contractor Final Project Documentation.*

**END OF SECTION 01700**

*AFFIDAVIT OF PAYMENT*

To All Whom It May Concern:

WHEREAS, the undersigned has been employed by \_\_\_\_\_  
\_\_\_\_\_ to furnish labor and materials for \_\_\_\_\_  
\_\_\_\_\_ work, under a contract  
\_\_\_ for the improvement of property described as  
\_\_\_\_\_ in the \_\_\_\_\_ of \_\_\_\_\_ County of  
\_\_\_\_\_, State of \_\_\_\_\_ of which  
\_\_\_\_\_ is the Owner,

NOW, THEREFORE, this \_\_\_\_ day of \_\_\_\_\_, 20 \_\_,

The undersigned, as the Contractor for the above-named Contract pursuant to the Conditions of the Contract hereby certified that, except as listed below, he has paid in full or has otherwise satisfied all obligations for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or his property might in any way be held responsible.

EXCEPTIONS: (If none, write "None". If required by the Owner, the Contractor shall furnish bond satisfactory to the Owner for each exception.)

ATTACHMENTS:

1. Consent of Surety to Final Payment. (Whenever Surety is involved, Consent of Surety is required.)
2. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
3. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers.
4. Contractor's Affidavit of Release of Liens.

\_\_\_\_\_  
CONTRACTOR (Name of sole ownership, corporation or partnership)

\_\_\_\_\_  
(Signature of Authorized Representative)

(Affix corporate seal here)

TITLE: \_\_\_\_\_

*AFFIDAVIT OF RELEASE OF LIEN*

To All Whom It May Concern:

WHEREAS, the undersigned has been employed by \_\_\_\_\_  
\_\_\_\_\_ to  
furnish labor and materials for  
\_\_ work, under a contract  
\_\_\_\_\_ for the improvement of property described as  
\_\_\_\_\_ in the \_\_\_\_\_ of \_\_\_\_\_ County of  
\_\_\_\_\_, State of \_\_\_\_\_ of which  
\_\_\_\_\_ is the Owner,

NOW, THEREFORE, this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

The undersigned, as the Contractor for the above-named Contract pursuant to the Conditions of the Contract hereby certifies that to the best of his knowledge, information and belief, except as listed below, the Releases or Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services, who have or may have liens against any property of the Owner arising in any manner out of the performance of the Contract referenced above.

EXCEPTIONS: (If none, write "None". If required by the Owner, the Contractor shall furnish bond satisfactory to the Owner for each exception.)

ATTACHMENTS:

- 1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
- 2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers.

\_\_\_\_\_  
CONTRACTOR (Name of sole ownership, corporation or partnership)

(Affix corporate  
(SEAL)  
seal here)

(Signature of Authorized Representative)

TITLE: \_\_\_\_\_

**CONSENT OF SURETY  
For Final Payment**

Project Name \_\_\_\_\_

Location \_\_\_\_\_

Project No. \_\_\_\_\_

Contract No. \_\_\_\_\_

Type of Contract \_\_\_\_\_

Amount of Contract \_\_\_\_\_

In accordance with the provisions of the above-named contact between the Owner and the Contractor,  
the following named surety:

\_\_\_\_\_  
\_\_\_\_\_

on the Payment Bond of the following named Contractor:

\_\_\_\_\_  
\_\_\_\_\_

hereby approves of final payment to the Contractor, and further agrees that said final payment to the  
Contractor shall not relieve the Surety Company named herein of any of its obligations to the following  
named Owner: as set forth in said Surety company's bond:

\_\_\_\_\_  
\_\_\_\_\_

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand and seal this \_\_\_\_ day  
of \_\_\_\_\_, 20.

\_\_\_\_\_  
(Name of Surety Company)

\_\_\_\_\_  
(Signature of Authorized Representative)

(Affix corporate  
seal here)

TITLE \_\_\_\_\_

IF SIGNED BY ATTORNEY-IN-FACT POWER OF ATTORNEY MUST BE ATTACHED.



CONTRACTOR WARRANTY FORM

PROJECT:

LOCATION:

OWNER:

We \_\_\_\_\_, Contractor  
(Company Name)

for the above referenced project, do hereby warrant that all labor and materials furnished and work performed are in accordance with the Contract Documents and authorized modifications thereto, and will be free from defect due to defective materials or workmanship for a period of one year from Date of Substantial Completion. This warranty commences on:

\_\_\_\_\_  
(Date of Substantial Completion Affixed by Engineer)

and expires on : \_\_\_\_\_  
(One Year From Commencement Date)

This warranty covers that portion of the project described below:

Should any defect develop during the warranty period due to improper materials, workmanship or arrangement, the defect shall, upon written notice by the Owner, be made good by the Undersigned at no expense to the Owner.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Owner.

Date: \_\_\_\_\_

For: \_\_\_\_\_  
(Company Name)

By: \_\_\_\_\_

Title: \_\_\_\_\_

**FINAL WAIVER OF LIEN**

To All Whom It May Concern:

WHEREAS, the undersigned has been employed by \_\_\_\_\_ to furnish labor and materials for work, under a contract \_\_\_\_\_ for the improvement of property described as \_\_\_\_\_ in the \_\_\_\_\_ (City-Village) of \_\_\_\_\_, County of \_\_\_\_\_, State of \_\_\_\_\_ of which \_\_\_\_\_ is the Owner,

NOW, THEREFORE, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

for and in consideration of the sum of (E) \_\_\_\_\_

Dollars paid simultaneously herewith, the receipt whereof is hereby acknowledged by the undersigned, the undersigned does hereby waive and release any lien rights to, or claim of lien with respect to and on said above-described premises, and the improvements thereon, and on the monies or other considerations due to become due from the owner, on account of labor, services, material, fixtures, apparatus of machinery heretofore or which may hereafter be furnished by the undersigned to or for the above-described premises by virtue of said contract.

(F) \_\_\_\_\_ (SEAL)

(Name of sole ownership, corporation or partnership)

(Affix corporate

seal here) \_\_\_\_\_(SEAL)

(Signature of Authorized Representative)

TITLE:

**INSTRUCTIONS FOR FINAL WAIVER**

- (A) Person or firm with whom you agreed to furnish either labor, or services, or materials, or both.
- (B) Fill in nature and extent of work; strike the word labor or the word materials if not in your contract.
- (C) If you have more than one contract on the same premises, describe the contract by number if available, date and extent of work.
- (D) Furnish an accurate enough description of the improvement and location of the premises so that it can be distinguished from any other property.
- (E) Amount shown should be the amount actually received and equal to total amount of contract as adjusted.
- (F) If waiver is for a corporation, corporate name should be used, corporate seal affixed and title of officer signing waiver should be set forth; if waiver is for a partnership, the partnership name should be used, partner should sign and designate himself as partner.

**Construction Industry Affairs Committee of Chicago**



## SECTION 01710

### CLEANING AND DISPOSAL

#### PART 1      GENERAL

##### 1.01            DESCRIPTION:

Contractor shall execute cleaning during progress of the work and at completion of the work, as required by the General Provisions and other specification documents.

##### 1.02            DISPOSAL REQUIREMENTS:

- A.     Conduct cleaning and disposal operations to comply with all local, state and federal codes, ordinances, regulations, and anti-pollution laws; and with airport and construction safety requirements.
- B.     All disposal of waste materials shall be off airport property at locations approved by the Engineer.
- C.     Contractor shall be responsible for arranging for and obtaining off-site disposal areas, including payment for all costs associated with such disposal.

##### 1.03            SUBMITTALS:

- A.     Prior to beginning work, submit a Disposal Plan for the satisfactory disposal of all waste materials and debris.
- B.     Submit two (2) copies of the disposal site owner's written permission for such disposal with Disposal Plan.

#### PART 2      PRODUCTS

##### 2.01            MATERIALS:

- A.     Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.
- B.     Use only those cleaning materials and methods recommended by manufacturer of the surface material to be cleaned.
- C.     Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

## **PART 3 EXECUTION**

### **3.01 CLEANING:**

- A. Execute periodic cleaning to keep the work, site and adjacent properties free from accumulations of waste materials, rubbish, windblown debris, and dust resulting from construction operations.
- B. Provide on-site containers for the collection of waste materials, debris and rubbish.
- C. Remove waste materials, debris and rubbish from the site periodically and dispose of at approved locations.

### **3.02 BARRIERS AND PROTECTION:**

Protect existing structures and vegetation from cleaning and disposal operations as required.

### **3.03 DUST CONTROL:**

- A. Schedule cleaning and other operations so that dust and other contaminants resulting therefrom will not fall on wet or newly coated surfaces, will not damage or contaminate aircraft, and will not unduly affect the work of other airport tenants.

### **3.04 DISPOSAL OF DEBRIS AND WASTE MATERIALS:**

- A. All waste materials shall be removed from site and disposed of in accordance with the Disposal Plan. **No on-site burning will be permitted.**

### **3.05 PAYMENT:**

No separate payment will be made under this section for work described or specified herein.

**END OF SECTION 01710**

## SECTION 01720

### PROJECT RECORD DOCUMENTS

#### PART 1 GENERAL

##### 1.01 GENERAL REQUIREMENTS:

- A. Contractor shall maintain at the site as specified herein for the Owner one (1) record copy of:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change orders and other modifications.
  - 5. Engineer field orders or written instructions.
  - 6. Approved shop drawings, product data and samples.
  - 7. Field test records.
  - 8. Laboratory test records.
- B. Related requirements in other parts of the Project Manual:
  - 1. Conditions of the Contract.

#### PART 2 PRODUCTS (Not Used.)

#### PART 3 EXECUTION

##### 3.01 MAINTENANCE OF DOCUMENTS AND SAMPLES:

- A. Store record documents and samples in Contractor's field office apart from documents used for construction.
- B. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- C. Make documents and samples available at all times for inspection by Engineer.

##### 3.02 RECORDING:

- A. Stamp or label each document "PROJECT RECORDS" in 3/4 inch letters.
- B. During daily progress of the work, the job superintendent for the Contractor

shall record information concurrently with construction progress.

1. Do not conceal any work until required information is recorded.
- C. Drawings: Legibly mark to record actual construction in color codes designated by the Engineer.
- D. Record Information includes but is not limited to the following:
1. Depths of various elements of foundation in relation to finish reference datum.
  2. Horizontal and vertical locations of pavements and underground utilities and appurtenances, referenced to permanent surface improvements or finish reference datum.
  3. Locations of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure.
  4. Field changes of dimension and detail.
  5. Changes made by field order or by change order.
  6. Details not on original contract drawings.
  7. Any other changes in the plans.
  8. Electrical construction identification:
    - a. Exact distance between all manholes or points of intersection.
    - b. Exact size and location of duct bank or cable run and what circuits it feeds.
    - c. Exact location of any lines abandoned in place.
    - d. Exact location, type, and size of runway and taxiway edge lights.
    - e. Rim and invert elevation of all manholes and duct banks.
    - f. Depth of cover on direct burial lines.

- g. Locations of cable splices.
  - h. Location and description of signs.
- E. Specifications and addenda: Legibly mark each section to record:
- 1. Manufacturer, trade name, catalog number, and supplier of each product actually installed.
  - 2. Changes made by field order or by change order.
- F. All horizontal control dimensions shall be to the nearest tenth of a foot. Elevations shall be to the nearest one-hundredth of a foot.

**3.03**

**SUBMITTAL:**

- A. At the close of the job and prior to receipt of final payment, the Contractor shall deliver to the Engineer for the Owner one (1) complete set of Record Documents.
- B. Accompany submittal with transmittal letter containing:
- 1. Date.
  - 2. Project title and number.
  - 3. Contractor's name and address
  - 4. Title and number of each record document.
  - 5. Signature of Contractor or his authorized representative.

**3.04**

**PAYMENT:**

No separate payment will be made under this section for work described or specified herein.

**END OF SECTION 01720**



(This page is intentionally left blank.)

## SECTION 01740

### WARRANTIES AND BONDS

#### PART 1 GENERAL

##### 1.01 GENERAL REQUIREMENTS:

- A. Contractor shall:
  - 1. Compile specified warranties and bonds.
  - 2. Compile specified service and maintenance contracts.
  - 3. Co-execute submittals to verify compliance with Contract Documents.
  - 4. Review submittals to verify compliance with Contract Documents.
  - 5. Submit to Engineer for review and transmittal to Owner.
  
- B. Related requirements in other parts of the Project Manual:
  - 1. Bid Bonds: Instructions to bidders.
  - 2. Performance Bond and Payment Bond: Conditions of the contract.
  - 3. General warranty of construction: Conditions of the contract.
  
- C. Related requirements specified in other sections:
  - 1. Contract closeout: Section 01700
  - 2. Equipment Manuals: Section 01300
  - 3. Warranties and Bonds required for specific products: Each respective section of specifications.
  - 4. Provisions of Warranties and Bonds, duration: The respective section of specifications which specifies the product.

#### PART 2 PRODUCTS (Not Used.)

#### PART 3 EXECUTION

##### 3.01 SUBMITTAL REQUIREMENTS:

- A. Assemble warranties, bonds and service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors.
  
- B. Number of original signed copies required: Two (2) each.
  
- C. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.
  - 1. Product or work item.
  - 2. Firm, with name of principal, address and telephone number.
  - 3. Scope.
  - 4. Date of beginning of warranty, bond or service and maintenance

- contract.
- 5. Duration of warranty, bond or service and maintenance contract.
- 6. Provide information for Owner's personnel:
  - a. Proper procedure in case of failure.
  - b. Instances which might affect the validity of warranty or bond.
- 7. Contractor, name of responsible principal, address and telephone number.

**3.02**            **FORM OF SUBMITTALS:**

- A. Prepare in duplicate packets.
- B. Format:
  - 1. Size 8 1/2 inches x 11 inches, punch sheets for 3-ring binder.
    - a. Fold larger sheets to fit into binders.
  - 2. Cover: Identify each packet with typed or printed title "WARRANTIES AND BONDS". List:
    - a. Project title and number
    - b. Owner's name.
    - c. Contractor's name and address.
- C. Binders: Commercial quality, 3-ring, with durable and cleanable plastic covers.

**3.03**            **TIME OF SUBMITTALS:**

- A. Submit within ten (10) days after date of substantial completion, and prior to final request for payment.
- B. For items of work where acceptance is delayed materially beyond the date of substantial completion, provide updated submittal within ten (10) days after acceptance, listing the date of acceptance as the start of the warranty period.

**3.04**            **SUBMITTALS REQUIRED:**

Submit warranties, bonds, and service and maintenance contracts as specified in the respective sections of specifications.

**3.05**            **PAYMENT:**

No separate payment will be made under this section for work described or specified herein.

**END OF SECTION 01740**

## **Division 2 - FAA Standard Technical Specifications**

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## ITEM P-101 PREPARATION/REMOVAL OF EXISTING PAVEMENTS

### DESCRIPTION

**101-1** This item shall consist of preparation of existing pavement surfaces for overlay, surface treatments, removal of existing pavement, and other miscellaneous items. The work shall be accomplished in accordance with these specifications and the applicable plans.

### EQUIPMENT AND MATERIALS

**101-2** All equipment and materials shall be specified here and in the following paragraphs or approved by the Resident Project Representative (RPR). The equipment shall not cause damage to the pavement to remain in place.

### CONSTRUCTION

#### **101-3.1 Removal of existing pavement.**

The Contractor's removal operation shall be controlled to not damage adjacent pavement structure, and base material, cables, utility ducts, pipelines, or drainage structures which are to remain under the pavement.

**a. Concrete pavement removal.** Full depth saw cuts shall be made perpendicular to the slab surface. The Contractor shall saw through the full depth of the slab including any dowels at the joint, removing the pavement and installing new dowels as shown on the plans and per the specifications. Where the perimeter of the removal limits is not located on the joint and there are no dowels present, the perimeter shall be saw cut the full depth of the pavement. The pavement inside the saw cut shall be removed by methods 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 of One (1) Foot. Concrete slabs that are damaged by under breaking shall be repaired or removed and replaced as directed by the RPR.

The edge of existing concrete pavement against which new pavement abuts shall be protected from damage at all times. Spall and underbreak repair shall be in accordance with the plans. Any underlying material that is to remain in place, shall be recompact and/or replaced as shown on the plans. Adjacent areas damaged during repair shall be repaired or replaced at the Contractor's expense.

**b. Asphalt pavement removal.** Asphalt pavement to be removed shall be cut to the full depth of the asphalt pavement around the perimeter of the area to be removed. If the material is to be wasted on the airport site, it shall be broken to a maximum size of one(1)inch.

**c. Repair or removal of Base, Subbase, and/or Subgrade.** All failed material including surface, base course, subbase course, and subgrade shall be removed and repaired as shown on the plans or as directed by the RPR. Materials and methods of construction shall comply with the applicable sections of these specifications. Any damage caused by Contractor's removal process shall be repaired at the Contractor's expense.

**101-3.2 Preparation of joints and cracks prior to overlay/surface treatment.** Remove all vegetation and debris from cracks to a minimum depth of 1 inch (25 mm). If extensive vegetation exists, treat the specific area with a concentrated solution of a water-based herbicide approved by the RPR. Fill all cracks greater than 1/4 inch (6 mm) wide) with a crack sealant per ASTM D6690. The crack sealant, preparation, and application shall be compatible with the surface treatment/overlay to be used. To minimize contamination of the asphalt with the crack sealant, underfill the crack sealant a minimum of 1/8 inch (3 mm), not to exceed 1/4 inch (6 mm). Any excess joint or crack sealer shall be removed from the pavement surface.

**101-3.3 Removal of Foreign Substances/contaminates prior to remarking.** Removal of foreign substances/contaminates from existing pavement that will affect the bond of the new treatment shall consist of removal of rubber, fuel spills, oil, crack sealer, at least 90% of paint, and other foreign substances from the surface of the pavement. Areas that require removal are designated on the plans and as directed by the RPR in the field during construction.

High-pressure water may be used. If chemicals are used, they shall comply with the state's environmental protection regulations. Removal methods used shall not cause major damage to the pavement, or to any structure or utility within or adjacent to the work area. Major damage is defined as changing the properties of the pavement, removal of asphalt causing the aggregate to ravel, or removing pavement over 1/8 inch (3 mm) deep. If it is deemed by the RPR that damage to the existing pavement is caused by operational error, such as permitting the application method to dwell in one location for too long, the Contractor shall repair the damaged area without compensation and as directed by the RPR.

Removal of foreign substances shall not proceed until approved by the RPR. Water used for high-pressure water equipment shall be provided by the Contractor at the Contractor's expense. No material shall be deposited on the pavement 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 Contractor shall repair all spalled concrete as shown on the plans or as directed by the RPR. The perimeter of the repair shall be saw cut a minimum of 2 inches (50 mm) outside the affected area and 2 inches (50 mm) 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 asphalt mixture with aggregate sized appropriately for the depth of the patch. The material shall be compacted with equipment approved by the RPR until the material is dense and no movement or marks are visible. The material shall not be placed in lifts over 4 inches (100 mm) in depth. This method of repair applies only to pavement to be overlaid.

**b. Asphalt pavement repair.** The Contractor shall repair all spalled concrete as shown on the plans or as directed by the RPR. 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. Materials and methods of construction shall comply with the applicable sections of these specifications.

**101-3.5 Cold milling.** Milling shall be performed with a power-operated milling machine or grinder, capable of producing a uniform finished surface. The milling machine or grinder shall operate without tearing or gouging the underlying surface. The milling machine or grinder shall be equipped with grade and slope controls, and a positive means of dust control. All millings shall be removed and disposed off Airport property. If the Contractor mills or grinds deeper or wider than the plans specify, the Contractor shall replace the material removed with new material at the Contractor's Expense.

**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 RPR shall layout the area to be milled with a straightedge in increments of 1-foot (30 cm) widths. 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 be repaired by the Contractor at the Contractor's Expense.

**b. Profiling, grade correction, or surface correction.** The milling machine shall have a minimum width of seven (7) feet and it shall be equipped with electronic grade control devices that will cut the surface to the grade specified. The tolerances shall be maintained within +0 inch and -1/4 inch (+0 mm and -6mm) of the specified grade. The machine must cut vertical edges and have a positive method of dust control. The machine must have the ability to remove the millings or cuttings from the pavement and load them into a truck. All millings shall be removed and disposed of off the airport.

**c. Clean-up.** The Contractor shall sweep the milled surface daily and immediately after the milling until all residual materials 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 loose residual material. Waste materials shall be collected and removed from the pavement surface and adjacent areas by sweeping or vacuuming. Waste materials shall be removed and disposed off Airport property.

**101-3.6. Preparation of asphalt pavement surfaces prior to surface treatment.** Existing asphalt pavements 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 pavement similar to that of the existing pavement in accordance with paragraph 101-3.4b.

**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 scrubbing with a detergent and washing 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 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 RPR. 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 prior to resealing.** Prior to application of sealant material, clean and dry the joints of all scale, dirt, dust, old sealant, curing compound, moisture and other foreign matter. The Contractor shall demonstrate, in the presence of the RPR, that the method used cleans the joint and does not damage the joint.

**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 (2 mm) from each joint face.



Immediately after sawing, flush out joint with water and other tools as necessary to completely remove the slurry.

**101-3.8.2 Cleaning prior to sealing.** Immediately before sealing, joints shall be cleaned by removing any remaining laitance and other foreign material. Allow sufficient time to dry out joints prior to sealing. Joint surfaces will be surface-dry prior to installation of sealant.

**101-3.8.3 Joint sealant.** Joint material and installation will be in accordance with Item P-605.

**101-3.9 Preparation of Cracks in Flexible Pavement prior to sealing.** Prior to application of sealant material, clean and dry the joints of all scale, dirt, dust, old sealant, curing compound, moisture and other foreign matter. The Contractor shall demonstrate, in the presence of the RPR, that the method used cleans the cracks and does not damage the pavement.

**101-3.9.1 Preparation of Crack.** Widen crack with router **or random** crack saw **by** removing a minimum of 1/16 inch (2 mm) from each side of crack. Immediately before sealing, cracks will be blown out with a hot air lance combined with oil and water-free compressed air.

**101-3.9.2 Removal of Existing Crack Sealant.** Existing sealants will be removed by routing **or random** crack saw. Following **routing or** sawing any remaining debris will be removed by use of a hot lance combined with oil and water-free compressed air.

**101-3.9.3 Crack Sealant.** Crack sealant material and installation will be in accordance with Item P-605.

**101-3.9.4 Removal of Pipe and other Buried Structures.**

- a. **Removal of Existing Pipe Material.** Not used.
- b. **Removal of Inlets/Manholes.** Not used.

#### METHOD OF MEASUREMENT

**101-4.1 Pavement Removal.** The unit of measurement for pavement removal shall be the number of square yards (square meters) removed by the Contractor. 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. No direct measurement or payment shall be made for saw cutting. Saw cutting shall be incidental to pavement removal. Dowel bar installation shall be incidental to pavement removal.

**101-4.2 Joint and Crack Repair.** The unit of measurement for joint and crack repair shall be the linear foot (meter) of joint.

**101-4.3 Removal of Foreign Substances/contaminants.** The unit of measure for foreign substances/contaminants removal shall be the square foot (meter).

**101-4.4 Concrete Spall Repair.** The unit of measure for concrete spall repair shall be the number of cubic feet (cubic meter). The location and average depth of the patch shall be determined and agreed upon by the RPR and the Contractor.

#### 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 101-5.1	Pavement Removal - per square yard
Item P 101-5.2	Joint and Crack Repair – per linear foot (meter)
Item P-101-5.3	Removal of Foreign Substances/Contaminants - per square foot (square meter)
Item P-101-5.4	Concrete Spall Repair - per cubic foot

### REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

#### Advisory Circulars (AC)

AC 150/5380-6 Guidelines and Procedures for Maintenance of Airport Pavements.

#### ASTM International (ASTM)

ASTM D6690 Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements

### END OF ITEM P-101

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## 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.

**152-1.3 Unsuitable excavation.** Unsuitable material shall be disposed in designated waste areas as shown on the plans. Materials 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 RPR.

### CONSTRUCTION METHODS

**152-2.1 General.** Before beginning excavation, grading, and embankment operations in any area, the area shall be cleared or 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 RPR. All unsuitable material shall be disposed of in waste areas as shown on the plans. All waste areas shall be graded to allow positive drainage of the area and adjacent areas. The surface elevation of waste areas shall be specified on the plans or approved by the RPR.

When the Contractor's excavating operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued and the RPR notified per Section 70, paragraph 70-20. At the direction of the RPR, 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.

Areas outside the limits of the pavement areas where the top layer of soil has become compacted by hauling or other Contractor activities shall be scarified and disked to a depth of 4 inches (100 mm), to loosen and pulverize the soil. Stones or rock fragments larger than 4 inches (100 mm) in their greatest dimension will not be permitted in the top 6 inches (150 mm) of the subgrade.

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 RPR, who shall arrange for their removal if necessary. The Contractor, at their own 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.

**a. Blasting.** Blasting shall not be allowed.

**152-2.2 Excavation.** No excavation shall be started until the work has been staked out by the Contractor and the RPR has obtained from the Contractor, the survey notes of the elevations and measurements of the ground surface. The Contractor and RPR shall agree that the original ground lines shown on the original topographic mapping are accurate, or agree to any adjustments made to the original ground lines.

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 RPR. All suitable excavated material shall be used in the formation of embankment, subgrade, or other purposes as shown on the plans. All unsuitable material shall be disposed of as shown on the plans.

The grade shall be maintained so that the surface is well drained at all times.

When the volume of the excavation exceeds that required to construct the embankments to the grades as indicated on the plans, the excess shall be used to grade the areas of ultimate development or disposed as directed by the RPR. When the volume of excavation is not sufficient for constructing the embankments to the grades indicated, the deficiency shall be obtained from borrow areas.

**a. Selective grading.** When selective grading is indicated on the plans, the more suitable material designated by the RPR shall be used in constructing the embankment or in capping the pavement subgrade. If, at the time of excavation, it is not possible to place this material in its final location, it shall be stockpiled in approved areas until it can be placed. The more suitable material shall then be placed and compacted as specified. Selective grading shall be considered incidental to the work involved. The cost of stockpiling and placing the material shall be included in the various pay items of work involved.

**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 (300 mm) below the subgrade or to the depth specified by the RPR. Muck, peat, matted roots, or other yielding material, unsatisfactory for subgrade foundation, shall be removed to the depth specified. Unsuitable materials shall be disposed off the airport. The cost is incidental to this item. This excavated material shall be paid for at the contract unit price per cubic yard (per cubic meter) for unclassified 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 part of the embankment. Where rock cuts are made, backfill with select material. Any pockets created in the rock surface shall be drained in accordance with the details shown on the plans. Undercutting will be paid as unclassified excavation.

**c. Over-break.** Over-break, including slides, is that portion of any material displaced or loosened beyond the finished work as planned or authorized by the RPR. All over-break shall be graded or removed by the Contractor and disposed of as directed by the RPR. The RPR shall determine if the displacement of such material was unavoidable and their own decision shall be final. Payment will not be made for the removal and disposal of over-break that the RPR determines as avoidable. Unavoidable over-break will be classified as "Unclassified Excavation."

**d. Removal of utilities.** The removal of existing structures and utilities required to permit the orderly progress of work will be accomplished by the Contractor as indicated on the plans. All existing foundations shall be excavated at least 2 feet (60 cm) below the top of subgrade or as indicated on the plans, and the material disposed of as directed by the RPR. All foundations thus excavated shall be backfilled with suitable material and compacted as specified for embankment or as shown on the plans.

**152-2.4 Drainage excavation.** Drainage excavation shall consist of excavating drainage ditches including intercepting, inlet, or outlet ditches; or other types as shown on the plans. The work shall be performed in sequence with the other construction. 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 RPR. 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 cut areas or areas where existing pavement has been removed.** In those areas on which a subbase or base course is to be placed, the top 12 inches (300 mm) of subgrade shall be compacted to not less than 100 % of maximum density for non-cohesive soils, and 95% of maximum density for cohesive soils as determined by ASTM D1557. As used in this specification, "non-cohesive" shall mean those soils having a plasticity index (PI) of less than 3 as determined by ASTM D4318.

**152-2.6 Preparation of embankment area.** 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 (150 mm) and shall then be compacted per paragraph 152-2.10.

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 (300 mm) 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.

**152-2.7 Control Strip.** The first half-day of construction of subgrade and/or embankment shall be considered as a control strip for the Contractor to demonstrate, in the presence of the RPR, that the materials, equipment, and construction processes meet the requirements of this specification. The sequence and manner of rolling necessary to obtain specified density requirements shall be determined. The maximum compacted thickness may be increased to a maximum of 12 inches (300 mm) upon the Contractor's demonstration that approved equipment and operations will uniformly compact the lift to the specified density. The RPR must witness this demonstration and approve the lift thickness prior to full production.

Control strips that do not meet specification requirements shall be reworked, re-compacted, or removed and replaced at the Contractor's expense. Full operations shall not begin until the control strip has been accepted by the RPR. The Contractor shall use the same equipment, materials, and construction methods for the remainder of construction, unless adjustments made by the Contractor are approved in advance by the RPR.

**152-2.8 Formation of embankments.** The material shall be constructed in lifts as established in the control strip, but not less than 6 inches (150 mm) nor more than 12 inches (300 mm) of compacted thickness.

When more than one lift is required to establish the layer thickness shown on the plans, the construction procedure described here shall apply to each lift. No lift shall be covered by subsequent lifts until tests verify that compaction requirements have been met. The Contractor shall rework, re-compact and retest any material placed which does not meet the specifications.

The lifts shall be placed, to produce a soil structure as shown on the typical cross-section or as directed by the RPR. 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 due to 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 lift shall be within  $\pm 2\%$  of optimum moisture content before rolling to obtain the prescribed compaction. The material shall be moistened or aerated as necessary to achieve a uniform moisture content throughout the lift. Natural drying may be accelerated by blending in dry material or manipulation alone to increase the rate of evaporation.

The Contractor shall make the necessary corrections and adjustments in methods, materials or moisture content to achieve the specified embankment density.

The [RPR][contractor] will take samples of excavated materials which will be used in embankment for testing and develop a Moisture-Density Relations of Soils Report (Proctor) in accordance with ASTM D 1557. A new Proctor shall be developed for each soil type based on visual classification.

Density tests will be taken by the RPR for every 3,000 square yards of compacted embankment for each lift which is required to be compacted, or other appropriate frequencies as determined by the RPR.

If the material has greater than 30% retained on the 3/4-inch (19.0 mm) sieve, follow AASHTO T-180 Annex Correction of maximum dry density and optimum moisture for oversized particles.

Rolling operations shall be continued until the embankment is compacted to not less than 100% of maximum density for non-cohesive soils, and 95% of maximum density for cohesive soils as determined by ASTM D1557. Under all areas to be paved, the embankments shall be compacted to a depth of 12 inches and to a density of not less than 95% percent of the maximum density as determined by ASTM D1557. As used in this specification, "non-cohesive" shall mean those soils having a plasticity index (PI) of less than 3 as determined by ASTM D4318.

On all areas outside of the pavement areas, no compaction will be required on the top 4 inches (100 mm) which shall be prepared for a seedbed in accordance with Item T-901 and T-904.

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 RPR shall perform all density tests. If the specified density is not attained, the area represented by the test or as designated by the RPR shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached.

Compaction areas shall be kept separate, and no lift shall be covered by another lift 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 lift is placed. Lift placement shall begin in the deepest portion of the embankment fill. As placement progresses, the lifts shall be constructed approximately parallel to the finished pavement grade line.

When rock, concrete pavement, asphalt pavement, and other embankment material are excavated at approximately the same time as the subgrade, the material shall be incorporated into the outer portion of the embankment and the subgrade material shall be incorporated under the future paved areas. Stones, fragmentary rock, and recycled pavement larger than 4 inches (100 mm) in their greatest dimensions will not be allowed in the top 12 inches (300 mm) of the subgrade. Rockfill shall be brought up in lifts as specified or as directed by the RPR and the finer material shall be used to fill the voids forming a dense, compact mass. Rock, cement concrete pavement, asphalt pavement, and other embankment material shall not be disposed of except at places and in the manner designated on the plans or by the RPR.

When the excavated material consists predominantly of rock fragments of such size that the material cannot be placed in lifts of the prescribed thickness without crushing, pulverizing or further breaking down the pieces, such material may be placed in the embankment as directed in lifts not exceeding 2 feet

(60 cm) in thickness. Each lift shall be leveled and smoothed with suitable equipment by distribution of spalls and finer fragments of rock. The lift shall not be constructed above an elevation 4 feet (1.2 m) below the finished subgrade.

There will be no separate measurement of payment for compacted embankment. All costs incidental to placing in lifts, 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.

**152-2.9 Proof rolling.** The purpose of proof rolling the subgrade is to identify any weak areas in the subgrade and not for compaction of the subgrade. Before start of embankment the subgrade area shall be proof rolled with a 20 ton (18.1 metric ton) Tandem axle Dual Wheel Dump Truck loaded to the legal limit with tires inflated to 80/100/150 psi (0.551 MPa/0.689 MPa/1.034 MPa in the presence of the RPR. Apply a minimum of 25 coverage, or as specified by the RPR, under pavement 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 (25 mm) or show permanent deformation greater than 1 inch (25 mm) shall be removed and replaced with suitable material or reworked to conform to the moisture content and compaction requirements in accordance with these specifications. Removal and replacement of soft areas is incidental to this item.

**152-2.10 Compaction requirements.** The subgrade under areas to be paved shall be compacted to a depth of 12 inches (300 mm) and to a density of not less than 100 percent of the maximum dry density as determined by ASTM D1557. The subgrade in areas outside the limits of the pavement areas shall be compacted to a depth of 12 inches (300 mm) and to a density of not less than 95 percent of the maximum density as determined by ASTM D698.

The material to be compacted shall be within  $\pm 2\%$  of optimum moisture content before being rolled to obtain the prescribed compaction (except for expansive soils). When the material has greater than 30 percent retained on the  $\frac{3}{4}$  inch (19.0 mm) sieve, follow the methods in ASTM D1557. Tests for moisture content and compaction will be taken at a minimum of 3,000 S.Y. of subgrade. All quality assurance

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 within 12 months prior to its use on this contract. The gage shall be field standardized daily.

Maximum density refers to maximum dry density at optimum moisture content unless otherwise specified.

If the specified density is not attained, the entire lot shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached.

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 RPR and the finished subgrade shall be maintained.

**152-2.11 Finishing and protection of subgrade.** Finishing and protection of the subgrade is incidental to this item. Grading and compacting of the subgrade shall be performed so that it will drain readily. All low areas, holes or depressions in the subgrade shall be brought to grade. 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. All ruts or rough places that develop in the completed subgrade shall be graded, re-compacted, and retested. The Contractor shall protect the subgrade from damage and limit hauling over the finished subgrade to only traffic essential for construction purposes.



The Contractor shall maintain the completed course in satisfactory condition throughout placement of subsequent layers. No subbase, base, or surface course shall be placed on the subgrade until the subgrade has been accepted by the RPR.

**152-2.12 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.

The Contractor's equipment shall not cause damage to any excavated surface, compacted lift or to the subgrade as a result of hauling operations. Any damage caused as a result of the Contractor's hauling operations shall be repaired at the Contractor's expense.

The Contractor shall be responsible for providing, maintaining and removing any haul roads or routes within or outside of the work area, and shall return the affected areas to their former condition, unless otherwise authorized in writing by the Owner. No separate payment will be made for any work or materials associated with providing, maintaining and removing haul roads or routes.

**152-2.13 Surface Tolerances.** In those areas on which a subbase or base course is to be placed, the surface shall be tested for smoothness and accuracy of grade and crown. Any portion lacking the required smoothness or failing in accuracy of grade or crown shall be scarified to a depth of at least 3 inches (75 mm), reshaped and re-compacted to grade until the required smoothness and accuracy are obtained and approved by the RPR. The Contractor shall perform all final smoothness and grade checks in the presence of the RPR. Any deviation in surface tolerances shall be corrected by the Contractor at the Contractor's expense.

- a. **Smoothness.** The finished surface shall not vary more than +/- ½ inch (12 mm) when tested with a 12-foot (3.7-m) straightedge applied parallel with and at right angles to the centerline. The straightedge shall be moved continuously forward at half the length of the 12-foot (3.7-m) straightedge for the full length of each line on a 50-foot (15-m) grid.
- b. **Grade.** The grade and crown shall be measured on a 50-foot (15-m) grid and shall be within +/- 0.05 feet (15 mm) of the specified grade.

On safety areas, turfed areas and other designated areas within the grading limits where no subbase or base is to be placed, grade shall not vary more than 0.10 feet (30 mm) from specified grade. Any deviation in excess of this amount shall be corrected by loosening, adding or removing materials, and reshaping.

**152-2.14 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 be located as shown on the plans and the approved CSPP, and shall not be placed on areas that subsequently will require any excavation or embankment fill. If, in the judgment of the RPR, 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 re-handling.

Upon completion of grading operations, stockpiled topsoil shall be handled and placed as shown on the plans and as required in Item T-905. Topsoil shall be paid for as provided in Item T-905. No direct payment will be made for topsoil under Item P-152.

## METHOD OF MEASUREMENT

**152-3.1** Measurement for payment specified by the cubic yard (cubic meter) shall be computed by the average end areas of design cross sections for computation of neat line design quantities. The end area is

that bound by the original ground line established by field cross-sections and the final theoretical pay line established by cross-sections shown on the plans, subject to verification by the RPR.

**152-3.1** The quantity of unclassified excavation to be paid for shall be the number of cubic yards (cubic meters) 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.

### **BASIS OF PAYMENT**

**152-4.1** Unclassified excavation payment shall be made at the contract unit price per cubic yard (cubic meter). This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-152-4.1 Unclassified Excavation - per cubic yard (cubic meter)

Item P-152-4.2 Embankment In Place - per cubic yard (cubic meter)

### **REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

American Association of State Highway and Transportation Officials (AASHTO)

AASHTO T-180      Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop

ASTM International (ASTM)

ASTM D698      Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>))

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<sup>3</sup> (2700 kN-m/m<sup>3</sup>))

ASTM D6938      Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

Advisory Circulars (AC)

AC 150/5370-2      Operational Safety on Airports During Construction Software

Software

FAARFIELD – FAA Rigid and Flexible Iterative Elastic Layered Design

U.S. Department of Transportation

FAA RD-76-66      Design and Construction of Airport Pavements on Expansive Soils

**END OF ITEM P-152**

## Item P-501 Cement Concrete Pavement

### DESCRIPTION

**501-1.1** This work shall consist of pavement composed of cement concrete without 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. The terms cement concrete, hydraulic cement concrete, and concrete are interchangeable in this specification.

### MATERIALS

#### 501-2.1 Aggregates.

**a. Reactivity.** Fine and Coarse aggregates to be used in PCC on this project shall be tested and evaluated by the Contractor for alkali-aggregate reactivity in accordance with both ASTM C1260 and ASTM C1567. Tests must be representative of aggregate sources which will be providing material for production. ASTM C1260 and ASTM C1567 tests may be run concurrently.

(1) Coarse aggregate and fine aggregate shall be tested separately in accordance with ASTM C1260, however, the length of test shall be extended to 28 days (30 days from casting). Tests must have been completed within 6 months of the date of the concrete mix submittal.

(2) The 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 the expansion does not exceed 0.10% at 28 days, the proposed combined materials will be accepted. If the expansion 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.

(3) 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 in lieu of ASTM C1567. If lithium nitrate admixture is used, it shall be nominal 30%  $\pm$ 0.5% weight lithium nitrate in water. If the expansion does not exceed 0.10% at 28 days, the proposed combined materials will be accepted. If the expansion 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.** Grading of the fine aggregate, as delivered to the mixer, shall conform to the requirements of ASTM C33 and the parameters identified in the fine aggregate material requirements below. Fine aggregate material requirements and deleterious limits are shown in the table below.

<b>Fine Aggregate Material Requirements</b>		
Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	Loss after 5 cycles: 10% maximum using Sodium sulfate - or - 15% maximum using magnesium sulfate	ASTM C88
Sand Equivalent	[ 45 ] minimum	ASTM D2419
Fineness Modulus (FM)	$2.50 \leq FM \leq 3.40$	ASTM C136
<b>Limits for Deleterious Substances in Fine Aggregate for Concrete</b>		
Clay lumps and friable particles	1.0% maximum	ASTM C142
Coal and lignite	0.5% using a medium with a density of Sp. Gr. of 2.0	ASTM C123
Total Deleterious Material	1.0% maximum	

**c. Coarse aggregate.** The maximum size coarse aggregate shall be 1-1/2 inch.

Aggregates delivered to the mixer shall be clean, hard, uncoated aggregates consisting of crushed stone, crushed or uncrushed gravel, air-cooled iron blast furnace slag, crushed recycled concrete pavement, or a combination. The aggregates shall have no known history of detrimental pavement staining. Steel blast furnace slag shall not be permitted. Coarse aggregate material requirements and deleterious limits are shown in the table below; washing may be required to meet aggregate requirements.

#### Coarse Aggregate Material Requirements

Material Test	Requirement	Standard
Resistance to Degradation	Loss: 40% maximum	ASTM C131
Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	Loss after 5 cycles: 12% maximum using Sodium sulfate - or - 18% maximum using magnesium sulfate	ASTM C88
Flat, Elongated, or Flat and Elongated Particles	8% maximum, by weight, of flat, elongated, or flat and elongated particles at 5:1 for any size group coarser than 3/8 (9.5 mm) sieve <sup>1</sup>	ASTM D4791
Bulk density of slag <sup>2</sup>	Weigh not less than 70 pounds per cubic foot (1.12 Mg/cubic meter)	ASTM C29

<sup>1</sup> A flat particle is one having a ratio of width to thickness greater than five (5); an elongated particle is one having a ratio of length to width greater than five (5).

<sup>2</sup> Only required if slag is specified.

The amount of deleterious material in the coarse aggregate shall not exceed the following limits:

### Limits for Deleterious Substances in Coarse Aggregate

Deleterious material	ASTM	Percentage by Mass
Clay Lumps and friable particles	ASTM C142	1.0
Material finer than No. 200 sieve (75 µm)	ASTM C117	1.0 <sup>1</sup>
Lightweight particles	ASTM C123 using a medium with a density of Sp. Gr. of 2.0	0.5
Chert <sup>2</sup> (less than 2.40 Sp Gr.)	ASTM C123 using a medium with a density of Sp. Gr. of 2.40)	0.1 <sup>3</sup>

<sup>1</sup> The limit for material finer than 75-µm is allowed to be increased to 1.5% for crushed aggregates consisting of dust of fracture that is essentially free from clay or shale. Test results supporting acceptance of increasing limit to 1.5% with statement indicating material is dust of fracture must be submitted with Concrete mix. Acceptable techniques to characterizing these fines include methylene blue adsorption or X-ray diffraction analysis.

<sup>2</sup> Chert and aggregates with less than 2.4 specific gravity.

<sup>3</sup> The limit for chert may be increased to 1.0 percent by mass in areas not subject to severe freeze and thaw.

**d. Combined aggregate gradation.** This specification is targeted for a combined aggregate gradation developed following the guidance presented in United States Air Force Engineering Technical Letter (ETL) 97-5: Proportioning Concrete Mixtures with Graded Aggregates for Rigid Airfield Pavements. Base the aggregate grading upon a combination of all the aggregates (coarse and fine) to be used for the mixture proportioning. Three aggregate sizes may be required to achieve an optimized combined gradation that will produce a workable concrete mixture for its intended use. Use aggregate gradations that produce concrete mixtures with well-graded or optimized aggregate combinations. The Contractor shall submit complete mixture information necessary to calculate the volumetric components of the mixture. The combined aggregate grading shall meet the following requirements:

(1) 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 paragraph 501-2.1d(4) below, the point thus determined shall fall within the parallelogram described therein.

(2) The CF shall be determined from the following equation:

$$CF = \frac{\text{(cumulative percent retained on the 3/8 in. (9.5 mm) sieve)(100)}}{\text{(cumulative percent retained on the No. 8 (2.36 mm) sieve)}}$$

(3) The WF is defined as the percent passing the No. 8 (2.36 mm) sieve based on the combined gradation. However, WF shall be adjusted, upwards only, by 2.5 percentage points for each 94 pounds (42 kg) of cementitious material per cubic meter yard greater than 564 pounds per cubic yard (335 kg per cubic meter).

(4) 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. The point determined by the plotting of the CF and WF may be adjusted during production  $\pm 3$  WF and  $\pm 5$  CF. Adjustments to gradation may not take the point outside of the parallelogram.

**e. Contractors combined aggregate gradation.** The Contractor shall submit their combined aggregate gradation using the following format:

**Contractor's Combined Aggregate Gradation**

Sieve Size	Contractor's Concrete mix Gradation (Percent passing by weight)
2 inch (50 mm)	*
1-1/2 inch (37.5 mm)	*
1 inch (25.0 mm)	*
3/4 inch (19.0 mm)	*
1/2 inch (12.5 mm)	*
3/8 inch (9.5 mm)	*
No. 4 (4.75 mm)	*
No. 8 (2.36 mm)	*
No. 16 (1.18 mm)	*
No. 30 (600 µm)	*
No. 50 (300 µm)	*
No. 100 (150 µm)	*

**501-2.2 Cement.** Cement shall conform to the requirements of ASTM C150 - Type I or II.

**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 shall have a Calcium Oxide (CaO) content of less than 15% and a total alkali content less than 3% per ASTM C311. The Contractor shall furnish the previous three most recent, consecutive ASTM C618 reports for each source of fly ash proposed in the concrete mix, 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 Resident Project Representative (RPR).

**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 D1751 or ASTM D1752 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 RPR. 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 RPR.

**501-2.6 Steel reinforcement.** Not Used.

**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.

**a. Dowel Bars.** Before delivery to the construction site each dowel bar shall be epoxy coated per ASTM A1078, Type 1, with a coating thickness after curing greater than 10 mils. Patched ends are not required for Type 1 coated dowels. 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.

**b. Tie Bars.** 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. If water is taken from other sources considered non-potable, it shall meet the requirements of ASTM C1602.

**501-2.9 Material 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 A, or Class B.

**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.** Admixtures shall conform to the following specifications:

**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-entraining 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.

**c. Other admixtures.** The use of set retarding and set-accelerating admixtures shall be approved by the RPR prior to developing the concrete mix. Retarding admixtures shall meet the requirements of ASTM C494, Type A, B, or D and set-accelerating admixtures 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 (1.2 kg/L), and shall have the approximate chemical form as shown below:



### Lithium Admixture

Constituent	Limit (Percent by Mass)
LiNO <sub>3</sub> (Lithium Nitrate)	30 ±0.5
SO <sub>4</sub> (Sulfate Ion)	0.1 (max)
Cl (Chloride Ion)	0.2 (max)
Na (Sodium Ion)	0.1 (max)
K (Potassium Ion)	0.1 (max)

The lithium nitrate admixture dispensing and mixing operations shall be verified and certified by the lithium manufacturer's representative.

**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 Bond Breaker.** Not required.

### CONCRETE MIX

**501-3.1. General.** No concrete shall be placed until an acceptable concrete mix has been submitted to the RPR for review and the RPR has taken appropriate action. The RPR's review shall not relieve the Contractor of the responsibility to select and proportion the materials to comply with this section.

**501-3.2 Concrete Mix Laboratory.** The laboratory used to develop the concrete mix 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 must be included in the lab accreditation. A copy of the laboratory's current accreditation and accredited test methods shall be submitted to the RPR prior to start of construction.

**501-3.3 Concrete Mix Proportions.** Develop the mix using the procedures contained in Portland Cement Association (PCA) publication, "Design and Control of Concrete Mixtures." Concrete shall be proportioned to achieve a 28-day flexural strength that meets or exceeds the acceptance criteria contained in paragraph 501-6.6 for a flexural strength of 650 psi per ASTM C78.

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 470 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 be between 0.38 – 0.45 by weight.

Flexural strength test specimens shall be prepared in accordance with ASTM C192 and tested in accordance with ASTM C78. At the start of the project, the Contractor shall determine an allowable

slump as determined by ASTM C143 not to exceed 2 inches (50 mm) for slip-form placement. For fixed-form placement, the slump shall not exceed 3 inches (75 mm). For hand placement, the slump shall not exceed 4 inches (100 mm).

The results of the concrete mix 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.

If a change in source(s) is made, or admixtures added or deleted from the mix, a new concrete mix must be submitted to the RPR for approval.

The RPR may request samples at any time for testing, prior to and during production, to verify the quality of the materials and to ensure conformance with the applicable specifications.

**501-3.4 Concrete Mix submittal.** The concrete mix shall be submitted to the RPR at least 30 days prior to the start of operations. The submitted concrete mix shall not be more than 180 days old and must use the materials to be used for production for the project. Production shall not begin until the concrete mix is approved in writing by the RPR.

Each of the submitted concrete mixes (i.e, slip form, side form machine finish and side form hand finish) shall be stamped or sealed by the responsible professional Engineer of the laboratory and shall include the following items and quantities as a minimum:

- Certified material test reports for aggregate in accordance with paragraph 501-2.1. Certified reports must include all tests required; reporting each test, test method, test result, and requirement specified (criteria).
- Combined aggregate gradations and analysis; and including plots of the fine aggregate fineness modulus.
- Reactivity Test Results.
- Coarse aggregate quality test results, including deleterious materials.
- Fine aggregate quality test results, including deleterious materials.
- Mill certificates for cement and supplemental cementitious materials.
- Certified test results for all admixtures, including Lithium Nitrate if applicable.
- Specified flexural strength, slump, and air content.
- Recommended proportions/volumes for proposed mixture and trial water-cementitious materials ratio, including actual slump and air content.
- Flexural and compressive strength summaries and plots, including all individual beam and cylinder breaks.
- Correlation ratios for acceptance testing and Contractor QC testing, when applicable.
- Historical record of test results documenting production standard deviation, when applicable.

**501-3.5 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.

**c. Raw or calcined natural pozzolan.** Natural pozzolan may be used in the concrete mix. 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.

### 501-3.6 Admixtures.

**a. Air-entraining admixtures.** Air-entraining admixture are 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 4.5%. 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 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 with the materials to be used in the work, in accordance with ASTM C494.

**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.

## CONSTRUCTION METHODS

**501-4.1 Control Strip.** The control strip(s) shall be to the next planned joint after the initial 250 feet (75 m) of each type of pavement construction (slip-form pilot lane, slip-form fill-in lane, or fixed form). The Contractor shall demonstrate, in the presence of the RPR, that the materials, concrete mix, equipment, construction processes, and quality control processes meet the requirements of the specifications. The concrete mixture shall be extruded from the paver meeting the edge slump tolerance and with little or no finishing. Pilot, fill-in, and fixed-form control strips will be accepted separately. Minor adjustments to the mix design may be required to place an acceptable control strip. The production mix will be the adjusted mix design used to place the acceptable control strip. Upon acceptance of the control strip by the RPR, the Contractor must use the same equipment, materials, and construction methods for the remainder of concrete paving. Any adjustments to processes or materials must be approved in advance by the RPR. The acceptable control strip shall be paid for in accordance with paragraph 501-6.6.

**501-4.2 Equipment.** The Contractor is responsible for the proper operation and maintenance of all equipment necessary for handling materials and performing all parts of the work to meet this specification.

**a. Plant and equipment.** The plant and mixing equipment shall conform to the requirements of ASTM C94 and/or ASTM C685. Each truck 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. The truck mixers 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 (19 mm) 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.

Equipment for transferring and spreading concrete from the transporting equipment to the paving lane in front of the finishing equipment shall be provided. The equipment shall be specially manufactured, self-propelled transfer equipment which will accept the concrete outside the paving lane and will 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.

**b. Finishing equipment.**

**(1) Slip-form.** The standard method of constructing concrete pavements shall be with an approved slip-form paving equipment designed and operated to spread, consolidate, screed, and 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.

**(2) Fixed-form.** On projects requiring less than 10,000 cubic yards of concrete pavement or irregular areas at locations inaccessible to slip-form paving equipment, concrete pavement may be placed with equipment specifically designed for placement and finishing using stationary side forms. Methods and equipment shall be reviewed and accepted by the RPR. Hand screeding and float finishing may only be used on small irregular areas as allowed by the RPR.

**c. Vibrators.** Vibrator shall be the internal type. The rate of vibration of each vibrating unit shall be sufficient to consolidate the pavement without segregation or voids. 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) 309R, 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 RPR.

Hand held vibrators may only be used in irregular areas and shall meet the recommendations of ACI 309R, Guide for Consolidation of Concrete.

**d. 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.

**e. Fixed forms.** Straight side fixed forms shall be made of steel and shall be furnished in sections not less than 10 feet (3 m) in length. 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 RPR. The top face of the form shall not vary from a true plane more than 1/8 inch (3 mm) in 10 feet (3 m), and the upstanding leg shall not vary more than 1/4 inch (6 mm). 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 RPR. The forms shall extend the full depth of the pavement section.

**501-4.3 Form setting.** Forms shall be set to line and grade as shown on the plans, sufficiently in advance of the concrete placement, to ensure continuous paving operation. Forms shall be set to 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 concrete placement.

**501-4.4 Base surface preparation prior to placement.** Any damage to the prepared base, subbase, and subgrade shall be corrected full depth by the Contractor prior to concrete placement. The underlying surface shall be entirely free of frost when concrete is placed. The prepared grade shall be moistened with water, without saturating, immediately ahead of concrete placement to prevent rapid loss of moisture from concrete.

**501-4.5 Handling, measuring, and batching material.** Aggregate stockpiles shall be constructed and managed 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. Store and maintain all aggregates at a uniform moisture content prior to use. A continuous supply of materials shall be provided to the work to ensure continuous placement.

