

REQUEST

FOR

PROPOSALS

PARKING GUIDANCE SYSTEM

MSCAA PROJECT No. 24-1477-00

DUE DATE:

MARCH 4, 2025



TRANSMITTAL LETTER

January 28, 2025

Dear Respondent,

The Memphis-Shelby County Airport Authority (MSCAA) is seeking a qualified Respondent to provide a Parking Guidance System for the Authority. This Request for Proposals (RFP) is under the direction of the Terminal Operations and Development Departments.

The Development Department is responsible for coordinating all communications between the Authority and Respondents. The RFP limits the manner, method, and type of communications that the Authority and Respondents may have once an RFP process is initiated to ensure that the process is fair and impartial. Please review the RFP carefully and abide by all required deadlines, dates, and terms.

All Respondents are hereby notified that all updates, addenda and additional information, if any, shall be posted to the Authority website www.flymemphis.com, and Respondents are responsible for checking the Authority website up to the time of the RFP submission deadline.

The Authority reserves the right to reject any or all responses to this RFP in whole or in part; to waive any informalities, technicalities, or omissions therein; and/or to cancel this process at any time. The Authority also reserves the right to reject any response when a parent, subsidiary, affiliate, or predecessor in interest of the Respondent has pending litigation or claims with the Authority, or if any response includes a proposed subcontractor or supplier that has pending litigation or claims with the Authority, if the Authority determines, in its sole discretion, such litigation or claims may adversely affect the ability of the parties to work efficiently and effectively under this RFP, or for any other reason as determined by the Authority. Any such responses will be returned to the Respondent. All Respondents must use forms provided by the Authority.

No Respondent may withdraw an opened Response without the Authority's consent.

The Authority shall give a preference to businesses located in or near the County of Shelby, State of Tennessee in awarding contracts and making purchases whenever the application of such a preference is reasonable in light of the valuation points/dollar-value of the proposal/bid received in relation to such valuation points/expenditures and pursuant to the terms and conditions that are outlined in the adopted policy as amended.

Should you have questions regarding this RFP, the RFP sets forth a process by which you may submit your questions and receive answers. Thank you for your participation in this process. We look forward to receiving your response.

Sincerely,

Brian A. Tenkhoff, P.E., C.M. Director of Development Memphis-Shelby County Airport Authority



Table of Contents

1	Background	
2	Request for Proposals Timeline, Communications and Process	
3	Respondent Assurances	
4	State of Tennessee Purchasing Provisions	g
5	Buy Local Initiatives	g
6	Disadvantaged Business Enterprise (DBE) Requirements	
7	Title VI Solicitation Notice	
8	Insurance Requirements	
9	Bond Requirements	19
10	Federal Fair Labor Standards Act	21
11	Security and Access	21
12	Terms of Performance	23
13	Scope of Services	
14	Response Structure	24
15	Award	29
16	Request for Proposals Forms	
17	DRF Forms	24

Attachments

Attachment A Detailed Scope of Work/Project Requirements

Attachment B Informational Drawings

Attachment C Proposal Forms/Pricing Schedule

Attachment D Exceptions and Substitutions

Attachment E Transition Plan

Attachment F Project Schedule Requirements

Attachment G Recommended Spare Parts

Attachment H Manufacturer/Vendor Reference List

Attachment I DBE Forms

Attachment J Contract

Attachment K MSCAA Design and Construction Standards

1 BACKGROUND

The Authority owns and operates Memphis International Airport (MEM), Charles Baker Airport and General DeWitt Spain Airport. Memphis International Airport is located in Shelby County about 13 miles southeast of downtown Memphis. Memphis International Airport is the principal air carrier airport serving west Tennessee, north Mississippi, southeast Missouri, and east Arkansas. Memphis International Airport is also the principal hub for FedEx, making MEM the world's second busiest cargo airport and the single largest economic engine in the Mid-South.

The Airport is primarily an origin and destination (O&D) airport. MEM served a record 4.8 million passengers in 2023, an increase of 10% compared to 2022.

The Authority has two parking garages at MEM containing approximately 7,453 (5,199 covered) public parking spaces. The Authority's intent is to provide its customers with a positively MEMorable experience by helping them better identify and more efficiently navigate to these parking spaces.

2 REQUEST FOR PROPOSALS TIMELINE, COMMUNICATIONS AND PROCESS

2.1 RFP Timeline

While this timeline sets forth important dates for this Request for Proposals (RFP) process, the entire RFP should be consulted for additional information and requirements concerning these deadlines. The schedule below is subject to change without liability to the Authority.

All times listed are Memphis, Tennessee Local Time.

January 28, 2025	Publication of Legal Notice
January 28, 2025	Release of RFP Documents
February 11, 2025	Pre-Proposal Meeting and Site Visit 1:00 p.m.
February 20, 2025	Questions Due from Respondents by 4:30 p.m.
February 25, 2025	Questions and Answers posted on Authority website by 4:30 p.m.
March 4, 2025	Response Due to Authority by 2:00 p.m.
March 25, 2025	Oral Interviews with Selected Respondents (if required)
April 24, 2025	Anticipated Board Approval of the Award of Contract
May 1, 2025	Anticipated Contract Commencement Date



2.2 Communication with the Authority during this RFP

The Authority has designated Brian A. Tenkhoff, P.E., C.M., Director of Development, to be responsible for coordinating communications between the Authority and Respondents. Respondents should direct all communications to the Development Department via email at bidquestions@flymemphis.com. Respondents are further advised that any communication, either verbally or in writing, direct or indirect, subsequent to the date of issuance of the RFP by a prospective Respondent or any of its MSCAAs, officers, employees, or agents, or any individual or entity acting on its behalf, with any member of the Board of Commissioners or any officer or employee of the Authority, except as provided in this section, is **strictly prohibited** and may be cause for disqualification of the prospective Respondent. The only exception to this requirement is for communications between prospective Respondents and the Authority's in-house and outside legal counsel to further client communications on pending matters that are not related to this RFP. This restriction on communication will govern until the RFP process has been completed and a contract has been fully executed for the for these services. Please note that the Authority prefers all communication to be in writing.

2.3 Addenda

All updates, addenda and other information, if any, shall be posted to the Authority's website, www.flymemphis.com. Respondents are responsible for checking the Authority's website up to the time of the RFP submission deadline.

2.4 Pre-Proposal Conference and Site Visit

A pre-proposal conference will be held on Tuesday, February 11, 2025, at 1:00 p.m. CST at the Authority's Board Room on the Mezzanine Level, Terminal B of the Memphis International Airport, 2491 Winchester Road, Memphis, TN 38116 as well as virtual via video conference. It is **MANDATORY** to attend the pre-proposal conference either virtually or in-person.

Immediately after the meeting the Authority will conduct a site visit which has a duration of up to 3 hours. A site visit is **MANDATORY** for those that <u>did not</u> attend the first pre-proposal conference/site visit held on October 9, 2024.

https://teams.microsoft.com/l/meetupjoin/19%3ameeting N2Y2YzQzZTAtMDU3MC00NTg2LW I3MGYtMmY0MWZiYThhNmU5%40thread.v2/0?context=%7b%22Tid%22%3a%227d15b138-6f30-4477-b779-756687956003%22%2c%22Oid%22%3a%2201136362-d365-49ae-9702-984f93ce5be5%22%7d

2.5 Questions Regarding RFP

Questions regarding this RFP must be submitted in written form via email to Brian A. Tenkhoff, P.E., C.M. at bidquestions@flymemphis.com. Questions will be accepted until 4:30 PM, on February 20, 2025. Answers will be provided by 4:30 p.m., on February 25, 2025. Answers will only be posted on the website, www.flymemphis.com.

2.6 RFP and Response Submissions

A copy of this RFP will be distributed to prospective Respondents. This RFP also will be available on the Authority's website, <u>www.flymemphis.com</u>.



Respondents shall prepare responses in compliance with all the instructions outlined in this RFP, providing the requested information and returning the completed document to the Authority by the submission deadline.

All responses shall be sealed and clearly marked with the Respondent's name and address and the words "Parking Guidance System" and "MSCAA Project No. 24-1477-00" on the outside of the envelope or container. The Respondent shall allow sufficient time to ensure receipt of the response. It is the sole responsibility of the Respondent to have the response delivered to the Authority at the address below before the closing hour and date given in this RFP.

Respondents should note that FedEx First Overnight® and UPS Next Day Air Early AM® shipments typically arrive before normal Authority business hours of 7:00 AM – 3:30 PM Local Time. Should you choose to ship by one of these methods, and your shipment arrives before the Authority's business hours, FedEx or UPS will not deliver the package until the following day. Any response tendered for delivery to the Authority must be in the Authority's possession prior to the opening date and time. Any delivery received after the submission deadline will be accepted and returned to the Bidder unopened.

Responses must be received at the address below before 2:00 PM Local Time on March 4, 2025:

Procurement Department
Memphis-Shelby County Airport Authority
Receiving Dock
4150 Louis Carruthers Drive
Memphis, Tennessee 38118

Attn: Request For Proposals, Parking Guidance System,

MSCAA Project No. 24-1477-00

A listing of all proposers responding to Requests for Proposals and Requests for Qualifications will be posted to the Authority's website one (1) hour after the response deadline. Responses to Requests for Proposals and Requests for Qualifications will not be publicly opened.

The Authority reserves the right to extend the opening date or time provided no RFP responses have been previously opened. Late responses will NOT be considered and will be returned to the Respondent unopened.

2.7 Rejection of Responses / Cancellation of RFP

The Authority reserves the right to reject any or all responses to this RFP, including but not limited to, any response that contains exceptions to the minimum requirements and/or specifications or fails to meet the minimum requirements and/or specifications in whole or in part. Responses containing terms and conditions other than those specified herein may be considered nonresponsive. Partial or incomplete responses may be rejected. The Authority reserves the right to reject responses or penalize Respondents who do not follow the requirements of the RFP and, likewise, to waive any informalities, technicalities, or omissions therein. Responses having any erasures or corrections shall be initialed in ink by the Respondent. Unsigned responses will be considered nonresponsive.



Memphis, Tennessee

The Authority also reserves the right to reject any response when a parent, subsidiary, affiliate, or predecessor in interest of the Respondent has pending litigation or claims with the Authority, or if any response includes a proposed subcontractor or supplier that has pending litigation or claims with the Authority, if the Authority determines, in its sole discretion, such litigation or claims may adversely affect the ability of the parties to work efficiently and effectively under any contract resulting from this RFP, or for any other reason as determined by the Authority. The Authority further reserves the right to cancel this RFP process at any time.

2.8 RFP to Bind Respondent

The response must contain the signature of a duly authorized officer of the Respondent with the legal right to bind the Respondent. All submitted responses shall be binding for a period of one hundred twenty (120) days from the response submission deadline.

2.9 Sole Responsibility

The successful Respondent, if any, shall assume responsibility for meeting all requirements agreed to in the response to this RFP.

2.10 Sole Contact

The Authority will consider the selected Respondent to be the sole point of contact with regard to contractual matters and the payment of any and all charges resulting from Contract obligations. Upon Contract award, the selected Respondent will be directly responsible for all of its subcontractors, if any, and the selected Respondent shall designate a project manager who will serve as the point of contact for the Authority for billing, additions, deletions, or any other requests or inquiries.

2.11 Response Modification or Withdrawal

Responses may be modified or withdrawn in writing prior to the deadline for RFP submission. After the submission deadline, no modifications will be accepted, and responses may only be withdrawn with the Authority's consent.

2.12 Response Costs

All costs incurred in preparing the response to this RFP, participating in this process and negotiating with the Authority, whether or not a contract is awarded, shall be solely the responsibility of the Respondent. All materials and documents submitted by Respondents in response to this RFP become the property of the Authority and shall not be returned to the Respondents.

2.13 Protest

Any protest must be filed in writing and received by the Authority within seven (7) calendar days of the date of the occurrence of the event that is the subject of the protest, e.g., the opening of responses, the award, or a determination that a respondent is not responsible or that a response is not responsive.



Any protest must be delivered to the Authority during the business hours of 7:00 AM – 3:30 PM Local Time in order to be deemed to be received by the Authority as required under this Section. A protest must be submitted in hard copy and addressed as follows:

Memphis-Shelby County Airport Authority Attention: Director of Procurement 4150 Louis Carruthers Drive Memphis, Tennessee 38118

Any protest sent by telegraphic or facsimile transmission or by email or other electronic means will not meet the filing requirements set forth herein and will not be deemed to be received by the Authority.

No objections with regard to the application, meaning, or interpretation of the specifications contained herein will be considered after the opening of the subject RFP.

3 RESPONDENT ASSURANCES

By submitting the RFP response and participating in this process, the Respondent asserts that he/she has read, understands and agrees to the terms and conditions contained in this RFP document and has full authority to submit the written and verbal responses on behalf of the entity for whom they are acting and that the information submitted to the Authority in the response is true, accurate and complete to the fullest extent possible and to the best of his/her knowledge and abilities. The Respondent further certifies:

3.1 No Hidden Parties

Response is genuine and that no other person, firm, or corporation than the one herein named has any interest herein or in the Contract proposed to be taken; that it is made without any connection with any person, firm, or corporation making a response for the same work; and that it is in all respects fair as to each item proposed and to the response as a whole;

3.2 No Collusion in Any Form

Respondent has not sought by collusion or fraud to obtain any advantage over any other Respondent or over the Authority;

3.3 No Inducement to Submit False Proposals

Respondent has not directly or indirectly induced or solicited any other Respondent to submit a false or sham proposal;

3.4 No Inducement to Refrain from Response

Respondent has not induced or solicited any other person, firm, or corporation to refrain from submitting a proposal;



Memphis, Tennessee

3.5 No Financial Interest

No Authority employee or member of the Board of Commissioners, Memphis City Council, or Shelby County Commission is directly or indirectly interested herein, or in the furnishing of the service or doing the work to which it relates; or in any portion thereof. Respondent asserts that no Authority employee or member of the Board of Commissioners, Memphis City Council, or Shelby County Commission shall receive or has received any financial benefit arising out of this RFP or its Contract, if awarded, either directly or indirectly. Further, any fees paid to any person or entity by Respondent for assistance in obtaining the Contract with the Authority must be fully disclosed to the Authority in writing.

3.6 No Contact

Respondent has not had any communications, either verbally or in writing, directly or indirectly, subsequent to the date of issuance of the RFP by any of its MSCAAs, officers, employees, or agents, or any individual or entity acting on its behalf, with any member of the Board of Commissioners or any officer or employee of the Authority. Respondent understands and agrees any communication except as provided in Section 2.2 of the RFP is strictly prohibited and may be cause for disqualification of the prospective Respondent.

3.7 Addenda

Respondent has reviewed and agrees to any and all Addenda, if applicable, posted by the Authority on its website, www.flymemphis.com, in regard to this RFP. The information contained in all Addenda that may be issued shall become a part of this RFP and, to the extent specified, shall amend and supersede the similar information in the original RFP document. All other terms, provisions, and conditions of the RFP shall remain unchanged.

4 STATE OF TENNESSEE PURCHASING PROVISIONS

<u>Iran Divestment</u>. By submission of a response, each bidder and each person signing on behalf of any respondent certifies, and in the case of a joint response each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each respondent is not on the list [of persons engaging in investment activities in Iran] created pursuant to T.C.A. § 12-12-106.

<u>No Boycott of Israel</u>. Pursuant to T.C.A. § 12-4-119, by submission of a response, each respondent certifies that their company is not currently engaged in and will not for the duration of services herein engage in, a boycott of Israel.

5 Buy Local Initiatives

The Authority shall give a preference to businesses with their principal place of business in the County of Shelby, State of Tennessee in awarding contracts and making purchases whenever the application of such a preference is reasonable in light of the valuation points of the proposal that is received in relation to such valuation points and pursuant to the terms and conditions that are outlined in the adopted policy as amended. If applicable, the Authority may also give preference to businesses operating in the County of Shelby, State of Tennessee, or to businesses with their principal place of business in the Memphis, TN-MS-AR Metropolitan Statistical Area.



6 DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

6.1 Overview

The Authority operates a federal Disadvantaged Business Enterprise (DBE) Program¹ to ensure full and fair opportunities in Authority contracting for businesses owned by socially and economically disadvantaged individuals. Only firms that are certified consistent with 49 CFR Part 26 and the Tennessee Department of Transportation Unified Certification Program, as identified below, will be certified as a Disadvantaged Business Enterprise.

This section, entitled "Disadvantaged Business Enterprise Requirements" is provided to assist Respondents. The information contained in this section is not intended to supplement or amend any federal regulation. All Respondents are responsible for compliance with all applicable federal and Authority rules and requirements.

6.2 Disadvantaged Business Enterprise (DBE) Required Forms

It is a requirement that all Respondents providing services for the Authority take all reasonable steps to ensure that DBEs have a full and fair opportunity to compete for and perform contract work without discrimination based on age, race, sex, color, national origin. To satisfy this requirement, Respondents will be expected to timely submit documentation as identified below and throughout the contract period if selected and cooperate with the Authority. Failure to timely submit requested documentation, cooperate with the Authority or answer inquiries truthfully will be considered a material contract breach and may result in termination.

The following documents must be submitted with your response to this solicitation:

6.2.1 DBE Assurance Statement/Letter of Intent

The Respondent must submit an Assurance Statement for each DBE whose participation the Respondent is counting toward the goal. This may include first, second, third and so on tier subcontractors, and the Respondent and all subcontractors between the Respondent and the DBE should sign the Assurance Statement. The Respondent must submit the form noted in Section 17.1 and provided in Attachment I below on Company Letterhead.

For each Assurance Statement, the Respondent must also provide the written quote or proposal from the DBE or other communication from the DBE upon which the scope of work and dollar value contained in your Assurance Statement is based ("quote/proposal").

All portions of the Assurance Statement must be completed (including the description of work, the estimated contract amount, and the estimated dollar value of DBE participation for counting and goal purposes) before the Assurance Statement is signed by either the DBE or the Respondent. If the DBEs, and if

¹ The Authority also operates a non-federal Business Diversity Development Program (BDDP). The Authority administers the BDDP Program according to federal regulations, primarily 49 CFR Part 26.



applicable to the 2nd/3rd Tier Subcontractor's, signature(s) can be obtained on the completed Assurance Statement before the bid submission deadline, the Respondent should submit the fully completed and fully-signed Assurance Statement. If the Respondent submits an Assurance Statement that is completed except for the DBEs, and if applicable, the 2nd/3rd Tier Subcontractor's signature(s) and a quote/proposal from the DBE as described above, the Respondent will be given 24 hours from the bid submission deadline to submit the completed Assurance Statement signed by the DBE and, if applicable, the 2nd/3rd Tier Subcontractor. Each Assurance Statement submitted during this 24-hour window must conform to the previously submitted Assurance Statement except for DBE signature. These signed Assurance Statements must be submitted pursuant to the same location and time restrictions that applied to the solicitation response.

The Authority reserves the right to ask questions of the Respondent, investigate and require additional information as it determines necessary in its sole discretion to ensure that the regulations and the Authority's rules are followed as it relates to DBE participation.

6.2.2 Respondent DBE Goals Accomplishment Statement

The form noted in Section 17.2 and provided in Attachment I must be submitted on Respondent's company letterhead.

6.2.3 Information on All Firms Providing Responses

The form noted in Section 17.4 and provided in Attachment I must be completed by respondent.

6.3 Disadvantaged Business Enterprise (DBE) Voluntary Form

We ask, but do not require, that each Respondent submit the following information with the response to this solicitation:

6.3.1 Voluntary Disclosure of Respondent Data

If submitted, the form noted in Section 17.4 and provided in attachment I be completed by respondent.

6.4 Definition of Socially and Economically Disadvantaged

The rules that govern eligibility and certification of DBE are found generally at 49 CFR Part 26.5 and 26.61 through 26.73. These rules define a DBE as a for-profit, small business concern which is at least fifty-one percent (51%) owned and controlled by one or more socially and economically disadvantaged individuals. In the case of any publicly owned business, at least fifty-one percent (51%) of the stock must be owned by one or more socially and economically disadvantaged individuals. In addition, the personal net worth of the socially and economically disadvantaged MSCAAs of the small business concern must not exceed two million forty-seven thousand dollars (\$2,047,000).



As defined by 49 CFR, Part 26.5, a socially and economically disadvantaged individual is any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who is:

- (1) Any individual who a recipient finds to be a socially and economically disadvantaged individual on a case-by-case basis.
- (2) Any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:
 - a. **Black Americans** which include persons having origins in any of the Black racial groups of Africa;
 - b. **Hispanic Americans** which include persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
 - c. **Native Americans** which include persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;
 - d. Asian-Pacific Americans which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U. S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Tuvalu, Nauru, Federated States of Micronesia, or Hong Kong;
 - e. **Subcontinent Asian Americans** which include persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
 - f. Women;
 - g. Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.

6.5 DBE Liaison Officer

For questions or information related to the DBE program, contact ReGina Armstrong, the Senior Manager of Business Diversity Development at (901) 922-0255.

6.6 DBE Certification

The Authority is a certifying member of the Tennessee Department of Transportation Unified Certification Program (TNUCP). TNUCP is a cooperative of entities that are recipients of federal funds that have developed a "one-stop shop" for certification throughout the State of Tennessee. The Authority compiles a directory of firms who have met the TNUCP's selection criteria for eligibility as a DBE, including 49 CFR Part 26. You can view the directory of certified firms at www.flymemphis.com or at www.tdot.tn.gov. In order to be considered as meeting the DBE goal for this Contract, each business wishing to participate as a DBE or a joint venture DBE, must be certified by a TNUCP certifying member in accordance with 49 CFR Part 26. Out of state



firms may be granted reciprocity by a TNUCP certifying member with an existing certification from their home state. Unless a firm is certified by a TNUCP certifying member by the time the responses to this solicitation are due, its participation will not be considered as meeting the DBE goal in the solicitation. Each business wishing to participate as a DBE or a joint venture DBE must be certified by the time the responses are due.

6.7 Identification of Contract Goal and Requirements

For this Contract, the DBE goal is established as <u>6%</u>. In order to be responsive, a Respondent must either meet the goal or make good faith efforts to do so. Good faith efforts are defined in Appendix A to 49 CFR Part 26 and discussed in the following section.

If a Respondent's DBE Assurance Statement proposes a DBE percentage less than the established goal, the Respondent must, at the time of making the response, submit appropriate documentation showing good faith efforts to meet the established goal. The Authority reserves the right to request additional documentation or information from Respondent regarding its DBE Assurance Statement and; if applicable, any good faith efforts documentation. If the Authority enters into a contract based on the Respondent's DBE Goals Accomplishment Statement and documentation, the DBE percentage accepted by the Authority will become a contractual requirement. If the Respondent's DBE Assurance Statement proposes to attain a DBE percentage higher than the established goal, the established goal will remain the contractual requirement.

Respondents shall not contract with, demand, require or coerce a DBE into any agreement or into the signing of any Assurance Statement or any other document which prohibits the DBE from providing subcontracting quotations or doing business with other Respondents. The DBE shall be free to provide their services to any number of Respondents. To ensure that all obligations under sub-contracts awarded to a DBE are met, the Authority will review the agreement between the Respondent and DBE, and Respondent's DBE involvement efforts during the performance of the Contract. The Respondent shall bring to the attention of the Authority any situation in which regularly scheduled progress payments are not made to a DBE. If, in the opinion of the Authority, the Respondent has made significant deviations from the DBE program commitments, it shall be considered a breach of contract.

6.8 Good Faith Efforts Statement and Requirements

Respondents must either meet the DBE goal or make good faith efforts to meet the goal. Respondents who do not meet the goal must establish adequate good faith efforts by submitting documentation along with the Respondent DBE Goals Accomplishment Statement. This statement should show that they took all necessary and reasonable steps to achieve the DBE goal, which could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful. The Respondent's DBE Goals Accomplishment Statement and supporting documents should conform to the good faith requirements outlined in Appendix A of 49 CFR Part 26.

The following is a list of types of actions that may be part of a Respondent's efforts to obtain DBE participation and may be included in the Respondent DBE Goals Accomplishment Statement and documentation. This list is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases:



- a. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified as a DBE who have the capability to perform the work of the Contract. The Respondent must solicit this interest within sufficient time to allow the DBE to respond to the solicitation and take appropriate steps to follow-up on initial solicitations to determine interest.
- b. Selecting portions of the work to be performed by a DBE to increase the likelihood that the goals of the DBE will be achieved.
- c. Providing any interested DBE with adequate information about the plans, specifications, and requirements of the Contract in a timely manner to assist them in responding to a solicitation.
- d. Negotiating in good faith with any interested DBE. It is the Respondent's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, to facilitate DBE participation.
- e. Not rejecting any DBE as being unqualified without sound reasons based on a thorough investigation of their capabilities.
- f. Making efforts to assist any interested DBE in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
- g. Making efforts to assist any interested DBE in obtaining necessary equipment, supplies, materials, or related assistance or services.
- h. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to aid in the recruitment and placement of any DBE.

For each DBE listed as a regular dealer or distributor the Authority will make a preliminary counting determination to assess the DBE's eligibility for 60 or 40 percent credit, respectively, of the cost of materials and supplies based on its demonstrated capacity and intent to perform as a regular dealer or distributor, as defined in § 26.55(e)(2)(iv)(A), (B), and (C) and (e)(3) under the contract at issue. The Authority's preliminary determination shall be made based on the DBE's written responses to relevant questions and its affirmation that its subsequent performance of a commercially useful function will be consistent with the preliminary counting of such participation. Where the DBE supplier does not affirm that its participation will meet the specific requirements of either a regular dealer or distributor, the Authority is required to make appropriate adjustments in counting such participation toward the bidder's good faith efforts to meet the contract goal. The bidder is responsible for verifying that the information provided by the DBE supplier is consistent with the counting of such participation toward the contract goal.

If a Respondent has not met the DBE goal and submits Respondent DBE Goals Accomplishment Statement and documentation, the Respondent should summarize in detail all good faith efforts taken by the Respondent, including, but not limited to, the activities listed above in A through I, and supporting documentation. While the Respondent should submit documentation to support its good faith efforts at the time of the Response submission, the Authority may ask questions of Respondent or request additional documentation after review of Respondent's DBE Goals



Memphis, Tennessee

Accomplishment Statement and any documentation. In submitting the information required under this section, Respondent understands and agrees that the determination of whether Respondent has met the DBE goal or established good faith efforts to meet the goal is a judgment call that the Authority will make.

6.9 Administrative Reconsideration

Within five (5) business days of being informed by the Authority that it is not responsive because it has not documented sufficient good faith efforts, a Respondent may request administrative reconsideration. Respondent should make this request in writing to the following reconsideration official: Terry Blue, President and CEO, Memphis Shelby County Airport Authority, 2491 Winchester Road, Suite 113, Memphis, Tennessee 38116, (901) 922-8000, tblue@flymemphis.com. The reconsideration official will not have played any role in the original determination that the Respondent did not document sufficient good faith efforts.

As part of this reconsideration, the Respondent will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. The bidder/offeror will have the opportunity to meet in person with our reconsideration official to discuss the issue of whether it met the goal or made adequate good faith efforts to do. The Authority will send the Respondent a written decision on reconsideration, explaining the basis for finding that the Respondent did or did not meet the goal or make adequate good faith efforts to do so. The result of the reconsideration process is not administratively appealable to the Department of Transportation.

6.10 Counting DBE Participation

DBE participation shall be counted toward meeting the DBE goal as outlined in 49 CFR Part 26, specifically 26.55. When the Respondent completes an Assurance Statement, the Respondent must include not only the total value of the work to be performed and/or the materials to be supplied by the DBE but also the total amount of DBE participation that should be counted toward meeting the goal. If you have any questions about counting, we strongly urge you to consult 49 CFR Part 26. The following may be helpful to you in counting DBE participation and in determining which sections of Part 26.55 you need to review in more detail:

- a. When a DBE participates in a contract, you count only the value of the work actually performed by the DBE toward DBE goals.
 - 1) Count the entire amount of that portion of a construction contract (or other contract not covered by paragraph (a)(2) of this section) that is performed by the DBE's own forces. Include the cost of supplies and materials obtained by the DBE for the work of the contract, including supplies purchased or equipment leased by the DBE (except supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate).
 - Count the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted



contract, toward DBE goals, provided you determine the fee to be reasonable and not excessive as compared with fees customarily allowed for similar services.

- 3) When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals. a. When a DBE participates in a contract, you count only the value of the work actually performed by the DBE toward DBE goals.
- 4) Count the entire amount of that portion of a construction contract (or other contract not covered by paragraph (a)(2) of this section) that is performed by the DBE's own forces. Include the cost of supplies and materials obtained by the DBE for the work of the contract, including supplies purchased or equipment leased by the DBE (except supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate).
- 5) Count the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted contract, toward DBE goals, provided you determine the fee to be reasonable and not excessive as compared with fees customarily allowed for similar services.
- 6) When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.
- b. When a DBE performs as a participant in a joint venture, count a portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the DBE performs with its own forces toward DBE goals.
- c. Count expenditures to a DBE contractor toward DBE goals only if the DBE is performing a commercially useful function on that contract. For the definition and explanation of a commercially useful function see 49 CFR Part 26.55(c).
- d. To determine whether a DBE trucking company is performing a commercially useful function see 49 CFR Part 26.55(d).
- e. Count expenditures with DBEs for materials or supplies toward DBE goals as provided in 49 CFR Part 26.55(e). Please note that materials or supplies obtained from a DBE manufacturer are counted differently toward DBE goals than a DBE regular dealer. It is imperative that the bidder consult federal regulations for counting differences.
- f. If a firm is not currently certified as a DBE in accordance with the standards of 49 CFR Part 26 Subpart D at the time of the execution of the contract, do not count the firm's participation toward any DBE goals, except as provided for in § 26.87(i)).



- g. Do not count the dollar value of work performed under a contract with a firm after it has ceased to be certified toward your overall goal.
- h. Do not count the participation of a DBE subcontractor toward a contractor's final compliance with its DBE obligations on a contract until the amount being counted has actually been paid to the DBE.

6.11 Sanctions for Non-Compliance

In case of the Respondent's non-compliance with DBE requirements as applicable, including, but not limited to, documentation, cooperation, and truthfulness, the Authority shall impose such Contract sanctions as it may determine to be appropriate. This may include but is not limited to:

- a. Withholding of payments to the Respondent under the Contract until the Respondent complies; and/or
- b. Cancellation, termination, or suspension of the Contract, in whole or in part; and/or
- c. Assessing sanctions; and/or
- d. Payment by the Respondent to the Authority of an amount equal to the difference in the DBE dollar value contracted for and the dollar value achieved in documented DBE participation, which dollar value shall be considered liquidated damages if the Authority determines that Respondent failed to make good faith efforts in meeting the Contract's DBE goal.

6.12 Contract Assurance (49 CFR Part 26.13)

The successful Respondent, any successful subrecipient or successful subcontractor shall not discriminate based on race, color, national origin, or sex in the performance of this prime contract. The successful Respondent shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the successful Respondent 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:

- a. Withholding monthly progress payments;
- b. Assessing sanctions;
- c. Liquidated damages; and/or
- d. Disqualifying the Contractor from future bidding as non-responsible.

6.13 Prompt Payment / Retainage

The successful Respondent agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than fifteen (15) days from the receipt of each payment the successful Respondent receives from MSCAA. 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 MSCAA. When MSCAA has made an incremental acceptance of a



Memphis, Tennessee

portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed. Any delay or postponement of payment from the above referenced timeframe may occur only for good cause following written approval of the MSCAA. This clause applies to both DBE and non-DBE subcontractors.

Retainage will not be withheld on this project. No retainage will be withheld by MSCAA from progress payments due to the successful Respondent. Retainage by the successful Respondent or subcontractors is prohibited, and no retainage will be held by the successful Respondent from progress payments due to subcontractors.

6.14 Termination of DBE Subcontracts

The successful Respondent must not terminate a DBE subcontractor listed in response to this solicitation (or an approved substitute DBE firm) without prior written consent of Authority. This includes, but is not limited to, instances in which the successful Respondent 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 successful Respondent shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains prior written consent as provided in 49 CFR §26.53(f). Unless prior written consent is provided pursuant to 49 CFR $\S26.53(f)$, the successful Respondent shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

The Authority may provide such written consent only if the Authority agrees, for reasons stated in the concurrence document, that the successful Respondent 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 Authority 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 Authority, of its intent to request to terminate and/or substitute, and the reason for the request.

The successful Respondent must give the DBE five days to respond to the successful Respondent's notice. In response, the DBE must advise the Authority and the successful Respondent of the reasons, if any, why it objects to the proposed termination of its subcontract and why the MSCAA should not approve the prime contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), MSCAA may provide a response period shorter than five days.

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

6.15 49 CFR Part 26

The Respondent shall carry out the applicable requirements of 49 CFR Part 26 in the award and administration of Authority contracts. Respondent agrees to provide all its subcontractors and



Memphis, Tennessee

suppliers and to require all its subcontractors and suppliers on this project to provide a complete copy of the Disadvantaged Business Enterprise (DBE) Requirements of the Contract to all those who provide supplies or work related to the Contract and to require all those providing supplies or work to be bound by these requirements as it relates to their work related to the Contract.

7 TITLE VI SOLICITATION NOTICE

The Authority, 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, disadvantaged business enterprises will be afforded full and fair opportunities 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.

8 INSURANCE REQUIREMENTS

The successful Respondent shall submit evidence of required insurance on an original ACORD certificate or comparable insurance certificate form(s) acceptable to the Authority, with required endorsements attached, the earlier of: fifteen (15) working days following award notification or prior to the scheduled commencement of work. Failure to submit the required document(s) may result in rescinding the award. The Contract may thereafter be awarded to the next qualified Respondent. A certificate of insurance is not required at the time of the response; however, an approved insurance certificate and amendatory endorsements are required to be on file prior to the start of the work. In addition, a copy of the policy or policies shall be provided by the successful Respondent upon request.

The insurance requirements are established in Exhibit C of the Contract (Attachment J).

9 BOND REQUIREMENTS

9.1 Surety

Any bond provided to the Authority in connection with the response to this RFP or any resulting agreement shall be executed by the Principal and Surety, and duly issued by an insurer or corporate surety which:

- a. Is authorized to conduct insurance business and provide surety bonds in the State of Tennessee; and
- b. Is otherwise in compliance with the provisions of the Tennessee Insurance Code; and
- c. Is authorized by the United States Department of Treasury pursuant to 31 U.S.C. § 9304-9308; and
- d. Has an A- or better rating and a Financial Size Category of "Class VII" or higher according to the most current edition of Best's Key Rating Guide; and



Memphis, Tennessee

e. Notwithstanding the provisions of (d) above, an insurer or corporate surety that is not rated by Best's Key Rating Guide may be accepted by the Authority following a review or investigation of the insurer's or corporate surety's financial and performance standing, including without limitation, its capital adequacy, assets, earnings, liquidity, and such other factors as the Authority may deem appropriate.

9.2 Proof of Surety

Any Proposal and/or Performance Bond submitted by Respondent must include an original, certified copy, or certified electronic copy of the Power of Attorney authorizing the Attorney-in-Fact to execute the Proposal and/or Performance Bond on behalf of the Surety.

9.3 Proposal Bond

Each response must include an original, certified copy, or certified electronic **Proposal Bond** with a valid Power of Attorney, at no cost to the Authority, in the amount of Five Thousand Dollars (\$5,000.00), payable to the Memphis-Shelby County Airport Authority. Failure of the successful Respondent to execute the Contract within thirty (30) days after receiving the Contract document and furnish acceptable surety bonds and proof of required insurance prior to the Contract execution shall be just cause for cancellation of the award and forfeiture of the Proposal Bond, not as a penalty, but as liquidation of damages to the Authority.

Certified or cashier's checks will **NOT** be accepted in lieu of a proposal bond.

Proposal Bonds provided to the Authority in connection with the RFP shall be duly issued by an insurer or corporate surety on a bond form provided by the Authority in Section 16.2, or on a form substantially the same as the Authority's form, and which obligates the surety for at least one hundred twenty (120) days following the date on which responses to this RFP are publicly opened; and that is authorized to conduct insurance business in the State of Tennessee.

Failure to furnish a Proposal Bond with valid Power of Attorney, as specified, will result in rejection of Proposal for non-compliance.

9.4 Performance & Payment Bond

The successful Respondent will be required to furnish an original, certified, or certified electronic Performance & Payment Bond at the time of Contract execution and prior to the start date of the Contract, in an amount equal to contract price, to guarantee the principal's performance of the Contract. The Performance Bond shall be made payable to the Memphis-Shelby County Airport Authority and shall remain in force for the duration of the Contract.

9.5 Contractor's Responsibility

The successful Respondent is solely responsible for providing surety bonds in connection with this RFP and its resulting contract. Subcontractors are not required to provide any type of surety bond to the Authority in connection with this RFP and or its resulting contract.



Memphis, Tennessee

10 FEDERAL FAIR LABOR STANDARDS ACT

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, 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.

11 SECURITY AND ACCESS

11.1 Identification Requirements

Identification badges will be required for all construction personnel. The contractor shall produce identification badges for all employees without exception. These identification badges shall be portrait-oriented, color (to be specified by MSCAA), and must display the badgeholders name, picture, date of birth, and employer. Costs for these badges will be borne by the contractor. MSCAA must approve contractor badge before the contractor can issue.

All staff associated with the construction and project management team — including project managers, superintendents, and foremen or those needing access to secure areas — will be required to obtain MEM Airport ID Badges in accordance with the following information. No work will be permitted without MEM Airport ID Badgeholders on site.

11.2 General Requirements

The successful Respondent shall comply with all Airport Security requirements concerning access to restricted areas of the buildings or airfield. Access to certain areas of the buildings may be restricted to off-peak working or operational hours or other reasons, and the Respondent will conduct their work accordingly. If the Authority determines that any employee(s) of the successful Respondent should not work on the Authority's property or on the Contract, the successful Respondent will immediately comply with the Authority's request to remove employee(s).

The successful Respondent and all employees performing duties under the Contract shall conform to all applicable aviation security procedures regarding the issue, wearing, replacement, and return of personal identification badges, as defined in the Airport Security Program (available through the Airport Identification Office) approved by the Transportation Security Administration (TSA) and amended from time to time.

All employees requiring MSCAA Badges working under the Contract will be required to display on their person, at all times while on duty, an identification badge issued by the Authority. Identification badges will be worn on the outermost garment above the waist.

The successful Respondent will provide the Authority with a badge application signed by the authorized signatory of the successful Respondent.



Prior to the issuance of the airport identification badge, an airport badge application must be prepared and submitted to the Airport Identification Office. The application form for airport identification will be provided by the Authority and properly completed by the successful Respondent.

All employees must be able to meet the requirements of the TSA in order to receive an airport identification badge. Individuals will be issued a badge by the Airport Identification Office only after they have met all necessary security and training requirements including the appropriate certifications of the fingerprint-based background check and the Security Threat Assessment. Authority shall be responsible for all fees associated with the successful Respondent's badge applications; Respondents should not include any costs for badge application fees in their proposals.

In order to ensure control and accountability of airport identification badges, the successful Respondent will notify the Authority of the termination of any employee immediately and submit written notification of badge status of terminated employees within twenty-four (24) hours to the Security Access Supervisor, Airport Identification Office. The Airport Identification Office shall be immediately notified if the badge is not recovered for any reason. Failure to recover the identification badge and return it to the Airport Identification Office will result in a one hundred dollar (\$100.00) fee assessed to the successful Respondent. The successful Respondent will also receive a Monthly Status Report and will verify the accuracy of that report on a monthly basis.

ID badges reported lost or stolen must be thoroughly investigated and closely scrutinized. Replacement ID badges may be issued only upon written request from the Respondent. Such a request must be on Company letterhead, stating the circumstances surrounding the loss, and be signed by an authorized Company representative on file with the Airport Identification Office. Replacement fees will be assessed to the successful Respondent; replacement fees for lost or stolen badges will be:

First replacement \$100.00
 Second replacement \$150.00
 Third replacement* \$200.00

11.3 Security Checkpoint Procedures

Security Checkpoints are located throughout the MEM terminal building. These checkpoints prevent access to certain "restricted" areas. Personnel must have the proper photo identification badge, as described in this Section, in order to access areas beyond these checkpoints.

11.4 Operations of Others

During the time that successful Respondent is performing under the Contract, other persons may be engaged in other operations on or about the work site, including facility operations, pedestrian, bus, and vehicular traffic and other contractors performing at the work site, all of which shall remain uninterrupted.

^{*}Requires approval of the Director of Operations and Public Safety



Memphis, Tennessee

The successful Respondent shall so plan and conduct its operations to work in harmony with others engaged at the site and not to delay, endanger, or interfere with the operations of others, whether or not specifically mentioned above, and in the best interests of the Authority. All operations should be conducted in a manner that ensures the safety and well-being of others.

12 TERMS OF PERFORMANCE

The Authority will contract with a single Respondent to provide services under the direction of the Authority's Terminal Operations and Development Department, as outlined in the Scope of Services in this RFP.

12.1 Contract Negotiations and Contract Form

One Respondent will be selected for contract negotiations in accordance with Section 15.4. Realizing that the final basis for the agreement between the successful Respondent and the Authority must be a contract, Respondents shall indicate their willingness to negotiate a Contract acceptable to both Parties. This RFP and specified portions of the successful Respondent's response shall be incorporated into such Contract. The successful Respondent shall be required to execute a written contract with the Authority. The Authority will not execute the successful Respondent's standard contract.

