

## Attachment A

### Detailed Scope of Work/Project Requirements

#### 1) Summary of Work and Sequence

##### a. Summary

- i. The “Work” of this contract is to seal coat the inbound and outbound roadways at Memphis International Airport. Work efforts include, but are not limited to, asphalt seal coat, crack repair, crack seal, pavement striping, traffic control, and other efforts as necessary. The project is separated into five (5) areas and will be awarded based on funding availability. See Exhibit in **Attachment B**.

##### b. Project Phasing and Completion

- i. This is a fixed-duration Contract required to be substantially completed within thirty (30) calendar days from the Notice to Proceed (“NTP”) date.
- ii. The actual NTP date will be negotiated and mutually agreed by both parties (Owner and Contractor) prior to issuance of the NTP. If mutual agreement cannot be reached between the parties, the Owner reserves the right to establish the actual Notice to Proceed date. The NTP letter will state the date on which the Contractor will begin construction and from which date contract time will be charged. Contractor shall be mobilized and on site ready for work on the date stated in the Notice to Proceed.
- iii. All days are calendar days.
- iv. Work is permitted 24 hours per day, 7 days per week except that only non-noise producing activities shall be permitted between 11:00 PM and 6:00 AM, except with prior written approval of the Owner.
  1. **Work may be restricted during the hours of 3:00 AM to 7:30 AM, which is the peak incoming traffic.**
  2. **Nighttime work might be required if access to/from the parking garages and terminal curb front can not be maintained.**
- v. Work shall be done in such a way as not to impact airport vehicle traffic going to/from the Airport. Access to/from parking garages and terminal curb front must be maintained at all times. If traffic must be impacted/blocked at a certain work area, then the Contractor is responsible for creating an adequate detour route. **All phasing, sequencing, impacts, and detours must be coordinated prior to starting construction.**
- vi. **For road segments with multiple lanes, the contractor must seal one lane at a time. The contractor cannot move to the next lane until the first is cured and open to traffic. For single lane roads, the work must be completed between the hours of 8:00 PM and 3:00 AM allowing sufficient time for curing prior to the opening time. Opening to traffic must be in accordance with the manufacturer's recommendations.**
- vii. The Contractor shall proceed with the work at such rate of progress to ensure full completion within the specified duration. It is expressly understood and agreed, by and between the Contractor and the Owner, that the contract time for the completion of the work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the work.
- viii. If the Contractor experiences weather related delays, he shall submit a report documenting the weather conditions and delays, if any, experienced during any calendar month.

- ix. If the Contractor is prevented from working due to any other legitimate reason, he/she shall notify the Owner in writing as per the Lump Sum Construction Contract of the delay and request a corresponding increase in the number of contract days.
- x. The Owner shall be the sole judge as to whether or not a request for a contract time extension is legitimate.
- xi. The Owner reserves the right to adjust limits of construction to accommodate the Owner's requirements for maintenance of Airport Operations and Public Traffic with minimum interruption during the construction of this project. Any required adjustment of limits of construction will be at no additional cost to the Owner.
- xii. **Do not allow traffic until the sealants, paint, etc. have cured.**

## 2) Crack Seal and Repair

- a. Crack sealant materials shall meet the requirements of ASTM D6690 Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements
  - i. 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
- b. 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.
- c. 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 Owner.
- d. Fill all cracks greater than 1/8 inch 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.
- e. To minimize contamination of the asphalt with the crack sealant, underfill the crack sealant a minimum of 1/16 inch, not to exceed 1/8 inch.
- f. Any excess joint or crack sealer shall be removed from the pavement surface.
- g. See **Attachment B** for additional information on crack repair procedures.