**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 are placed into the drum until the drum is emptied into the truck. All concrete shall be mixed and delivered to the site in accordance with the requirements of ASTM C94 or ASTM C685.

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 discharged from the truck should not exceed thirty (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. In no case shall the temperature of the concrete when placed exceed 90°F (32°C). 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 is not exceeded.

**501-4.7 Weather 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 RPR, mixing and concreting operations shall be discontinued when a descending air temperature in the shade and away from artificial heat reaches 40°F (4°C) and shall not be resumed until an ascending air temperature in the shade and away from artificial heat reaches 35°F (2°C).

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 (10°C) 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 (66°C). 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.

Curing during cold weather shall be in accordance with paragraph 501-4.13d.

**b. Hot weather.** During periods of hot weather when the maximum daily air temperature exceeds 85°F (30°C), 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 (32°C). 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 concrete placement shall be protected from exceeding an evaporation rate of 0.2 psf (0.98 kg/m<sup>2</sup> per hour) 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. If the Contractor's measures are not effective in preventing plastic cracking, paving operations shall be immediately stopped.

Curing during hot weather shall be in accordance with paragraph 501-4.13e.

**c. Temperature management program.** Prior to the start of paving operation for each day of paving, the Contractor shall provide the RPR with a Temperature Management Program for the concrete to be placed to assure that uncontrolled cracking is avoided. (Federal Highway Administration HIPERPAV 3 is one example of a temperature management program.) 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 19-9, 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.

**d. Rain.** 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 (0.1 mm) 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.

**501-4.8 Concrete Placement.** 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 (1 m). 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 (3.8 MPa), based on the average of four field cured specimens per 2,000 cubic yards (1,530 cubic meters) of concrete placed. The Contractor must determine that the above minimum strengths are adequate to protection the pavement from overloads due to the construction equipment proposed for the project.

**The Contractor shall have available materials for the protection of the concrete during cold, hot and/or inclement weather in accordance with paragraph 501-4.7.**

**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 (23 cm) 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 (0.5 m).

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 sufficient to consolidate the pavement without segregation, voids, or vibrator trails 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 (30 cm). The frequency of vibration or amplitude should be adjusted 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 (150 m) segment of pavement, or fraction thereof, shall have an edge slump exceeding 1/4 inch (6 mm), and none of the free edge of the pavement shall have an edge slump exceeding 3/8 inch (9 mm). (The total free edge of 500 feet (150 m) 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 (150 m) of paving lane originally constructed as a separate lane will have 1,000 feet (300 m) of free edge, 500 feet (150 m) 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 (0.5 m) from the edge.

When excessive edge slump cannot be corrected before the concrete has hardened, the area with excessive edge slump will be removed the full width of the slip form lane and replaced at the expense of the Contractor as directed by the RPR.

**b. Fixed-form construction.** Forms shall be drilled in advance of being placed to line and grade to accommodate tie bars / dowel 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 coated with a release agent each time they are used and before concrete is placed against them.

Concrete shall be spread, screed, 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. The equipment must be specifically designed for placement and finishing using stationary side forms. Methods and equipment shall be reviewed and accepted by the RPR.

Concrete for the full paving width shall be effectively consolidated by internal vibrators. The rate of vibration of each vibrating unit shall be sufficient to consolidate the pavement without segregation, voids, or leaving vibrator trails.

Power to vibrators shall be connected so that vibration ceases when forward or backward motion of the machine is stopped.

**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 (50 mm). Vibrators shall not be used to transport or spread the concrete. 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) or over-consolidation (vibrator trails, segregation, or any other evidence) shall require the immediate stopping of the paving operation and adjustment of the equipment or procedures as approved by the RPR.

If a lack of consolidation of the hardened concrete is suspected by the RPR, referee testing may be required. Referee testing of hardened concrete will be performed by the RPR by cutting cores from the finished pavement after a minimum of 24 hours curing. The RPR shall visually examine the cores for evidence of lack of consolidation. Density determinations will be made by the RPR 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 (382 m<sup>2</sup>) 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 concrete mix density, with no cores having a density of less than 96% of the original concrete mix 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 screed. 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 (12 mm) from their designated position and shall be true to line with not more than 1/4-inch (6 mm) variation in 10 feet (3 m). The surface across the joints shall be tested with a 12-foot (3 m) straightedge as the joints are finished and any irregularities in excess of 1/4 inch (6 mm) 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 (3 mm) 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. The filler shall be fastened uniformly along the hardened joint face with no buckling or debris between the filler and the concrete interface, including a temporary filler for the sealant reservoir at the top of the slab. The edges of the joint shall be finished and tooled while the concrete is still plastic

#### **d. Dowels and Tie Bars for Joints**

**(1) 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 and within the tolerances in paragraph 501-4.10(f.). 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.

**(2) Dowel bars.** Dowel bars shall be placed across joints in the proper horizontal and vertical alignment as shown on the plans. The dowels shall be coated with a bond-breaker or other lubricant recommended by the manufacturer and approved by the RPR. Dowel bars at longitudinal construction joints shall be bonded in drilled holes.

**(3) Placing dowels and tie bars.** Horizontal spacing of dowels shall be within a tolerance of  $\pm 3/4$  inch (19 mm). The vertical location on the face of the slab shall be within a tolerance of  $\pm 1/2$  inch (12 mm). The method used to install dowels shall ensure that the horizontal and vertical alignment will not be greater than 1/4 inch per foot (6 mm per 0.3 m), 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 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.

**(a) Contraction joints.** Dowels and tie bars in longitudinal and transverse contraction joints within the paving lane shall be held securely in place 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, dowels and tie bars in contraction joints may be installed by insertion into the plastic concrete using approved equipment and procedures per the paver manufacturer's design. Approval of installation methods will be based on the results of the control strip showing that the dowels and tie bars are installed within specified tolerances as verified by cores or non-destructive rebar location devices approved by the RPR.

**(b) 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.

**(c) Joints in hardened concrete.** Install dowels in hardened concrete by bonding the dowels into holes drilled into the concrete. The concrete shall have cured for seven (7) days or reached a minimum compressive strength of 3100 psi (21.4 MPa) before drilling begins. Holes 1/8 inch (3 mm) 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. Spalling beyond the limits of the grout retention ring will require modification of the equipment and operation. Depth of dowel hole shall be within a tolerance of  $\pm 1/2$  inch (12 mm) 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 by means of a suitable metal or plastic grout retention ring fitted around the dowel.

**e. Sawing of joints.** 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. 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 saw-cut and maintained for the remaining cure period.

Joints shall be cut in locations as shown on the plans. The initial joint cut shall be a minimum 1/8 inch (3 mm) wide and to the depth shown on the plans. Prior to placement of joint sealant or seals, the top of the joint shall be widened by sawing as shown on the plans.

**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, edging of joints, and then texturing. 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. Equipment, mixture, and/or procedures which produce more than 1/4 inch (6 mm) of mortar-rich surface shall be immediately modified as necessary to eliminate this condition or operations shall cease. 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. Fog (mist) sprays or other surface applied finishing aids specified to prevent plastic shrinkage cracking, approved by the RPR, may be used in accordance with the manufacturers requirements.

**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. Equipment, mixture, and/or procedures which produce more than 1/4 inch (6 mm) of mortar-rich surface shall be immediately modified as necessary to eliminate this condition or operations shall cease. Remove excessive slurry from the surface with a cutting straightedge and wipe off the edge. 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 RPR's approval.

Bridge deck finishers shall have a minimum operating weight of 7500 pounds (3400 kg) 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.

**e. Straightedge 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 12-foot (3.7-m) finishing straightedge swung from handles capable of spanning at least 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 (3 mm) 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. 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.

**501-4.12 Surface texture.** The surface of the pavement shall be finished as designated below for all newly constructed concrete pavements. It is important that the texturing equipment not tear or unduly roughen the pavement surface during the operation. The texture shall be uniform in appearance and approximately 1/16 inch (2 mm) in depth. Any imperfections resulting from the texturing operation shall be corrected to the satisfaction of the RPR.

**a. Brush or broom finish.** Shall be applied when the water sheen has practically disappeared. The equipment shall operate transversely across the pavement surface.

**b. Burlap drag finish.** Burlap, at least 15 ounces per square yard (555 grams per square meter), will typically produce acceptable texture. To obtain a textured surface, the transverse threads of the burlap shall be removed approximately one foot (30 cm) from the trailing edge. A heavy buildup of grout on the burlap threads produces the desired wide sweeping longitudinal striations on the pavement surface.

**c. Artificial turf finish.** Not used.

**501-4.13 Curing.** Immediately after finishing operations are completed and bleed water is gone from the surface, all exposed surfaces 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-saw-cut method is used to construct the contraction joint, the curing compound shall be applied to the saw-cut 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.** Curing with liquid membrane compounds should not occur until bleed and surface moisture has evaporated. All exposed surfaces 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 (4 liters) to not more than 150 square feet (14 sq m). 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 RPR, a double application rate shall be used to ensure coverage. 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.

**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.** Maintain the concrete at a temperature of at least 50°F (10°C) for a period of 72 hours after placing and at a temperature above freezing for the remainder of the 7-day curing period. 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 RPR.

**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 in accordance with paragraph 501-4.13.

If honeycombed areas are evident when the forms are removed, materials, placement, and consolidation methods must be reviewed and appropriate adjustments made to assure adequate consolidation at the edges of future concrete placements. Honeycombed areas that extend into the slab less than approximately 1 inch (25 mm), shall be repaired with an approved grout, as directed by the RPR. Honeycombed areas that extend into the slab greater than a depth of 1 inch (25 mm) shall be considered as defective work and shall be removed and replaced in accordance with paragraph 501-4.19.

**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 RPR. 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 RPR.

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, the joints are protected, the concrete has attained a minimum field cured flexural strength of 450 psi (3100 kPa), and the slab edge is protected.

All new and existing pavement carrying construction traffic or equipment shall be kept clean and spillage of concrete and other materials shall be cleaned up immediately.

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 construction 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 450 pounds per square inch (3100 kPa) 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, or replacement of slabs.** New pavement slabs that are broken or contain cracks or are otherwise defective or unacceptable as defined by acceptance criteria in paragraph 501-6.6 shall be removed and replaced or repaired, as directed by the RPR, at the Contractor's expense. 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 RPR 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 have a diameter of 2 inches (50 mm) to 4 inches (100 mm), 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 a bonding agent, using approved procedures. Drilling of cores and refilling holes shall be at no expense to the Owner. Repair of cracks as described in this section shall not be allowed if in the opinion of the RPR 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 (3 mm) of the pavement surface.

**a. Shrinkage cracks.** Shrinkage cracks which do not exceed one-third of the pavement depth shall be cleaned and either high molecular weight methacrylate (HMWM) applied; or epoxy resin (Type IV, Grade 1) pressure injected using procedures recommended by the manufacturer and approved by the RPR. Sandblasting of the surface may be required following the application of HMWM to restore skid resistance. Care shall be taken to ensure that the crack is not widened during epoxy resin injection. All epoxy resin injection shall take place in the presence of the RPR. Shrinkage cracks which exceed one-third the pavement depth shall be treated as full depth cracks in accordance with paragraphs 501-4.19b and 501-19c.

**b. Slabs with cracks through interior areas.** Interior area is defined as that area more than 6 inches (150 mm) 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 one-third the pavement depth, that extend into the interior area.

**c. Cracks close to and parallel to joints.** All full-depth cracks within 6 inches (150 mm) either side of the joint and essentially parallel to the original joints, shall be treated as follows.

**(1) Full depth cracks and original joint not cracked.** The full-depth crack shall be treated as the new joint and the original joint filled with an epoxy resin.

**i. Full-depth crack.** The joint sealant reservoir for the crack shall be formed by sawing to a depth of 3/4 inches (19 mm),  $\pm 1/16$  inch (2 mm), and to a width of 5/8 inch (16 mm),  $\pm 1/8$  inch (3 mm). The crack shall be sawed with equipment specially designed to follow random cracks. Any equipment or procedure which causes raveling or spalling along the crack shall be modified or replaced to prevent raveling or spalling. The joint shall be sealed with sealant in accordance with P-605 or as directed by the RPR.

**ii. Original joint.** If the original 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.

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 and original joint cracked.** 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.

**d. Removal and replacement of full slabs.** Make a full depth cut perpendicular to the slab surface along all edges of the slab with a concrete saw cutting any dowels or tie-bars. Remove damaged slab protecting adjacent pavement from damage. Damage to adjacent slabs may result in removal of additional slabs as directed by the RPR at the Contractor's expense.

The underlying material shall be repaired, re-compacted and shaped to grade.

Dowels of the size and spacing specified for other joints in similar pavement on the project shall be installed along all four (4) edges of the new slab in accordance with paragraph 501-4.10d.

Placement of concrete shall be as specified for original construction. The joints around the new slab shall be prepared and sealed as specified for original construction.

**e. Spalls along joints.**

**(1)** Spalls less than one inch wide and less than the depth of the joint sealant reservoir, shall be filled with joint sealant material.

**(2)** Spalls larger than one inch and/or deeper than the joint reservoir, but less than 1/2 the slab depth, and less than 25% of the length of the adjacent joint shall be repaired as follows:

**i.** Make a vertical saw cut at least one inch (25 mm) outside the spalled area and to a depth of at least 2 inches (50 mm). Saw cuts shall be straight lines forming rectangular areas surrounding the spalled area.

**ii.** Remove unsound concrete and at least 1/2 inch (12 mm) of visually sound concrete between the saw cut and the joint or crack with a light chipping hammer.

iii. Clean cavity with high-pressure water jets supplemented with compressed air as needed to remove all loose material.

iv. Apply a prime coat of epoxy resin, Type III, Grade I, to the dry, cleaned surface of all sides and bottom of the cavity, except any joint face.

v. Fill the cavity with low slump concrete or mortar or with epoxy resin concrete or mortar.

vi. An insert or other bond-breaking medium shall be used to prevent bond at all joint faces.

vii. 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.

(3) Spalls deeper than 1/2 of the slab depth or spalls longer than 25% of the adjacent joint require replacement of the entire slab.

**f. Diamond grinding of Concrete surfaces.** Diamond grinding shall be completed prior to pavement grooving. Diamond grinding of the hardened concrete should not be performed until the concrete is at least 14 days old and has achieved full minimum strength. Equipment that causes ravels, aggregate fractures, spalls or disturbance to the joints will not be permitted. The depth of diamond grinding shall not exceed 1/2 inch (13 mm) and all areas in which diamond grinding has been performed will be subject to the final pavement thickness tolerances specified.

Diamond grinding shall be performed with a machine specifically designed for diamond grinding capable of cutting a path at least 3 feet (0.9 m) wide. The saw blades shall be 1/8-inch (3-mm) wide with sufficient number of flush cut blades that create grooves between 0.090 and 0.130 inches (2 and 3.5 mm) wide; and peaks and ridges approximately 1/32 inch (1 mm) higher than the bottom of the grinding cut. The Contractor shall determine the number and type of blades based on the hardness of the aggregate. Contractor shall demonstrate to the RPR that the grinding equipment will produce satisfactory results prior to making corrections to surfaces.

Grinding will be tapered in all directions to provide smooth transitions to areas not requiring grinding. The slurry resulting from the grinding operation shall be continuously removed and the pavement left in a clean condition. All grinding shall be at the expense of the Contractor.

### CONTRACTOR QUALITY CONTROL (CQC)

**501-5.1 Quality control program.** The Contractor shall develop a Quality Control Program in accordance with Item C-100. No partial payment will be made for materials that are subject to specific quality control requirements without an approved quality control program.

**501-5.2 Contractor Quality Control (CQC).** The Contractor shall provide or contract for testing facilities in accordance with Item C-100. The RPR shall be permitted unrestricted access to inspect the Contractor's QC facilities and witness QC activities. The RPR will advise the Contractor in writing of any noted deficiencies concerning the QC facility, equipment, supplies, or testing personnel and procedures. When the deficiencies are serious enough to be adversely affecting the test results, the incorporation of the materials into the work shall be suspended immediately and will not be permitted to resume until the deficiencies are satisfactorily corrected.

**501-5.3 Contractor QC testing.** The Contractor shall perform all QC tests necessary to control the production and construction processes applicable to this specification and as set forth in the CQCP. The testing program shall include, but not necessarily be limited to, tests for aggregate gradation, aggregate



moisture content, slump, and air content. A QC Testing Plan shall be developed and approved by the RPR as part of the CQCP.

The RPR 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 RPR, and if it can be demonstrated in the laboratory, in the presence of the RPR, that such material was erroneously rejected, payment will be made for the material at the contract unit price.

**a. Fine aggregate.**

**(1) Gradation.** A sieve analysis shall be made at least twice daily in accordance with ASTM C136 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 C70 or ASTM C566.

**(3) Deleterious substances.** Fine aggregate as delivered to the mixer shall be tested for deleterious substances in fine aggregate for concrete as specified in paragraph 501-2.1b, prior to production of the control strip, and a minimum of every 30-days during production or more frequently as necessary to control deleterious substances.

**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 C136 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 C566.

**(3) Deleterious substances.** Coarse aggregate as delivered to the mixer shall be tested for deleterious substances in coarse aggregate for concrete as specified in paragraph 501-2.1c, prior to production of the control strip, and a minimum of every 30-days during production or more frequently as necessary to control deleterious substances.

**c. Slump.** One test shall be made for each subplot. 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.** One test shall be made for each subplot. 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. Unit weight and Yield.** One test shall be made for each subplot. Unit weight and yield tests shall be in accordance with ASTM C138. The samples shall be taken in accordance with ASTM C172 and at the same time as the air content tests.

**f. Temperatures.** Temperatures shall be checked at least four times per lot at the job site in accordance with ASTM C1064.

**g. Smoothness for Contractor Quality Control.**

The Contractor shall perform smoothness testing in transverse and longitudinal directions daily to verify that the construction processes are producing pavement with variances less than ¼ inch in 12 feet, identifying areas that may pond water which could lead to hydroplaning of aircraft. If the smoothness criteria is not met, appropriate changes and corrections to the construction process shall be made by the Contractor before construction continues.

The Contractor may use a 12-foot (3.7 m) “straightedge, a rolling inclinometer meeting the requirements of ASTM E2133 or rolling external reference device that can simulate a 12-foot (3.7m) straightedge approved by the RPR. Straight-edge testing shall start with one-half the length of the straightedge at the edge of pavement section being tested and then moved ahead one-half the length of the straightedge for each successive measurement. Testing shall be continuous across all joints. The 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 the two high points. If the rolling inclinometer or external reference device is used, the data may be evaluated using the FAA profile program, ProFAA, using the 12-foot straightedge simulation function.

Smoothness readings shall not be made across grade changes or cross slope transitions. The transition between new and existing pavement shall be evaluated separately for conformance with the plans.

**(1) Transverse measurements.** Transverse measurements shall be taken for each day’s production placed. Transverse measurements shall be taken perpendicular to the pavement centerline each 50 feet (15 m) or more often as determined by the RPR. The joint between lanes shall be tested separately to facilitate smoothness between lanes.

**(2) Longitudinal measurements.** Longitudinal measurements shall be taken for each day’s production placed. Longitudinal tests shall be parallel to the centerline of paving; at the center of paving lanes when widths of paving lanes are less than 20 feet (6 m); and at the third points of paving lanes when widths of paving lanes are 20 ft (6 m) or greater.

Deviations on the final surface course in either the transverse or longitudinal direction that will trap water greater than 1/4 inch (6 mm) shall be corrected with diamond grinding per paragraph 501-4.19f or by removing and replacing the surface course to full depth. Grinding shall be tapered in all directions to provide smooth transitions to areas not requiring grinding. All areas in which diamond grinding has been performed shall be subject to the final pavement thickness tolerances specified in paragraph 501-6.6.

Control charts shall be kept to show area of each day’s placement and the percentage of corrective grinding required. Corrections to production and placement shall be initiated when corrective grinding is required. If the Contractor’s machines and/or methods produce significant areas that need corrective actions in excess of 10 percent of a day’s production, production shall be stopped until corrective measures are implemented by the Contractor.

**h. Grade.** Grade will be evaluated prior to and after placement of the concrete surface.

Measurements will be taken at appropriate gradelines (as a minimum at center and edges of paving lane) and longitudinal spacing as shown on cross-sections and plans. The final surface of the pavement will not vary from the gradeline elevations and cross-sections shown on the plans by more than 1/2 inch (12 mm) vertically and 0.1 feet (30 mm) laterally. The documentation will be provided by the Contractor to the RPR by the end of the following working day.

Areas with humps or depression that exceed grade or smoothness and that retain water on the surface must be ground off provided the course thickness after grinding is not more than 1/2 inch (12 mm) less

than the thickness specified on the plans. If these areas cannot be corrected with grinding then the slabs that are retaining water must be removed and replaced in accordance with paragraph 501-4.19d. Grinding shall be in accordance with paragraph 501-4.19f. All corrections will be at the Contractors expense.

**501-5.4 Control charts.** The Contractor shall maintain linear control charts for fine and coarse aggregate gradation, slump, and air content. The Contractor shall also maintain a control chart plotting the coarseness factor/workability factor from the combined gradations in accordance with paragraph 501-2.1d.

Control charts shall be posted in a location satisfactory to the RPR 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 RPR 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. Superimposed on the control charts shall be the action and suspension limits. Gradation tests shall be performed by the Contractor per ASTM C136. The Contractor shall take at least [ two ] samples per lot to check the final gradation. Sampling shall be per ASTM D75 from the flowing aggregate stream or conveyor belt.

**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.

**c. Combined gradation.** The Contractor shall maintain a control chart plotting the coarseness factor and workability factor on a chart in accordance with paragraph 501-2.1d.

#### Control Chart Limits<sup>1</sup>

Control Parameter	Individual Measurements	
	Action Limit	Suspension Limit
Gradation <sup>2</sup>	* <sup>3</sup>	* <sup>3</sup>
Coarseness Factor (CF)	±3.5	±5
Workability Factor (WF)	±2	±3
Slump	+0.5 to -1 inch (+13 to -25 mm)	+1 to -1.5 inch (+25 to -38 mm)
Air Content	±1.5%	±2.0%

<sup>1</sup> Control charts shall developed and maintained for each control parameter indicated.

<sup>2</sup> Control charts shall be developed and maintained for each sieve size.

<sup>3</sup> Action and suspension limits shall be determined by the Contractor.

**501-5.5 Corrective action at Suspension Limit.** The CQCP shall indicate that appropriate action shall be taken when the process is believed to be out of control. The CQCP 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 suspension limits, immediate steps, including a halt to production, shall be taken to correct the grading.
- b. Coarseness and Workability factor. When the CF or WF reaches the applicable suspension limits, the Contractor, immediate steps, including a halt to production, shall be taken to correct the CF and WF.
- c. 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.
- d. Slump. The Contractor shall halt production and make appropriate adjustments whenever:
  - (1) one point falls outside the Suspension Limit line for individual measurements  
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
  - (2) two points in a row fall outside the Action Limit line for individual measurements.

## MATERIAL ACCEPTANCE

**501-6.1 Quality Assurance (QA) 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 RPR. The Contractor shall provide adequate facilities for the initial curing of beams. The Contractor shall bear the cost of providing initial curing facilities and coring and filling operations, per paragraph 501-6.5b(1).

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. During the 24 hours after molding, the temperature immediately adjacent to the specimens must be maintained in the range of 60° to 80°F (16° to 27°C), 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.

**501-6.2 Quality Assurance (QA) testing laboratory.** Quality assurance testing organizations performing these acceptance tests will be accredited in accordance with ASTM C1077. The quality assurance 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 will be submitted to the RPR prior to start of construction.

**501-6.3 Lot size.** Concrete will be accepted for strength and thickness on a lot basis. A lot will consist of a day's production not to exceed 500 square yards. Each lot will be divided into approximately

equal sublots with individual sublots between 100 to 200 cubic yards. Where three sublots are produced, they will constitute a lot. Where one or two sublots are produced, they will be incorporated into the previous or next lot. Where more than one plant is simultaneously producing concrete for the job, the lot sizes will apply separately for each plant.

**501-6.4 Partial lots.** When operational conditions cause a lot to be terminated before the specified number of tests have been made for the lot or for 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 will constitute a lot. Where one or two sublots have been produced, they will be incorporated into the next lot or the previous lot and the total number of sublots will be used in the acceptance criteria calculation, that is,  $n=5$  or  $n=6$ .

### **501-6.5 Acceptance Sampling and Testing.**

#### **a. Strength.**

(1) **Sampling.** One sample will be taken for each subplot from the concrete delivered to the job site. Sampling locations will be determined by the RPR in accordance with random sampling procedures contained in ASTM D3665. The concrete will be sampled in accordance with ASTM C172.

(2) **Test Specimens.** The RPR will be responsible for the casting, initial curing, transportation, and curing of specimens in accordance with ASTM C31. Two (2) specimens will be made from each sample and slump, air content, unit weight, and temperature tests will be conducted for each set of strength specimens. Within 24 to 48 hours, the samples will be transported from the field to the laboratory while in the molds. Samples will be cured in saturated lime water.

The strength of each specimen will be determined in accordance with ASTM C78. The strength for each subplot will be computed by averaging the results of the two test specimens representing that subplot.

(3) **Acceptance.** Acceptance of pavement for strength will be determined by the RPR in accordance with paragraph 501-6.6b(1). All individual strength tests within a lot will be checked for outliers in accordance with ASTM E178, at a significance level of 5%. Outliers will be discarded and the remaining test values will be used to determine acceptance in accordance with paragraph 501-6.5b.

#### **b. Pavement thickness.**

(1) **Sampling.** One core will be taken by the Contractor for each subplot in the presence of the RPR. Sampling locations will be determined by the RPR in accordance with random sampling procedures contained in ASTM D3665. Areas, such as thickened edges, with planned variable thickness, will be excluded from sample locations.

Cores shall be a minimum 4 inch (100 mm) in diameter neatly cut with a core drill. The Contractor will furnish all tools, labor, and materials for cutting samples and filling the cored hole. Core holes will be filled by the Contractor with a non-shrink grout approved by the RPR within one day after sampling.

(2) **Testing.** The thickness of the cores will be determined by the RPR by the average caliper measurement in accordance with ASTM C174. Each core shall be photographed and the photograph included with the test report.

(3) **Acceptance.** Acceptance of pavement for thickness will be determined by the RPR in accordance with paragraph 501-6.6.

### **501-6.6 Acceptance criteria.**

**a. General.** Acceptance will be based on the following characteristics of the completed pavement discussed in paragraph 501-6.5b:

- (1) Strength
- (2) Thickness
- (3) Grade
- (4) Profilograph smoothness - Not used.
- (5) Adjustments for repairs

Acceptance for strength, thickness, and grade, will be based on the criteria contained in accordance with paragraph 501-6.6b(1), 501-6.6b(2), and 501-6.6b(3), respectively.

Production quality must achieve 90 PWL or higher to receive full payment.

#### **b. Acceptance criteria.**

- (1) **Strength.** The strength for each subplot shall be computed by averaging the results of that subplot. When subplot strength equals or exceeds the strength as specified in paragraph 501-3.3, the lot will be acceptable. Acceptance and payment for the lot will be determined in accordance with paragraph 501-8.1.
- (2) **Thickness.** If subplot thickness is not be less than ½ inch (12 mm) from plan thickness, the lot will be acceptable. Acceptance and payment for the lot will be determined in accordance with paragraph 501-8.1.

(3) **Grade.** The final finished surface of the pavement of the completed project will not vary from the gradeline elevations and cross-sections shown on the plans by more than 1/2 inch (12 mm) vertically. The documentation, stamped and signed by a licensed surveyor shall be in accordance with paragraph 501-5.3h. Payment for sublots that do not meet grade for over 25% of the subplot shall reduced by 5% and not be more than 95%.

(4) **Profilograph roughness for QA Acceptance.** Not used.

(5) **Adjustments for repair.** Sublots with spall repairs, crack repairs, or partial panel replacement, will be limited to no more than 95% payment.

(6) **Adjustment for grinding.** For sublots with grinding over 25% of a subplot, payment will be reduced 5%.

### **METHOD OF MEASUREMENT**

**501-7.1** Concrete pavement shall be measured by the number of square yards of plain pavement as specified in-place, completed and accepted.

### **BASIS OF PAYMENT**

**501-8.1 Payment.** Payment for concrete pavement meeting all acceptance criteria as specified in paragraph 501-6.6. Acceptance Criteria shall be based on results of 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; 501-8.1b for repairs; 501-8.1c for grinding; and 501-8.1d 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 strength and thickness. The lot pay factor shall be the higher of the two values when calculations for both 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 strength or thickness is 100% or higher. The lot pay factor shall be the lower of the two values when calculations for both strength and thickness are less than 100%.

**Price Adjustment Schedule<sup>1</sup>**

<b>Percentage of Materials Within Specification Limits (PWL)</b>	<b>Lot Pay Factor (Percent of Contract Unit Price)</b>
96 – 100	106
90 – 95	PWL + 10
75 – 90	0.5 PWL + 55
55 – 74	1.4 PWL – 12
Below 55	Reject <sup>2</sup>

<sup>1</sup> 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.

<sup>2</sup> The lot shall be removed and replaced unless, after receipt of FAA concurrence, the Owner and Contractor agree in writing that the lot will remain; the lot paid at 50% of the contract unit price; and the total project payment limitation reduced by the amount withheld for that 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%; except for rejected lots which remain in place and/or sublots with adjustments for repairs.

**b. Adjusted payment for repairs.** The PWL lot pay factor shall be reduced by 5% and be no higher than 95% for sublots which contain repairs in accordance with paragraph 501-4.19 on more than 20% of the slabs within the subplot. Payment factors greater than 100 percent for the strength and thickness cannot be used to offset adjustments for repairs.

**c. Adjusted payment for grinding.** The PWL lot pay factor shall be reduced by 5% and be no higher than 95% for sublots with grinding over 25% of a subplot.

**d. Profilograph Roughness.** Not used.

**e. Payment.** Payment shall be made under:

**Item P-501-8.1 Cement Concrete Pavement per square yard**

**REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

## ASTM International (ASTM)

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 A775	Standard Specification for Epoxy-Coated Steel Reinforcing Bars
ASTM A884	Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement
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 A1035	Standard Specification for Deformed and Plain, Low-Carbon, Chromium, Steel 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 C29	Standard Test Method for Bulk Density (“Unit Weight”) and Voids in Aggregate
ASTM C31	Standard Practice for Making and Curing Concrete Test Specimens in the Field
ASTM C33	Standard Specification for Concrete Aggregates
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 C94	Standard Specification for Ready-Mixed Concrete
ASTM C114	Standard Test Methods for Chemical Analysis of Hydraulic Cement
ASTM C117	Standard Test Method for Materials Finer than 75- $\mu\text{m}$ (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C123	Standard Test Method for Lightweight Particles in Aggregate



ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
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 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 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 C260	Standard Specification for Air-Entraining Admixtures for Concrete
ASTM C295	Standard Guide for Petrographic Examination of Aggregates for Concrete
ASTM C309	Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C311	Standard Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland Cement Concrete
ASTM C494	Standard Specification for Chemical Admixtures for Concrete
ASTM C566	Standard Test Method for Total Evaporable Moisture Content of Aggregates by Drying
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 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 C685	Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing
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 C1017	Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete
ASTM C1064	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 C1157	Standard Performance Specification for Hydraulic Cement
ASTM C1260	Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)
ASTM C1365	Standard Test Method for Determination of the Proportion of Phases in Portland Cement and Portland-Cement Clinker Using X-Ray Powder Diffraction Analysis
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 D75	Standard Practice for Sampling Aggregates
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
ASTM D2419	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate
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
ASTM E2133	Standard Test Method for Using a Rolling Inclinator to Measure Longitudinal and Transverse Profiles of a Traveled Surface

## American Concrete Institute (ACI)

ACI 305R	Guide to Hot Weather Concreting
ACI 306R	Guide to Cold Weather Concreting
ACI 309R	Guide for Consolidation of Concrete

## Advisory Circulars (AC)

AC 150/5320-6	Airport Pavement Design and Evaluation
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## Federal Highway Administration (FHWA)

HIPERPAV 3, version 3.2
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## Portland Concrete Association (PCA)

PCA	Design and Control of Concrete Mixtures, 16 <sup>th</sup> Edition
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## U.S. Army Corps of Engineers (USACE) Concrete Research Division (CRD)

CRD C662	Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials, Lithium Nitrate Admixture and Aggregate (Accelerated Mortar-Bar Method)
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## United States Air Force Engineering Technical Letter (ETL)

ETL 97-5	Proportioning Concrete Mixtures with Graded Aggregates for Rigid Airfield Pavements
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**END ITEM P-501**

## ITEM P-605 JOINT SEALANTS FOR 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 in pavement; joints between different types of pavements; and cracks in existing pavement.

### MATERIALS

**605-2.1 Joint sealants.** Joint sealant materials shall meet the requirements of **ASTM D6690**.

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 in accordance with ASTM D5249. The backer-rod material shall be  $25\% \pm 5\%$  larger in diameter than the nominal width of the joint.

**605-2.3 Bond breaking tapes.** Provide a bond breaking tape or separating material that is a flexible, non-shrinkable, non-absorbing, non-staining, and non-reacting adhesive-backed tape. The material shall have a melting point at least  $5^{\circ}\text{F}$  ( $3^{\circ}\text{C}$ ) greater than the pouring temperature of the sealant being used when tested in accordance with ASTM D789. The bond breaker tape shall be approximately  $1/8$  inch (3 mm) wider than the nominal width of the joint and shall not bond to the joint sealant.

### 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  $50^{\circ}\text{F}$  ( $10^{\circ}\text{C}$ ) and rising at the time of application of the poured joint sealing material. Do not apply sealant if moisture is observed in the joint.

**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, **10** days prior to use on the project.

**a. Tractor-mounted routing tool.** Provide a routing tool, used for removing old sealant from the joints, of such shape and dimensions and so mounted on the tractor that it will not damage the sides of the joints. The tool shall be designed so that it can be adjusted to remove the old material to varying depths as required. The use of V-shaped tools or rotary impact routing devices will not be permitted. Hand-operated spindle routing devices may be used to clean and enlarge random cracks.

**b. Concrete saw.** Provide a self-propelled power saw, with water-cooled diamond or abrasive saw blades, for cutting joints to the depths and widths specified.

**c. Sandblasting equipment.** The Contractor must demonstrate sandblasting equipment including the air compressor, hose, guide and nozzle size, under job conditions, before approval in accordance with paragraph 605-3.3. The Contractor shall demonstrate, in the presence of the Resident Project Representative (RPR), that the method cleans the joint and does not damage the joint.

**d. Waterblasting equipment.** The Contractor must demonstrate waterblasting equipment including the pumps, hose, guide and nozzle size, under job conditions, before approval in accordance with paragraph 605-3.3. The Contractor shall demonstrate, in the presence of the RPR, that the method cleans the joint and does not damage the joint.

**e. Hand tools.** Hand tools may be used, when approved, for removing defective sealant from a crack and repairing or cleaning the crack faces. Hand tools should be carefully evaluated for potential spalling effects prior to approval for use.

**f. Hot-poured sealing equipment.** The unit applicators used for heating and installing ASTM D6690 joint sealant materials shall be mobile and shall be equipped with a double-boiler, agitator-type kettle with an oil medium in the outer space for heat transfer; a direct-connected pressure-type extruding device with a nozzle shaped for inserting in the joint to be filled; positive temperature devices for controlling the temperature of the transfer oil and sealant; and a recording type thermometer for indicating the temperature of the sealant. The applicator unit shall be designed so that the sealant will circulate through the delivery hose and return to the inner kettle when not in use.

**605-3.3 Preparation of joints.** Pavement joints for application of material in this specification must be dry, clean of all scale, dirt, dust, curing compound, and other foreign matter. The Contractor shall demonstrate, in the presence of the RPR, that the method cleans the joint and does not damage the joint.

**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, 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, tractor-mounted routing equipment, concrete sawing, or waterblasting as specified in paragraph 605-3.2. The newly exposed concrete joint faces and the pavement surface extending a minimum of 1/2 inch (12 mm) 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 (75 mm) 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. Backer Rod.** 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 backer rod in accordance with paragraph 605-2.2 to prevent the entrance of the sealant below the specified depth. Take care to ensure that the backer rod 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-separating tape breaker in accordance with paragraph 605-2.3 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.** Joints shall be inspected for proper width, depth, alignment, and preparation, and shall be approved by the RPR before sealing is allowed. Sealants shall be installed in accordance with the following requirements:

Immediately preceding, but not more than 50 feet (15 m) ahead of the joint sealing operations, perform a final cleaning with compressed air. Fill the joints from the bottom up to 1/8 inch (3 mm)  $\pm$  1/16 inch (2 mm) below the top of pavement surface; or bottom of groove for grooved pavement. 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 RPR. 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 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.

**605-3.6 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** Joint sealing material shall be measured by the linear foot (meter) of sealant in place, completed, and accepted.

#### BASIS OF PAYMENT

**605-5.1** Payment for joint sealing material shall be made at the contract unit price per linear foot (meter) 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 for joint sealing material shall be made under Specification P-101.

#### REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM D6690	Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt
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P-605-3

Advisory Circulars (AC)

AC 150/5340-30

Design and Installation Details for Airport Visual Aids

**END ITEM P-605**

## Item P-610 Concrete for Miscellaneous Structures

### DESCRIPTION

**610-1.1** This item shall consist of concrete and reinforcement, as shown on the plans, prepared and constructed in accordance with these specifications. This specification shall be used for all concrete other than airfield pavement which are cast-in-place.

### 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 Resident Project Representative (RPR) 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 aggregate and coarse aggregates to be used in all concrete shall have been tested separately within six months of the project in accordance with ASTM C1260. Test results shall be submitted to the RPR. The aggregate shall be considered innocuous if the expansion of test specimens, tested in accordance with ASTM C1260, does not exceed 0.08% at 14 days (16 days from casting). If the expansion either or both test specimen is greater than 0.08% at 14 days, but less than 0.20%, a minimum of 25% of Type F fly ash, or between 40% and 55% of slag cement shall be used in the concrete mix.

If the expansion is greater than 0.20%, the aggregates shall not be used, and test results for other aggregates must be submitted for evaluation; or aggregates that meet P-501 reactivity test requirements may be utilized.

**610-2.2 Coarse aggregate.** The coarse aggregate for concrete shall meet the requirements of ASTM C33 and the requirements of Table 4, Class Designation 5S; and the grading requirements shown below, as required for the project.



### Coarse Aggregate Grading Requirements

Maximum Aggregate Size	ASTM C33, Table 3 Grading Requirements (Size No.)
1 1/2 inch (37.5 mm)	467 or 4 and 67
1 inch (25 mm)	57
3/4 inch (19 mm)	67
1/2 inch (12.5 mm)	7

**610-2.2.1 Coarse Aggregate susceptibility to durability (D) cracking.** Not used.

**610-2.3 Fine aggregate.** The fine aggregate for concrete shall meet all fine aggregate requirements of ASTM C33.

**610-2.4 Cement.** Cement shall conform to the requirements of ASTM C150 - Type I.

#### 610-2.5 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 shall have a Calcium Oxide (CaO) content of less than fifteen percent (15%) 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 concrete mix, 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 RPR.

**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.

**610-2.6 Water.** Water used in mixing or curing shall be from potable water sources. Other sources shall be tested in accordance with ASTM C1602 prior to use.

**610-2.7 Admixtures.** The Contractor shall submit certificates indicating that the material to be furnished meets all of the requirements indicated below. In addition, the RPR 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 RPR 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 RPR. 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.

**610-2.8 Premolded joint material.** Premolded joint material for expansion joints shall meet the requirements of ASTM D1752.

**610-2.9 Joint filler.** The filler for joints shall meet the requirements of Item P-605, unless otherwise specified.

**610-2.10 Steel reinforcement.** Reinforcing shall consist of Reinforcing Steel conforming to the requirements of ASTM A615, ASTM A706, ASTM A775, ASTM A934.

**610-2.11 Materials for curing concrete.** Curing materials shall conform to ASTM C309. White-pigmented Liquid Membrane-Forming Compound, Type 2, Class B shall be used.

## 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 RPR.

**610-3.2 Concrete Mixture.** The concrete shall develop a compressive strength of 4,000 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 cementitious material per cubic yard (280 kg per cubic meter). The water cementitious ratio shall not exceed 0.45 by weight. The air content of the concrete shall be 5% +/- 1.2% as determined by ASTM C231 and shall have a slump of not more than 4 inches (100 mm) as determined by ASTM C143.

**610-3.3 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 or ASTM C685.

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 (4°C) without the RPRs approval. If approval 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 (10°C) nor more than 100°F (38°C). 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 is not permitted.

The rate of delivery of concrete to the job shall be sufficient to allow uninterrupted placement of the concrete.

**610-3.4 Forms.** Concrete shall not be placed until all the forms and reinforcements have been inspected and approved by the RPR. 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.

**610-3.5 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.

**610-3.6 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.

**610-3.7 Concrete Consistency.** The Contractor shall monitor the consistency of the concrete delivered to the project site; collect each batch ticket; check temperature; and perform slump tests on each truck at the project site in accordance with ASTM C143.

**610-3.8 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 by the RPR. 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 (1.5 m). 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.

**610-3.9 Vibration.** Vibration shall follow the guidelines in American Concrete Institute (ACI) Committee 309R, Guide for Consolidation of Concrete.

**610-3.10 Joints.** Joints shall be constructed as indicated on the plans.

**610-3.11 Finishing.** 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.

**610-3.12 Curing and protection.** All concrete shall be properly cured in accordance with the recommendations in American Concrete Institute (ACI) 308R, Guide to External Curing of Concrete. The concrete shall be protected from damage until project acceptance.

**610-3.13 Cold weather placing.** When concrete is placed at temperatures below 40°F (4°C), follow the cold weather concreting recommendations found in ACI 306R, Cold Weather Concreting.

**610-3.14 Hot weather placing.** When concrete is placed in hot weather greater than 85°F (30 °C), follow the hot weather concreting recommendations found in ACI 305R, Hot Weather Concreting.

## QUALITY ASSURANCE (QA)

**610-4.1 Quality Assurance sampling and testing.** Concrete for each day's placement will be accepted on the basis of the compressive strength specified in paragraph 610-3.2. The RPR will sample the concrete in accordance with ASTM C172; test the slump in accordance with ASTM C143; test air content

in accordance with ASTM C231; make and cure compressive strength specimens in accordance with ASTM C31; and test in accordance with ASTM C39. The QA testing agency will meet the requirements of ASTM C1077.

The Contractor shall provide adequate facilities for the initial curing of cylinders.

**610-4.2 Defective work.** Any defective work that cannot be satisfactorily repaired as determined by the RPR, shall be removed and replaced at the Contractor's expense. Defective work includes, but is not limited to, uneven dimensions, honeycombing and other voids on the surface or edges of the concrete.

### **METHOD OF MEASUREMENT**

**610-5.1** Concrete shall be considered incidental and no separate measurement shall be made.

### **BASIS OF PAYMENT**

**610-6.1** Concrete shall be considered incidental and no separate payment shall be made.

Payment will be made under:

Concrete, incidental to other work items

### **REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

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 A775	Standard Specification for Epoxy-Coated Steel Reinforcing Bars
ASTM A884	Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement
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 C31	Standard Practice for Making and Curing Concrete Test Specimens in the Field
ASTM C33	Standard Specification for Concrete Aggregates

ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C94	Standard Specification for Ready-Mixed Concrete
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM C114	Standard Test Methods for Chemical Analysis of Hydraulic Cement
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C143	Standard Test Method for Slump of Hydraulic-Cement 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 C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C260	Standard Specification for Air-Entraining Admixtures for Concrete
ASTM C309	Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C311	Standard Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland-Cement Concrete
ASTM C494	Standard Specification for Chemical Admixtures for Concrete
ASTM C618	Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
ASTM C666	Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
ASTM C685	Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing
ASTM C989	Standard Specification for Slag Cement for Use in Concrete and Mortars
ASTM C1017	Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete
ASTM C1077	Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
ASTM C1157	Standard Performance Specification for Hydraulic Cement
ASTM C1260	Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)
<u>ASTM C1365</u>	<u>Standard Test Method for Determination of the Proportion of Phases in Portland Cement and Portland-Cement Clinker Using X-Ray Powder Diffraction Analysis</u>

ASTM C1602	Standard Specification for Mixing Water Used in the Production of Hydraulic Cement 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

American Concrete Institute (ACI)

ACI 305R	Hot Weather Concreting
ACI 306R	Cold Weather Concreting
ACI 308R	Guide to External Curing of Concrete
ACI 309R	Guide for Consolidation of Concrete

**END OF ITEM P-610**

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**ITEM P-620  
RUNWAY AND TAXIWAY MARKING**

**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 Resident Project Representative (RPR). 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. This certification along with a copy of the paint manufacturer’s surface preparation; marking materials, including adhesion, flow promoting and/or floatation additive; and application requirements must be submitted and approved by the Resident Project Representative (RPR) prior to the initial application of markings. The reports can be used for material acceptance or the RPR may perform verification testing. The reports shall not be interpreted as a basis for payment. The Contractor shall notify the RPR upon arrival of a shipment of materials to the site. All material shall arrive in sealed containers that are easily quantifiable for inspection by the RPR.

**620-2.2 Marking materials.**

**Table 1. Marking Materials**

Paint <sup>1</sup>				Glass Beads <sup>2</sup>	
Type	Color	Fed Std. 595 Number	Application Rate Maximum <sup>3</sup>	Type	Application Rate Minimum
Waterborne II	White	37925	115 ft <sup>2</sup> /gallon	III	10 lb / gallon
Waterborne II	Yellow	33538 or 33655	115 ft <sup>2</sup> /gallon	III	10 lb / gallon
Waterborne II	Red	31136	115 ft <sup>2</sup> /gallon	I Gradation A	10 lb / gallon
Waterborne II	Black	37038	115 ft <sup>2</sup> /gallon	N/A	N/A

<sup>1</sup> See paragraph 620-2.2a

<sup>2</sup> See paragraph 620-2.2b

<sup>3</sup> Temporary markings shall be installed at 50% application rate.

**a. Paint.** Paint shall be waterborne in accordance with the requirements of this paragraph. Paint colors shall comply with Federal Standard No. 595.

**Waterborne.** Paint shall meet the requirements of Federal Specification TT-P-1952F, Type II. 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. Reflective media.** Glass beads for white and yellow paint shall meet the requirements for Federal Specification TT-B-1325D Type III.

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.



Glass beads shall not be used in black paint, green paint, or temporary paint.

Type III glass beads shall not be used in red and pink paint.

## CONSTRUCTION METHODS

**620-3.1 Weather limitations.** Painting shall only be performed when the surface is dry, and the ambient temperature and the pavement surface temperature meet the manufacturer's recommendations in accordance with paragraph 620-2.1. Painting operations shall be discontinued when the ambient or surface temperatures does not meet the manufacturer's recommendations. Markings shall not be applied when the wind speed exceeds 10 mph unless windscreens are used to shroud the material guns. Markings shall not be applied when weather conditions are forecasts to not be within the manufacturers' recommendations for application and dry time.

**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 with automatic glass bead dispensers suitable for application of traffic paint. It shall produce an even and uniform film thickness and appearance of both paint and glass beads at the required coverage and shall apply markings of uniform cross-sections and clear-cut edges without running or spattering and without over spray. The marking equipment for both paint and beads shall be calibrated daily.

**620-3.3 Preparation of surfaces.** Immediately before application of the paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other contaminants that would reduce the bond between the paint and the pavement. Use of any chemicals or impact abrasives during surface preparation shall be approved in advance by the RPR. 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.

**a. Preparation of new pavement surfaces.** The area to be painted shall be cleaned by broom, blower, water blasting, or by other methods approved by the RPR to remove all contaminants, including PCC curing compounds, minimizing damage to the pavement surface.

**b. Preparation of pavement to remove existing markings.** Existing pavement markings shall be removed by rotary grinding, water blasting, or by other methods approved by the RPR minimizing damage to the pavement surface. The removal area may need to be larger than the area of the markings to eliminate ghost markings. After removal of markings on asphalt pavements, apply a fog seal or seal coat to 'block out' the removal area to eliminate 'ghost' markings.

**c. Preparation of pavement markings prior to remarking.** Prior to remarking existing markings, loose existing markings must be removed minimizing damage to the pavement surface, with a method approved by the RPR. After removal, the surface shall be cleaned of all residue or debris.

Prior to the application of markings, the Contractor shall certify in writing that the surface is dry and free from dirt, grease, oil, laitance, or other foreign material that would prevent the bond of the paint to the pavement or existing markings. This certification along with a copy of the paint manufactures application and surface preparation requirements must be submitted to the RPR 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.** A period of thirty (30) days shall elapse between placement of surface course or seal coat and application of the permanent paint markings. 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 RPR.

The edges of the markings shall not vary from a straight line more than 1/2 inch (12 mm) in 50 feet (15 m), and marking dimensions and spacing shall be within the following tolerances:

#### **Marking Dimensions and Spacing Tolerance**

<b>Dimension and Spacing</b>	<b>Tolerance</b>
36 inch (910 mm) or less	±1/2 inch (12 mm)
greater than 36 inch to 6 feet (910 mm to 1.85 m)	±1 inch (25 mm)
greater than 6 feet to 60 feet (1.85 m to 18.3 m)	±2 inch (50 mm)
greater than 60 feet (18.3 m)	±3 inch (76 mm)

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.

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 and distribution should be performed.

#### **620-3.6 Application--preformed thermoplastic airport pavement markings.**

Preformed thermoplastic pavement markings not used.

**620-3.7 Control strip.** Prior to the full application of airfield markings, the Contractor shall prepare a control strip in the presence of the RPR. The Contractor shall demonstrate the surface preparation method and all striping equipment to be used on the project. The marking equipment must achieve the prescribed application rate of paint and population of glass beads (per Table 1) that are properly embedded and evenly distributed across the full width of the marking. Prior to acceptance of the control strip, markings must be evaluated during darkness to ensure a uniform appearance.

**620-3.8 Retro-reflectance.** Reflectance shall be measured with a portable retro-reflectometer meeting ASTM E1710 (or equivalent). A total of 6 readings shall be taken over a 6 square foot area with 3 readings taken from each direction. The average shall be equal to or above the minimum levels of all readings which are within 30% of each other.

### Minimum Retro-Reflectance Values

Material	Retro-reflectance mcd/m <sup>2</sup> /lux	
	White	Yellow
Initial Type I	300	175
Initial Type III	600	300
Initial Thermoplastic	225	100
All materials, remark when less than <sup>1</sup>	100	75

<sup>1</sup> Prior to remarking determine if removal of contaminants on markings will restore retro-reflectance

**620-3.9 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 reflective media, and by-products generated by the surface preparation and application operations to the satisfaction of the RPR. The Contractor shall dispose of these wastes in strict compliance with all applicable state, local, and federal environmental statutes and regulations.

### METHOD OF MEASUREMENT

**620-4.1a** The quantity of surface preparation shall be measured by the number of square feet (square meters) for each type of surface preparation specified in paragraph 620-3.3.

**620-4.1b** The quantity of markings shall be paid for shall be measured by the number of square feet (square meters) of painting.

**620-4.1c** The quantity of reflective media shall be paid for by the number of pounds(km) of reflective media.

**620-4.1d** The quantity of temporary markings to be paid for shall be the number of square feet (square meters) of performed in accordance with the specifications and accepted by the RPR. Temporary marking includes surface preparation, application and complete removal of the temporary marking.

### BASIS OF PAYMENT

**620-5.1** This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item complete in place and accepted by the RPR in accordance with these specifications.

**620-5.1a** Payment for surface preparation shall be made at the contract price for the number of square feet (square meters) for each type of surface preparation specified in paragraph 620-3.3.

**620-5.2b** Payment for markings shall be made at the contract price for by the number of square feet (square meters) of painting.

**620-5.3c** Payment for reflective media shall be made at the contract unit price for the number of pounds (km) of reflective media.

**620-5.4d** 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-620-5.1a	Surface Preparation per square foot (square meter)
Item P-620-5.2a	Marking, Yellow per square foot (square meter)
Item P-620-5.2b	Marking, Black per square foot (square meter)
Item P-620-5.3a	Reflective Media per pound (km)

### REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

#### ASTM International (ASTM)

ASTM D476	Standard Classification for Dry Pigmentary Titanium Dioxide Products
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 E303	Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester
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

#### Code of Federal Regulations (CFR)

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	

#### Federal Specifications (FED SPEC)

FED SPEC TT-B-1325D	Beads (Glass Spheres) Retro-Reflective
FED SPEC TT-P-1952F	Paint, Traffic and Airfield Marking, Waterborne

P-620-5

FED STD 595	Colors used in Government Procurement
Commercial Item Description	
A-A-2886B	Paint, Traffic, Solvent Based
Advisory Circulars (AC)	
AC 150/5340-1	Standards for Airport Markings
AC 150/5320-12	Measurement, Construction, and Maintenance of Skid Resistant Airport Pavement Surfaces

**END OF ITEM P-620**

## Item SP-1 Tie-Down Anchors and Mooring Eyes

### DESCRIPTION

**621-1.1** This item shall consist of furnishing and installing tie-down anchors and mooring eyes in accordance with these specifications and at the locations shown on the plans or required by the Engineer.

### MATERIALS

**621-2.1 Tie-Down Anchors.** Tie down anchors shall be one inch diameter hot dipped galvanized power pole guy wire anchors, A.B. Chance catalog number PS816 or approved equal, as shown on drawings.