If these efforts are unsuccessful with the selected Respondent, negotiations shall cease with that Respondent and begin with the next ranked Respondent, and so on, until a satisfactory agreement has been reached and approved.

12.2 Cancellation

Should the successful Respondent fail to meet the requirements of the Contract (Attachment J) after it is executed, the Authority may cancel the Contract at once and award the remainder of the contract term to the next qualified Respondent. If the Contract is cancelled, all materials provided to Contractor shall be returned to the Authority.

12.3 Term of Contract

The term of this contract shall be for such time as is required to fulfill the obligations set forth herein, and as more particularly described in the Scope of Services in Section 13 and Attachment A, and as further defined in the Contract (Attachment J).

12.4 Convenience Termination of Contract

The Authority may, at any time upon fifteen (15) days written notice to successful Respondent specifying the effective date of termination, terminate the Contract, in whole or in part, when the Authority deems it to be in the Authority's best interests. See section 23.03 of the Contract (Attachment J) for additional information.



Memphis, Tennessee

12.5 Payment and Billing Requirements

12.5.1 Invoice Submittal

See Section 4.02 of the Contract (Attachment J) for payment procedures.

12.5.2 Payment Terms

See Section 4.02 of the Contract (Attachment J) for payment terms.

12.5.3 Taxes

The Authority is exempt from Local, State, and Federal taxes. Tax certificates will be issued to the successful Respondent.

13 Scope of Services

The Authority intends to provide a complementary solution for its newly installed Parking and Access Control System (PARCS) and controlled self-parking assets. The project scope of work encompasses the design, development, programming, reliability testing, fabrication, unit testing, system testing, packaging, shipping, installation and start-up, documentation, user training, warranty, and maintenance of a Parking Guidance System (PGS), and accompanying dynamic signage for the Economy and Long-Term/Short-Term parking garages at Memphis International Airport.

The Authority is also interested in enhanced/added features to complement the PGS including license plate recognition functions (e.g. "find my car", space reservation, vehicle occupancy time, etc.) as well surveillance features.

The proposed PGS may consist of camera-based, ultrasonic technology, or a blend/hybrid configuration of these technologies. As such, Respondent may submit multiple PGS proposals, if desired to do so.

The final scope of work is subject to alteration or negotiation by the Airport with the selected Respondent depending on the details of the proposal.

The detailed scope of work and project requirements are set forth in Attachment A, attached hereto, which will become part of the Contract Documents.

14 Response Structure

It is not the intent of the Authority to restrict response preparation; however, to enable the Authority to evaluate each response in a uniform manner, all Respondents shall structure their response by submitting one (1) original hard copy bound and one (1) electronic copy. The hard copy shall be bound in a three-ring binder with marked reference tabs containing the data requested and the forms provided in Sections 16 and 17 below. The electronic copy shall be in PDF format and provided on a USB drive with a complete digital copy of their response. Submit data as requested in the following sections:



Memphis, Tennessee

14.1 Table of Contents

Respondent shall submit a Table of Contents outlining the response and shall include the tabs listed below.

14.2 Tab A -Cover Letter

14.2.1 **Company Information**

Respondent shall provide a brief company description, history, and financial status. In addition, Respondent must submit the requested information on the Respondent Information Form found in Section 16.1 below.

14.2.2 **Executive Summary**

Describe your team's approach to providing the services in this RFP, identifying any unique or distinctive features, or alternatives to which the Respondent wishes the evaluation committee to give particular attention.

14.3 Tab B – Company Experience

14.3.1 Experience and Qualifications

Describe why your firm is professionally qualified to perform the work outlined in this RFP, include the number of years' experience in the industry and examples of comparable contracts that you have held. Proposer must show a minimum of five (5) years' experience utilizing the proposed solution servicing an account similar in size, scope and frequency or a minimum of three (3) projects in a similar facility in size, scope and frequency to the Authority's program listed herein.

14.3.2 **Experience and Qualification of Installer (if different than manufacturer)**

Provide projects including the physical location and address for each installation. Please describe the hardware components, including the product and version and the quantities for each project.

- 14.3.2.1 Previous experience working with equipment manufacturer, including providing installation and maintenance.
- **14.3.2.2** Number of years in business
- **14.3.2.3** Approval in writing by PGS manufacturer as a certified installer
- 14.3.2.4 Primary hardware components (same product proposed for this project) previously installed in a minimum of three (3) parking facilities
- 14.3.2.5 Experience with Vendor, Installer, and Subcontractors. Include any previous projects and scope of project.

14.3.3 Other Relevant Experience

Indicate other relevant experience that shows the qualifications of the Respondent, and any subcontractors for the performance of the Contract.



Memphis, Tennessee

14.3.4 Relevant Contracts

Include a list of contracts the Respondent has held during the last five (5) years that relate to the Respondent's ability to perform the services outlined in this RFP. Examples should include the relative size and complexity of other similar work. Show contract reference numbers, contract period, current and valid names of contact persons with telephone numbers and e-mail addresses. By including this list, the Respondent grants permission to the Authority to contact this client list.

14.4 Tab C - Project Understanding & Approach

14.4.1 Project Understanding

Describe your team's general understanding of the Project and the complexities of parking guidance systems, including any unique challenges at MEM. Describe your proposed solution and how it meets the requirements set forth herein this RFP.

In this section the Respondent can include information to highlight the product functionality and why it is the best solution for this RFP. (e.g. What sets your PGS apart from the competition? What features and controls can you provide to MEM?)

14.4.2 Technical Approach

Describe your team's approach to the project. Include any special issues, challenges, or opportunities with the scope of work (as described in this RFP) that you believe may affect the project or may affect your approach to implementing the project.

Provide projects including the physical location and address for each installation. Please describe the hardware components, including the product and version and the quantities for each project.

14.4.3 Proposed Implementation Plan

This section should propose a high-level anticipated plan and estimated schedule for full implementation. All proposed project phases should be presented with their respective timing and resource requirements from both the Vendor and the Authority. The project plan should include the estimated number of days and number of parking spaces which will be unavailable for public use. Any proposed phasing should be included in this section.

Project Schedule must include the schedule requirements listed in **Attachment F**.

14.4.4 Value Added Features

Respondents should describe any additional features (if available) of their technology that could be of benefit to the airport. Specifically added features listed in **Attachment A – Added/Optional Features**. Also include any additional built-in features of the System, not requested below but available to the Airport. If any of these features require additional equipment or services, the Respondent should



Memphis, Tennessee

outline the cost implications of these as alternate line items in Attachment C **Pricing Sheet Form.**

14.5 Tab D - References

14.5.1 **Positive Comments**

List four (4) references, with contact names and telephone numbers, for Parking Guidance System that are similar in size and scope of services to the Authority, who would have positive comments concerning their experience with your company. Please verify the names and phone numbers of person to be contacted.

14.5.2 **Negative Comments**

List one (1) reference, with contact name and telephone number, for Parking Guidance System that is similar in size and scope of services to the Authority, who would have negative comments concerning their experience with your company. Please verify the names and phone numbers of person to be contacted.

14.6 Tab E - DBE Inclusion/Forms

Discuss the ability and the intent of your firm to include DBE participation for this Contract. Respondent shall also include in this tab all required DBE documents/forms as stated in Section 6 above and listed below.

- 14.6.1 **DBE Assurance Statement/Letter of Intent**
- 14.6.2 **Respondent DBE Goals Accomplishment Statement**
- 14.6.3 Information on All Firms Providing Responses
- 14.6.4 Voluntary Disclosure of Respondent Data (Voluntary)

14.7 Tab F - Proposal Bond

All Respondents must include the original Proposal bond as described in Section 9.3. The selected Respondent will be required to submit at the time of Contract an original Performance Bond as described in Section 9.4.



14.8 Tab G – Additional Required Attachments/Forms

Complete and submit the following attachments and forms.

- 14.8.1 Attachment D Exceptions and Substitutions
- 14.8.2 Attachment E Transition Plan
- 14.8.3 Attachment F Proposed Project Schedule
- 14.8.4 Attachment G Recommended Spare Parts
- 14.8.5 Attachment H Manufacturer/Vendor Reference List

14.9 Tab H - Pricing

Submit a completed **Attachment C Pricing Sheet Form** with total PGS cost and unit cost of each component. An electronic version of the Price Sheet is provided to all Vendors who submit proposals on the project. Submitters will complete the form by inserting the proposed costs and information highlighted yellow.

- For instances where Submitters believe an item is not applicable to their proposal, Unit price as "N/A" and include reason in Attachment D as an Exception.
- For instances where Submitters wish to include a separate line item that is not already listed, use "Other [Item Description]"
- Submitters are responsible for ensuring all formulas and/or totals are correct.
- Submitters will submit the completed Pricing Sheet Form in Microsoft Excel format, as part of their electronic proposal submittal.
- Itemize annual Post-warranty Maintenance fees (Years 4 through 10)
- Itemize any annual licenses or recurring fees, which may or may not be included in the initial three years of warranty or post-warranty support documentation.

14.10 Tab I - Additional Data

Submit additional data, exhibits, statements, and drawings necessary to assure the Authority has a total understanding of the Response. Include any other material which your team believes would be helpful in evaluating the quality of your firm and its overall operations. The Authority may require an interview with short-listed Respondents to obtain a better understanding of their Response.

14.11 Tab J - Contract Changes

The Contract may be found in **Attachment J** of this document. Please review the Contract as it contains the Authority's standard terms and conditions. The Authority may negotiate additional terms with the chosen Respondent as appropriate, and these terms will be incorporated into the Contract. The Authority reserves the right to change the Contract; however, if changes are requested to this Contract by the Respondent, the Respondent must submit those proposed changes under Tab J - Contract Changes for review and possible approval by the Authority. If no changes are submitted, the Authority's interpretation will be the Respondent is accepting the



Contract as shown in Attachment J. The successful Respondent will not be allowed to change the content of the Contract terms which may be incorporated in the final Contract, unless those proposed changes are submitted under Tab J and approved by the Authority. **Do not return the Contract with your response.**

15 AWARD

15.1 Solicitation

Responses are solicited from all companies that wish to be considered for the services outlined in this Request for Proposals document. The Authority will make its selection from the information contained in the responses to the Request for Proposals submitted by the due date. All parties are encouraged to respond in depth with statements containing specific experience and qualifications related to this RFP in the format described herein.

15.2 Proposal Evaluation Criteria

The Authority will review all Submittals for completeness and adherence to the requirements of this Request for Proposals. Submittals that do not follow the specified format and/or do not meet the project requirements may be deemed unresponsive and disqualified from the process. The Authority has established the following specific criteria to evaluate Submittals.

- 15.2.1 Respondent's Qualifications, Experience, and Past Performance
- 15.2.2 Experience of Respondent's Subcontractors and Installers
- 15.2.3 Proposed Solution/System Functionality
- 15.2.4 Proposed Implementation Plan/Project Schedule
- 15.2.5 Pricing Proposal
- 15.2.6 Responses of References
- 15.2.7 DBE Participation
- 15.2.8 Responsiveness, organization, and clarity of the submittal

15.3 Oral Presentation/Interview

Oral Presentations/Interviews are anticipated after the written submittals are reviewed. However, The Authority may elect to select directly from the Submittals or may develop a shortlist of the highest-ranking Submittals and invite the respondents for an Oral Presentation and Interview prior to the final selection. Oral Presentations will provide the submitting firm with an opportunity to further present on your proposal. Interviews will also be used for time to allow the MSCAA to ask questions with respect to the RFP submittals. Additional instruction will be forwarded to those respondents that are selected for Oral Presentations/Interviews.



15.4 Final Selection

Once the oral presentations have been completed, those Respondents will be ranked by the proposal that provides the best value to the Authority based on the published criteria. Subsequently, the Authority staff will attempt to negotiate with the number-one-ranked firm. If negotiations are successful, the selected firm shall be recommended to the Board of Commissioners for final approval. If an appropriate Contract cannot be negotiated with the first choice, negotiations shall be terminated, and the second ranked firm may be contracted. This may continue until successful negotiations have been concluded or it is determined that it is in the Authority's best interest to cease negotiations and/or issue a new RFP.

15.5 The Authority's Right to No Award or Partial Award

Award will be made to the best qualified, responsive Respondent, if awarded. The Authority reserves the right to reject all responses, reject portions of any response, or accept the response deemed most advantageous to the Authority.

15.6 Cancellation

Should the successful Respondent fail to execute or meet the requirements of the Contract after it is executed, the Authority may cancel the Contract at once and award the Contract to the next most qualified, responsive Respondent.

15.7 Anticipated Contract Date

The Authority anticipates the commencement date of the Contract to be May 1, 2025.

16 REQUEST FOR PROPOSALS FORMS

All Request for Proposals Forms can be found in Attachment C.

- 16.1 Respondent Information Form (Required)
- 16.2 Proposal Bond (Required)
- 16.3 Pricing Schedule (Required)



17 DBE FORMS

All DBE Forms can be found in **Attachment I**.

- 17.1 DBE Assurance Statement/Letter of Intent (Required)
- 17.2 Respondent DBE Goals Accomplishment Statement (Required)
- 17.3 Information on All Firms Providing Responses (Required)
- 17.4 Voluntary Disclosure of Respondent Data (Voluntary)

Attachment A Detailed Scope of Work/Project Requirements

The scope of work for the Parking Guidance System project shall encompass the design, development, programming, reliability testing, fabrication, unit testing, system testing, packaging, shipping, installation and start-up, documentation, user training, warranty, and maintenance of a PGS for the Economy and Long/Short Term parking garages. The scope also includes the design, furnishing, and installation of dynamic digital signage to display parking space availability enhancing wayfinding.

The PGS will generally consist of the following components, features, and functions as outlined herein.

I. Parking Garages and Parking Space Count

A. **Economy Garage**

The Economy Garage is a 7-Level, above-grade structure. The first two (2) levels (Level 1 & 2) are currently dedicated for the Airport's Car Rental Center. There are future plans to build a new Consolidated Rental Car Facility (CONRAC), wherein Level 1 & 2 will be allocated for additional transient parking for the Economy Garage visitors.

There is a single-entry location for the Economy Garage, with three (3) vehicle access lanes. The maximum vehicle height allowed in the Economy garage is 8 feet 2 inches. Access to the Economy Garage is monitored by the PARCS (TIBA) system; and upon entry, all vehicles ascend a ramp to the 3rd level. Guest/visitor parking is provided on Levels 3 through 7 supported by a double helix.

Uncovered roof spaces are located on Level 7 of the Economy Garage, which will require a vehicle sensor counting solution by available spaces in each row, along with wayfinding signage at the ends of each row. A pole mounted aerial (outdoor) sensor system is an acceptable alternative with a provision in the Pricing Sheet template.

The Economy Garage vehicle ramp is a double helix construction and shall incorporate an existing camera-based level counting solution (Fennix) for vehicles entering and exiting the levels, along with license plate number (LPN) detection & storage.

The Economy Garage parking stalls on each level (12 rows) are 45-degree angled parking. There are also 90-degree parking stalls, on each level, surrounding the angled parking rows and aisles around the garage perimeter. Respondent must incorporate a wayfinding sign configuration to route parkers the shortest driving path to available parking spaces.

The current available electrical panels and circuit information for the Economy Garage is provided below. Locations of the existing electrical panels can be found in Attachment B.

Economy Garage Panels and 120V Circuits GE Breaker - Type THQB All Normal Power Panels are 120V, 200 Amp, Single Phase					
All Emergency Panels are 480/277V, 3 Phase					
NE Third Floor, Equip. Rm GTC-3C	NW Third Floor, Equip. Rm GTC-3E				
Standby Power Panel SBRD3	Standby Power Panel SBRF3				
- 5 Spare 20A Breakers	- 11 Spare 20A Breakers				
- No Open Spaces	- No Open Spaces				
Normal Power Panel RD3	Normal Power Panel RF3				
- 1 Spare 20A Breaker	- 8 Spare 20A Breakers				
- 12 Open Spaces	- 6 Open Spaces				
NE Sixth Floor, Equip. Rm. GTC-6C	NW Sixth Floor, Equip. Rm GTC-6E				
Standby Power Panel SBRD6	Standby Power Panel SBRF6				
- 1 Spare 20A Breaker	- 4 Spare 20A Breakers				
- 6 Open Spaces	- 5 Open Spaces				
Normal Power Panel RD6	Normal Power Panel RF6				
- 0 Spare Breakers	- 11 Spare 20A Breakers				
- 6 Open Spaces	- 6 Open Spaces				

The current available data/communication information and locations can be found in Attachment B.

B. Long-Term/Short-Term Garage

The Long-Term/Short-Term Garage is a three (3)Level structure, with one (1) level below grade. This garage provides premium parking in the closest proximity to the terminal building. Level 1 (Long-Term – Lower) and Level 3 (Long-Term – Upper) of this garage is designated for Long-Term Parking. Level 2 is designated for Short-Term parking. Access to the Long-Term/Short-Term Garage is monitored by the PARCS (TIBA) system. The maximum vehicle height allowed in the Long-Term/Short-Term Garage is 8 feet 2 inches. The same 3rd-party camera-based vehicle counting solution in the Economy Garage is commissioned in this garage, providing vehicle counts and activity on all up/down access ramps.

The Short-Term parking area contains dedicated areas for employee parking (Annex Area) in the southwest corner and additional dedicated parking for employees and contractors (Vendor Area) along the eastern-most side. PGS single space detection is not required at this time for these particular vehicle stalls.

The Long-Term/Short-Term Garage has 90-degree parking stalls throughout. The Long-Term – Lower (Level 1) and Short-Term (Level 2) require space sensors and sufficient wayfinding signage. Long-Term – Upper (Level 3) is an uncovered roof space which requires a vehicle sensor counting solution by available spaces in each row, along with wayfinding signage at the ends of each row. A pole mounted aerial (outdoor) sensor system is an acceptable alternative with a provision in the Pricing Sheet template.

The current available electrical panels and circuit information for the Long-Term/Short-Term Garage are provided below. Locations of the existing electrical panels can be found in Attachment B.

Long-Term/Short-Term Garage GE Breakers – Type THQB					
(Garage Electrical Break-up is Split into 4 Quadrants)					
All Normal Power Panels are 200 Amp, Single Phase					
All Emergency Panels are 480/277 V, 3 Phase					
Northwest Quadrant Panel EG3 150A	Northeast Quadrant Panel EG1 150A				
- 10 Spare 20A Breakers	- 8 Spare 20A Breakers				
- 0 Open Spaces	- 0 Open Spaces				
Northwest Quadrant Panel G3 150A	Northeast Quadrant Panel G1 150A				
- 8 Spare 20A Breakers	- 7 Spare 20A Breakers				
- 0 Open Spaces	- 1 Open Space				
Southwest Quadrant Panel EG4 150A	Southeast Quadrant Panel EG2 150A				
- 6 Spare 20A Breakers	- 3 Spare 20A Breakers				
- 4 Open Spaces	- 1 Open Space				
Southwest Quadrant Panel G4 150A	Southeast Quadrant Panel G2 150A				
- 15 Spare 20A Breakers	- 2 Spare 20A Breakers				
- 0 Open Spaces	- 3 Open Spaces				

The current available data/communication information and locations can be found in Attachment B.

C. Parking Space Counts

The following space counts apply to the surface lots and garages for reference. Respondents are only required to provide space sensors for the quantities shown in the last column. For each level incorporating all space sensors, vehicle wayfinding signs must be provided at strategic positions in the appropriate aisles/rows and are expected to provide "first level" guidance for parkers:

Location	Total Spaces	Spaces requiring PGS
Economy Level 3	874	874
Economy Level 4	917	917
Economy Level 5	917	917
Economy Level 6	913	913
Economy Level 7	920	920 (Outdoor System)
Long-Term Upper Level 3	1,139	1,139 (Outdoor System)
Long-Term Lower Level 1	904	904
Short-Term Ground Level 2	869	674
Total	7,453	7,453



D. Garage Layout Diagrams and Other Drawings

Layout diagrams for each level of the two (2) garages are provided in Attachment B, to assist Respondents with the preparation of proposals. These drawings only contain limited information with respect to vehicle space quantities and relative position. There is a graphic scale reference on the Economy Garage drawings which may assist in determining vehicle stall width. Additional drawings are available for the Economy Garage; however, due to the age of these drawings MSCAA cannot guarantee these measurements are accurate. All Respondents must be responsible for taking the appropriate measurements of stall sizes, floor to ceiling measurements, etc. during onsite visits.

Electrical and Communication Layout diagrams are also provided in Attachment B, to assist Respondents with the preparation of proposals. These drawings contain limited information with respect to existing electrical and communication/data infrastructure. All Respondents must be responsible for confirming any existing electrical or communication/data infrastructure during onsite visits.

II. Parking Guidance System Requirements

A. General Requirements

The general requirements for the PGS project include the following:

- 1. Individual space detection with color light indicators that maintains an inventory of vehicle occupied and available spaces.
- 2. Configuration of occupancy indicator colors for individual spaces, groups of spaces, or type of space assignment (e.g. handicap, electric vehicle, etc.).
- 3. Overhead/aerial outdoor-rated cameras for vehicle counting and surveillance on Level 7 of Economy Garage and Level 3 of Long-Term/Short-Term Garage rooftop/uncovered areas.
- 4. Aisle and Row LED Signs showing available regular and ADA parking spaces for optimum wayfinding. Adequate number of signs shall be determined by placement and quantity as recommended by the Respondent.
- 5. Real-Time Interface with/for the following:
 - a. Transmit space available counts to the Authority's website.
 - b. Current and future digital wayfinding signage for the ability provide real-time space and level counts.
 - c. Current TIBA Parking Access and Revenue Control System.
- 6. PGS Management System software and server with integration into the Authority's workstations, monitors, data storage devices, printers, etc. as required.
- System intelligence and central control to facilitate management of spaces, real-time reporting of occupancy information, and historic reporting of peak occupancy, turnover, an dwell time.
- 8. Provide an industry standard application programming interface (API) to allow API to send PGS data to Authority's defined systems.
- 9. Provide parking operations staff with a user interface including real-time display of current occupancy status for all stalls, changing the indicator colors for blocks of stalls, and other capabilities as defined by the Authority.



- 10. Provide parking management staff with standardized and custom reports to evaluate the operation of the garages including occupancy rates, turnover rates, etc.
- 11. Complete installation and commissioning of all PGS technology, including power and communications to all sensors and wayfinding digital sign, per regulatory state and local laws.
 - a. Respondent is responsible for all necessary permits and licenses.
- 12. For camera-based PGS, camera feed must be available via multi-cast for integration of PGS cameras into MSCAAs current camera storage system
- 13. PGS server including all hardware and software.
- 14. Testing verification plan and onsite acceptance testing.
- 15. Training for new wayfinding and PGS
- 16. In-house Project Management
- 17. 3-Year Warranty on equipment (or length of factory Warranty, whichever is longer) and installation.
- 18. Provide sufficient personnel and equipment to complete the project in a continuous manner, once work has begun. A special effort shall be made to minimize the interruption of parking operations and any loss of revenue due to the progress of work.
- 19. Specify the approach and ways to mitigate any disruptions to Parking Operations in Respondents Submittal, Tab D Project Understanding and Approach.

B. PGS Equipment Requirements

- Space Sensors and Indicators. Single-space occupancy detection and indicating sensors may
 consist of camera-based, ultrasonic technology, or a hybrid configuration of these
 technologies. Respondent must include a declaration or guarantee of sensor accuracy. It
 should be pro-rated over time (e.g., yearly) and MSCAA will define its test procedures based
 on these standards. Other parking space sensor specifications include:
 - a. Lighting is required to be LED for low electrical consumption.
 - b. Display continuous **red light** for each occupied parking space either as individual or in grouping.
 - c. Display continuous **green light** for each available standard parking space either as individual or in grouping.
 - d. Display a separate, continuous blue light for each available ADA accessible parking space
 - e. Display a separate, continuous **amber light** (or other MSCAA designated color) for each available electric vehicle, reserved, or premium parking space.
 - f. Display at least ten (10) different MSCAA-defined colors
 - g. Configurable to flash to indicate violations or fault conditions
 - h. Ability to change to any user-defined color on-demand from the web-accessed Graphical User Interface (GUI) by an authorized user
 - i. Ability to automatically change to any user-defined color automatically at MSCAA-defined scheduled times
 - j. Ability to change to any user-defined space assignment (standard space, ADA, reserved, premium, electric vehicle, etc.) on-demand from an authorized user
 - k. Ability to automatically change to any user-defined space assignment (standard space, ADA, reserved, premium, EV, etc.) at MSCAA-defined scheduled times
 - I. Identify vehicles correctly parked in the monitored spaces with 99% accuracy. For



example, a vehicle that backs out of space and activates the count detectors can generate a temporary, false vehicle count for that space. Invalid counts can also be generated by pedestrians, luggage carts, bicycles, and various other foreign objects that temporarily enter the detection zones

- m. Accurate detection of 99% applies to both vacant and occupied spaces
- n. During acceptance testing, each vehicle sensor shall be tested to ensure counting of valid parked vehicles with 99% accuracy, as defined above, and unoccupied spaces with 99% accuracy, as defined above, over the testing period. The accuracy testing procedures to establish passing test criteria will be determined prior to system testing with approval from MSCAA.
- o. For camera-based PGS utilizing license plate recognition (LPR) detection, the system shall acquire an image of the occupied vehicles license plate at a 95% read rate. The intent of the 95% capture rate is to ensure a visual record of 95% of all non-exception license plates entering space.
- 2. **Added/Optional Features**. Additional system features (if available) for MSCAA consideration. See Section 14.4.4. of this RFP for submittal requirements:
 - a. License Plate Recognition (LPR) capabilities to capture and store license plate numbers for uses to be defined by the Authority
 - b. Capture and store license plate numbers for parked vehicles in monitored garage spaces
 - c. Include "Find Your Car" functionality via smart kiosk, website, or mobile application
 - d. Operational explanation of nightly vehicle plate inventory procedures, including a description of the video surveillance and security enhancement features of the camerabased space sensors for the monitored stalls, as well as *optional* camera counting technology for roof levels.
 - e. Allow for an Authority-approved third party (e.g., law enforcement) to access license plate records for enhanced security features.
 - f. Security surveillance feature allowing video to be recorded and stored for all events
- 3. **Dynamic Digital Signage**. Dynamic digital signage provision shall include thorough coverage of parking aisles/rows, while delivering optimum wayfinding for customer vehicle available spaces search. Other signage requirements include:
 - a. Must be full matrix LED technology.
 - b. Sign specifications must include alpha-numeric digits with a minimum height of five inches (5") and support an array of symbols such as ADA, EV charging, motorcycle, minimum 1080p resolution, support operating temperatures between -20 to +140 degrees F, and contained in dust and weatherproof NEMA 4 rated enclosures.
 - c. Aisle/Row signs should be viewable at a 70-degree vertical angle and must be readable at a distance of 200 feet for drivers with 20/20 vision.
 - d. All LED Sign placement shall be approved by MSCAA prior to installation.
 - e. Respondent to provide a layout with sizing of the signage in the Submittal.
 - f. Respondent to provide bollards and/or additional protection of the signage from vehicles. Must be approved by MSCAA prior to installation.



Memphis-Shelby County Airport Authority

Memphis, Tennessee

- 4. **Software**. All required software must be listed in the proposal. The software must meet the following requirements:
 - a. All software must be provided with an Enterprise license under the MSCAA's name.
 - b. Ongoing licensing fees, if applicable, must be identified in the proposal. The cost of the first three (3) years is to be included in the base pricing. Identify the cost for an additional seven (7) years, annually, beyond the first three (3) years of operation (years 4-10).
 - c. All software upgrades during the duration of the warranty period and subsequent extended warranty period(s) shall be included in the base pricing.
 - d. Future upgrades of software must be fully tested prior to installation and these site(s) shall not be the first installation of the software upgrade. The upgrade shall not be mandated, but coordinated with the MSCAA prior to installation. A full description of the upgrade and its impact(s) on the entire PGS, shall be provided to the MSCAA for review and agreement prior to installation. Please describe in your Submittal, how upgrades, patches, and other minor modifications are handled post system Warranty.
 - e. The successful Respondent shall provide MSCAA advance notification of access to the PGS for updates to the PGS, including upgrades, troubleshooting, patching, etc., of software and/or hardware. All upgrades that will affect functionality of the PGS are to be done at night/off hours at MSCAA's discretion.
 - f. All software on all workstations necessary to run the PGS shall be included as part of the PGS and shall be maintained and upgraded as part of the PGS project.
 - g. All software must be in English at all levels of interface with MSCAA.
 - h. If during the first two (2) years of the life of the equipment, the successful Respondent or Manufacturer discovers a software bug within the PGS and determines that it could adversely affect all PGS with that version of software, a fix is developed and included in a software update then the successful Respondent must provide the update free of charge.
 - The database storage and memory must be configured in such a manner as to maintain three (3) years of on-line system data and all summary reports. The successful Respondent must provide a backup/archiving system whereby reports are properly catalogued and allow historical data (any data older than 36 months) to be retrieved. Management and administration of the backup/archiving shall be the responsibility of the successful Respondent through the warranty period and then in the event of ongoing maintenance. All transactional and summary data for up to ten (10) years must be archived. All system data for the current year and the two previous years (36 months of data) must be available online. The term "System Data" includes full details of all events, transactions and all exception transactions.
 - j. The system must back up data to a current industry standard backup (cloud or local media). The successful Respondent shall coordinate with the MSCAA to design and configure the backup scenario.
 - k. The system backup process must not interfere with normal operation of the PGS or running of reports. The backup process should be designed to minimize the potential loss of data. The software shall allow the MSCAA a choice of when to back up data.
 - I. The user should be able to manually/override available spaces in each section in the event spaces must be closed off.
 - m. The system must be capable of supporting "demand-based pricing" and ability to adjust parking rates based on demand, via an API integration with TIBA PARCS.
 - n. The system will provide logic and the ability to enable online parking reservations through



Memphis-Shelby County Airport Authority

Memphis, Tennessee

- an API integration with the TIBA PARCS or 3rd party platform.
- o. The system must be capable of providing an interface to current and future third-party digital wayfinding signage for real-time space availability and level count.
- p. Capability to create and modify premium or reserved areas within each level of each parking facility the PGS covers.
- q. Capability to override stall indicating lights, monitor individual stalls, and set and create alarms and system notifications for selected parking stalls.
- r. Allow users the ability to override/adjust sign messaging or counts.
- s. Capability for self-monitoring, self-diagnosis, and self-reporting of issues affecting daily operations.
- t. Display floor maps of all levels within the garages with real-time status of spaces.
- u. Program the configuration of space assignments to change automatically based on time of day, day of week or on-demand for monitored spaces.
- v. Provide role-based access control using the principle of least privilege for all system functions including system administration and security administration.
- w. Access rights to the system for MSCAA personnel and others will be configured during implementation.
- x. Provide remote monitoring, configuration, and modification of all field devices, e.g., vehicle sensors, LED indicators, and dynamic signs.
- 5. *Electrical & Communication*. The electrical and communication components for the project must meet the following requirements:
 - a. Provide required electrical and data infrastructure to all space sensors and Aisle/Row signs.
 - b. All wiring should be in conduit. The successful Respondent is responsible for all electrical and data requirements. All conduits must be securely installed and must be RIGID material (3/4" diameter is the accepted minimum) and watertight. Must have flexible connections at expansion joints.
 - c. All conduit must be surface-mounted to walls and ceilings. Conduit must be secured/anchored at intervals not to exceed 60 inches. Suspended conduit below the beams is strictly prohibited. Minimum required clearances of 8' - 2''.
 - d. PGS components, including equipment housings, conduits, and junction boxes exposed to weather (any location not in a conditioned environment) will meet or exceed NEMA 4X or IP65 standards to be moisture-proof and provide sufficient protection so that the components can continue to function without moisture, dust, particle, heat, or coldrelated interruption.
 - e. Equipment housings that are accessible to the public shall be lockable.
 - f. 30-days minimum of video storage at seven (7) FPS motion only on premises server is
 - g. Provide a lightning protection method and installation for the proposed system.
 - h. Successful Respondent will install pre-programmed network switches/ports provided by MSCAA.
 - i. Communication equipment including communication consolidators and low voltage network from the points of demarcation to all PGS components.
 - Successful Respondent may suspend PGS ultrasonic/camera system mounting tracks, provided they maintain the required vehicle clearance height at all times throughout all



garages.

- k. All communications cabling to devices, including fiber terminations (where required)
- I. Provide on-line regulating of Uninterruptible Power Supplies (UPS) for field equipment capable up to two (2) hours.
- 6. **System Reporting**. The successful Respondent will be required to provide the following system reports, along with the ability to generate custom reports on demand:
 - a. Historical Reports: Ability to assess historical data in assisting management staff in proper space use allocation for future planning.
 - b. Length of Stay Reports.
 - c. Occupancy Reports based on selectable time increments.
 - d. Parking Demand Reports based space activity, dwell times and turnover.
 - e. Automated report generation by selectable time and days.
 - f. Produce heat maps to help identify space utilization.
 - g. Single-space alarms for vehicle overstay alerts (must be user-definable, e.g., > 30 days).
 - h. User Group report based upon specific parker types (e.g., EV, ADA, pre-booking, etc.)
 - i. System alarms and alerts of sensor status, failures and camera imaging. Respondent shall include in Submittal how alarm will be indicated to MSCAA.
 - j. Provide ability to track & report which users acknowledge and resolve system alarms.
 - k. Automatically detect and report fault conditions The system performs a self-check on a routine basis and provides notification for fault conditions and equipment failure. Fault conditions are categorized by severity and the displays alarm notifications on the system GUI for any individual fault condition, category of fault, or MSCAA selection of faults.
 - I. The system should include a management interface that provides the ability to view current parking occupancy; query prior parking occupancy by date/time range and by section of the garage; plus provide year-to-date daily and monthly parking data.

III. Excluded Work

The following items are NOT required to be included by Respondent in the scope of this RFP

- a. MSCAA to clean, re-paint, and re-stripe the parking garages (as needed)
- b. MSCAA shall provide rack space in computer data centers to facilitate PGS servers or VM's.
 - a. If existing rack space is insufficient for Vendor's equipment, the Respondent must provide the additional rack(s) for installation as part of their Proposal. Respondent must note in their proposal.
- c. MSCAA is responsible for providing adequate lighting (LUX) levels throughout garages
- d. MSCAA shall provide high-speed internet access for the PGS
- e. MSCAA shall provide all VLAN network switches required. (Respondent to provide number of network switches required in the pricing schedule.)
- f. MSCAA shall provide 120 VAC/20A available circuits in designated electrical rooms (both garages) with the power available as shown in this Attachment A, section I.
 - a. The Vendor will be responsible for extending these power circuits to the designated device/hub cabinet location. The vendor's responsible for ensuring no NEC/State/Local/Electrical codes are violated. If a new installation does not meet



- NEC/State/Local/Electrical Codes, the vendor must update/upgrade the electrical system to meet designated codes and requirements. These upgrades will be at no additional cost to MSCAA.
- b. If the existing available power is insufficient for the Vendor's system, the Respondent must provide the additional power required above what is available as part of their proposal. Respondent must note in their proposal
- g. MSCAA to provide drawings showing existing fiber/data and electrical layout in garages
- h. MSCAA to provide on-premise secure storage area for staging the PGS materials

IV. Shared Work

The following items/work are shared by MSCAA and the successful Respondent within the scope of this RFP:

- 1. The Long-Term/Short-Term Garage existing lighting poles on the roof, may be utilized by the successful Respondent for mounting overhead/aerial sensors. There may be a necessity to install new/additional mounting posts/poles to support the coverage area for the rooftop spaces. The provision and installation of these mounting poles are the responsibility of the successful Respondent and locations shall require MSCAA approval prior to commissioning. MSCAA will provide the specifications for any new camera mounting poles to ensure the design is similar in color, shape, and composition of the existing light poles. If the successful Respondent has a standard camera mounting pole typically used for other installations, provide a rendering or specifications to MSCAA for review and approval.
- 2. The Economy Garage existing lighting poles are not permitted for use, as they are equipped with a mechanical device that enables the lights to move up and down. The successful Respondent must explore and provide alternative methods for mounting the overhead/aerial cameras. MSCAA must approve the mounting pole, prior to procurement and installation.
- 3. The electrical feed for both the Long-Term/Short-Term Garage and the Economy Garage lighting poles, incorporates photocells and/or timers to control their on/off cycles.
- 4. Any conduits or mounting brackets required to affix the successful Respondent's cameras must be approved by MSCAA prior to installation.
- 5. The successful Respondent is prohibited from using any existing camera power as infrastructure.

V. Submittals

The following, includes but is not limited to, the required submittals for the project:

- A. Shop Drawings and Specifications: Permit drawings that are stamped and signed by the appropriate discipline shall be submitted by the successful Respondent to the local Building Authority for review and approval. These drawings must be approved by MSCAA prior to installation for each item of parking equipment required.
- B. Show plans, elevations, dimensions, and details of equipment and other components, including pathway sizes, junction box locations, and distance limitations. Show layout and installation details, including anchorage details and relationship to adjacent building components. Submit a



- specification section for approval that is based on this section.
- C. Show plan layout for overhead sensors and signs, including but not necessarily limited to, routing for wires, and location of conduits.
- D. The successful Respondent will be required to provide any additional routing of conduit necessary to support the PGS. The proposed conduit routing shall be shown on the drawings and shall be coordinated with the penetrations provided in the precast as appropriate.
- E. Product Data: Submit manufacturer's product data, specifications, and installation and maintenance instructions for each product and piece of equipment required. This shall also include:
 - 1. Templates for anchor bolts and other items encased in concrete or below finished surfaces in sufficient time to not delay Work.
 - Wiring diagrams detailing wiring for parking control equipment operator, signal, and control
 systems differentiating clearly between manufacturer-installed wiring and field-installed
 wiring. Show locations and types of connections and network drops to electrical service
 provided as a unit of work under other Sections.
 - 3. All necessary grounding and surge protection must be provided.
 - 4. Maintenance Data and Instructions: Prior to the close of contract, submit for inclusion in MSCAA's Operation and Maintenance Manual, four hard copies and two electronic copies of manufacturer's recommended maintenance procedures, and any special tools required for maintenance. This shall also include:
 - a. Instructions for operating computer software system
 - b. Recommended methods and frequency for maintaining equipment in optimum operating condition under anticipated traffic and use conditions
 - c. Precautions against materials and methods that may be detrimental to finishes and performance. Provide list of cleaning agents required
 - d. PGS schematics
 - e. System parts list and recommended spare parts list
- F. Reports: Provide a sample set of reports and a final set of reports once the custom reports have been established.
- G. Service and Warranty Personnel Qualifications: Submit personnel based on the requirements of this section for approval.
- H. Test Scripts: Submit test scripts for all testing procedures sixty (60) days prior to any testing.
- I. Final As-Built Drawings in both Revit/AutoCAD, and searchable pdfs, as well as one hard copy shall be provided prior to the end of the contract. Pictures processes or installation documentation may be in jpg format, but no documents shall be in jpg format. Specifications shall be provided in MSWord and searchable pdf format. Wiring diagrams and all other documentation shall be in searchable pdf format.
- J. Operating Manuals: Prior to the initiation of final testing and training, the successful Respondent shall deliver the following Operation and Maintenance manuals:
 - 1. Supervisor Instruction Manual
 - 2. Maintenance Manual
 - 3. Troubleshooting Guide
 - 4. System Administration Guide



K. The successful Respondent shall deliver to the MSCAA original copies of all licenses, registrations, documentation, disks and other media as may have been included with those commercially available software packages provided with the system. In addition, the successful Respondent shall ensure that all licenses, registrations and warranties have been transferred to the MSCAA prior to final software turnover.

VI. Assurance of Quality and Performance

- A. Vendor/Manufacturer Qualifications: The Vendor/Manufacturer of the equipment shall have a minimum of three (3) installations of a similar size and complexity in the United States. Similar size and complexity shall mean at least two (2) zones or levels and 1000 stalls in a single installation.
- B. Installer Qualifications: Experienced in the installation of PGS, capable of showing evidence of having successfully completed PGS installations with similar scope and complexity and recommended by the PGS manufacturer. Installation Contractor/General Contractor needs a current and valid TN and Shelby County Contractors licenses. All subcontractors must be active TN and Shelby County licensed contractors, if applicable. State license must be active for Tennessee, the state where the Work will be performed and includes, but not limited to, general, electrical, and low voltage licenses.
- C. The Respondent's Project Manager shall act as the main point of contact with the MSCAA's representatives and shall be responsible for managing and coordinating all aspects of the Work including project management, administration, coordination, and attending regularly scheduled meetings. From the issuance of the Notice to Proceed (NTP), the Project Manager shall provide regular written communication throughout the course of the Work including a Daily Project Report and weekly project status updates including a six (6) week forecast/look ahead of anticipated work and deliveries.
- D. Personnel providing Service and Warranty work for the PGS, shall have factory training, and direct local supervision. The successful Respondent shall allow MSCAA trained Operations and Maintenance staff to provide a factory trained technician to service the equipment without voiding the Warranty.
- E. During the Warranty period, should a specific part or piece of the PGS equipment require repair three (3) or more times within any thirty (30)-calendar day period or have accumulated down time of forty-eight (48) or more hours during any thirty (30)-calendar day period, that part or piece shall be replaced in its entirety with a new device at the expense of the successful Respondent.
- F. Any concrete floor and/or roof penetrations must be accomplished by core drilling. **Use of rotary hammer or other impact tools for this purpose is prohibited.** Core drilling efforts must be coordinated with MSCAA and tenants occupying the space immediately below the cored concrete area. The Respondent will be responsible for any damage resulting from core drilling.
 - All proposed locations for core drilling shall be submitted by the Respondent to MSCAA for approval. No reinforcement bar shall be cut, and the Respondent shall use conclusive methods to locate rebar prior to coring. The core drilling submittal shall include sizes, locations, number of holes proposed, and location of reinforcement.
 - 2. The Respondent is required to perform x-ray testing to verify reinforcement prior to any core drilling. This is required in ALL locations requiring a core drill.
 - 3. If available, existing electrical pathways could also be used by the successful Respondent.
- G. Space sensor detection shall be unaffected by Vehicles parked in adjacent spaces.