## 3) TDOT Specification Reference

- a. All references to TDOT specifications shall be from the most current accepted Tennessee Department of Transportation (TDOT) Standard Specifications for Road and Bridge Construction.
- b. TDOT Specifications are included in these contract documents via reference.
  - i. TDOT-712 MAINTENANCE OF TRAFFIC
  - ii. TDOT-717 MOBILIZATION
  - iii. TDOT-716.07 PAINTED PAVEMENT MARKINGS
  - iv. TDOT-403.05 BITUMINOUS MATERIAL (TC/FOG SEAL) (UNDILUTED) (403-01.10 HIGH PERFORMANCE FOG SEAL)

#### 4) Traffic Control

- a. The Contractor shall be responsible for preparing the traffic control plan in accordance with MUTCD and TDOT Standards.
- b. The Contractor shall be responsible for always maintaining adequate traffic control.
- c. All traffic control measures must meet MUTCD and TDOT standards.
- d. Traffic control measures must also meet Americans with Disabilities Act (ADA) and Public Right-of-Way Accessibility Guidelines (PROWAG) where the work affects crosswalks and requires pedestrians to be safely rerouted. <https://www.access-board.gov/prowag/>
  - i. Area 2 (Blue) – 2 Sets of Crosswalks
  - ii. Area 3 (Yellow) – 4 Crosswalks
  - iii. Area 5 (Magenta) – 1 Crosswalk
- e. A traffic control plan must be submitted by the Contractor and approved by the Owner prior to commencing any work.
  - i. Traffic control plan must be developed by someone properly qualified and with experience with MUTCD and TDOT requirements.
- f. If Area 1 requires traffic control measures outside of airport property then those measures must be approved by the appropriate jurisdiction.
- g. Traffic Control Measures must be coordinated with the Terminal Modernization and Seismic Program (TMSP) project to ensure no simultaneous impacts. MSCAA will facilitate coordination between contractors.
- h. MSCAA highly recommends the use of a traffic attenuator due to the location and volume of traffic.
- i. For work over 12 hours and/or overnight, the Contractor must use the appropriate retroreflective or illuminated devices (e.g. cones, lights, signs, overhead lights, etc.).
- j. MSCAA encourages the use of a wide range of devices and procedures to enhance safety and traffic flow.
- k. If at any point during construction the Owner determines the work is not in compliance with the approved traffic control plan and/or is determined to be unsafe, the Owner will direct the Contractor to stop work.
- l. In the event the work or any portion thereof is shut down because of an unsafe condition as determined by the Owner, the responsible Contractor shall bear the total cost caused by that shutdown.

#### 5) Construction Safety Requirements

- a. General
  - i. The Contractor shall be responsible for briefing all construction personnel on the requirements contained in this section prior to their working in the construction area and at periodic intervals throughout the course of the contract. These briefings will be documented in writing.
- b. Limitation on Construction
  - i. The limits of construction, material storage areas, equipment parking and other areas defined as available for the contractor's exclusive use during construction shall be identified and defined by the contractor prior to starting work on the project. Temporary barricades, flagging and flashing caution lights may be required at access points, taxiway crossings and pavement tie-ins. The type markings, barricades and flashing caution lights are designated on the construction plans and must be inspected and approved by the Airport Authority.