**621-2.2 Mooring Eyes.** Mooring eyes shall be plain bars conforming to ASTM A615, Grade 60, as shown on drawings. Welding shall conform to ANSI/AWS D1.4. Mooring eyes shall be hot-dip galvanized in accordance with ASTM A123 after fabrication. NEENAH Foundry catalog number R-3490 or approved equal

**621-2.3 Concrete.** Concrete shall meet the requirements of Item P-610.

**621-2.4 Submittal.** The Contractor shall submit shop drawings to the Engineer at least 14 days prior to installation.

### CONSTRUCTION METHODS

**621-3.1 Tie-Down Anchors.** Tie-down anchors and concrete bases shall be constructed in accordance with the lines, grades, and dimensions shown on the plans. Tops of tie-downs shall be installed flush with to 1/2-inch maximum below the pavement surface. Depressions in concrete surfaces shall be formed or troweled to the required shape and shall be finished to neat and true lines.

The anchors shall be installed by removing the concrete pavement surface, base course, and subgrade to the dimensions required, augering in the anchor, and backfilling with concrete; or by other methods approved by the Engineer. The procedures used in installing the anchor shall not be injurious to the pavement and shall be approved by the Engineer before proceeding with the work.

**621-3.2 Mooring Eyes.** Mooring eyes shall be set accurately, plumb, square, and flush with to 1/2-inch maximum below the top of the concrete slab. Depressions in the concrete surface shall be formed or troweled to required shape and finished to neat and true lines.

Mooring eyes may be installed by pre-setting to indicated dimensions prior to placing concrete or forcing the mooring eye into freshly placed plastic concrete. Method of installation shall be approved by the Engineer.

**621-3.3 Defective Workmanship or Material.** All material and workmanship not conforming to the requirements of the plans and specifications shall be considered defective and shall be corrected as directed by the Engineer at the expense of the Contractor.

### **METHOD OF MEASUREMENT**

**621-4.1** Tie-down anchors and mooring eyes shall be measured by the unit, complete, in place, and accepted by the Engineer.

### **BASIS OF PAYMENT**

**621-5.1** Payment shall be made at the contract unit price per each completed tie-down anchor with mooring eye including concrete base. The unit 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 SP-1-1	Tie-Down Anchor – per each
Item SP-1-2	Mooring Eye – per each

### **TESTING AND MATERIAL REQUIREMENTS**

ASTM A123	Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A615	Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
ANSI/AWS D1.4	Structural Welding Code - Reinforcing Steel

### **END OF ITEM SP-1**

## **Appendix A**

### **FAA Advisory Circular 150/5370-2G**



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## **Appendix B**

### **FAA Advisory Circular 150/5210-5D**

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# HAMMOND NORTHSHORE REGIONAL AIRPORT HAMMOND, LOUISIANA

## TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS

**FAA AIG BIL NO. 3-22-0018-0XX-2024**

VICINITY MAP



PROJECT SITE



**AIRPORT INFORMATION**  
 CITY: HAMMOND, LOUISIANA  
 ID: HDC  
 LATITUDE: 30° 31' 18.0747" NORTH  
 LONGITUDE: 90° 25' 6.1707" WEST  
 ELEVATION: 46.5 M.S.L. (NAVD 88)

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**ISSUE FOR BID  
JUNE 2024**

ENGINEERING SERVICES PROVIDED BY:

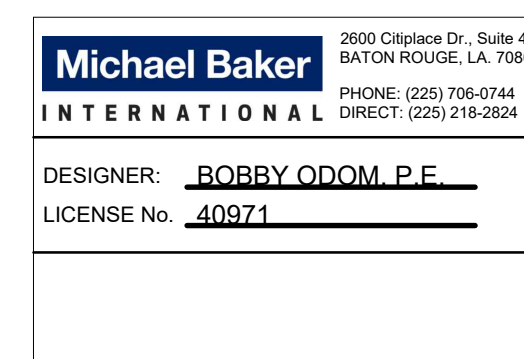
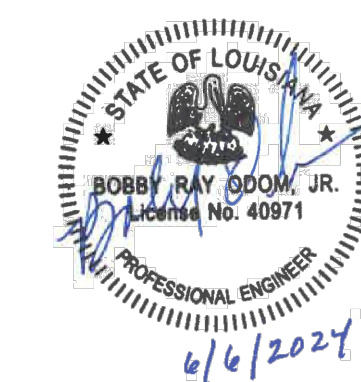


2600 Citiplace Drive., Suite 450  
 Baton Rouge, Louisiana 70808  
 (225) - 706 - 0744

Sponsored by:



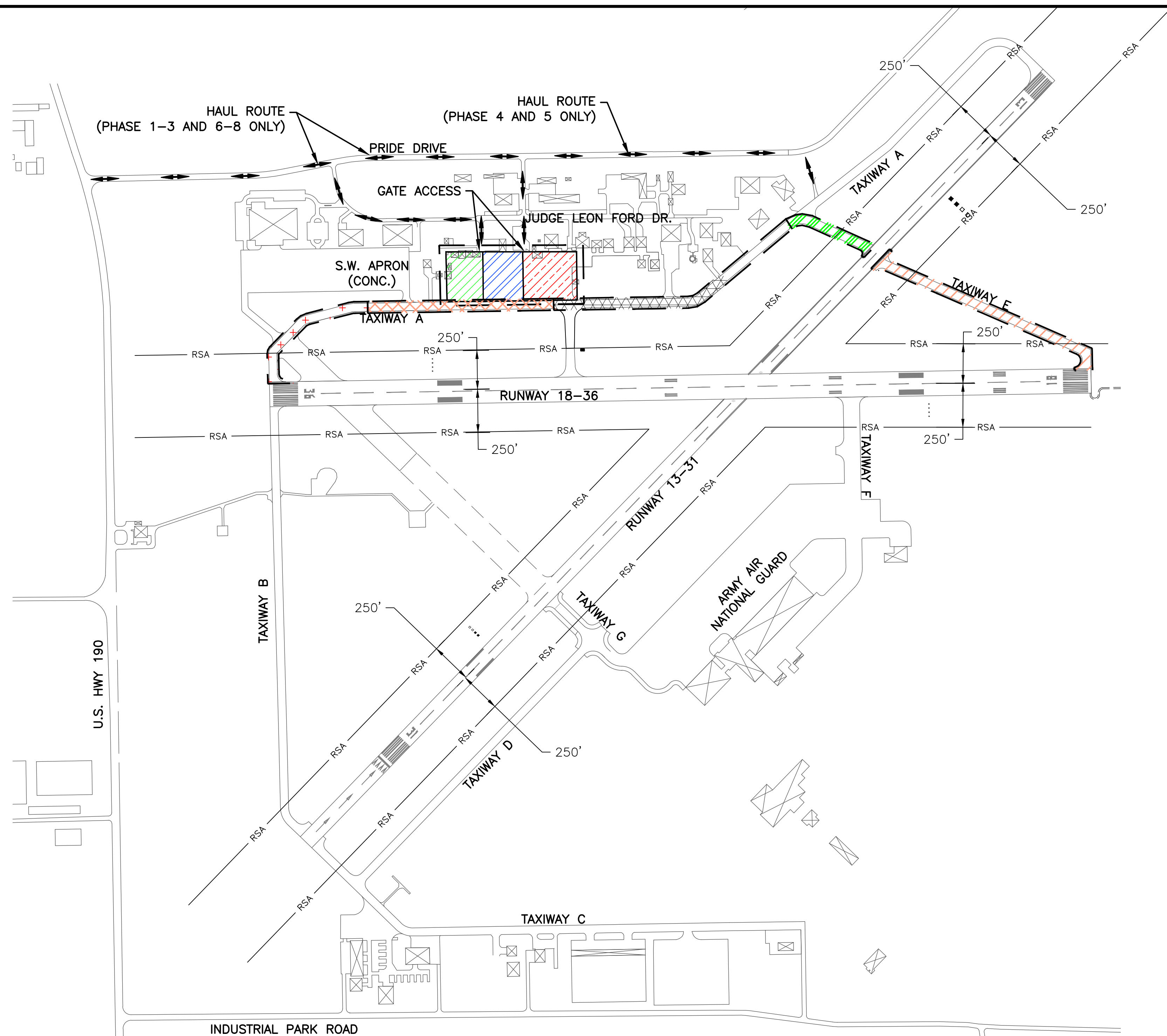
CITY OF HAMMOND  
 P.O. BOX 2877  
 HAMMOND, LA 70404  
 (985)277-5640



LOUISIANA DEPARTMENT OF  
 TRANSPORTATION AND DEVELOPMENT  
 DIVISION OF AVIATION  
 PROJECT NUMBER: H.O. \_\_\_\_  
 FAA AIG BIL NO.: 3-22-0018-0XX-2024



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**GENERAL SAFETY NOTES:**

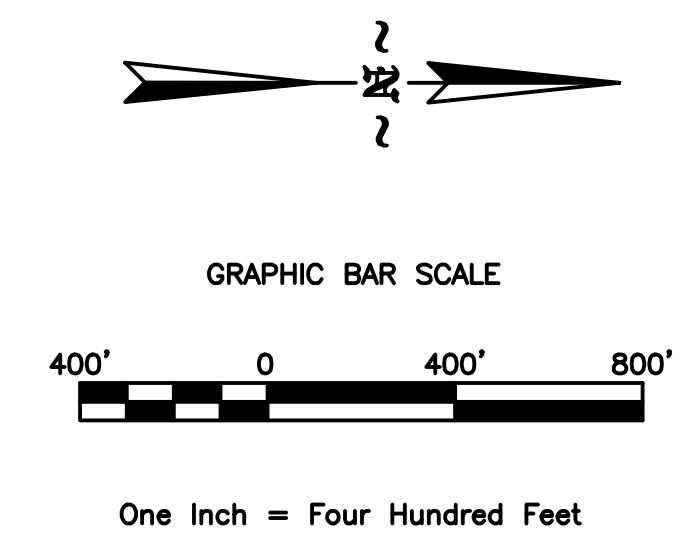
1. THIS PROJECT INCLUDES WORK WITHIN THE AIR OPERATIONS AREA (AOA). WHILE IN THE AOA, THE CONTRACTOR SHALL CONTINUOUSLY MONITOR AIR TRAFFIC ON FREQUENCY 119.85 MHZ USING AN APPROVED AVIATION BAND RADIO.
2. THE PROJECT WILL REQUIRE THE ISSUANCE OF NOTICE TO AIR MISSIONS (NOTAM). THE CONTRACTOR SHALL PROVIDE A MINIMUM OF FORTY-EIGHT (48) HOURS NOTICE TO ISSUE NOTAMS. NO WORK IN THE AOA SHALL BEGIN WITHOUT REQUIRED NOTAMS. THE CONTRACTOR SHALL VERIFY REQUIRED NOTAMS ARE IN PLACE BEFORE EACH WORK DAY.
3. ALL BARRICADES SHALL BE PLACED PRIOR TO PERFORMING WORK IN THE CLOSED AREA.
4. TO FACILITATE WORK IN THE AOA AND TAXIWAY SAFETY AREAS, THE PROJECT WILL BE DIVIDED INTO EIGHT PHASES. PHASED WORK AREAS WILL BE AS SHOWN.
5. SIZE AND LOCATION OF CONTRACTOR STAGING AREA IS APPROXIMATE. EXACT DIMENSIONS AND LOCATION WILL BE DETERMINED DURING CONSTRUCTION.
6. SEE SHEETS PSP-1 THRU PSP-8 FOR PHASED SAFETY PLANS.
7. SEE SHEET SPN-1 FOR ADDITIONAL SAFETY AND PHASING NOTES.

**PHASING NOTES:**

1. BASE BID WORK SHALL INCLUDE REPAIR OF JOINTS/ CRACKS, SPALL REPAIR, SLAB REPLACEMENT, INSTALLATION OF NEW MARKINGS, AND INSTALLATION OF NEW AIRCRAFT TIE DOWNS ON THE TERMINAL APRON.
2. ADDITIVE ALTERNATE NO. 1 WORK SHALL INCLUDE SLAB REPLACEMENT ON TAXIWAY E BETWEEN RUNWAY 13-31 AND RUNWAY 18-36.
3. ADDITIVE ALTERNATE NO. 2 WORK SHALL INCLUDE SLAB REPLACEMENT ON TAXIWAY E BETWEEN TAXIWAY A AND RUNWAY 13-31.
4. ADDITIVE ALTERNATE NO. 3 WORK SHALL INCLUDE SLAB REPLACEMENT ON TAXIWAY A BETWEEN RUNWAY 36 AND TAXIWAY E.

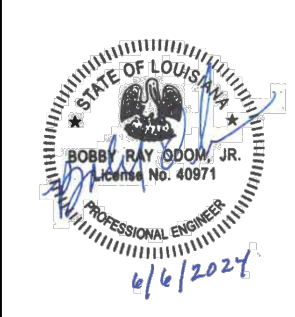
**LEGEND:**

- HAUL ROUTE
- PROJECT LIMITS
- RUNWAY SAFETY AREA
- PHASE I WORK (BASE BID)
- PHASE II WORK (BASE BID)
- PHASE III WORK (BASE BID)
- PHASE IV WORK (ADDITIVE ALTERNATE 1)
- PHASE V WORK (ADDITIVE ALTERNATE 2)
- PHASE VI WORK (ADDITIVE ALTERNATE 3)
- PHASE VII WORK (ADDITIVE ALTERNATE 3)
- PHASE VIII WORK (ADDITIVE ALTERNATE 3)



HAMMOND NORTHSHORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL



Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL  
Checked by: B. ODOM  
Technician: M. HALL  
Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**PROJECT LAYOUT PLAN**

FAA A.I.G. BIL Project Number:  
**3-22-0018-0XX-2024**

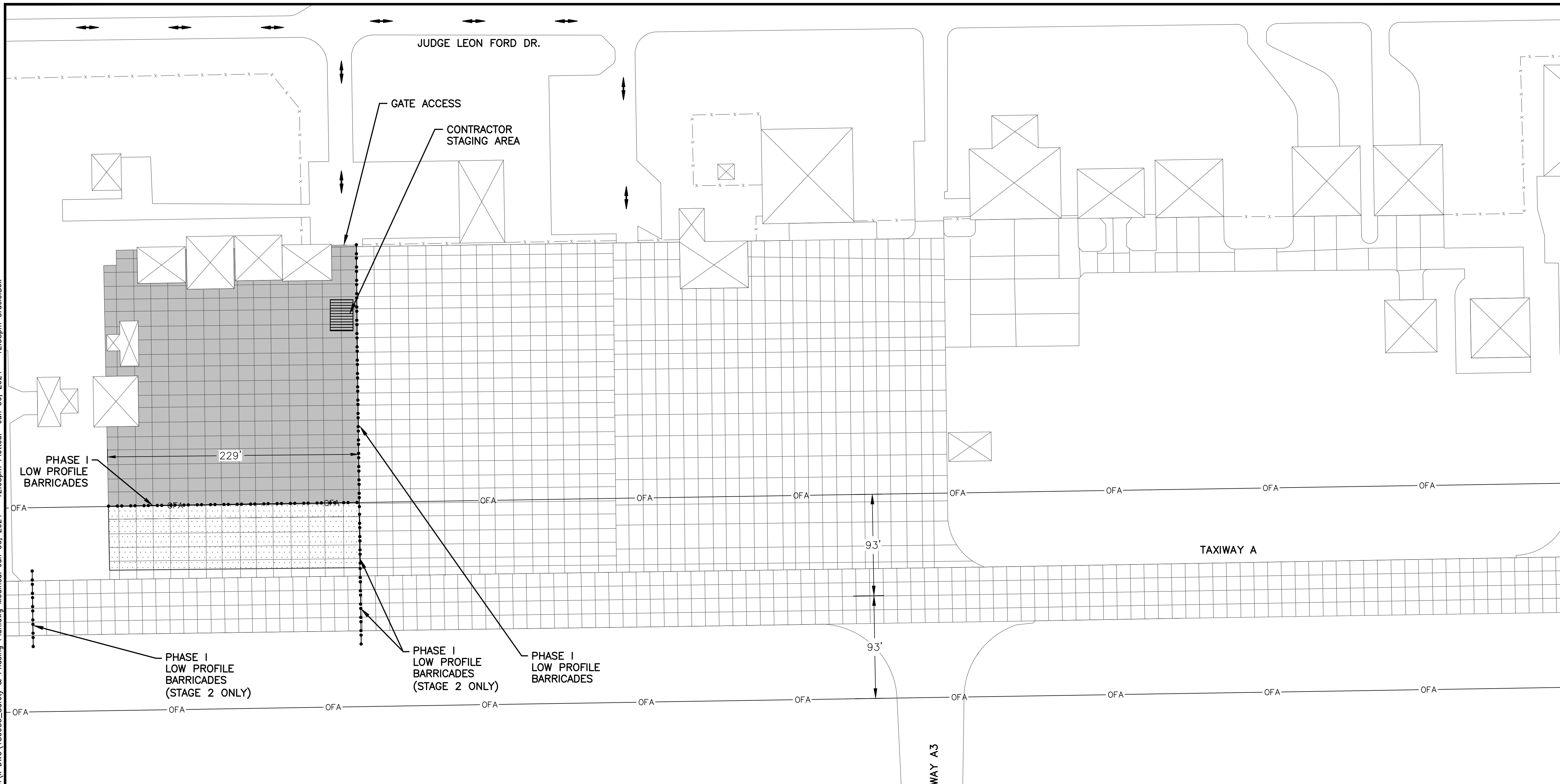
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Sheet Number:  
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Drawing Number:  
**PLP-1**



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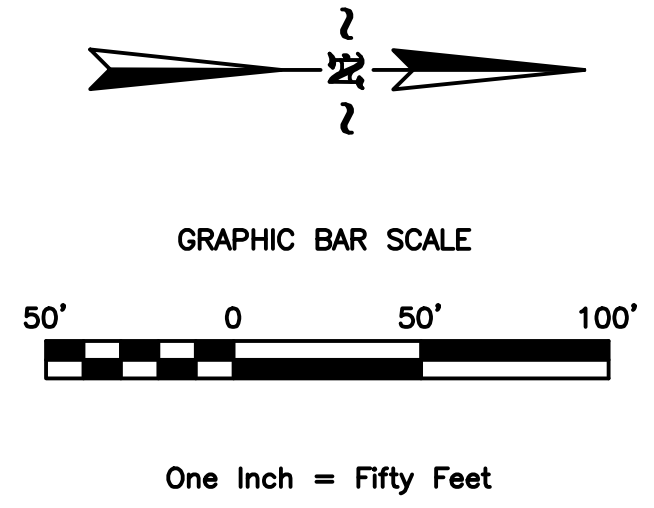


**PHASE I SAFETY PLAN NOTES:**

1. PHASE I WORK WILL CONSIST OF THE REQUIRED WORK AS SHOWN ON PHASED PLANS. WORK ITEMS INCLUDE FULL SLAB REPLACEMENT, PARTIAL SLAB REPLACEMENT, MINOR SPALL REPAIR, AND JOINT AND CRACK RESEALING. PHASE I SHALL BE 45 CONSECUTIVE CALENDAR DAYS.
2. TO FACILITATE WORK INSIDE THE TAXIWAY OBJECT FREE AREA, WORK WILL BE DIVIDED INTO TWO STAGES:
  - A. STAGE 1 OF WORK AREA WILL BE ON THE APRON OUTSIDE OF THE TAXIWAY A OFA.
  - B. STAGE 2 WORK AREA WILL BE ON THE APRON INSIDE OF THE TAXIWAY A OFA.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND RELOCATING THE SAFETY DEVICES THROUGHOUT THE PROJECT. NO DIRECT PAY.
4. THE CONTRACTOR SHALL MAINTAIN ACCESS THROUGHOUT THE PROJECT SITE SUITABLE FOR AIRCRAFT, EMERGENCY VEHICLES, AND AIRPORT OPERATIONS AS SHOWN ON THE SAFETY PLANS. THE CONTRACTOR SHALL NOT BLOCK SAFETY ACCESS TO OPEN TAXIWAYS AND APRON AREAS.
5. THE CONTRACTOR SHALL ENSURE WORK AREAS AND OPEN TAXIWAYS ARE KEPT CLEAR OF ALL FOD. THE CONTRACTOR SHALL MAINTAIN SUFFICIENT EQUIPMENT ONSITE TO KEEP WORK AREA CLEAN.

**LEGEND:**

- HAUL ROUTE
- LOW PROFILE BARRICADE
- TAXIWAY OBJECT FREE AREA LIMIT
- CONTRACTOR STAGING AREA
- PHASE I STAGE 1 WORK
- PHASE I STAGE 2 WORK



HAMMOND NORTHSHORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
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4/6/2024  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

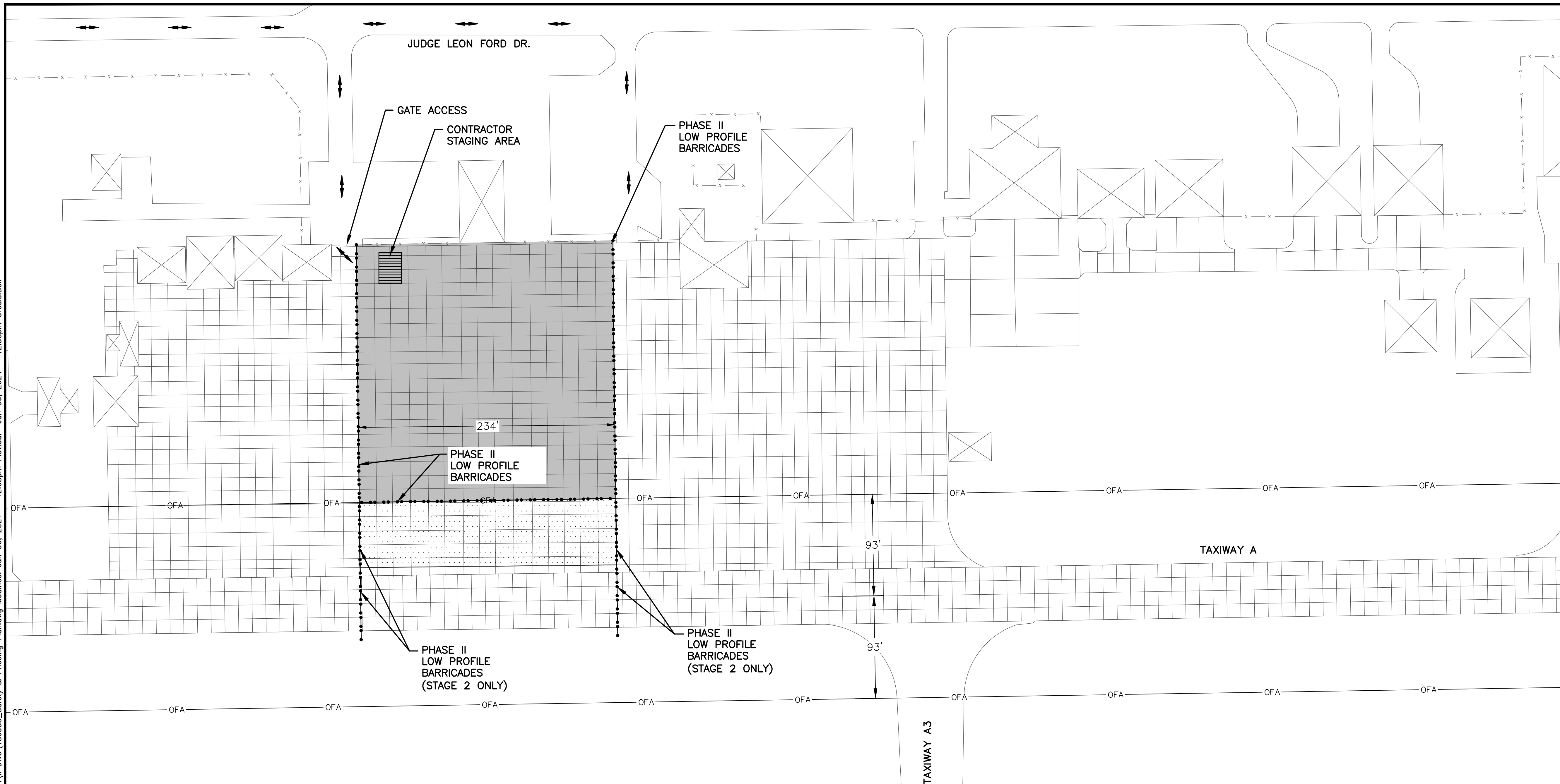
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**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**PROJECT SAFETY AND PHASING PLAN (PHASE I) (BASE BID)**

FAA A.I.G. BIL Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 3
1"=50'	Drawing Number: <b>PSP-1</b>



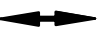
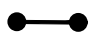

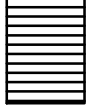

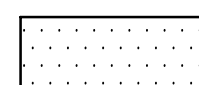
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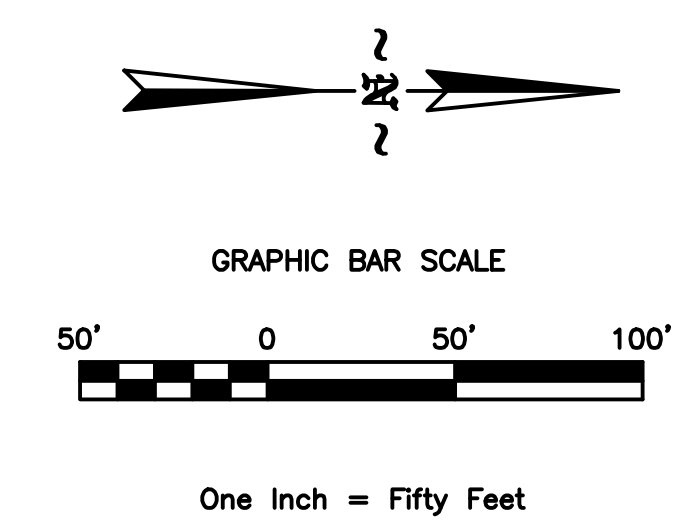


**PHASE II SAFETY PLAN NOTES:**

1. PHASE II WORK WILL CONSIST OF THE REQUIRED WORK AS SHOWN ON PHASED PLANS. WORK ITEMS INCLUDE FULL SLAB REPLACEMENT, PARTIAL SLAB REPLACEMENT, MINOR SPALL REPAIR, AND JOINT AND CRACK RESEALING. PHASE II SHALL BE 60 CONSECUTIVE CALENDAR DAYS.
2. TO FACILITATE WORK INSIDE THE TAXIWAY OBJECT FREE AREA AREA, WORK WILL BE DIVIDED INTO TWO STAGES:
  - A. STAGE 1 OF WORK AREA WILL BE ON THE APRON OUTSIDE OF THE TAXIWAY A OFA.
  - B. STAGE 2 WORK AREA WILL BE ON THE APRON INSIDE OF THE TAXIWAY A OFA.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND RELOCATING THE SAFETY DEVICES THROUGHOUT THE PROJECT. NO DIRECT PAY.
4. THE CONTRACTOR SHALL MAINTAIN ACCESS THROUGHOUT THE PROJECT SITE SUITABLE FOR AIRCRAFT, EMERGENCY VEHICLES, AND AIRPORT OPERATIONS AS SHOWN ON THE SAFETY PLANS. THE CONTRACTOR SHALL NOT BLOCK SAFETY ACCESS TO OPEN TAXIWAYS AND APRON AREAS.
5. THE CONTRACTOR SHALL ENSURE WORK AREAS AND OPEN TAXIWAYS ARE KEPT CLEAR OF ALL FOD. THE CONTRACTOR SHALL MAINTAIN SUFFICIENT EQUIPMENT ONSITE TO KEEP WORK AREA CLEAN.

**LEGEND:**

-  HAUL ROUTE
-  LOW PROFILE BARRICADE
-  TAXIWAY OBJECT FREE AREA LIMIT
-  CONTRACTOR STAGING AREA
-  PHASE II STAGE 1 WORK
-  PHASE II STAGE 2 WORK



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INTERNATIONAL

Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
4/6/2024  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

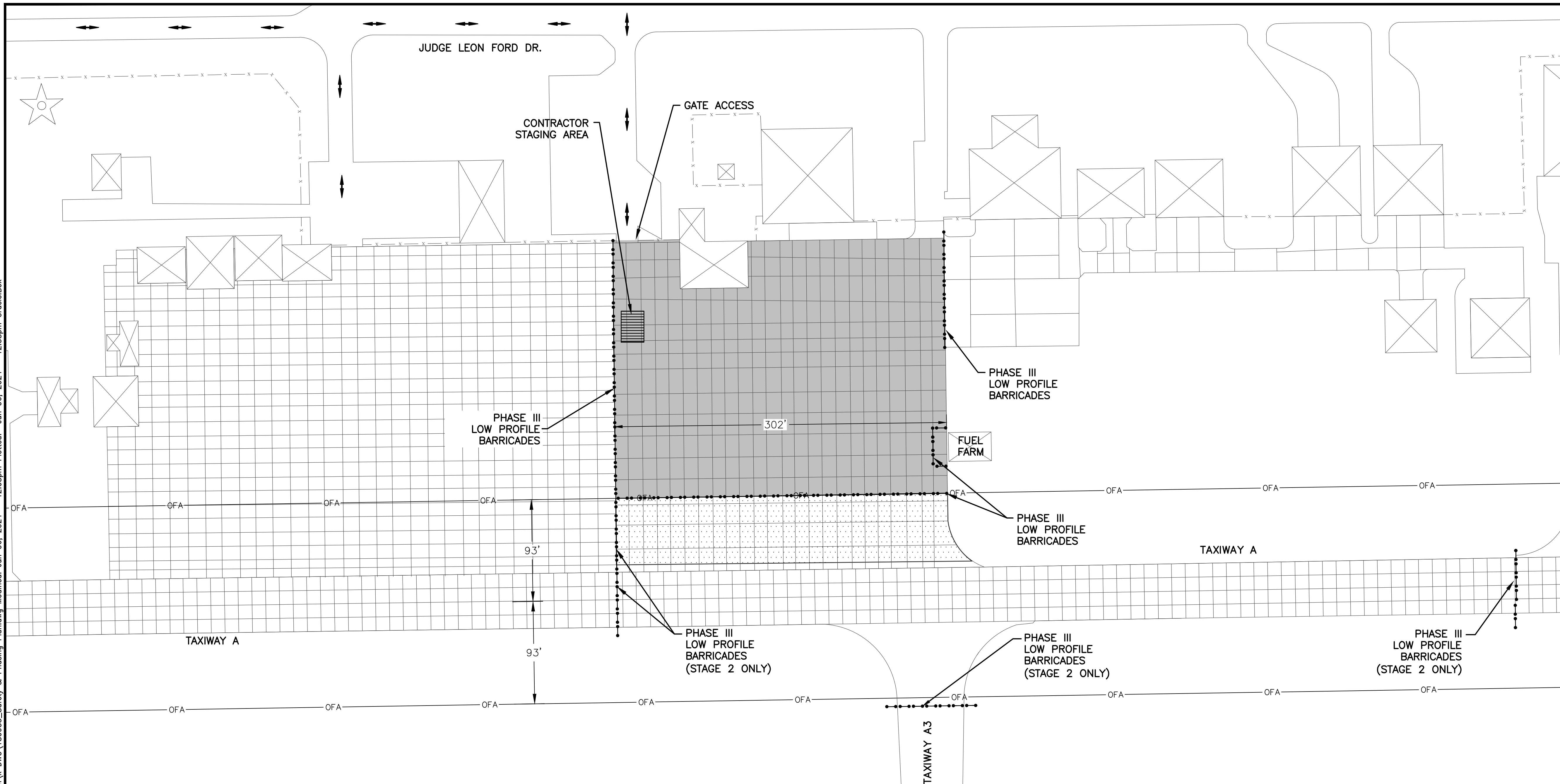
Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**PROJECT SAFETY AND PHASING PLAN (PHASE II) (BASE BID)**

FAA A.I.G. BIL Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 3A
1"=400'	Drawing Number: <b>PSP-2</b>



W:\BatonRouge\Projects\Active\Hammond\Projects\180935 - Apron Joint Seal Repair\2 Design\k DWG\180935\_Safety & Phasing Plan.dwg Modified: Jun 06, 2024 - 12:06pm Plotted: Jun 06, 2024 - 12:58pm Grace.Box

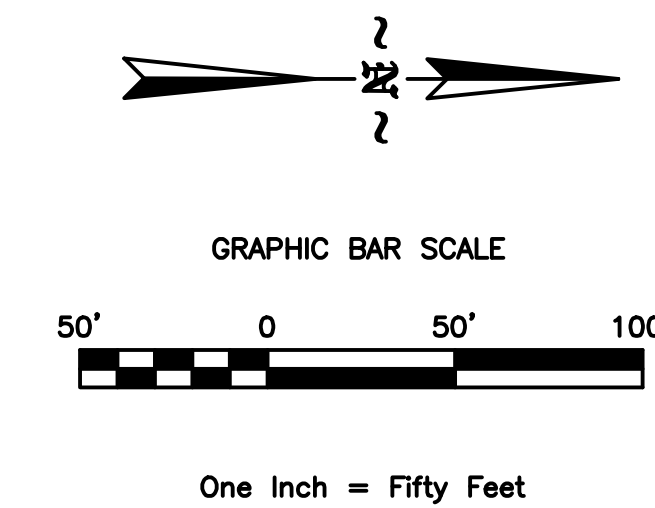


**PHASE III SAFETY PLAN NOTES:**

1. PHASE III WORK WILL CONSIST OF THE REQUIRED WORK AS SHOWN ON THE PHASED PLANS. WORK ITEMS INCLUDE FULL SLAB REPLACEMENT, PARTIAL SLAB REPLACEMENT, MINOR SPALL REPAIR, AND JOINT AND CRACK RESEALING. PHASE III SHALL BE 45 CONSECUTIVE CALENDAR DAYS.
2. TO FACILITATE WORK INSIDE THE TAXIWAY OBJECT FREE AREA AREA, WORK WILL BE DIVIDED INTO TWO STAGES:
  - A. STAGE 1 OF WORK AREA WILL BE ON THE APRON OUTSIDE OF THE TAXIWAY A OFA.
  - B. STAGE 2 WORK AREA WILL BE ON THE APRON INSIDE OF THE TAXIWAY A OFA.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND RELOCATING THE SAFETY DEVICES THROUGHOUT THE PROJECT. NO DIRECT PAY.
4. THE CONTRACTOR SHALL MAINTAIN ACCESS THROUGHOUT THE PROJECT SITE SUITABLE FOR AIRCRAFT, EMERGENCY VEHICLES, AND AIRPORT OPERATIONS AS SHOWN ON THE SAFETY PLANS. THE CONTRACTOR SHALL NOT BLOCK SAFETY ACCESS TO OPEN TAXIWAYS AND APRON AREAS.
5. THE CONTRACTOR SHALL ENSURE WORK AREAS AND OPEN TAXIWAYS ARE KEPT CLEAR OF ALL FOD. THE CONTRACTOR SHALL MAINTAIN SUFFICIENT EQUIPMENT ONSITE TO KEEP WORK AREA CLEAN.

**LEGEND:**

- HAUL ROUTE
- LOW PROFILE BARRICADE
- TAXIWAY OBJECT FREE AREA LIMIT
- CONTRACTOR STAGING AREA
- PHASE III STAGE 1 WORK
- PHASE III STAGE 2 WORK



HAMMOND NORTHSHORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

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LICENSE No. 40971  
4/6/2024  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**PROJECT SAFETY AND PHASING PLAN (PHASE III) (BASE BID)**

FAA A.I.G. BIL Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 3B
1"=50'	Drawing Number: <b>PSP-3</b>





HAMMOND NORTHSHORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

Michael Baker INTERNATIONAL  
 DESIGNER: BOBBY ODOM, P.E.  
 LICENSE No. 40971  
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Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

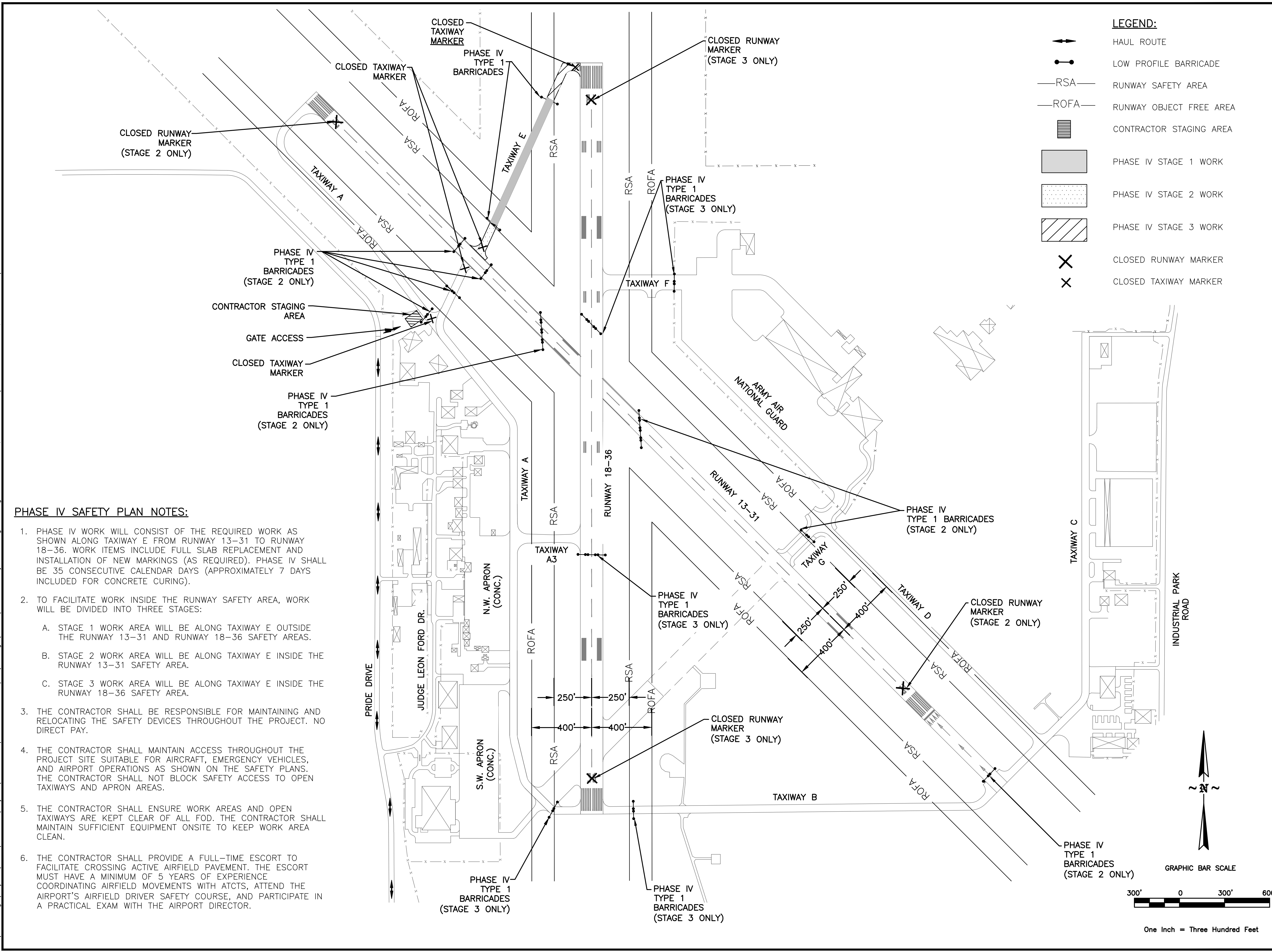
REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

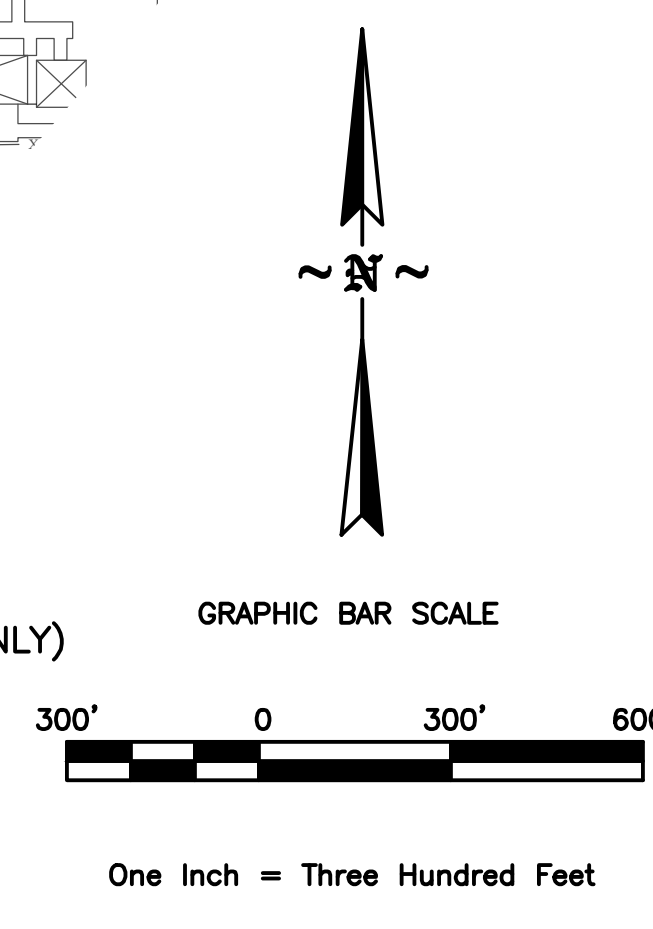
Drawing Name:  
**PROJECT SAFETY AND PHASING PLAN (PHASE IV) (ADD. ALT. 1)**

FAA A.I.G. BIL Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 3C
1"=300'	Drawing Number: <b>PSP-4</b>

- LEGEND:**
- HAUL ROUTE
  - LOW PROFILE BARRICADE
  - RSA RUNWAY SAFETY AREA
  - ROFA RUNWAY OBJECT FREE AREA
  - CONTRACTOR STAGING AREA
  - PHASE IV STAGE 1 WORK
  - PHASE IV STAGE 2 WORK
  - PHASE IV STAGE 3 WORK
  - CLOSED RUNWAY MARKER
  - CLOSED TAXIWAY MARKER



- PHASE IV SAFETY PLAN NOTES:**
- PHASE IV WORK WILL CONSIST OF THE REQUIRED WORK AS SHOWN ALONG TAXIWAY E FROM RUNWAY 13-31 TO RUNWAY 18-36. WORK ITEMS INCLUDE FULL SLAB REPLACEMENT AND INSTALLATION OF NEW MARKINGS (AS REQUIRED). PHASE IV SHALL BE 35 CONSECUTIVE CALENDAR DAYS (APPROXIMATELY 7 DAYS INCLUDED FOR CONCRETE CURING).
  - TO FACILITATE WORK INSIDE THE RUNWAY SAFETY AREA, WORK WILL BE DIVIDED INTO THREE STAGES:
    - STAGE 1 WORK AREA WILL BE ALONG TAXIWAY E OUTSIDE THE RUNWAY 13-31 AND RUNWAY 18-36 SAFETY AREAS.
    - STAGE 2 WORK AREA WILL BE ALONG TAXIWAY E INSIDE THE RUNWAY 13-31 SAFETY AREA.
    - STAGE 3 WORK AREA WILL BE ALONG TAXIWAY E INSIDE THE RUNWAY 18-36 SAFETY AREA.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND RELOCATING THE SAFETY DEVICES THROUGHOUT THE PROJECT. NO DIRECT PAY.
  - THE CONTRACTOR SHALL MAINTAIN ACCESS THROUGHOUT THE PROJECT SITE SUITABLE FOR AIRCRAFT, EMERGENCY VEHICLES, AND AIRPORT OPERATIONS AS SHOWN ON THE SAFETY PLANS. THE CONTRACTOR SHALL NOT BLOCK SAFETY ACCESS TO OPEN TAXIWAYS AND APRON AREAS.
  - THE CONTRACTOR SHALL ENSURE WORK AREAS AND OPEN TAXIWAYS ARE KEPT CLEAR OF ALL FOD. THE CONTRACTOR SHALL MAINTAIN SUFFICIENT EQUIPMENT ONSITE TO KEEP WORK AREA CLEAN.
  - THE CONTRACTOR SHALL PROVIDE A FULL-TIME ESCORT TO FACILITATE CROSSING ACTIVE AIRFIELD PAVEMENT. THE ESCORT MUST HAVE A MINIMUM OF 5 YEARS OF EXPERIENCE COORDINATING AIRFIELD MOVEMENTS WITH ATCTS, ATTEND THE AIRPORT'S AIRFIELD DRIVER SAFETY COURSE, AND PARTICIPATE IN A PRACTICAL EXAM WITH THE AIRPORT DIRECTOR.





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HAMMOND NORTHSHORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
4/6/2024  
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Designer: M. HALL  
Checked by: B. ODOM  
Technician: M. HALL  
Project Number: 180935

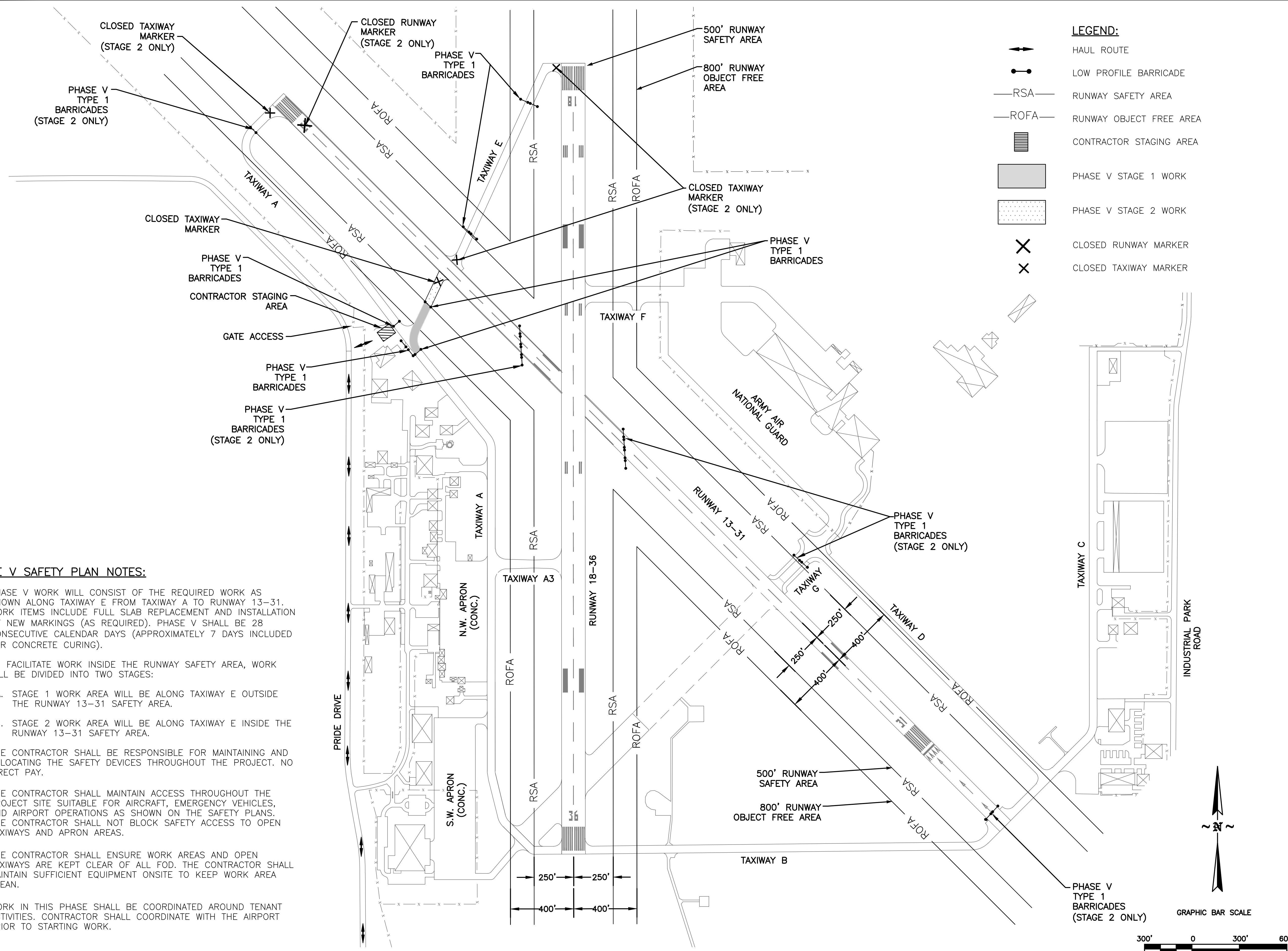
REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**PROJECT SAFETY AND PHASING PLAN (PHASE V) (ADD. ALT. 2)**

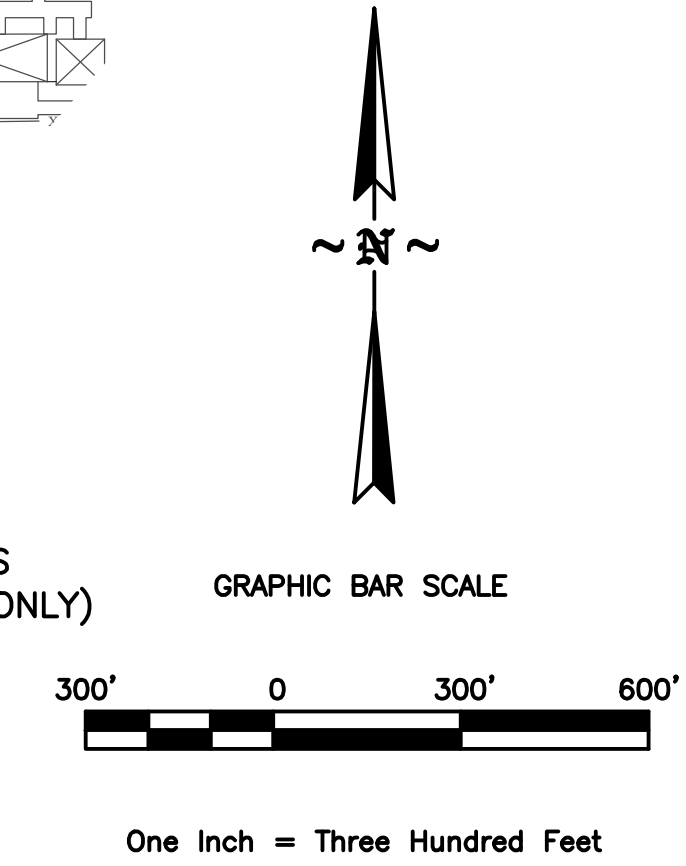
FAA A.I.G. BIL Project Number:  
3-22-0018-0XX-2024  
Date: MAY 2024  
Scale: (22x34)  
1"=300'  
Division:  
Sheet Number:  
3D  
Drawing Number:  
**PSP-5**

- LEGEND:**
- HAUL ROUTE
  - LOW PROFILE BARRICADE
  - RSA RUNWAY SAFETY AREA
  - ROFA RUNWAY OBJECT FREE AREA
  - CONTRACTOR STAGING AREA
  - PHASE V STAGE 1 WORK
  - PHASE V STAGE 2 WORK
  - CLOSED RUNWAY MARKER
  - CLOSED TAXIWAY MARKER



**PHASE V SAFETY PLAN NOTES:**

- PHASE V WORK WILL CONSIST OF THE REQUIRED WORK AS SHOWN ALONG TAXIWAY E FROM TAXIWAY A TO RUNWAY 13-31. WORK ITEMS INCLUDE FULL SLAB REPLACEMENT AND INSTALLATION OF NEW MARKINGS (AS REQUIRED). PHASE V SHALL BE 28 CONSECUTIVE CALENDAR DAYS (APPROXIMATELY 7 DAYS INCLUDED FOR CONCRETE CURING).
- TO FACILITATE WORK INSIDE THE RUNWAY SAFETY AREA, WORK WILL BE DIVIDED INTO TWO STAGES:
  - STAGE 1 WORK AREA WILL BE ALONG TAXIWAY E OUTSIDE THE RUNWAY 13-31 SAFETY AREA.
  - STAGE 2 WORK AREA WILL BE ALONG TAXIWAY E INSIDE THE RUNWAY 13-31 SAFETY AREA.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND RELOCATING THE SAFETY DEVICES THROUGHOUT THE PROJECT. NO DIRECT PAY.
- THE CONTRACTOR SHALL MAINTAIN ACCESS THROUGHOUT THE PROJECT SITE SUITABLE FOR AIRCRAFT, EMERGENCY VEHICLES, AND AIRPORT OPERATIONS AS SHOWN ON THE SAFETY PLANS. THE CONTRACTOR SHALL NOT BLOCK SAFETY ACCESS TO OPEN TAXIWAYS AND APRON AREAS.
- THE CONTRACTOR SHALL ENSURE WORK AREAS AND OPEN TAXIWAYS ARE KEPT CLEAR OF ALL FOD. THE CONTRACTOR SHALL MAINTAIN SUFFICIENT EQUIPMENT ONSITE TO KEEP WORK AREA CLEAN.
- WORK IN THIS PHASE SHALL BE COORDINATED AROUND TENANT ACTIVITIES. CONTRACTOR SHALL COORDINATE WITH THE AIRPORT PRIOR TO STARTING WORK.