- H. Space sensor detection shall be unaffected by detection signals of adjacent sensors.
- I. Space sensor detection shall be unaffected by vehicle color or vehicle size.
- J. Space sensor detection shall be unaffected by changes in ambient lighting conditions, including: direct sunlight and complete darkness.
- K. Space sensor detection shall be unaffected by temperatures, humidity, wind or rain.
- L. The space vehicle detection rate should be at a minimum of 99% accuracy.
- M. The camera sensor's ability to reliably read LPN (license plate numbers) is essential.
- N. The system must achieve an N-0 factor rating for reading and registering vehicle plates of 93%, based on a garage lighting, LUX 2 rating.
 - 1. An N-O factor means that ALL license plate characters must be read entirely, including stacked characters.
- O. The system must achieve an N-2 factor rating for reading and registering vehicle plates of 95%, based on a garage lighting, LUX 8 rating.
 - 1. An N-2 factor means that 4 of 6, 5 of 7, or 6 of 8 license plate characters must be read including characters, numbers, and stacked characters. If additional symbols or characters are added to the recorded LPN, then it will be counted against read accuracy. (E.g., A plate reading "CBA 4321" can be missing any 2 of the numbers/letters for a successful N-2 score.) However, if there is a symbol or character added to this record, it will not count as a successful N-2 read.
- P. LUX is the measurement of light brightness in the stall area around the vehicle's plate.
- Q. The PGS system must have the ability to provide "similar" vehicle LPN matches for less than N-0 LPN reads, to assist management/operations staff in identifying vehicles designated to park in specific spaces.
- R. Exceptions for vehicles with the following criteria will be identified and NOT count towards the N-0 and N-2 scoring:
 - 1. Vehicles with no license plate
 - 2. Oversized vehicles not fitting entirely in a standard parking stall
 - 3. Vehicles with temporary windshield mounted plates
 - 4. Vehicles with clearly obstructed and/or blocked characters
- S. At no time shall Construction Activities impact the operation of the MSCAA PARCS system. If an impact is identified, MSCAA shall provide documentation, and the Respondent shall be responsible for any loss of revenue due to the Respondent caused outage.

VII. Warranty

All parts, materials, and workmanship shall be Warrantied, beginning upon Substantial Completion (Spec Section 01100 in **Attachment J**), for a minimum period of thirty-six (36) months. All-inclusive costs (parts, labor, maintenance, repairs, travel time, etc.) incurred during the Warranty period shall be provided by the successful Respondent, at additional cost to MSCAA. Costs for repair and/or replacement of parts damaged or rendered unserviceable due to misuse, abuse, or vandalism by the public or MSCAA staff, are excluded as a Warranty item. Final maintenance checks shall be performed on all systems that are activated and operating, prior to commencement of the Warranty period. Maintenance services must be followed based on the manufacturer's recommended maintenance procedures. Software updates and reporting software must be included in Warranty coverages.



The successful Respondent must comply with the following emergency services requirements during the warranty period, which includes onsite and remote service support:

- 1. Provide three (3) methods of notification to be used for emergency contact information (telephone, email, SMS text message).
- 2. Acknowledge receipt of any emergency service request within thirty (30) minutes of notification by MSCAA.
- 3. During normal business hours (8:00 AM to 5:00 PM Central Standard Time, Monday through Friday), the successful Respondent shall begin remote emergency repair service within four (4) hours of the initial emergency service request by MSCAA. If a request is made outside of normal business hours, the remote emergency repair service shall begin by 10:00 AM CST the following business day. When remote service is unable to resolve the issue and on-site service is needed, on-site repairs shall begin within twenty-four (24) hours of the initial service request.
- 4. If the issue cannot be resolved within three (3) business days following the initial notification by MSCAA, a temporary solution will be acceptable pending MSCAA approval.
- 5. Mitigating factors beyond the control of MSCAA, such as unexpected delays in parts, accidents, severe weather, and unusual traffic, must be thoroughly documented and reported to MSCAA the following business day. The MSCAA reserves the right to grant relief for any penalties associated with after-hours service contract requirements.

VIII. Training Plan

The Respondent must include a summary description of training goals and outcomes for both system operators and maintenance personnel. Agenda for each training session along with the designated trainer's requirements. The successful Respondent must provide all User and Operations Manuals in hardcopy and electronic format to the MSCAA (MSCAA) after completion of training. All training is required to be recorded by the Respondent and an electronic copy issued to the MSCAA.

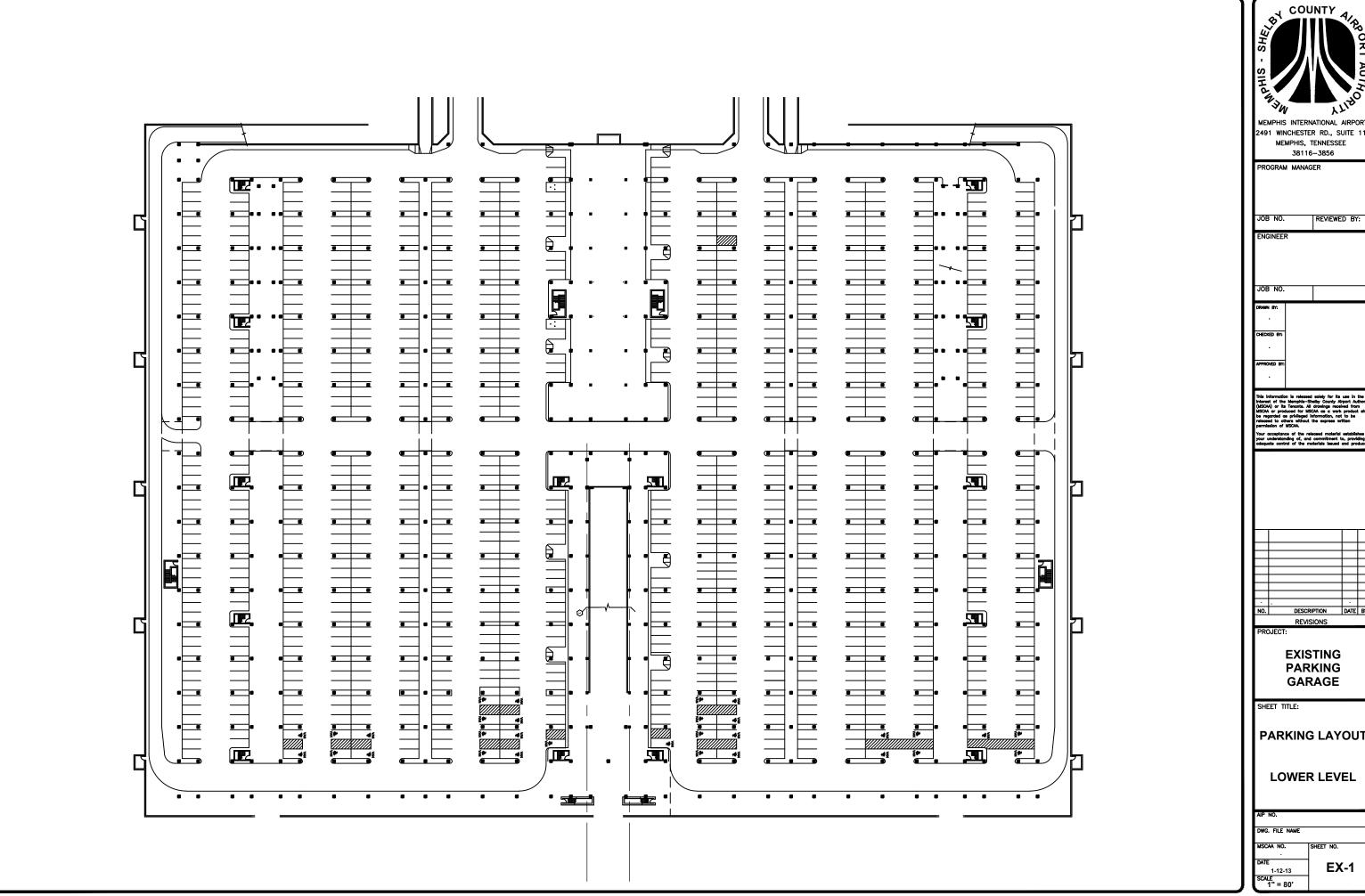
IX. Approved MSCAA Electrical Contractors

High Voltage Firm	<u>Telephone</u>
Standard Electric	(901) 652-0507
McCrory Electric	(901) 324-8837
Gephart Electric	(662) 363-9709
Phelps Electric	(901) 461-8100
Pyramid Electric	(901) 382-2000
Low Voltage Firm	<u>Telephone</u>
Mid-South Fiber	(901) 833-6820
Pro-Tech ProTec	901-937-2828



<u>Attachment B</u> Informational Drawings

LONG-TERM/SHORT-TERM GARAGE - LAYOUT EXHIBIT



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MEMPHIS INTERNATIONAL AIRPORT
2491 WINCHESTER RD., SUITE 113

MEMPHIS, TENNESSEE

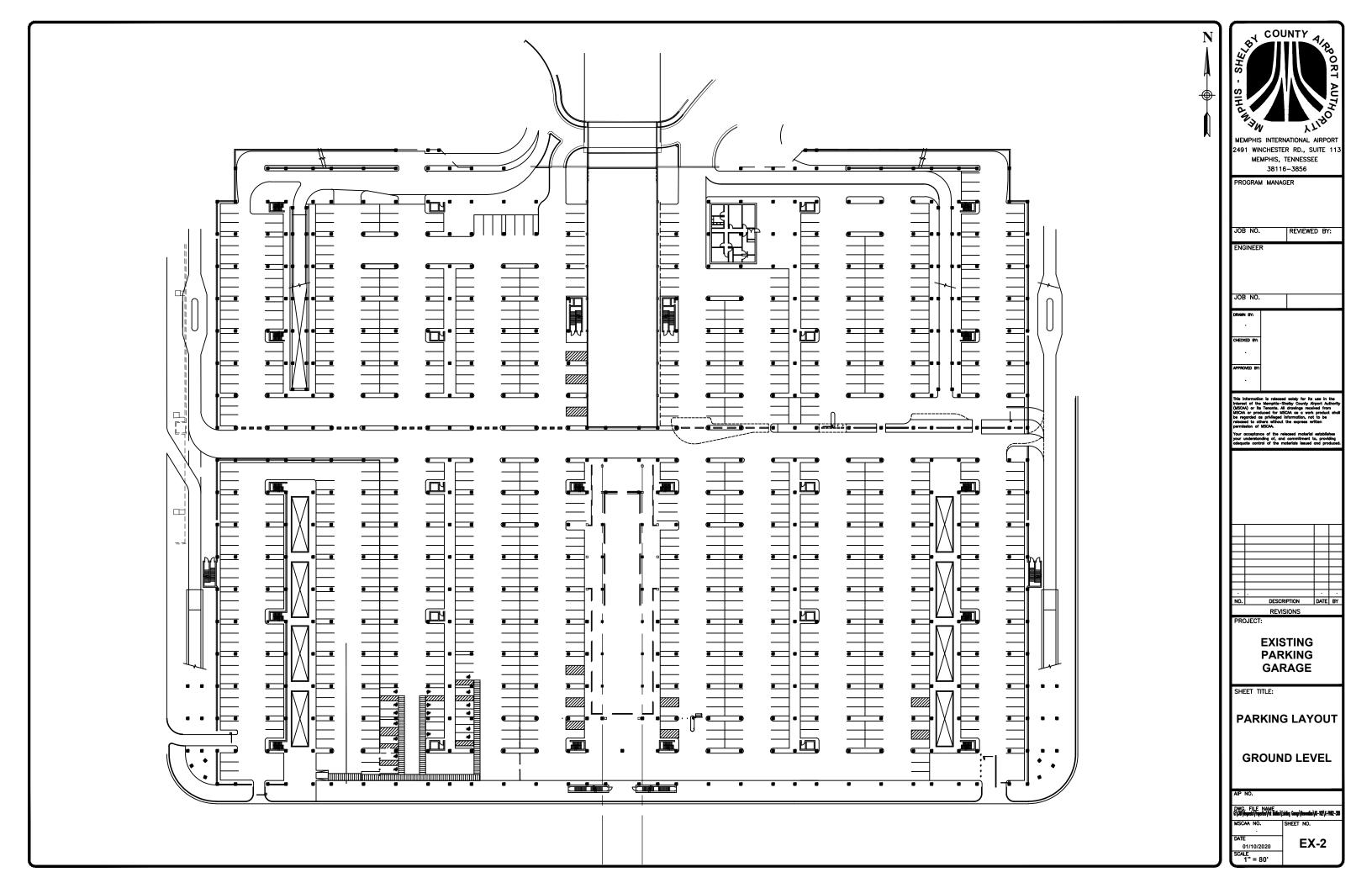
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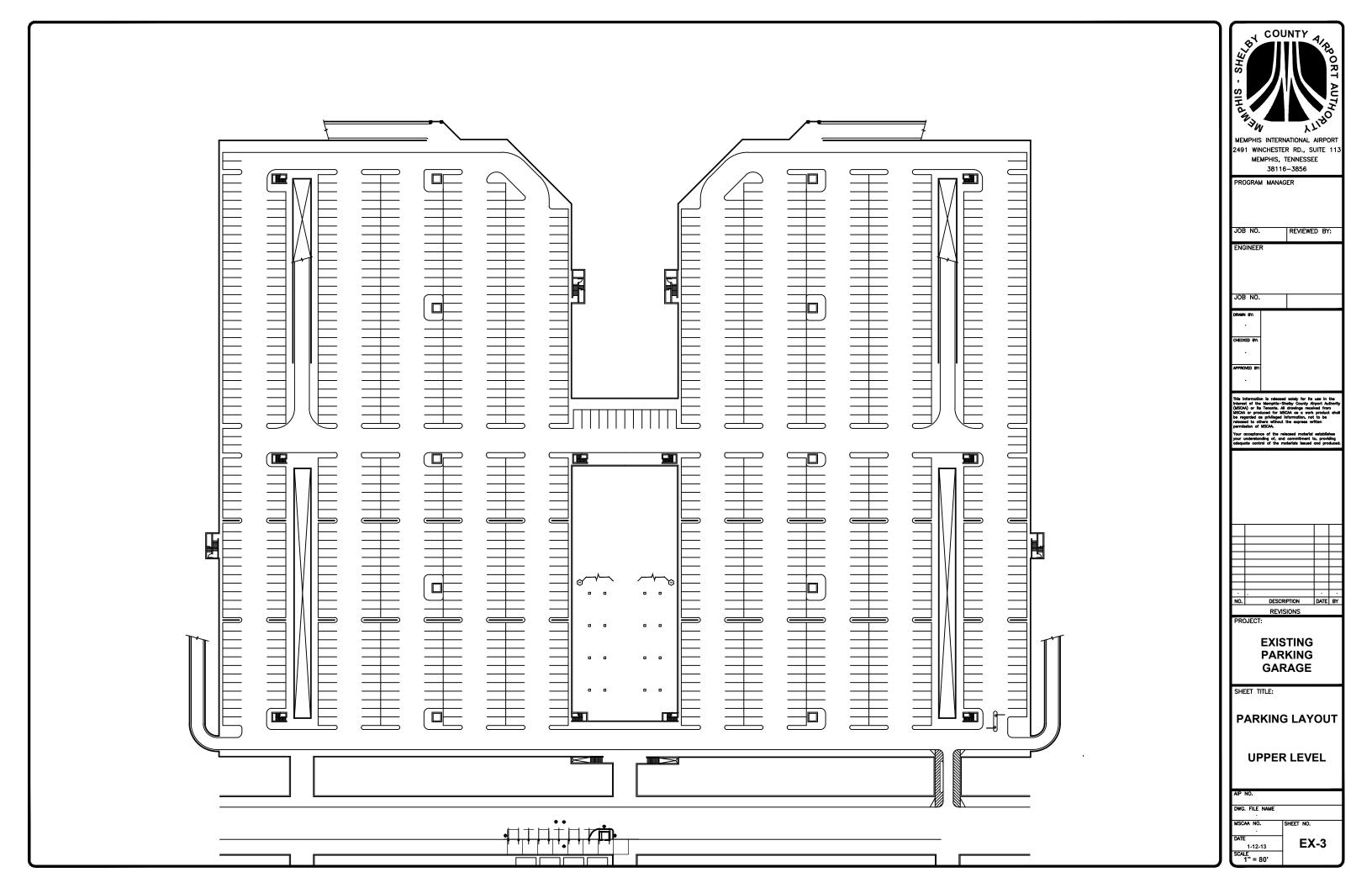
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REVISIONS

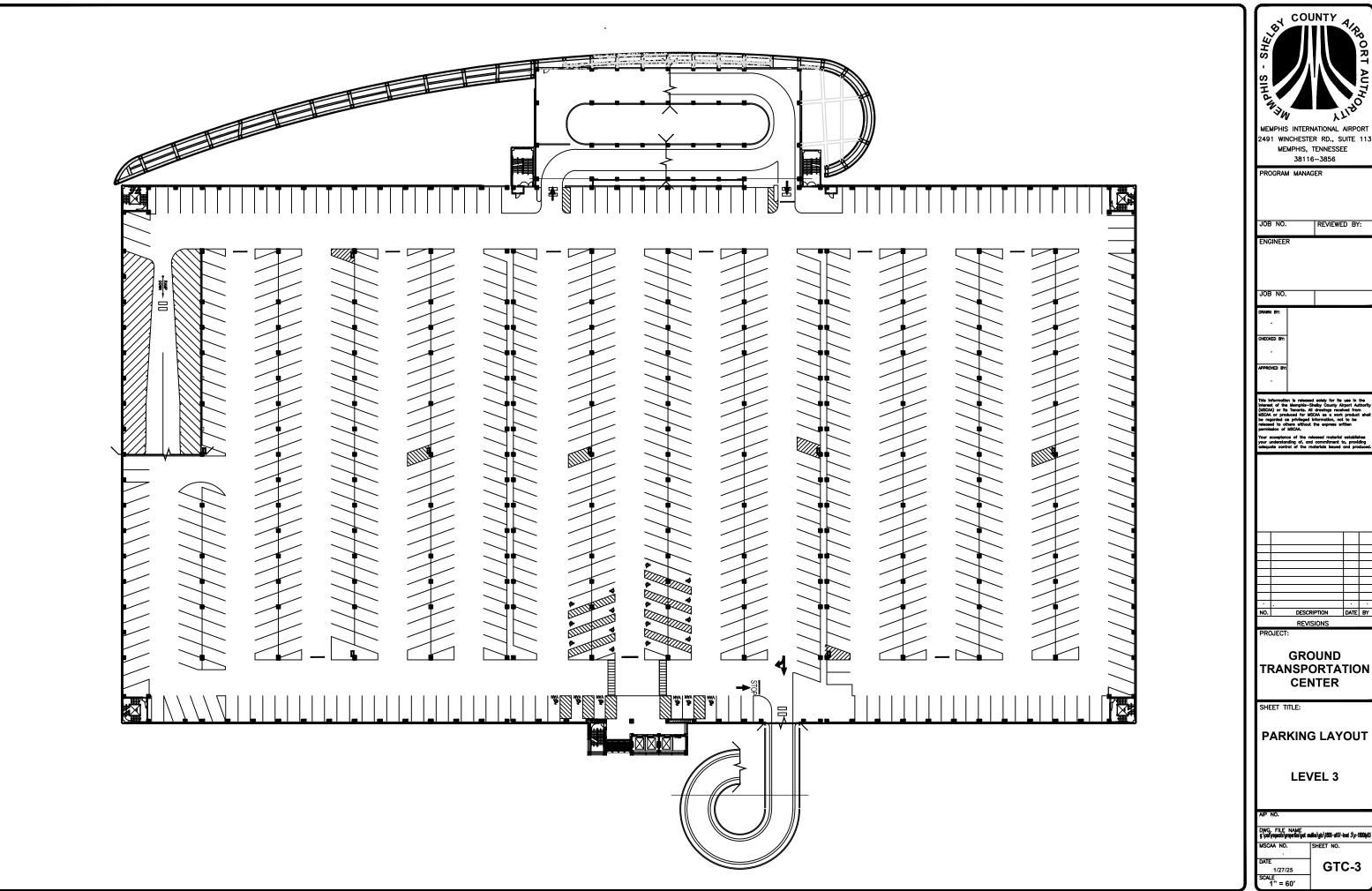
EXISTING PARKING GARAGE

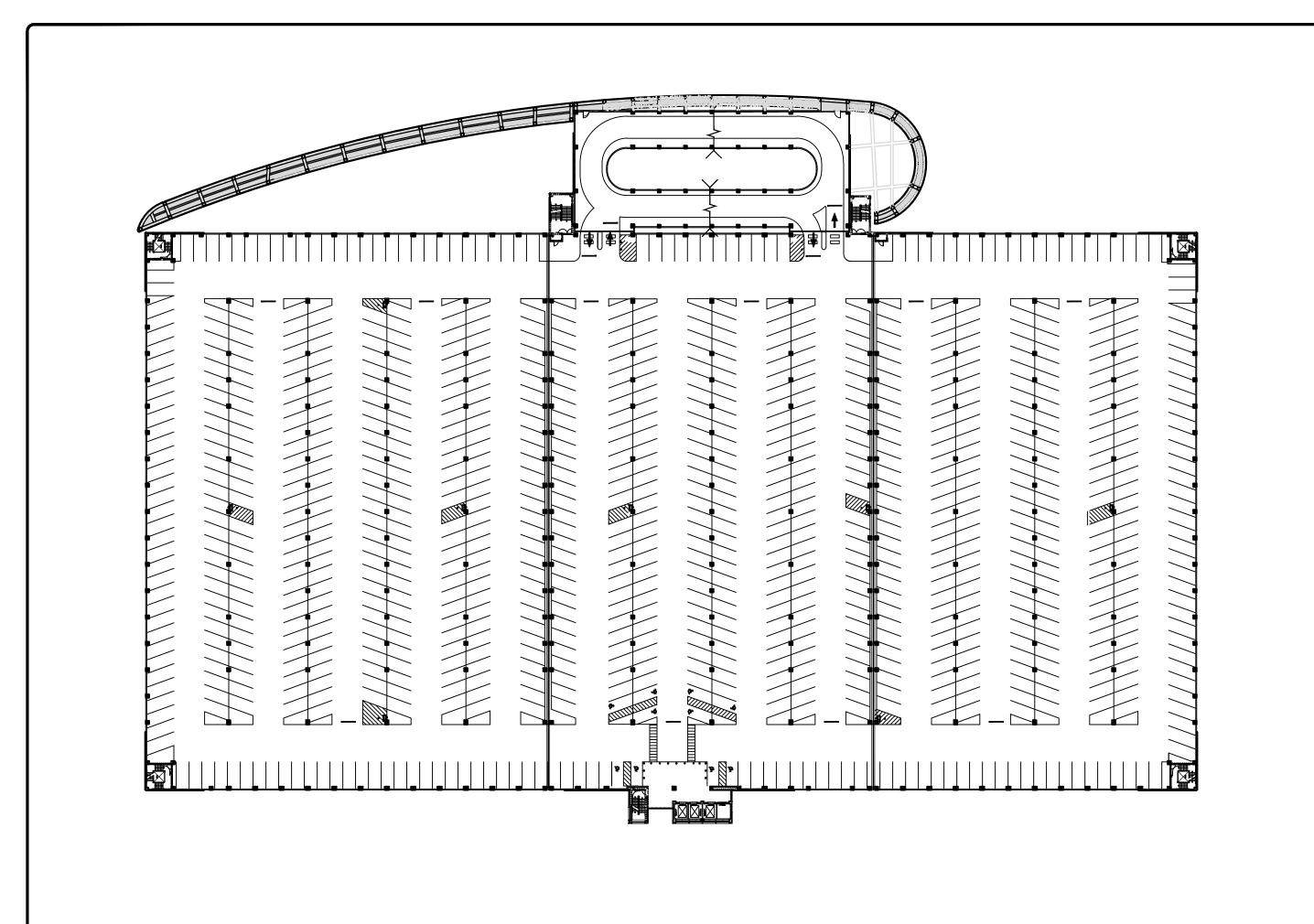
EX-1





ECONOMY GARAGE - LAYOUT EXHIBIT





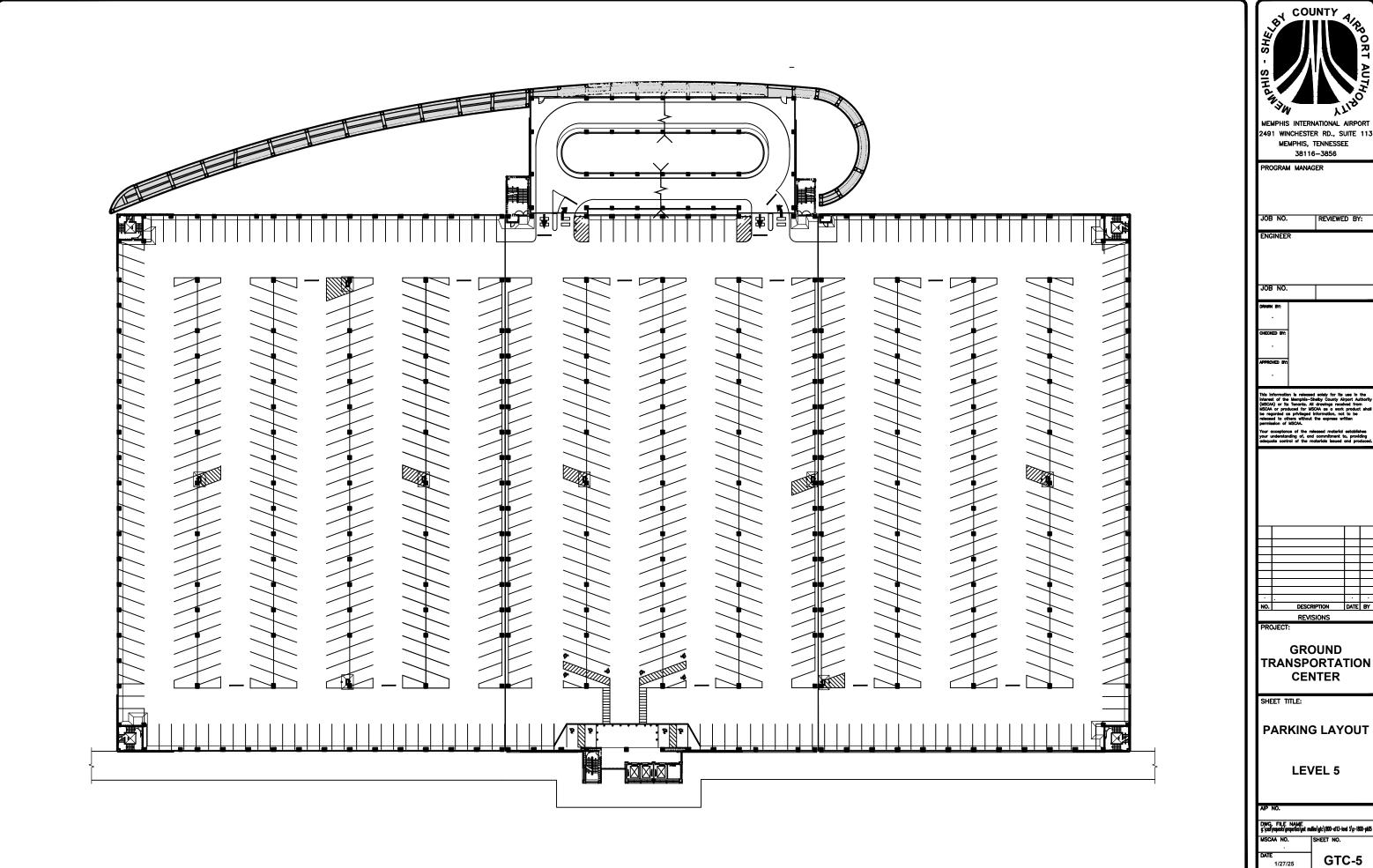
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APPROVED BY: This Information is released solely for its use in the interest of the Memphis-Shelty County Airport Authority (MSCA) or its framents. All creatings received from MSCAA or produced for MSCAA as a work product shall be regarded as privileged information, not to be regarded as privileged information of MSCAA. Voir coceptions of the released moderal establishes pour undestoarding of, and commitment to, providing edequate control of the moderated issued and produced. No. DESCRIPTION DATE BY REVISIONS PROJECT: GROUND TRANSPORTATION CENTER	DRAWN BY:
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PARKING LAYOUT

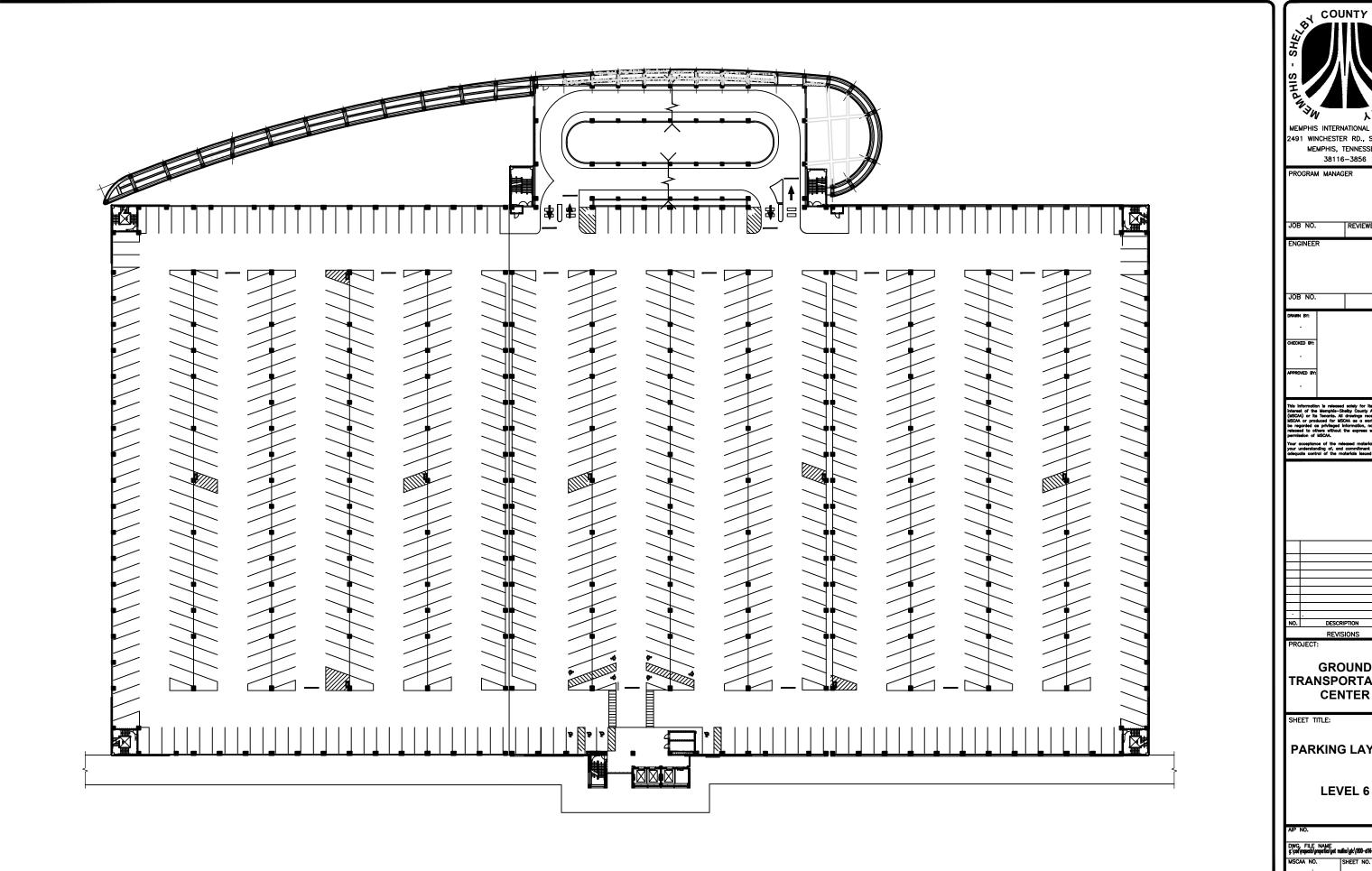
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1/27/25 SCALE 1" = 60'



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2491 WINCHESTER RD., SUITE 113
MEMPHIS, TENNESSEE