- ii. The Contractor shall store all materials and park construction equipment, when not in use only in the areas designated on the plans or during the pre-construction conference.
- iii. Construction debris, waste, wrappings or loose material capable of causing damage to aircraft engines, propellers, or landing gear shall not be allowed on active aircraft movement areas. Material meeting this criteria shall be contained and removed immediately from the AOA.
- iv. Open flame, welding, or torch cutting operations are prohibited in the construction area unless written permission has been given by the Airport Authority and adequate fire and safety precautions have been taken.
- v. The use or possession of explosives is prohibited on Airport property.
- c. Construction Vehicle Traffic
  - i. Access to the construction site is as shown on the plans or as directed by the Owner. No other access point is authorized unless designated in writing by the Airport Authority. Construction traffic will operate only on designated haul routes within the construction area limits.
  - ii. Drivers of construction vehicles will be knowledgeable of construction routes or will be escorted by other Contractor or Owner designated personnel who are knowledgeable. The Contractor will be responsible for traffic control in the various construction areas of the work site. The Contractor will not permit unauthorized personnel or vehicles on the construction site.
  - iii. The Contractor shall be responsible for immediate cleanup of any debris deposited along construction routes, as result of his construction traffic.
  - iv. Directional signing at the construction access gate and along the delivery route to work site temporary storage areas shall be as designated and approved by the Owner.
  - v. Construction vehicle identification shall be as prescribed in Section 11 of this RFB.
  - vi. No construction vehicle is authorized on any active AOA pavement surface or to enter runway safety areas without specific authorization from the Owner.
- d. Reporting Property Damage or Personnel Injury
  - i. All persons involved in any accident whether personal injury, aircraft or automotive, occurring on Airport property, shall make a full report to the Airport Police (922-8298) as soon after the accident as possible. The report shall include, but not be limited to, the names, addresses of all principals and witnesses, if known, and a statement of the facts. Construction accidents fall under this category.
  - ii. In the event of personnel injury requiring ambulance response, the Airport Police Dispatcher, upon notification, telephone 922-8333, will call the ambulance and arrange Airport Police escort to the injury site. A written report will be prepared by the Airport Police after the injury is treated.

## **6) Submittals**

- a. General
  - i. Except as otherwise specified below, as soon as practicable after contract award and without causing delay in the work, submit submittals of all items for which submittals are specified in other sections, and for all major submittal items whether specified in other sections or not. All Submittals may be submitted electronically in lieu of hard copies, if possible. Each submittal shall be clearly marked with the project name, dated, and accompanied by a letter of transmittal listing all items included in the submittal and referencing the project specification page and article numbers applicable to each item.

1. Submittals shall include all test results and/or certificate necessary to show that the item conforms to the standards specified. Such standards shall include ASTM, AASHTO, FAA, PCA, Federal Specifications or any other standard listed in these specifications.
- b. Submittal Review
  - i. After the Owner has reviewed the submittals, except as otherwise specified below, submittals will be dated, and an electronic copy returned to the Contractor. If submittals are rejected, in will include indications of the required corrections. Make such corrections and changes as indicated. Resubmit submittals as specified above, as often as required by the Owner to complete the review.
  - ii. Submittals reviewed by the Owner or Engineer will be a general review only, and acceptance will not relieve Contractor or Subcontractor of responsibility for accuracy of submittals, proper fitting, coordination, construction or work, and furnishing materials and work required by Contract but not indicated on submittals. Review of submittals shall not be construed as accepting departures from Contract requirements.
  - iii. Any material ordered, or work performed prior to obtaining an approved submittal shall be at the Contractor's risk and subject to rejection.

## **7) Cleaning**

- a. Throughout the construction period, maintain the site in a standard of cleanliness as described in this Section.
- b. Conduct a daily inspection, and more often if necessary, to verify that cleanliness requirements are being met.
- c. Provide required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.
- d. In addition to the standards described in this Section, comply with pertinent requirements of governmental agencies having jurisdiction.
- e. Retain stored items in an orderly arrangement allowing maximum access, not impeding traffic or drainage, and providing required protection of materials.
- f. Do not allow accumulation of scrap, debris, waste material, and other items not required for construction of this Work.
- g. Inspect all haul vehicles leaving the site to make sure no debris can fall from the vehicle during transportation.
- h. Provide adequate storage for all items awaiting removal from the job site, observing requirements for fire protection and protection of the ecology.
- i. Daily, and more often if necessary, inspect the site and pick up all scrap, debris, and waste material. Remove such items to the place designated for their storage. Contractor shall document all daily inspections.
- j. Weekly, and more often if necessary, remove, completely, all accumulated scrap, debris, and waste material from the site.
- k. Maintain the site in a neat and orderly condition at all times.
- l. Prior to completion of the Work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste. Conduct final progress cleaning as described above.