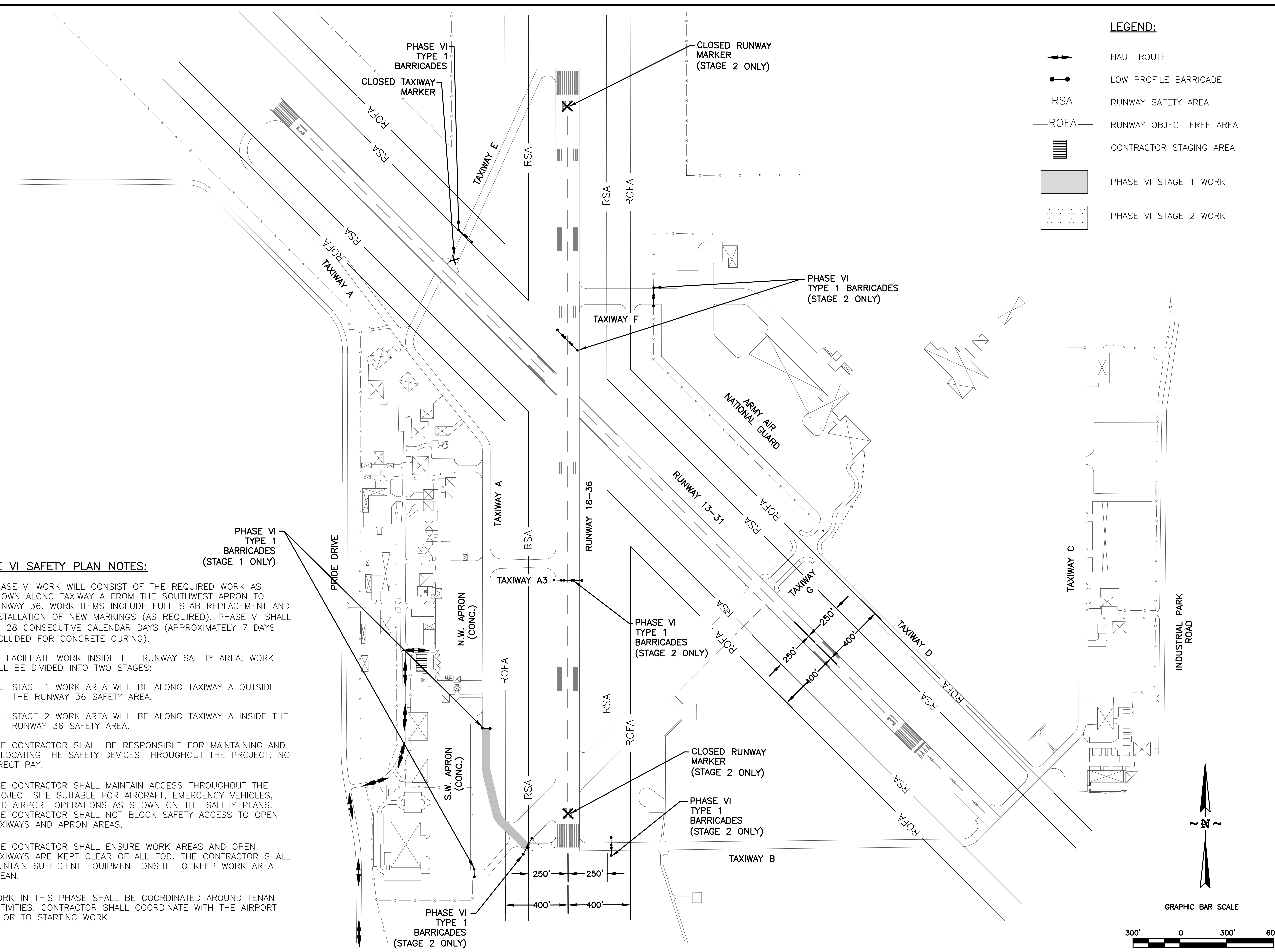




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**PHASE VI SAFETY PLAN NOTES:**

1. PHASE VI WORK WILL CONSIST OF THE REQUIRED WORK AS SHOWN ALONG TAXIWAY A FROM THE SOUTHWEST APRON TO RUNWAY 36. WORK ITEMS INCLUDE FULL SLAB REPLACEMENT AND INSTALLATION OF NEW MARKINGS (AS REQUIRED). PHASE VI SHALL BE 28 CONSECUTIVE CALENDAR DAYS (APPROXIMATELY 7 DAYS INCLUDED FOR CONCRETE CURING).
2. TO FACILITATE WORK INSIDE THE RUNWAY SAFETY AREA, WORK WILL BE DIVIDED INTO TWO STAGES:
  - A. STAGE 1 WORK AREA WILL BE ALONG TAXIWAY A OUTSIDE THE RUNWAY 36 SAFETY AREA.
  - B. STAGE 2 WORK AREA WILL BE ALONG TAXIWAY A INSIDE THE RUNWAY 36 SAFETY AREA.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND RELOCATING THE SAFETY DEVICES THROUGHOUT THE PROJECT. NO DIRECT PAY.
4. THE CONTRACTOR SHALL MAINTAIN ACCESS THROUGHOUT THE PROJECT SITE SUITABLE FOR AIRCRAFT, EMERGENCY VEHICLES, AND AIRPORT OPERATIONS AS SHOWN ON THE SAFETY PLANS. THE CONTRACTOR SHALL NOT BLOCK SAFETY ACCESS TO OPEN TAXIWAYS AND APRON AREAS.
5. THE CONTRACTOR SHALL ENSURE WORK AREAS AND OPEN TAXIWAYS ARE KEPT CLEAR OF ALL FOD. THE CONTRACTOR SHALL MAINTAIN SUFFICIENT EQUIPMENT ONSITE TO KEEP WORK AREA CLEAN.
6. WORK IN THIS PHASE SHALL BE COORDINATED AROUND TENANT ACTIVITIES. CONTRACTOR SHALL COORDINATE WITH THE AIRPORT PRIOR TO STARTING WORK.



**LEGEND:**

- HAUL ROUTE
- LOW PROFILE BARRICADE
- RUNWAY SAFETY AREA
- RUNWAY OBJECT FREE AREA
- CONTRACTOR STAGING AREA
- PHASE VI STAGE 1 WORK
- PHASE VI STAGE 2 WORK

N

GRAPHIC BAR SCALE

300' 0 300' 600'

One Inch = Three Hundred Feet



HAMMOND NORTHSHORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

**Michael Baker** INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
4/6/2024  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

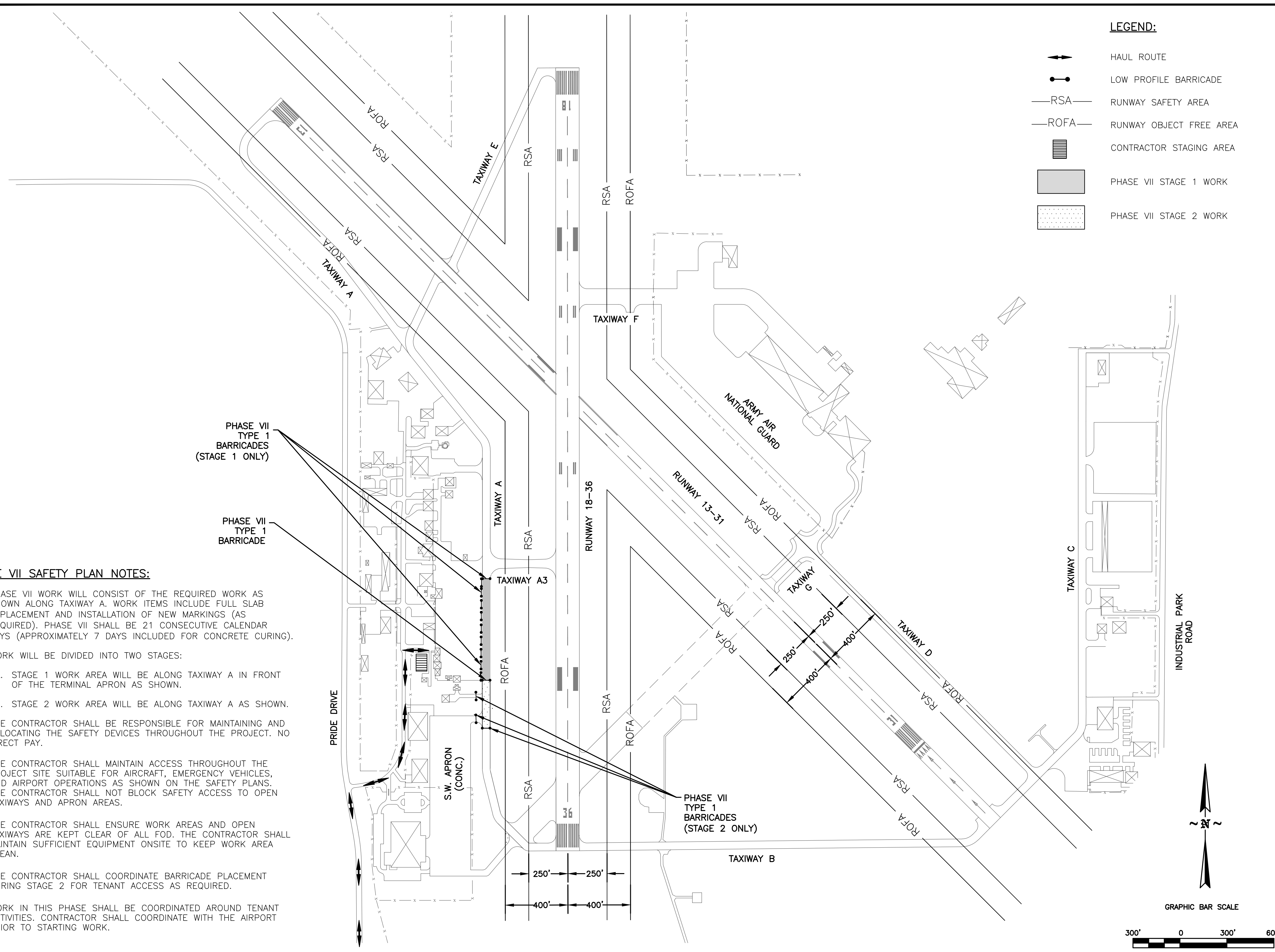
Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**PROJECT SAFETY AND PHASING PLAN (PHASE VI) (ADD. ALT. 3)**

FAA A.I.G. BIL Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division: 3E
Scale: (22x34) 1"=300'	Sheet Number: 3E
	Drawing Number: <b>PSP-6</b>



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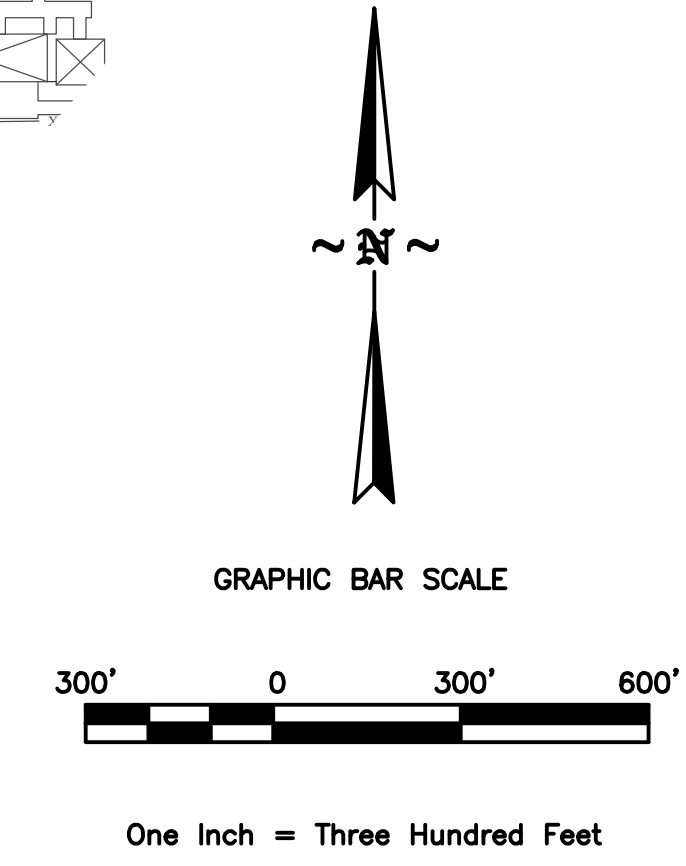
- LEGEND:**
- HAUL ROUTE
  - LOW PROFILE BARRICADE
  - RSA RUNWAY SAFETY AREA
  - ROFA RUNWAY OBJECT FREE AREA
  - CONTRACTOR STAGING AREA
  - PHASE VII STAGE 1 WORK
  - PHASE VII STAGE 2 WORK

PHASE VII  
TYPE 1  
BARRICADES  
(STAGE 1 ONLY)

PHASE VII  
TYPE 1  
BARRICADE

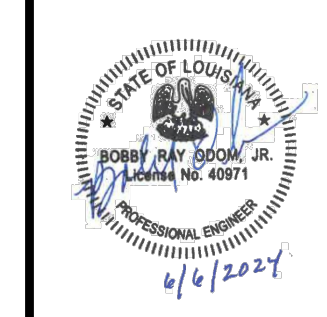
**PHASE VII SAFETY PLAN NOTES:**

1. PHASE VII WORK WILL CONSIST OF THE REQUIRED WORK AS SHOWN ALONG TAXIWAY A. WORK ITEMS INCLUDE FULL SLAB REPLACEMENT AND INSTALLATION OF NEW MARKINGS (AS REQUIRED). PHASE VII SHALL BE 21 CONSECUTIVE CALENDAR DAYS (APPROXIMATELY 7 DAYS INCLUDED FOR CONCRETE CURING).
2. WORK WILL BE DIVIDED INTO TWO STAGES:
  - A. STAGE 1 WORK AREA WILL BE ALONG TAXIWAY A IN FRONT OF THE TERMINAL APRON AS SHOWN.
  - B. STAGE 2 WORK AREA WILL BE ALONG TAXIWAY A AS SHOWN.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND RELOCATING THE SAFETY DEVICES THROUGHOUT THE PROJECT. NO DIRECT PAY.
4. THE CONTRACTOR SHALL MAINTAIN ACCESS THROUGHOUT THE PROJECT SITE SUITABLE FOR AIRCRAFT, EMERGENCY VEHICLES, AND AIRPORT OPERATIONS AS SHOWN ON THE SAFETY PLANS. THE CONTRACTOR SHALL NOT BLOCK SAFETY ACCESS TO OPEN TAXIWAYS AND APRON AREAS.
5. THE CONTRACTOR SHALL ENSURE WORK AREAS AND OPEN TAXIWAYS ARE KEPT CLEAR OF ALL FOD. THE CONTRACTOR SHALL MAINTAIN SUFFICIENT EQUIPMENT ONSITE TO KEEP WORK AREA CLEAN.
6. THE CONTRACTOR SHALL COORDINATE BARRICADE PLACEMENT DURING STAGE 2 FOR TENANT ACCESS AS REQUIRED.
7. WORK IN THIS PHASE SHALL BE COORDINATED AROUND TENANT ACTIVITIES. CONTRACTOR SHALL COORDINATE WITH THE AIRPORT PRIOR TO STARTING WORK.



HAMMOND NORTHSHORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
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THESE DRAWINGS DO NOT  
INCLUDE NECESSARY  
COMPONENTS  
FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT  
RESEAL AND TAXIWAY A & E  
POINT REPAIRS**

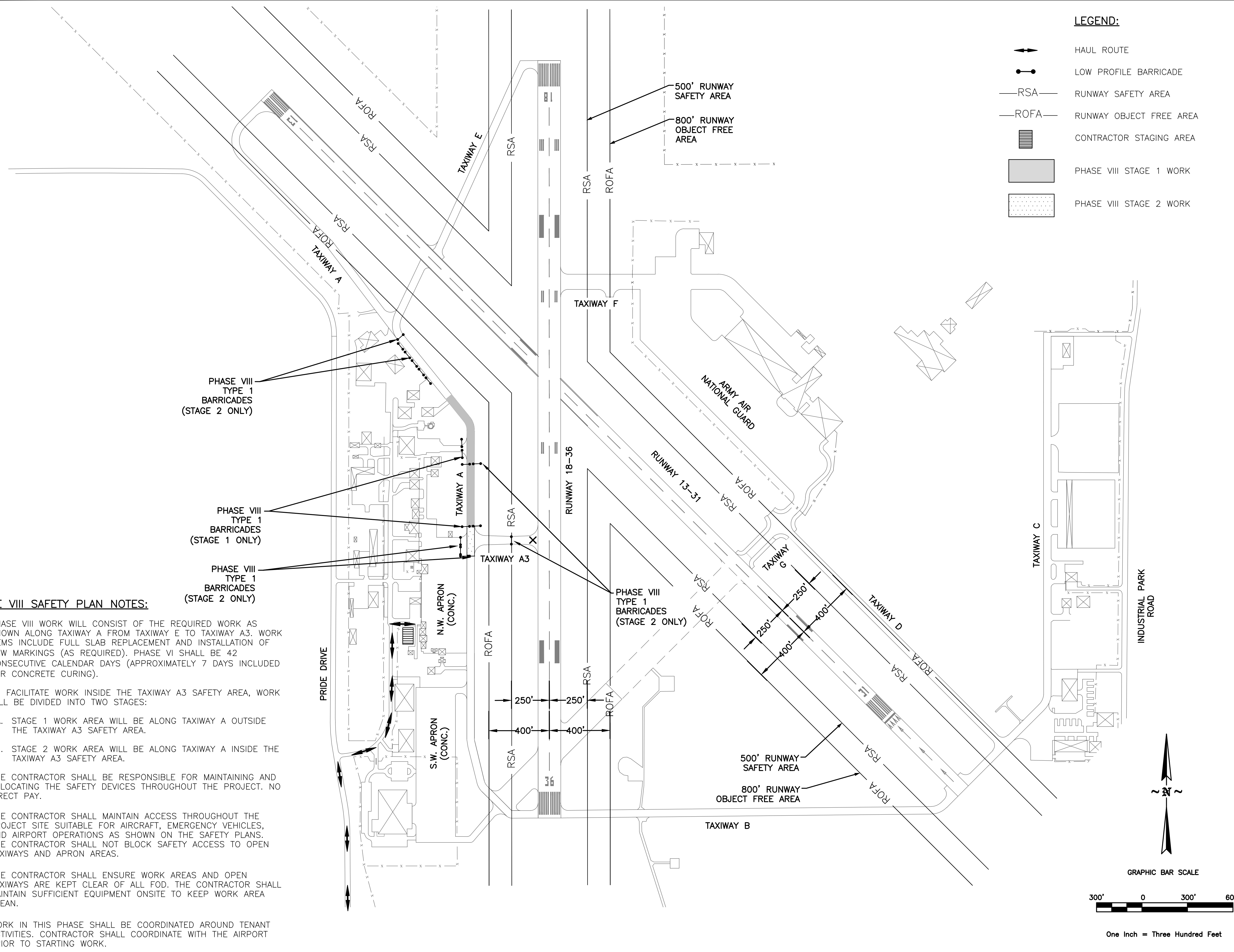
Drawing Name:  
**PROJECT SAFETY AND  
PHASING PLAN  
(PHASE VII)  
(ADD. ALT. 3)**

FAA A.I.G. BIL Project Number:  
3-22-0018-0XX-2024

Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 3G
1"=300'	Drawing Number: <b>PSP-7</b>



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**LEGEND:**

- HAUL ROUTE
- LOW PROFILE BARRICADE
- RUNWAY SAFETY AREA
- RUNWAY OBJECT FREE AREA
- CONTRACTOR STAGING AREA
- PHASE VIII STAGE 1 WORK
- PHASE VIII STAGE 2 WORK

- PHASE VIII SAFETY PLAN NOTES:**
1. PHASE VIII WORK WILL CONSIST OF THE REQUIRED WORK AS SHOWN ALONG TAXIWAY A FROM TAXIWAY E TO TAXIWAY A3. WORK ITEMS INCLUDE FULL SLAB REPLACEMENT AND INSTALLATION OF NEW MARKINGS (AS REQUIRED). PHASE VI SHALL BE 42 CONSECUTIVE CALENDAR DAYS (APPROXIMATELY 7 DAYS INCLUDED FOR CONCRETE CURING).
  2. TO FACILITATE WORK INSIDE THE TAXIWAY A3 SAFETY AREA, WORK WILL BE DIVIDED INTO TWO STAGES:
    - A. STAGE 1 WORK AREA WILL BE ALONG TAXIWAY A OUTSIDE THE TAXIWAY A3 SAFETY AREA.
    - B. STAGE 2 WORK AREA WILL BE ALONG TAXIWAY A INSIDE THE TAXIWAY A3 SAFETY AREA.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND RELOCATING THE SAFETY DEVICES THROUGHOUT THE PROJECT. NO DIRECT PAY.
  4. THE CONTRACTOR SHALL MAINTAIN ACCESS THROUGHOUT THE PROJECT SITE SUITABLE FOR AIRCRAFT, EMERGENCY VEHICLES, AND AIRPORT OPERATIONS AS SHOWN ON THE SAFETY PLANS. THE CONTRACTOR SHALL NOT BLOCK SAFETY ACCESS TO OPEN TAXIWAYS AND APRON AREAS.
  5. THE CONTRACTOR SHALL ENSURE WORK AREAS AND OPEN TAXIWAYS ARE KEPT CLEAR OF ALL FOD. THE CONTRACTOR SHALL MAINTAIN SUFFICIENT EQUIPMENT ONSITE TO KEEP WORK AREA CLEAN.
  6. WORK IN THIS PHASE SHALL BE COORDINATED AROUND TENANT ACTIVITIES. CONTRACTOR SHALL COORDINATE WITH THE AIRPORT PRIOR TO STARTING WORK.

GRAPHIC BAR SCALE

300'      0      300'      600'

One Inch = Three Hundred Feet

**HAMMOND NORTHSHORE REGIONAL AIRPORT**  
HAMMOND, LOUISIANA

Michael Baker

INTERNATIONAL

Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
4/6/2024  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**PROJECT SAFETY AND PHASING PLAN (PHASE VIII) (ADD. ALT. 3)**

FAA A.I.G. BIL Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 3H
1"=300'	Drawing Number: <b>PSP-8</b>



**CONSTRUCTION SAFETY AND PHASING PLAN (CSPP)**

**GENERAL:**

1. THE CSPP HAS BEEN DEVELOPED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF FAA ADVISORY CIRCULAR 150/5370-2G AND IS CONSIDERED AN INTEGRAL PART TO THE CONTRACTOR'S WORK. THE FOLLOWING DRAWINGS ARE CONSIDERED PART OF THE CSPP:

- PLP-1 PROJECT LAYOUT PLAN
- PSP-1 TO PSP-8 PROJECT SAFETY AND PHASING PLANS
- SPN-1 PROJECT SAFETY NOTES AND DETAILS
- SQ-1 SUMMARY OF QUANTITIES

2. A FAA 7460 HAS BEEN SUBMITTED TO THE FAA FOR REVIEW. THIS SUBMITTAL WAS BASED ON A MAXIMUM EQUIPMENT HEIGHT OF 20 FT. THE DETERMINATION OF THIS SUBMITTAL HAS BEEN INCORPORATED IN THE CSPP.

3. THE CONTRACTOR SHALL SUBMIT A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) FOR REVIEW AND APPROVAL.

4. ALL PARTIES DRIVING IN THE AOA WILL COMPLETE THE AIRPORTS DRIVER'S TRAINING PRIOR TO THE PROJECT START. PENALTIES FOR AIRFIELD INCURSIONS INCLUDE BUT NOT LIMITED TO LOSS OF AOA ACCESS AND FINES UP TO \$10,000 PER INCIDENT PER PERSON.

**5. CONTACT INFORMATION:**

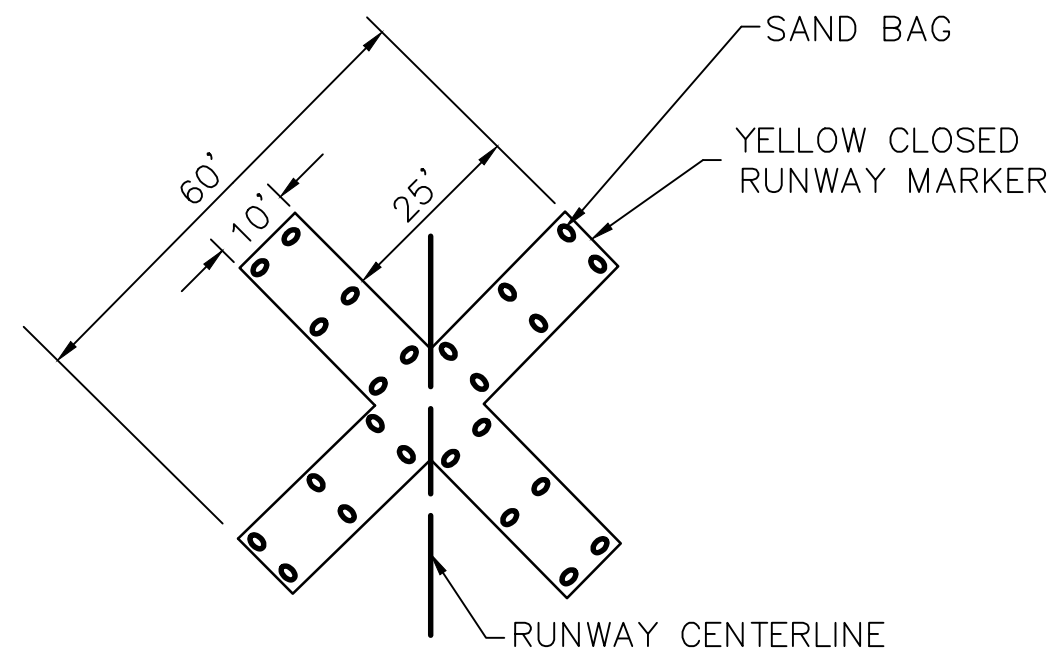
- AIRPORT OWNER: CITY OF HAMMOND  
DAVID LOBUE, AIRPORT DIRECTOR  
(985) 277-5667
- AIRPORT TOWER: MARK HEAD  
(985) 277-5347
- ENGINEER: MICHAEL BAKER INTERNATIONAL, INC.  
BOBBY ODOM  
(251) 380-0898
- CONTRACTOR: TO BE DETERMINED

**CONTRACTOR RESPONSIBILITIES:**

**THE CONTRACTOR SHALL:**

- SUBMIT A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) TO THE AIRPORT OPERATOR DESCRIBING HOW IT WILL COMPLY WITH THE REQUIREMENTS OF THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) AND SUPPLYING ANY DETAILS THAT COULD NOT BE DETERMINED BEFORE CONTRACT AWARD. THE SPCD MUST INCLUDE A CERTIFICATION STATEMENT BY THE CONTRACTOR THAT INDICATES IT UNDERSTANDS THE OPERATIONAL SAFETY REQUIREMENTS OF THE CSPP AND IT ASSERTS IT WILL NOT DEVIATE FROM THE APPROVED CSPP AND SPCD UNLESS WRITTEN APPROVAL IS GRANTED BY THE AIRPORT OPERATOR. ANY CONSTRUCTION PRACTICE PROPOSED BY THE CONTRACTOR THAT DOES NOT CONFORM TO THE CSPP AND SPCD MAY IMPACT THE AIRPORT'S OPERATIONAL SAFETY AND WILL REQUIRE A REVISION TO THE CSPP AND SPCD AND RE-COORDINATION WITH THE AIRPORT OPERATOR AND THE FAA IN ADVANCE. PAYMENT SHALL BE MADE UNDER PAY ITEM C-105 MOBILIZATION. FOR INFORMATION PERTAINING TO THE REQUIREMENTS OF THIS DOCUMENT, REFER TO THE SECTION "CONTRACTOR RESPONSIBILITIES".
- HAVE AVAILABLE AT ALL TIMES COPIES OF THE CSPP AND SPCD FOR REFERENCE BY THE AIRPORT OPERATOR AND ITS REPRESENTATIVES, AND BY SUBCONTRACTORS AND CONTRACTOR EMPLOYEES.
- ENSURE THAT CONSTRUCTION PERSONNEL ARE FAMILIAR WITH SAFETY PROCEDURES AND REGULATIONS ON THE AIRPORT. PROVIDE A POINT OF CONTACT WHO WILL COORDINATE AN IMMEDIATE RESPONSE TO CORRECT ANY CONSTRUCTION-RELATED ACTIVITY THAT MAY ADVERSELY AFFECT THE OPERATIONAL SAFETY OF THE AIRPORT. MANY PROJECTS WILL REQUIRE 24-HOUR COVERAGE.
- IDENTIFY IN THE SPCD THE CONTRACTOR'S ON-SITE EMPLOYEES RESPONSIBLE FOR MONITORING COMPLIANCE WITH THE CSPP AND SPCD DURING CONSTRUCTION. AT LEAST ONE OF THESE EMPLOYEES MUST BE ON-SITE WHENEVER ACTIVE CONSTRUCTION IS TAKING PLACE.
- CONDUCT INSPECTIONS WITH SUFFICIENT FREQUENCY TO ENSURE CONSTRUCTION PERSONNEL COMPLY WITH THE CSPP AND SPCD AND THAT THERE ARE NO ALTERED CONSTRUCTION ACTIVITIES THAT COULD CREATE POTENTIAL SAFETY HAZARDS.
- RESTRICT MOVEMENT OF CONSTRUCTION VEHICLES AND PERSONNEL TO PERMITTED CONSTRUCTION AREAS BY FLAGGING, BARRICADING, ERECTING TEMPORARY FENCING, OR PROVIDING ESCORTS, AS APPROPRIATE AND AS SPECIFIED IN THE CSPP AND SPCD. THE CONTRACTOR SHALL NOT DIRECT AIRCRAFT.
- ENSURE THAT NO CONTRACTOR EMPLOYEES, EMPLOYEES OF SUBCONTRACTORS OR SUPPLIERS, OR OTHER PERSONS ENTER ANY PART OF THE AIR OPERATIONS AREA (AOA) FROM THE CONSTRUCTION SITE UNLESS AUTHORIZED.
- PROVIDE ADEQUATE LIGHT UNITS FOR ALL NIGHT WORK. THE LOCATION DIRECTION OF LIGHT UNITS SHALL BE COORDINATED WITH THE OWNER AND FAA ATCT TO ENSURE NO DISRUPTION TO AIR TRAFFIC AND ATCT VISIBILITY.

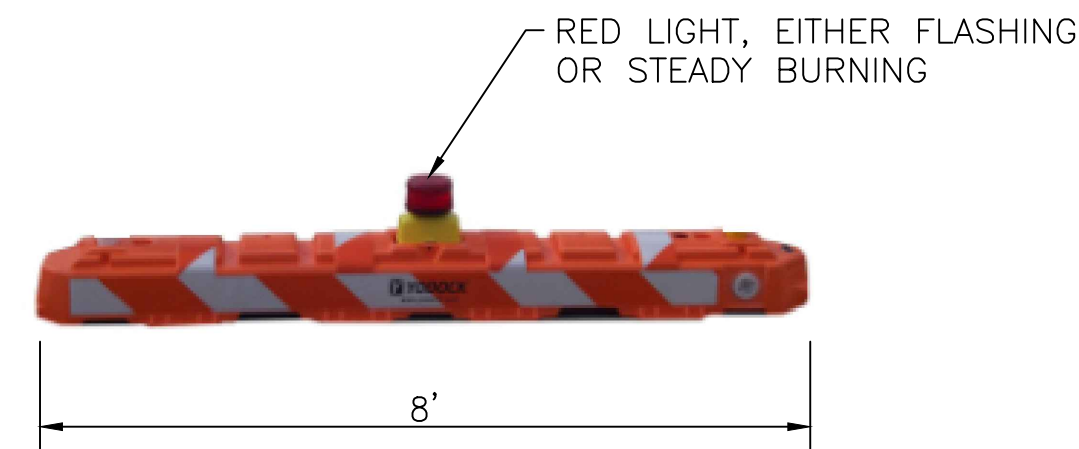
- TAKE NECESSARY PRECAUTIONS TO CONTROL FOREIGN OBJECT DEBRIS (FOD), I.E. TRASH, DEBRIS, ETC IN THE WORK AREAS. IF ANY DEBRIS LEAVES THE WORK AREA IT SHALL BE RETRIEVED IMMEDIATELY.
- TAKE THE NECESSARY PRECAUTIONS TO PROTECT THE WORK AREA FROM JET BLAST. ITEMS NOT BEING ACTIVELY USED IN WORK EFFORT SHALL BE PROPERLY STORED OR SECURED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST ON THE PROJECT AND SHALL MAINTAIN SUFFICIENT EQUIPMENT AND MANPOWER TO MITIGATE DUST AS REQUIRED.
- THE CONTRACTOR SHALL COMPLETE ALL PUNCH LIST ITEM WITHIN 30 CONSECUTIVE CALENDAR DAYS FROM THE DATE OF THE FINAL INSPECTION. FAILURE TO DO SO WILL RESULT IN ADDITIONAL LIQUIDATED DAMAGES OF \$1,000 PER CALENDAR DAY BEYOND THE 30 DAY ALLOTTED PERIOD (IN ADDITION TO ANY ADDITIONAL DAMAGES ASSESSED AT THAT TIME, IF ANY).



**CLOSED RUNWAY MARKER DETAIL**  
N.T.S.

**DETAIL NOTES:**

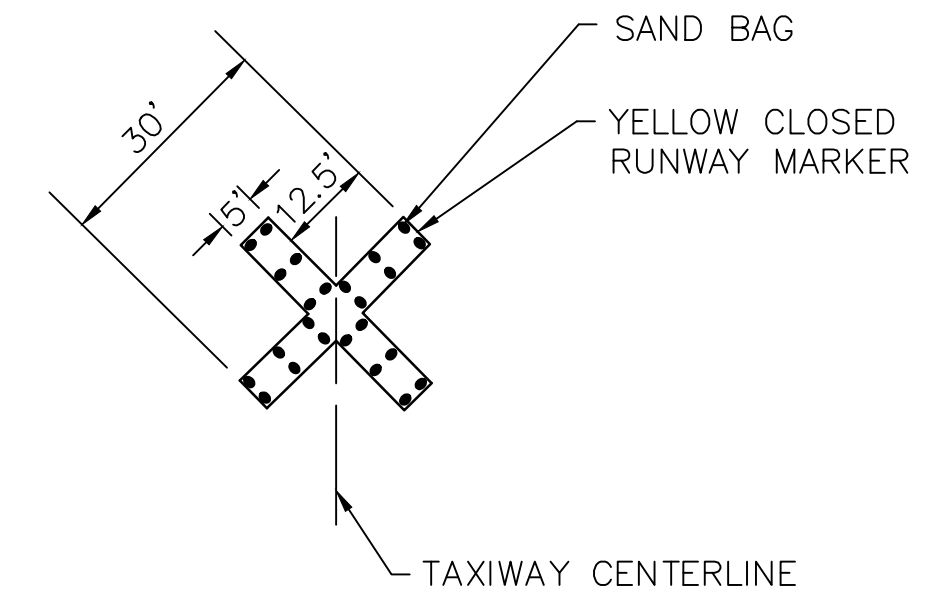
- THE X'S ARE IN YELLOW IN COLOR AND CONFORM TO THE DIMENSIONS SPECIFIED. THEY ARE USUALLY MADE OF SOME EASILY REMOVABLE MATERIAL, SUCH AS PLYWOOD OR FABRIC. ANY MATERIALS USED FOR TEMPORARY X'S SHOULD PROVIDE A SOLID APPEARANCE.
- CLOSED RUNWAY MARKERS SHALL BE INSTALLED AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.



**LIGHTED BARRICADE DETAIL**  
N.T.S.

**DETAIL NOTES:**

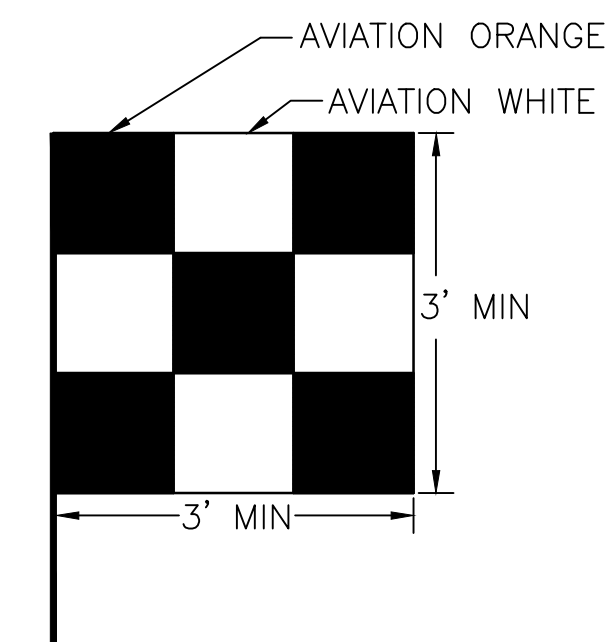
- BARRICADES SHALL MEET FAA SPECIFICATIONS AS OUTLINED IN CURRENT FAA ADVISORY CIRCULARS.
- CONTRACTOR SHALL WEIGHT BARRICADE TO PREVENT DISPLACEMENT. METHOD TO BE APPROVED BY THE ENGINEER.
- BARRICADES SHALL BE LOCATED AS PER AC 150/5370-2G OR CURRENT AND AS DIRECTED BY THE ENGINEER. BARRICADES USED ON RUNWAYS, TAXIWAYS, AND APRONS MUST BE EASILY COLLAPSIBLE UPON CONTACT WITH AN AIRCRAFT. (NO RAILROAD TIES)
- POLYETHYLENE BARRICADES ARE RECOMMENDED.
- THE SPACING OF BARRICADES SHALL BE 10 FT MAXIMUM.



**CLOSED TAXIWAY MARKER DETAIL**  
N.T.S.

**DETAIL NOTES:**

- THE X'S ARE IN YELLOW IN COLOR AND CONFORM TO THE DIMENSIONS SPECIFIED. THEY ARE USUALLY MADE OF SOME EASILY REMOVABLE MATERIAL, SUCH AS PLYWOOD OR FABRIC. ANY MATERIALS USED FOR TEMPORARY X'S SHOULD PROVIDE A SOLID APPEARANCE.
- CLOSED TAXIWAY MARKERS SHALL BE INSTALLED AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.



**CONSTRUCTION SAFETY FLAG**  
N.T.S.

**DETAIL NOTE:**

- SAFETY FLAG SHALL BE PROMINENTLY DISPLAYED ON ALL CONSTRUCTION EQUIPMENT. AN AMBER FLASHING LIGHT IS REQUIRED FOR NIGHT WORK AND MAY BE SUBSTITUTED FOR THE FLAG DURING THE DAY.



**HAMMOND NORTHSHORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA**

**Michael Baker  
INTERNATIONAL**

Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
4/6/2024  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT  
RESEAL AND TAXIWAY A & E  
POINT REPAIRS**

Drawing Name:  
**SAFETY PLAN NOTES  
AND DETAILS**

FAA A.I.G. BIL Project Number:  
**3-22-0018-0XX-2024**

Date: <b>MAY 2024</b>	Division:
Scale: (22x34)	Sheet Number: <b>4</b>
<b>AS NOTED</b>	Drawing Number: <b>SPN-1</b>

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ITEM NO	SPEC NO.	ITEM DESCRIPTION	UNIT	QUANTITY	
				PLAN	FINAL
<b>BASE BID</b>					
1	C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	LS	1	
2	C-105	MOBILIZATION	LS	1	
3	P-101-5.1	PAVEMENT REMOVAL	SY	660	
4	P-101-5.2	JOINT AND CRACK REPAIR	LF	36000	
5	P-101-5.3	REMOVAL OF FOREIGN SUBSTANCES/CONTAMINANTS	SF	1975	
6	P-101-5.4	CONCRETE SPALL REPAIR	CF	36	
7	P-501-8.1	CEMENT CONCRETE PAVEMENT	SY	660	
8	P-620-5.1A	SURFACE PREPARATION	SF	6400	
9	P-620-5.2A	MARKING, YELLOW	SF	1500	
10	P-620-5.2B	MARKING, BLACK	SF	4900	
11	P-620-5.3A	REFLECTIVE MEDIA	LB	80	
12	SP-1-1	TIE DOWN ANCHOR	EACH	83	
13	SP-1-2	MOORING EYE	EACH	4	
<b>ADDITIVE ALTERNATE NO. 1</b>					
1	P-101-5.1	PAVEMENT REMOVAL	SY	490	
2	P-152-4.1	UNCLASSIFIED EXCAVATION	CY	490	
3	P-152-4.2	EMBANKMENT IN PLACE	CY	490	
4	P-501-8.1	CEMENT CONCRETE PAVEMENT	SY	490	
5	P-620-5.1A	SURFACE PREPARATION	SF	900	
6	P-620-5.2A	MARKING, YELLOW	SF	300	
7	P-620-5.2B	MARKING, BLACK	SF	600	
8	P-620-5.3A	REFLECTIVE MEDIA	LB	30	
<b>ADDITIVE ALTERNATE NO. 2</b>					
1	P-101-5.1	PAVEMENT REMOVAL	SY	790	
2	P-152-4.1	UNCLASSIFIED EXCAVATION	CY	790	
3	P-152-4.2	EMBANKMENT IN PLACE	CY	790	
4	P-501-8.1	CEMENT CONCRETE PAVEMENT	SY	790	
5	P-620-5.1A	SURFACE PREPARATION	SF	1400	
6	P-620-5.2A	MARKING, YELLOW	SF	500	
7	P-620-5.2B	MARKING, BLACK	SF	600	
8	P-620-5.3A	REFLECTIVE MEDIA	LB	40	
<b>ADDITIVE ALTERNATE NO. 3</b>					
1	P-101-5.1	PAVEMENT REMOVAL	SY	1275	
2	P-152-4.1	UNCLASSIFIED EXCAVATION	CY	1275	
3	P-152-4.2	EMBANKMENT IN PLACE	CY	1275	
4	P-501-8.1	CEMENT CONCRETE PAVEMENT	SY	1275	
5	P-620-5.1A	SURFACE PREPARATION	SF	1500	
6	P-620-5.2A	MARKING, YELLOW	SF	600	
7	P-620-5.2B	MARKING, BLACK	SF	900	
8	P-620-5.3A	REFLECTIVE MEDIA	LB	50	



HAMMOND NORTHSHORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL  
Checked by: B. ODOM  
Technician: M. HALL  
Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**SUMMARY OF QUANTITIES**

FAA A.I.G. Bil. Project Number:  
3-22-0018-0XX-2024

Date: MAY 2024  
Scale: (22x34)  
AS NOTED

Division:  
Sheet Number: 5  
Drawing Number:  
**SQ-1**

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**HAUL ROUTES, STAGING AREAS AND CONSTRUCTION ACTIVITIES**

- C-1. THE CONTRACTOR SHALL CONDUCT HIS CONSTRUCTION OPERATIONS AS SHOWN ON THE PROJECT LAYOUT AND SAFETY PLAN AND HIS APPROVED PHASING PLAN. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE ENGINEER TO MINIMIZE DISRUPTION TO AIRPORT OPERATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE COMPLIANCE WITH SAFETY REQUIREMENTS AND TO MINIMIZE INTERFERENCE TO AIRCRAFT OPERATIONS DURING CONSTRUCTION.
- C-2. THE CONTRACTOR'S STAGING AREA AND HAUL ROUTES SHOWN ON THE PLANS ARE GENERAL AND FOR INFORMATION PURPOSES ONLY. THE ACTUAL SIZE AND LOCATION OF STAGING AREAS AND HAUL ROUTES WILL BE APPROVED BY OWNER PRIOR TO CONSTRUCTION.
- C-3. ALL EXISTING GRASSED AREAS WHICH ARE DISTURBED AS PART OF THE CONTRACTOR'S ACCESS ROAD, CONTRACTOR'S STAGING AREA, AND HAUL ROUTES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AFTER COMPLETION OF THE PROJECT. IN ADDITION, ALL EXISTING ROADS, APRONS AND TAXIWAYS THAT WILL BE USED AS THE CONTRACTOR'S HAUL ROUTE SHALL BE MAINTAINED DURING CONSTRUCTION AND RESTORED TO THEIR PRE-CONSTRUCTION CONDITION. NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THIS ITEM.
- C-4. EXCEPT WHERE DESIGNATED ON PLANS OR AS AUTHORIZED BY ENGINEER, CONTRACTOR WILL NOT BE ALLOWED TO USE ANY OF THE EXISTING RUNWAYS OR TAXIWAYS AS PART OF THE HAUL ROAD.
- C-5. ACTIVE TAXIWAYS, RUNWAYS, AND RAMPS SHALL BE KEPT FREE OF ALL DEBRIS, DIRT, ETC., AT ALL TIMES. ANY SPILLAGE OF SOIL, DEBRIS OR OTHER MATERIALS SHALL BE CLEANED UP IMMEDIATELY USING APPROPRIATE POWER SWEEPERS, BLOWERS OR OTHER APPROVED EQUIPMENT, BY THE CONTRACTOR AFTER PROMPT NOTIFICATION BY THE ENGINEER OR AIRPORT OWNER. DUST GENERATED DUE TO CONSTRUCTION ACTIVITIES SHALL BE ADEQUATELY CONTROLLED AT ALL TIMES. A PROGRAM OF REGULAR RUNWAY AND TAXIWAY INSPECTION SHALL BE IMPLEMENTED BY THE CONTRACTOR, AND COORDINATED WITH THE AIRPORT OWNER, AND THE ENGINEER.
- C-6. ALL EQUIPMENT MUST BE RETURNED TO THE STAGING AREA AT THE END OF EACH WORK DAY AND WHEN NOT ENGAGED IN THE CONSTRUCTION DURING NON-WORKING DAYS AND NIGHTS. OWNER WILL DESIGNATE AREAS FOR CONTRACTOR'S EMPLOYEES AUTO PARKING.
- C-7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND PROVIDING ALL PERMANENT AND TEMPORARY UTILITY CONNECTIONS TO THE STAGING AREA.
- C-8. CONTRACTOR SHALL MAINTAIN ALL AIRFIELD SAFETY DEVICES SUCH AS STAKED LIMIT LINES, FOR THE DURATION OF THE PROJECT AS REQUIRED. DAMAGED STAKES OR FLAGGING SHALL BE REPLACED IMMEDIATELY. CONTRACTOR TO SUBMIT PLAN SHOWING LOCATION OF LIMIT LINES FOR EACH PHASE AND FOR PROJECT DURATION TO THE ENGINEER FOR APPROVAL.
- C-9. BURNING OF DEBRIS WILL NOT BE ALLOWED ON AIRPORT PROPERTY.
- C-10. CONTRACTOR SHALL CONTROL DUST TO AN ACCEPTABLE LEVEL. THE CONTRACTOR SHALL BE REQUIRED TO KEEP A WATER TRUCK AT THE PROJECT SITE DURING HAULING OPERATIONS. IF ONE WATER TRUCK IS INADEQUATE TO CONTROL DUST PROPERLY, THE CONTRACTOR SHALL FURNISH THE PROPER NUMBER OF TRUCKS OR OTHER SUITABLE MEANS TO ACCOMPLISH THIS ITEM.
- C-11. CONTRACTOR SHALL BE REQUIRED TO MOVE MEN AND EQUIPMENT OUTSIDE TAXIWAY AND RUNWAY SAFETY AREAS AS REQUIRED FOR AIRCRAFT OPERATIONS.
- C-12. ALL LIGHTS, SIGNS AND CIRCUITS ARE TO BE TESTED "DAILY" PRIOR TO CONTRACTOR LEAVING SITE TO ENSURE ALL ITEMS ARE DEEMED TO BE IN PROPER WORKING ORDER. ALL RUNWAY AND TAXIWAY CIRCUITS SHALL BE OPERATIONAL PRIOR TO THE CONTRACTOR LEAVING SITE EACH DAY.
- C-13. CONTRACTOR MUST COORDINATE WITH OWNER AND OTHERS INVOLVED WITH ALL CONSTRUCTION PROJECTS AT THE AIRPORT.
- C-14. CONTRACTOR IS SOLELY RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR THE PROJECT PRIOR TO ANY CONSTRUCTION ACTIVITIES.
- C-15. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR THE FLOW OF MUD INTO THE PUBLIC RIGHT-OF-WAY. HIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1"-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE INTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.

- C-16. WASHOUT OF CONCRETE DRUMS AT THE CONSTRUCTION SITE IS PROHIBITED. IF THE CONTRACTOR DESIRES A LOCATION FOR CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES AND/OR HOPPERS, THE CONTRACTOR SHALL SUBMIT A CONCRETE WASHDOWN AREA PLAN TO THE OWNER AND ENGINEER FOR APPROVAL.

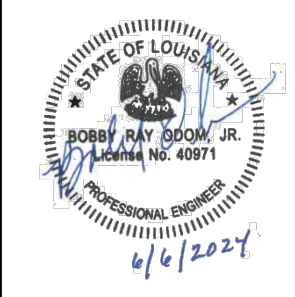
**EXISTING CONDITIONS/UNDERGROUND AND CONCEALED FACILITIES**

- E-1. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION AND REPORT TO ENGINEER ANY VARIATIONS FROM THE INFORMATION SHOWN ON CONSTRUCTION PLANS.
- E-2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND IDENTIFICATION OF ALL EXISTING UTILITIES AND PIPELINES IN THE CONSTRUCTION AREA. ANY EXISTING UTILITIES OR PIPELINES (ON OR OFF AIRPORT PROPERTY) DAMAGED BY CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR ALL UTILITIES/PIPELINES DAMAGED BY CONTRACTOR AT NO ADDITIONAL COST TO OWNER. CONTRACTOR SHALL BE ASSESSED A CABLE CUT PENALTY OF \$1,000 PER OCCURRENCE.
- E-3. FAA CABLES WILL BE LOCATED AND MARKED BY FAA PRIOR TO CONSTRUCTION. CONTRACTOR IS TO NOTIFY FAA 30 DAYS IN ADVANCE SO THAT FAA CAN SCHEDULE THE REQUIRED MARKING TO PROTECT CABLES DURING CONSTRUCTION. ANY CABLES DAMAGED DURING CONSTRUCTION WILL BE REPLACED BY CONTRACTOR. CONTRACTOR SHALL PAY ALL COSTS ASSOCIATED WITH THE REPAIR OF DAMAGED CABLES AT NO COST TO OWNER.
- E-4. CONTRACTOR SHALL PROTECT ALL EXISTING LIGHTING SYSTEMS THAT ARE TO REMAIN, OR IF TO BE REMOVED, UNTIL THEY ARE DESIGNATED FOR REMOVAL.
- E-5. ANY UNPLANNED, UNAPPROVED OR ACCIDENTAL SHUTDOWN OR INTERRUPTION OF SERVICE TO ANY LIGHTING CIRCUIT OR NAVIGATIONAL AID REQUIRES IMMEDIATE NOTIFICATION OF THE AIRPORT MANAGER AND ENGINEER BY THE CONTRACTOR. ALL NECESSARY REPAIRS WILL BE MADE IMMEDIATELY AND AT CONTRACTOR'S EXPENSE.
- E-6. THE CONTRACTOR WILL BE RESPONSIBLE FOR STAKING AND GRADE CONTROL OF ALL ELEMENTS OF THE CONSTRUCTION.