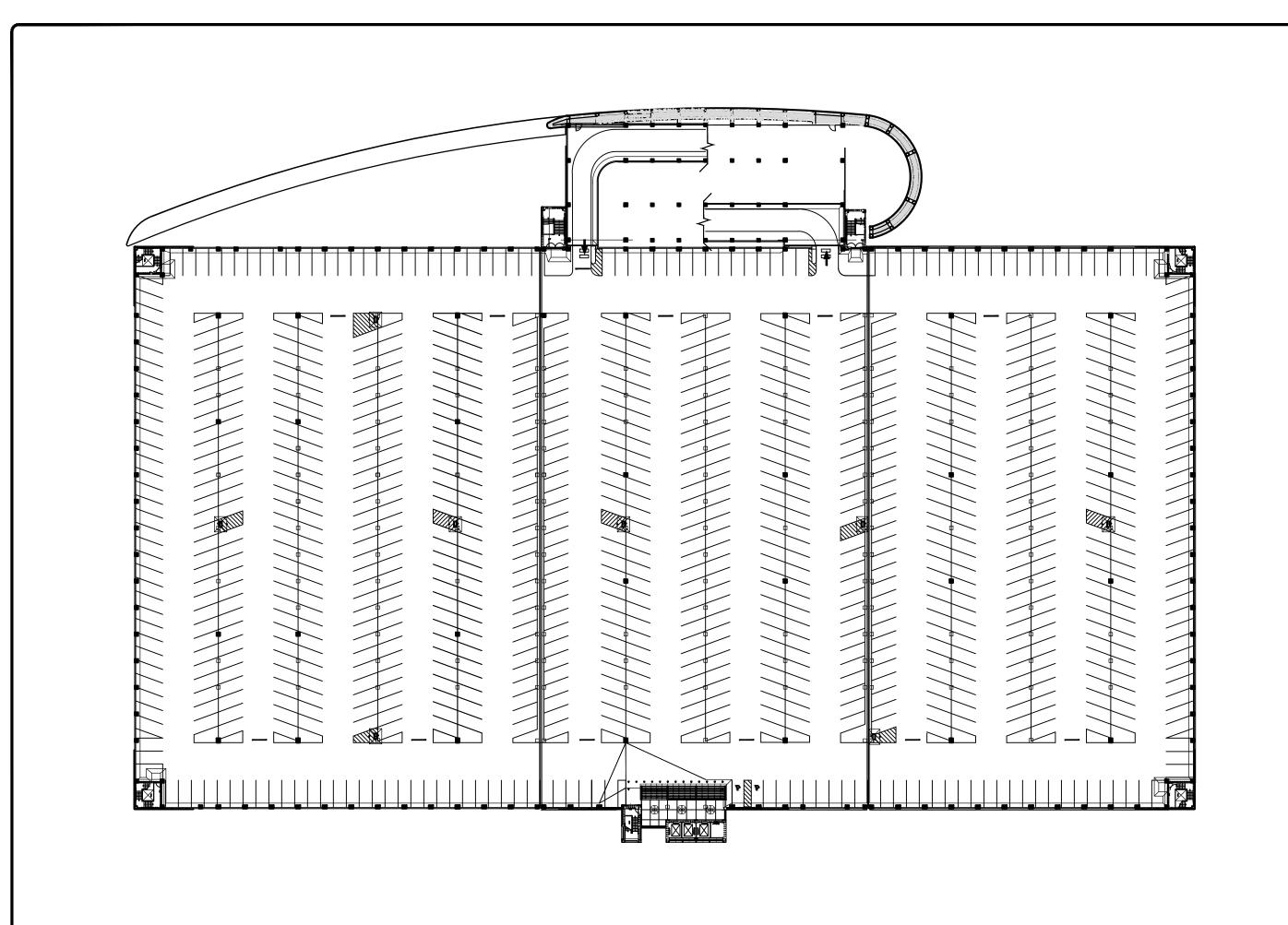
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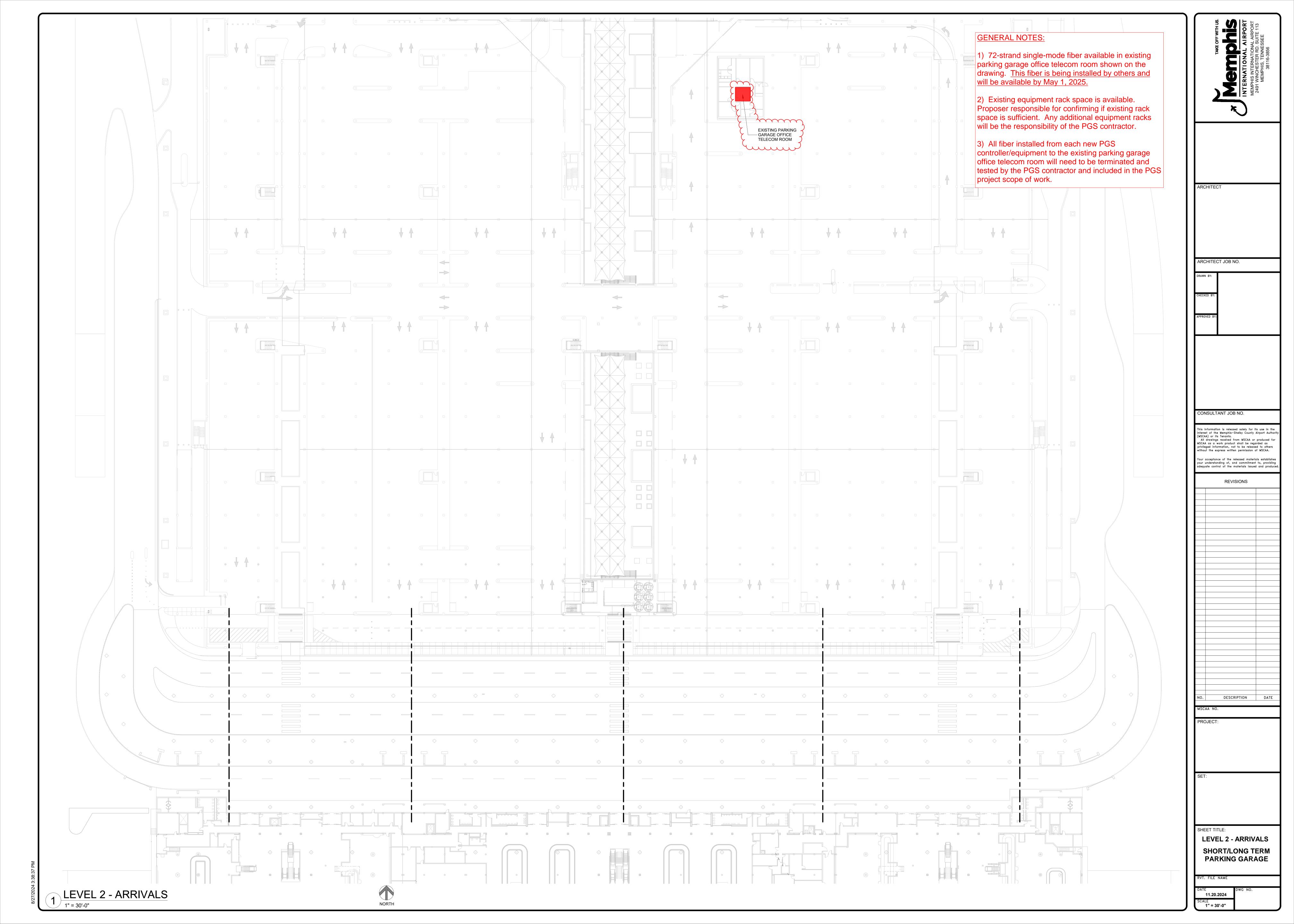
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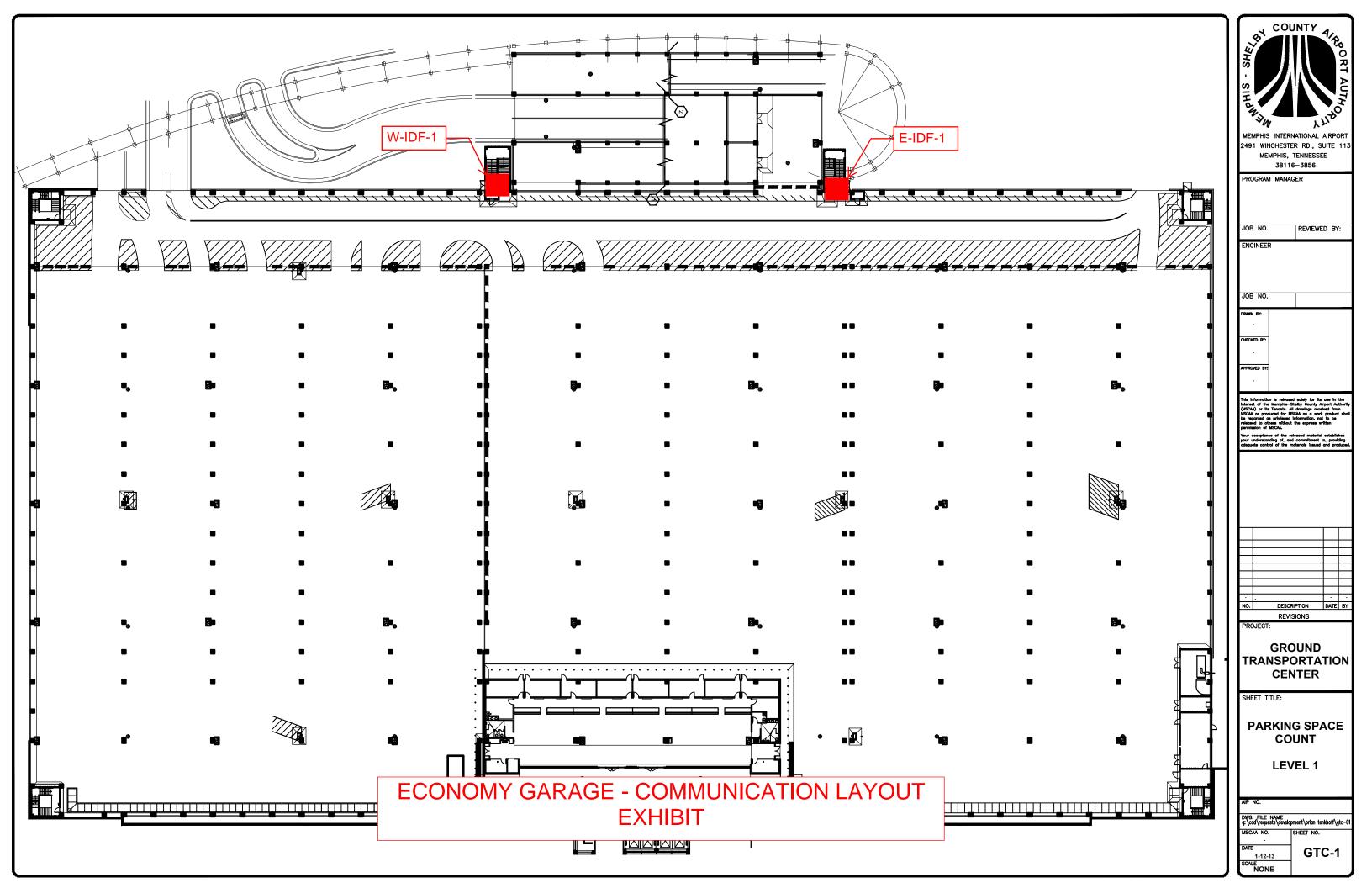
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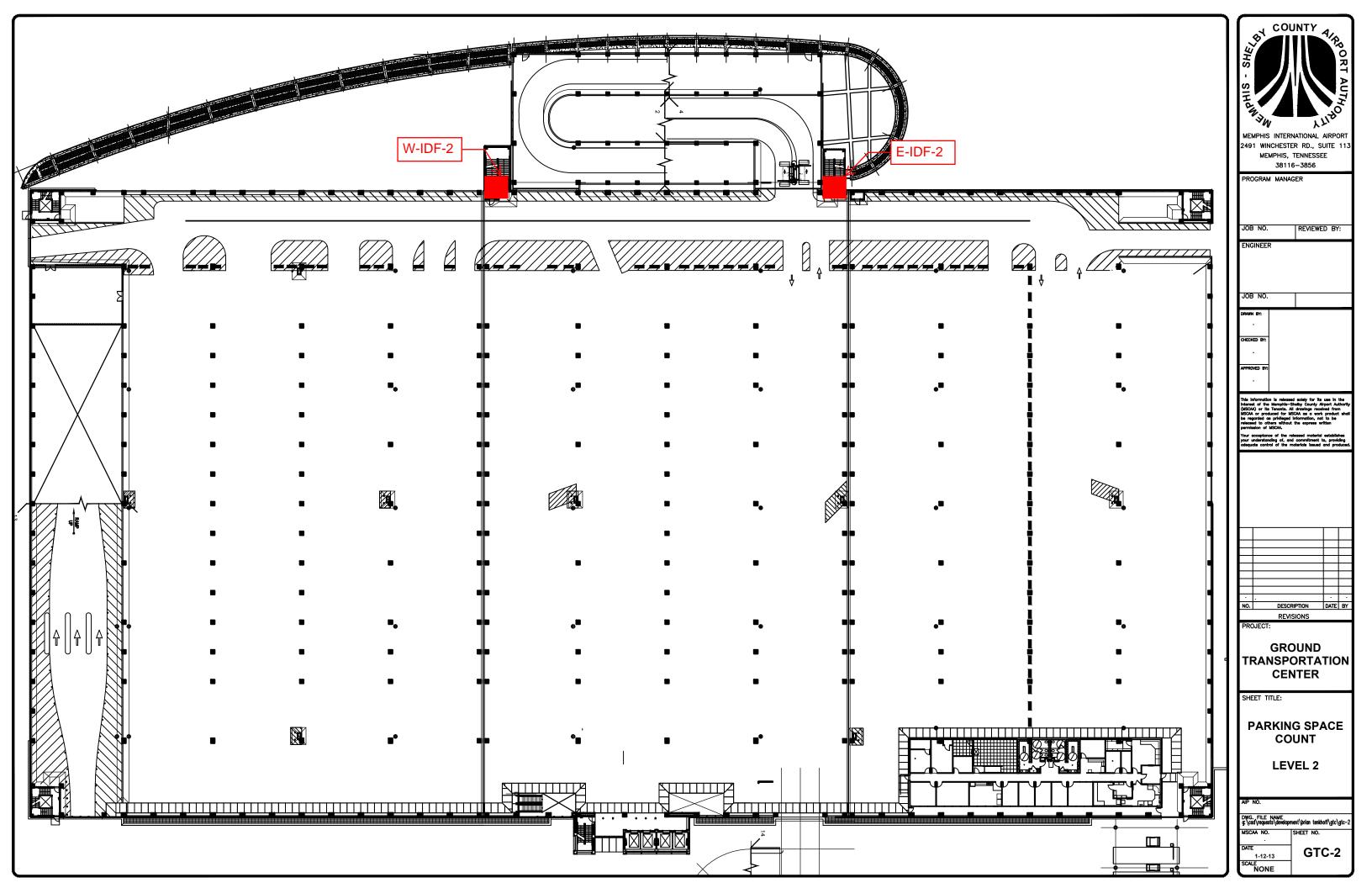
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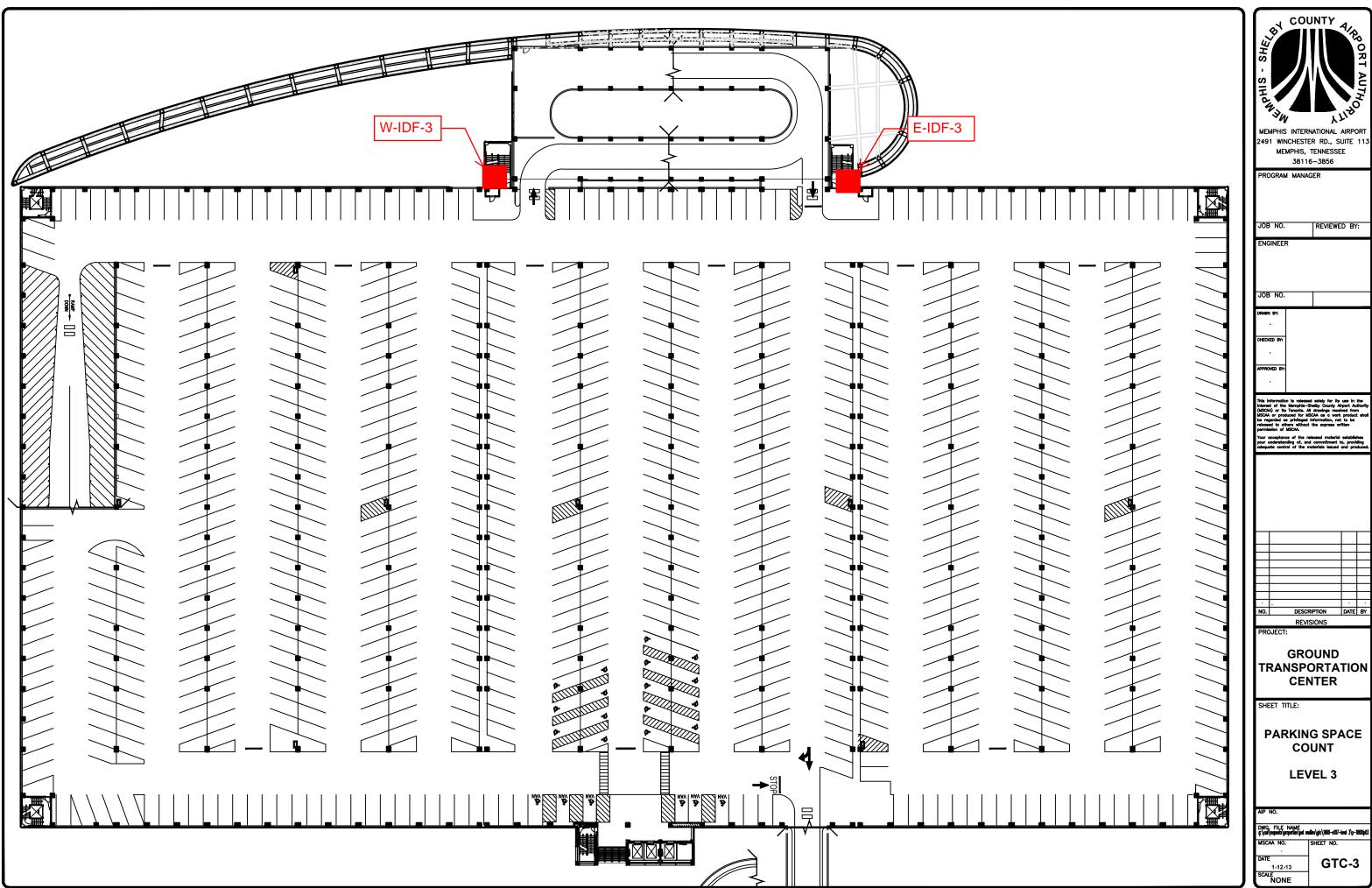
SHORT/LONG TERM GARAGE - COMMUNICATION LAYOUT EXHIBIT

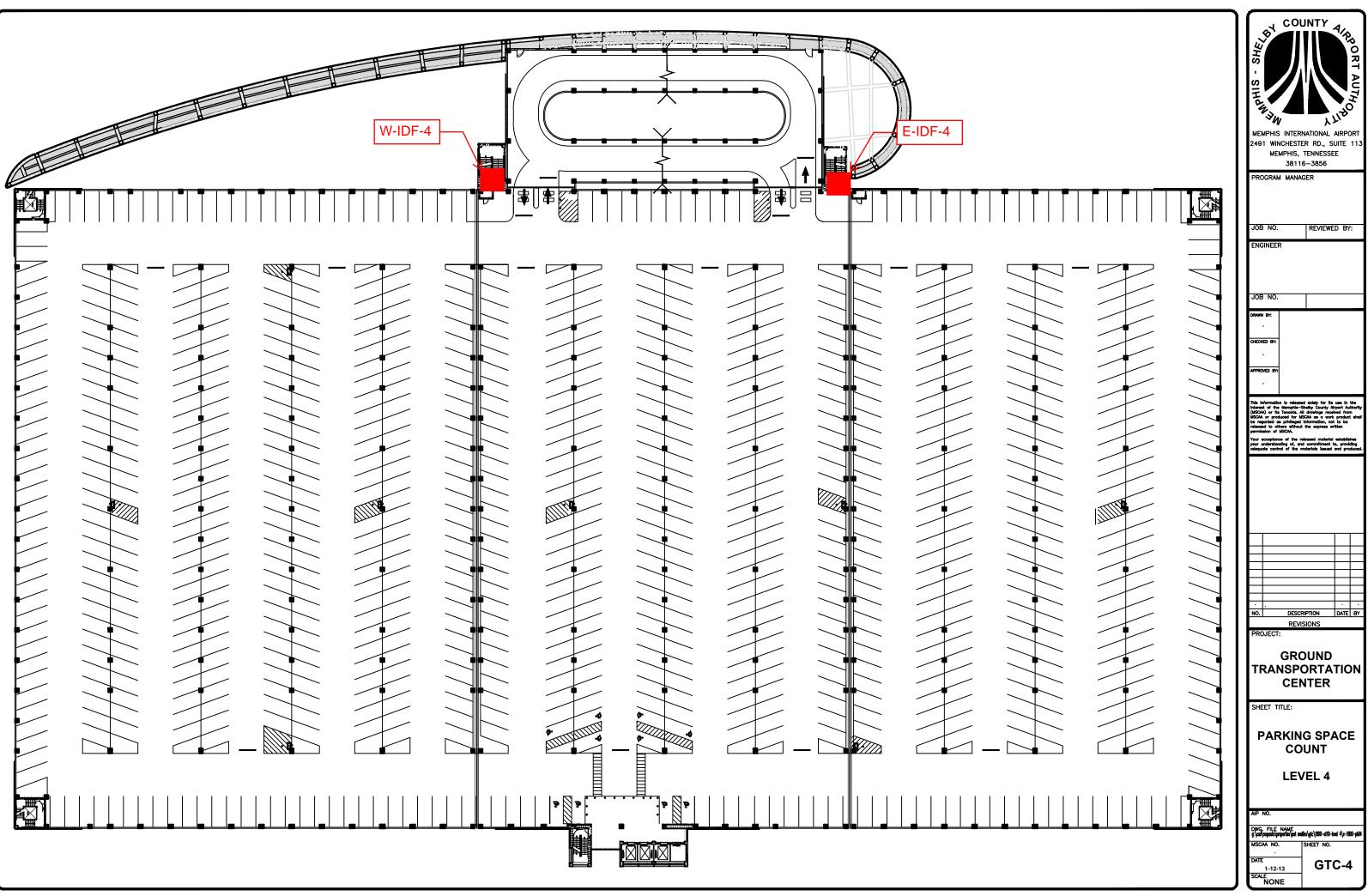


ECONOMY GARAGE -COMMUNICATION LAYOUT EXHIBITS

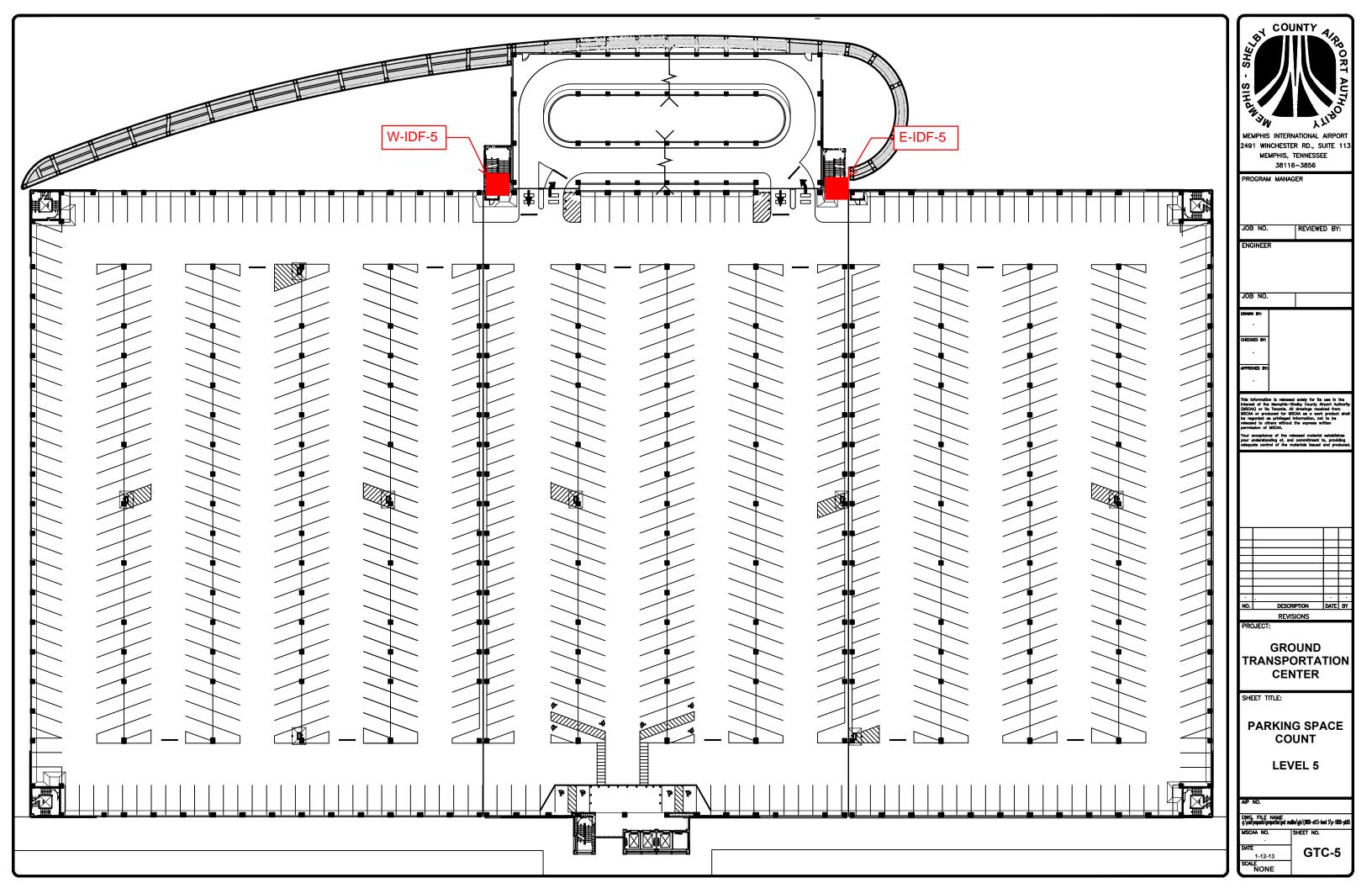


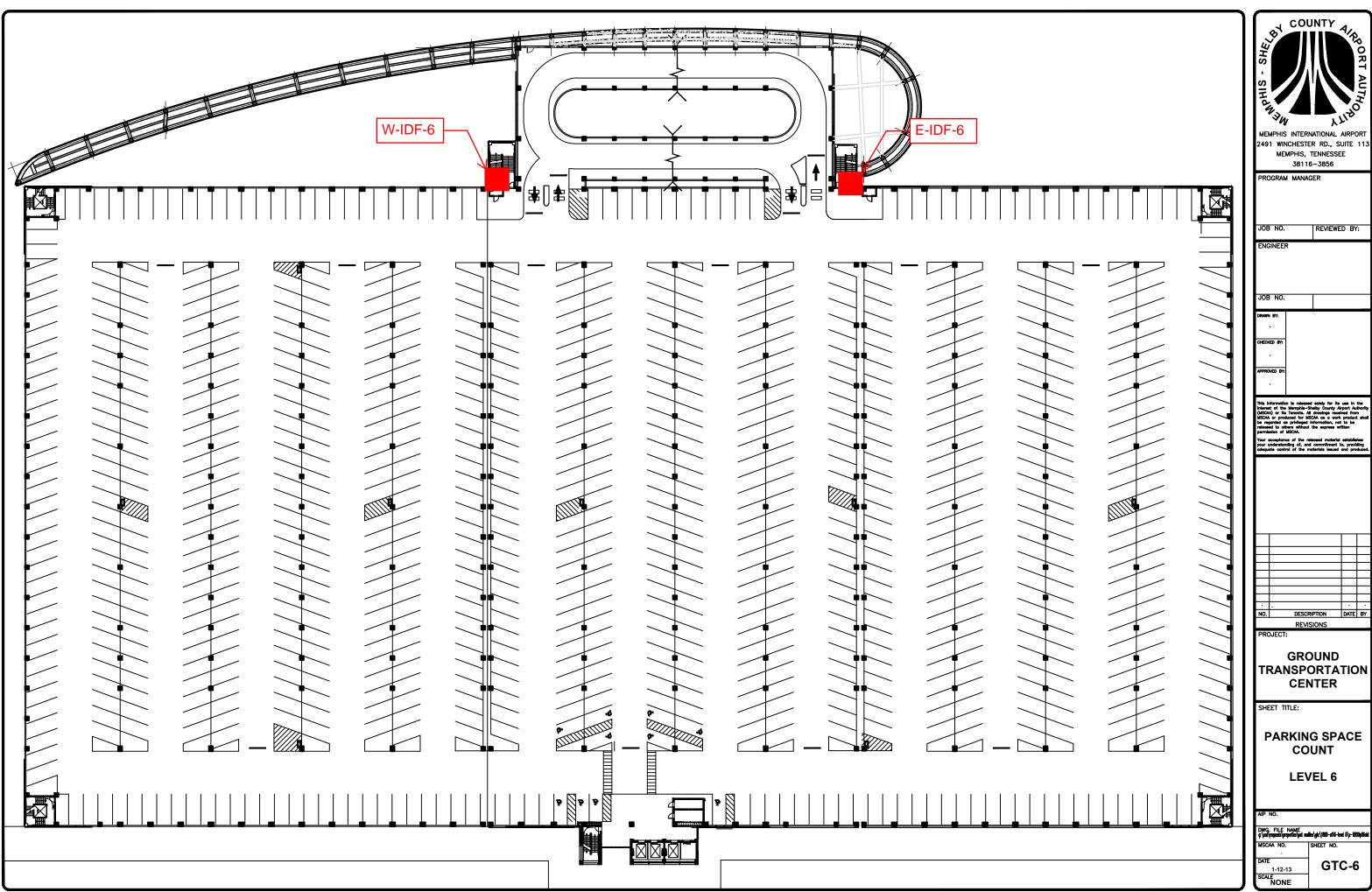




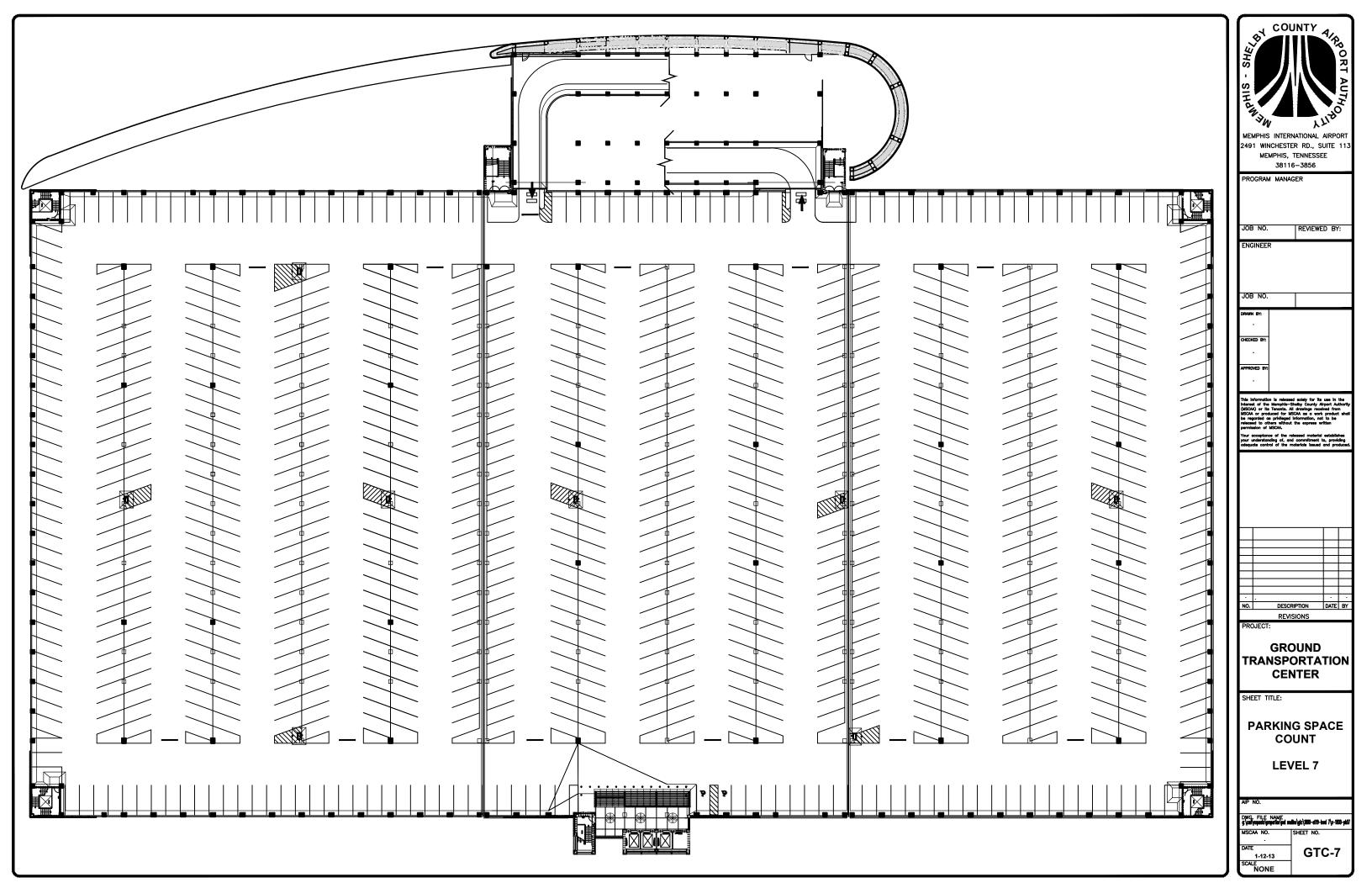


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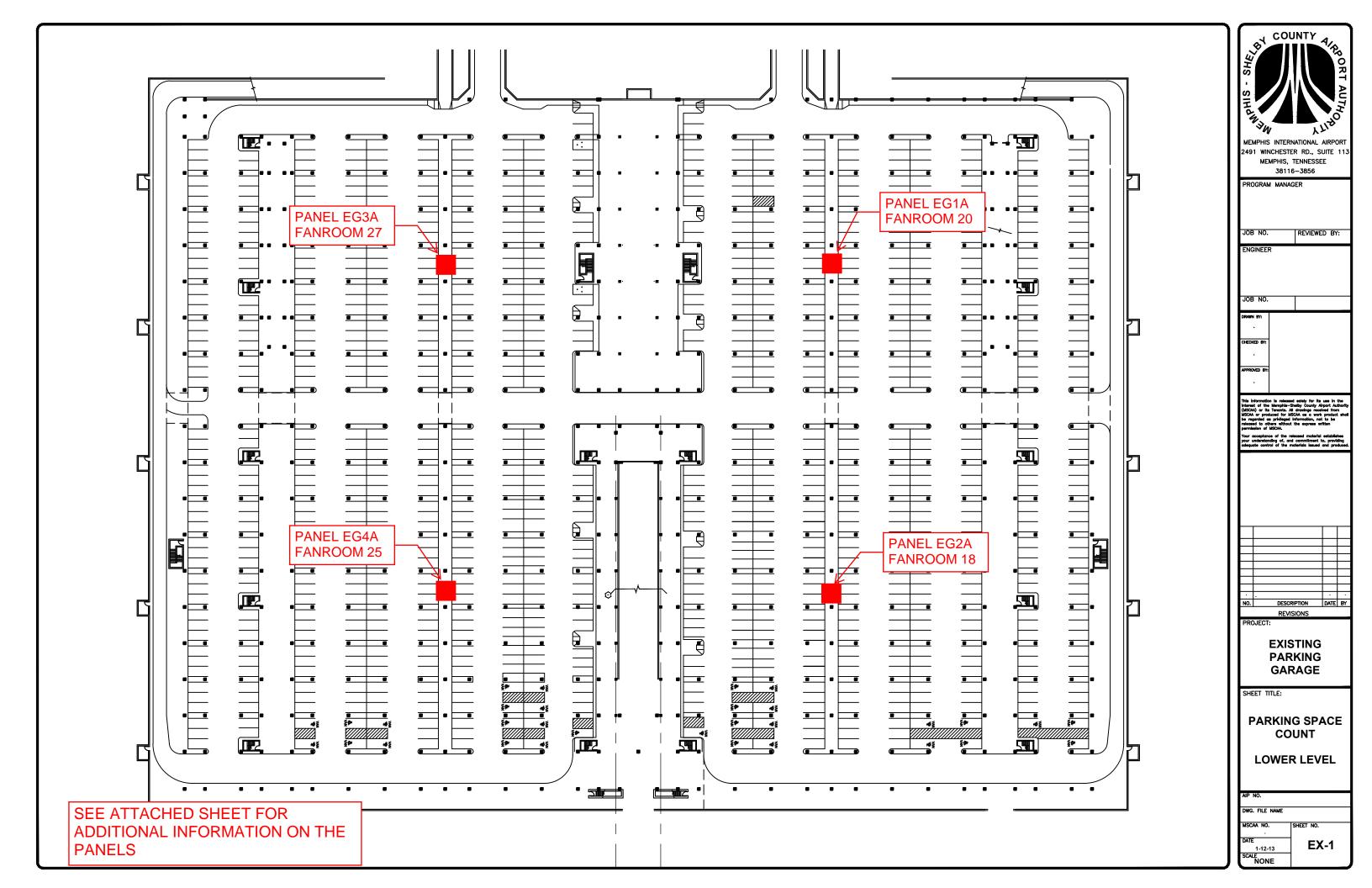




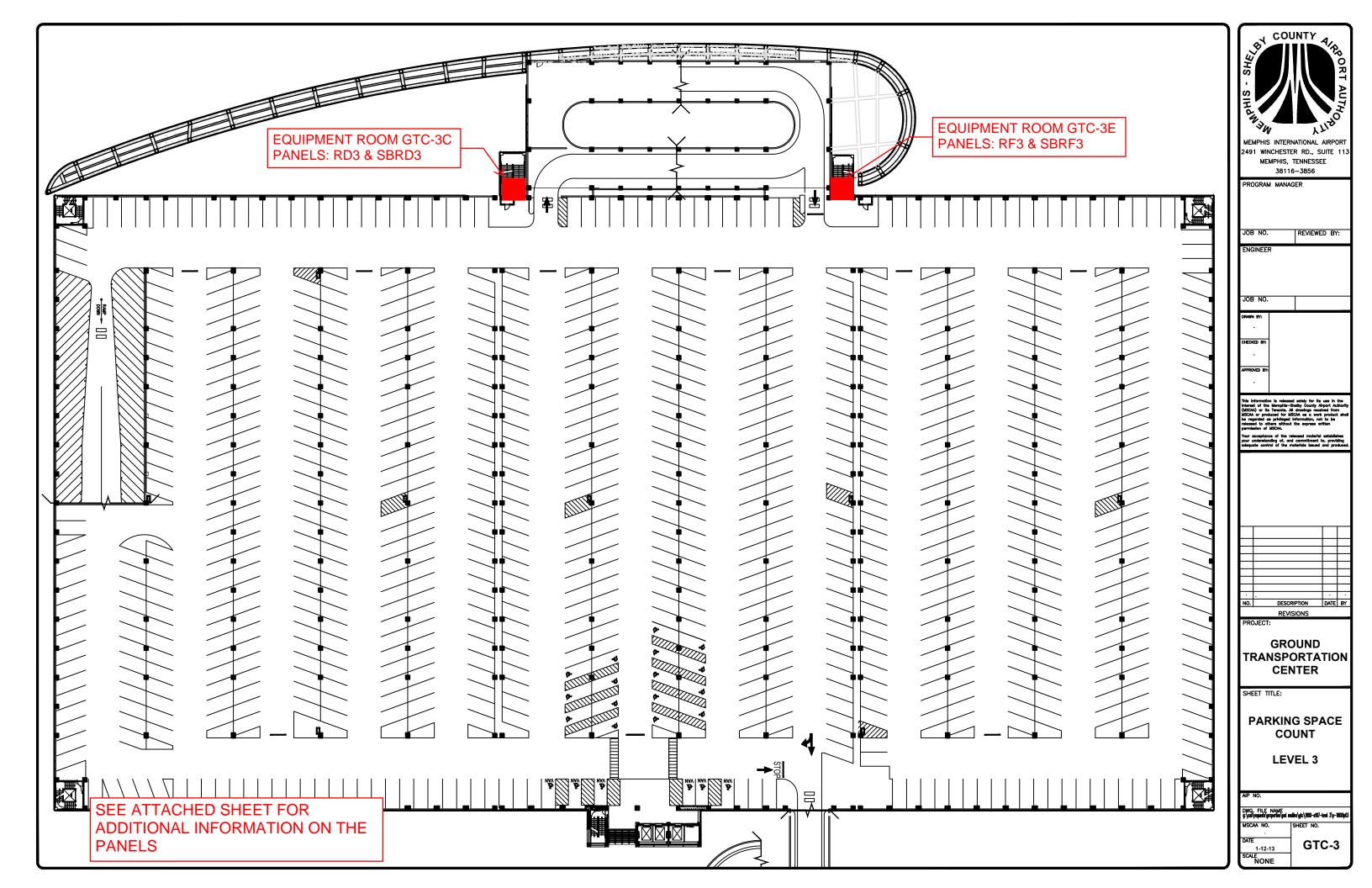
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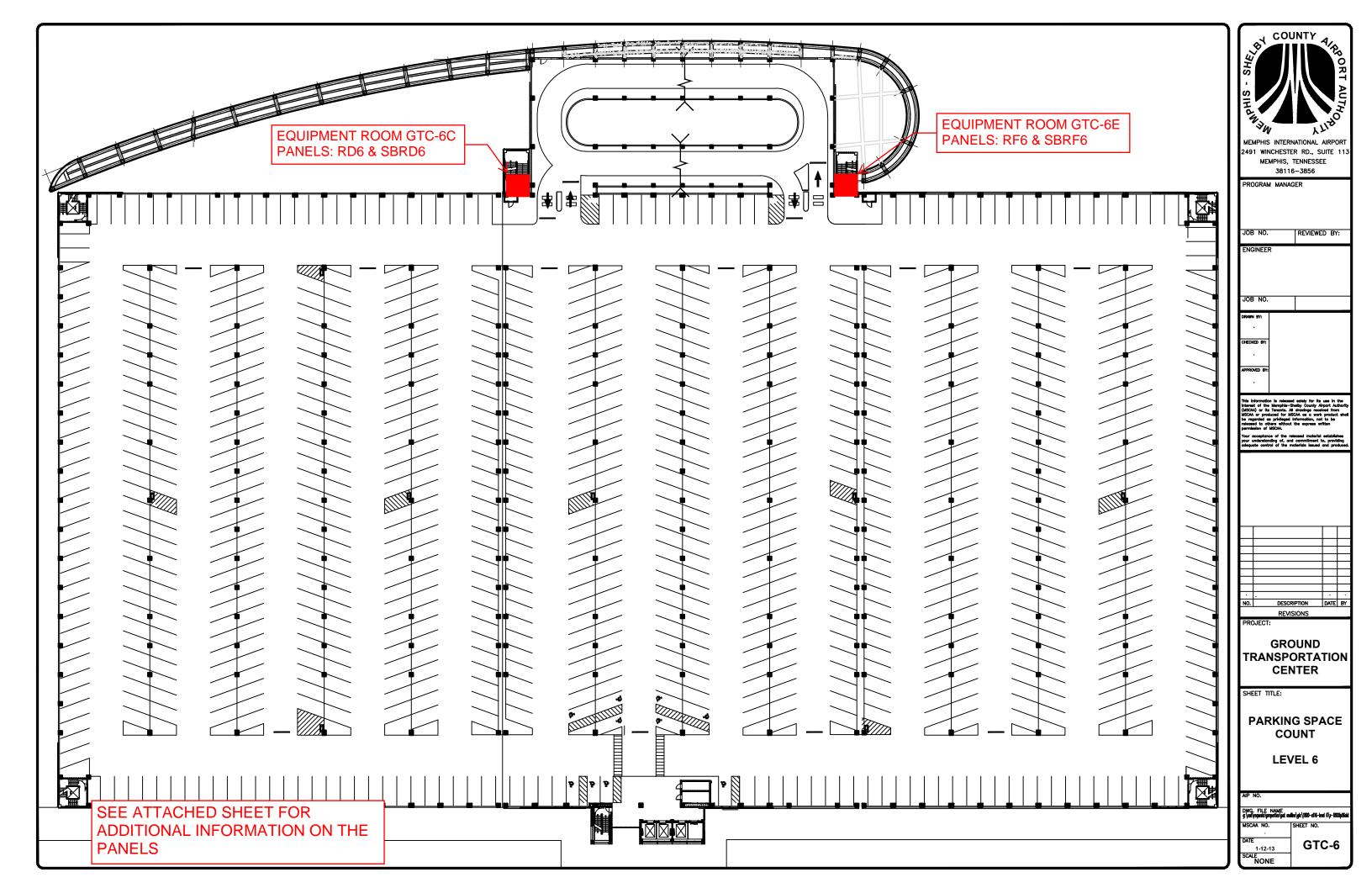


SHORT/LONG TERM GARAGE - ELECTRICAL LAYOUT EXHIBIT



ECONOMY GARAGE - ELECTRICAL LAYOUT EXHIBITS







Attachment C Proposal Forms/Pricing Schedule



RESPONDENT INFORMATION FORM

Individual's name:	the following:
If Respondent is a PARTNERSHIP, fill ou	t the following:
<u>Partner Name</u> :	Partner Address:
If Respondent is a CORPORATION, fill o	ut the following:
NAME OF CORPORATION PRESIDENT:	
NAME OF CORPORATION SECRETARY:	
All Respondents fill out the following:	
NAME OF COMPANY:	
PRINCIPAL BUSINESS ADDRESS:	
CITY, STATE, ZIP CODE:	
LOCAL STREET ADDRESS:	
CITY, STATE, ZIP CODE:	
FEDERAL TAX ID #:	
TELEPHONE NUMBER:	CELL NUMBER:
EMAIL ADDRESS:	
PRINTED NAME:	
SIGNATURE OF RESPONDENT:	

By signing the RFP response and participating in this process, the Respondent asserts that he/she has read, understands and agrees to the terms and conditions contained in this RFP document and has full authority to submit the written and verbal responses on behalf of the entity for whom they are acting and that the information submitted to the Authority in the response is true, accurate and complete to the fullest extent possible and to the best of his/her knowledge and abilities.



PROPOSAL BOND

KNOW ALL PERSONS BY THESE	PRESENTS, that we the u	ındersigned,			
			as Principa	al and	
(Insert full legal name and add	ress or Respondent/Offe	ror)			
			as Surety,		
(Insert full name and address o	or legal title of Surety)				
Licensed under the laws of the	State of Tennessee to ac	t on surety bonds for p	rincipals, ar	e hereby held and firmly bou	nd unto
Memphis-Shelby County Airpo 2491 Winchester Road, Suite 1 Memphis, Tennessee 38116-3	113				
in the sum of \$5,000.00, for tourselves, our heirs, executors		•			•
WHEREAS, the Principal has s MSCAA Project Number 24-1- incorporated herein by referen	477-00, and more fully				-
WHEREAS, it is one of the cond	litions of the Request for	Proposals that this Bor	nd be execu	ed prior to the award of the	Contract;
NOW, THEREFORE, if the Proposuch Proposal, and furnish suc sufficient surety for the faithfu performance thereof and in corof said Bond, then this obligation shall not be liable for any amoun by any extension of time with extension.	h bonds and proof of ins I performance of such Co nnection therewith, and s on shall be void, otherwis nt in excess of the sum st	urance as required in to ontract and for the propositions and for the propositions and the respect see the same shall remains ated in this Bond, and the	he Proposal mpt paymer s perform th n in full forc he obligatio	or Contract Documents with it of labor and material furnis e agreement created by the a e and effect. The Principal or n shall be in no way impaired o	n good and shed in the acceptance the Surety or affected
Signed and sealed this	day of	, 20			
PRINCIPAL			S	URETY	
					(Surety)
Respondents Name					
Ву:			Ву:		_
Signature of Principal			S	gnature of Attorney-in-Fact	
Printed Name			Printed Na	ime	



PARKING GUIDANCE SYSTEM PRICING SHEET

Proposer must use the below form for providing the price schedule.