**HAMMOND NORTHSORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA**

**Michael Baker  
INTERNATIONAL**



Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971

THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

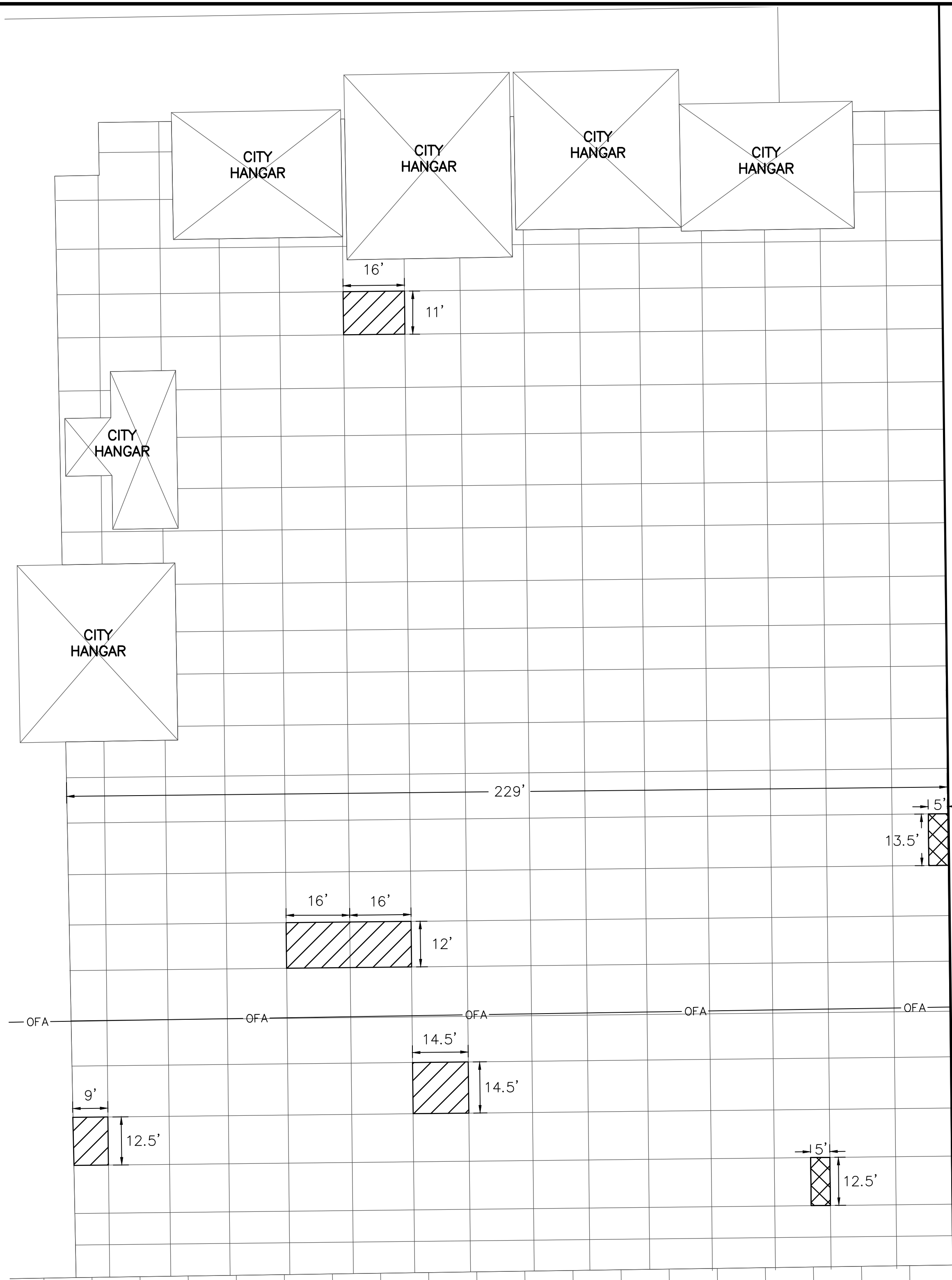
Drawing Name:  
**GENERAL NOTES**

FAA A.I.G. BIL Project Number:  
**3-22-0018-0XX-2024**

Date: <b>MAY 2024</b>	Division:
Scale: (22x34)	Sheet Number: <b>6</b>
<b>AS NOTED</b>	Drawing Number: <b>GN-1</b>



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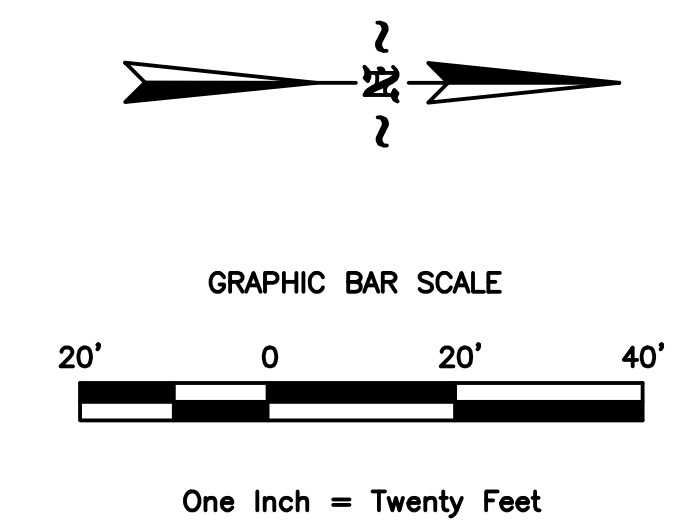


**NOTES:**

- DIMENSIONS ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD PRIOR TO START OF CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ADJACENT SLABS OR STRUCTURES DURING DEMOLITION WORK. ANY DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
- ENTIRE PERIMETER OF LIMITS OF REMOVAL TO BE "FULL DEPTH" SAWCUT PRIOR TO CRACKING AND REMOVING EXISTING PCC PAVEMENT. SAW CUTS SHOULD FOLLOW EXISTING JOINT PATTERN, UNLESS SHOWN OTHERWISE.
- CONTRACTOR TO USE EXTREME CAUTION TO NOT DISTURB SUBGRADE OUTSIDE THE WORK LIMITS DURING REMOVAL OF EXISTING PAVEMENTS. DAMAGE TO STRUCTURAL INTEGRITY OF ADJACENT PAVEMENTS NOT PROTECTED BY CONTRACTOR WILL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER OR ENGINEER.
- THE LOCATION OF SLAB REMOVAL SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO REMOVAL.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING PAVEMENT IN ACCORDANCE WITH FAA SPECIFICATION P-101. PAYMENT SHALL BE MADE UNDER PAY ITEM P-101-5.1 PAVEMENT REMOVAL.

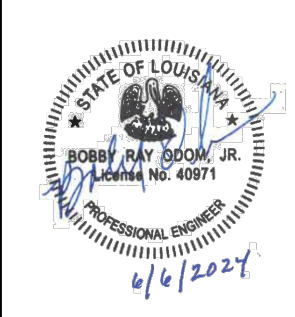
**LEGEND:**

- FULL SLAB REMOVAL (P-101)
- "FULL DEPTH" PARTIAL SLAB REMOVAL (P-101)
- TAXIWAY OBJECT FREE AREA LIMIT



HAMMOND NORTHSHORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL



**Michael Baker**  
INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**DEMOLITION PLAN (BASE BID)**

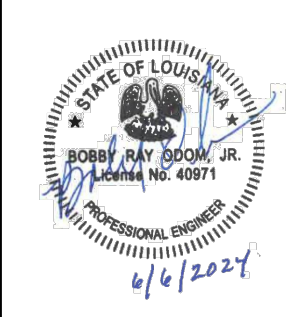
FAA A.I.G. BIL Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 7
1"=20'	Drawing Number: <b>DP-1</b>

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HAMMOND NORTHSHORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL



Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
THESE DRAWINGS DO NOT  
INCLUDE NECESSARY  
COMPONENTS  
FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

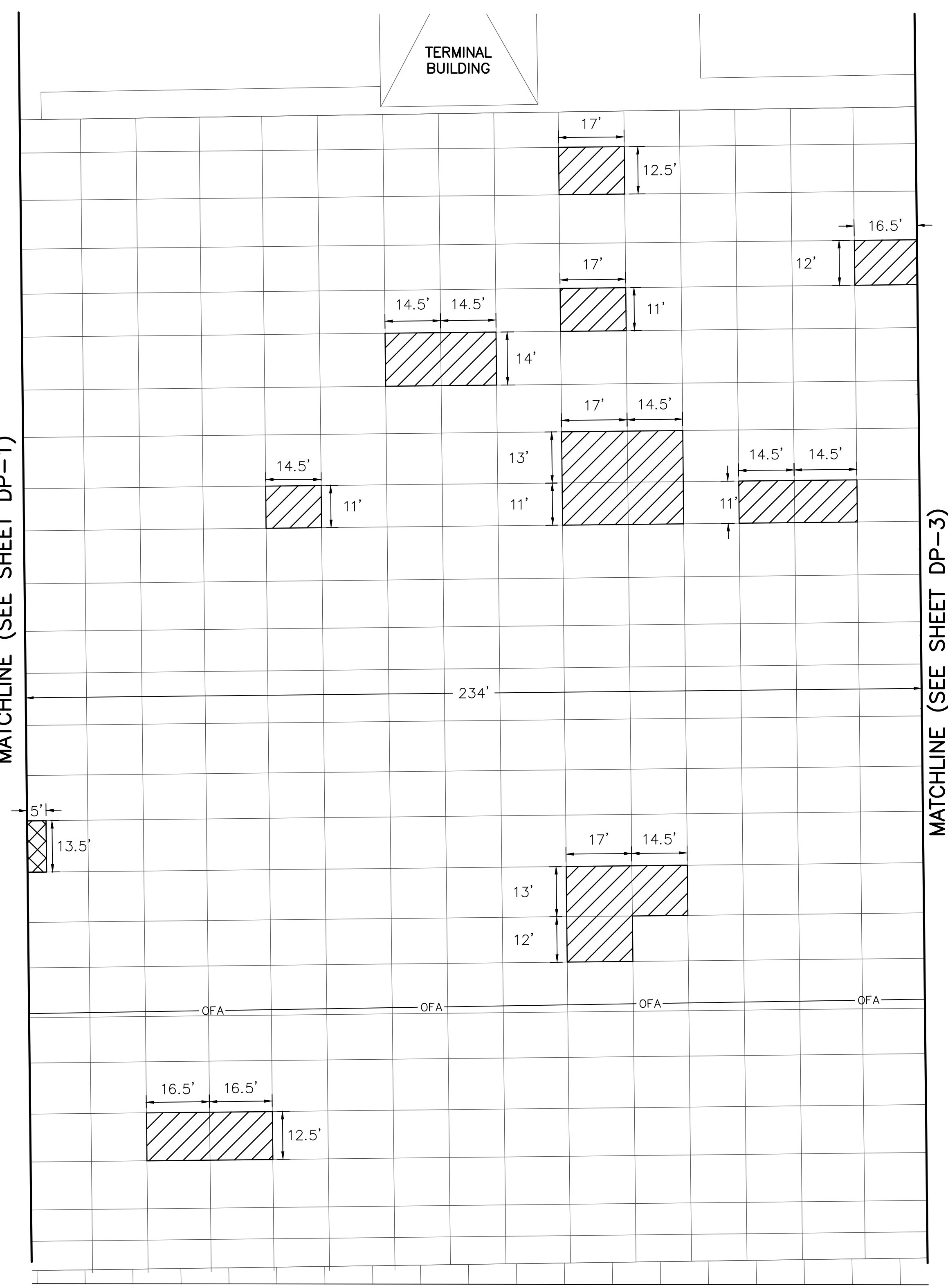
REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT  
RESEAL AND TAXIWAY A & E  
POINT REPAIRS**

Drawing Name:  
**DEMOLITION PLAN  
(BASE BID)**

FAA A.I.G. BIL Project Number:  
**3-22-0018-0XX-2024**

Date: <b>MAY 2024</b>	Division:
Scale: (22x34)	Sheet Number: <b>8</b>
<b>1"=20'</b>	Drawing Number: <b>DP-2</b>



- NOTES:**
- DIMENSIONS ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD PRIOR TO START OF CONSTRUCTION.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ADJACENT SLABS OR STRUCTURES DURING DEMOLITION WORK. ANY DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
  - ENTIRE PERIMETER OF LIMITS OF REMOVAL TO BE "FULL DEPTH" SAWCUT PRIOR TO CRACKING AND REMOVING EXISTING PCC PAVEMENT. SAW CUTS SHOULD FOLLOW EXISTING JOINT PATTERN, UNLESS SHOWN OTHERWISE.
  - CONTRACTOR TO USE EXTREME CAUTION TO NOT DISTURB SUBGRADE OUTSIDE THE WORK LIMITS DURING REMOVAL OF EXISTING PAVEMENTS. DAMAGE TO STRUCTURAL INTEGRITY OF ADJACENT PAVEMENTS NOT PROTECTED BY CONTRACTOR WILL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER OR ENGINEER.
  - THE LOCATION OF SLAB REMOVAL SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO REMOVAL.
  - CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING PAVEMENT IN ACCORDANCE WITH FAA SPECIFICATION P-101. PAYMENT SHALL BE MADE UNDER PAY ITEM P-101-5.1 PAVEMENT REMOVAL.

**LEGEND:**

	FULL SLAB REMOVAL (P-101)
	"FULL DEPTH" PARTIAL SLAB REMOVAL (P-101)
	TAXIWAY OBJECT FREE AREA LIMIT

North arrow pointing up.

GRAPHIC BAR SCALE

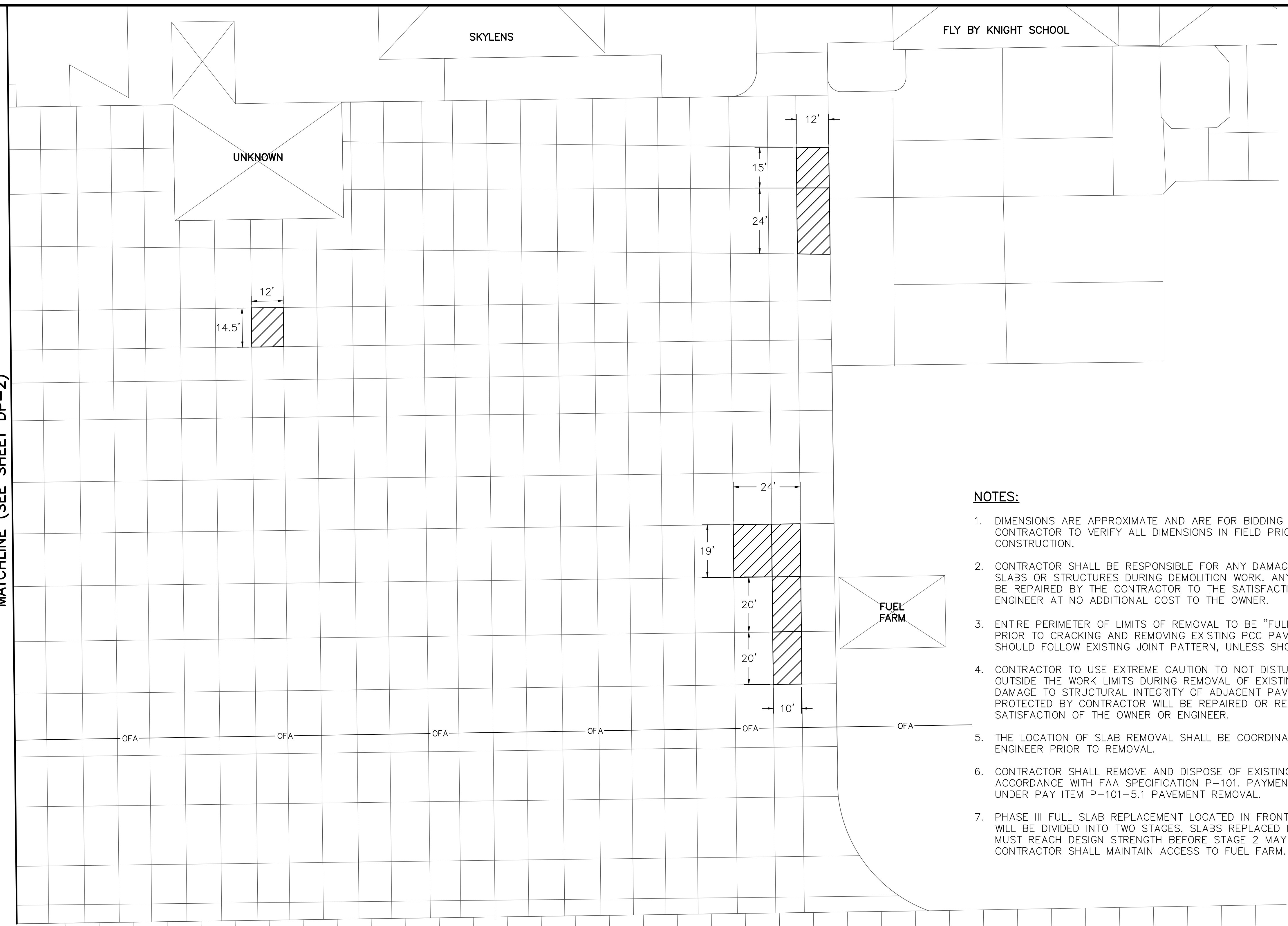
20' 0 20' 40'

One Inch = Twenty Feet



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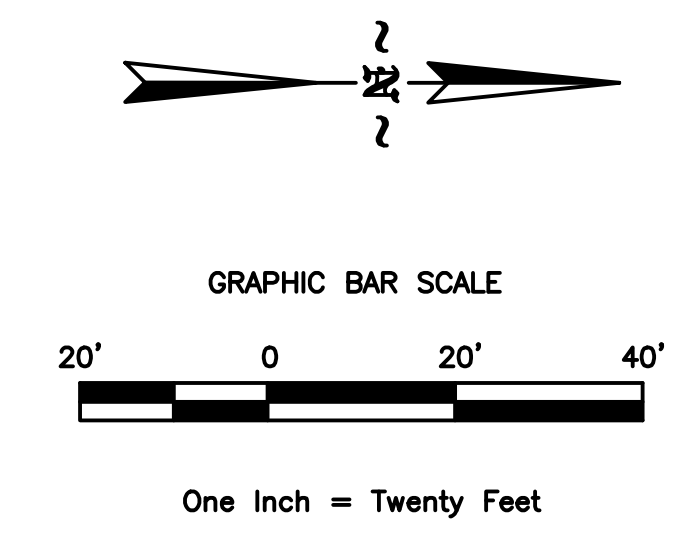
MATCHLINE (SEE SHEET DP-2)



**LEGEND:**  
 FULL SLAB REMOVAL (P-101)  
 — OFA — TAXIWAY OBJECT FREE AREA LIMIT

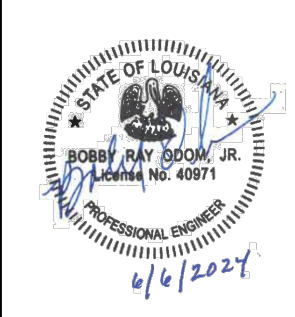
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3. ENTIRE PERIMETER OF LIMITS OF REMOVAL TO BE "FULL DEPTH" SAWCUT PRIOR TO CRACKING AND REMOVING EXISTING PCC PAVEMENT. SAW CUTS SHOULD FOLLOW EXISTING JOINT PATTERN, UNLESS SHOWN OTHERWISE.
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5. THE LOCATION OF SLAB REMOVAL SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO REMOVAL.
6. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING PAVEMENT IN ACCORDANCE WITH FAA SPECIFICATION P-101. PAYMENT SHALL BE MADE UNDER PAY ITEM P-101-5.1 PAVEMENT REMOVAL.
7. PHASE III FULL SLAB REPLACEMENT LOCATED IN FRONT OF FUEL FARM WILL BE DIVIDED INTO TWO STAGES. SLABS REPLACED DURING STAGE 1 MUST REACH DESIGN STRENGTH BEFORE STAGE 2 MAY BEGIN. CONTRACTOR SHALL MAINTAIN ACCESS TO FUEL FARM.



HAMMOND NORTHSHORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL



Michael Baker INTERNATIONAL  
 DESIGNER: BOBBY ODOM, P.E.  
 LICENSE No. 40971  
 THESE DRAWINGS DO NOT  
 INCLUDE NECESSARY  
 COMPONENTS  
 FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

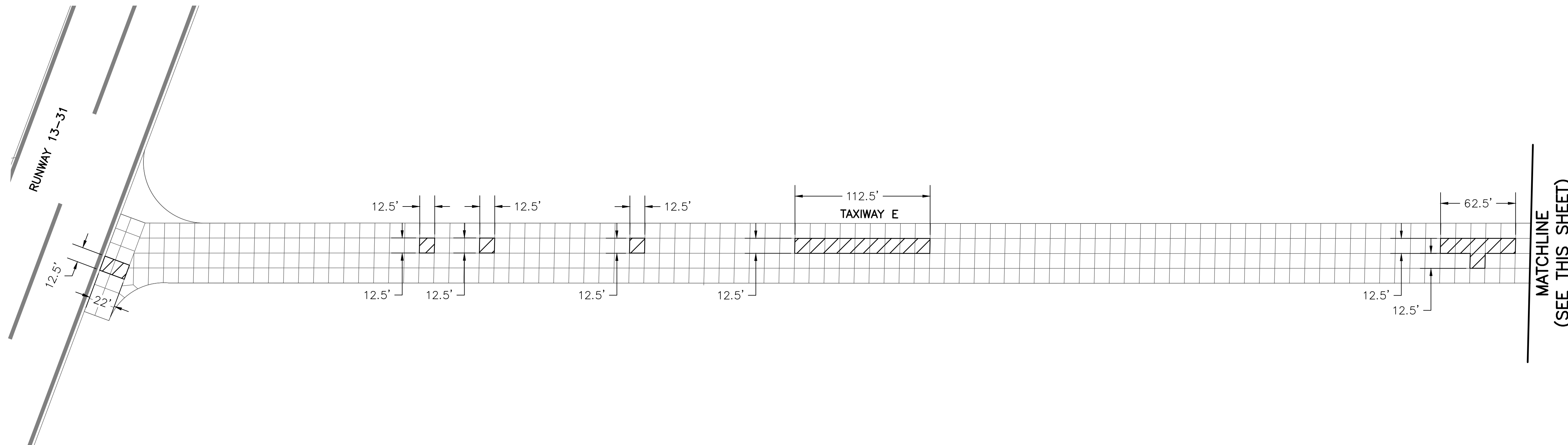
REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT  
 RESEAL AND TAXIWAY A & E  
 POINT REPAIRS**

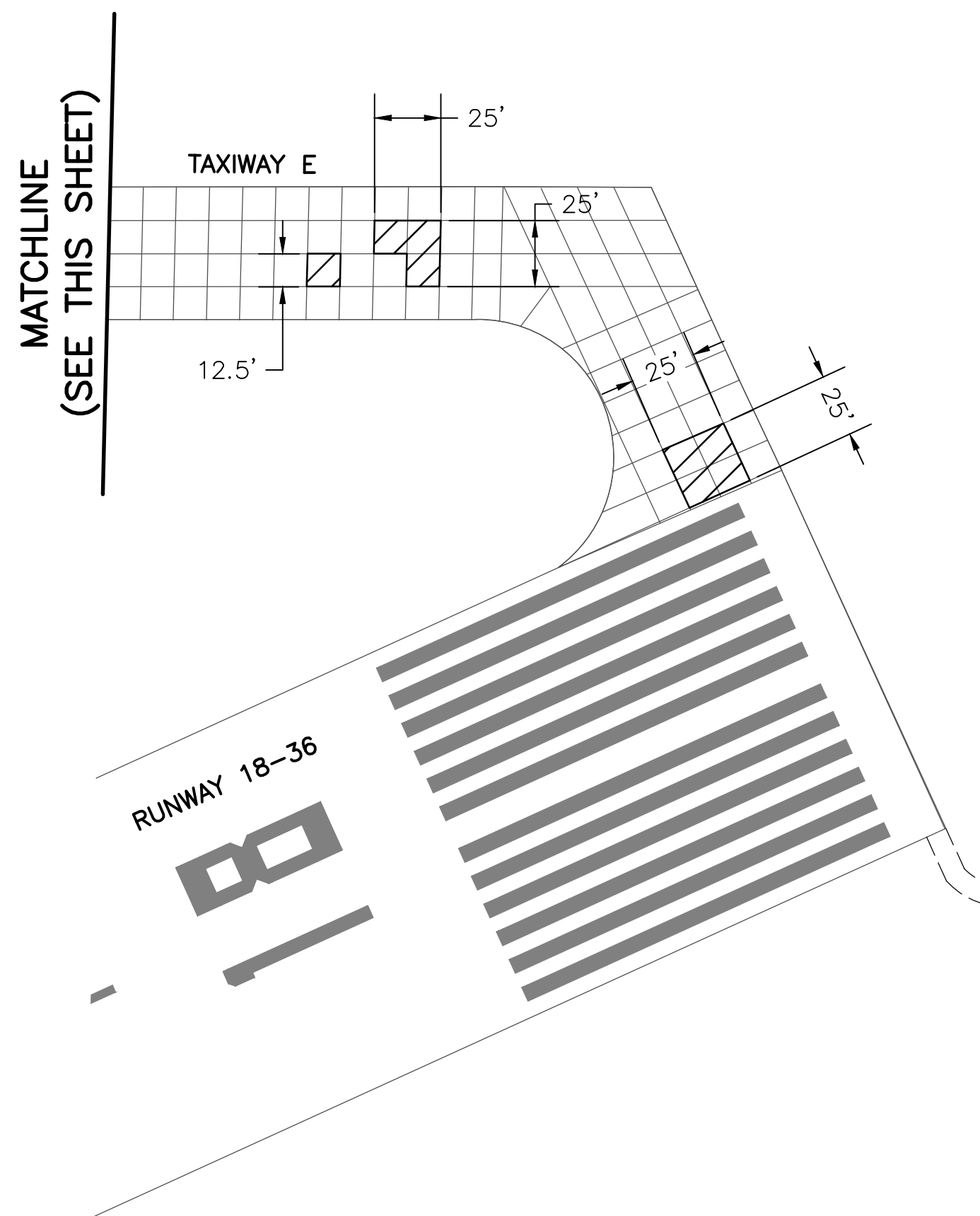
Drawing Name:  
**DEMOLITION PLAN  
 (BASE BID)**

FAA A.I.G. BIL Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 9
1"=20'	Drawing Number: <b>DP-3</b>

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MATCHLINE  
(SEE THIS SHEET)



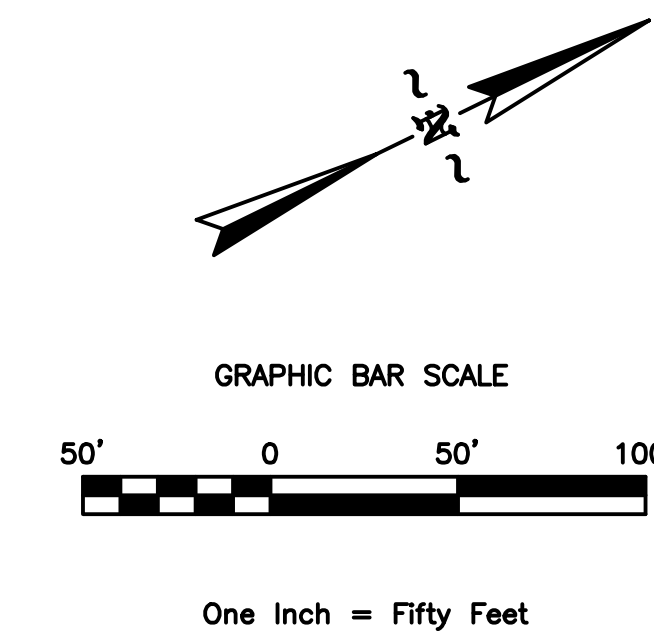
MATCHLINE  
(SEE THIS SHEET)

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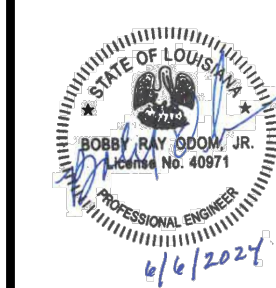
**LEGEND:**

FULL SLAB REMOVAL (P-101)



HAMMOND NORTHSHORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL



Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
THESE DRAWINGS DO NOT  
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Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

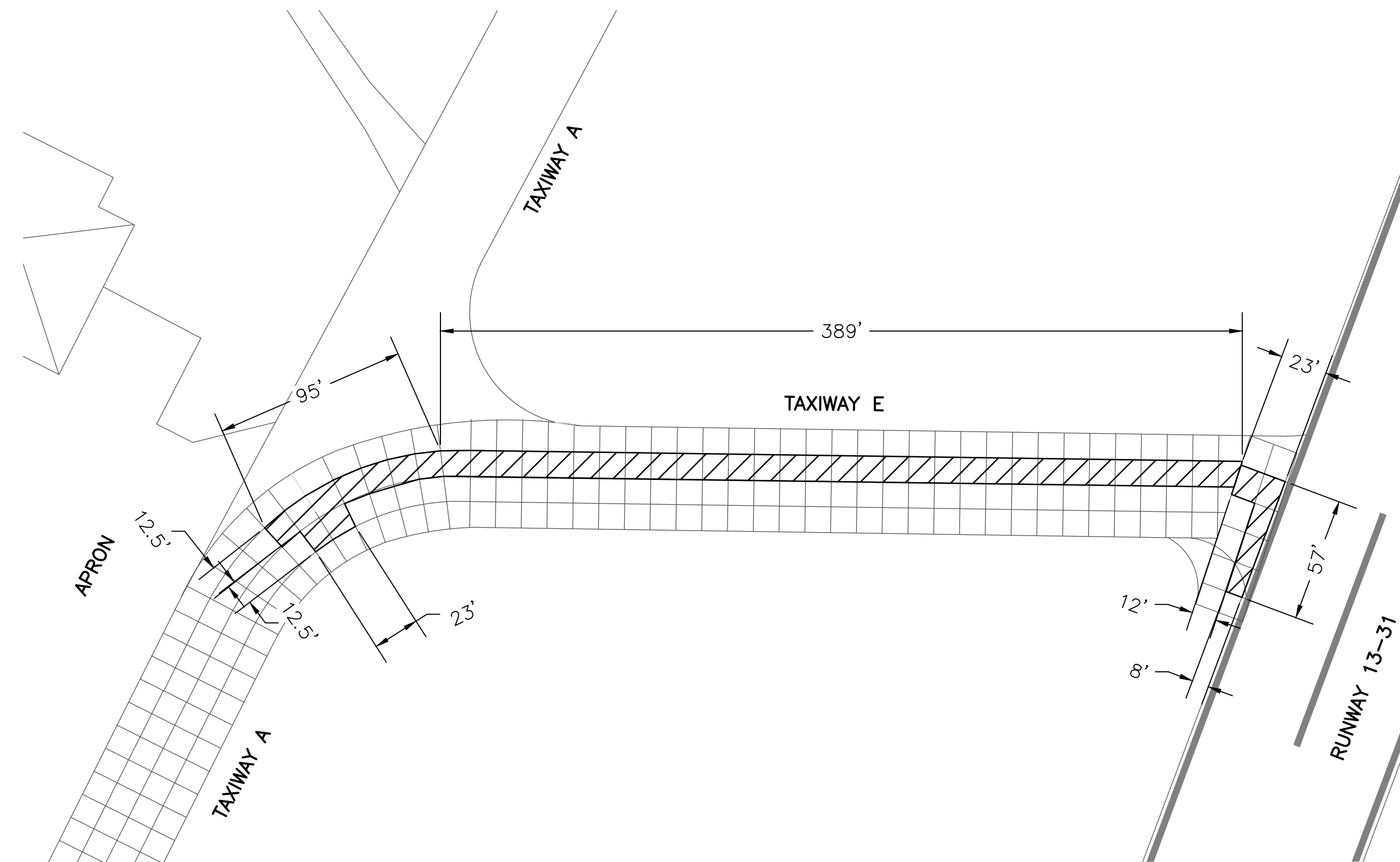
Project Name:  
**TERMINAL APRON JOINT  
RESEAL AND TAXIWAY A & E  
POINT REPAIRS**

Drawing Name:  
**DEMOLITION PLAN  
(ADD. ALT. 1)**

FAA A.I.G. BIL Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 10
1"=50'	Drawing Number: <b>DP-4</b>



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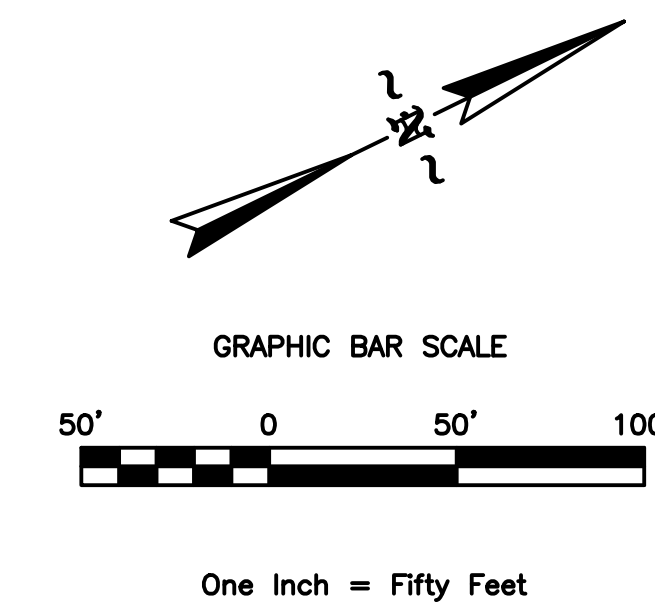


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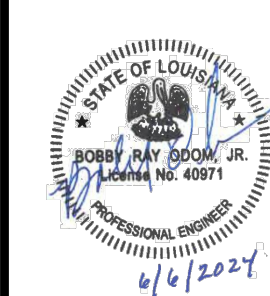
**LEGEND:**

 FULL SLAB REMOVAL (P-101)



HAMMOND NORTHSORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL



Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL  
Checked by: B. ODOM  
Technician: M. HALL  
Project Number: 180935

REVISIONS			
No.	Description	Date	By

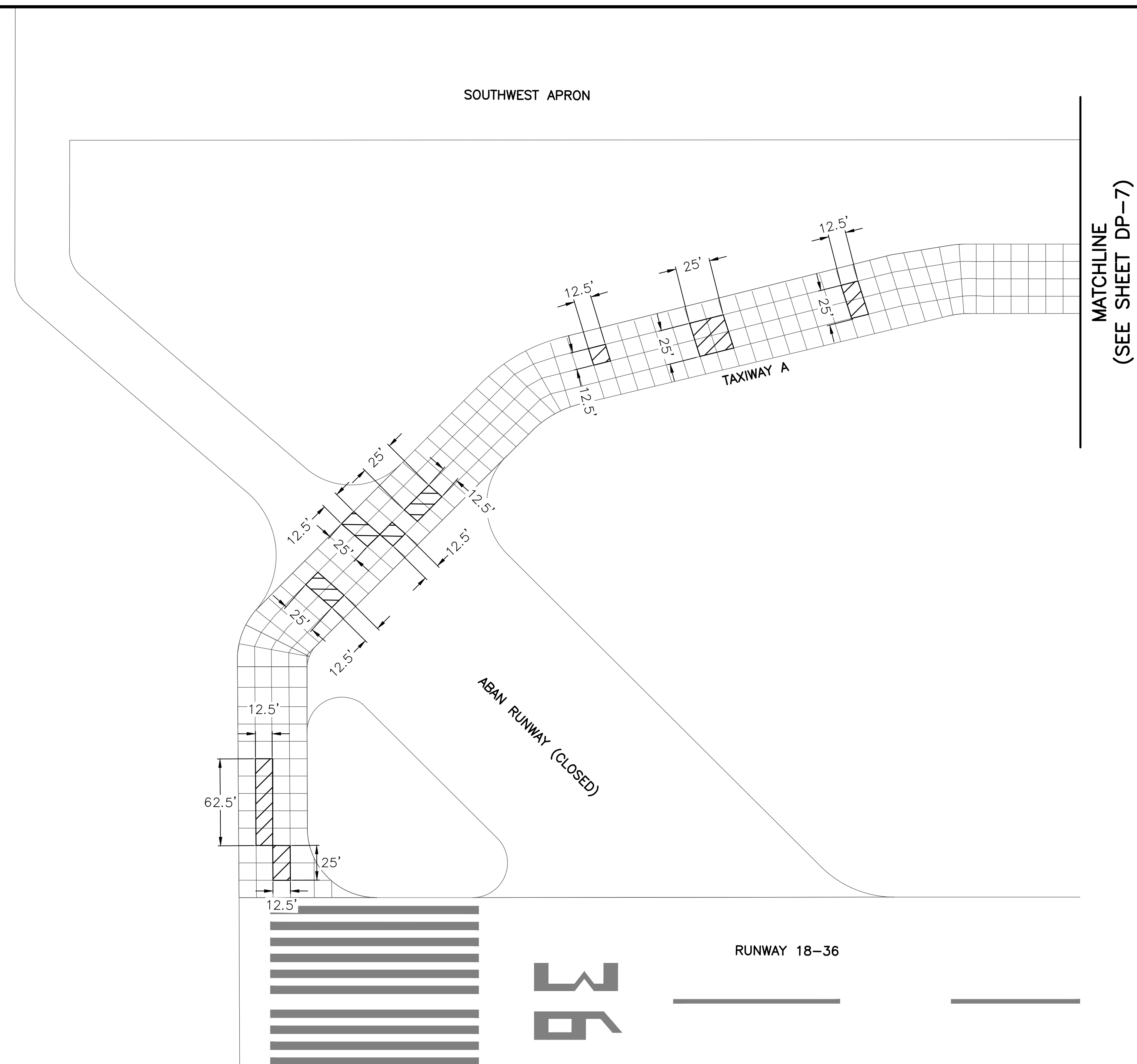
Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**DEMOLITION PLAN (ADD. ALT. 2)**

FAA A.I.G. BIL Project Number:  
**3-22-0018-0XX-2024**

Date: <b>MAY 2024</b>	Division:
Scale: (22x34)	Sheet Number: <b>11</b>
<b>1"=50'</b>	Drawing Number: <b>DP-5</b>

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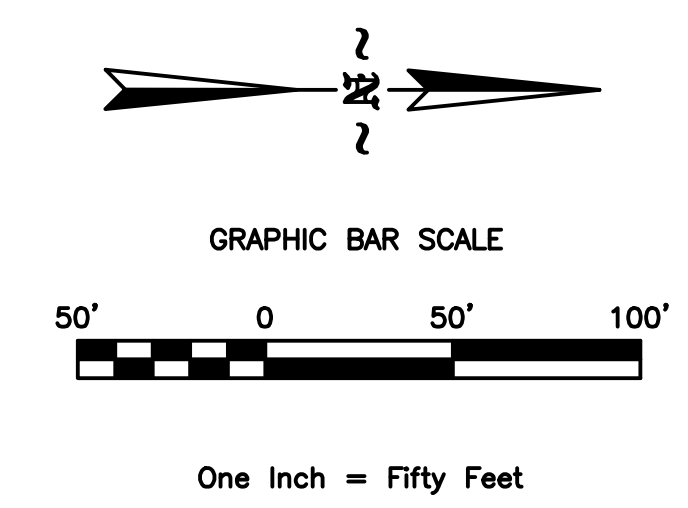


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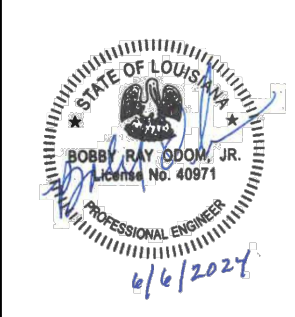
**LEGEND:**

FULL SLAB REMOVAL (P-101)



HAMMOND NORTHSORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL



Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**DEMOLITION PLAN (ADD. ALT. 3)**

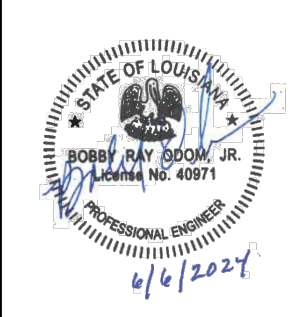
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Date: MAY 2024	Division:
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HAMMOND NORTHSHORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

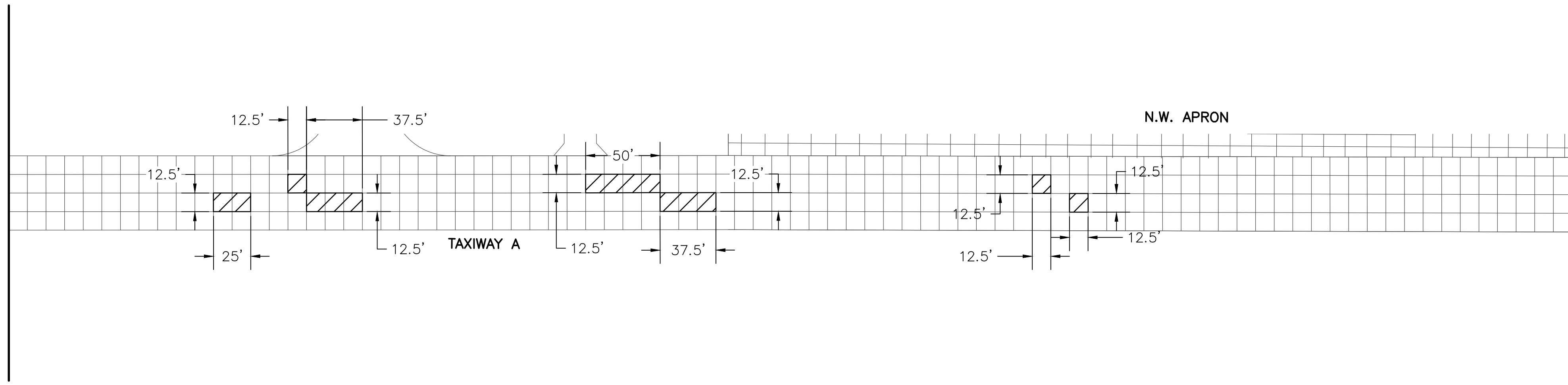
**Michael Baker**  
INTERNATIONAL



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Designer: M. HALL  
Checked by: B. ODOM  
Technician: M. HALL  
Project Number: 180935

MATCHLINE  
(SEE SHEET DP-6)



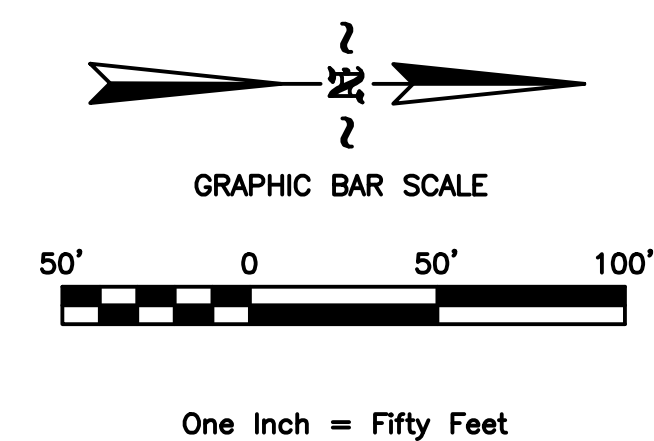
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(SEE SHEET DP-8)

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**LEGEND:**

FULL SLAB REMOVAL (P-101)



REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT  
RESEAL AND TAXIWAY A & E  
POINT REPAIRS**

Drawing Name:  
**DEMOLITION PLAN  
(ADD. ALT. 3)**

FAA A.I.G. BIL Project Number:  
**3-22-0018-0XX-2024**

Date: <b>MAY 2024</b>	Division:
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<b>1"=50'</b>	Drawing Number: <b>DP-7</b>

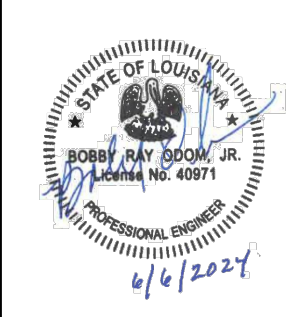


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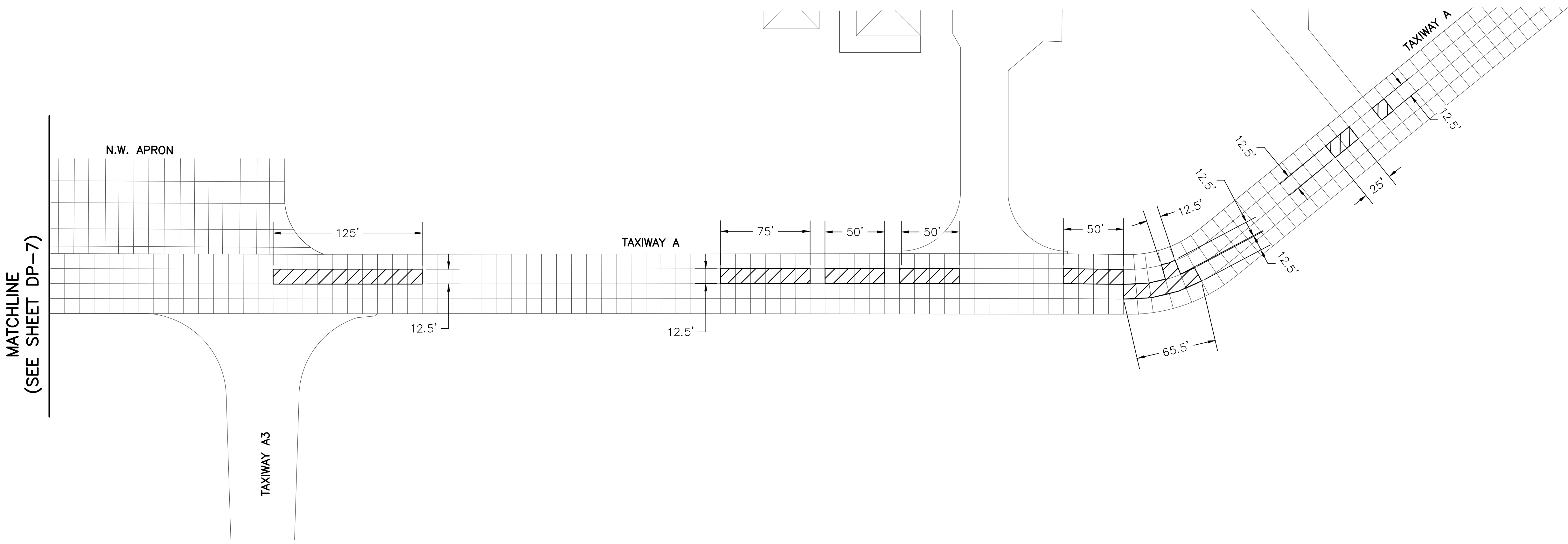
HAMMOND NORTHSHORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL



Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
4/6/2024  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL  
Checked by: B. ODOM  
Technician: M. HALL  
Project Number: 180935

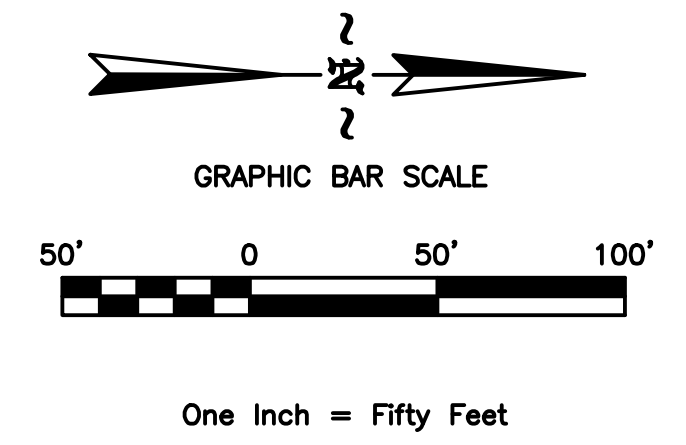


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**LEGEND:**

FULL SLAB REMOVAL (P-101)



REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**DEMOLITION PLAN (ADD. ALT. 3)**

FAA A.I.G. BIL Project Number:  
**3-22-0018-0XX-2024**

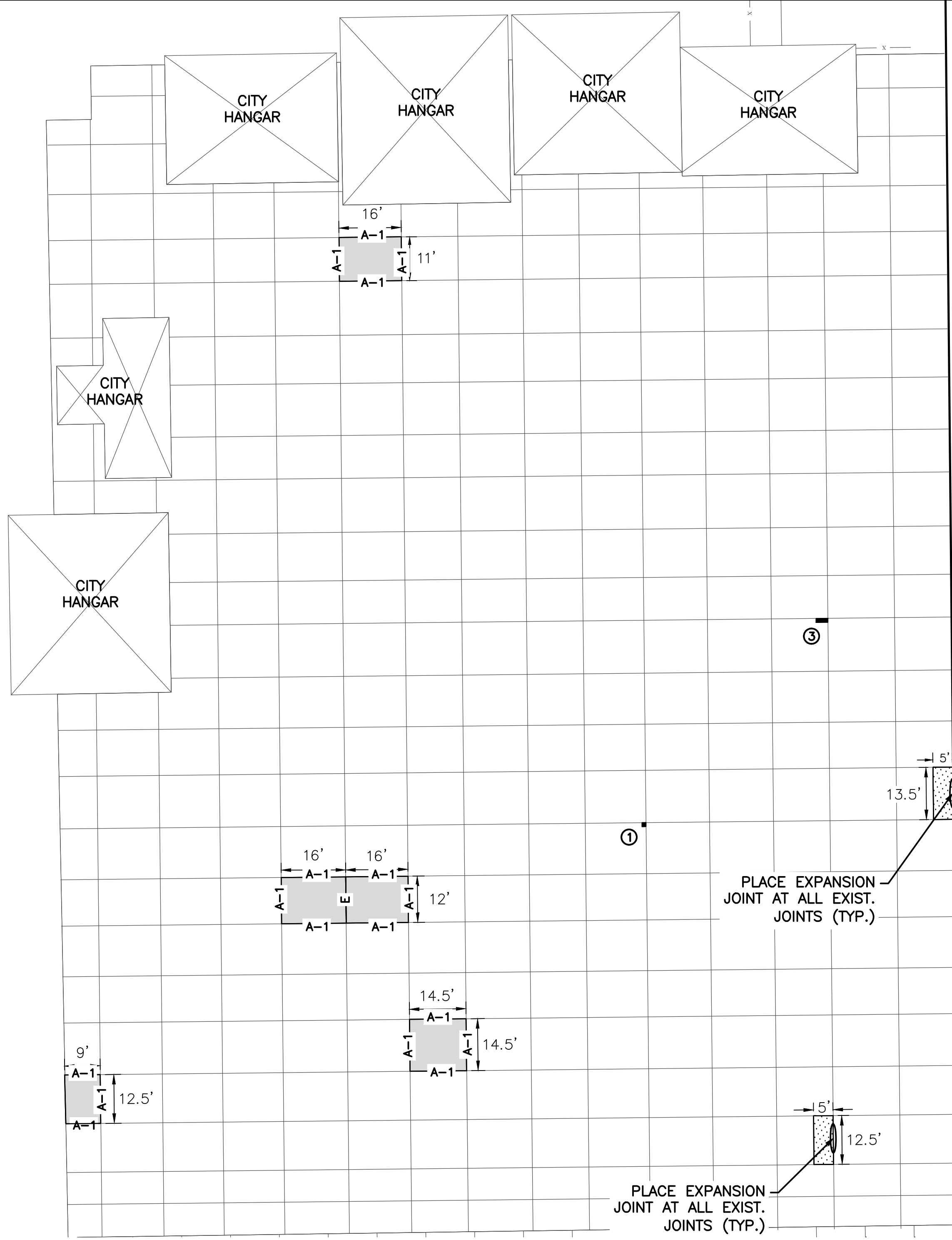
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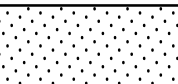
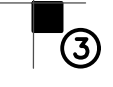
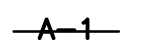
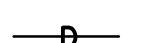


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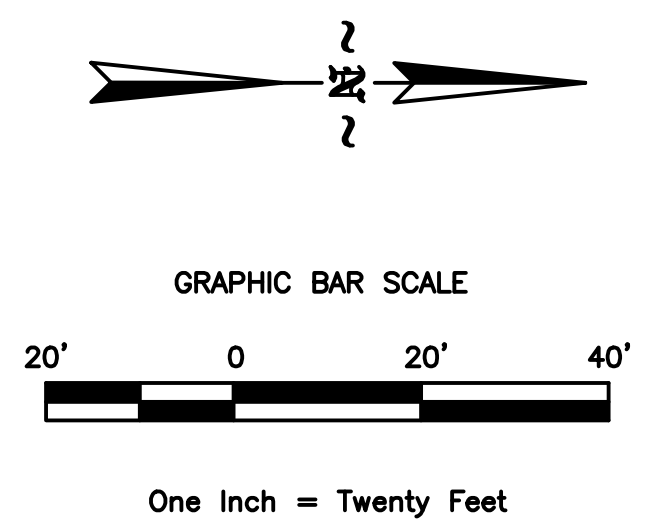
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3. PROVIDE DRAINAGE IN SLAB REPLACEMENT (INCLUDING PARTIAL SLAB) AREAS AT ALL TIMES BY EITHER GRAVITY OR PUMP (NO SEPARATE PAY). WATER WILL NOT BE ALLOWED TO STAND IN EXCAVATED SLAB AREAS. DAMAGE CAUSED BY STANDING WATER WILL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE.
4. REFER TO SHEET JD-1 FOR JOINT TYPES REFERENCED ON THIS DRAWING.
5. REFER TO PROJECT SAFETY PLAN AND GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
6. ALL "OVERCUTS" ON ADJACENT CONCRETE PAVEMENTS DUE TO FULL DEPTH SAW CUTS ARE TO BE FILLED WITH APPROVED EPOXY OR GROUT UPON COMPLETION OF WORK.
7. SQUARE FOOTAGE INDICATED ON DRAWINGS FOR SPALL REPAIRS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. CONTRACTOR SHALL MARK SPALL REPAIR AREAS IN ACCORDANCE WITH FAA SPECIFICATION P-101, THEN OBTAIN APPROVAL BY ENGINEER PRIOR TO PAVEMENT SAWCUTTING/REMOVAL/REPAIR.
8. ALL SAWCUTS FOR REPAIRS ARE TO BE ACCOMPLISHED PRIOR TO PLACEMENT OF NEW PCC PAVEMENTS. NO OVERCUTS WILL BE ALLOWED INTO NEW EXPANSION JOINTS OR NEW PCC PAVEMENTS.
9. ALL JOINTS/CRACKS PRESENT WITHIN THE "LIMITS OF CONSTRUCTION" SHALL BE CLEANED AND RESEALED. EXCEPTION WOULD BE AREAS OF "FULL DEPTH" REPAIR OR SLAB REPLACEMENT. THESE JOINTS SHALL BE CONSIDERED INCIDENTAL TO THOSE ITEMS OF WORK.
10. THE LOCATION OF SLAB REPLACEMENT, PARTIAL SLAB REPAIR, AND SPALL REPAIR SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO REMOVAL.
11. FULL SLAB REPLACEMENT SHALL BE IN ACCORDANCE WITH FAA SPECIFICATION P-501. PAYMENT SHALL BE MADE UNDER PAY ITEM P-501-8.1.
12. FULL DEPTH PARTIAL SLAB REPAIR SHALL BE IN ACCORDANCE WITH FAA SPECIFICATION P-501. PAYMENT SHALL BE MADE UNDER PAY ITEM P-501-8.1.
13. PARTIAL DEPTH SPALL REPAIR SHALL BE IN ACCORDANCE WITH FAA SPECIFICATION P-101. PAYMENT SHALL BE MADE UNDER PAY ITEM P-101-4.4.
14. TYPE C AND TYPE E JOINTS ARE INTERCHANGEABLE BASED ON CONTRACTOR'S METHOD OF CONSTRUCTION.
15. SEE SHEETS SRD-1 AND SRD-2 FOR REPAIR DETAILS.