Electronic Microsoft Excel version can be found at https://flymemphis.com/rfps-rfqs/

Respondent Company Name:

Contact Person:

Telephone: Email:

Pricing Note 1: Please fill in Description/Product, Unit QTV, Price, Sum Total, and Totals
Pricing Note 2: Please include all licensing and 3-year annual fees up-front in Base Price
Spaces to be Monitored: Economy Garage 4,541 (3,621 Covered) + Long-term/Short-term Garage 2,912 (Covered 1,578) = 7,453 (Covered 5,199)

Item	Description/Product	Unit QTY	Price	Sum Total	
	Administration and Design				
1	Project Design			\$0.00	
2	Project Management			\$0.00	
3	As-Built Drawings			\$0.00	
4	System and Software Training(s)			\$0.00	
5	Electrical Subcontractor (if Required)			\$0.00	
6	Communications Subcontractor (if Required)			\$0.00	
7	Proof of Concept Testing (POCT)			\$0.00	
8	Development of Stand-Alone/Subsystem/System Test Plans			\$0.00	
9	Development of Sequence of Work and Mitigation Plan			\$0.00	
10	Structural Design for Wayfinding Signs (if Required)			\$0.00	
11	Electrical and Low Voltage Permitting			\$0.00	
12	Other Administration/Design (Please Specify)			\$0.00	
	Sub-Total Sub-Total			\$0.00	
	Devices & Field Equipment (Furnish Only)			
13	Vehicle Sensors (Specify Type): Long-Term/Short-Term Garage	, 		\$0.00	
14	Vehicle Sensors (Specify Type): Economy Garage			\$0.00	
15	Vehicle Sensors on Roof (Aerial/Outdoor - Specify Type): Long-Term/Short-Term			\$0.00	
16	Poles for Aerial/Outdoor Sensors: Long-Term/Short-Term Garage			\$0.00	
17	Vehicle Sensors on Roof (Aerial/Outdoor - Specify Type): Economy Garage			\$0.00	
18	Poles for Aerial/Outdoor Sensors: Economy Garage (Required)			\$0.00	
19	LED Lights for Indicating Spots: Long-Term/Short-Term Garage			\$0.00	
20	LED Lights for Indicating Spots: Economy Garage			\$0.00	
21	Controllers/Servers: Long-Term/Short-Term Garage			\$0.00	
22	Controllers/Servers: Economy Garage			\$0.00	
23	Power Supplies: Long-Term/Short-Term Garage			\$0.00	
24	Power Supplies: Economy Garage			\$0.00	
25	Wayfinding Sign with Foundation for Long-Term/Short-Term Garage - Define Type (Single/Dual) and # of Displays			\$0.00	
	Wayfinding Sign with Foundation for Economy Garage				
26	- Define Type (Single/Dual) and # of Displays			\$0.00	
27	Other Devices & Field Equipment (Please Specify)			\$0.00	
	Sub-Total			\$0.00	
				\$0.00	
	Electrical and Communication Component	ts			
28	Electrical Conduit/Wireway for Power/Comm/Wayfinding Signs - Above Ground (LF)			\$0.00	
29	Electrical Conduit/Wireway for Power/Comm/Wayfinding Signs - Below Ground (LF)			\$0.00	
30	Electrical Service Wire (LF)			\$0.00	
31	Low Voltage Communication Wire (LF)			\$0.00	
32	Low Voltage Communication Terminations			\$0.00	
33	Electrical Disconnects			\$0.00	
34	Electrical Panel and Subpanels with Breakers (as Needed)			\$0.00	
35 36	Lightning Protection/Surge Suppression System Misc. Electrical Cost for Updating Electrical Components to meet NEC Codes			\$0.00	
37	Device Cabinets/Hub Cabinets			\$0.00 \$0.00	
38	Uninterruptable Power Supplies (per Device/Hub Cabinet)			\$0.00	
39	Fiber Optic Cable (LF)			\$0.00	
40	Fiber Optic Patch Panels			\$0.00	
41	Fiber Optic Terminations and Testing			\$0.00	
42	Other Electrical/Communication (Please Specify)			\$0.00	
	Sub-Total			\$0.00	
	Servers and Centralized Components				
43	On-Premise Server/Controllers: Long-Term/Short-Term Garage			\$0.00	
44	On-Premise Server/Controllers: Economy Garage			\$0.00	
45	Back Up Controller/Server: Data Center			\$0.00	
46	On-Premise Workstations: Long-Term/Short-Term Garage			\$0.00	
47 48	On-Premise Workstations: Economy Garage			\$0.00	
48	Routers: Long-Term/Short-Term Garage Routers: Economy Garage			\$0.00 \$0.00	
50	Communication Switches: Long-Term/Short-Term Garage (by MSCAA - Provide Quantity Only)		\$0.00	\$0.00	
51	Communication Switches: Economy Garage (by MSCAA - Provide Quantity Only)		\$0.00	\$0.00	
52	PGS System Software		12,00	\$0.00	
53	Data Center Rack Assemblies			\$0.00	
54	Other Products/Services (Please Specify)			\$0.00	
	Sub-Total Sub-Total			\$0.00	
	Installation				
55	Installation & System Commissioning: Long-Term/Short-Term Garage			\$0.00	
56	Installation & System Commissioning: Local Servers and Data Center (MEM IT Department)			\$0.00	
57	Installation & System Commissioning: Economy Garage			\$0.00	
58	Installation of Additional Poles for Aerial/Outdoor Sensors: Long-Term/Short-Term Garage			\$0.00	
59	Installation of Additional Poles for Aerial/Outdoor Sensors: Economy Garage			\$0.00	

60				
	Overall System Testing			\$0.00
61	Concrete Core Drilling and X-Ray: Long-Term/Short-Term Garage (Estimate #)			\$0.00
62	Concrete Core Drilling and X-Ray: Economy Garage (Estimate #)			\$0.00
63	Other Installation (Please Specify)			\$0.00
	Sub-Total Sub-Total			\$0.00
	THE CONTRACTOR AND ADDRESS OF THE PARTY OF T			
	IT/Software Initial and Year-One (1)			
64	Cloud Server Setup Fees (One-Time)			\$0.00
65	Cloud Server Licensing Fee (Year One (1))			\$0.00
66	API Integration Set-up Fees: Specify Interface (One-Time)			\$0.00
67	API Integration Licensing Fee - (Year One (1))			\$0.00
	Other IT/Software (Please Specify)			
68				\$0.00
	Sub-Total Sub-Total			\$0.00
	IT/Software Recurring: Year-Two (2) to Year-	Ten (10)		
69	Cloud Server Fees (Annual)			\$0.00
70	API Integration Fees - Specify Interface (Annual)			\$0.00
71	Additional Features (Specify Product and License): Long-Term/Short-Term Garage			\$0.00
72	Additional Features (Specify Product and License): Economy Garage			\$0.00
73	Additional Features (Specify Product and License): Local Server and Data Center			\$0.00
74	Other IT/Software (Please Specify)			\$0.00
	Sub-Total			\$0.00
				ψο.ου
	Post-Warranty Maintenance: Long-Term/Short-Ter	m Garage		
		III Garage		
	ALL parts & labor to be included			
75	Post-Warranty Maintenance (Year 4)	1		\$0.00
76	Post-Warranty Maintenance (Year 5)	1		\$0.00
77	Post-Warranty Maintenance (Year 6)	1		\$0.00
78	Post-Warranty Maintenance (Year 7)	1		\$0.00
79	Post-Warranty Maintenance (Year 8)	1		\$0.00
		1		
80	Post-Warranty Maintenance (Year 9)			\$0.00
81	Post-Warranty Maintenance (Year 10)	1		\$0.00
	Sub-Total			\$0.00
	Post-Warranty Maintenance: Economy Gara	ige		
	ALL parts & labor to be included			
82		4		ć0.00
	Post-Warranty Maintenance (Year 4)	1		\$0.00
83	Post-Warranty Maintenance (Year 5)	1		\$0.00
84	Post-Warranty Maintenance (Year 6)	1		\$0.00
85	Post-Warranty Maintenance (Year 7)	1		\$0.00
86	Post-Warranty Maintenance (Year 8)	1		\$0.00
87	Post-Warranty Maintenance (Year 9)	1		\$0.00
88	Post-Warranty Maintenance (Year 10)	1		\$0.00
00				
	Sub-Total			\$0.00
	Value Added Features			
	Not included in above pricing			
89	Additional Features (Specify Product) : Long-Term/Short-Term Garage			\$0.00
89	Additional Features (Specify Product): Long-Term/Short-Term Garage			\$0.00
90	Additional Features (Specify Product) : Economy Garage			\$0.00
90 91	Additional Features (Specify Product) : Economy Garage Additional Installation Costs (Specify)			\$0.00 \$0.00
90 91 92	Additional Features (Specify Product) : Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify			\$0.00 \$0.00 \$0.00
90 91	Additional Features (Specify Product) : Economy Garage Additional Installation Costs (Specify)			\$0.00 \$0.00
90 91 92	Additional Features (Specify Product) : Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify			\$0.00 \$0.00 \$0.00
90 91 92 93	Additional Features (Specify Product) : Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94	Additional Features (Specify Product) : Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94	Additional Features (Specify Product) : Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94	Additional Features (Specify Product) : Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94	Additional Features (Specify Product) : Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94	Additional Features (Specify Product) : Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94	Additional Features (Specify Product): Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total Cost Summary			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94 95	Additional Features (Specify Product): Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total Cost Summary Construction and Year One (1)			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94 95	Additional Features (Specify Product): Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total Cost Summary Construction and Year One (1) Administration and Design			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94 95	Additional Features (Specify Product): Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total Cost Summary Construction and Year One (1)			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94 95	Additional Features (Specify Product): Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total Cost Summary Construction and Year One (1) Administration and Design			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94 95 94 95 94 95	Additional Features (Specify Product): Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total Cost Summary Construction and Year One (1) Administration and Design Devices & Field Equipment (Furnish Only) Electrical and Communication Components			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94 95 94 95 96 97	Additional Features (Specify Product): Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total Cost Summary Construction and Year One (1) Administration and Design Devices & Field Equipment (Furnish Only) Electrical and Communication Components Servers and Centralized Components			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94 95 94 95 96 97 98	Additional Features (Specify Product): Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total Cost Summary Construction and Year One (1) Administration and Design Devices & Field Equipment (Furnish Only) Electrical and Communication Components Servers and Centralized Components Installation			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
90 91 92 93 94 95 94 95 96 97	Additional Features (Specify Product): Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total Cost Summary Construction and Year One (1) Administration and Design Devices & Field Equipment (Furnish Only) Electrical and Communication Components Servers and Centralized Components			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
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90 91 92 93 94 95 95 96 97 98 99	Additional Features (Specify Product): Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total Cost Summary Construction and Year One (1) Administration and Design Devices & Field Equipment (Furnish Only) Electrical and Communication Components Servers and Centralized Components Installation IT/Software (Initial/First Year) Construction Total System Required Yearly Recurring Costs IT/Software Recurring Years Two (2) to Ten (10)			\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
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90 91 92 93 94 95 94 95 96 97 98 99	Additional Features (Specify Product): Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total Cost Summary Construction and Year One (1) Administration and Design Devices & Field Equipment (Furnish Only) Electrical and Communication Components Servers and Centralized Components Installation IT/Software (Initial/First Year) Construction Total System Required Yearly Recurring Costs IT/Software Recurring Years Two (2) to Ten (10) Post-Warranty Maintenance: Long-Term/Short-Term Garage Post-Warranty Maintenance: Economy Garage Recurring Total OVERALL PROJECT TOTAL (Construction and Recurring Fees	to Year 1	0)	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
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90 91 92 93 93 94 95 96 97 98 99	Additional Features (Specify Product): Economy Garage Additional Installation Costs (Specify) Additional Recurring Costs (Specify) LPR Cameras: Long-Term/Short-Term Garage LPR Cameras: Economy Garage Kiosk/Website/Mobile Application Testing - Find your Car and Reservations Sub-Total Cost Summary Construction and Year One (1) Administration and Design Devices & Field Equipment (Furnish Only) Electrical and Communication Components Servers and Centralized Components Installation IT/Software (Initial/First Year) Construction Total System Required Yearly Recurring Costs IT/Software Recurring Years Two (2) to Ten (10) Post-Warranty Maintenance: Long-Term/Short-Term Garage Post-Warranty Maintenance: Economy Garage Recurring Total OVERALL PROJECT TOTAL (Construction and Recurring Fees) Value Added Features			\$0.00 \$0.00

By signing the RFP response and participating in this process, the Respondent asserts that he/she has read, understands and agrees to the terms and conditions contained in this RFP document and has full authority to submit the written and verbal responses on behalf of the entity for whom they are acting and that the information submitted to the Authority in the response is true, accurate and complete to the fullest extent possible and to the best of his/her knowledge and abilities.



Attachment D Exceptions and Substitutions

Proposers shall complete the Exceptions and Substitutions form by completing the information below or attaching sheets to this Proposal.

Substitutions: Where functional performance features or quality of system varies from that specified, identify substitution being proposed. Include catalog sheets, brochures, and/or technical specifications of the proposed substitution. No substitution will be accepted without written authorization from the MSCAA.

Exceptions/Exclusions: Provide an all-inclusive list of any and all exceptions taken to any part or parts of these Specifications (including substitutions). Proposers shall submit the completed Exceptions and Substitutions List in the printed Proposal herein.

Page # Reference	Exception/Exclusions	Alternative or Substitution



Attachment E Transition Plan

	Insert or attach a descriptive plan for implementing the new PGS with limited disruption to the customers garage access and existing PARCS users. Include a narrative describing the proposed strategy of commissioning the new PGS solutions infrastructure and devices, by garage.
_	
_	
_	
_	

Attachment F Project Schedule Requirements

Assume an estimated award of contract date of May 1, 2025. Submit a detailed schedule for implementation, training, and testing including:

- 1. Gantt chart
- 2. Milestone dates clearly identified
- 3. Task start and completion dates
- 4. Phasing for each parking garage including installation of field devices, performance of acceptance testing, and activation for public use
- 5. Training schedule relative to system activation
- 6. Testing schedule relative to system activation
- 7. Contractor recommendations that will benefit the overall project schedule
- 8. Milestones/Tasks to include, but not limited to:
 - Notice to Proceed (NTP)
 - Proof of Concept Testing
 - Equipment Procurement/Lead Times
 - Design
 - Development of Deployment Schedule
 - Development of Test Plans (see below)
 - Permitting
 - Power and Data Installation
 - Switch/Router Procurement by MSCAA include date needed
 - PGS Installation
 - Testing
 - Stand Alone Testing (Aisle and Local Hub)
 - Subsystem (Whole Garage/Floor w/ Sign Counts)
 - System (Full System Testing)
 - Substantial Completion for Each Phase
 - Closeout
 - Provide Onsite Training
 - Provide Warranty Information
 - Provide As-Built Information



Attachment G Recommended Spare Parts List

Include a list of manufacturer-recommended spare parts specific to this installation, including:

- 1. Part name
- 2. Part serial number
- 3. Unit price
- 4. Quantity
- 5. Total Cost

Part/Article Name	Part #	Quantity	Unit Cost	Total Cost

Attachment H
Manufacturer/Vendor Reference List

Please provide the following information for **3 installations** of matching size, complexity and configuration:

- 1. Project name/Location
- 2. Site contact name, Telephone number
- 3. Number of camera sensors, signs and equipment quantities
- 4. Date of Project Completion (Installation date)
- 5. (If preferred, please provide your own Reference List documents)

Project Name/Site	Site Contact	# of Spaces & Device Qty	Installation date





Attachment I
DBE Forms



DBE Assurance Statement/Letter of Intent

Submit on Company Letterhead for each DBE Subcontractor

DBE ASSURANCE STA	TEMENT/LETTER OF II	NTENT
RESPONDENT:		
Name of Firm:		
Address:		
City:	State:	Zip:
Telephone:	_	
<u>DBE</u> :		
Name of Firm:		
Address:		
City:	State:	Zip:
Description of work to be performed by DBE:		
The Respondent is committed to utilizing the above-n value of this work is \$, which is		
AF	FIRMATION	
The above-named DBE affirms that it will perform the pabove.	portion of the contract fo	r the estimated dollar value as stated
Ву:		
Signature of DBE and Title	Date	Name
By:		
Signature of 2 nd /3 rd Tier Subcontractor and Title	Date	Name
If the Respondent does not receive award of the primand Affirmation shall be null and void.	e contract, any and all re	epresentations in this letter of Intent
Ву:		
Signature of Respondent and Title	Date	Name



Respondent DBE Goals Accomplishment Statement

Submit on Company Letterhead

RESPONDENT DBE GOALS ACCOMPLISHMENT STATEMENT
The undersigned Respondent has satisfied the requirements of the bid/proposal specification in the following manner (please complete the appropriate spaces):
The Respondent is committed to a minimum of <u>6%</u> DBE utilization on this contract.
The Respondent is unable to meet the DBE goal of <u>6%</u> but is committed to a minimum of%
DBE utilization on this contract and submits the attached narrative and documentation demonstrating good faith efforts consistent with Appendix A of 49 CFR 26. The Respondent should attach as many pages as necessary to provide a full and complete narrative and supporting documentation of good faith efforts made. This narrative must be written on company letterhead and signed.
Please provide an explanation for the percentage quoted above: Provide an explanation of the DBE's participation and how this has been determined to meet the specific goal requirements of this solicitation in whole or part.

If DBE and the company enter into a Joint Venture, please describe the terms of the relationship and attach a copy of the contract between the parties. If the Respondent does receive award of the prime contract, Respondent commits to using the DBE subcontractor listed and described above to meet the DBE contract goal, pursuant to 49 CFR Part 26.
It is the present intent of the Respondent to utilize the specific DBE firms identified in this proposal in the execution of this contract. If for any reason, one or more of the DBE identified here are unable or unwilling to participate, the Respondent will make good faith efforts to replace the DBE with a similar DBE. The Authority DBE Good Faith Procedures are provided in this package and apply to this proposal.
Respondent's Name:
State Registration No.:
Federal Tax ID No.:
By: Signature and Title Date

The Memphis Airport Authority (MEM) maintains bidding statistics, regarding ALL firms bidding on prime contracts and subcontracts on US Department of Transportation (DOT) assisted projects in accordance with federal regulation 49 CFR Part 26.11. **This information will only be used for statistical purposes per 49 CFR Part 26.11** This requirement applies to all firms, regardless of whether they are subs or primes, regardless of the gender or race of their MSCAAs, and regardless of whether they are ultimately chosen to participate in the contract. Please list below the name, address, phone number and contact person for every firm that provided you with a bid or a quote on this project – even if you ultimately decided not to use the firm in preparing your final bid. The first line should be used for the **prime contractor** on this project. All sections must be completed to the best of your ability.

Information on All Firms that Provided Bids or Quotes

Authority Project No.: 24-1477-00 — PARKING GUIDANCE SYSTEM

Name of Firm	Full Address of Firm	Point of Contact	Phone No.	DMWBE? Y/N	Firm Age Years	AGRR*

^{*}Footnote: Please enter the letter for the category that best identifies your annual gross revenue.

AGRR = Annual Gross Revenue Ranges: A = Less than \$500,000 B = \$500,000 - \$1 Million C = \$1 - \$2 Million D = \$2 - \$5 Million E = Over \$5 Million



Voluntary Disclosure of Respondent Data

Do not submit this form on company letterhead

VOLUNTARY DISCLOSURE OF RESPONDENT DATA				
For Title VI Compliance, the Authority asks for voluntary disclosure of the following information:				
Gender:	Male			
	Female			
Race:	Caucasian			
Nace.				
	Black American			
	Hispanic American			
	Native American			
	Subcontinent Asian American			
	Asian-Pacific American			
	Other (please specify)			

Attachment J
Contract

FOR PARKING GUIDANCE SYSTEM

BY AND BETWEEN THE MEMPHIS-SHELBY COUNTY AIRPORT AUTHORITY AND (CONTRACTOR NAME)

MSCAA PROJECT NO. 24-1477-00

THIS CONSTRUCTION CONTRACT (hereinafter referred to as "Contract") is made and entered into as of _______, between MEMPHIS-SHELBY COUNTY AIRPORT AUTHORITY, a body politic and corporate under the laws of Tennessee (hereinafter referred to as "Owner" or "Sponsor") doing business at 2491 Winchester Road, Suite 113, Memphis, Tennessee 38116-3856, and {insert CONTRACTOR NAME}, a {insert LEGAL ENTITY TYPE and STATE} doing business at {insert Contractor address}, (hereinafter referred to as "Contractor," "Proposer," or "Offeror"). Owner and Contractor may sometimes be referred to herein individually as "Party" or collectively as "Parties."

RECITALS

- 1. **WHEREAS,** the Owner desires to have constructed certain work in Memphis, Tennessee, more particularly described as ______, MSCAA Project No.24-1477-00 (herein referred to as "the Project"); and
- 2. **WHEREAS**, the Contractor desires to enter into this Contract as an independent contractor and is ready, willing and able to construct the Project in accordance with the terms and subject to the conditions of this Contract; and
- 3. **WHEREAS**, the "Program Manager" is to act as the Owner's representative, and the Owner will advise the Contractor in writing of the name of the Program Manager; and
- **NOW, THEREFORE,** in consideration of good and valuable consideration, received or to be received, the sufficiency of which the Parties acknowledge, the Parties agree as follows:

ARTICLE 1

SCOPE OF THE WORK AND TERM OF AGREEMENT

<u>Section 1.01</u>. <u>Scope of the Work.</u> The general scope of the work is more particularly described in <u>Exhibit A</u>, which is attached hereto and incorporated herein by reference. Contractor agrees that the Project shall be constructed in accordance with the terms of this Contract and the "Contract Documents" as defined in Article 2 of this Contract. The term "Work" includes, but is not limited to, all labor, materials, supplies, tools, equipment and services necessary to construct the Project as described in the Contract Documents, whether or not all materials and equipment are incorporated or will be incorporated in the Project; and all Work deemed necessary to fully close the Project including demobilization.

<u>Section 1.02.</u> <u>Term of Agreement and Completion.</u> The term of this Agreement shall commence upon Owner's issuance of the Notice to Proceed pursuant to Section 3.01 and shall continue until the Work is completed in accordance with the Contract Documents, unless earlier terminated by the provisions set forth in Section 23 of this Agreement.

ARTICLE 2

CONTRACT DOCUMENTS

<u>Section 2.01.</u> <u>Definition.</u> The "Contract Documents" include this Contract, the Legal Notice, Request for Proposals, Scope of Services, the Pricing Proposal, the Proposal Guaranty, the Drawings and the Specifications, all addenda, and exhibits or modifications to any of them, issued prior to or after execution of this Contract. The Contract

Page 1

Contract: Contractor Name
Parking Guidance System

MSCAA Project No. 24-1477-00

Documents are more particularly described in <u>Exhibit B</u>, which is attached hereto and incorporated herein by reference. As used in this Contract, a "modification" is either:

- (a) a written and signed Contract Amendment to this Contract; or
- (b) an accepted Change Order Request for Pricing ("RFP"); or
- (c) an Engineer's Supplemental Instruction ("ESI"); or
- (d) a Construction Change Directive (as defined in Section 9.02(c) of this Contract).

<u>Section 2.02.</u> <u>Intent of Contract Documents.</u> The intent of the Contract Documents is to include all design, architecture and engineering, except as otherwise expressly provided in the Contract Documents, materials, appliances, labor and services of every kind necessary for the proper execution of the Work and the terms and conditions of payment for the Work. The Contract Documents are to be considered as one document, and whatever is called for by any one of the Contract Documents shall be as binding as if called for by all.

<u>Section 2.03.</u> <u>Coordination of the Contract and Specifications.</u> This Contract, specifications, and all referenced standards cited in the Contract Documents are essential parts of the Contract requirements. A requirement occurring in one of the Contract Documents is as binding as though occurring in all. They are intended to be complementary and used to describe and provide for a complete project. In case of dimensional discrepancies, calculated dimensions will govern over scaled dimensions. In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:

- (a) This Contract.
- (b) The Addenda, with those of later date having precedence over those of earlier date.
- (c) The Specifications.
- (d) Cited standards for materials or testing.

<u>Section 2.04.</u> <u>Errors in Contract Documents.</u> Prior to commencing the Work, the Contractor shall review all of the Contract Documents for the purpose of identifying any error, inconsistency, omission, discrepancy or variance that may be contained therein. If the Contractor finds any error, inconsistency, omission, discrepancy or variance in the Contract Documents, it shall notify the Owner at least ten (10) days before beginning the affected portion of the Work. The Owner shall make any correction, interpretation or clarification promptly, basing its decision on the intent of the Contract Documents. Failure of the Contractor to timely notify the Owner of any such error, inconsistency, discrepancy or variance within the time provided by this paragraph shall bar the Contractor from making any claim for additional time or compensation caused by any such error, inconsistency, discrepancy or variance even if the error, inconsistency, discrepancy or variance caused the Contractor to incur additional expense or time of performance.

ARTICLE 3

PROGRESS OF THE WORK

<u>Section 3.01</u>. <u>Commencement and Completion</u>. The Contractor shall commence the Work upon receipt of the written Notice to Proceed, as defined in Section 01100 of the Specifications, from the Owner and shall achieve substantial completion of the Work, as defined in Section 01100 of the Specifications. The Contractor warrants that it will deliver the Project to the Owner free from any and all mechanics' liens or other encumbrances. Contractor further agrees to promptly (which is defined for purposes of this paragraph as no more than three (3) days from receipt of any lien or other notice) notify the Owner of the existence of any and all mechanics' liens filed by any subcontractors, materialmen, suppliers or subsubcontractors. If any mechanics' liens are filed, Contractor shall, at its expense, bond off any such mechanics' liens within three (3) days from receipt of a written request of Owner to do so. Time is of the essence, and the substantial completion date may be altered only as provided in this Contract. Substantial completion shall occur when the Work is sufficiently complete in accordance with the Contract Documents, so the Owner can occupy or utilize the Work for its intended use, and when only minor punch list work remains to be done and a certificate of occupancy has been issued. The Owner will,

Page 2

Contract: Contractor Name

upon written request of the Contractor, issue a certificate establishing the substantial completion date at any time after substantial completion has occurred.

<u>Section 3.02.</u> The Progress Schedule. Contractor shall fully comply with the requirements for scheduling the Work as set forth in Section 01100 and Section 01320 of the Specifications. The Owner reserves the right to reschedule the Work, or the sequence of the activities of the Contractor, for no additional compensation should Owner deem such rescheduling to be in its best interest. At least fifteen (15) days prior to the due date of the first payment to be made hereunder by the Owner and thereafter on a monthly basis, the Contractor shall submit to the Owner a cash flow projection depicting the projected monthly cash flow for the entire Project.

Section 3.03. Extension of Substantial or Final Completion Date.

- (a) Except as otherwise expressly provided herein, the "Substantial Completion Date" or "Final Completion Date" shall be extended only for such number of calendar days that the Work is actually delayed by a casualty, a fire, or a Contract Amendment (hereinafter referred to as "Excusable Delays"). No extensions to the Substantial Completion Date shall be granted due to the negligence or fault of the Contractor or its subcontractors, non-availability of materials or non-availability of labor. No extension to the Substantial Completion Date shall be granted for the period of time during a delay in the performance of the Work which is caused in part by the Owner, the Program Manager, and in part by the Contractor or one for whom the Contractor is responsible ("Concurrent Delay"). A request for a time extension based upon inclement weather shall be governed by the provisions of Section 01320 (3.05) of the Specifications.
- (b) In order to obtain an extension of the Final Completion Date or the Substantial Completion Date due to an Excusable Delay, the Contractor in each instance shall give written notice to the Owner within seven (7) days after the occurrence of each Excusable Delay. If the Contractor fails to issue written notice to the Owner, its right to an extension, if any, will be deemed waived. The Owner shall render a written decision, which shall be made in good faith, granting or refusing the request of the Contractor for an extension within a reasonable time after receipt of the request for a time extension. If a Contract Amendment is agreed to by the Contractor and Owner, any extension of the Substantial Completion Date caused by the Contract Amendment work must be stated in the Contract Amendment and the Contractor will be barred from later seeking an extension to the Substantial Completion Date or Final Completion Date because of the Contract Amendment work. No extension to the Substantial Completion Date or the Final Completion Date shall be granted due to the aggregate number of Contract Amendments.

<u>Section 3.04.</u> <u>No Damage for Delay.</u> Contractor agrees to perform the Work and to require the subcontractors to perform the Work in a timely and proper method so as to meet the dates reflected on the progress schedule. In the event that the Contractor is delayed in the performance of the Work through no fault of the Contractor or its subcontractors, and for causes set forth in Section 3.03(a), and defined therein as Excusable Delay, then the Contractor may seek a time extension in accordance with the provisions of Section 3.03(b). Contractor agrees that such time extension is its sole and exclusive remedy for any damages regardless of the cause of such delays. Contractors also agrees that the Owner shall not be liable for any other monetary damages sustained by Contractor for acceleration, disruption, inefficiencies, suspension or resequencing of the Work or any other damages related to the progress schedule regardless of the cause of such damages. The Owner shall not be liable for consequential damages of any nature for any reason at any time.

<u>Section 3.05.</u> <u>Liquidated Damages.</u> Per Section 01100 of the Specifications, liquidated damages will be assessed for the Project. The Contractor shall proceed with the Work at such rate of progress to ensure full completion within the specified duration.

ARTICLE 4

PAYMENT

<u>Section 4.01.</u> <u>Lump Sum Price.</u> The Owner and Contractor agree that the Contractor shall be paid the following price **Thousand and 00/100 Dollars (\$000.00)** ("Lump Sum Price") for all of the Work and other obligations to be performed by the Contractor in the Proposal. The Lump Sum Price shall include all profit and overhead, including without limitation field overhead, general conditions and home office overhead of the Contractor. The Lump Sum Price also includes all allowances specified in the Contract Documents.

<u>Section 4.02.</u> Payment Procedures. As Work proceeds under the Agreement, payments ("Progress Payments") shall be made by the Owner to the Contractor in accordance with the following procedure:

Page 3

Contract: Contractor Name

- (a) By the 1st day of each calendar month during the performance of the Work, the Contractor shall submit to the Owner an Application and Certificate for Payment, based on the Work completed during the previous month ("previous month" being defined for this Section only as the second calendar day of the prior month through the first calendar day of the current month), using a form approved by the Owner. Contractor shall not be paid any amounts exceeding the Lump Sum Price set forth in Section 4.01 of this Contract, unless modified by a properly executed written Contract Amendment in accordance with the provisions of Article 9 of this Contract.
- (b) Each Application and Certificate for Payment shall be accompanied by: (1) lien waivers of the Contractor conditioned upon payment by the Owner of the amount sought in the Application; (2) other documentation as may be requested by the Owner for the proper review of the Application and Certificate for Payment; (3) a list of current subcontractors, sub-subcontractors and material suppliers; (4) the Business Diversity Monthly Compliance Reports; and (5) all documents required by the Owner Controlled Insurance Program ("OCIP") Manual, as applicable.
- (c) The Owner or Program Manager shall promptly review each Application and Certificate for Payment and recommend for approval such amount as is properly due under the Contract Documents.
- (d) Payments by the Owner shall be made within thirty (30) days from the date on which an Application and Certificate for Payment has been submitted and approved by the Owner or the next working day if the thirtieth day is a Saturday, Sunday or holiday.
- (e) When at least 95% of the work has been completed, no further Progress Payments will be made until Final Payment. See Section 4.08 for Final Payment requirements.
- <u>Section 4.03. Mobilization</u>. The work which is conducted in preparation for the construction activities, which includes but is not limited to, movement of personnel, equipment, stockpiles, supplies to the project site, (all as more particularly described in Article 3.01 of Section 01100 of the Specifications) shall be designated as "Mobilization."

Section 4.04. Not Used

Section 4.05. Payment for Material Stored On-Site.

- (a) Payment for the actual unit cost of materials suitably stored on the site of the Work ("Work Site") and intended for incorporation in the Work will be made by the Owner to the Contractor subject to the provisions of Section 4.02 of this Contract, and the following conditions:
 - (1) The Contractor shall furnish supporting evidence satisfactory to the Owner evidencing the cost of the materials and shipment to the Work Site.
 - (2) The materials shall not be stored on the Work Site for more than ninety (90) calendar days before they are installed without the written consent of the Owner.
 - (3) The materials shall be stored on the Work Site in accordance with applicable recommendations of the manufacturer and the instructions of the Owner.
 - (4) A representative of the Owner or Program Manager may inspect and inventory any stored materials.
- (b) Payment will not be made for materials stored away from the Work Site without the written consent of Owner. In the event that the Owner consents to payment for materials stored off-site, such payment shall be conditioned upon submission by the Contractor of bills of sale or such other documentation satisfactory to the Owner to establish the title of the Owner to such materials or equipment, and the submission of satisfactory insurance certificates for the stored materials.
- (c) Notwithstanding any provision herein to the contrary, if payments are to be made on account of materials or equipment not incorporated in the Work but delivered and suitably stored at the Work Site, such payments shall be conditioned upon submission by the Contractor of bills of sale or such other documentation satisfactory to the Owner to establish the title of the Owner to such materials or equipment, and the submission of satisfactory insurance certificates for the stored materials to protect the interest of the Owner.

Page 4

Contract: Contractor Name

- (d) Regardless of ownership or insurance, the Contractor shall remain the guardian and protector of all materials and equipment stored or incorporated into the Work.
- <u>Section 4.06.</u> <u>Use of Payments.</u> The Contractor shall use all sums paid to it pursuant to this Contract for the performance of the Work in accordance with the Contract Documents. Upon the request of the Owner or Program Manager, the Contractor shall furnish satisfactory proof of payment, including, but not limited to, partial release of liens and the Business Diversity Monthly Compliance Report, as to the disposition of any monies paid to the Contractor by the Owner.
- <u>Section 4.07</u>. <u>Payment Not a Waiver.</u> Neither the approval or making of any payment to the Contractor, nor the partial or entire use or occupancy of the Work by the Owner, shall be deemed an acceptance of any portion of the Work.

Section 4.08. Final Payment.

- (a) "Final Payment," by the Owner shall constitute a waiver of all claims by the Owner for performance of the Work except for claims of the Owner arising from unsettled liens, incomplete or defective workmanship, defective materials, failure to perform in accordance with the progress schedule, or for the breach of any guarantees of warranties provided or to be provided by the Contractor under this Contract. Acceptance of the Final Payment by the Contractor shall constitute a waiver and release of any and all claims which the Contractor may then have or in the future have against the Owner or the Program Manager arising from the Work or this Contract.
- (b) Final Acceptance of the Work shall occur only after all Work (including punch list items) provided for in the Contract Documents has been finally completed and accepted in writing by the Owner, and only after the Contractor has provided the Owner with instructions and operating manuals, parts lists, "record" drawings and all other items required by the Contract Documents.
- (c) Within thirty (30) days after "Final Acceptance" of the Work, the Final Payment of amounts found properly due under the Contract Documents shall be paid to the Contractor.
 - (d) Final Payment shall not become due until the Contractor submits to the Owner the following:
 - (1) An affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or its property might in any way be responsible, have been paid or otherwise satisfied; and
 - (2) A consent of surety to Final Payment; and
 - (3) Other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Work, to the extent and in such form as may be designated by the Owner or Program Manager; and
 - (4) Any documents required by Article 6 of this Contract.
- (e) The Owner shall issue a "Certificate of Final Completion" when, in its sole discretion, the Project has been completed and all conditions required by this Section 4.08 have been complied with by Contractor.

<u>Section 4.09</u>. <u>The Right of Owner to Withhold Payment.</u> The Owner may withhold or, on account of subsequent evidence, nullify, the whole or part of any Progress Payment, including the Final Payment, to such extent as may be necessary to reasonably protect itself from any of the following:

- (a) unacceptable work; or
- (b) third-party claims filed or reasonable evidence indicating probable filing of such claims; or
- (c) reasonable doubt that the Work will be substantially completed by the Substantial Completion Date; or
- (d) failure of the Contractor to make payments properly to subcontractors or for equipment, materials, services or labor; or

Page 5

Contract: Contractor Name

- (e) reasonable evidence of fraud, over-billing or overpayment; or
- (f) failure of the Contractor to perform the Work in accordance with the Contract Documents; or
- (g) a reasonable doubt that the Work can be completed for the unpaid balance of the Lump Sum Price; or
- (h) damage to the Owner, or to another contractor, subcontractor or sub-subcontractor caused by the Contractor; or
- (i) failure to provide certified payroll records; or
- (j) failure to provide any documents required by the Owner Controlled Insurance Program (OCIP); or
- (k) failure to keep the record drawings current each month in accordance with Article 6 of this Contract.

ARTICLE 5

EQUIPMENT AND MATERIALS

Section 5.01. Materials Provided by Contractor.

- (a) Unless otherwise provided in the Contract Documents, the Contractor shall provide all equipment, materials, labor, services, water, and power to the Work Site, as well as all tools, equipment, lights, transportation, and other facilities necessary for the performance of the Work.
- (b) All equipment, machinery, material, and articles incorporated in the Work shall be new and unused unless otherwise specified in the Contract Documents. When not specified in detail in the Contract Documents, the equipment, machinery, material, and articles incorporated in the Work shall be of the most suitable grade and quality for the purpose intended.

Section 5.02. Type of Equipment Used.

- (a) When any equipment, machinery, material, or article is referred to by trade name, make, or catalog number followed by the words "or equal," the reference shall be regarded as establishing the minimum standard of quality and performance required and shall not be construed as limiting competition. The Contractor may, with the prior written approval of the Owner, use other equipment, machinery, materials, or articles which are at least equal in quality and performance to that named in the Contract Documents; provided, however, that in no event shall such approval be construed as a waiver of the right of the Owner to require equipment, machinery, materials, or articles which conform to the standard of quality and performance established by reference to the trade name, make, or catalog number of the equipment, machinery, materials, or articles for which the substitution has been approved. Any cost of redesign and additional expense resulting from the substitution shall be at the sole expense of the Contractor.
- (b) The name of the manufacturer, model number, and other identifying information respecting the performance, capacity, nature, and rating of equipment, machinery, materials, and articles proposed in substitution of those specified in the Contract Documents shall be submitted to the Owner in sufficient time to avoid delays in the Work.

Section 5.03. Non-Conforming Materials.

- (a) Equipment, machinery, materials or articles installed or used in the Work which do not comply with the requirements of the Contract Documents, and which have not been previously approved in writing by the Owner shall be installed or used at the risk of the Contractor of subsequent rejection by the Owner.
- (b) The Contractor shall be fully and solely responsible for quality control for all equipment, machinery, materials or articles used in the performance of the Work.
- <u>Section 5.04</u>. <u>Owner Furnishing Equipment or Fixtures.</u> The Owner may directly furnish any and all of the equipment or fixtures required for the Project. In the event the Owner elects to do so, the Lump Sum Price shall be reduced

Page 6

Contract: Contractor Name

by the amount which was to be charged by Contractor for such equipment or fixtures as set forth and included in the Contract Documents. A Contract Amendment reducing the Lump Sum Price for that item of Work shall be executed by Owner and Contractor to reflect a reduction in the Lump Sum Price for that item of Work and that the Owner is to furnish the equipment or fixtures. The Contractor shall assume responsibility for and be fully responsible for the care, custody, and control of all Owner furnished equipment or fixtures after said equipment or fixtures arrives on the Work Site or in any approved offsite storage facility.

ARTICLE 6

RECORD DRAWINGS AND DATA

<u>Section 6.01</u>. <u>Record Drawings</u>. A complete set of drawings shall be maintained by the Contractor at the Work Site for the purpose of accurately indicating all record conditions. The drawings shall be kept up-to-date and marked each day to show all changes and variations and each entry shall be dated and verified as made. At the completion of the Work and prior to Final Payment, a complete set of marked record drawings shall be furnished by the Contractor to the Owner. If the record drawings are not kept current each month, the Owner shall have no obligation to pay the Contractor until the record drawings are made current.

Section 6.02. Operation and Maintenance Data.

- (a) The Contractor shall furnish complete and necessary data for the operation, repair, and maintenance of each operating component of the Work (hereinafter referred to as "the Data"). The Data shall include prints of shop drawings, "as-installed" conditions, sources of equipment and principal materials, specified tests and performance data, repair and maintenance data, lubrication instructions and recommendations, parts lists, and other catalog data or information required to operate and maintain any part of the Work. Care shall be taken to include all pertinent data and to exclude inapplicable or duplicative information.
- (b) Prior to Final Payment, a set of Data shall be furnished to the Owner in an electronic PDF format. In addition, three (3) complete sets of the Data in a form directed by the Owner shall be provided to the Owner, indexed alphabetically by components, grouped together and securely bound in a durable folder or binder that is labeled and indexed to show its contents.
- (c) Installation information for all machinery and equipment also shall be kept on the site of the Work during construction, but used or marked prints or data sheets are not to be used in assembling the final maintenance and operating manuals described in paragraph (b) of this Section 6.02.
- (d) Operations and maintenance demonstrations by the manufacturer of all machinery and equipment shall be complete in all respects and shall specify the appropriate and inappropriate uses of the machinery and equipment.
- Section 6.03. Information from Suppliers. The Contractor shall make it a requirement or condition of purchase from its suppliers of equipment and/or materials: (1) to furnish complete and adequate operating and maintenance data pertaining to their equipment and/or materials; (2) to assign to the Owner any warranty, express or implied, furnished by the manufacturer of the equipment and/or materials; and, (3) to assign to the Owner any customary maintenance or repair service, spare parts supply service, or personnel support service furnished by the manufacturer of the equipment and/or materials. If the terms and conditions of any warranty, maintenance or repair service, spare parts supply service, or personnel support service furnished by manufacturer of the equipment and/or materials are negotiable, they shall be negotiated by the Owner and the manufacturer.

ARTICLE 7

SUBCONTRACTS

Section 7.01. Definition.

(a) As used in the Contract Documents, a "subcontractor" is a person or organization that has a contract with the Contractor to perform any portion of the Work or to furnish any equipment or materials to the Project.

Page 7

Contract: Contractor Name

(b) As used in the Contract Documents, a "sub-subcontractor" is a person or organization that has a contract with a subcontractor to perform any portion of the Work or to furnish any equipment or materials to the Project.

<u>Section 7.02</u>. <u>No Contractual Relationship with Owner.</u> Nothing contained in the Contract Documents or otherwise shall create any contractual relationship between the Owner and any subcontractor or sub-subcontractor, and no subcontract or sub-subcontract shall relieve the Contractor of its responsibilities and obligations should any subcontractor or sub-subcontractor fail to perform its work in a satisfactory manner. The Contractor agrees to be as fully responsible to the Owner for the acts and omissions of its subcontractors and their sub-subcontractors and of persons either directly or indirectly employed by them as it is for the acts and omissions of persons directly employed by Contractor.

Section 7.03. Award of Subcontracts.

- (a) Unless the Owner gives its written approval to Contractor, the Contractor shall not enter into a subcontract or purchase order with any entity that is a party in any litigation, arbitration, or other dispute resolution proceeding with the Owner. The Contractor shall request written confirmation from any potential subcontractor or supplier prior to the execution of any subcontract or purchase order that there is no pending litigation, arbitration, or other dispute resolution proceeding where the Owner and the potential subcontractor or supplier are parties. Such written confirmation shall be sent to the Owner within seven (7) days from the receipt of proposals.
- (b) If the Owner refuses to accept any subcontractor or material supplier (or sub-subcontractor) or person or organization because of such pending litigation, arbitration, or other dispute resolution proceeding, the Contractor shall submit an acceptable substitute at no additional cost to Owner.

<u>Section 7.04.</u> Change of Subcontractors. The Owner may require a change of any subcontractor. The Lump Sum Price shall be adjusted accordingly due to the Owner's requiring a change of any subcontractor, sub-subcontractor, or material supplier previously approved in writing by the Owner, unless the change was required because the subcontractor, sub-subcontractor or material supplier was unable to timely or properly perform its work in accordance with the Contract Documents.

<u>Section 7.05.</u> <u>No Substitution of Subcontractors.</u> The Contractor shall not make any substitution for any subcontractor nor allow the substitution of any sub-subcontractor who has been accepted by the Owner, unless the substitution is required and previously approved by the Owner. Acceptable reasons for substitution (other than where required by the Owner) shall be limited to the following:

- (a) Inability of the subcontractor or sub-subcontractor to provide bonds, if required; or
- (b) Failure of the subcontractor or sub-subcontractor to perform according to approved schedules or other provisions of the Contract Documents; or
- (c) Other reasons which would reasonably render the subcontractor or sub-subcontractor unable to perform its work according to the Contract Documents as evidenced in writing by the Contractor.

<u>Section 7.06.</u> <u>Subcontract Terms.</u> All portions of the Work performed by a subcontractor or sub-subcontractor shall be pursuant to an appropriate agreement between the Contractor and the subcontractor (and where appropriate between subcontractors and sub-subcontractors) which shall contain provisions that:

- (a) Preserve and protect the rights of the Owner under the Contract Documents, including, but not limited to, the obligation to indemnify the Owner as set forth in Article 21 of this Contract with respect to the portion of the Work to be performed under the subcontract (or sub-subcontract) so that the subcontracting will not prejudice such rights; and
- (b) Require that such Work be performed in accordance with the requirements of the Contract Documents; and
- (c) Require submission to the Contractor of applications for payment under each subcontract to which the Contractor is a party; and
- (d) Require that all requests for additional compensation, extensions of time or otherwise with respect to subcontracted portions of the Work be submitted to the Contractor (via any subcontractor or sub-

Page 8

Contract: Contractor Name

- subcontractor where appropriate) in sufficient time so that the Contractor may comply in the manner provided in the Contract Documents for like requests by the Contractor upon the Owner; and
- (e) Name the Owner as an additional insured under all applicable insurance policies; and
- (f) Require compliance with the federal Disadvantaged Business Enterprise ("DBE") requirements, including, but not limited to, non-discrimination and prompt pay provision.

Section 7.07. Subcontractor Relations Requirements. By appropriate written agreement,

the Contractor shall require each subcontractor, to the extent of the Work to be performed by the subcontractor, to be bound by the obligations, terms and conditions of this Contract and the Contract Documents, and to assume toward the Contractor all the obligations, terms, conditions and responsibilities which the Contractor, by this Contract and the Contract Documents, assumes toward the Owner and the Program Manager. Each subcontract agreement shall preserve and protect the rights of the Owner and the Program Manager under this Contract and the Contract Documents with respect to the Work to be performed by the subcontractor so that subcontracting thereof will not prejudice the rights of the Owner or the Program Manager. The Contractor shall require each subcontractor to enter into similar agreement with subsubcontractors. The Contractor shall make available to each proposed subcontractor, prior to the execution of the subcontract agreement, copies of this Contract and the Contract Documents to which the subcontractor will be bound. Subcontracts shall similarly make copies of this Contract and the Contract Documents available to their respective proposed sub-subcontractors.

ARTICLE 8

PAYMENT TO SUBCONTRACTORS

<u>Section 8.01.</u> Payments to Subcontractors from the Contractor. The Contractor shall pay each subcontractor an amount equal to the percentage of completion allowed to the Contractor on account of the work of each subcontractor. The Contractor shall also require each subcontractor to make similar payments to its sub-subcontractors.

<u>Section 8.02.</u> <u>Withholding of Payment by the Owner.</u> If the Owner withholds monies for any cause which is the fault of the Contractor and/or the fault of a particular subcontractor, the Contractor shall pay all other subcontractors, in accordance with the terms of their applicable subcontract, if not in conflict with this Contract and applicable law, any time after the progress payment by the Owner should otherwise have been issued, for its Work to the extent completed. Notwithstanding this Section 8.02, Contractor may withhold funds from any subcontractor that is not performing its work in accordance with the Contract Documents.

<u>Section 8.03.</u> <u>Independent Obligation to Pay.</u> The obligation of the Contractor to pay its subcontractors (and their obligation to pay sub-subcontractors) is an independent obligation from the obligation of the Owner to make payment to the Contractor. The Owner shall have no obligation to pay or to see to the payment of any monies to any subcontractor or sub-subcontractor. The provisions of this Contract are solely intended for the benefit of the Owner and Contractor and not for any other person. Nothing in this Contract is intended to create any third party rights against the Owner.

<u>Section 8.04</u>. <u>Payments to Sub-Subcontractors</u>. This Contract is governed by federal prompt pay provisions where applicable and as set forth in Exhibit "E" to this Contract. To the extent that Tennessee statutes are not superseded by applicable federal statutes in this area, state statutes also will apply. Contractor agrees to require each of its subcontractors (1) to pay their subcontractors for invoices submitted or normal progress payments for work completed satisfactorily pursuant to its contract with each subcontractor and (2) to make such payments to their respective subcontractors no later than ten (10) days after any such subcontractors receive payment from the prime contractor or their respective subcontractor, as applicable.

ARTICLE 9

CHANGES

Section 9.01. Changes in the Work.

(a) The Owner, without invalidating this Contract, may order extra work or make changes by altering, adding to or deducting from the Work by executing a Contract Amendment or a Construction Change Directive in a form provided by the

Page 9

Contract: Contractor Name

Owner or Program Manager. All Work performed pursuant to a valid Contract Amendment or a Construction Change Directive shall be performed under the conditions of this Contract and the Contract Documents.

- (b) The Owner shall have authority to make changes in the Work not involving extra cost, not involving an extension to the Substantial Completion Date, and not inconsistent with the purposes of the Work, but otherwise, no extra Work or change in the Work shall be made unless pursuant to a Contract Amendment or a Construction Change Directive and no claim by Contractor for additional cost or fee or any extension of the Substantial Completion Date shall be valid unless so ordered in a written Contract Amendment or a Construction Change Directive.
- (c) Engineer's Supplemental Instructions (ESI) are written instruments prepared by the Owner or Program Manager to issue additional instructions or interpretations or to order changes in the Work not involving extra costs or fees, or any extension of the scheduled Substantial Completion Date. Contractor shall give prompt written notice to Owner if it believes that the contents of an ESI require extra costs or fees, or affect the Substantial Completion Date.

Section 9.02. Construction Change Directive.

- (a) A Construction Change Directive is a written order prepared by the Owner, Program Manager, or Program Manager and signed by the Owner, Engineer or Program Manager directing a change in the Work and stating a proposed basis for adjustment, if any, in the Lump Sum Price or the Substantial Completion Date, or both. The Owner may, by Construction Change Directive, without invalidating this Contract, order changes in the Work consisting of additions, deletions or other revisions.
- (b) A Construction Change Directive shall be used in the absence of an agreement on the terms of a Contract Amendment.
- (c) If the Construction Change Directive provides for an adjustment to the Lump Sum Price, the adjustment shall be based on one of the following methods:
 - (1) Mutual acceptance of a lump sum properly itemized and supported by sufficient documentation to permit evaluation; or
 - Unit prices stated in the Contract Documents or subsequently agreed upon; or
 - (3) Cost to be determined in a manner agreed upon by the Parties and a mutually acceptable fixed or percentage fee; or
 - (4) As provided in paragraph (f) of this Section 9.02.
- (d) Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Owner of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Lump Sum Price or the Substantial Completion Date.
- (e) A Construction Change Directive signed by the Contractor indicates the agreement of the Contractor therewith, including adjustment in the Lump Sum Price, the Substantial Completion Date or the method of determining the adjustment. Such agreement shall be effective immediately and shall be recorded as a Contract Amendment.
- (f) If the Contractor does not respond promptly or disagrees with the method for adjustment in the Lump Sum Price, the method and the adjustment shall be determined by the Owner on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Lump Sum Price, a reasonable allowance for overhead and profit. In such case, the Contractor shall keep and present, in such form as the Owner may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purpose of this paragraph shall be limited to the following:
 - (1) The actual cost for labor, including social security and unemployment insurance, fringe benefits required by agreement, and workers' or workmen's compensation insurance; and/or

Page 10

Contract: Contractor Name
Parking Guidance System
MSCAA Project No. 24-1477-00

- (2) The actual cost of materials, supplies, machinery, and equipment, including cost of transportation, whether incorporated or consumed; and/or
- (3) The actual cost of subcontractors and sub-subcontractors; and/or
- (4) The actual cost of premiums for all bonds and insurance, permit fees and sales, use or similar taxes related to the Work; and/or
- (5) The actual additional costs of supervision and field office personnel, if any, directly attributable to the change.
- (g) Pending final determination of cost to the Owner, amounts not in dispute may be included in Certificates and Applications for Payment. The amount of credit to be allowed by the Contractor to the Owner for a deletion or change which results in a net decrease in the Lump Sum Price shall be actual net cost, as confirmed by the Owner. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be calculated on the basis of net increase, if any, with respect to that change.

Section 9.03. Contract Amendment Procedure. If the Owner desires extra Work or changes in the Work, the Owner shall submit a Request for Pricing ("RFP") to the Contractor. The Contractor shall furnish to the Owner a statement setting forth in detail the proposal of the Contractor for performing the extra Work or changes and the effect of the extra Work or changes, if any, in the Lump Sum Price and the Substantial Completion Date attributable to the extra Work or changes set forth in the request of the Owner. If the Owner approves in writing the proposal of the Contractor, a Contract Amendment in the form provided by the Owner shall be executed by the Parties and the Lump Sum Price and the Substantial Completion Date shall be adjusted accordingly. In preparing Lump Sum quotes in response to an RFP, the Contractor shall prepare a cost breakdown that provides sufficient detail for the Owner or Program Manager to determine that the quoted costs are reasonable and allowable and to verify that markups are properly calculated according to the terms of this Contract.

Section 9.04. Not Used

<u>Section 9.05.</u> <u>Time and Materials.</u> In the event that the Owner and the Contractor cannot agree on the amount or time extension, if any due, to the Contractor for a Contract Amendment, the Owner may, in writing, direct the Contractor to proceed with the performance of such Work. The Contractor agrees to comply with any such directive issued by the Owner. If any additional compensation is due to the Contractor as a result of a directive, it will be calculated based on agreed upon time and material rates.

<u>Section 9.06.</u> <u>Unconditional Obligation to Proceed.</u> Notwithstanding anything herein to the contrary, the Contractor will proceed with the Work so as to complete the Work on or before the Substantial Completion Date even if it has a dispute with the Owner concerning a Construction Contract Amendment, a Construction Change Directive or any extension of time which is or could be due to the Contractor pursuant to a Contract Amendment, a Construction Change Directive or otherwise.

Section 9.07. Request for Additional Compensation. If for any reason the Contractor believes that additional compensation is due for work not clearly provided for in the Contract Documents, the Contractor shall provide written notice to the Owner at least three (3) days before beginning the work which is not clearly provided for in the Contract Documents. If such notification is not given, then the Contractor hereby agrees to waive any claim for such additional compensation. Such notice by the Contractor shall not in any way be construed as proving or substantiating the validity of the request for additional compensation. When the work, which is the basis for the Contractor's request for additional compensation, has been completed, the Contractor shall, within ten (10) calendar days, submit evidence of costs incurred by the Contractor and a narrative which provides the basis for the request for additional compensation.

ARTICLE 10

THE UNDERSTANDING OF THE CONTRACTOR

<u>Section 10.01</u>. <u>Examination of Work Site.</u> The Contractor acknowledges that it has, by careful examination, satisfied itself as to the nature and location of the Work, the conformation of the ground conditions, the character, quality

Page 11

Contract: Contractor Name

and quantity of the materials, equipment, supplies, machinery, and facilities needed preliminary to and during the performance of the Work, the general and local conditions, and all other matters which can in any way affect the Work.

Section 10.02. Sufficiency of Contract Documents and Representations of Contractor.

- (a) The Contractor acknowledges that the Contract Documents are sufficient to enable it to determine the cost of all of the Work and that the Work can be completed in accordance with the Contract Documents for the Lump Sum Price.
- (b) The Contractor acknowledges that any observed errors, discrepancies, omissions, ambiguities, or conflicts in the Contract Documents will be brought to the attention of the Owner, as set forth in Section 2.04 of this Contract, and in a timely manner in order to ensure substantial completion of the Work by the Substantial Completion Date. The Contractor shall be responsible for using its best efforts to discover and observe errors, discrepancies, omissions, ambiguities, or conflicts in the Contract Documents. In addition, the Contractor acknowledges that the Owner has not made nor shall it be deemed to have made any warranties, guarantees, or representations of any kind whatsoever regarding the sufficiency of the Contract Documents or any conditions relating to the Work.
- (c) Contractor represents that it has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing underground use facilities at or contiguous to the Work Site and, subject to the provisions of Section 10.03 of this Contract, assumes responsibility for the accurate location of said underground use facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said underground use facilities are or will be required by Contractor in order to perform and furnish the Work for the Lump Sum Price and substantially complete the Work by the Substantial Completion Date. However, notwithstanding anything herein to the contrary, the Contractor may, at its sole expense after receiving written permission from the Owner, and subject to any limitations specified by the Owner or Program Manager, conduct any additional testing it deems necessary.

Section 10.03. Differing Work Site Conditions. If conditions are encountered at the Work Site that are: (1) subsurface physical conditions, which differ materially from those indicated in the Contract Documents; or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then notice by the observing Party shall be given to the other Party promptly before conditions are disturbed and in no event later than seven (7) days after the first observance of the conditions. The Owner or Program Manager will promptly investigate such conditions and, if they differ materially and cause an increase or decrease in the Contractor's cost, or time required, for performance of any part of the Work; will recommend an equitable adjustment in the Lump Sum Price or the Substantial Completion Date, or both. However, any equitable adjustment in the Lump Sum Price shall not include additional general conditions costs. If the Owner determines that the conditions at the Work Site are not materially different from those indicated in the Contract Documents and that no change in the terms of this Contract is justified, the Owner shall so notify the Contractor in writing, stating the reasons. Claims by either Party in opposition to such determination must be made within fourteen (14) days after the Owner has given notice of the decision.

<u>Section 10.04.</u> <u>No Oral Modification.</u> No oral agreement or conversation with any officer, agent or employee of the Owner or its representatives, including the Program Manager, either before or after the execution of this Contract, shall affect or modify any of the terms or obligations contained in this Contract or the Contract Documents.

ARTICLE 11

SUPERVISION OF THE WORK; SAFETY AND SECURITY

<u>Section 11.01</u>. <u>The Superintendent of the Contractor</u>. The Contractor shall designate in writing to the Owner and keep on the Project during its progress a competent employee who has responsibility to oversee the Work ("Superintendent"). The Superintendent shall be satisfactory to the Owner. The Superintendent shall be changed upon written request of the Owner, but shall not be changed by the Contractor except with the consent of the Owner, unless the Superintendent ceases to be in its employ. The Superintendent shall represent the Contractor, and all directions given to him by the Owner shall be as binding as if given to the Contractor directly. The Superintendent shall devote his full time to the Work and shall maintain an office on the Work Site. The Superintendent shall direct, coordinate and supervise all Work, inspect all materials delivered to the Work Site to ascertain whether or not they comply with the requirements of the Contract Documents, and reject all non-conforming materials or workmanship.

Page 12

Contract: Contractor Name

<u>Section 11.02.</u> <u>Order and Discipline.</u> The Contractor shall at all times be responsible for enforcing strict discipline and good order among its employees, and all employees of its subcontractors and sub-subcontractors. If any person on the Work Site shall appear to be incompetent, disorderly or intemperate, in any way disrupts or interferes with the Work, or is in any other manner not qualified for or unfaithful to the job entrusted to him, such person shall be discharged from the Project immediately and shall not again be employed on the Work Site without the prior written consent of the Owner.

Section 11.03. Cleaning Up.

- (a) During the performance of the Work, the Contractor shall keep the Work Site clean and free of all rubbish, waste materials, debris and other materials in accordance with the instructions set forth in the Contract Documents. At the end of each working day, the Contractor shall remove all waste materials, rubbish, debris, and other materials from and about the Work Site as well as all surplus materials, and shall leave the Work Site clean in accordance with the Contract Documents.
- (b) The Contractor shall establish an active ongoing program to eliminate any foreign objects from the Work Site that may cause damage to aircraft or cause personal injury to other persons.
- (c) The Contractor shall pay particular attention to haul routes used to and from the Work Site to prevent any construction debris from being dropped or tracked that may present a hazard.
- (d) The Contractor, upon written notice from the Owner, shall promptly cut the grass and clean debris around the Work Site. If the Contractor fails to clean up any debris which is deposited as a result of construction operations, the Owner will, after notice, immediately do so. The cost thereof will be charged to the Contractor at actual cost per hour, but not less than the minimum rate of Two Hundred Fifty Dollars (\$250.00) per hour. The Contractor shall assume full responsibility for failure to perform cleanup operations required by this Section 11.03.
- (e) All materials delivered to the Work Site shall be stored and handled so as to preclude inclusion of any foreign substances, and to prevent any discoloration or damage which might reduce its effectiveness as part of the Work.

Section 11.04. Safety and Security.

- (a) The Contractor shall be solely responsible for and oversee all safety orders, precautions and programs necessary for the safety of the Work. The Contractor shall take the precautions set forth in the Contract Documents in order to ensure the safety of all persons involved in the Work, all other persons whom the Work might affect, all equipment and materials incorporated in the Work, all property on the Work Site and adjacent to it, and the Owner's business operations which are functioning on the Work Site or in the vicinity of it.
- (b) The Contractor shall keep an accurate record of all persons who are on the Work Site and shall provide a copy of such list to the Owner with each monthly Application and Certificate for Payment. The Contractor, its subcontractors, their sub-subcontractors and all employees of same, shall comply with all security rules made by the Owner and the Federal Aviation Administration. In addition, Contractor shall comply with the construction safety and health guidelines which are set forth in Exhibit D.
 - (c) The Contractor shall conform to Owner's rules and regulations for airport operations.
- (d) Prior to the commencement of the Work, the Contractor shall provide to the Owner a list of all of its employees who will perform any portion of the Work.

Section 11.05. Observation of the Work.

- (a) The Program Manager, the Owner and persons designated by the Owner, shall at all times have access to the Work Site whenever it is in preparation or progress and the Contractor shall provide proper facilities for such access and for observation. If the Owner or the Program Manager discovers any defective Work in connection with any observation, it shall be reported to the Contractor in writing and the Contractor shall correct it.
- (b) If the Contract Documents, the written instructions of the Owner, laws, ordinances, rules or regulations, or any public authority require any of the Work to be specifically tested or inspected, the Contractor shall give the Owner timely notice of its readiness for inspection and testing, and of the date set for such test or inspection. Inspections by the Owner or Program Manager shall be promptly made. If any of the Work should be covered up without the approval or consent of

Page 13

Contract: Contractor Name

the Owner, the Program Manager or any public authority, it shall be uncovered for examination, if required by the Owner, the Program Manager, or such other public authority, at the sole expense of the Contractor.

- (c) Re-examination of questioned Work that has been previously tested or inspected by the Program Manager or the Owner may be ordered by the Program Manager or the Owner and, if so ordered, the questioned Work shall be uncovered by the Contractor. If such Work is found to be in compliance with the Contract Documents, the Owner shall pay the actual cost of the re-examination. If such Work is found not to be in compliance with the Contract Documents, the Contractor shall bear the costs of the re-examination.
- (d) The Contractor shall not be required to provide professional services which constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, then the Contractor shall promptly and at its expense secure such services. The Contractor shall cause such services or certifications to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, shop drawings and other submittals prepared by such professional. Shop drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Owner or Program Manager. The Owner and the Program Manager shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals.

ARTICLE 12

PERMITS, LICENSES, LAWS AND REGULATIONS

<u>Section 12.01</u>. <u>Contractor to Secure All Permits.</u> The Contractor shall secure and pay for all construction related permits, including the building permit. The Contractor shall be responsible for all inspections required by governmental authorities in conjunction with the issuance of said permits. Contractor shall secure and pay for all governmental fees, licenses and other permits necessary for the lawful and proper execution and completion of the Work.

Section 12.02. Compliance with Laws. The Contractor shall give all notices and shall comply with all laws, ordinances, rules, regulations and orders of any public authority having jurisdiction over the Work, which have any bearing on the execution of the Work. If the Contractor observes that any of the Contract Documents are at variance in any respect with any such laws, ordinances, rules, regulations and orders, it shall promptly notify the Owner and the Program Manager in writing and any necessary changes shall be made by the Contractor. If the Contractor fails to give such notice or executes any of the Work in a manner contrary to any such laws, ordinances, rules, regulations or orders, the Contractor shall bear all resulting costs to correct said Work to comply with such laws and regulations and be liable for any resulting fines, penalties, judgments or damages imposed on or incurred by the Owner.

ARTICLE 13

TAXES AND OTHER FEES AND COSTS

Section 13.01. Payment of Taxes by Contractor.

- (a) Any and all taxes, excises, duties and assessments in any manner levied, assessed or imposed by any government or subdivision or agency having jurisdiction over the Work shall be the sole responsibility and liability of the Contractor.
- (b) The Contractor shall promptly pay and discharge when due, unless the validity or application is being contested by the Contractor in good faith, any and all taxes, excises, duties and assessments, together with any interest and penalties, if any, the responsibility and liability for which the Contractor has assumed pursuant to the provisions of paragraph (a) of this Section 13.01, unless any such tax, excise, duty or assessment is levied, assessed or imposed upon the Owner, in which case the Owner shall promptly give the Contractor notice of such levy, assessment or imposition, whereupon the Contractor shall promptly pay and discharge the same. Upon the written request and at the sole expense of the Contractor, the Owner shall assist the Contractor in contesting the validity or application of any such levy, assessment or imposition,

Page 14

Contract: Contractor Name

and in the event a refund of all or any part of any tax, excise, duty or assessment (including interest and penalties, if any), said refund shall be refunded to the Contractor (less the amount of expenses associated with such contest not previously reimbursed by the Contractor to the Owner).

(c) The Contractor shall pay all applicable fees, and for all damage to sidewalks, streets, Owner's property, and other public property or to any public utilities caused by the performance of this Contract.

<u>Section 13.02.</u> <u>Damage to Owner Property</u>. Contractor agrees to promptly notify Owner of any damage caused to Airport property arising from Contractor's activities at the Airport. Contractor also agrees to comply with any request made by the Owner for reimbursement of costs associated with any damage to Airport property arising from work performed at the Airport by Contractor or any of Contractor's representatives, managers, employees, agents, contractors, subcontractors, licensees or invitees or from the conduct of same. This provision shall survive the termination of this Contract.

ARTICLE 14

SHOP DRAWINGS AND SAMPLES; MATERIAL TESTING

Section 14.01. Definitions.

- (a) As used in this Contract, "shop drawings" are drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are prepared by the Contractor, any subcontractor, sub-subcontractor, manufacturer, supplier or distributor, and which illustrates some portion of the Work.
- (b) As used in this Contract, "samples" are physical examples furnished by the Contractor to illustrate materials, equipment or workmanship.

Section 14.02. Submissions.

- (a) Contractor shall submit to Owner all shop drawings in electronic format or as hard copies in accordance with the specifications. Contractor shall review, stamp with its approval and submit, in orderly sequence so as to cause no delay in the Work or the work of any other contractor, all shop drawings and samples required by the Contract Documents or subsequently by the Owner or Program Manager. Shop drawings and samples shall be properly identified as specified in the Contract Documents or as the Program Manager or Owner may require. At the time of submission, the Contractor shall inform the Program Manager and the Owner by separate written correspondence of any deviation in the shop drawings or samples from the requirements of the Contract Documents.
- (b) By approving and submitting shop drawings and samples, the Contractor represents that it has determined and verified all field measurements, field construction criteria, materials, catalogue numbers and other data, and that it has checked and coordinated each shop drawing and sample with the requirements of the Work and the Contract Documents.

Section 14.03. Review of the Program Manager.

- (a) The Owner or Program Manager will review and act upon shop drawings and samples with reasonable promptness so as to cause no unreasonable delay in the Work, but only for conformance with the design concept of the Work and with the information given in the Contract Documents. The review of the Program Manager or its agents of a given item shall not indicate approval of an assembly in which the item functions.
- (b) The approval of the Owner or Program Manager of shop drawings or samples shall not relieve the Contractor of its responsibility for any deviation from the requirements of the Contract Documents unless the Contractor has informed the Program Manager and the Owner by separate written letter of such deviation at the time of submission and the Owner or Program Manager has given written approval of the specific deviation, nor shall the approval of the Program Manager relieve the Contractor from responsibility for errors or omissions in the shop drawings or samples.
- <u>Section 14.04.</u> <u>Corrections Made by Contractor.</u> The Contractor shall make any corrections required by the Owner or Program Manager and shall submit the required number of corrected copies of shop drawing or new samples until approved by Owner. The Contractor shall direct specific attention in writing or on resubmitted shop drawings or samples to revisions other than the corrections requested by the Program Manager or the Owner on previous submissions.

Page 15

Contract: Contractor Name

<u>Section 14.05</u>. <u>Prior Approval Required.</u> No portion of the Work requiring a shop drawing or sample submission shall be commenced until the submission has been approved by the Owner or Program Manager. All such portions of the Work shall be performed in accordance with approved shop drawings and samples and the Contract Documents.

<u>Section 14.06.</u> <u>Submittal Schedule.</u> Within seven (7) days after execution of this Contract, the Contractor shall provide the Owner and the Program Manager with a preliminary submittal schedule of the dates that each shop drawing or sample will be submitted for approval. Within thirty (30) days after execution of this Contract, the Contractor shall provide the Program Manager and the Owner with a final schedule of the dates that each shop drawing or sample will be submitted for approval. The sequence of the submittals of the Contractor shall be scheduled so as to permit an orderly review by the Program Manager. The schedule shall allow reasonable added time according to the number or complexity of shop drawings or samples in each submittal for the checking, correction and rechecking of corrections, as well as for return of approved or rejected shop drawings and samples to the Contractor. The submittal schedules shall allow not less than fourteen (14) calendar days for the Program Manager to review any shop drawing or sample.

Section 14.07. Material Testing.

- (a) If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested or approved, the Contractor shall give the Owner timely notice of its readiness so the Owner or Program Manager may observe such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests or approvals required by public authorities. Unless otherwise provided, the Owner shall bear all costs of other inspection, tests or approvals.
- (b) If the Owner or Program Manager determines that any Work requires special inspection, testing or approval which paragraph (a) of this Section 14.07 does not include, the Owner or Program Manager will instruct the Contractor to order such special inspection, testing or approval, and the Contractor shall give notice as provided in paragraph (a) of this Section 14.07. If such special inspection or testing reveals a failure of the Work to comply with the requirements of the Contract Documents, the Contractor shall bear all costs thereof, including compensation for the Owner's or Program Manager's additional services made necessary by such failure; otherwise, the Owner shall bear such costs and an appropriate Contract Amendment shall be issued.
- (c) Required certificates of inspection, testing or approval shall be secured by the Contractor and promptly delivered to the Owner.
- (d) If the Owner or Program Manager is to observe the inspections, tests or approvals required by the Contract Documents, they will do so promptly.

ARTICLE 15

THE RIGHT OF THE OWNER TO INSPECT AND AUDIT

Section 15.01. Right to Audit. The Contractor shall keep full and accurate records of all costs incurred and items billed in connection with any Work which records shall be open to audit by the Owner, or any authorized representative of the Owner, including but not limited to the Federal Aviation Administration and the Comptroller General of the United States during the course of the Project and until four (4) years after the final payment by the Owner to the Contractor. In addition, the Contractor shall make it a condition of all subcontracts and sub-subcontracts entered into in furtherance of the Work that any and all subcontractors and sub-subcontractors will keep accurate records of costs incurred and items billed in connection with the subcontract (or sub-subcontract) and that such records shall be open to audit by the Owner, or any authorized representative of the Owner, including but not limited to the Federal Aviation Administration and the Comptroller General of the United States during the course of the Work and until four (4) years after final payment by the Owner to the Contractor.

<u>Section 15.02</u>. <u>Review of Subcontracts.</u> Upon request of the Owner or Program Manager, the Contractor shall provide the Owner with an executed copy of all subcontracts, sub-subcontracts and purchase orders entered into in furtherance of the Work.

ARTICLE 16

Page 16

Contract: Contractor Name

SEPARATE CONTRACTS

<u>Section 16.01</u>. <u>The Right of the Owner to Award Separate Contracts</u>. The Owner reserves the right to award other contracts in connection with work at or in the vicinity of the Work and the Contractor agrees to cooperate fully and not to unreasonably interfere with the work of such other contractors.

<u>Section 16.02</u>. <u>Cooperation.</u> The Contractor shall afford the other contractors of Owner the opportunity for the introduction and storage of their materials and equipment to their work sites and for the execution of their work. The Contractor shall properly connect and coordinate the Work with work of any other contractors of the Owner.

<u>Section 16.03.</u> <u>Inspection of Work of Other Contractors.</u> If any part of the Work depends, for proper execution or result upon, the work of another contractor of Owner, the Contractor shall inspect and promptly report to the Program Manager and the Owner any discrepancies or defects in such work that render it unsuitable for such proper execution or results. Failure of the Contractor to so inspect and report shall constitute an acceptance of the Work of the other contractor as fit and proper to receive the Work.

Section 16.04. Responsibility for Damage. Should the Contractor cause damage to the work or property of any other contractor of the Owner, including, but not limited to, delay, disruption, suspension of work and/or acceleration damages, the Contractor shall settle all claims with such other contractor if the other contractor will so settle. If such other contractor sues the Owner on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor who shall defend such proceedings at the expense of the Contractor, or provide counsel of Owner's choice for Owner at the expense of Contractor, and if any judgment or award against the Owner results, the Contractor shall pay or satisfy it and shall reimburse the Owner for all attorney's fees and other litigation costs which the Owner has incurred.

ARTICLE 17

WARRANTIES OF THE CONTRACTOR

<u>Section 17.01</u>. <u>Warranty of Title</u>. The Contractor warrants and guarantees that title to all Work, materials and equipment covered by an Application and Certificate for Payment, whether incorporated in the Work or not, will pass to the Owner, free and clear of all liens, claims, security interests or encumbrances (hereinafter "Liens") and that none of the Work, materials or equipment covered by an Application and Certificate for Payment will have been acquired by the Contractor, or by any other person performing any part of the Work or furnishing materials and equipment for the Work, subject to an agreement under which a Lien is retained by the seller or supplier.

<u>Section 17.02.</u> <u>Special Warranties.</u> When special guarantees or warranties are required by the Contract Documents for specific parts of the Work, the Contractor shall procure certified copies of such guarantees or warranties, countersign them and submit them to the Owner in triplicate. Delivery of such guarantees or warranties will not relieve the Contractor from any obligations assumed under any provision of this Contract or the Contract Documents.

<u>Section 17.03.</u> <u>Assignment of Warranties.</u> The Contractor hereby assigns to the Owner any and all existing assignable warranties, service life policies and patent indemnities of manufacturers of materials, equipment or items incorporated in the Work. Upon the request of the Owner or the Program Manager, the Contractor shall give the Owner assistance in enforcing the rights of the Owner arising under such warranties, service life policies and patent indemnities. At the request of the Owner or the Program Manager, the Contractor shall give notice (with copies to the Owner) to any such manufacturers of the assignment of such warranties, service life policies and patent indemnities.

Section 17.04. General Warranty and Correction of Work.

- (a) In addition to any special guarantees or warranties contained in the Contract Documents, the Contractor warrants to the Owner that all materials and equipment furnished in performance of the Work will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All work not so conforming to these standards shall be considered defective.
- (b) The Contractor shall promptly correct all defective Work to comply with the Contract Documents whether observed before or after the substantial completion date and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting defective Work.

Page 17

Contract: Contractor Name

- (c) If, within three (3) years after the substantial completion date, or within such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee or warranty required by the Contract Documents, any of the Work is found to be defective and not in accordance with the Contract Documents, the Contractor shall correct it promptly after receipt of a written notice from the Owner, or the Program Manager, to do so.
- (d) All defective or non-conforming Work shall be removed from the site of the Work if necessary, and the Work shall be corrected to comply with the Contract Documents without cost to the Owner. The Contractor also shall bear the cost of making good all work of other contractors destroyed or damaged by removal or correction of the defective Work of Contractor.
- (e) If the Contractor fails to timely and properly correct defective Work, the Owner may correct it and hold the Contractor liable for all costs, expenses and damages, including attorney's fees and litigation costs incurred by Owner in correcting it.
- (f) In addition to the foregoing warranty, a warranty period of three (3) years shall apply under the same terms and conditions as the original warranty, to any work, supplied in correction of defective work under warranty pursuant to the provisions of this Section 17.04 and the Contractor shall assign to the Owner any warranties, including extended warranties, which are available in connection with the performance of such correction of defective Work. The warranty period shall commence on the date the Owner accepts the corrective Work of the Contractor.

ARTICLE 18

RIGHT OF THE OWNER TO DO WORK

<u>Section 18.01</u>. Right of the Owner to do Work. If the Contractor should neglect to perform the Work properly or fails to do anything required by the Contract Documents, and the Contractor does not correct the untimely or improper performance within seven (7) days after written demand is made, the Owner may, without prejudice to any other remedy it may have under this Contract or at law or in equity, make good any deficiencies in the Work, including, but not limited to, supplementing the workforces of the Contractor and deduct all costs of doing so from the payment then due or thereafter due the Contractor. The Owner shall not be required to give multiple notices to the Contractor in order to exercise its rights under this paragraph.

<u>Section 18.02.</u> <u>Deduction for Uncorrected Work.</u> If the Owner deems it inexpedient to correct deficiencies in the Work pursuant to Section 18.01 of this Contract, the Owner may deduct the reasonable cost of correcting the deficiencies, including any attorney's fees and additional fees and expenses of the Program Manager, from the payment then due or thereafter due to the Contractor, but the making of such a deduction shall in no way be deemed an election of remedies by the Owner.

Section 18.03. Correction of Work before Final Payment.

- (a) The Contractor shall promptly remove from the Work Site all materials, equipment or other items rejected by the Program Manager or the Owner as failing to conform to the Contract Documents, whether incorporated in the Work or not, and the Contractor shall promptly replace and re-execute its original work to comply with the Contract Documents without expense to the Owner. In addition, the Contractor shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.
- (b) If the Contractor does not remove rejected material, equipment or other items within a reasonable time (as fixed by written notice from the Owner, or the Program Manager), the Program Manager or the Owner may remove such items and store them at the expense of the Contractor, or dispose of such material, equipment or other items at the sole discretion of the Owner. If the Contractor does not pay the expense of such removal or storage within ten (10) days, the Owner may, upon ten (10) days written notice, sell such items at auction or at private sale and shall account for the net proceeds of such sale, after deducting all the costs and expenses of removal that should have been borne by the Contractor.

Page 18

Contract: Contractor Name

ARTICLE 19

INSURANCE

<u>Section 19.01</u>. <u>Insurance Requirements.</u> The Contractor shall fully comply with all requirements relating to insurance for the Project as set forth in this Article 19.

Section 19.02. Owner Controlled Insurance Program. The Owner has established an Owner Controlled Insurance Program (OCIP). To the extent required by the Owner, Contractor shall fully participate in and comply with all requirements of the OCIP. A copy of the OCIP Manual is attached hereto as Exhibit C and incorporated herein by reference. However, if the OCIP is not used, Contractor agrees to meet the requirements for Insurance coverage referenced in Section 19.03. A copy of the Construction Safety and Health Guidelines is attached hereto as Exhibit D and incorporated herein by reference.

<u>Section 19.03.</u> Contractor Provided Insurance Coverage. During the Term of this Agreement, Contractor shall comply with the insurance requirements set forth in Exhibit C ("Insurance Requirements").

Section 19.04. Survival. The insurance provisions of this Article 19 shall survive any termination of this Contract.

ARTICLE 20

SURETY BONDS

<u>Section 20.01</u>. <u>Surety Bonds Required.</u> The Contractor shall furnish and keep in force throughout the performance of the Work a separate performance bond and separate labor and material payment bond, each in the amount of the total of the Lump Sum Price (as the same may be modified from time to time) conditioned upon the faithful performance of the Work by the Contractor and payment of all obligations arising in connection with the Work by the Contractor. The bonds shall also guarantee to the Owner that the Work shall be free of all liens. The bonds shall name the Owner as obligee and shall be in such form and with such sureties as the Owner may approve prior to commencement of the Work.

ARTICLE 21

INDEMNIFICATION

Section 21.01. Indemnification of the Contractor.

- (a) Without limiting any insurance required herein and to the fullest extent permitted by law, Contractor, on behalf of itself, its subcontractors, their agents, their employees or any entity or person for which the Contractor is or may be responsible (hereinafter collectively referred to as "Indemnitors"), shall fully defend, indemnify, save and hold the Owner, the Board of Commissioners of the Owner, the Program Manager, the Program Manager, their agents, employees, officers, directors, partners and related entities (hereinafter collectively referred to as "Indemnitees") harmless from and against all liability, damages, loss, claims, demands, actions and expenses of any nature whatsoever, including, but not limited to reasonable attorney's fees which arise out or are connected with: (1) any negligent act, error or omission by any Indemnitor, or (2) the failure of the Indemnitor to comply with any applicable laws, statutes, ordinances, rules or regulations of any governmental or quasi-governmental authority, or (3) the material breach of any term or condition of this Contract by any of the Indemnitors.
- (b) Without limiting the generality of the foregoing, the indemnity set forth in this Article 21 shall include all liability, damages, loss, claims, demands and actions on account of personal injury, death or property loss to any third party, any Indemnitees, any of the Indemnitees' employees, agents, licensees or invitees relating to the Project and which results from the negligent act, error or omission of Contractor.
- (c) When the Contractor is obligated to provide the Owner a defense hereunder, it shall do so with qualified counsel that is selected by the Contractor and approved by the Owner. Such approval shall not be unreasonably withheld. In light of the Owner and Contractor's continuing relationship, however, the potential for conflicts of interests exists if the same counsel represents both the Owner and Contractor when the Contractor accepts the Owner's tender of defense under the indemnity provision of this Agreement. Therefore, the Owner retains the right to select its own counsel from a list

Page 19

Contract: Contractor Name

of qualified attorneys provided by Contractor or Contractor's insurer. The selected counsel's fees and expenses shall be paid for by Contractor or its insurer, and the counsel shall be different from that selected by Contractor to represent it in the same matter.

(d) The indemnity set forth in this Article 21 shall survive any termination of this Contract.

<u>Section 21.02. Labor Indemnity.</u> The Contractor shall indemnify, defend and hold harmless the Owner, the Board of Commissioners of the Owner, the Program Manager, and the Program Manager, their agents, employees, officers, directors, partners and related entities, from any and all administrative and judicial actions (including reasonable attorney's fees related to any such action), incurred by the Owner, the Program Manager, or the Program Manager in connection with any labor related activity arising from the wrongful acts or omissions of the Contractor or its subcontractors in the performance of the Work of the Contractor. As used in this Contract, "labor related activity" includes, but is not limited to, strikes, walk-outs, informational or organizational picketing, use of placards, or distribution of hand-outs or leaflets at or in the vicinity of any facility where the Owner conducts business. The Owner shall advise the Contractor if any labor related activity occurs and the Contractor shall arrange for the legal representation necessary to protect the Owner, the Program Manager, and the Program Manager provided such representation is previously approved by Owner.

<u>Section 21.03.</u> <u>Royalties and Patents.</u> The Contractor shall pay all royalties and license fees in anyway relating to the Work, shall defend all suits or claims for infringement of any patent or copyrights, and shall indemnify and hold the Owner, the Board of Commissioners of the Owner, their agents, officers, directors, partners and related entities, harmless from loss on account of such suit or claim.

<u>Section 21.04</u>. <u>Attorney's Fees.</u> In the event it becomes necessary for Owner to employ an attorney to enforce any provision of this Contract or to defend against any claim or litigation initiated by the Contractor, then the Contractor shall be liable for all attorney's fees and litigation expenses of Owner.

ARTICLE 22

RIGHT TO OCCUPY BY OWNER

<u>Section 22.01.</u> <u>Early Occupancy by Owner.</u> The Owner has the right to occupy or use ahead of schedule, at no additional cost nor obligation to Owner, all or any substantially completed or partially completed portion of the Work when such occupancy and use are in its best interest, notwithstanding the time of completion for all of the Work. Maintenance of occupied portion will remain the Contractor's responsibility.