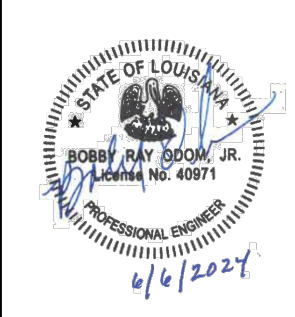
**LEGEND:**

-  FULL SLAB REPLACEMENT
-  "FULL-DEPTH" PARTIAL SLAB REPAIR
-  PARTIAL-DEPTH SPALL REPAIR (SQUARE FOOT DENOTED)
-  TYPE "A-1" JOINT
-  TYPE "D" JOINT
-  TYPE "E" JOINT
-  AIRCRAFT TIE DOWN



HAMMOND NORTHSHORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

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Designer: M. HALL  
Checked by: B. ODOM  
Technician: M. HALL  
Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**SLAB REPAIR PLAN (BASE BID)**

FAA A.I.G. BIL Project Number:  
**3-22-0018-0XX-2024**

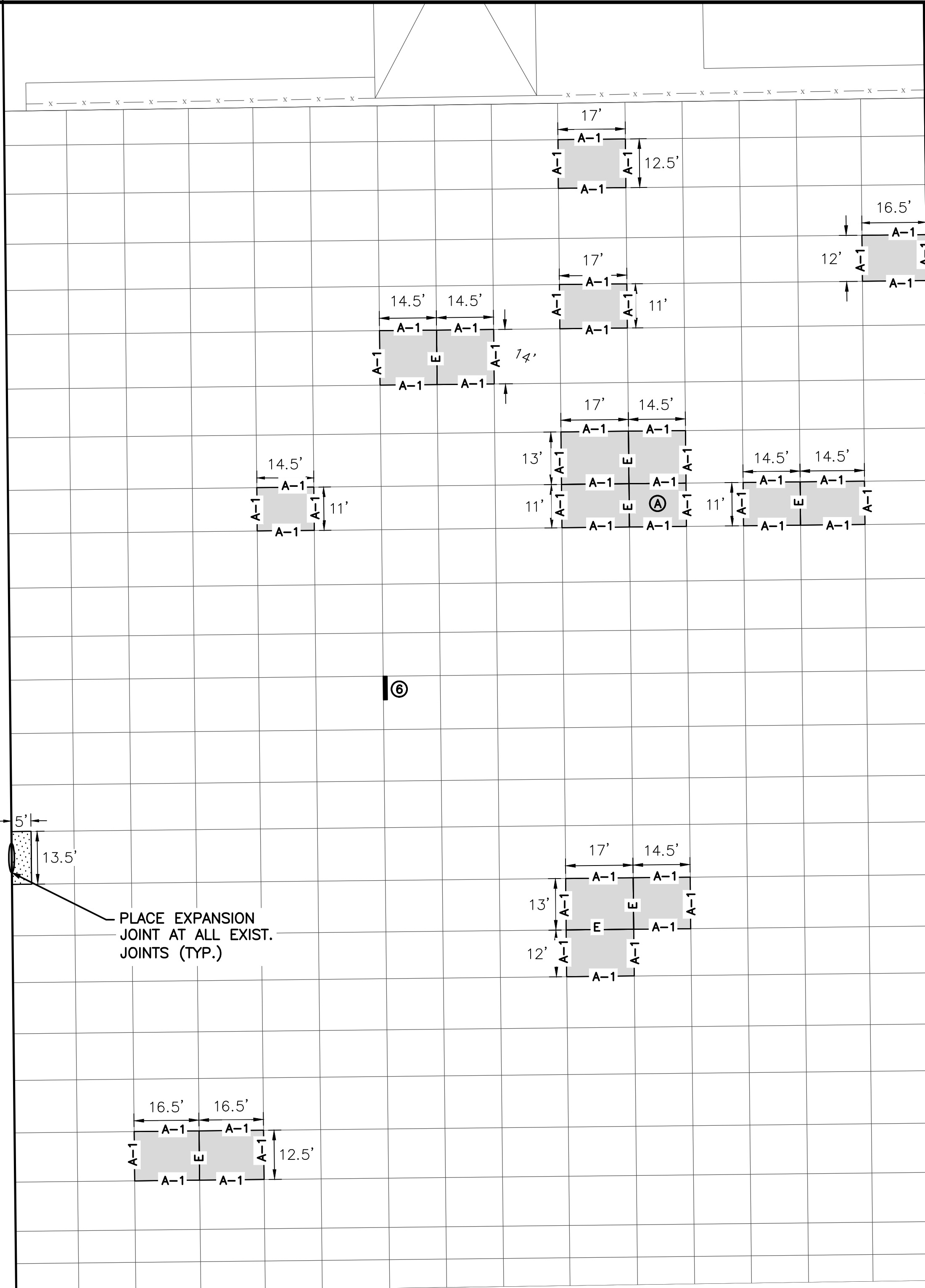
Date: <b>MAY 2024</b>	Division:
Scale: (22x34)	Sheet Number: <b>15</b>
1"=20'	Drawing Number: <b>SR-1</b>

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**NOTES:**

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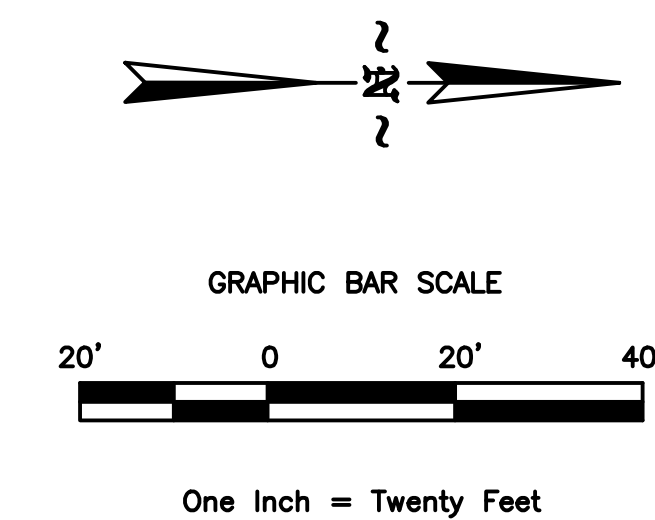
MATCHLINE (SEE SHEET SR-1)



MATCHLINE (SEE SHEET SR-3)

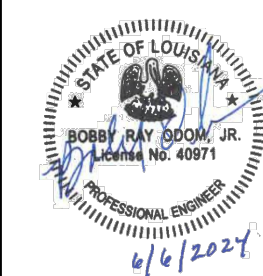
**LEGEND:**

- FULL SLAB REPLACEMENT
- "FULL-DEPTH" PARTIAL SLAB REPAIR
- PARTIAL-DEPTH SPALL REPAIR (SQUARE FOOT DENOTED)
- TYPE "A-1" JOINT
- TYPE "D" JOINT
- TYPE "E" JOINT
- AIRCRAFT TIE DOWN



HAMMOND NORTHSHORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL



Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

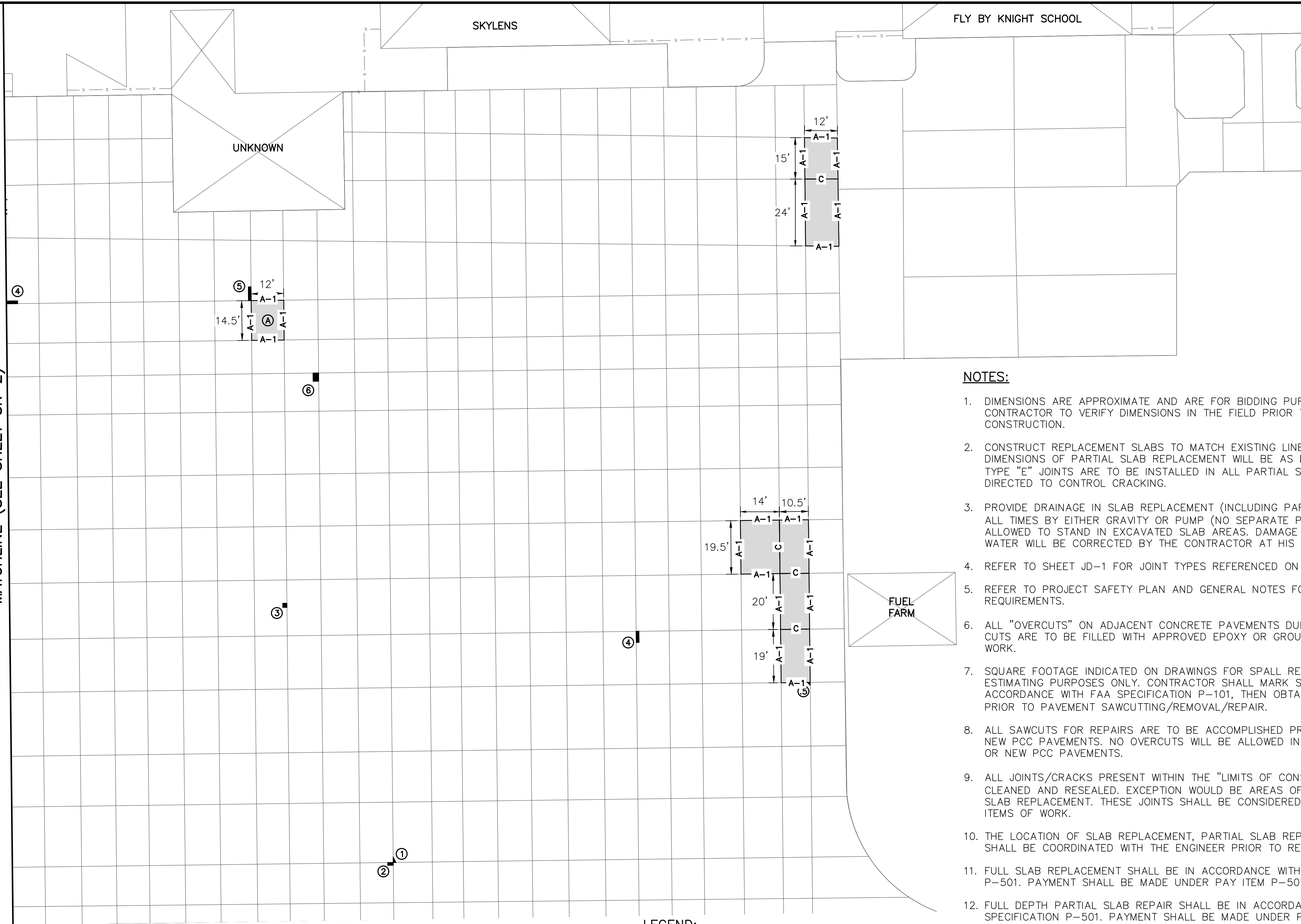
Drawing Name:  
**SLAB REPAIR PLAN (BASE BID)**

FAA A.I.G. BIL Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 16
1"=20'	Drawing Number: <b>SR-2</b>



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MATCHLINE (SEE SHEET SR-2)

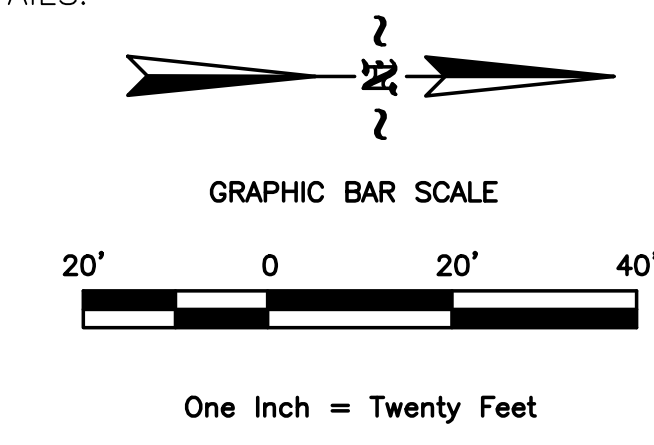


**LEGEND:**

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- "FULL-DEPTH" PARTIAL SLAB REPAIR
- PARTIAL-DEPTH SPALL REPAIR (SQUARE FOOT DENOTED)
- TYPE "A-1" JOINT
- TYPE "C" JOINT
- TYPE "D" JOINT
- TYPE "E" JOINT
- A AIRCRAFT TIE DOWN

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**Michael Baker**  
INTERNATIONAL

Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY  
6/6/2024

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

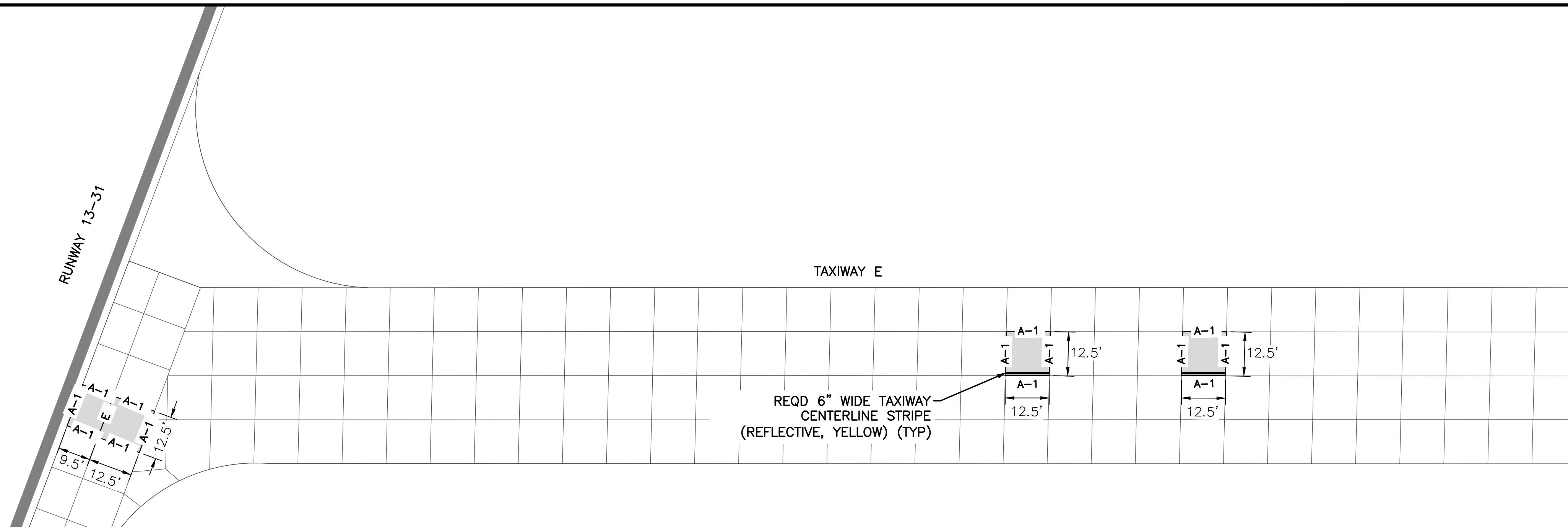
Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**SLAB REPAIR PLAN (BASE BID)**

FAA A.I.G. Bil. Project Number:  
**3-22-0018-0XX-2024**

Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 17
1"=20'	Drawing Number: <b>SR-3</b>

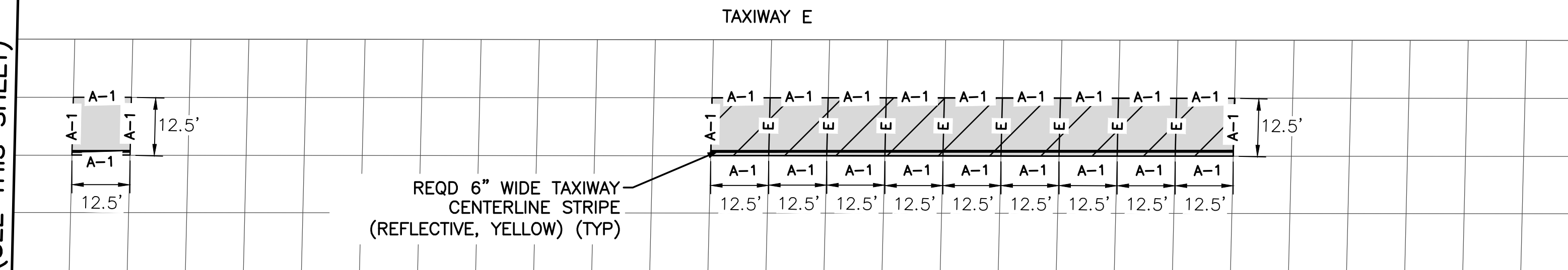
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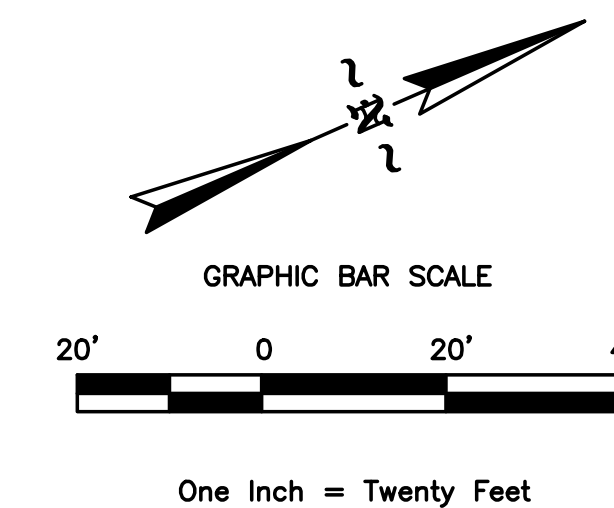
MATCHLINE  
(SEE THIS SHEET)



MATCHLINE  
(SEE SHEET SR-5)

**LEGEND:**

- FULL SLAB REPLACEMENT
- TYPE "A-1" JOINT
- TYPE "E" JOINT



1932  
HAMMOND NORTHSORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**SLAB REPAIR PLAN (ADD. ALT. 1)**

FAA A.I.G. Bil. Project Number: 3-22-0018-OXX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 18
1"=20'	Drawing Number: <b>SR-4</b>





HAMMOND NORTHSORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

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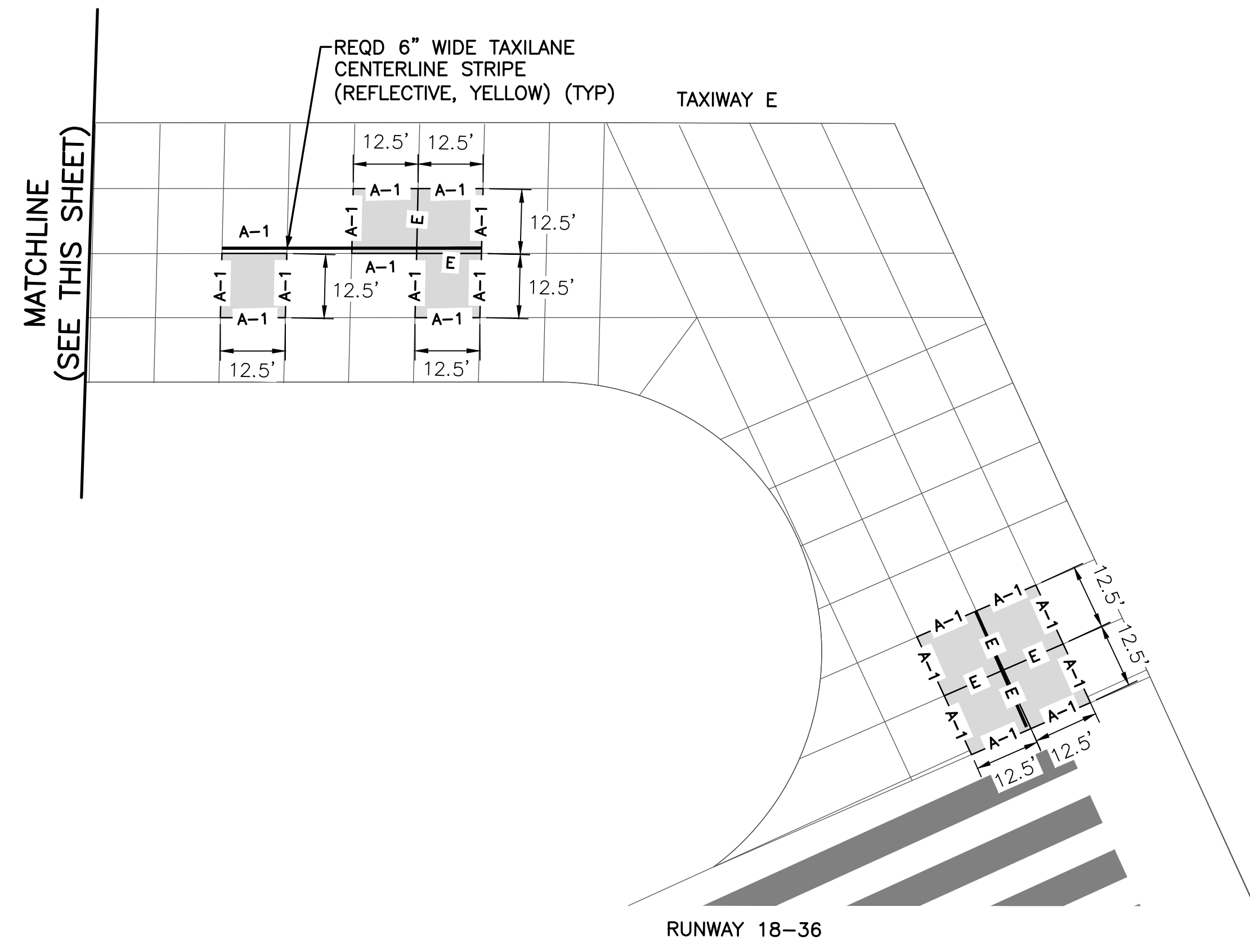
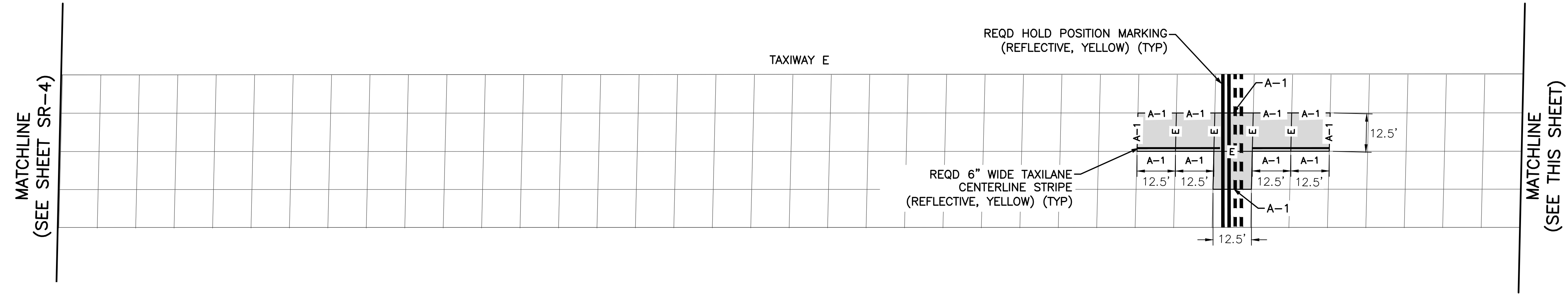
REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**SLAB REPAIR PLAN (ADD. ALT. 1)**

FAA A.I.G. Bil. Project Number:  
**3-22-0018-0XX-2024**

Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 19
1"=20'	Drawing Number: <b>SR-5</b>



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**LEGEND:**

FULL SLAB REPLACEMENT

TYPE "A-1" JOINT

TYPE "E" JOINT

GRAPHIC BAR SCALE

20' 0 20' 40'

One Inch = Twenty Feet

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HAMMOND NORTHSORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

Michael Baker INTERNATIONAL  
 DESIGNER: BOBBY ODOM, P.E.  
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Designer: M. HALL  
 Checked by: B. ODOM  
 Technician: M. HALL  
 Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

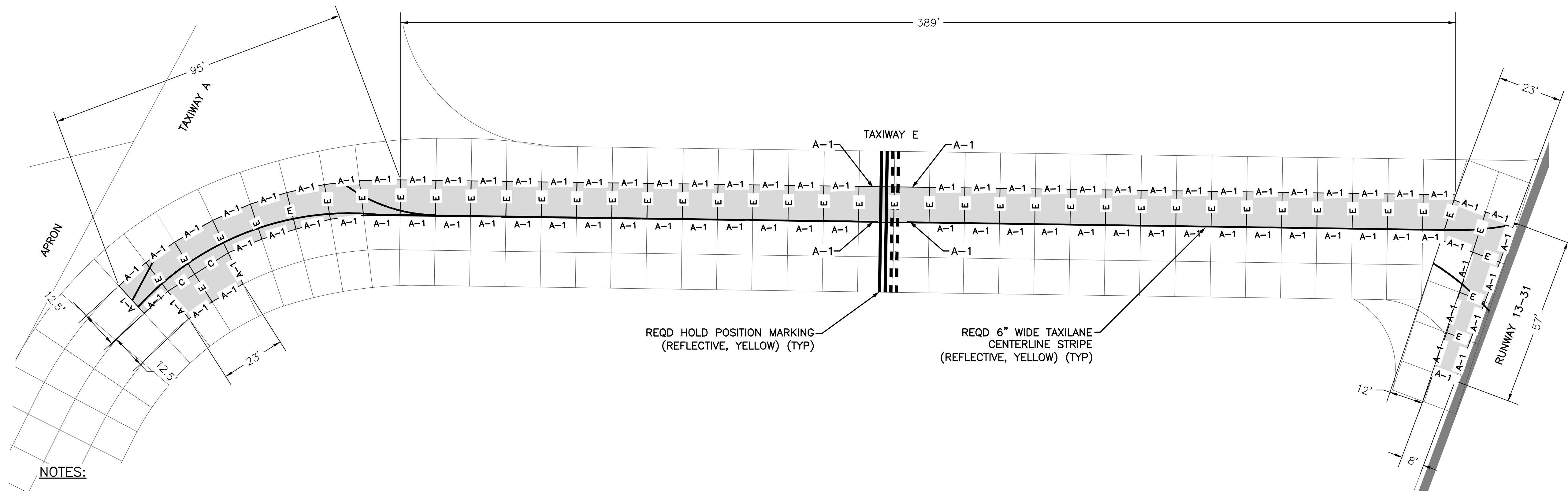
Drawing Name:  
**SLAB REPAIR PLAN (ADD. ALT. 2)**

FAA A.I.G. Bil. Project Number:  
**3-22-0018-0XX-2024**

Date: **MAY 2024**  
 Scale: (22x34)

Division:  
 Sheet Number:  
**20**

Drawing Number:  
**SR-6**

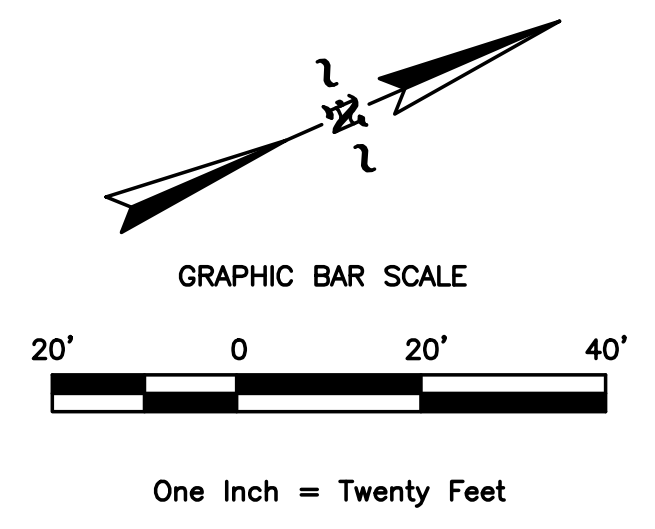


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**LEGEND:**

- FULL SLAB REPLACEMENT
- TYPE "A-1" JOINT
- TYPE "C" JOINT
- TYPE "E" JOINT



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16. CONTRACTOR SHALL INSTALL NEW TAXIWAY CENTERLINE MARKING AS REQUIRED IN ACCORDANCE WITH FAA SPECIFICATION P-620. PAYMENT WILL BE MADE UNDER P-620 ITEMS.
17. SEE SHEET MD-1 FOR MARKING DETAILS.



**LEGEND:**

FULL SLAB REPLACEMENT

—A-1— TYPE "A-1" JOINT

—E— TYPE "E" JOINT

GRAPHIC BAR SCALE  
  
 One Inch = Twenty Feet



**HAMMOND NORTHSORE REGIONAL AIRPORT**  
 HAMMOND, LOUISIANA

**Michael Baker**  
 INTERNATIONAL

**Michael Baker** INTERNATIONAL  
 DESIGNER: **BOBBY ODOM, P.E.**  
 LICENSE No. 40971

THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

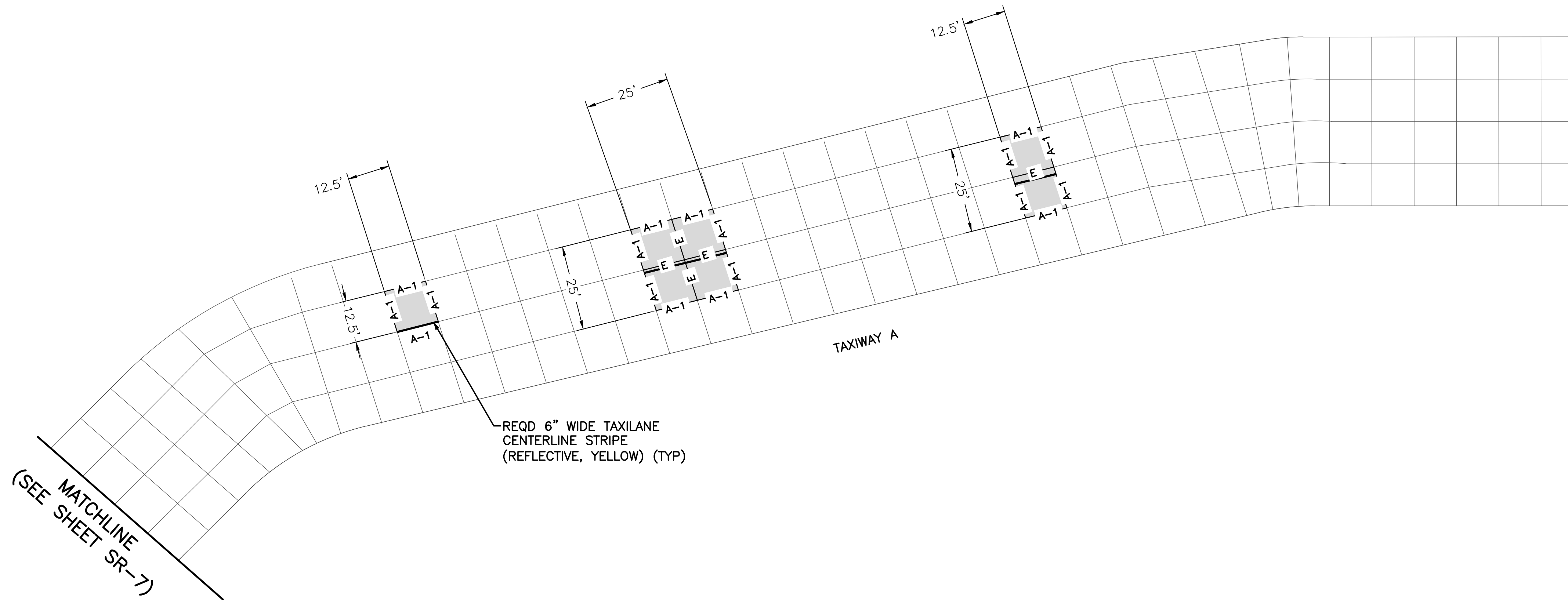
REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**SLAB REPAIR PLAN (ADD. ALT. 3)**

FAA A.I.G. Bil. Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 21
1"=20'	Drawing Number: <b>SR-7</b>

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MATCHLINE  
(SEE SHEET SR-9)

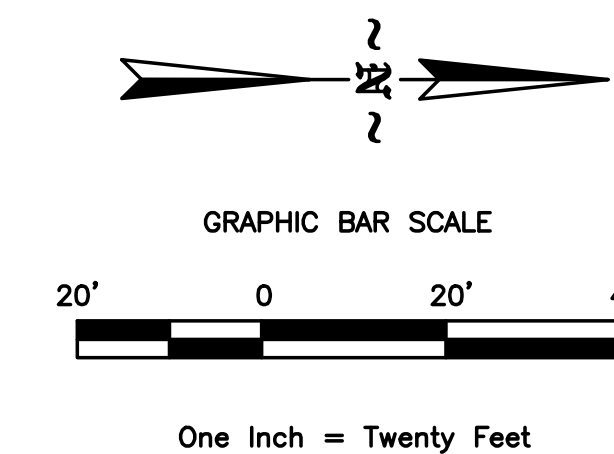
MATCHLINE  
(SEE SHEET SR-7)

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**LEGEND:**

- FULL SLAB REPLACEMENT
- A-1— TYPE "A-1" JOINT
- E— TYPE "E" JOINT



1932  
HAMMOND NORTHSORE REGIONAL AIRPORT  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY  
6/6/2024

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**SLAB REPAIR PLAN (ADD. ALT. 3)**

FAA A.I.G. Bil. Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 22
1"=20'	Drawing Number: <b>SR-8</b>



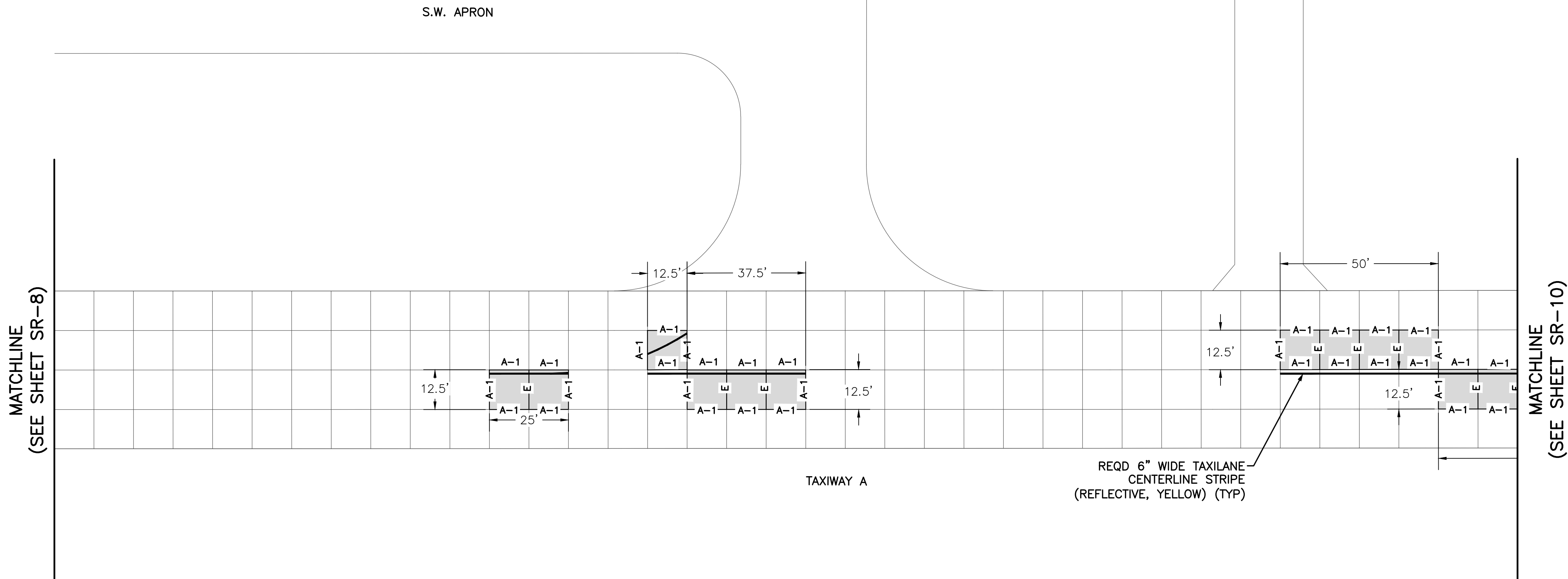


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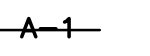
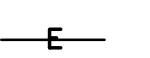
Designer: M. HALL	Checked by: B. ODOM
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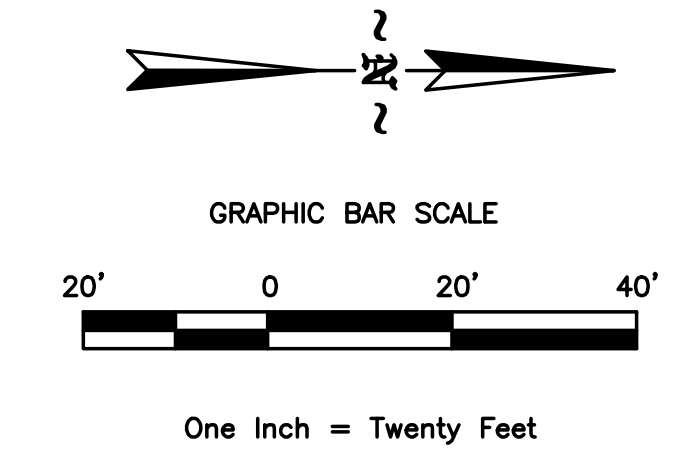


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**LEGEND:**

-  FULL SLAB REPLACEMENT
-  TYPE "A-1" JOINT
-  TYPE "E" JOINT



REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**SLAB REPAIR PLAN (ADD. ALT. 3)**

FAA A.I.G. Bil. Project Number: <b>3-22-0018-0XX-2024</b>	
Date: <b>MAY 2024</b>	Division:
Scale: (22x34)	Sheet Number: <b>23</b>
<b>1"=20'</b>	Drawing Number: <b>SR-9</b>

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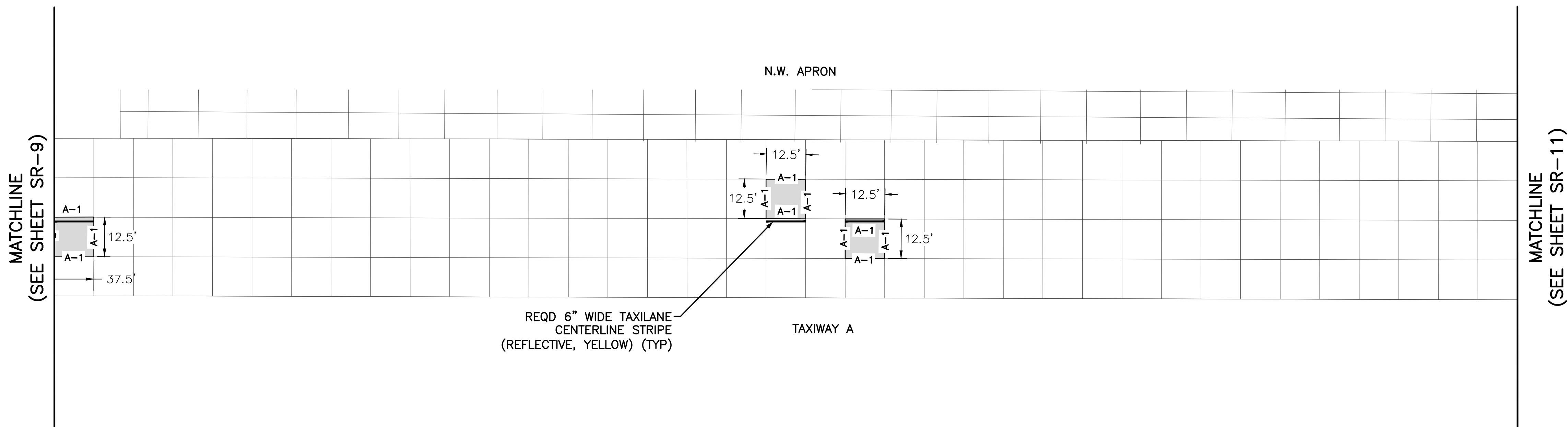


HAMMOND NORTHSHORE REGIONAL AIRPORT  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

Michael Baker INTERNATIONAL  
 DESIGNER: BOBBY ODOM, P.E.  
 LICENSE No. 40971  
 THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL  
 Checked by: B. ODOM  
 Technician: M. HALL  
 Project Number: 180935

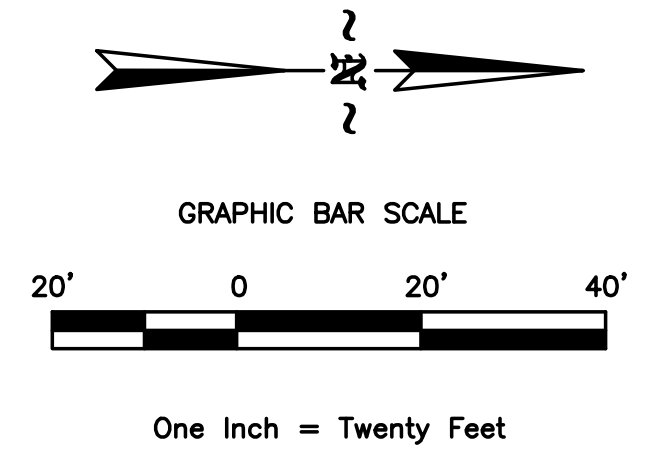


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**LEGEND:**

- FULL SLAB REPLACEMENT
- TYPE "A-1" JOINT
- TYPE "E" JOINT



REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**SLAB REPAIR PLAN (ADD. ALT. 3)**

FAA A.I.G. Bil. Project Number:  
**3-22-0018-0XX-2024**

Date: **MAY 2024**  
 Scale: (22x34)

Division:  
 Sheet Number:  
**24**

Drawing Number:  
**SR-10**

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HAMMOND NORTHSORE REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

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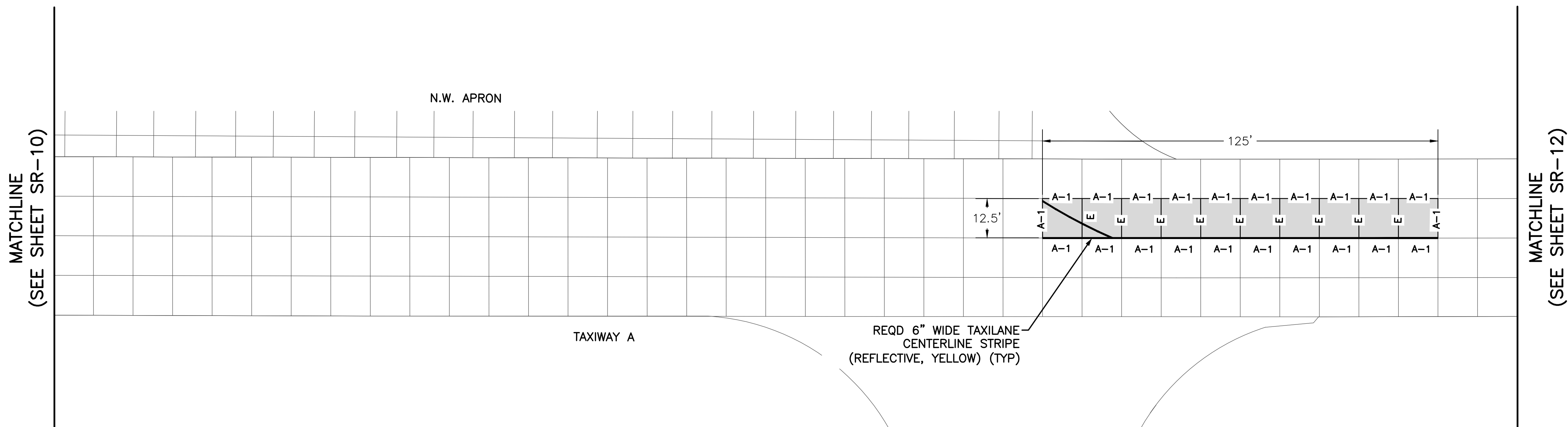
Designer: M. HALL	Checked by: B. ODOM
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REVISIONS			
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**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

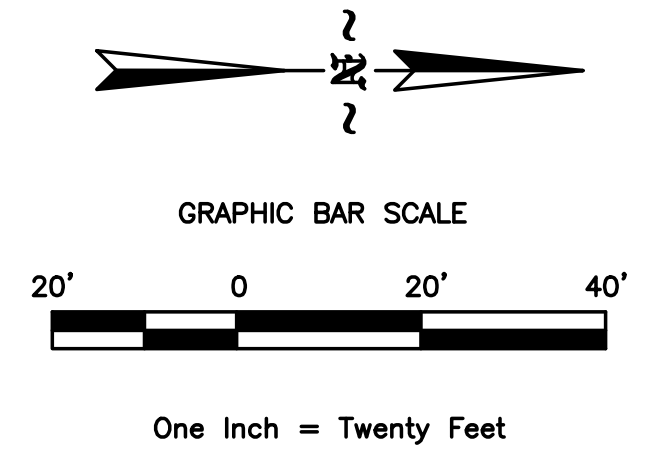
Drawing Name:  
**SLAB REPAIR PLAN (ADD. ALT. 3)**

FAA A.I.G. Bil. Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 25
1"=20'	Drawing Number: <b>SR-11</b>



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- LEGEND:**
- FULL SLAB REPLACEMENT
  - TYPE "A-1" JOINT
  - TYPE "E" JOINT



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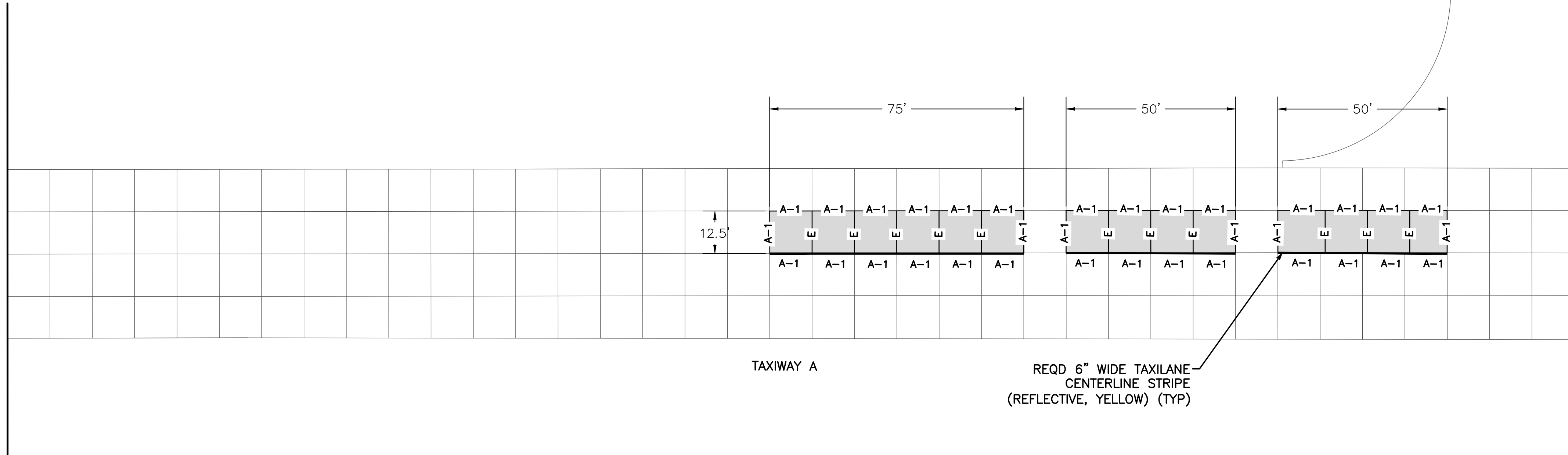
HAMMOND NORTHSORE REGIONAL AIRPORT  
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Designer: M. HALL	Checked by: B. ODOM
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MATCHLINE  
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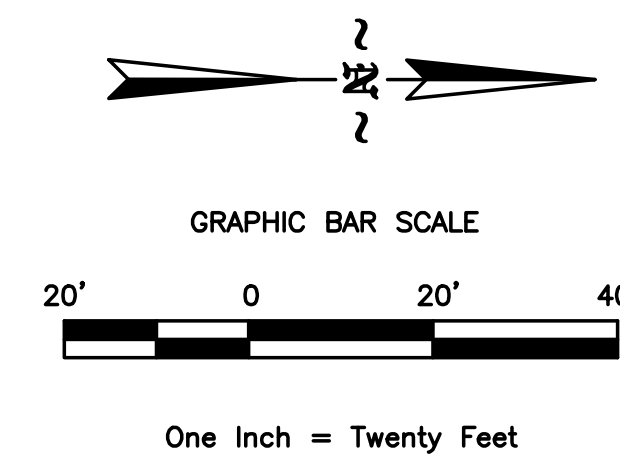
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- TYPE C AND TYPE E JOINTS ARE INTERCHANGEABLE BASED ON CONTRACTOR'S METHOD OF CONSTRUCTION.
- SEE SHEET SRD-1 AND SRD-2 FOR REPAIR DETAILS.
- CONTRACTOR SHALL INSTALL NEW TAXIWAY CENTERLINE MARKING AS REQUIRED IN ACCORDANCE WITH FAA SPECIFICATION P-620. PAYMENT WILL BE MADE UNDER P-620 ITEMS.
- SEE SHEET MD-1 FOR MARKING DETAILS.

**LEGEND:**

- FULL SLAB REPLACEMENT
- TYPE "A-1" JOINT
- TYPE "E" JOINT



REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

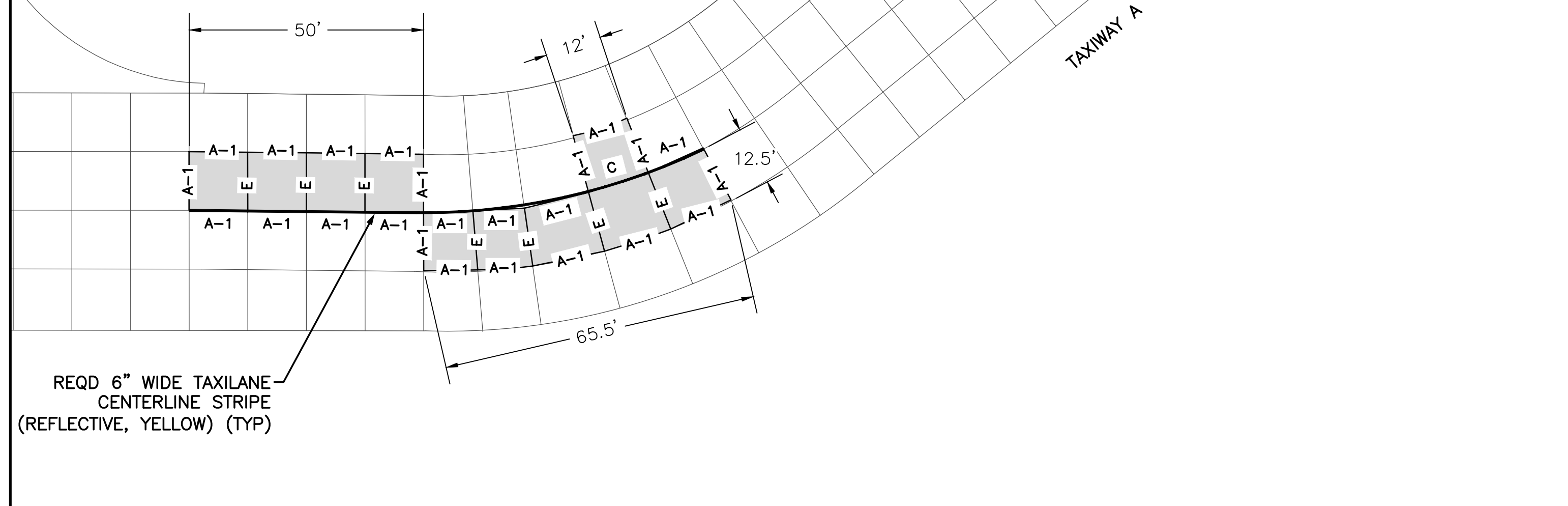
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**SLAB REPAIR PLAN (ADD. ALT. 3)**

FAA A.I.G. Bil. Project Number: <b>3-22-0018-0XX-2024</b>	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 26
1"=20'	Drawing Number: <b>SR-12</b>



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MATCHLINE  
(SEE SHEET SR-12)

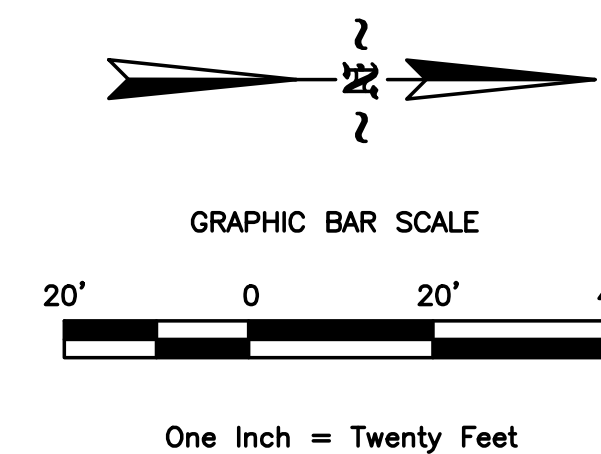


**NOTES:**

1. DIMENSIONS ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. CONTRACTOR TO VERIFY DIMENSIONS IN THE FIELD PRIOR TO START OF CONSTRUCTION.
2. CONSTRUCT REPLACEMENT SLABS TO MATCH EXISTING LINES AND GRADES. EXACT DIMENSIONS OF PARTIAL SLAB REPLACEMENT WILL BE AS DIRECTED BY ENGINEER. TYPE "E" JOINTS ARE TO BE INSTALLED IN ALL PARTIAL SLABS AS SHOWN OR AS DIRECTED TO CONTROL CRACKING.
3. PROVIDE DRAINAGE IN SLAB REPLACEMENT (INCLUDING PARTIAL SLAB) AREAS AT ALL TIMES BY EITHER GRAVITY OR PUMP (NO SEPARATE PAY). WATER WILL NOT BE ALLOWED TO STAND IN EXCAVATED SLAB AREAS. DAMAGE CAUSED BY STANDING WATER WILL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE.
4. REFER TO SHEET JD-1 FOR JOINT TYPES REFERENCED ON THIS DRAWING.
5. REFER TO PROJECT SAFETY PLAN AND GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
6. ALL "OVERCUTS" ON ADJACENT CONCRETE PAVEMENTS DUE TO FULL DEPTH SAW CUTS ARE TO BE FILLED WITH APPROVED EPOXY OR GROUT UPON COMPLETION OF WORK.
7. SQUARE FOOTAGE INDICATED ON DRAWINGS FOR SPALL REPAIRS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. CONTRACTOR SHALL MARK SPALL REPAIR AREAS IN ACCORDANCE WITH FAA SPECIFICATION P-101, THEN OBTAIN APPROVAL BY ENGINEER PRIOR TO PAVEMENT SAWCUTTING/REMOVAL/REPAIR.
8. ALL SAWCUTS FOR REPAIRS ARE TO BE ACCOMPLISHED PRIOR TO PLACEMENT OF NEW PCC PAVEMENTS. NO OVERCUTS WILL BE ALLOWED INTO NEW EXPANSION JOINTS OR NEW PCC PAVEMENTS.
9. ALL JOINTS/CRACKS PRESENT WITHIN THE "LIMITS OF CONSTRUCTION" SHALL BE CLEANED AND RESEALED. EXCEPTION WOULD BE AREAS OF "FULL DEPTH" REPAIR OR SLAB REPLACEMENT. THESE JOINTS SHALL BE CONSIDERED INCIDENTAL TO THOSE ITEMS OF WORK.
10. THE LOCATION OF SLAB REPLACEMENT, PARTIAL SLAB REPAIR, AND SPALL REPAIR SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO REMOVAL.
11. FULL SLAB REPLACEMENT SHALL BE IN ACCORDANCE WITH FAA SPECIFICATION P-501. PAYMENT SHALL BE MADE UNDER PAY ITEM P-501-8.1.
12. FULL DEPTH PARTIAL SLAB REPAIR SHALL BE IN ACCORDANCE WITH FAA SPECIFICATION P-501. PAYMENT SHALL BE MADE UNDER PAY ITEM P-501-8.1.
13. PARTIAL DEPTH SPALL REPAIR SHALL BE IN ACCORDANCE WITH FAA SPECIFICATION P-101. PAYMENT SHALL BE MADE UNDER PAY ITEM P-101-4.4.
14. TYPE C AND TYPE E JOINTS ARE INTERCHANGEABLE BASED ON CONTRACTOR'S METHOD OF CONSTRUCTION.
15. SEE SHEET SRD-1 AND SRD-2 FOR REPAIR DETAILS.
16. CONTRACTOR SHALL INSTALL NEW TAXIWAY CENTERLINE MARKING AS REQUIRED IN ACCORDANCE WITH FAA SPECIFICATION P-620. PAYMENT WILL BE MADE UNDER P-620 ITEMS.
17. SEE SHEET MD-1 FOR MARKING DETAILS.

**LEGEND:**

- FULL SLAB REPLACEMENT
- TYPE "A-1" JOINT
- TYPE "E" JOINT



HAMMOND NORTHSHORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
6/6/2024  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

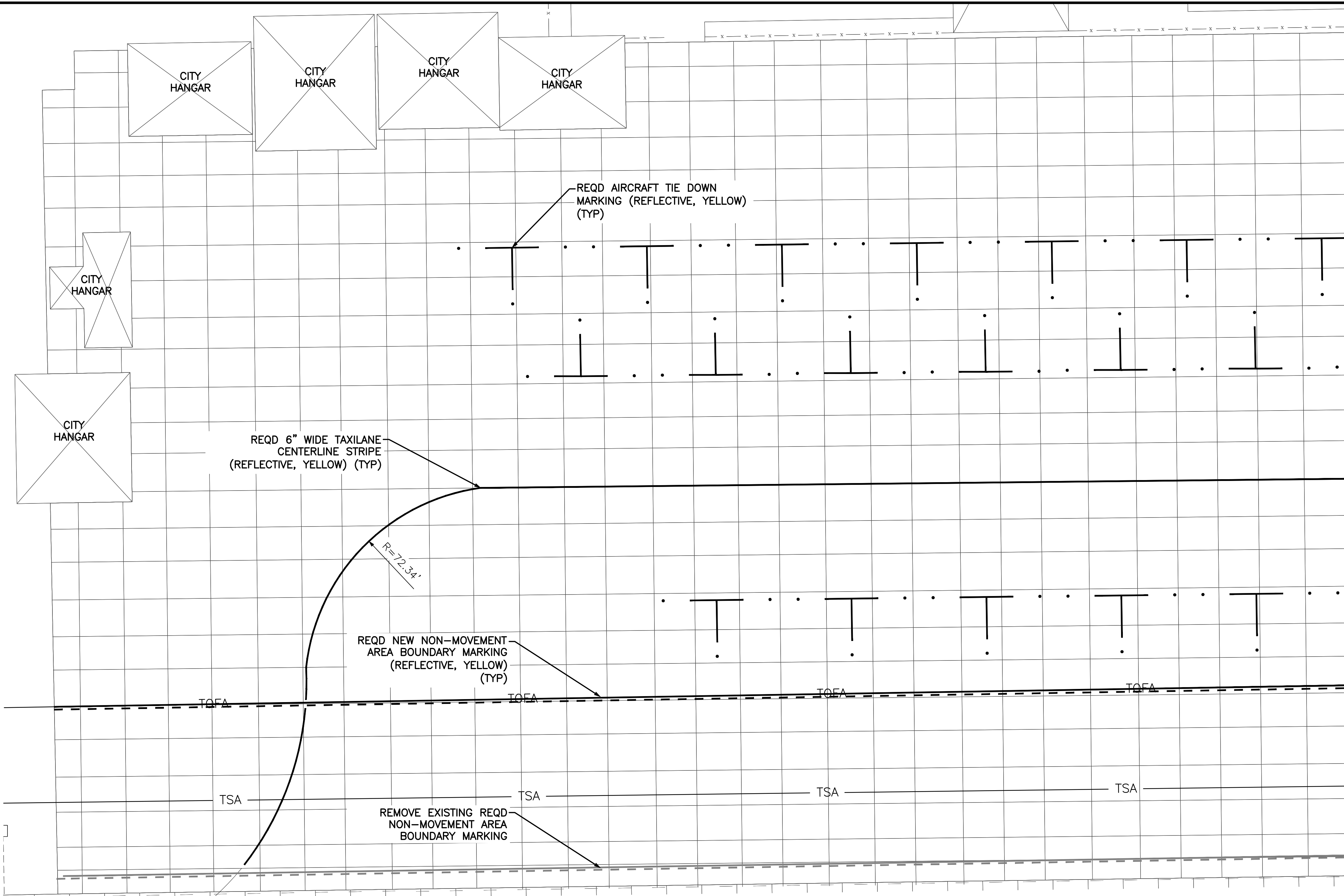
REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**SLAB REPAIR PLAN (ADD. ALT. 3)**

FAA A.I.G. Bil. Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 27
1"=20'	Drawing Number: <b>SR-13</b>

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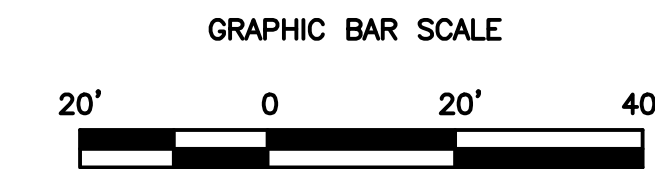
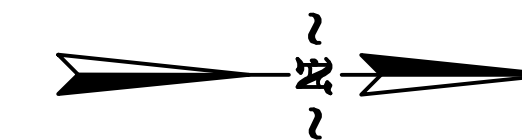
MATCHLINE (SEE SHEET MP-2)

**NOTES:**

1. CONTRACTOR SHALL VERIFY EXISTING TIE DOWN LOCATIONS PRIOR TO REMOVAL OF EXISTING TIE DOWNS. NEW TIE DOWNS SHALL BE PLACED AT THE SAME LOCATION.
2. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING MARKINGS PRIOR TO REMOVING MARKINGS. NEW MARKINGS SHALL BE PLACED AT THE SAME LOCATION, EXCEPT FOR THE NON-MOVEMENT AREA BOUNDARY MARKINGS.
3. CONTRACTOR SHALL REMOVE THE EXISTING NON-MOVEMENT AREA BOUNDARY MARKING IN ACCORDANCE WITH FAA SPECIFICATION P-101. PAYMENT WILL BE MADE UNDER ITEM P-101-5.3.
4. ALL PERMANENT MARKINGS SHALL BE YELLOW REFLECTIVE AND INSTALLED IN ACCORDANCE WITH FAA SPECIFICATION P-620. PAYMENT SHALL BE MADE UNDER PAY ITEM P-620-5.2A MARKING, YELLOW.
5. ALL PERMANENT MARKINGS SHALL BE OUTLINED WITH A 6" WIDE BLACK NON-REFLECTIVE STRIPE. INSTALLATION SHALL BE IN ACCORDANCE WITH FAA SPECIFICATION P-620. PAYMENT SHALL BE MADE UNDER PAY ITEM P-620-5.2B MARKING, BLACK.
6. REFLECTIVE MEDIA SHALL BE INSTALLED IN ACCORDANCE WITH FAA SPECIFICATION P-620 IN ALL PAINT EXCEPT BLACK MARKINGS. PAYMENT SHALL BE MADE UNDER PAY ITEM P-620-5.3A REFLECTIVE MEDIA.
7. AIRCRAFT TIE-DOWN ANCHORS AND MOORING EYES WILL BE INSTALLED IN ACCORDANCE WITH SPECIFICATION SP-1. PAYMENT SHALL BE MADE UNDER PAY ITEM SP-1-1 TIE-DOWN ANCHOR OR PAY ITEM SP-1-2 MOORING EYE.
8. SEE SHEET MD-1 FOR MARKING DETAILS.
9. SEE SHEET TD-1 FOR AIRCRAFT TIE-DOWN DETAILS.

**LEGEND:**

- TSA- TAXIWAY SAFETY AREA
- TOFA- TAXIWAY OBJECT FREE AREA



One Inch = Twenty Feet



HAMMOND NORTHSHORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

Michael Baker INTERNATIONAL  
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Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

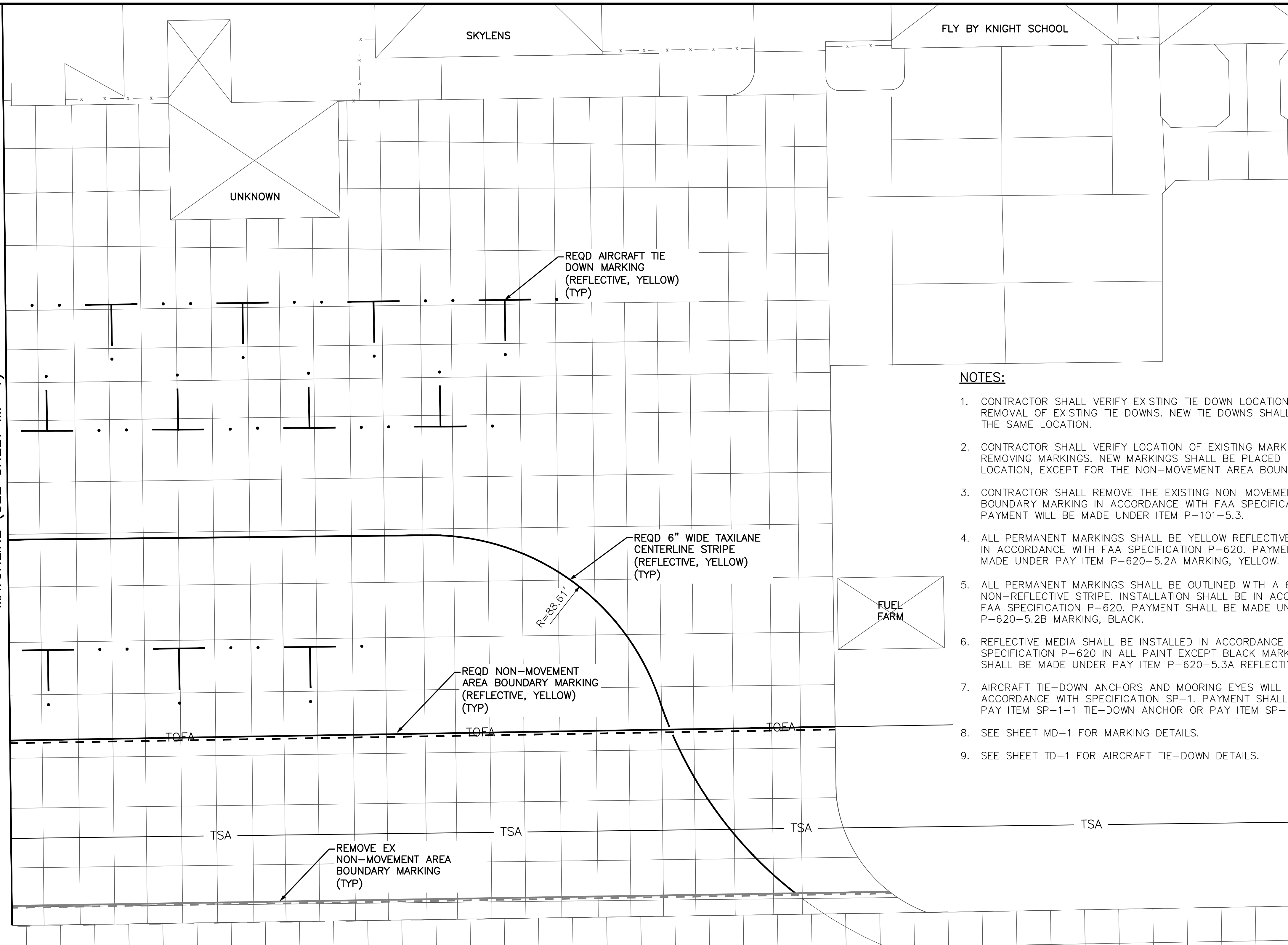
Drawing Name:  
**AIRCRAFT TIE-DOWN LAYOUT AND MARKING PLAN**

FAA A.I.G. BIL Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 28
1"=20'	Drawing Number: <b>MP-1</b>



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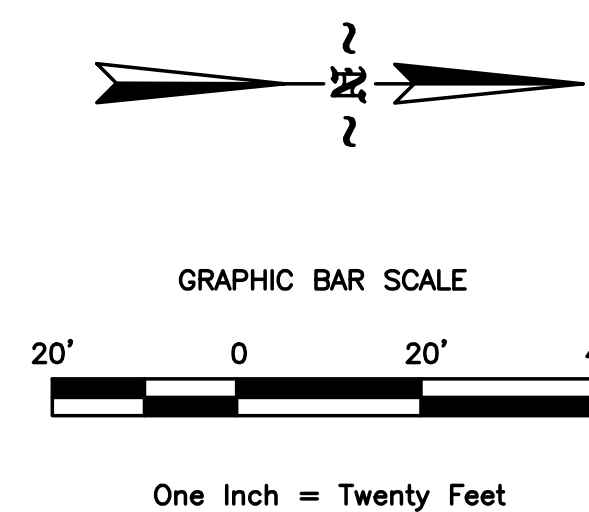


**LEGEND:**

- TSA— TAXIWAY SAFETY AREA
- TOFA— TAXIWAY OBJECT FREE AREA

**NOTES:**

1. CONTRACTOR SHALL VERIFY EXISTING TIE DOWN LOCATIONS PRIOR TO REMOVAL OF EXISTING TIE DOWNS. NEW TIE DOWNS SHALL BE PLACED AT THE SAME LOCATION.
2. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING MARKINGS PRIOR TO REMOVING MARKINGS. NEW MARKINGS SHALL BE PLACED AT THE SAME LOCATION, EXCEPT FOR THE NON-MOVEMENT AREA BOUNDARY MARKING.
3. CONTRACTOR SHALL REMOVE THE EXISTING NON-MOVEMENT AREA BOUNDARY MARKING IN ACCORDANCE WITH FAA SPECIFICATION P-101. PAYMENT WILL BE MADE UNDER ITEM P-101-5.3.
4. ALL PERMANENT MARKINGS SHALL BE YELLOW REFLECTIVE AND INSTALLED IN ACCORDANCE WITH FAA SPECIFICATION P-620. PAYMENT SHALL BE MADE UNDER PAY ITEM P-620-5.2A MARKING, YELLOW.
5. ALL PERMANENT MARKINGS SHALL BE OUTLINED WITH A 6" WIDE BLACK NON-REFLECTIVE STRIPE. INSTALLATION SHALL BE IN ACCORDANCE WITH FAA SPECIFICATION P-620. PAYMENT SHALL BE MADE UNDER PAY ITEM P-620-5.2B MARKING, BLACK.
6. REFLECTIVE MEDIA SHALL BE INSTALLED IN ACCORDANCE WITH FAA SPECIFICATION P-620 IN ALL PAINT EXCEPT BLACK MARKINGS. PAYMENT SHALL BE MADE UNDER PAY ITEM P-620-5.3A REFLECTIVE MEDIA.
7. AIRCRAFT TIE-DOWN ANCHORS AND MOORING EYES WILL BE INSTALLED IN ACCORDANCE WITH SPECIFICATION SP-1. PAYMENT SHALL BE MADE UNDER PAY ITEM SP-1-1 TIE-DOWN ANCHOR OR PAY ITEM SP-1-2 MOORING EYE.
8. SEE SHEET MD-1 FOR MARKING DETAILS.
9. SEE SHEET TD-1 FOR AIRCRAFT TIE-DOWN DETAILS.



1932  
HAMMOND NORTHSORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
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Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
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THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

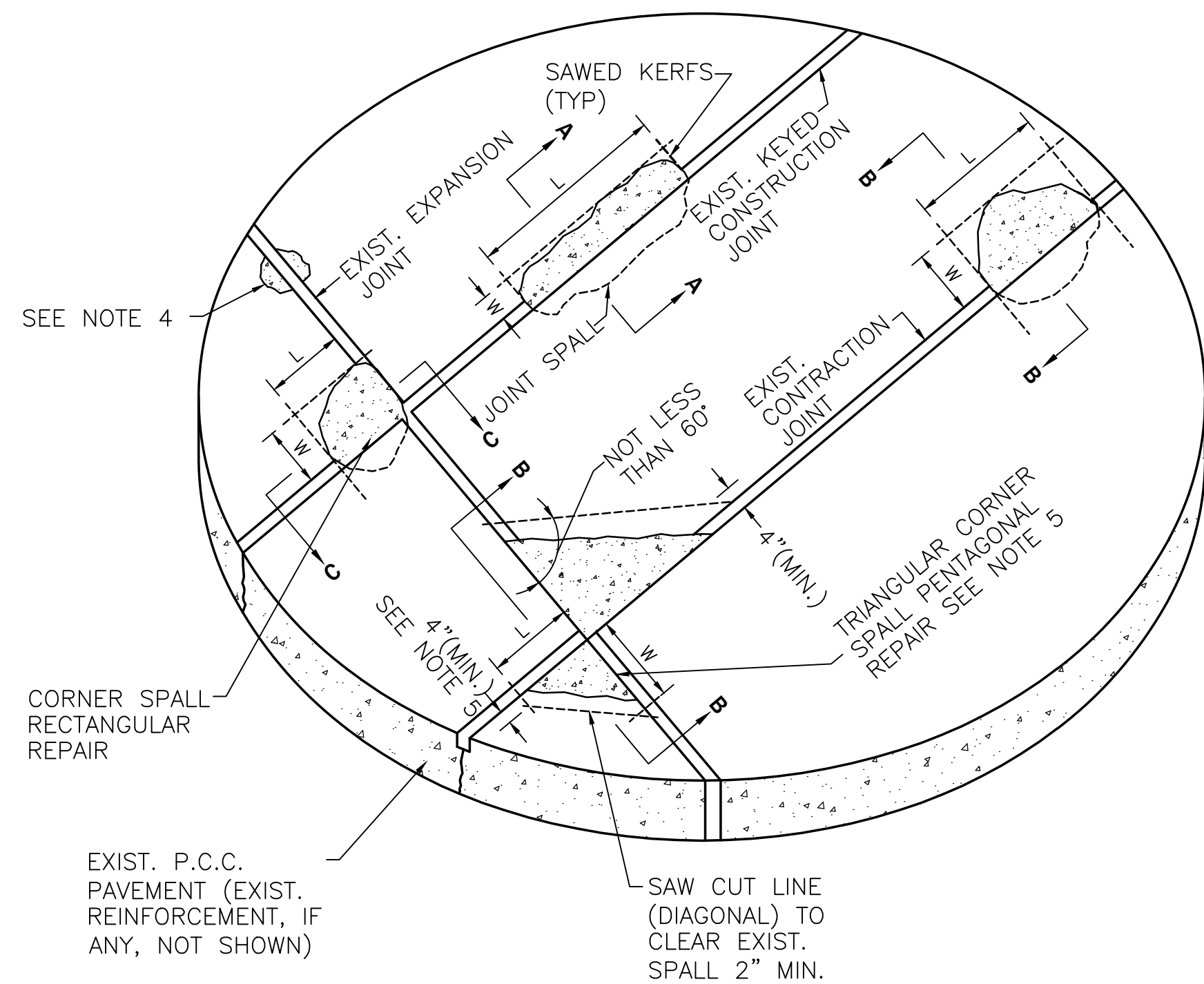
Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**AIRCRAFT TIE-DOWN LAYOUT AND MARKING PLAN**

FAA A.I.G. Bil. Project Number: 3-22-0018-0XX-2024	
Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 29
1"=20'	Drawing Number: <b>MP-2</b>



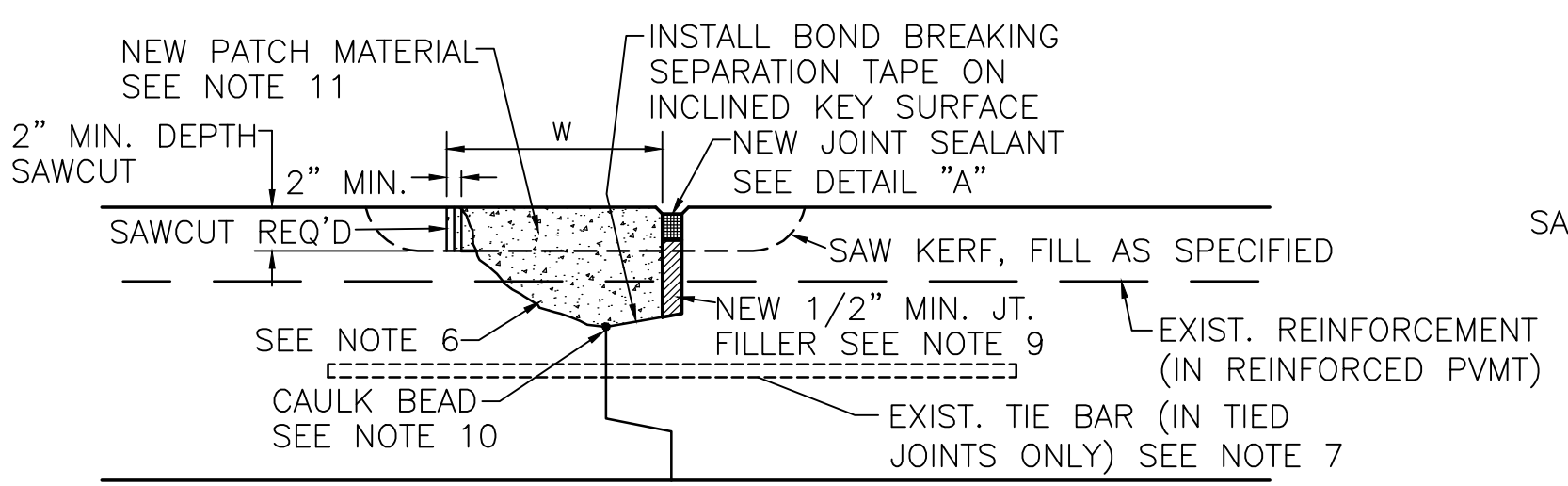
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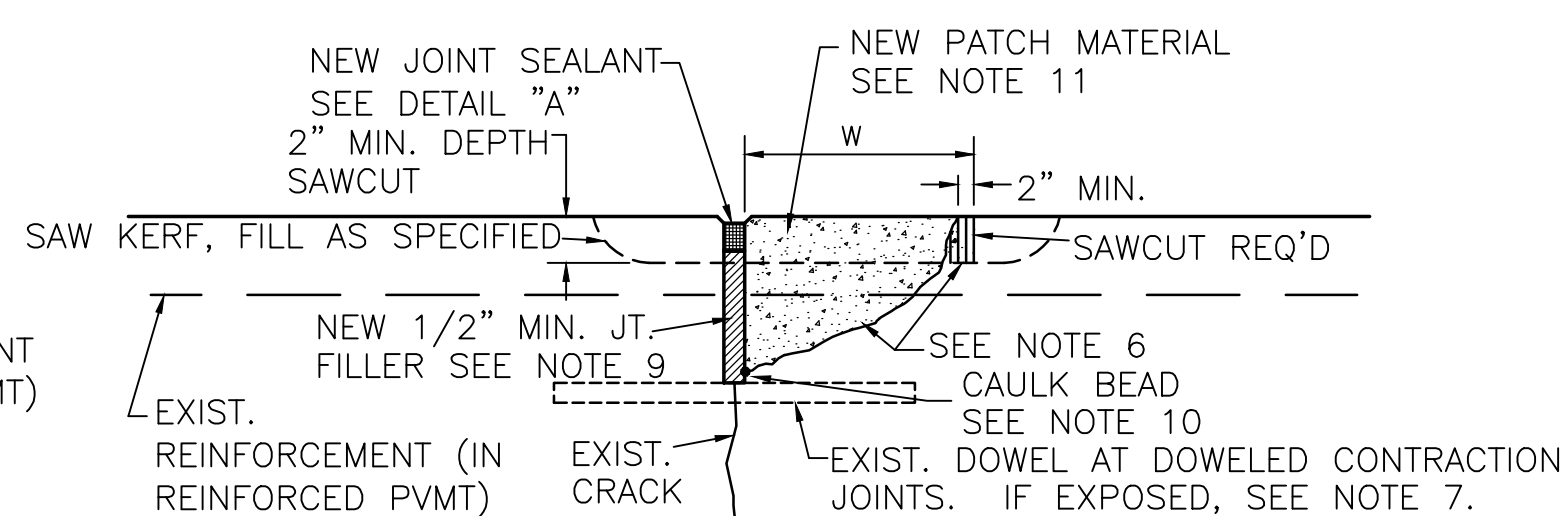
**PLAN OF "PARTIAL DEPTH" SPALL REPAIRS**  
N.T.S.

**NOTES:**

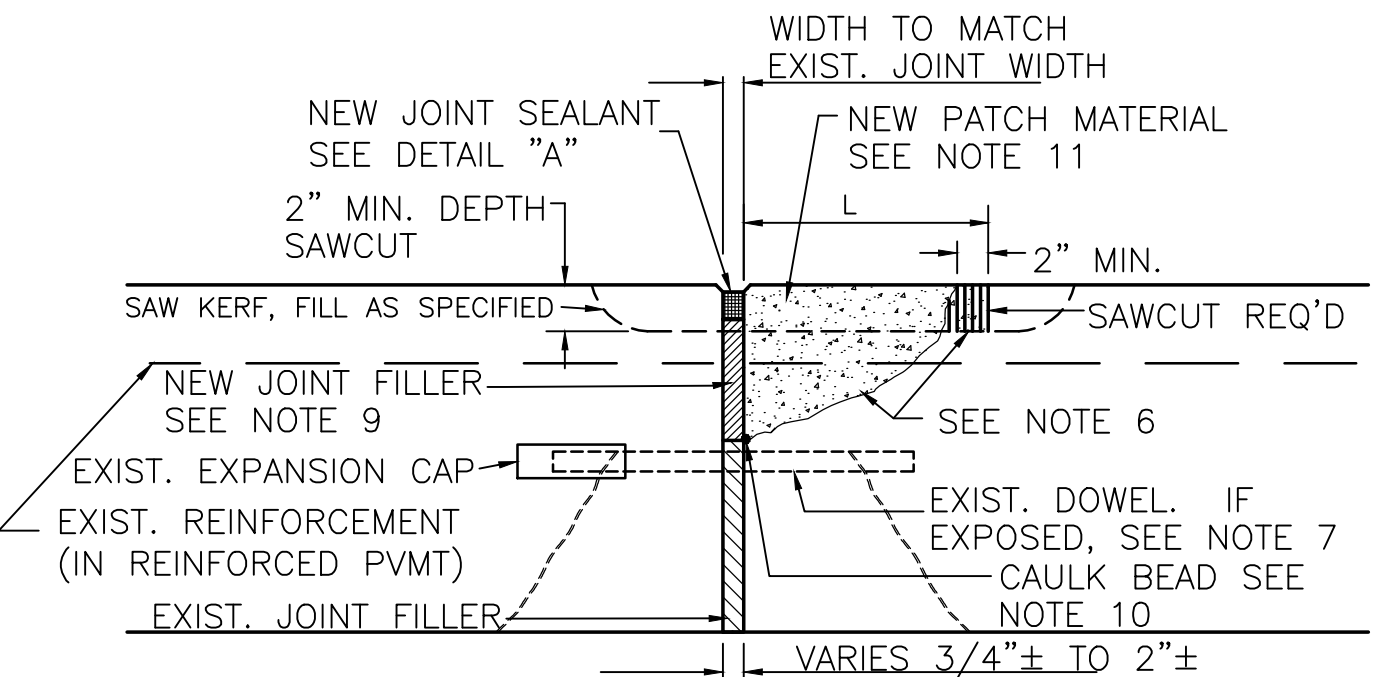
- APPROX. LOCATION AND SQUARE FOOTAGE OF EACH PARTIAL DEPTH SPALL REPAIR AND FULL DEPTH CONCRETE REPAIR ARE SHOWN ON THE PLANS. EXACT LOCATION AND DIMENSIONS SHALL BE DETERMINED AND MARKED IN THE FIELD AS SPECIFIED IN ITEM P-101. UNAUTHORIZED SAWCUTS CONDUCTED WITHOUT PRIOR REVIEW/INSPECTION AND APPROVAL OF ENGINEER WILL BE SUBJECT TO REJECTION AND/OR NON-PAYMENT OF EXCESSIVE AREAS BEYOND WHAT WAS REQUIRED FOR REPAIR.
- SPALLS OCCUR IN MANY SIZES AND SHAPES. REPAIR DETAILS SHOWN ARE INTENDED TO REMOVE AND REPLACE ALL DETERIORATED CONCRETE, AND TO MAINTAIN THE SIZE OF THE SPALL REPAIR TO THE MINIMUM PRACTICAL TO AVOID UNNECESSARY REMOVAL OF SOUND CONCRETE. SOUND ALL DESIGNATED AREAS OF REPAIR WITH A HAMMER TO DELINEATE THE EXACT LIMITS OF UNSOUND PCC PAVEMENT.
- JOINT SPALLS WITH ACTUAL CAVITY WIDTHS LESS THAN 2" SHALL BE REPAIRED BY CLEANING AND FILLING WITH JOINT SEALANT IN LIEU OF SPECIFIED PATCHING MATERIAL SUBJECT TO ENGINEERS APPROVAL.
- WHERE SPALL REPAIRS ARE REQUIRED ON EACH SIDE OF A JOINT OR CRACK, A NON-FLEXIBLE TYPE FILLER OR INSERT SHALL BE SECURED IN ALIGNMENT WITH THE JOINT OR CRACK AFTER BREAKING OUT THE SPALLED CONCRETE. THE SPALL REPAIRS SHALL BE COMPLETED AS INDICATED ON ONE SIDE AT A TIME.
- AT TRIANGULAR SPALLS WHERE BOTH THE LENGTH AND WIDTH OF THE REPAIR EXCEED 12", THE REPAIR SHALL BE MADE PENTAGONAL TO AVOID FEATHER EDGED CORNERS AND TO MINIMIZE SIZE OF REPAIR AREA. SAWCUTS SHALL BE MADE TO INTERSECT JOINT LINES AT APPROX. 90° (60° MIN.) FOR NOT LESS THAN 4" AS SHOWN.



**SECTION A-A  
SPALL AT "KEYED" CONSTRUCTION JOINT**  
N.T.S.

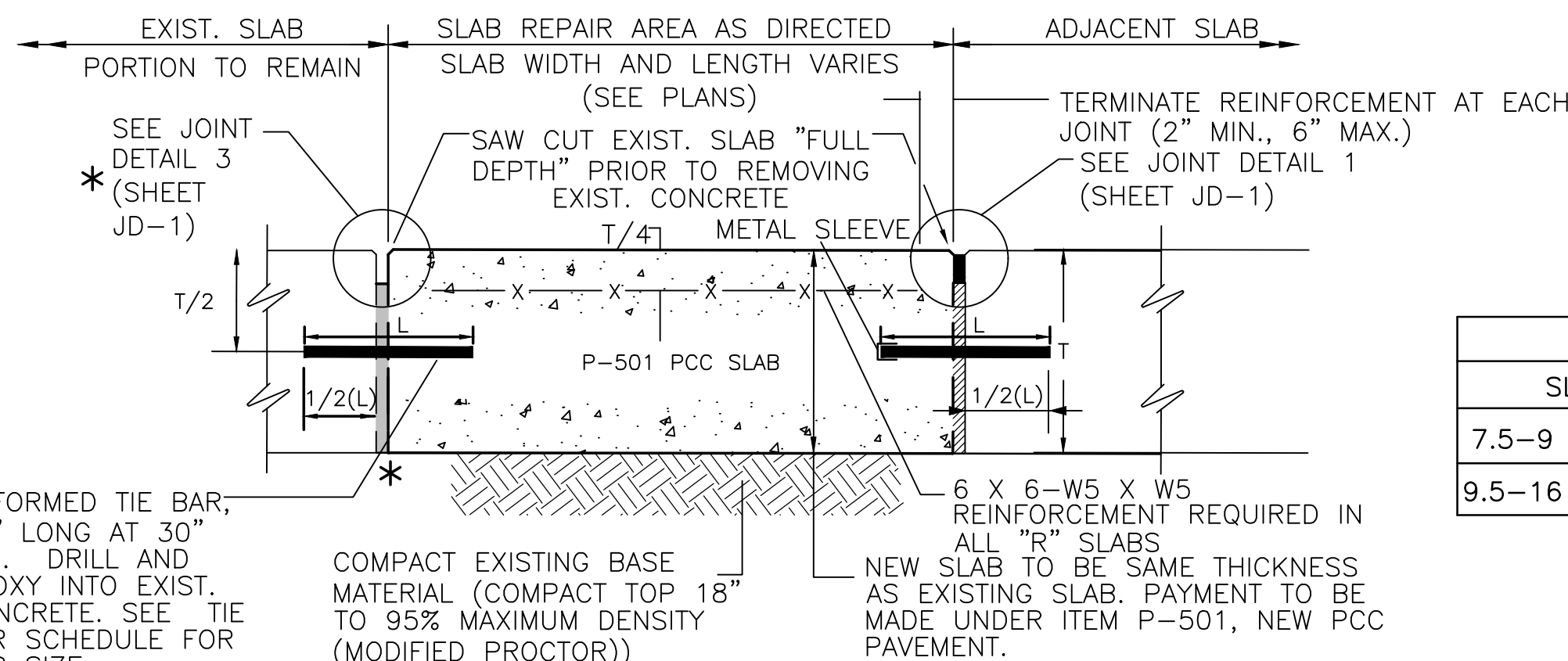


**SECTION B-B  
SPALL AT CONTRACTION JOINT**  
N.T.S.

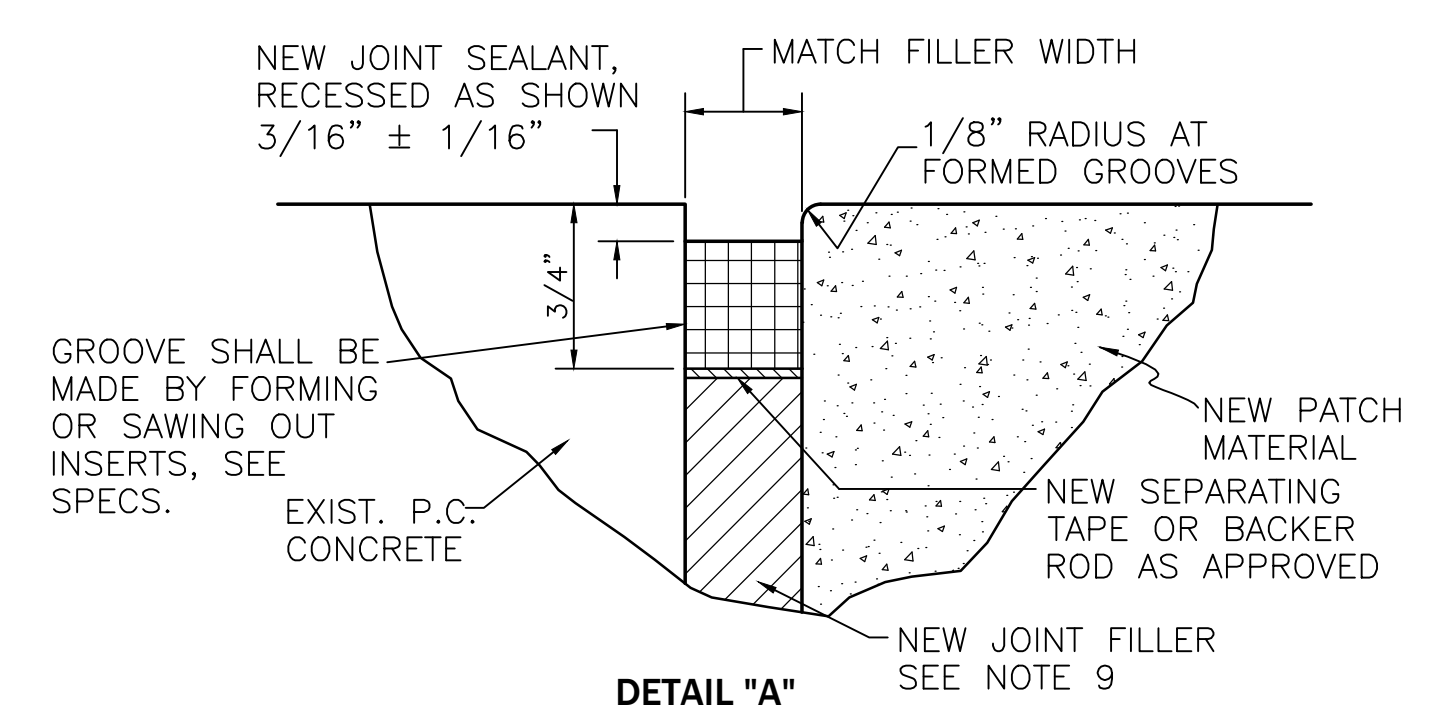


**SECTION C-C  
SPALL AT EXPANSION JOINT**  
N.T.S.

- BREAK OUT AND REMOVE PAVEMENT AND UNSOUND CONCRETE WITHIN SAWCUTS TO A DEPTH NOT LESS THAN 2". CLEAN EXPOSED CAVITY SURFACES AS SPECIFIED. USE A CHIPPING HAMMER TO PREVENT FRACTURE OF SOUND CONCRETE.
- DOWELS, TIE-BARS, OR REINFORCEMENT EXPOSED DURING PREPARATION OF SPALLED AREAS SHALL BE SANDBLASTED CLEAN. DOWEL BARS SHALL BE NEATLY COATED WITH GREASE PRIOR TO FILLING CAVITY WITH REPAIR MATERIAL.
- SAWCUT A 1/2" MIN. WIDTH GROOVE AT EXISTING JOINT LINES TO A POINT 1/2" MIN. BELOW THE PREPARED CAVITY SURFACE TO HOLD NEW FILLER INSERTS DURING PLACEMENT OF PATCH MATERIAL.
- PROVIDE JOINT FILLER TO MAINTAIN EXISTING JOINTS AND WORKING CRACKS. THICKNESS OF FILLER SHALL BE ABOUT EQUAL TO WIDTH OF EXISTING GAP AT THE JOINT OR CRACK BUT NOT LESS THAN DIMENSIONS SHOWN. DEPTH OF FILLER SHALL BE SUFFICIENT TO INSERT FILLER IN SAWED GROOVE BELOW PREPARED CAVITY SURFACE AND TO PROVIDE SEPARATION OF PATCH MATERIAL FROM EXISTING CONCRETE. INSTALL FILLER NEATLY TO PREVENT NEW PATCH MATERIALS FROM BY-PASSING FILLER AND ENTERING THE JOINT SPACE.
- APPLY CAULK BEAD AS INDICATED TO PREVENT PATCH MATERIALS FROM BY-PASSING FILLER AND ENTERING THE JOINT SPACE.
- APPLY AND SCRUB BONDING COURSE MATERIAL ON ALL EXPOSED CAVITY SURFACES EXCEPT FACES OF JOINTS AND WORKING CRACKS. FILL CAVITY FLUSH WITH PAVEMENT SURFACE WITH PATCH MATERIAL AS SPECIFIED.
- REMOVAL OF CONCRETE SHALL NOT CAUSE DAMAGE TO EXISTING PAVEMENT. CONTRACTOR SHALL REMOVE AND REPLACE ADDITIONAL FULL DEPTH CONCRETE, AT NO ADDITIONAL COST, AS NECESSARY TO ELIMINATE ANY DAMAGED AREAS.
- PATCH DAMAGED BASE MATERIAL WITH CONCRETE.



TIE BAR SCHEDULE			
SLAB	DIAMETER	LENGTH	SPACING
7.5-9 INCHES	#5	30 INCHES	30 INCHES
9.5-16 INCHES	#6	30 INCHES	30 INCHES



**DETAIL "A"  
GROOVE FOR JOINT SEALANT AT SPALL REPAIR**  
N.T.S.

**Michael Baker INTERNATIONAL**

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LICENSE No. 40971  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL  
Checked by: B. ODOM  
Technician: M. HALL  
Project Number: 180935

REVISIONS			
No.	Description	Date	By

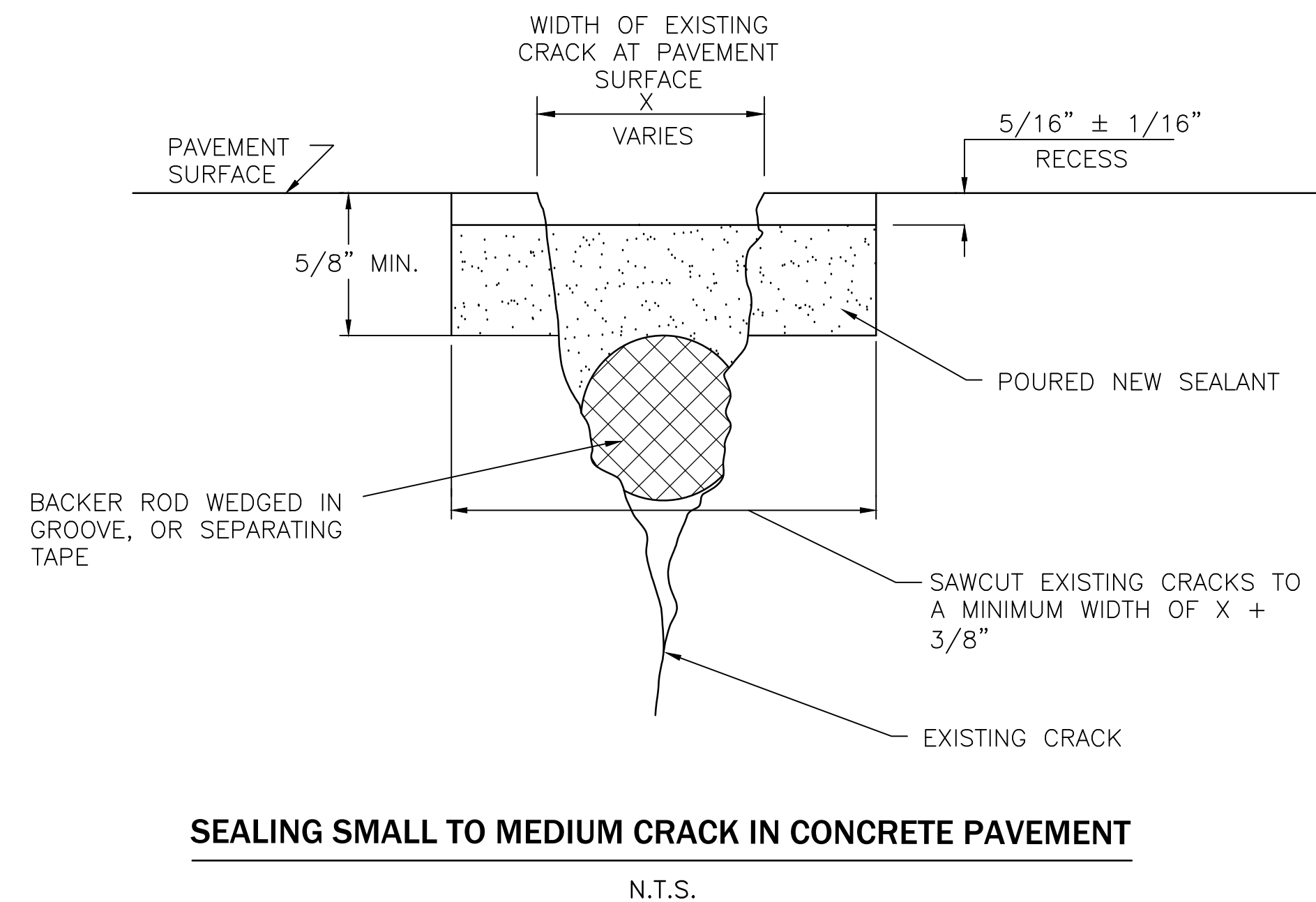
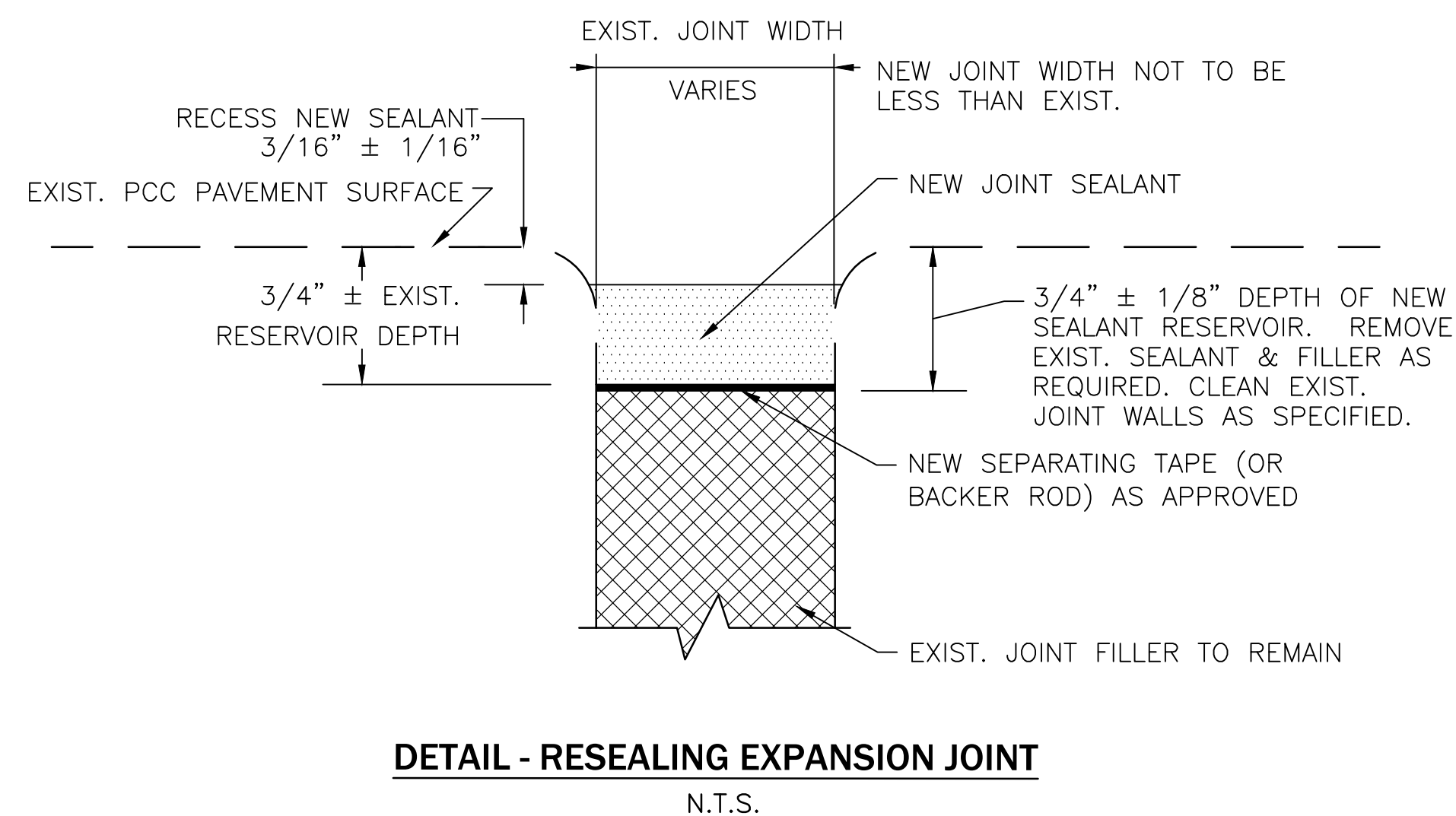
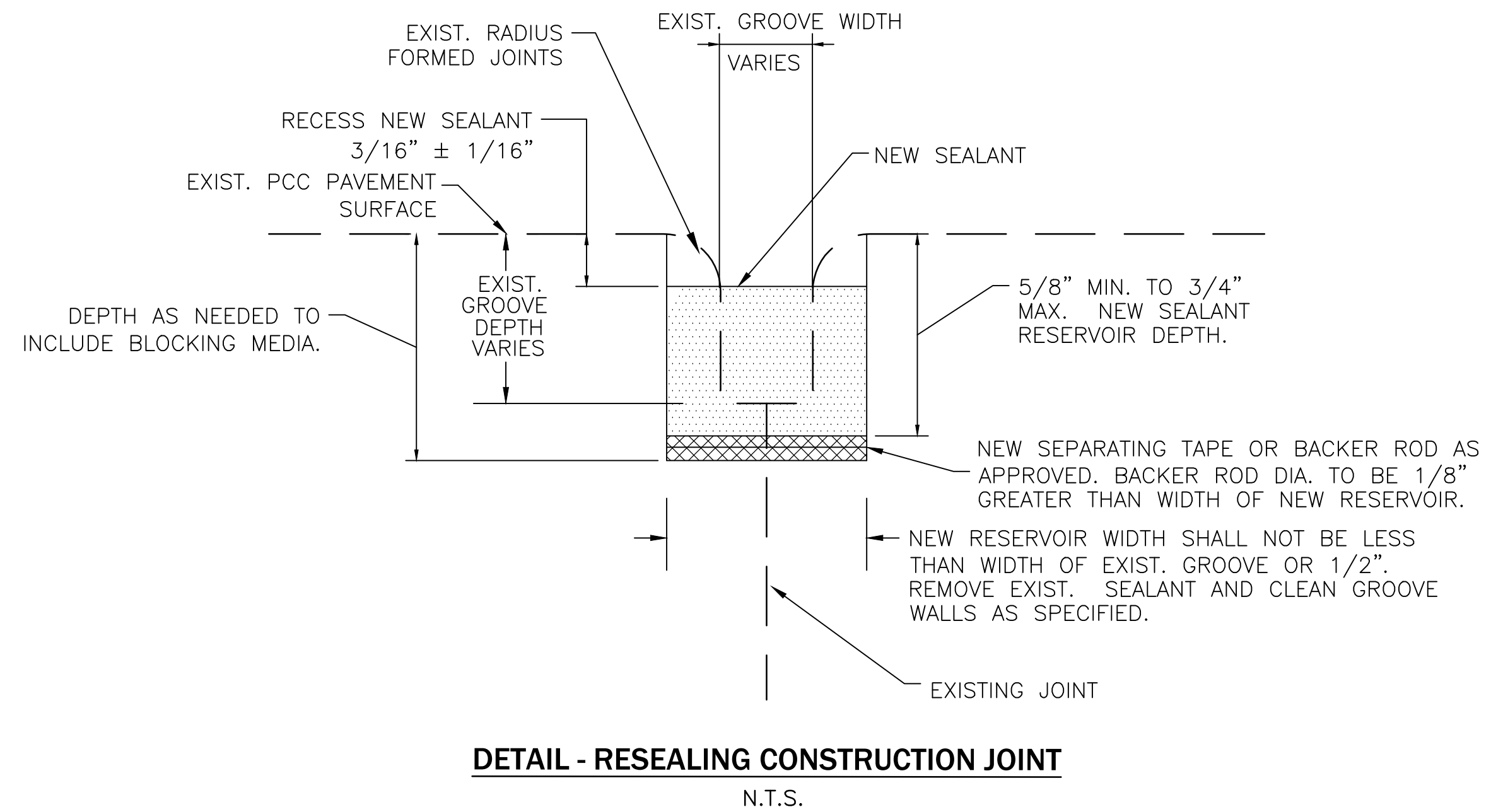
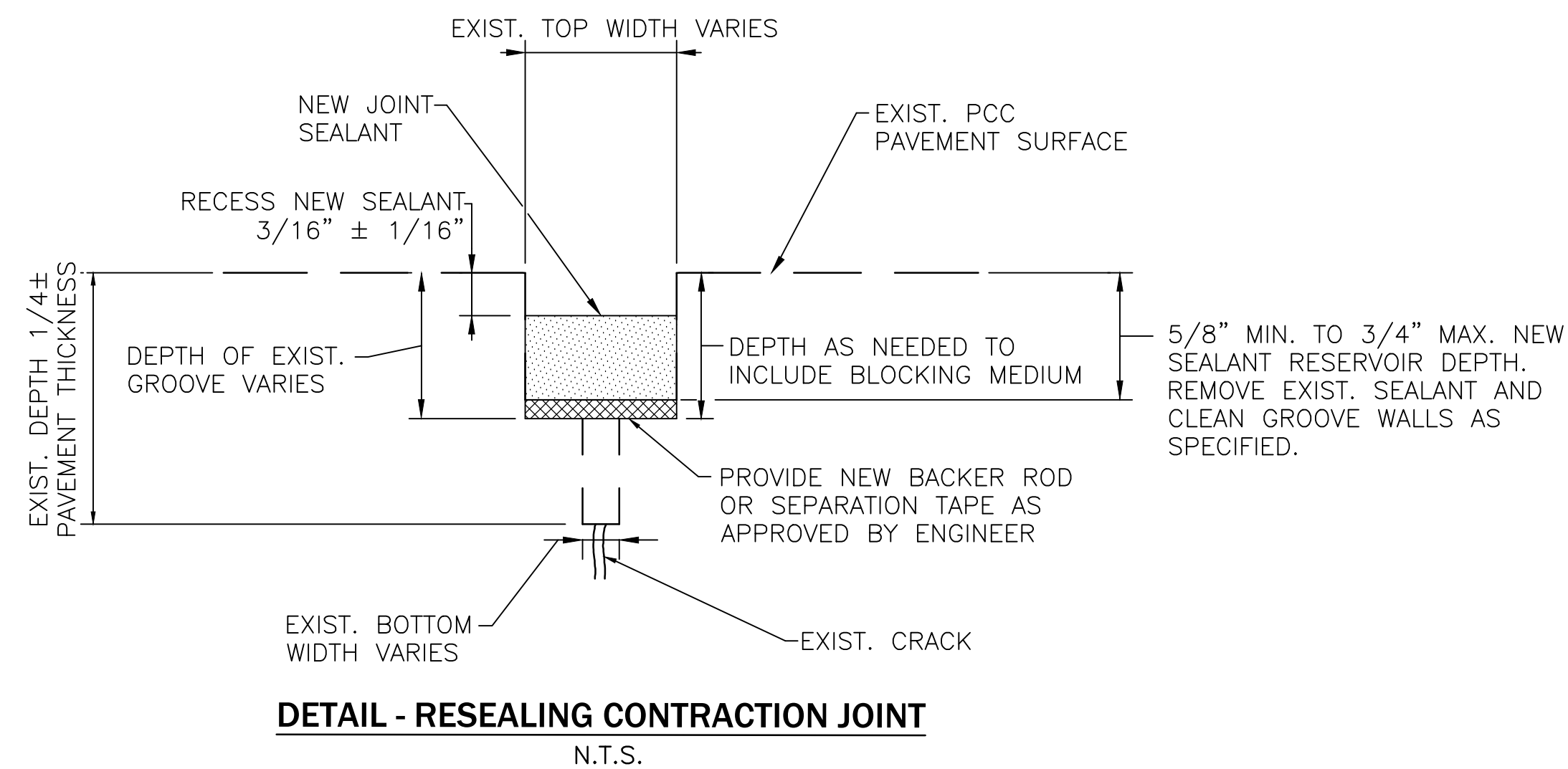
Project Name: **TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name: **PCC SLAB REPAIR DETAILS**