<u>Section 22.02</u>. <u>Corrections after Occupancy.</u> After the Owner has taken occupancy of all or any portion of the Work, the Contractor shall not disrupt the use and occupancy of the Owner to make corrections in the Work.

ARTICLE 23

DEFAULT: RIGHT TO TERMINATE BY OWNER

<u>Section 23.01 Breach of Contract Terms</u>. (Required by FAA) 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 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.

Section 23.02. Default and Termination by Owner. (Required by FAA)

(a) The Contractor shall be considered in default of his or her Contract and such default will be considered as cause for the Owner to terminate the Contract for any of the following reasons if the Contractor:

Page 20

Contract: Contractor Name

- (1) Fails to begin the Work under the Contract within the time specified in the Notice to Proceed, or
- (2) 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
- (3) 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
- (4) Discontinues the execution of the Work, or
- (5) Fails to resume Work which has been discontinued within a reasonable time after notice to do so, or
- (6) Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or
- (7) Allows any final judgment to stand against the Contractor unsatisfied for a period of 10 days, or
- (8) Makes an assignment for the benefit of creditors, or
- (9) For any other cause whatsoever, fails to carry on the Work in an acceptable manner.

Should the Program Manager consider the Contractor in default of the Contract for any reason above, the Program Manager 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...

- (b) 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 Program Manager 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 Program Manager will be required for the completion of said Contract in an acceptable manner.
- (c) 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.

<u>Section 23.03. Termination for Convenience by Owner</u>. (Required by FAA) The Owner may terminate this Contract without cause at any time by providing fifteen (15) days prior written notice to Contractor. 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:

- (a) Contractor must immediately discontinue work as specified in the written notice;
- (b) Terminate all subcontracts to the extent they relate to the work terminated under the notice;
- (c) Discontinue orders for materials and services except as directed by the written notice;
- (d) 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;
- (e) Complete performance of the Work not terminated by the notice; and
- (f) 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:

Page 21

- (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.

Section 23.04. Suspension by the Owner.

- (a) The Owner may order the Contractor in writing to suspend, delay, or interrupt the Work in whole or in part for such period of time as the Owner may determine (hereinafter referred to as "Suspension").
- (b) Provided the Suspension lasts for more than ninety (90) days, an adjustment to the Lump Sum Price ("Adjustment") shall be made as set forth in paragraph (c) of this Section 23.02. The Substantial Completion Date shall be extended by written Contract Amendment to the extent that substantial completion is actually delayed by this Suspension. No Adjustment shall be made to the extent:
 - (1) That performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is in full or in part responsible; or
 - (2) That an equitable adjustment is made or denied under another provision of this Contract.
- (c) The amount of the Contractor's compensation for a Suspension pursuant to this Section 23.02 shall be limited to any properly documented costs of maintaining personnel and equipment in the field provided such costs are pre-approved by the Owner in writing. The Owner shall not be liable at any time for home office overhead or consequential damages. At the Owner's option, the Contractor may be ordered to demobilize its forces because the Project is suspended. In such event, the Owner will reimburse the Contractor for the reasonable cost of demobilization and remobilization.
- <u>Section 23.05.</u> <u>Assignment of Subcontracts.</u> In the event of termination by the Owner pursuant to this Article 23 or Exhibit E to this Contract, the Owner may require the Contractor to promptly assign to it all or some of the subcontracts, materials, tools, and equipment to be installed under this Contract, or rental agreements, and any other commitments which the Owner, in its sole discretion, chooses to take by assignment. In such event, the Contractor shall promptly execute and deliver to the Owner written assignments of such commitments.

ARTICLE 24

HAZARDOUS MATERIALS

Section 24.01. Hazardous Materials Covenants.

(a) Contractor hereby represents and warrants to and for the benefit of Owner that the Project or Work Site will not be used or operated in any manner that will result in the storage, use, treatment, manufacture or disposal of any Hazardous Materials (hereinafter defined) upon the Project or Work Site or any portion thereof or which will result in Hazardous Materials Contamination (hereinafter defined). For purposes of this Article 24, the term "Hazardous Materials" shall mean and refer to: (1) any "hazardous waste" as defined by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. § 6901 *et seq.*), as amended from time to time, and regulations promulgated thereunder; (2) any "hazardous substance" as defined by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. § 9601 *et seq.*)

Page 22

Contract: Contractor Name

("CERCLA"), as amended from time to time, and regulations promulgated thereunder; (3) asbestos; (4) polychlorinated biphenyls; (5) urea formaldehyde; (6) any substance the presence of which on the premises is prohibited by any applicable environmental laws or regulations ("Laws") or by any other legal requirements affecting the Project or the Work Site; (7) petroleum based materials (with the exception of tires affixed to vehicles); and, (8) any other substance which is defined as hazardous, toxic, infectious or radioactive by any Laws or by any other legal requirements affecting the Project or Project site. For purposes of this Article 24, the term "Hazardous Materials Contamination" shall mean and refer to the contamination of the Project or Project site, soil, surface water, ground water, air, or other elements on, or of, the buildings, facilities, soil, surface water, ground water, air, or other property as a result of Hazardous Materials at any time emanating from the Project or Work Site.

- (b) In addition to and without limiting the generality of any other provision of this Contract, Contractor shall and hereby does indemnify and hold Owner, the Board of Commissioners of the Owner, the Program Manager, the Program Manager, their agents, employees, officers, directors, partners and related entities harmless from and against any and all losses, damages, expenses, fees, claims, demands, causes of action, judgments, costs and liabilities, including, but not limited to, attorney's fees and costs of litigation, and costs and expenses of response, remedial and corrective work and other cleanup activities, arising out of or in any manner connected with: (1) the "release" or "threatened release" (as those terms are defined in CERCLA and the rules and regulations promulgated thereunder, as from time to time amended) by Contractor or Contractor's employees, agents, delegees, invitees, licensees, concessionaires, subcontractors or representatives, of any Hazardous Materials; or (2) any occurrence of Hazardous Materials Contamination affecting the Project or Work Site caused by or resulting from, in whole or in part, the operations of the Contractor or Contractor's employees, agents, delegees, invitees, licensees, concessionaires, subcontractors or representatives. The provisions of this paragraph shall survive any payment or satisfaction of this Contract and such provisions shall remain in full force and effect.
- (c) When use or storage of hazardous materials or equipment or unusual methods of construction are necessary, the Contractor shall obtain prior written approval from the Owner. The use of explosives is strictly prohibited provided, however, powder activated fasteners are permitted.
- (d) If Contractor encounters on the Work Site any substance or material reasonably believed by Contractor to be hazardous, Contractor immediately shall (i) stop work in the area affected, (ii) take measures appropriate to the condition to keep people away from the suspected Hazardous Material and, (iii) report the condition to Owner in writing. If the Work is so stopped and Hazardous Material is found, the Work in the affected area shall not thereafter be resumed except by the issuance of a Construction Change Directive pursuant to Section 9.02 of this Contract. Any such Construction Change Directive shall be limited to, an adjustment to the Substantial Completion Date appropriate. If no Hazardous Material is found after the Work is stopped, no Construction Change Directive is required to resume the Work in the affected area.

ARTICLE 25

MISCELLANEOUS

<u>Section 25.01.</u> <u>No Waiver.</u> No consent or waiver, express or implied, by either party to this Contract or of any breach or default by the other in the performance of any of its obligations hereunder shall be deemed or construed to be a consent or waiver to or of any other breach or default by such party. Failure on the part of the Owner to complain of any act or failure to act of the Contractor or to declare the Contractor in default, irrespective of how long such failure continues, shall not constitute a waiver of the rights of Owner.

<u>Section 25.02.</u> <u>Assignment.</u> This Contract shall not be assigned, delegated or transferred in whole or in part by the Contractor nor shall the Contractor assign any monies due or to become due to it without the prior written consent of the Owner.

<u>Section 25.03</u>. <u>Governing Law.</u> This Contract is entered into in Tennessee and shall be governed by and construed according to the laws of Tennessee. Any and all disputes arising out of this Contract, and/or the Project shall be decided by a state or federal court of competent jurisdiction in Memphis, Shelby County, Tennessee.

<u>Section 25.04.</u> <u>Execution of Contract.</u> The parties hereby agree and express their intent to execute this Contract electronically if Owner has a designated information processing system. The parties also hereby agree that this Contract may be executed in counterparts, each of which shall be deemed to be an original, but all of which, taken together, shall constitute one and the same agreement.

Page 23

Contract: Contractor Name

<u>Section 25.05</u>. <u>Article and Section Headings.</u> Article and section headings contained in this Contract are for ease of reference only and shall not affect the interpretation or meaning of this Contract.

<u>Section 25.06</u>. <u>Parties in Interest.</u> This Contract shall inure to the benefit of and be binding upon the Parties and their respective successors, assigns and legal representatives. It is specifically agreed between the Owner and the Contractor that the Parties do not intend to create any third party beneficiary rights by the execution of this Contract.

<u>Section 25.07.</u> <u>Severability.</u> If any one or more of the provisions contained in this Contract shall for any reason be held invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision of this Contract, but it shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

<u>Section 25.08.</u> <u>Written Notices.</u> Whenever by the terms of this Contract notice shall be given either to Owner or to Contractor, such notice shall be in writing and shall be sent by regular United States Postal Service, by hand-delivery, by registered or certified mail, by a nationally recognized overnight delivery service or by electronic mail with a delivery receipt. Notice intended for Owner shall be addressed to the Vice President of Operations as follows with a copy to Owner's General Counsel at the address for regular mail:

If to the Owner, address to:

Regular Mail or Hand Delivery
Vice President of Operations
Memphis-Shelby County Airport Authority
2491 Winchester Rd., Suite 113
Memphis, Tennessee 38116-3856

Certified Mail or Overnight Delivery 4150 Louis Carruthers Drive Memphis, TN 38118 (901) 922-8000

If to the Contract	ctor, address to:		
		 -	
		 -	
		-	
		_	

Either Party, from time to time, may change its address by giving written notice to the other Party.

Section 25.09. Exhibits. All exhibits described in this Contract shall be deemed to be incorporated into and made a part of this Contract. If there is any inconsistency between this Contract and the provisions of any exhibits, the provisions of this Contract shall control to the extent of the inconsistency.

<u>Section 25.10.</u> <u>Entire Contract.</u> This Contract, together with the exhibits and the other Contract Documents, constitutes the entire agreement between the Owner and the Contractor and supersedes all prior written or oral agreements, understandings, representations, negotiations and correspondence between the Parties. This Contract shall not be supplemented, amended or modified by any course of dealing, course of performance or usage of trade and may only be amended or modified by a written instrument duly executed by officers of both Parties.

<u>Section 25.11.</u> <u>Non-Federally Assisted Projects.</u> Regardless of the funding source for the Project, Contractor hereby agrees to comply with all nondiscrimination provisions of this Contract.

Section 25.12. Disadvantaged Business Enterprise Participation.

(a) The Project is subject to the requirements of Owner's Business Diversity Development Program (BDDP) and Small Business Participation Program (SBPP). It is the responsibility of the Contractor to see that all requirements of the BDDP and SBPP are met. The Disadvantaged Business Enterprise (DBE) participation goal for the Project is SIX PERCENT (6%). This percentage is defined as the dollar value of subcontracts awarded to certified DBEs divided by the base bid or alternate amount. To qualify, a firm must be included on the Owner's list of certified DBE firms.

Page 24

Contract: Contractor Name

- (b) Proposed changes to the designated participating DBEs during performance of the Work must be submitted to the Owner. Contractors must make every effort to replace a DBE subcontractor with another certified DBE, based on said DBEs' availability. All substitutes for DBE subcontractors or joint ventures require prior approval of the Owner, such approval not to be unreasonably withheld; and said approval may be granted for reasons including, but not limited to, the following: (1) subcontractor requests that its subcontract or joint venture agreement with the prime contractor be voided; (2) subcontractor is unable to perform the Work; and/or (3) subcontractor has consistently performed unacceptable work.
- (c) A determination by the Owner that the Contractor has either failed to comply with this Section 25.12, to timely submit to Owner requested documentation related hereto, to cooperate with Owner, or to answer inquiries truthfully shall subject the Contractor to any or all of the following penalties:
 - (1) Withholding from the Contractor all future payments under this Contract until the Contractor is in compliance; and/or
 - (2) Cancellation, termination or suspension of this Contract, in whole or in part; and/or
 - (3) Payment by the Contractor to the Owner of an amount equal to the difference in the DBE dollar value achieved in documented DBE participation or any lesser amount or penalty as deemed appropriate by the Owner, which dollar value shall be considered liquidated damages for failure to perform the requirements of this Contract and for which the Contractor and all of its subcontractors agree to be bound.
- (d) A violation of this provision shall be considered a material breach of this Contract. If, in the opinion of the Owner, the Contractor has made significant deviations from the DBE program commitments, such deviations shall be considered a breach of this Contract.

Section 25.13. No Financial Benefit. Contractor understands and agrees that no Owner employee or member of the Board of Commissioners, Memphis City Council or Shelby County Commission shall receive any financial benefit arising out of this Contract, either directly or indirectly. Further, any fees paid to any person or entity by Contractor for assistance in obtaining this Contract with Owner must be fully disclosed to Owner. Notwithstanding any term, condition, obligation or provision in this Contract, any other writing, any other agreement, any oral understanding or agreement, or any conduct or failure to act by the Owner, Contractor stipulates and agrees conclusively that Contractor has against the Owner no right, entitlement or claim for any payment, compensation, cost or remuneration of any type other than pursuant to the terms of this Contract.

ARTICLE 26

FEDERAL AVIATION ADMINISTRATION (FAA) REQUIRED CONTRACT PROVISIONS

<u>Section 26.01.</u> <u>FAA Required Provisions</u>. Federal laws and regulations require that specific contract provisions be included in certain contracts and subcontracts. All such provisions are set forth in <u>Exhibit E</u>, which is attached hereto and incorporated herein by reference. Contractor hereby agrees to insert these provisions in each contract and subcontract (to the extent applicable) related to the performance of this Contract and to require each of its subcontractors to do the same. Contractor also hereby agrees to incorporate these provisions by reference for work done under any purchase order, rental agreement or other agreement for supplies or services related to the performance of this Contract. Contractor further agrees to be responsible for compliance with these provisions by any subcontractor, lower-tier subcontractor or service provider. Contractor acknowledges that the FAA prevents any modification to these provisions that creates a conflict with federal laws and regulations or changes the intent of the required provision.

Page 25

Contract: Contractor Name

ARTICLE 27

STATE REQUIRED CONTRACT PROVISIONS

<u>Section 27.01. State of Tennessee Laws and Regulations - Grant Contract Provisions</u>. State laws and regulations require that specific contract provisions be included in certain contracts and subcontracts. All such provisions are set forth in <u>Exhibit F</u>, which is attached hereto and incorporated herein by reference.

The remainder of this page intentionally left blank. [Signature page to follow.]

Page 26

Contract: Contractor Name

IN WITNESS WHEREOF, the Parties have made and executed this Contract as of the day and year first above written.

MEMPHIS-SHELBY COUNTY CONTRACTOR AIRPORT AUTHORITY By: _____ Title: President and CEO Approved as to Content: By: _____ Title: Vice President of Operations Approved as to Form and Legality: Title: General Counsel **Reviewed and Approved:** By:_____

Page 27

Contract: Contractor Name

Parking Guidance System MSCAA Project No. 24-1477-00

Title: Director of Development

EXHIBIT A TO CONSTRUCTION CONTRACT FOR PARKING GUIDANCE SYSTEM

BY AND BETWEEN THE MEMPHIS-SHELBY COUNTY AIRPORT AUTHORITY AND (CONTRACTOR NAME)

SCOPE OF WORK

The scope of work shall consist of design, provisions, and installation of a parking guidance system that detects single space availability and vehicle occupancy using either ultrasonic sensors or camera-based sensors, or a combination thereof. It shall also include the design, provision, and installation of dynamic digital signage to display parking space availability. The proprietary system parking guidance hardware and software will be installed by an electrical subcontractor. Proprietary warranties and subscriptions will be obtained from the system manufacturer. Systems will be installed in the Economy, Short-term, and Long-term garages. The scope of work is more specifically described in the Contract Documents, as defined in Article 2 of this Contract.

Page 28

Contract: Contractor Name

EXHIBIT B TO CONSTRUCTION CONTRACT FOR PARKING GUIDANCE SYSTEM

BY AND BETWEEN THE MEMPHIS-SHELBY COUNTY AIRPORT AUTHORITY AND (CONTRACTOR NAME)

CONTRACT DOCUMENTS

EXHIBIT C TO CONSTRUCTION CONTRACT FOR PARKING GUIDANCE SYSTEM

BY AND BETWEEN THE MEMPHIS-SHELBY COUNTY AIRPORT AUTHORITY AND (CONTRACTOR NAME)

OWNER CONTROLLED INSURANCE PROGRAM

INSURANCE REQUIREMENTS (OCIP)

C.1. Owner Controlled Insurance Program

The Owner has elected to implement an Owner Controlled Insurance Program (OCIP) that will provide **Workers' Compensation, Employer's Liability, Commercial General Liability, Excess Liability and Builders' Risk insurance** for Contractors and Subcontractors of every tier who have been properly enrolled and are providing direct labor to the Project. A general summary of coverage provided by the OCIP is included in the MSCAA OCIP Manual, (hereinafter called the Manual), a copy of which is attached hereto and made a part of this Agreement and should be attached to and incorporated in every subcontract. All terms and conditions of Exhibit C will apply during the term of the contract. The Owner agrees to pay all premiums associated with the OCIP.

While the OCIP provides uniform coverages and reasonable limits, the OCIP is not intended to meet all the insurance needs of the Contractor and eligible Subcontractors who have been properly enrolled. In addition to any insurance provided by Owner, the Contractor and all Subcontractors working on the Project will be responsible for providing certain insurance as specified in paragraph C.2. Contractors and eligible Subcontractors should discuss the OCIP with their insurance agent or consultant to assure that other proper coverages are maintained. Contractor and eligible Subcontractors enrolled in the OCIP agree that the insurance company policy limits of liability, coverage terms and conditions shall determine the scope of coverage provided by the OCIP.

C.1.1. Applicability of the OCIP

Participation in the OCIP by the Contractor and all eligible Subcontractors is mandatory but not automatic. The Contractor and each eligible Subcontractor (as defined below) must follow the enrollment procedures shown in the Manual. The Contractor shall comply with all requirements of the OCIP as outlined in the OCIP Manual and shall require all eligible Subcontractors to comply with requirements of the OCIP manual. The Manual may be updated and revised during the course of construction to reflect any changes in State Law, Rules and/or Regulations or Procedures that may be necessary or appropriate, and said revisions will replace all previous versions. Copies of any revised Manual will be distributed by the OCIP Administrator.

- If the Contractor or any eligible Subcontractor fails to enroll any of its eligible Subcontractors of any tier, it will be subject to a penalty charge of the full and complete deduct as shown in C.1.2.c or 3% of the subcontract cost, whichever is greater. Note: Collection of the penalty charge of any non-enrolled contractor(s) of any tier does not provide automatic coverage in the program.
- If any Contractor or any eligible Subcontractor enrolls in the OCIP more than 30 days after its start date, it will have to provide a No Known Loss Letter to the Carrier along with the enrollment documentation.

<u>Eligible Subcontractor</u> includes all Subcontractors providing or subcontracting for direct labor on any Designated Project (see definition of ineligible Subcontractors below).

<u>Ineligible Subcontractor</u> includes (but is not limited to) subcontractors performing any type of environmental remediation work (example: asbestos or underground tank removal), consultants, suppliers (that do not perform or subcontract installation), vendors, materials dealers, guard services, janitorial services, truckers (including trucking to any Designated Project where delivery is the only scope of work performed), employee leasing companies, temporary labor services and

Page 30

Contract: Contractor Name

other temporary project services. However, such Employee leasing and temporary labor service companies can be insured by the OCIP but must be submitted for review to the OCIP administrator prior to acceptance.

A Designated Project is a project designated and approved by the Owner as a Designated Project and, enrolled by the OCIP Administrator with the insurance company. This project is a Designated Project. A Designated Project includes operations necessary or incidental to the Work. The Contractor's/Subcontractor's regularly established workplace, plant, factory, office, shop, warehouse, yard or other property even if such operations are for fabrications of materials to be used at the job site or training of apprentices will be considered off-site and not covered by the OCIP.

Unless otherwise directed by the Owner, the Contractor, eligible Subcontractors and all Subcontractors not enrolled in the OCIP, will be required to maintain at least the insurance coverages set forth in paragraph C.2 and are required to participate in the MSCAA OCIP Safety Program. Contractor will promptly furnish the Owner, or their designated representative, certificates of insurance giving evidence that all required insurance is in force.

C.1.2. Contractor Insurance Cost Identification

The Contractor and eligible Subcontractors will exclude their cost for all insurance coverages to be provided by the Owner for the work at any Designated Project from their bid. The Contractor and each Subcontractor of any tier warrant that all insurance premium calculations for work performed at the Designated Project Site have been correctly identified and removed from their bids.

C.1.3. Change Order Pricing

Contractor and all enrolled Subcontractors will price each change order to exclude the cost of insurance.

C.1.4. Assignment of Return Premiums

The Owner will be responsible for the payment of all premiums associated solely with the OCIP and will be the sole recipient of any dividend(s) and/or return premium(s) generated by the OCIP. In consideration of the Owner's provision of said coverages under the OCIP program, the Contractor and eligible Subcontractors agree to:

- 1) Exclude all applicable insurance costs for coverage provided by the Owner associated with their contract work and excluded from their bid; and cooperate with the OCIP Administrator in the administration of the OCIP.
- 2) Irrevocably assign to and for the benefit of the Owner, all return premiums, premium refunds, premium discounts, dividends, retentions, credits, and any other monies in connection with the OCIP insurance. Contractor also assigns its right of cancellation of all insurance policies provided by Owner. Contractor agrees to evidence such assignment by executing and delivering the Form-2. Contractor further agrees to require each eligible Subcontractor to execute the assignment on the Form-2, for the benefit of the Owner.

C.1.5 Audit of Contractor and/or Subcontractor Payroll

For insurance purposes, the Contractor and all tiers of Subcontractors agree to keep and maintain accurate and classified records of their payroll for operations at any Designated Project. Contractor and all eligible Subcontractors agree to furnish a copy of the Monthly Payroll Reporting Form, Form 5, to the OCIP Program Administrator by the 20th of each month and attach a copy of the Form-5, to their monthly pay application. If this report (Form-5) is not attached to the monthly pay application, payment may be held until the report is received.

The Contractor and all eligible Subcontractors will permit the Owner and its representative to examine and/or audit its books and records pertaining to any Designated Project. Contractor and eligible Subcontractor will also provide any additional information to the Owner or its appointed representatives as may be required. At the end of each contract, an audit may be performed of the reported payroll by the OCIP Carrier.

Upon Final Completion of each contract, the Contractor and eligible Subcontractors will furnish a completed and signed Form-4 - Notice of Anticipated Completion Form (a copy of which is attached hereto as "Form-4") to the OCIP Administrator, together with all required documentation.

Demobilization payments will not be released until all closeout documentation has been received and approved.

Page 31

Contract: Contractor Name

C.1.6. OCIP Deductibles

General Liability:

If a claim arises under the Owner provided Commercial General Liability OCIP policy from the partial or sole negligence of a Contractor or Subcontractor, or for violation of any OCIP Safety Requirements, such Contractor or Subcontractor shall be responsible for reimbursing the Owner's deductible to the extent of their respective negligence, as determined solely by owner, up to a maximum of \$10,000 per occurrence per Contractor.

Builders Risk:

The Contractor shall be responsible for a deductible of \$25,000 for each and every loss.

C.1.7. Termination/Modification of the OCIP

The Owner reserves the right to terminate or to modify the OCIP or any portion thereof. To exercise this right, the Owner will provide thirty (30) days advance written notice of termination or material modification to the Contractor and all eligible Subcontractors covered by the OCIP. In such event, the Contractor will promptly obtain appropriate replacement insurance coverage acceptable to the Owner. Written evidence of such insurance will be provided to the Owner prior to the effective date of the termination or modification of the OCIP coverages. The reasonable cost of such replacement insurance will be reimbursed by the Owner to the Contractor.

SPECIAL NOTE: The Contractor and eligible Subcontractors who have completed their work at any Designated Project and whose insurance as provided by MSCAA OCIP has been terminated, and who returns to the site to perform warranty work does so under its own insurance coverages and not under those provided by MSCAA OCIP.

C.2 Contractor Provided Coverages

All insurance obtained by the Contractor pursuant to this Agreement shall be written by insurance companies licensed to do business in Tennessee and acceptable to Owner.

Prior to the commencement of any operations by or on behalf of the Contractor relating to the Project, and with respect to any and all such operations, the Contractor shall procure, maintain and provide to Owner and the Program Manager:

- 1) Evidence of Contractor's **Commercial Automobile Liability Insurance**. A certificate of insurance and copy of endorsement shall be provided as evidence of:
 - a) Coverage for Owner, their officers, directors and employees as additional insureds.
 - b) Coverage to apply to all liability arising out of the ownership or use of all vehicles owned by, hired by, or used on behalf of the Contractor.
 - c) Waiver of Subrogation to be provided in favor of the Owner, the Design Professional, the Program Manager and their officers, directors, and employees.
 - d) If hazardous materials or waste are to be transported, the policy will be endorsed with the MCS-90 endorsement in accordance with the applicable legal requirements.

This insurance shall be for an amount not less than \$1,000,000 combined single limit liability.

- 2) Evidence of Contractor's **Workers' Compensation and Employer's Liability Insurance**. A certificate of insurance or, at Owner's request, a certified policy copy shall be provided as evidence of:
 - a) Coverage for claims for damages arising out of bodily injury, occupational sickness or disease or death of Contractor's employees under any applicable workers' compensation statute or any other applicable employers' liability law. Certificate of insurance or policy must clearly identify that coverage applies in the state of Tennessee.
 - b) A waiver of subrogation by the insurer against the Owner the Design Professional, the Program Manager and their officers, directors and employees.
 - c) This insurance shall include Employer's Liability limits of not less than \$1,000,000 bodily injury each accident, \$1,000,000 bodily injury by disease each employee and \$1,000,000 bodily injury by disease in the aggregate.
 - d) All Enrolled Contractors must provide Workers' Compensation and Employer's Liability insurance covering all employees for injuries that occur AWAY from the Designated Project Site or after OCIP termination, expiration, or cancellation.
 - e) Ineligible subcontractors or subcontractors not enrolled must provide coverage for ALL operations.

Page 32

Contract: Contractor Name

- 3) Evidence of Contractor's **Commercial General Liability Insurance**. Certificate of insurance and copies of endorsements to Contractor's primary commercial general liability policy and shall be provided as evidence of:
 - a) Coverage for Owner and the Design Professional, Program Manager, their officers, directors and employees as additional insureds as respects claims or liabilities arising from or connected with Contractor's work, operations and completed operations. The additional insured endorsements shall be at least as broad as the ISO CG 2010 (1001) during the course of construction and CG2037 (1001) until the expiration of the statute of repose, or its carrier equivalent.
 - b) Coverage shall be primary and non-contributing with any coverage Owner maintains in its own name and on its own behalf.
 - c) Coverage shall be written on an occurrence coverage form, with coverage at least as broad as that provided under the current edition of the ISO Commercial General Liability coverage form, CG 0001. Other than standard exclusions applicable to pollution, asbestos, mold, employment practices, ERISA and professional liability, there shall be no limitations or exclusions beyond those contained in the standard policy forms which apply to property damage, products and completed operations, contractual liability or construction defects. In addition to procuring and maintaining this insurance during the duration of the contract, contractor agrees to continue to procure and maintain products and completed operations liability insurance coverage for a minimum of six (6) year(s) after the date the contract is completed or terminated or in accordance with the applicable statute of limitations under state law, whichever is longer.
 - d) Waivers of subrogation by insurers against Owner, Design Professional, Program Manager and their officers, directors and employees.
 - e) Contractual Liability Insurance applicable to the indemnification agreement contained in Section 21.01 of this Agreement.
 - The required amounts of primary Commercial General Liability Coverage in the amount of:

\$1,000,000 Bodily Injury and Property Damage Limit for each occurrence

\$1,000,000 Personal & Advertising Injury \$2,000,000 General Aggregate (Annual)

\$2,000,000 Products/Completed Operations Aggregate (annual)

The general aggregate limit shall apply separately to each project.

- g) All Enrolled Contractors must provide General Liability insurance covering third-party losses that occur AWAY from the Project Site (including products liability for any product manufactured, assembled or otherwise worked upon away from the Designated Project Site) or after OCIP termination, expiration or cancellation.
- h) Ineligible contractors or subcontractors not enrolled must provide coverage for ALL operations.
- i) The policy will be endorsed to exclude any "Designated Project" for onsite coverage only, if you are a participant in the OCIP.
- 4) Evidence of Contractor's **Excess or Umbrella Liability Insurance**. Certificate of insurance and copies of endorsements to Contractor's Excess or Umbrella liability policy and shall be provided as evidence of this excess liability or umbrella insurance with an annual an aggregate amount of not less than \$25,000,000 for the Contractor and \$1,000,000 limits required of subcontractors unless otherwise stated in the Contract Documents, and shall be excess and follow form over primary coverages included herein. Such coverage will be excess and "drop down" for defense and indemnity in the event of exhaustion of the underlying insurances of Commercial, Automobile, Liability, Employer's Liability and the Commercial General Liability policies.
- 5) Evidence of **Professional Liability Insurance** (If Applicable):

Per Claim and in the Aggregate:

\$1,000,000

All professional services firms must provide professional liability insurance appropriate for their profession. Architectural and engineering firms must provide coverage for liability arising out of design errors and omissions. The policies shall provide a three (3) year extended reporting period.

6) Evidence of Contractors Pollution Liability Insurance (If Applicable):

Each Occurrence Limit and in the Aggregate:

\$1,000,000

Coverage applies to third-party bodily injury and property damage claims (including natural resource damage), and clean-up costs, caused by pollution conditions which result from covered operations performed by, or on behalf of,

Page 33

Contract: Contractor Name

contractors and subcontractors of all tiers at the Designated Project Site. Coverage shall apply to claims for mold and fungus damage that result from the work as well as gradual and sudden and accidental pollution incidents arising from activities of the contractors working at the project site.

Coverage must be evidenced for on-site and off-site transportation which may result in a pollution incident/event and non-owned disposal site coverage (if applicable to the project).

The policy shall be endorsed to provide a Waiver of Subrogation in favor of the Owner, Design Professional and Program Manager. In addition, the Owner, their officers, directors and employees shall be included as Additional Insureds.

7) Evidence of Contractor's Equipment Insurance:

The Contractor is responsible for their tools and equipment including, but not limited to, construction trailers and their contents and temporary scaffolding at the project site, whether owned, leased, rented or borrowed. Contractor acknowledges and agrees that the Owner will not be responsible for any loss or damage to their tools and equipment. If insured, the Contractor's insurance policies covering tools and equipment will include a waiver of subrogation and any other rights of recovery in favor of the Owner. If uninsured, the Contractor will hold harmless the Owner, Program Manager and Design Professional for loss or damage to their tools and equipment.

8) Aircraft/Aviation Liability Insurance (If Applicable): Not Applicable

Each Occurrence Limit and in the Aggregate (including passenger liability):

The operator of an aircraft of any kind, whether manned or unmanned, must maintain liability insurance covering bodily injury and property damage on a Combined Single Limit basis. If non-employee passengers are carried, there cannot be a per-passenger sublimit.

Prior to commencing operations, the operator must provide the Owner with a certificate of insurance naming the Owner, their officers, directors and employees as additional insureds on a primary and non-contributory basis. Operator and their insurer(s) must hold the Owner harmless and waive subrogation with respect to damage to the aircraft If aircraft is to be used to perform lifts at the Designated Project Site, a "slung cargo" endorsement must be included to cover the full replacement value of any equipment being lifted.

NOTE: If the Contractor and / or eligible Subcontractor participating in the OCIP choose(s) to have the policy endorsed to include any "Designated Project" site during the construction period, coverage should be Excess and/or Difference in Conditions (DIC) of the OCIP and this cost should not be passed back to the Owner. Inclusion of any "Designated Project" Site on such insurance policies shall not replace the OCIP coverage or otherwise affect the cost identification requirement in paragraph C.1.2.

C.2.2. Contractor's Insurance Primary.

Any coverage applicable to Owner under Contractor's insurance policies shall be primary and non-contributing with any insurance maintained by Owner in its own name and on its own behalf. Copies of endorsements to Contractor's policies shall be provided to Owner.

C.2.3. Cancellation.

All such insurance shall be in form and substance satisfactory to the Owner and shall provide that not less than thirty (30) days' notice of cancellation or non-renewal, other than non-payment of premium which shall be ten (10) days' notice, be provided to Owner. If unavailable, Contractor must provide Owner with thirty (30) days' advance written notice of cancellation, other than non-payment of premium, which shall be ten (10) days' notice. Contractor must notify Owner of any material change or reduction in coverage to the Contractor's insurance policies.

C.2.4. Certificates of Insurance - Contractor Provided Insurance Coverage Requirements

As shown in Section C.2

Description of Operations for contractors participating in the OCIP shall read:

Workers' Compensation and Commercial General Liability coverages shown above do not apply to any Designated Project at the Memphis International Airport.

Additional Insured Wording for Contractors shall read:

Contract: Contractor Name

Memphis-Shelby County Airport Authority, Program Manager, Design Professional and their officers, commissioners, agents and employees as now or hereafter exist as respect to the services / work to be performed under this Agreement, for coverages as required by contract MSCAA Project # 24-1477-00.

Additional Insured Wording for Subcontractors shall read:

For Subcontractors participating in the OCIP

The Memphis-Shelby County Airport Authority, Program Manager, Design Professional and their officers, commissioners, representatives, agents and employees ATIMA are additional insureds for coverages as required by contract.

For Subcontractors not participating in the OCIP

The Memphis-Shelby County Airport Authority, Program Manager, Design Professional and their officers, commissioners, representatives, agents and employees ATIMA and Awarding Contractor are additional insureds as respect to the services / work to be performed under this Agreement for coverages as required by contract.

IN THE EVENT THAT THE LAW OF THE STATE IN WHICH THE PROJECT IS LOCATED (OR APPLICABLE LAW) LIMITS THE ADDITIONAL INSURED COVERAGE THAT OWNER MAY REQUIRE FROM CONTRACTOR AND SUBCONTRACTORS, THEN CONTRACTOR AND SUBCONTRACTORS SHALL BE REQUIRED TO OBTAIN ADDITIONAL INSURED COVERAGE TO THE FULLEST EXTENT OF COVERAGE AND LIMITS ALLOWED BY APPLICABLE LAW AND THIS CONTRACT SHALL BE READ TO CONFORM TO SUCH LAW.

Filing of Certificates

Certificates of insurance acceptable to the Owner shall be filed with the Owner by furnishing to the OCIP Administrator, prior to commencement of the Work. If any of the foregoing insurance coverages are required to remain in force after final payment and are reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment.

A sample is provided of a certificate of insurance is provided in the OCIP Manual.

MSCAA OCIP

c/o Willis Towers Watson National Project Insurance Practice.

Attn: OCIP Administrator

15305 North Dallas Parkway, Suite 1100

Addison, TX 75001

C.2.5. The Right of the Owner to Maintain Insurance.

In the event the Contractor fails to furnish and maintain the required insurance or to furnish certificates of insurance, the Owner shall have the right, at its option, to terminate this Agreement or to take out and maintain such insurance, and hold the Contractor liable for the cost. Compliance by the Contractor with the requirements of this Article shall in no way relieve the Contractor from liability under any provision of this Agreement or the Contract Documents.

C.2.6. Other Insurance

Any type of insurance or any increase of limits of liability not described in this section which the Contractor or any Subcontractor requires for their own protection or on account of any statute will be their own responsibility and their own expense. Any type of insurance or any increases of limits of liability not described herein that the Contractor or any Subcontractor requires for its own protection or on account of statute shall be its own responsibility and its own expense. If the Contractor or the Subcontractors maintain any insurance policies covering owned, leased or borrowed, equipment, such policies shall contain a waiver of subrogation against the Owner. Each item must be shown as a line item and approved by the Owner.

C.2.7. Deductibles

The Contractor shall be responsible for the payment of the deductible amounts for any insurance in force pursuant to this Agreement whether such insurance is furnished by the Owner or the Contractor.

Page 35

Contract: Contractor Name

C.2.8. Insurance for Project Property While outside the United States and Canada.

If any project property is in transit or is located outside the continental United States or Canada for any reason, Contractor shall arrange to insure such property for its full replacement value separate from the other insurance described herein.

C.2.9. Subcontractors Flow-Down Clause.

Subcontractors of all tiers are subject to the same insurance requirements as Contractor. Contractor shall cause each Subcontractor employed by Contractor to purchase and maintain such insurance and upon request, must promptly furnish Owner with copies of certificates of insurance evidencing coverage for each Subcontractor.

C.2.10. No Representation of Coverage Adequacy.

In specifying minimum Contractor insurance requirements, Owner does not represent that such insurance is adequate to protect Contractor for loss, damage or liability arising from its work. Contractor is solely responsible to inform itself of the types or amounts of insurance it may need beyond these requirements to protect itself. The insurance requirements set forth in minimum amounts shall not be construed to relieve Contractor for liability in excess of such coverage, nor shall it preclude Owner from taking such other actions as is available to it under any other provision of the contract.

C.2.11. Contractor Responsibilities

The Contractor will cooperate with and will require all eligible Subcontractors to cooperate with The Owner and/or the OCIP Administrator with regards to the administration and operation of the OCIP. The Contractor and eligible Subcontractors responsibilities will include, but not be limited to:

- Compliance with all rules and regulations of the applicable State Insurance Bureau/Board; failure to meet state
 requirements may result in fines being assessed, and, if this occurs, the Owner shall deduct from monies due or to
 become due under the provisions of this contract for any applicable fines that are assessed against the Owner, the
 Contractor or any eligible Subcontractor;
- 2) Compliance with applicable Construction Safety Program;
- 3) Provision of necessary contract, operations and insurance information, including verification of current Worker's Compensation Experience Modifier:
- 4) Cooperation with any insurance company or OCIP Administrator with respect to requests for claims, payroll or other information required under the program;
- 5) The Contractor and all eligible Subcontractors shall adhere to and perform all reporting requirements as set forth in the Claims Procedures portion of the OCIP Program Manual.

C.2.12. Contractor's Responsibility for its Subcontractors.

The Contractor will include this Exhibit and the Manual with the bid documentation. The Contractor will require that all eligible Subcontractors participate in the OCIP and comply with all rules and procedures as outlined in MSCAA Enrollment Process Summary. It will be the Contractor's responsibility to submit to The Owner and its designated representative all bid documentation for approval. If Contractor fails to comply with this section and any eligible Subcontractors do not enroll in the program, the Owner has the right to retain the 3% of subcontracted work as a penalty from the awarding Contractor/Subcontractor as set out in C.1.2.c.

C.2.13. Approval of Forms and Companies

All insurance described in this Section will be written by an insurance company or companies satisfactory to the Owner and licensed to do business in Tennessee and will be in a form and content satisfactory to the Owner. No party subject to the provisions of this contract will violate or knowingly permit to be violated any of the provisions of the policies of insurance described herein.

C.2.14. Coverage to be provided by Contractor during Warranty Period

During the period following the final acceptance date and prior to expiration of the warranty period hereunder, Contractor

Page 36

Contract: Contractor Name

will maintain in full force and effect all insurance as specified in paragraph C.2 covering all Work performed during such period.

C.3. Waiver of Subrogation and Waiver of Rights of Recovery

Owner Controlled Insurance Program

Except as respects any deductibles identified above, Owner waives all rights of subrogation and recovery against the Contractor and all Subcontractors of all tiers to the extent of any loss or damage, which is insured under the OCIP. Except as respects the deductibles identified above, Contractor waives all rights of subrogation and recovery against the Owner, Design Professional and Program Manager, other Contractors and Subcontractors of all tiers to the extent of any loss or damage, which is insured under the OCIP. The Contractor and each Subcontractor will require all Subcontractors to similarly waive their rights of subrogation and recovery in each of their respective construction contracts with respect to their work on any Designated Project.

Contractor Provided Coverages

Contractor waives all rights of subrogation and recovery against the Owner, Design Professional and Program Manager, to the extent loss or damage is insured under the Contractor's policies. The Contractor and each Subcontractor will require all Subcontractors to similarly waive their rights of subrogation and recovery in each of their respective construction contracts with respect to their work on any Designated Project.

C.4. Project Safety Administration

It is the responsibility of the Contractor to maintain total control of safety to ensure that its employees and the general public will be provided an environment free of recognized hazards during construction activities. In carrying out this policy it is clear the only accepted level of performance is to be "Incident Free" on this project each and every day.

A. Project Safety Manual

The safety requirements of any Designated Project Safety Manual are a supplementary document to all Government rules, codes and regulations. It is understood that the ultimate responsibility for providing a safe place to work rests with each individual Contractor. All Contractors are responsible for full compliance with the requirements and standards referenced in the manual.

B. New Employee Orientation

Each new Contractor or Subcontractor employee will be required to attend an orientation program. This orientation is designed to communicate all project specific safety policies, procedures, and expectations of "the Safety Team" in regard to the construction of any Designated Project.