FAA A.I.G. BIL Project Number: 3-22-0018-0XX-2024  
Date: MAY 2024  
Scale: (22x34)  
AS NOTED  
Division:  
Sheet Number: 30  
Drawing Number: **SRD-1**

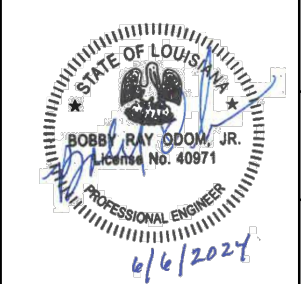


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HAMMOND NORTHSHORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL



Michael Baker  
INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
THESE DRAWINGS DO NOT  
INCLUDE NECESSARY  
COMPONENTS  
FOR CONSTRUCTION SAFETY

Designer:  
M. HALL  
Checked by:  
B. ODOM  
Technician:  
M. HALL  
Project Number:  
180935

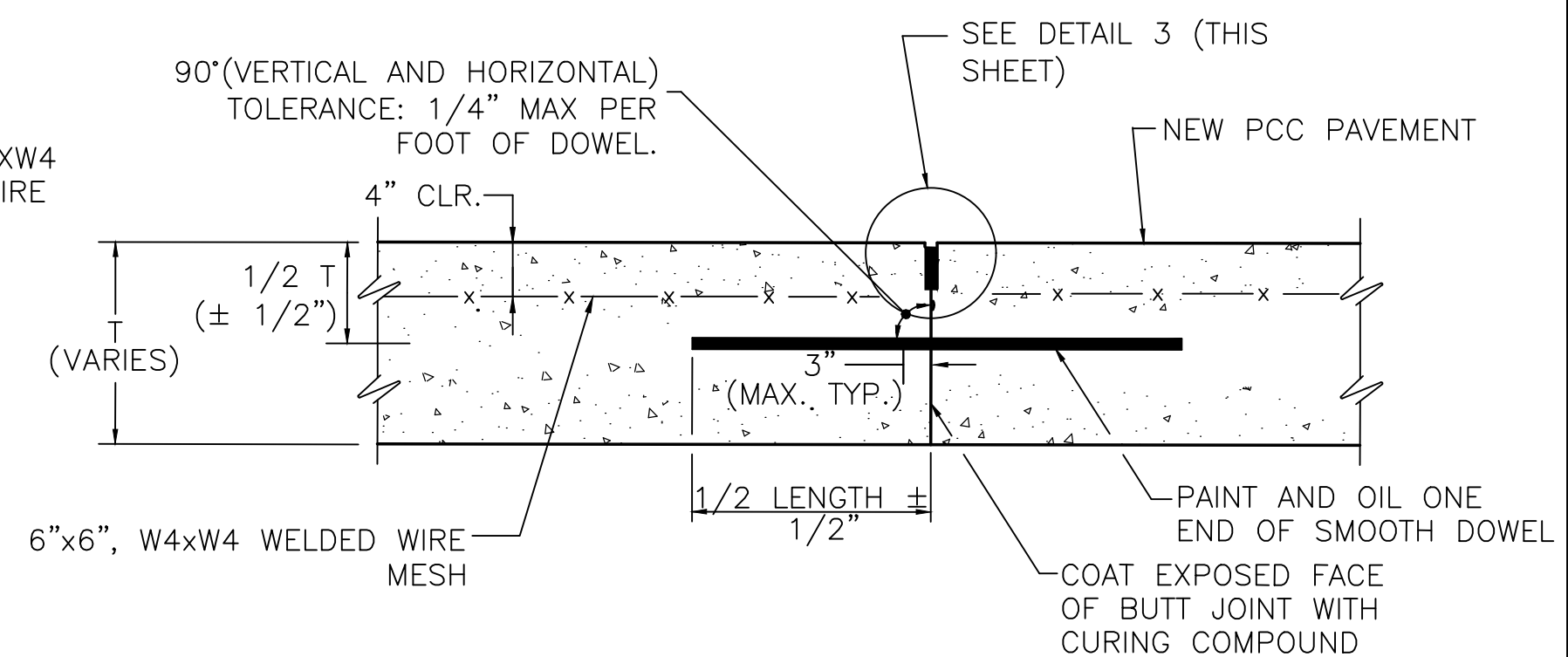
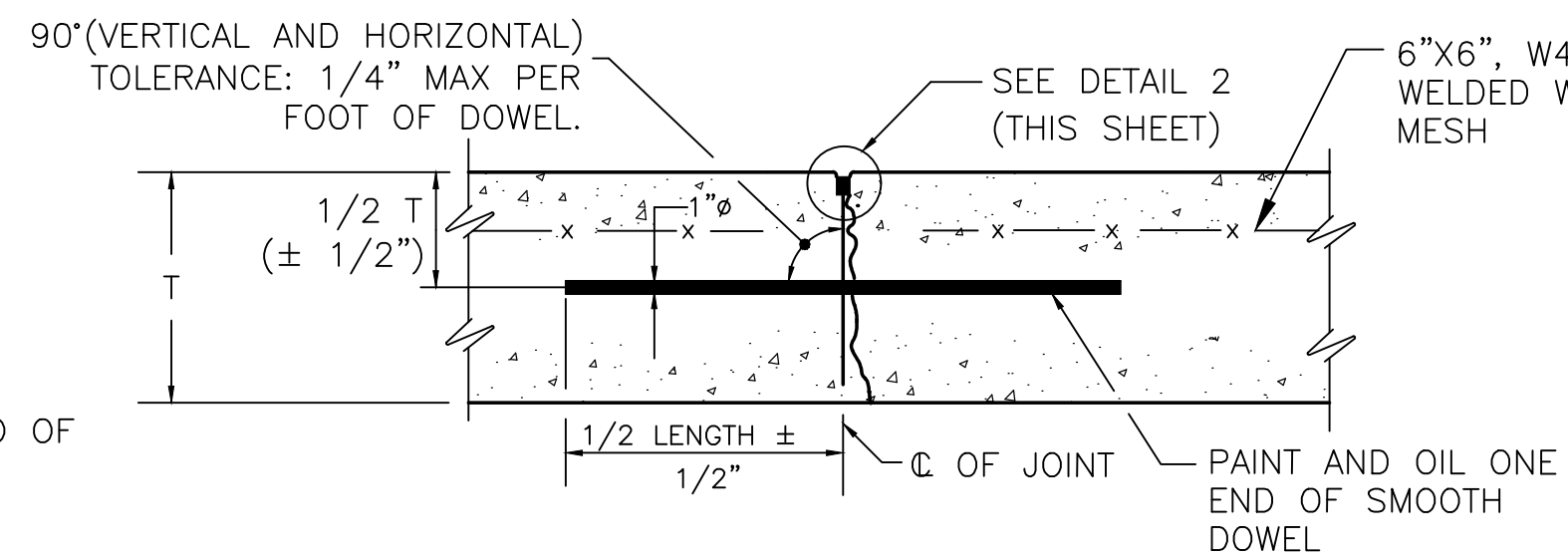
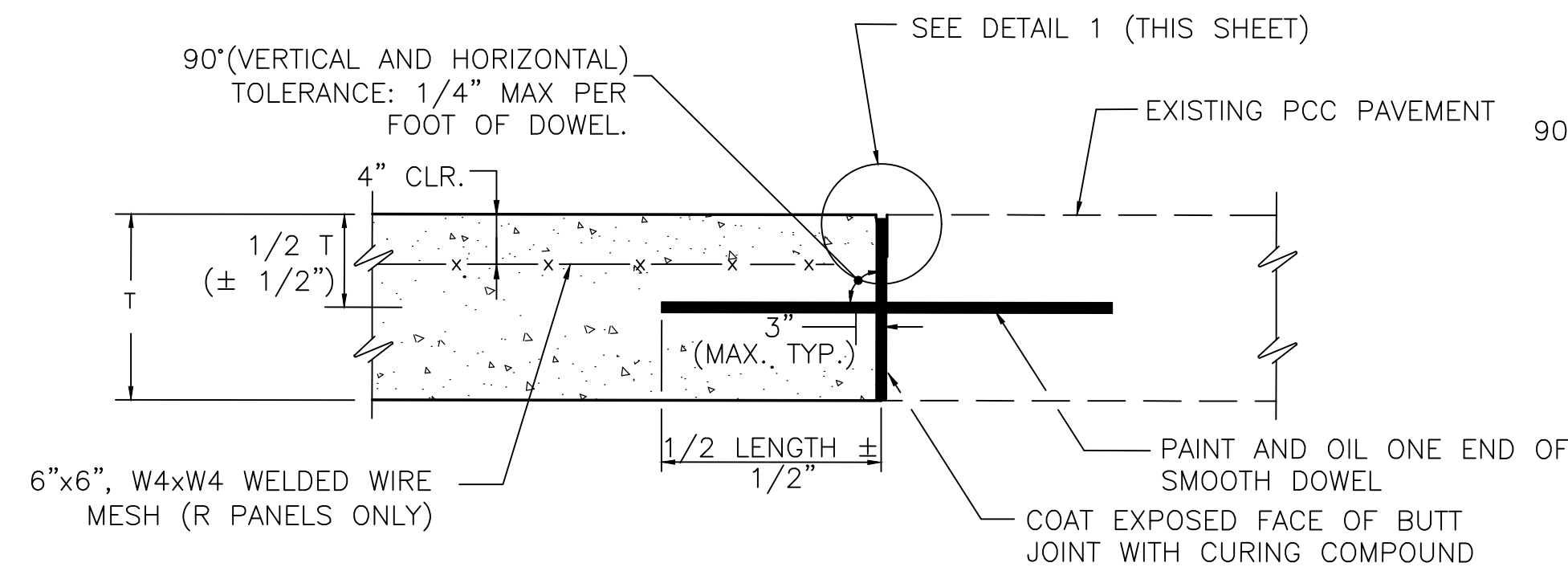
REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT  
RESEAL AND TAXIWAY A & E  
POINT REPAIRS**

Drawing Name:  
**JOINT & CRACK RESEALING  
DETAILS (EXISTING PCC)**

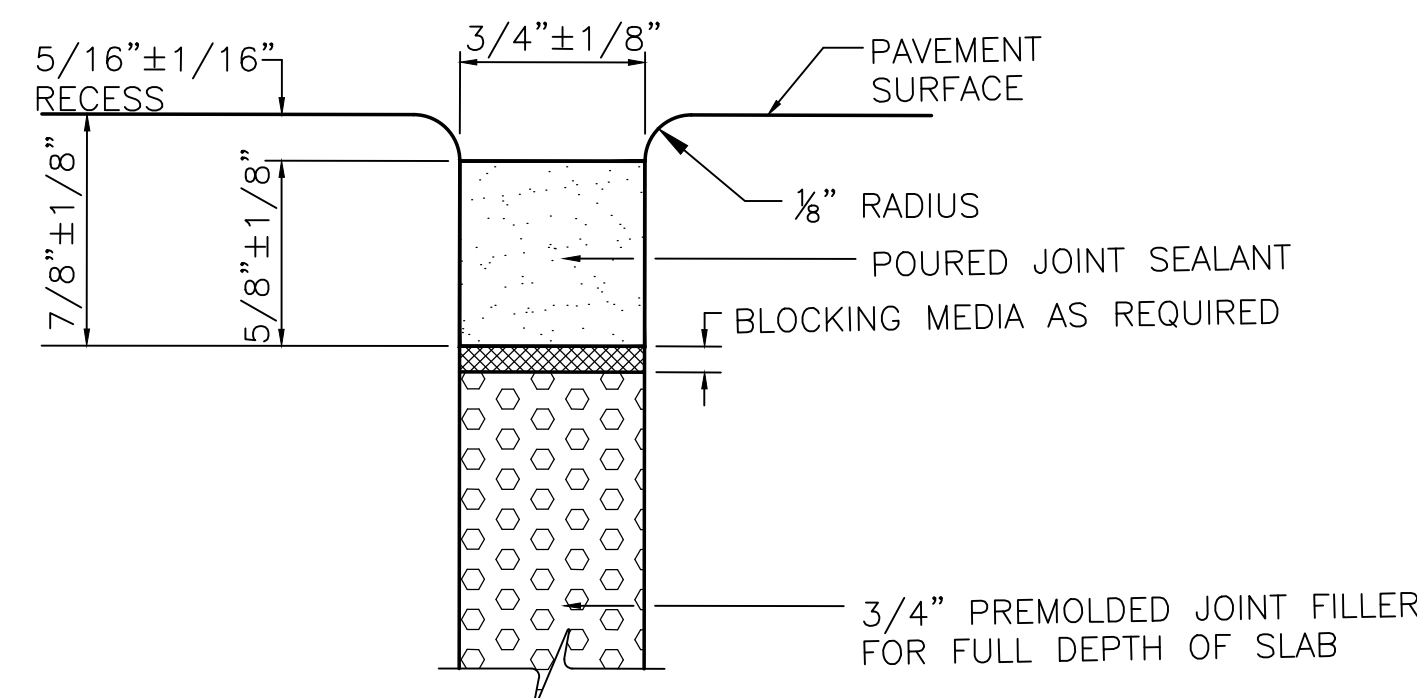
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3-22-0018-0XX-2024  
Date: MAY 2024  
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Division:  
Sheet Number:  
31  
Drawing Number:  
**SRD-2**

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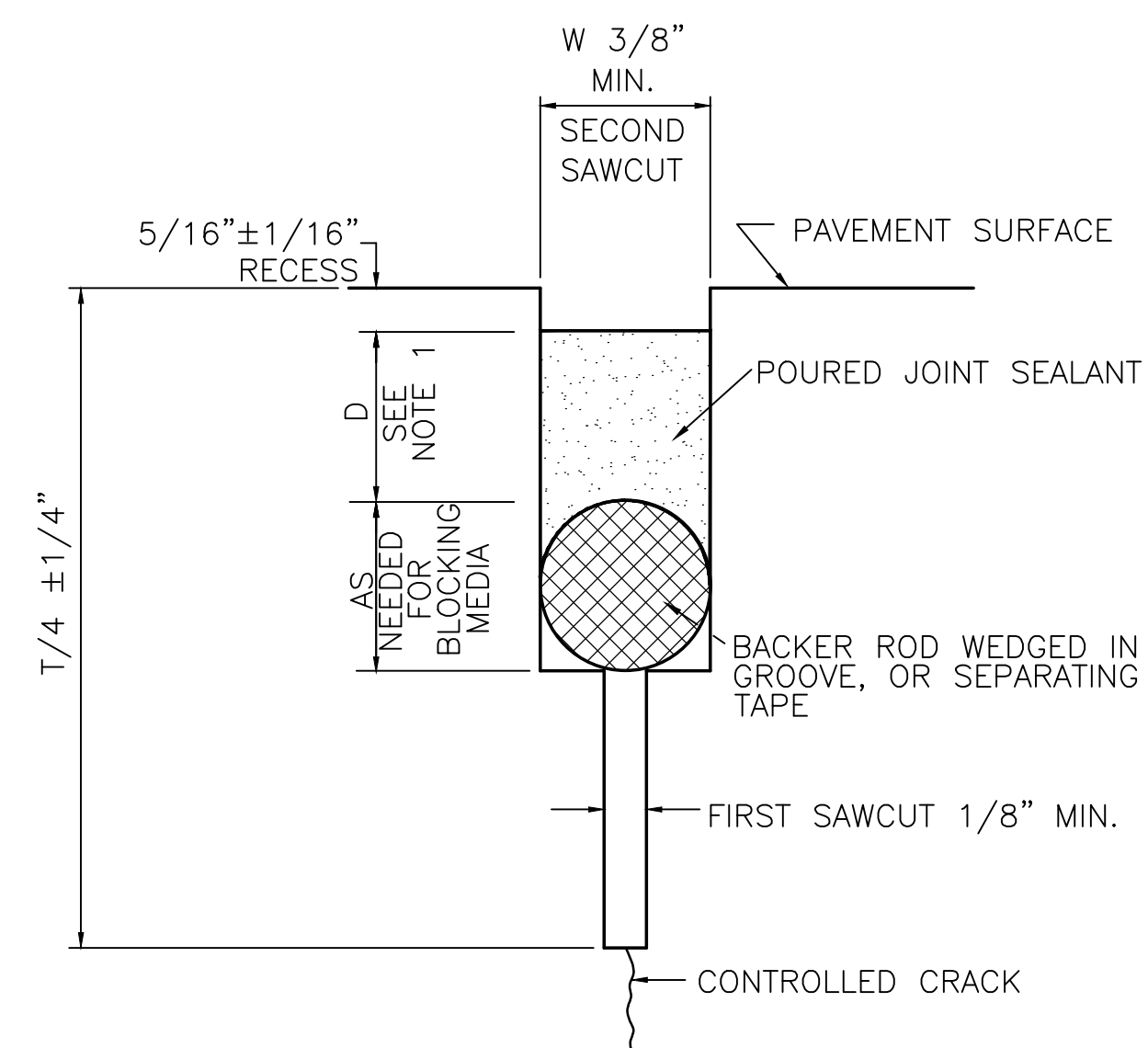


SMOOTH DOWEL BAR SCHEDULE			
SLAB	DIAMETER	LENGTH	SPACING
5-7 INCHES	3/4 INCH	18 INCHES	12 INCHES
7.5-12 INCHES	1 INCH	18 INCHES	12 INCHES
12.5-16 INCHES	1 1/4 INCH	20 INCHES	15 INCHES

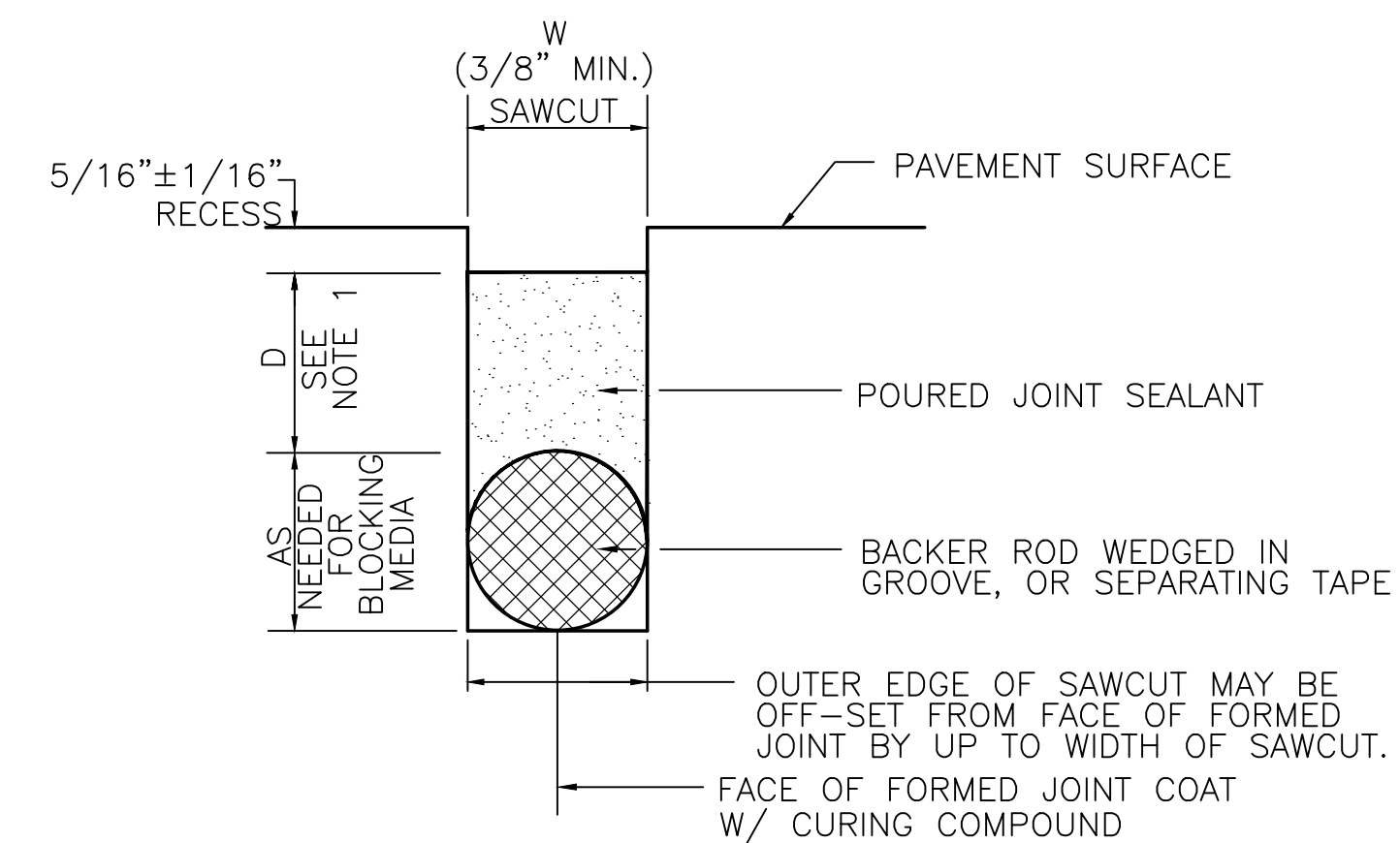
**TYPE "A-1" - REINFORCED ISOLATION JOINT**  
N.T.S.



**DETAIL 1  
EXPANSION JOINT SEALANT**  
N.T.S.



**DETAIL 2  
CONTRACTION JOINT SEALANT**  
N.T.S.



**DETAIL 3  
CONSTRUCTION JOINT SEALANT**  
N.T.S.

**P.C.C. PAVEMENT JOINTS NOTES:**

- CONTRACTION AND CONSTRUCTION JOINT SEALANT RESERVOIR DIMENSIONS SHALL BE SIZED TO PROVIDE SHAPE FACTOR, W/D, RECOMMENDED BY SEALANT MANUFACTURER AND APPROVED BY THE ENGINEER.
- DIAMETER OF BACKER ROD SHALL NOT BE LESS THAN W+1/8".
- WIDTH OF SEPARATION TAPE SHALL NOT BE LESS THAN W.
- JOINT DIMENSIONS SHALL BE MODIFIED TO MEET APPROVED SEAL MANUFACTURER'S SPECIFICATION.



**Michael Baker  
INTERNATIONAL**

Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
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6/6/2024

Designer: M. HALL  
Checked by: B. ODOM  
Technician: M. HALL  
Project Number: 180935

REVISIONS			
No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**PCC JOINT DETAILS (NEW PCC)**

FAA A.I.G. BIL Project Number:  
3-22-0018-0XX-2024

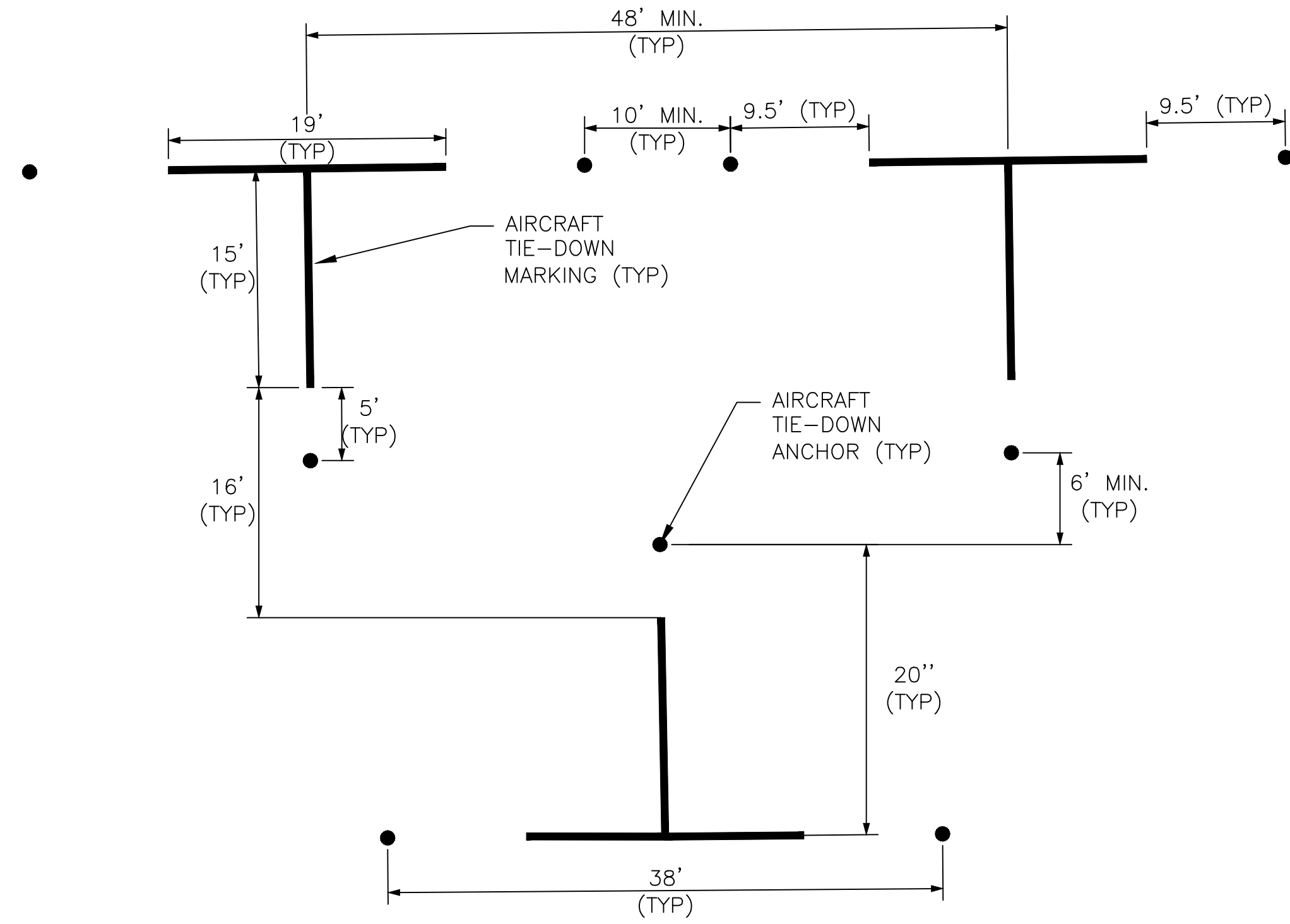
Date: MAY 2024  
Scale: (22x34)

Division:  
Sheet Number: 32

AS NOTED  
Drawing Number: **JD-1**



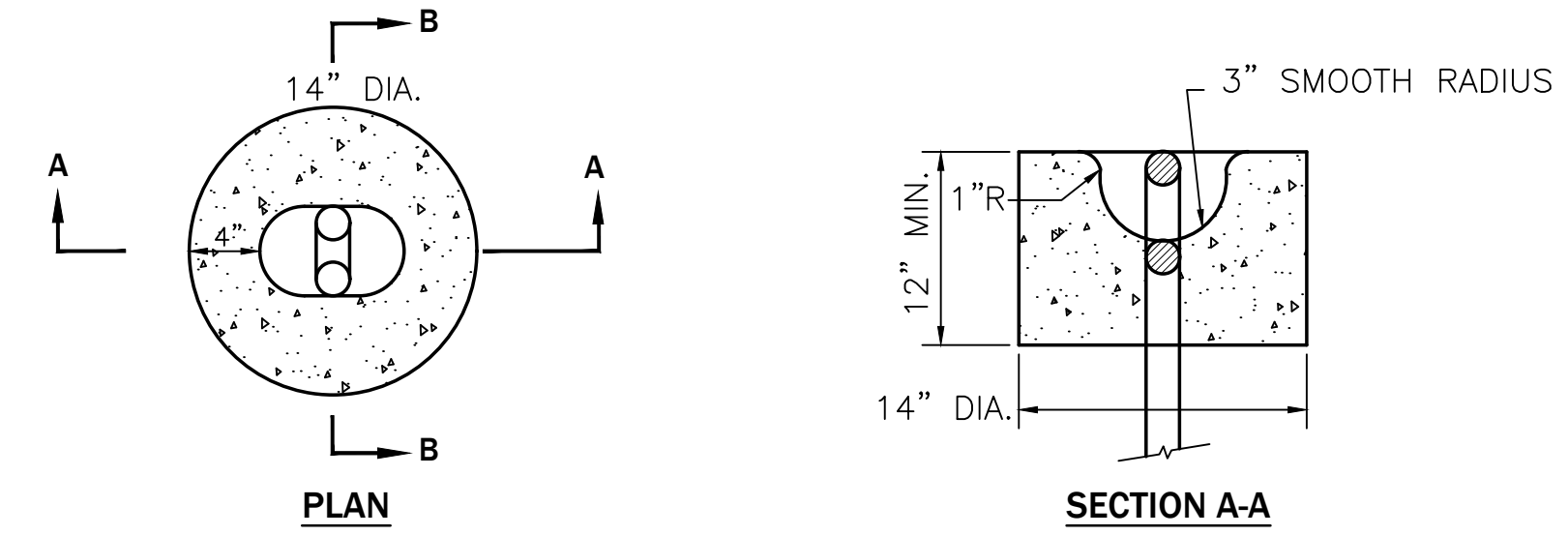
W:\BatonRouge\Projects\Active\Hammond\Projects\180935 - Apron Joint Seal Repair\2 Design\k DWG\180935\_Aircraft Tie Down Details.dwg Modified: Jun 06, 2024 - 12:12pm Plotted: Jun 06, 2024 - 1:02pm Graef-Box



**TIE-DOWN ANCHOR LAYOUT**  
N.T.S.

**DETAIL NOTES:**

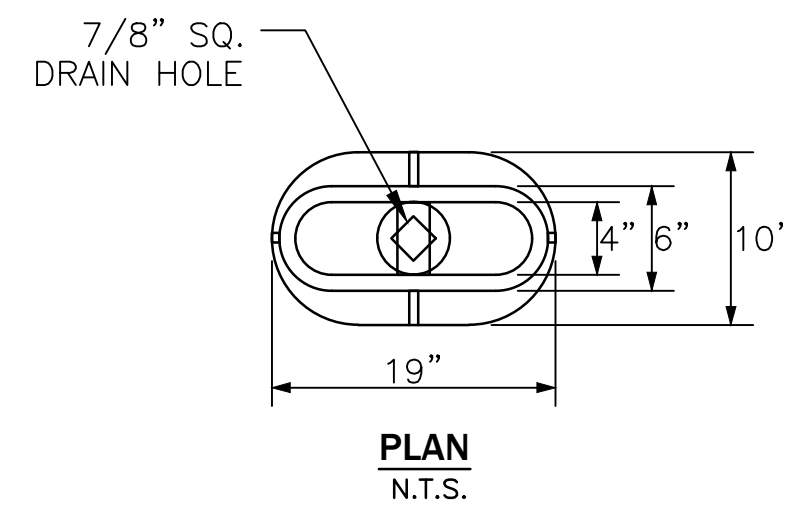
1. SEE THIS SHEET FOR AIRCRAFT TIE-DOWN DETAILS.
2. SEE TD-1 FOR AIRCRAFT TIE-DOWN MARKING DETAIL.
3. THE CONTRACTOR SHALL ADJUST ANCHOR POSITIONS AS NEEDED TO PROVIDE A MINIMUM 1FT TO EDGE OF SLAB.



**TIE-DOWN ANCHOR DETAIL- EXISTING SLAB**  
N.T.S.

**DETAIL NOTES:**

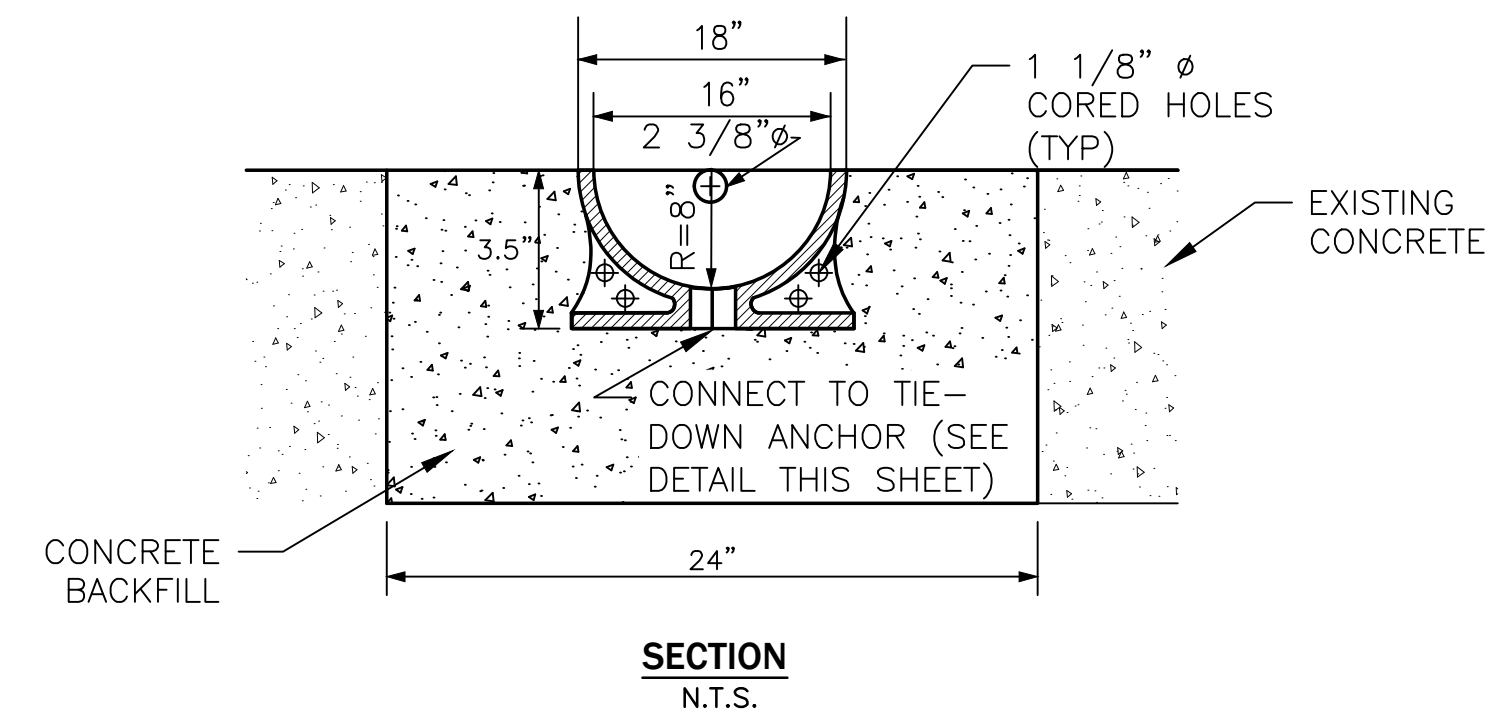
1. NO ADDITIONAL PAYMENT WILL BE MADE FOR CONCRETE BACKFILL.



**AIRCRAFT TIE-DOWN DETAIL- NEW SLAB**  
N.T.S.

**DETAIL NOTES:**

1. NO ADDITIONAL PAYMENT WILL BE MADE FOR CONCRETE BACKFILL.
2. AIRCRAFT TIE-DOWN SHALL BE NEENAH FOUNDRY R-3490 OR APPROVED EQUIVALENT.



HAMMOND NORTHSHORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL

Michael Baker INTERNATIONAL  
DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971  
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS			
No.	Description	Date	By

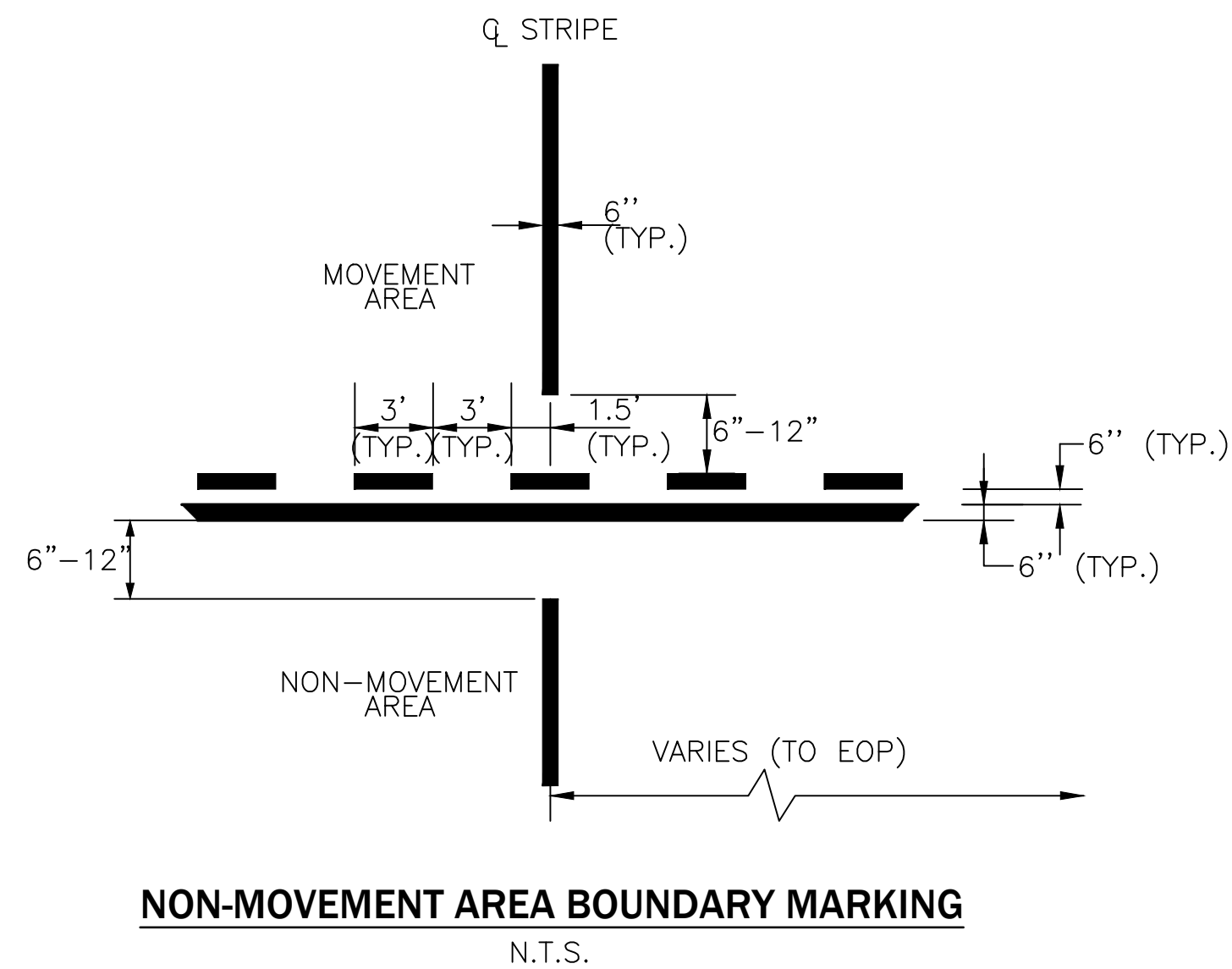
Project Name:  
**TERMINAL APRON JOINT RESEAL AND TAXIWAY A & E POINT REPAIRS**

Drawing Name:  
**AIRCRAFT TIE-DOWN DETAILS**

FAA A.I.G. BIL Project Number:  
3-22-0018-0XX-2024

Date: MAY 2024	Division:
Scale: (22x34)	Sheet Number: 33
AS NOTED	Drawing Number: <b>TD-1</b>

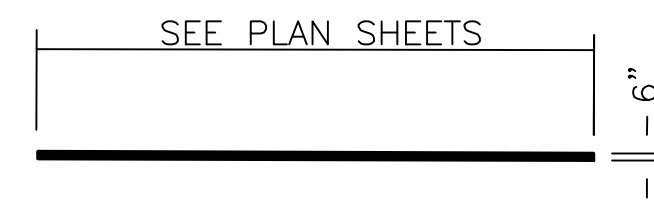
W:\BatonRouge\Projects\Active\Hammond\Projects\180935 - Apron Joint Seal Repair\2 Design\K DWG\180935\_Marking\_Details.dwg Modified: Jun 06, 2024 - 12:06pm Plotted: Jun 06, 2024 - 1:03pm Gracie.Box



**NON-MOVEMENT AREA BOUNDARY MARKING**  
N.T.S.

**DETAIL NOTES:**

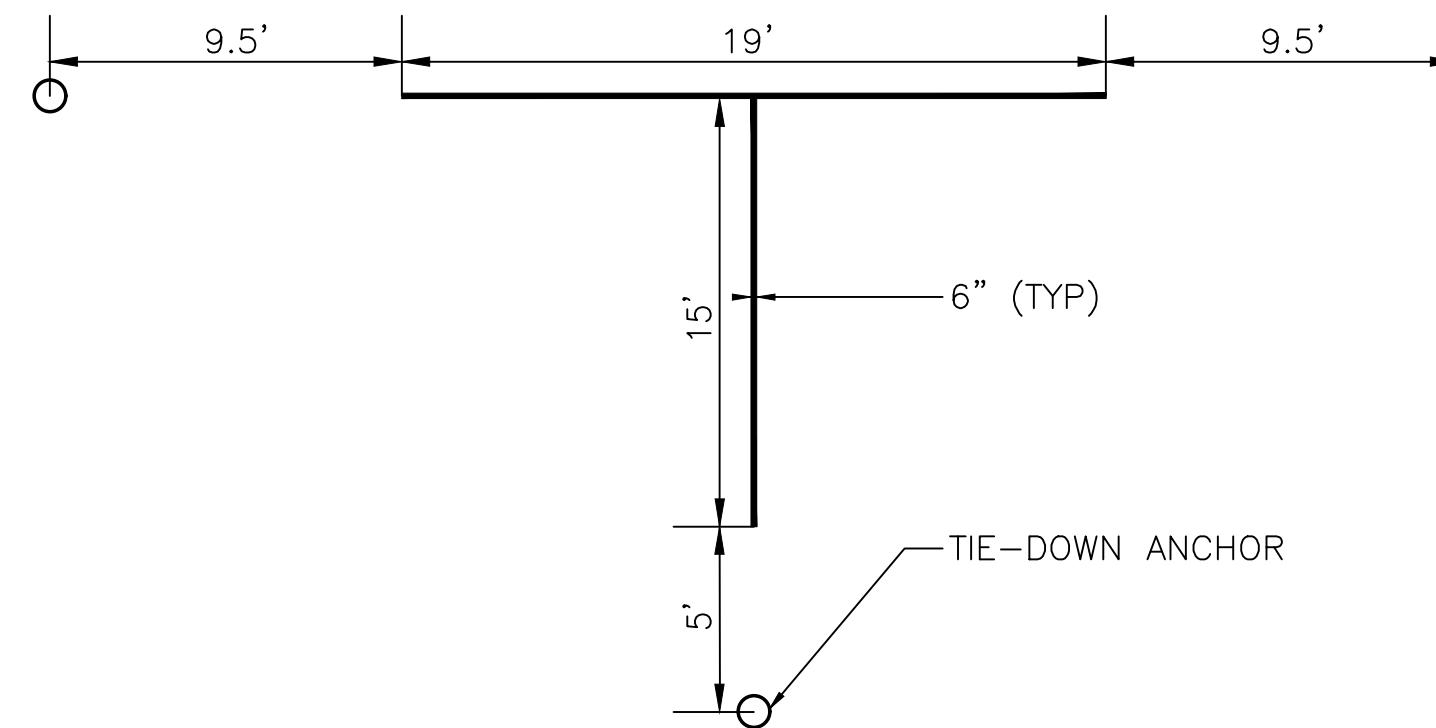
- NON-MOVEMENT AREA BOUNDARY MARKINGS ARE YELLOW, REFLECTIVE (P-620).
- NON-MOVEMENT AREA BOUNDARY MARKINGS SHALL BE OUTLINED BY A 6" WIDE BORDER (BLACK, NON-REFLECTIVE) ON LIGHT COLORED PAVEMENTS.



**TAXIWAY/TAXILANE CENTERLINE DETAIL**  
N.T.S.

**DETAIL NOTES:**

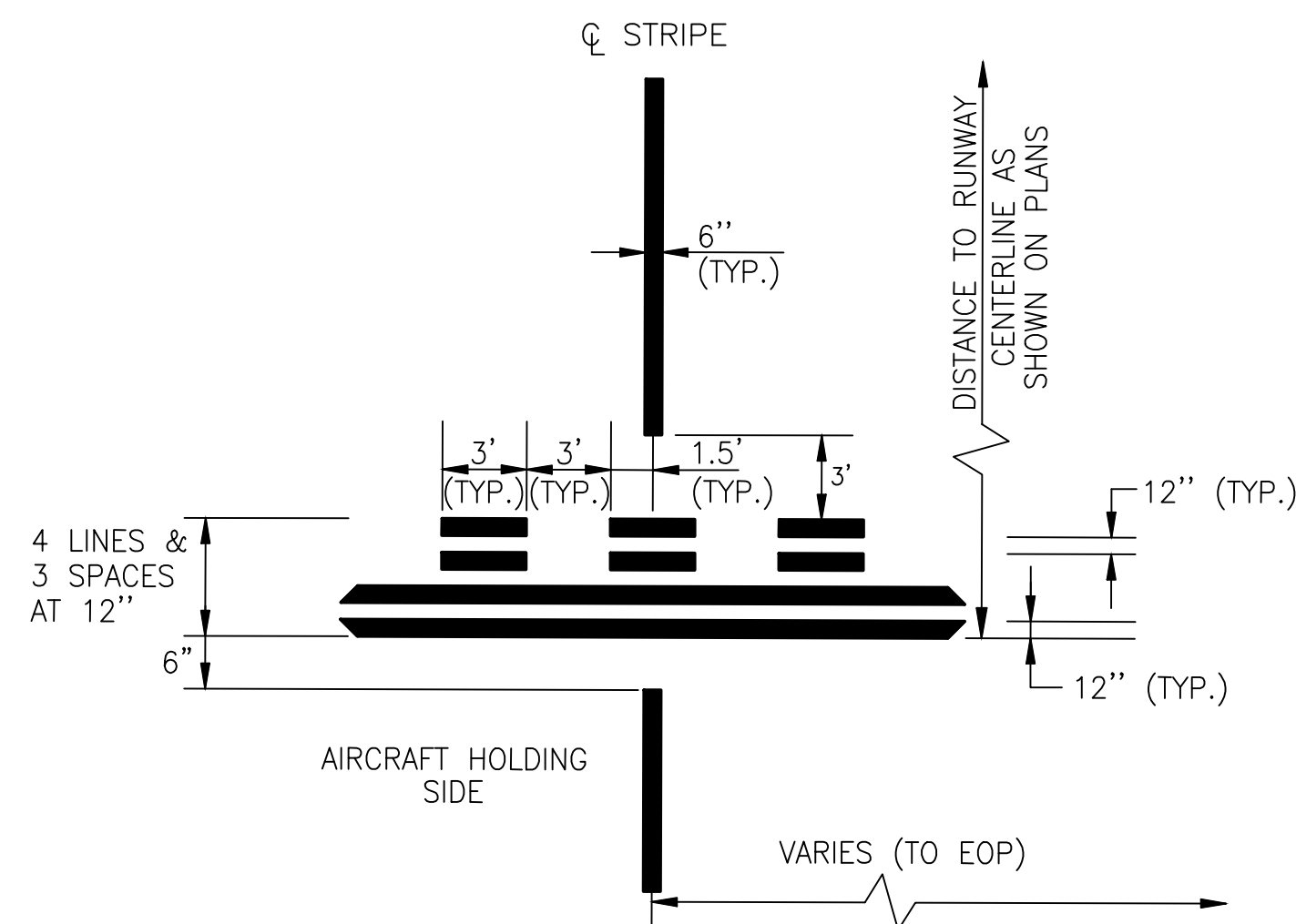
- TAXIWAY CENTERLINE MARKINGS ARE YELLOW, REFLECTIVE (P-620).
- TAXIWAY CENTERLINE MARKINGS SHALL BE OUTLINED BY A 6" WIDE BORDER (BLACK, NON-REFLECTIVE) ON LIGHT COLORED PAVEMENTS.



**AIRCRAFT TIE-DOWN MARKING**  
N.T.S.

**DETAIL NOTES:**

- AIRCRAFT TIE-DOWN MARKINGS ARE YELLOW, REFLECTIVE (P-620).
- AIRCRAFT TIE-DOWN MARKINGS SHALL BE OUTLINED BY A 6" WIDE BORDER (BLACK, NON-REFLECTIVE) ON LIGHT COLORED PAVEMENTS.



**RUNWAY HOLDING POSITION MARKING**  
N.T.S.

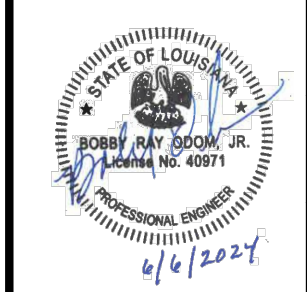
**DETAIL NOTES:**

- RUNWAY HOLDING POSITION MARKINGS ARE YELLOW, REFLECTIVE (P-620).
- HOLDING POSITION MARKINGS SHALL BE OUTLINED IN BLACK (6") ON LIGHT COLORED PAVEMENTS.
- RUNWAY HOLDING POSITION MARKINGS SHALL ALIGN WITH EXISTING HOLD POSITION SIGNS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS OR ALIGNMENT ISSUES.



HAMMOND NORTHSORE  
REGIONAL AIRPORT  
HAMMOND, LOUISIANA

**Michael Baker**  
INTERNATIONAL



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DESIGNER: BOBBY ODOM, P.E.  
LICENSE No. 40971

THESE DRAWINGS DO NOT  
INCLUDE NECESSARY  
COMPONENTS  
FOR CONSTRUCTION SAFETY

Designer: M. HALL	Checked by: B. ODOM
Technician: M. HALL	Project Number: 180935

REVISIONS

No.	Description	Date	By

Project Name:  
**TERMINAL APRON JOINT  
RESEAL AND TAXIWAY A & E  
POINT REPAIRS**

Drawing Name:  
**MARKING DETAILS**

FAA A.I.G. BIL Project Number:  
**3-22-0018-0XX-2024**

Date: <b>MAY 2024</b>	Division:
Scale: (22x34)	Sheet Number: <b>34</b>
<b>AS NOTED</b>	Drawing Number: <b>MD-1</b>