C. Contractor Safety Program Review

To proactively monitor the safety, health and environmental performance of Contractors and Subcontractors the Owner and/or his Representative, will be conducting a periodic review of Contractor or Subcontractor safety programs. This will be a formal process, which will be done with or without advanced notice. Upon completion of the Safety Program Review, a list of recommendations will be provided to the Contractor or Subcontractor. There will be a timeline developed and agreed upon for the purpose of abating any deficiencies in the Contractor or Subcontractor safety program.

C.5. No Release

The provision of the OCIP by The Owner will in no way be interpreted as relieving the Contractor or any Subcontractor of any other responsibility or liability under this agreement or any applicable law, statute, regulation or order.

C.6. CIP Exclusion Limitation

If any party's insurance includes an exclusion tied to Controlled Insurance Programs (a.k.a. "wrap-ups" or "CIPs") or other project-specific insurance, it may apply only to the extent of coverage available to that party under the CIP or other Sponsor-provided insurance. Such exclusion may not be broader than what the CIP or such other Sponsor-provided insurance actually covers.

Page 37

Contract: Contractor Name



MSCAA OCIP V

An Owner Controlled Insurance Program Manual for Construction Projects

MSCAA OCIP - ENROLLMENT SUMMARY

Contract Bid - All Contractors/Subcontractors

Bid package will be furnished to bidders

- 1. All eligible Contractors/Subcontractors of every tier will exclude their cost of insurance for coverage provided by the Owner from their bid. Contractors and eligible Subcontractors should discuss the OCIP with their insurance agent or consultant to assure that the OCIP insurance identification cost is accurate.
- 2. Contractors and Subcontractors at any tier shall not charge any eligible Subcontractor for its participation in the OCIP.
- 3. Workers' Compensation Tennessee Payroll Rules are applicable to WC payroll. First dollar coverage is given to all Contractors on WC.
- 4. General Liability Mandatory deductible not to exceed \$10,000 will apply to any loss as described in the OCIP manual. 5% credit will be applied to Contractor's premium for this deductible

Contract Award

Once notification of contract award has been received, all eligible Contractors/Subcontractors of every tier will complete and submit Form 2 with the required certificate of insurance. Any Contractors or Subcontractors who enroll in the OCIP 30 days after their start date will have to provide a No Known Loss Letter to the Carrier along with the enrollment documentation. The OCIP Administrator will:

- 1) Assign a location code for this contract, forward the Form 2 to the insurance carrier for enrollment into program
- 2) Issue a certificate of insurance which will reflect all OCIP coverages. The original copy will be sent to the enrolled contractor/Subcontractor with a copy to their awarding contractor.

Change Order

Contractor and all enrolled Subcontractors will price each change order to exclude the cost of insurance provided by the Owner.

Monthly Payroll Reporting

The Enrolled Contractor/Subcontractor will receive a Payroll Request e-mail from the following email address On behalf of Willis Admin at the beginning of each month during construction reminding them to complete their payroll report via the link in the email by the payroll due date. The payroll link will expire in 30 days. If the payroll link expires please contact your Willis Towers Watson CIP Administrator to receive an updated link.

If Contractor/Subcontract receives additional contracts

Once the contractor/Subcontractor has enrolled in the OCIP, all additional contract bids must also exclude the Contractor's cost of insurance for coverage provided by the Owner. **Form 2** must be submitted to the OCIP Administrator to receive confirmation of enrollment in the OCIP for the additional contract. (Contact the OCIP Administrator if you have questions). The OCIP Administrator will:

- 1) Assign a location code for this contract, forward the Form 2 to the insurance carrier for enrollment into program
- 2) Issue a certificate of insurance which will reflect all OCIP coverages. The original copy will be sent to the enrolled contractor/Subcontractor, a copy to their awarding contractor.

When Contractor/Subcontract reaches Substantial Completion

Notice of Anticipated Completion - Form 4 – Prior to completion of all work being performed under the contract. This will initiate Closeout Procedures. Payroll and Receipts may be audited.

When Contractor/Subcontractor has completed the Work

Contractor should notify their insurance agent/broker to remove any exclusion for this Designated Project from their primary policies.

Claims

All Contractors/Subcontractors must follow claims rules and procedures outlined in the MSCAA OCIP Manual.

Safety

All Contractors/Subcontractors must follow safety rules and procedures outlined in the MSCAA OCIP Site Specific Safety Plan.

Notice to All Contractors/Subcontractors

Failure to follow the Enrollment or Claims procedures outlined in MSCAA OCIP Manual may result in fines being assessed by the State Bureau/NCCI, State's Workers' Compensation Commission or the Owner against the Contractor or Subcontractor. If the Owner or Carrier is assessed fines due to Contractor's or Subcontract's failure to follow State rules or regulations, the Owner will deduct from monies due or to become due for any applicable fines.

CHANGES TO ANY OCIP REQUIREMENT OR PROCEDURE MUST BE APPROVED BY THE OWNER AND OCIP ADMINISTRATOR. NO CONTRACTOR OR SUBCONTRACTOR HAS THE AUTHORITY TO AMEND THE OCIP REQUIREMENTS.

Page 39

Contract: Contractor Name

INTRODUCTION

This manual identifies, defines, and assigns responsibilities related to the administration of the Memphis-Shelby County Airport Authority (MSCAA) Owner Controlled Insurance Program (OCIP).

This manual:

- Describes the OCIP and details the insurance-related responsibilities of the various parties involved.
- Provides a basic description of the OCIP structure and operation, with an overview of coverage provided by the OCIP and guidelines for carrying out specific administrative and audit procedures.
- Provides answers to questions that are likely to arise during the course of the project.

Because it is impossible to anticipate every question or situation that may arise, the directory lists those involved in the administration of the OCIP and their areas of expertise. Please feel free to call with any questions.

This Manual will be updated as changes dictate during the course of this project.

NOTE

- This Manual does not, and is not intended to, provide coverage interpretations or complete information about coverages.
- The terms and conditions of the insurance policies govern how coverage is applied.
- The information herein is not intended to alter any provisions of the actual contract documents of the Contractors, and if any such conflict occurs, the contract documents will govern.

CHANGES TO ANY OCIP REQUIREMENT OR PROCEDURE MUST BE APPROVED BY THE SPONSOR AND OCIP ADMINISTRATOR. NO CONTRACTOR OR SUBCONTRACTOR HAS THE AUTHORITY TO AMEND THE OCIP REQUIREMENTS.

Page 40

Contract: Contractor Name

ADMINISTRATION

Program Management

OCIP Program Coordinator

Willis Towers Watson

 John Shorten
 Phone:
 (901) 248-3102

 8285 Tournament Drive, Suite 130
 Fax:
 (901) 248-3101

Memphis, TN 38125 E-mail: john.shorten@willistowerswatson.com

OCIP Program Unit Manager

Willis Towers Watson

 Nancy Jarmon
 Phone:
 (972) 973-2394

 500 North Akard St., Suite 4300
 Fax:
 (972) 386-5561

Dallas, TX 75201 E-Mail: nancy.jarmon@willistowerswatson.com

OCIP Administration

Willis Towers Watson

 Starla Lacey
 Phone:
 (404) 224-5000

 Five Course Parkway, Suite 1800
 Cell:
 (404) 536-8567

Atlanta, GA 30328 E-Mail: starla.lacey@willistowerswatson.com

On-Site Safety

 Willis Towers Watson
 Phone:
 (901) 344-1659

 Wes Shelby
 Cell:
 (901) 604-2136

 4225 Airways Blvd.
 Fax:
 (901) 345-6636

Memphis, TN 38116 E-Mail: wes.shelby@willistowerswatson.com

Claims Management

Zurich North America

PO Box 968077

Schaumburg, IL 60196-8077

FAX NUMBER FOR REPORTING CLAIMS: (877) 967-2567 GENERAL CLAIMS FAX NUMBER: (615) 872-1303 GENERAL PHONE NUMBER: (800) 366-8366

Leadership	Title	Phone	Email
Tammy Fike	GL Sr. Specialist	(404) 851-3616	tammy.fike@zurichna.com
Ginny Howard	WC Team Manager	(615) 872-1315	ginny.howard@zurichna.com
Karen Kingo	WC Pension Manager	(847)413-5868	karen.kingo@zurichna.com
Vea Storey	WC Claims Specialist	(615) 872-1241	veatrice.storey@zurichna.com
Patricia Painter	WC Claims Specialist	(615) 391-7501	patricia.painter@zurichna.com
Nat Woodruff	Claims Customer Service Executive	(404) 851-3278	nathaniel.woodruff@zurichna.com

Page 41

Contract: Contractor Name

Insurance Policy References

Workers Compensation

Insurance Company: Zurich American Insurance Company

Master Policy Number: WC 6675835-00

Each Contractor and/or Subcontractor will be issued their own Workers' Compensation Policy Part One - Workers' Compensation TN State Limits

Part Two - Employers' Liability

Bodily Injury by Accident – Each Accident \$1,000,000 Bodily Injury by Disease – Policy Limit \$1,000,000 Bodily Injury by Disease – Each Employee \$1,000,000

Part Three - Other States Insurance

All States except those listed in Part One and Monopolistic States (OH,ND,WA,WY)

Commercial General Liability

Insurance Company: Zurich American Insurance Company

Master Policy Number: GLO 6675834-00

General Aggregate Limit (Other than Products – Completed Operations)

Product-completed Operations Aggregate Limit

Personal and Advertising Injury Limit (Any One Person or Organization)

Each Occurrence Limit

Fire Legal Liability (Any One Fire) *

Medical Expense Limit (Any One Person)

\$4,000,000
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Umbrella Liability

Insurance Company: ACE Property and Casualty Insurance Company

Master Policy Number: XCQ G46622029 001

Limits: \$25,000,000 excess of primary

Excess Liability – Layer 1

Insurance Company: Allied World National Assurance Company

Master Policy Number: 0313-3804

Limits: \$10,000,000 excess of \$10,000,000

Excess Liability - Layer 2

Insurance Company: ACE Property and Casualty Insurance Company

Master Policy Number: XCQ G7257896A 001

Limits: \$15,000,000 excess of \$15,000,000

Excess Liability – Layer 3

Insurance Company: Great American Security Insurance Co.

Master Policy Number: EXC 4051403

Limits: \$12,500,000 excess of \$12,500,000

Excess Liability – Layer 4

Insurance Company: Starr Indemnity & Liability Company

Master Policy Number: 1000587787221

Limits: \$15,000,000 excess of \$15,000,000

Insurance Company: Endurance Risk Solutions Assurance Co.

Master Policy Number: XSC30019604800

Page 42

Contract: Contractor Name

Limits: \$15,000,000 excess of \$15,000,000

Insurance Company: Westchester Surplus Lines Insurance Company

Master Policy Number: G72578387001

Limits: \$20,000,000 excess of \$20,000,000

Program Definitions

Owner Controlled Insurance

Program (OCIP)

The Insurance Program under which Workers' Compensation, Employer's Liability, Commercial General Liability and Excess Liability are procured or provided on a project "wrap-up" basis for Contractors/Subcontractors(s) of any tier, who have been properly enrolled, while performing operations on a designated Project Site for Memphis-Shelby County Airport Authority.

Insured The Memphis-Shelby County Airport Authority, Contractors(s) and Subcontractors of

any tier who are enrolled in the OCIP and who have been named in a policy,

certificate of insurance, or advice of insurance.

Enrolled Contractors "Enrolled Contractors", mean "Eligible Contractors" who, prior to the commencement

of their work on the covered project, have completed the appropriate enrollments

documents for the "designated project site".

Insurance Insurance Company, as identified in the Insurance Policy Reference section.

OCIP Coordinator and

Administrator

The firms responsible for the insurance broker and administration of the OCIP.

OCIP Safety Consultants

These representatives are employees of the Insurer and Willis Towers Watson who

will provide safety consulting services to MSCAA and its contractors enrolled in the

OCIP.

Project Description All Designated Projects identified and approved by the Owner and on file with the

Insurance Company.

On-Site Activities/
Designated Project

Zurich's designated project means:

"The project shown in this Schedule, including operations on the project site or location that are necessary or incidental to the project as described in contract documents. "Designated Project" includes the work site(s) associated with such "designated project(s)" and any offsite staging areas, as long as they are dedicated solely to the "designated project(s)" and the sponsor agrees to provide coverage. Also included are those areas immediately adjacent to the "designated projects", including boundaries of local streets or public easement, in which the enrolled subcontractors at

any tier perform work under their respective contracts."

The OCIP does not provide insurance coverage for permanent yards or other locations of any Contractors/Subcontractors, except as specifically requested by

Contractors and, if accepted by insurer, endorsed to the policy.

Eligible ContractorsInsured by the OCIP: Eligible Contractors include all contractors providing direct labor on the Designated Project (see definition of ineligible contractors below).

Temporary labor services and leasing companies are to be treated as subcontractors.

Ineligible Contractors Not insured by the OCIP: Includes (but is not limited to) contractors performing any

type of environmental remediation work (example: asbestos or underground tank removal), consultants, suppliers (that do not perform or subcontract installation), vendors, materials dealers, guard services, janitorial services, truckers (including trucking to any Designated Project where delivery is the only scope of work

Page 43

Contract: Contractor Name

performed), Blasting Contractors or Any Person or organizations that manufactures or fabricates products or components outside the designated project that does not also install the product or component at the designated project, employee leasing companies, temporary labor services and other temporary project services. However, such Employee leasing and temporary labor service companies can be insured by the OCIP but must be submitted for review to the OCIP administrator prior to acceptance.

Certificate of Insurance

Written evidence of the existence of coverage terms of a particular insurance policy.

Page 44

Contract: Contractor Name

COVERAGE SUMMARY

The OCIP coverage applies only to work performed under the Agreement at any Designated Project Site for eligible enrolled contractors. Contractor and Subcontractors must provide their own insurance as detailed in the contract.

Through a combination of insured and self-insured insurance programs the Owner, at its sole expense, will provide and maintain in force the types of insurance listed in subsection (1) through (4) below as a part of the OCIP for Contractor and eligible Subcontractors who have been enrolled. Contractor and eligible Subcontractors enrolled in the OCIP agree that the insurance company policy limits of liability, coverage terms and conditions shall determine the scope of coverage provided by the OCIP.

This section provides a brief description of the coverages provided under the OCIP. The Contractor shall refer to the actual policies for details concerning coverages, exclusions and limitations. Policies are available for review upon request.

While the OCIP is intended to provide uniform coverages and reasonable limits, the OCIP is not intended to meet all the insurance needs of the Contractor and all eligible Subcontractors who have been properly enrolled. Contractor and eligible Subcontractors enrolled in the OCIP agree that they will discuss the OCIP with their insurance agent or consultant to ensure that proper coverages are maintained. It is the contractors' responsibility to notify their agent that the work performed onsite will be insured under an OCIP.

- 1) Workers' Compensation and Employers' Liability Insurance (Off-site operations are excluded unless locations are scheduled & approved by the Owner and OCIP insurance carriers) with Statutory Limits with All States Endorsement and minimum Employer's Liability Limits will be provided as follows:
 - a) \$1,000,000 Bodily Injury with Accident Each Accident;
 - b) \$1,000,000 Bodily Injury by Disease Policy Limit
 - c) \$1,000,000 Bodily Injury by Disease Each Employee; and

Each Enrolled Contractor will be issued a separate Workers' Compensation policy. The premium and loss experience on the Project Site will be reported to the appropriate rating authorities in the normal manner for use in calculating Enrolled Contractors' future experience modifiers. OCIP loss experience will impact Contractor's future insurance costs and, therefore, compliance with the project safety guidelines will directly benefit all Contractors.

- 2) Commercial General Liability Insurance, (Off-site operations are excluded unless locations are scheduled & approved by the Owner and OCIP insurance carriers) will be provided on an "occurrence" form under a single liability policy. Certificates of insurance will be provided to the Contractor and all tiers of eligible Subcontractors reflecting the following Limits of Liability, Coverages, and Terms:
 - a) Limit of Liability: Limits of Liability Shared by all Enrolled Contractors

General Aggregate Limit (Other than Products – Completed Operations)	\$4,000,000
Product-completed Operations Aggregate Limit	\$4,000,000
Personal and Advertising Injury Limit (Any One Person or Organization)	\$2,000,000
Each Occurrence Limit	\$2,000,000
Fire Legal Liability (Any One Fire)	\$250,000
Medical Expense Limit (Any One Person)	\$10,000

- b) Coverage and Terms:
 - i) Occurrence Basis:
 - ii) Products;
 - iii) Contractual Liability specifically designating the indemnity provision of this agreement as an insured contract;
 - iv) Completed Operations (Six Year Term);
 - v) Independent Contractor/Subcontractor's Liability;
 - vi) Personal Injury; Explosion, Collapse, and Underground (X, C, U) exclusion deleted;
 - vii) Coverage limited to any Designated Project;
 - viii) General Aggregate Limits will apply per project and annually;
 - ix) Products and Completed Operations Aggregate Limit applies once or all projects and applies once for the policy period and extended completed operations period combined; and
 - x) Policy Exclusions include (but are not limited to) asbestos, pollution, mold, professional liability, employment practices, EIFS, impaired property and work or operations performed away from any Designated Project Site.

Page 45

Contract: Contractor Name

- c) If a claim arises under the Owner provided Commercial General Liability OCIP policy from the partial or sole negligence of a Contractor or Subcontractor, or for violation of any OCIP Safety Requirements, such Contractor or Subcontractor shall be responsible for reimbursing the Owner's deductible to the extent of their respective negligence, as determined solely by owner, up to a maximum of \$10,000 per occurrence per Contractor.
- d) The limits of liability detailed under 2) a) apply to construction operations within the property boundary of the applicable Airport under the management of MSCAA and as per the issued policies' definitions.
- 3) Umbrella and Excess Liability Insurance (Off-site operations are excluded)
 - a) Limits of Liability Shared by all Enrolled Contractors
 - i) \$100,000,000 per Occurrence
 - ii) \$100,000,000 Aggregate
 - iii) \$100,000,000 Products / Completed Operations Aggregate
- 4) Builder's Risk Insurance will be provided on "All-Risk" coverage on a replacement cost basis, subject to the limits of the insurance policy. This insurance will include the interests of the Owner the Contractor and all tiers of Subcontractors in the Work. The Builders Risk policy will not provide coverage against loss by theft or disappearance of any materials (unless the materials are to be incorporated into the Project), tools, or equipment of the Contractor or any tier of Subcontractor, or any other person furnishing labor or materials for the Work. The Contractor shall be responsible for a deductible of \$25,000 for each and every loss.

Page 46

Contract: Contractor Name

ACCIDENT REPORTING AND CLAIMS PROCEDURES

When accidents happen, everyone needs to work together. Even though the Contractors and each Subcontractor has instituted tough safety measures, work-related accidents are bound to occur. When they do, the OCIP Insurers stand ready to serve the Contractors and Subcontractors, but they need help if they are to perform this service in the most effective and efficient manner.

Each Contractor/Subcontractor should have the claims procedures and emergency numbers posted on the jobsite and in all vehicles.

The Insurer will have a claims adjuster available to handle all Commercial General Liability and Workers' Compensation claims.

The Insurer will arrange for legal counsel to handle all lawsuits emanating from the project.

Never discuss any accident or claim with anyone except authorized representatives of MSCAA, Contractor, the Insurer(s), and the Owners Insurance Broker or Law Enforcement agencies.

MSCAA Emergency Procedures (Serious Injuries)

- Contact MSCAA Emergency Dispatch at (901) 922-8333 (DO NOT call 911). Specific directions should be given
 to the accident scene. If the accident occurred in the SIDA area, give location in relation to an active
 taxiway/runway. If outside the SIDA, give location relative to a street or construction gate. Explain the extent of
 injuries.
- Notify the on-site OCIP Safety Coordinator, Wes Shelby, (901) 604-2136 (cell).
- 3. Methodist South Hospital Emergency Room, 1300 Wesley Drive, Memphis, TN, will be used (901) 516-3700, the decision on the treating medical facility will be made by the EMT, in serious cases, the Med Trauma Center may be used.
- 4. Contractors must have currently qualified First Aid personnel on site at all times. First Aid supplies must be readily available and maintained, including rubber gloves to protect First Aid personnel against blood borne pathogens, etc.
- 5. After the call for emergency unit is made to MSCAA, the contractor should send escorts to all locations where the emergency unit could enter the site.
- 6. If the injured employee does not speak English, send a good interpreter to the treating medical facility.
- 7. The Contractor should provide the Medical Facility with a completed Authorization For Treatment form (sample provided in the OCIP Manual).

Page 47

Contract: Contractor Name

A. Workers' Compensation Claims

- 1. Seek immediate medical attention for the injured person(s).
- 2. Immediately notify your supervisor and project manager of the situation.
- 3. Notify the on-site OCIP Safety Coordinator, Wes Shelby, (901) 604-2136 (cell). If you cannot reach Wes, please leave a voice mail message.
- 4. Complete a **First Report of Injury form** and the **Claim Reporting Cover Sheet** (include appropriate Location Code) and forward to **Zurich Insurance Company** via fax **877-967-2567** or email <u>usz_carecenter@zurichna.com</u> immediately. If not possible, then send before the end of the business day.
- 5. MSCAA the Contractor's safety representative or designated person will transport the injured worker to

Concentra Medical Center 2831 Airways Boulevard Suite 102 Memphis, TN 38132

Phone: (901) 348-0200

Hours: 8a.m. to 8p.m. (Mon. - Fri.)

If accident occurs and Concentra Medical Center is not open:

Methodist South Hospital 1300 Wesley Drive Memphis, TN 38116 Phone: (901) 516-3700 24 Hours, 7 days per week

Or

Baptist Memorial Hospital DeSoto 7601 Southcrest Parkway Southaven, MS 38671 Phone: (662) 349-4000 24 Hours, 7 days per week

- 6. Complete the **Accident Investigation Form** and forward it along with the **Claim Reporting Cover Sheet** to Wes Shelby, OCIP Safety Coordinator (e-mail: www.Shelby@willis.com, fax: (901) 345-6636, or mail: 4225 Airways Blvd., Memphis, TN 38116 before the end of the day.
- 7. Receipt of Acknowledgement of Claim and claim number from Zurich Insurance Company will be sent to the contact person provided on the Claim Reporting Cover Sheet and to Wes Shelby, OCIP Safety Coordinator. The claim number should be used for future reference.
- 8. All medical bills, hospital bills, etc. should be forwarded to Zurich Insurance Company identifying the injured employee and claim number.

Page 48

Contract: Contractor Name

After Hours / Close of Business Claims Reporting

- 1. Call Zurich Insurance Company at (800) 987-3373.
- 2. Tell the Zurich representative that an injury just occurred and that you need to be routed to the on call specialist to authorize treatment.
- 3. You will either be placed directly in touch with the on-call person or the on-call person will be paged and will return your call within two hours.
- 4. If hospital needs to speak with Zurich directly, the contractor will have to supply the hospital name and phone number to Zurich and they will call the hospital directly.

B. Commercial General Liability Claims

Any occurrence involving Bodily Injury or Property Damage to members of the public that is NOT caused by an automobile accident.

- 1. Seek immediate medical attention for any injured person(s).
- 2. Immediately notify your supervisor and project manager of the situation.
- 3. Notify the on-site OCIP Safety Coordinator, Wes Shelby, (901) 604-2136 (cell). If you cannot reach, please leave a voice mail message.
- 4. Complete the Claim Reporting Cover Sheet (include appropriate Location Code) and forward to Zurich Insurance Company via fax (866) 691-7068 or email <u>usz_carecenter@zurichna.com</u> immediately. If not possible, then send before the end of the business day.
- 5. Complete the Accident Investigation Form and Claim Reporting Cover Sheet (include appropriate Location Code) and forward to Wes Shelby, OCIP Safety Coordinator, (e-mail: wes.shelby@willis.com, fax: (901) 345-6636, or mail: 4225 Airways Blvd., Memphis, TN 38116.
- 6. Receipt of Acknowledgement of Claim and claim number from Zurich Insurance Company will be sent to the contact person provided on the Claim Reporting Cover Sheet and to Wes Shelby, OCIP Safety Coordinator. The claim number should be used for future reference.
- 7. All investigation reports, pictures, medical bills, hospital bills, etc should be forwarded to Zurich Insurance Company identifying the injured individual, claimant and claim number.

C. Duties in the event of a claim or suit

- 1. Follow the claims reporting procedures above.
- 2. You must see to it that the OCIP Safety Coordinator, Wes Shelby, is notified promptly of an "occurrence" which may result in a claim. Notice should include:
 - a. How, when and where the "occurrence" took place, and;
 - b. The names and addresses of any injured persons and witnesses.
- 3. If a claim is made or "lawsuit" is brought against any insured, you provide written notice of the claim or "lawsuit".
- 4. You and any other involved insured must:
 - a. Cooperate with the Insurer in their investigation, settlement or defense of the claims or "suit"; and
 - b. Assist the Insurer, upon their request, in the enforcement of any right against any person or organization which may be liable to the insured because of injury or damage to which this insurance may also apply.
- 5. No Insureds will, except at their own cost, voluntarily make a payment, assume any obligation or incur any expense, other than for first aid, without Insurer's consent.

D. Automobile Claims

Even though no Automobile Liability or Physical Damage coverage is provided under the OCIP, the Contractor/Subcontractor must notify Wes Shelby, OCIP Safety Coordinator, in writing of any automobile accident which could be related to the project. This should be done as soon as possible following the accident.

Contract: Contractor Name

E. Contractor's Equipment Claims

Even though no coverage is provided under the OCIP for loss of or damage to Contractor's or Subcontractor's owned equipment the Contractor/Subcontractors must notify Wes Shelby, OCIP Safety Coordinator, in writing, of any loss or damage to their equipment at the project. This should be done as soon as possible, following first knowledge of loss or damage.

F. Miscellaneous Claims Notes

- 1. Any incident that involved injury to persons or property is to be reported to Wes Shelby, OCIP Safety Coordinator's office immediately.
- 2. Any claims adjuster representing a Contractor/Subcontractor's normal insurer who seeks to come onto Any Designated Project site must obtain written authorization from Wes Shelby, OCIP Safety Coordinator, prior to coming on the site. There will be no exceptions to this stipulation.

Page 50

Contract: Contractor Name

FORMS

Zurich Claim Reporting Cover Sheet

Incident Investigation Report

Workers' Compensation Referral Slip for Injured Employees

Authorization to Treat

Form 1 - Notice of Sub-contract Award

Form 2 - Enrollment Form

Form 4 – Notice of Anticipated Completion

Certificate of Insurance

ZURICH CLAIM REPORTING COVER SHEET

Email to: USZ_CARECENTER@ZURICHNA.COM

OR

Fax to: (866) 691-7068

Account Name:	Memphis Shelby County Airport OCIP V				
Master WC policy #: Master GL Policy #:					
Project Location:					
Subcontractor/Employer:					
Subcontractor/Employer Polic	y Number:				
Contact Name:					
Contact Phone Number:					
Contact Fax Number:					
Location Code:					
Injured Worker:					
Attention Zurich Representativ	/e - Please fax	the receipt and claim number immediately to the contact above.			

Page 52

Contract: Contractor Name

Incident Investigation Report

(To be completed within 24 hours by Supervisor at time of incident)

INJURED EMPLOYEE INFORMATION			·		
Employee Name	Male	Femal	Date of Birth	Ht.	Wt.
<u></u>		e			
Employee					
Address					
Street	Cit		State	Zip Code	Home Phone
Employer Name	Time	Addres			
Date of Incident Employee Job Title	Time	AM/PI	M Jobsite/Area Length of Emplo	wmont	
Weather Condition		Shift	Supervis		
UNSAFE ACTS			ONDITIONS		
UNDAIL ACID		ONSAI L C	ONDITIONS		
What actions caused or contributed to the incident?		What conditions incident?	tions of tools, equipment,	or environment	contributed to
Operating equipment without authority		Inac	dequate guard/barrier/safe	ety device	
Failure to warn/signal	_	Inac	dequate/improper protective	ve equipment	
Failure to secure/lock out/tag out	_	Inac	dequate warning system		
Reaching into/servicing equipment in operation	_	Def	ective or work tools/equip	ment materials	
Making safety devices inoperable	-	Cor	ngestion or restricted area		
Used defective equipment	_	Fire	or explosion hazard		
Took unsafe/improper position	_	Haz	cardous storage method		
Horseplay, disruptive actions	_		secured against movemen		
Improper lifting or movement	_		nting/noise/visual obstruct		
Other:		Environmental/atmospheric conditions			
No unsafe action	-	Oth			
	-	No	unsafe condition		
What actions caused or influenced above unsafe acts?		What cause	ed or influenced above uns	cafe condition?	
Unaware of job hazards			ective/worn from normal u		
Inattention to hazards	-		ective/worn from abuse/m		
Unaware of safe method/procedure	-		sekeeping/cleaning failur		
Tried to gain or safe time	-		k of preventative maintena		
Influence of fatigue/illness	-	Inadequate maintenance			
Influence of emotions/stress	-	Exposure to environment			
Defective vision/bodily defects	=	Inadequate purchasing			
Under influence of alcohol or drugs	-	Safety inspection failure			
Failure to enforce procedures/rules	=	Other:			
Other:		Unknown			
INJURY/ILLNESS DATA	_				
Describe the nature and extent of injury/illness (body part	t affected, type o	of injury, etc.)		
particle and manage and ordered and anything the particle and particle		ojuj, oto.,			
Was first aid administered? Yes No	If yes, what typ	e and by wh	om		
Was employee taken to hospital/clinic? Yes	No	If yes, list n	ame, address and phone	number of	
hospital/physician/nurse attending		_			
List any eyewitnesses to the incident and others who mig	ht provide inform	matian about	the incident		
List any eyewithesses to the incluent and others who mig	in provide inion	nation about	the incident		
INCIDENT/ILLNESS EVALUATION			- initiana di - a la - a - a - a - 10 - la	-11	
How did the incident occur? Describe in detail the task the equipment, structure tools, materials, objects (size, shape sequence of events, etc.					

Page 53

Contract: Contractor Name

(Attach any additional information comments, documentation of interviews, sketches, pictures, etc. as necessary)

Incident Investigation Report

Incident/Illness Evaluation (continued)				
	Lift Bend			her
Was this the employee's regular job? Yes No H	low much experience does		this job?	
Was the employee trained in this job or task? YesNo	When was last training	g on this task?		
Was this the employee's first job-related injury or illness? Yes	No If no, bri	efly describe previous in	juries (date, n	ature,
extent, etc.)				
Hours of overtime worked in last 24 hours Did this pos	ssibly contribute to incident	:? If so, describe		
Does a safety rule or policy apply to this task? Yes	No If yes, describ	e rule and how employe	e followed or	violated
Does a specific procedure for task exist? Yes	No If yes, describ	e procedure briefly and i	f it was follow	ed
Is protective equipment required for this task? Yes	No If yes, do	escribe equipment, if it w	as used, if it v	was
adequate/functioned properly, and if the employee(s) were trained on	t			
	.			
Is there possibly any third party which contributed to the incident? (Ot	her contractors, employee,	etc.) Yes	-	No
If yes, describe.				
B				
Did any unsafe physical/environmental conditions exist?	es No I	If yes, describe condition	is (physical,	
mechanical, electrical, etc.) which contributed to the incident				
La caracterial ham discuss as in according to the test of the test of	N ₂			
Is material handling equipment required for this task? Yes		If yes, was it used and di	id it function	
		properly?		
Describle actions to be talent to prevent recognization				
Possible actions to be taken to prevent reoccurrence	ah Cafati Anabia	Deneiu/renie	/	.:
	ob Safety Analysis		ce/modify equ	
	ablish safety rule		an-up procedu	
	mployee to another job		pection proced	
	place protective equipment		duce congesti	
• • • • • • • • •	y guard device	improve des	ign/constructi	on
involved		Improve env	ironmontal	
		conditions	Tiorinental	
CORRECTIVE ACTION(S) TAKEN OR PLANNED		CONTUITIONS		
CORRECTIVE ACTION(S) TAKEN OR PLANNED	T	F-titd	0	·
		Estimated	Comple Confirm	
What was will be done	D \\//h a.m.	Commission Data	_	
What was/will be done	By Whom	Completion Date	Date	Initial
				S
Incident discussed with ampleyee to provent recognizence? Vec	No Doto	ļ		l
Incident discussed with employee to prevent reoccurrence? Yes	No Date			
Any disciplinary action taken? Yes No If yes	, describe what type.			

Page 54

Contract: Contractor Name

FOLLOW UP CO	MMUNICATION			
YES	NO I	ncident site reviewed by sup	pervisor with employee (and safety coordinate	r if applicable.)
YES	NO I	ncident review meeting cond	ducted. Attended by	
YES	NO E	Employee or supervisor revie	ewed incident with work group.	
YES	NO E	Employee reviewed injury wi	th safety committee	
YES	NO F	Project Safety informed of inc	cident	
Date of Report		Prepared by		Title
			Signature	
Reviewed by		Superintendent		

MSCAA OCIP V

4225 Airways Blvd. Memphis, TN, 38116

WORKER'S COMPENSATION REFERRAL SLIP FOR INJURED EMPLOYEES

On-Site EMT:	(901) 922-8333		
Authorized Clinic:	Concentra Medical Center 2831 Airways Boulevard Suite 102 Memphis, TN 38132 (901) 348-0200 (Phone) (901) 348-0046 (Fax)		
Clinic Hours:	8 a.m. to 8 p.m. (Mon. – Fri.)		
Authorized After-	Methodist South Hospital		
Hours Clinics:	1300 Wesley Drive Memphis, TN 38116 (901) 516-3700		
	Baptist Memorial Hospital DeSoto		
	7601 Southcrest Parkway Southaven, MS 38671 (662) 349-4000		
Employee Name:	Date:		
Employer:	Employer Policy Number:		
Location Code (if known):	Claim Number (if known):		
Account Name: Insurer: Master Policy Number:	Memphis Shelby County Airport Authority OCIP V Zurich WC 6675835-00		
Instructions for medical The person listed above treatment per OCIP protoc	has been injured on the job. Please provide the employee with medica		

Page 56

Contract: Contractor Name

MSCAA OCIP V

Authorization to Treat

Local Office Infor	<u>mation</u>	
Company Name:		
Designated Repre	esentative:	
Address:	P	E-mail:
Pnone:	Fax:	E-mail:
Billing Informatio	n for Drug Screens	
Company Name:	Zurich North America	
Address:	PO Box 968077	
	Schaumberg, IL 60196-80	77
	Phone: (800) 366-8366	Fax: (615) 872-1303
Insurance Informa	ation for Work Comp Carri	<u>er</u>
Company Name	Zurich American Insurance	e Company Master Policy #: WC 0183275-00
	PO Box 968077	s company musici i oney w. The chose to co
- 10.0 0 0 0 1	Schaumberg, IL 60196-80	77
	Phone: (877) 928-4531	Fax: (866) 691-7068
Services Require	d	
	_	
Worker's Comp Ir	njuries	
Drug Screen Requ	uired For (employer to che	eck necessary testing):
Pre-Employm	nent	Random
Probable Cau	use	Post Accident
Urine (collect		Breath Alcohol
Test Cup (Co	• ,	
		if negative, <u>DO NOT</u> send out. Be sure to mark on the
Chain of Custody (COC) the information for the	employer:
Employer:		Fax:
Special Instructions	s: Use TEST CUP. Do NOT	send out unless the test reads positive.
		Danie 57
		Page 57

Contract: Contractor Name

Fax results to designated employer listed above.					
Company Authorized Signature:	Date:				

Page 58

Contract: Contractor Name

MSCAA OCIP V Notice of Subcontract Award and Request for Insurance

Send this Form to:

Willis Towers Watson Phone: (972) 715-6303

Starla Lacey, CSS Email: starla.lacey@wtwco.com
Copy: Nancy Jarmon, CSS Email: nancy.jarmon@wtwco.com
500 N. Akard St., Suite 4300 Phone: (404) 536-8567

Dallas, TX 75201

	0::		
Address:	City:	State:	∠ıp:
Phone: ()	_ Fax: ()		
Office Contact:		E-Mail:	
Type of Work:	Job #Contra	ct Value: <u>\$</u>	
Award Date <u>:</u>	Estimated Start Date:		
Awarding Contractor:			
Ву:			
Title:			
Date:			

DO NOT complete this form for your own company.

A Form-1 should be completed on each of your Subcontractors.

Page 59

Contract: Contractor Name

 Award Date – date Notice to Proceed was given (Verbally or in Writing)
• Start date is mandatory – date shown will be the effective date of coverage. Any Contractors or Subcontractors who enrolls in the OCIP 30 days after their start date will have to provide a No Known Loss Letter to the Carrier along with the enrollment documentation.
Page 60

Contract: Contractor Name
Parking Guidance System
MSCAA Project No. 24-1477-00

	New Award
	Additional Contract
	Time & Material Contract
ш	Short Term (< 30 days)
_	Small Contract (< \$30,000)
	, , ,

MSCAA	IV	- FORM 2
MIDCAA	1 4	- I OIMI 2

ONTRACTOR'S INFORMATION					
ontractor:		Indv	_ Ptshp	Corp	J/V
ddress:			FEIN:		
fice Contact:	Phone:		. ⊨maii:		
e Contact:	Phone:		_Email:		
fety Contact:					
surance Contact:					
ayroll Contact:	Phone:		Emai:		
dress (if different):					
ONTRACT INFORMATION			Conti	act Value: \$	
b Name/Description:	Contrac	t/JOB #:			
varding Contractor:	Prime C	Contractor:			
vard Date:S	art Date:	Est Con	npletion Dat	e:	
varding Contractor: vard Date:S elf Performed:%, Est. CV \$	S:Subcontracte	ed	%; E	st. CV \$:	
st. # of Subcontractors	Est. Man hours _		DBE/	MBE/WBE:	
IRRENT INSURANCE INFORMAT	<u>ion;</u>				
ontractors' Insurance Broker or	Agent: PLEAS	F PRINT			
	•		ntact:		
mpany Name: y/State/Zip:		C0	niaci	1	
		「	one. (/	
ORKERS' COMPENSATION					
		\			
urrent Experience Modifier: (Pr	ovide documentation confirmit	ng)			
W.C. Clas	sification	W.C. C	lass	Estimated F	Payroll
		Code	es		
1					
1.					
2.					
3.					
4.					
	notify its own insurance cou	rrior to ovolu	ıda all wark	to be done und	ar this contract
			enrollment (documentation.	ditor thon our
om your current insurance program	Loss Letter to the Carrier alor	ng with the (
om your current insurance program te will have to provide a No Known	Loss Letter to the Carrier alor	_			
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Contract: Contractor Name
Parking Guidance System
MSCAA Project No. 24-1477-00

Send this Form to:

Willis Towers Watson Phone: (972) 715-6303

Starla Lacey, CSS Email: starla.lacey@wtwco.com
Copy: Nancy Jarmon, CSS Email: nancy.jarmon@wtwco.com

500 N. Akard St., Suite 4300 Phone: (404) 536-8567

Dallas, TX 75201

MSCAA IV- FORM

MSCAA OCIP V NOTICE OF ANTICIPATED COMPLETION

(to be submitted with Final Pay Request)

Send this Form to:

Willis Towers Watson Phone: (972) 715-6303

Starla Lacey, CSS Email: starla.lacey@wtwco.com
Copy: Nancy Jarmon, CSS Email: nancy.jarmon@wtwco.com
500 N. Akard St., Suite 4300 Phone: (404) 536-8567

Dallas, TX 75201

	are scheduled to complete our work			
for:Awarding Contractor: Prime Contractor:				
Actual Start Date:	Completion Date:			
Final Co	ontract Value:			
Subcon	Subcontracted Work:			
Final W	Final WC On Site Payroll:			
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Reported Contract Value	Final Contract Value			
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Awarding Contractor	Prime Contractor			
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	Actual Start Date: Final Constant Start Date: Final Constant Subconstant Subcon			

Page 62

Contract: Contractor Name

Your Company's Name:		Date:
By:		Title:
Final insurance audits may be made under the application responsible for this information:	licable policies. Please sh	now who in your office (or another location if applicable) is
Name:	Phone: F	Fax: E-Mail:
Address:	City:	State: Zip

Page 63

A SOOT		DATE (MM/DD/YYY)
ACORD ™	CERTIFICATE OF LIABILITY INSURANCE	

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in liqu of such endorsement(s)

noider in fied of such endorsement(s).					
PRODUCER	CONTACT NAME:				
Agent Company Name Address	PHONE FAX (A/C, No. Ext): (A/C, No):				
City, State ZIP Attn:	E-MAIL ADDRESS:				
	INSURER(S) AFFORDING COVERAGE	NAIC#			
INSURED	INSURER A : AM BEST Rating A- VII or better				
OCIP Enrolled Contractor	INSURER B:				
	INSURER C:				
	INSURER D:				
m	INSURER E:				
	INSURER F:				

COVERAGES: CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO WHICH THE POLICIES AND CONTRACT OF THE POLICIES DESCRIBED HEREIN IS SUBJECT.

TO AL	TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.								
INSR LTR	TYPE OF INSURANCE	ADD L INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYY)	POLICY EXP (MM/DD/YY)	LIMITS		
	GENERAL LIABILITY Applies to Off Site Risks	×.	Х				EACH OCCURRENCE	\$1,000,000	
	X COMMERCIAL GENERAL LIABILITY	**	^				DAMAGES TO RENTED PREMISES(Ea occurrence)	\$	
	CLAIMS-MADE X OCCUR	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\					MED EXP (Any one person)	\$	
							PERSONAL & ADV INJURY	\$1,000,000	
							GENERAL AGGREGATE	\$2,000,000	
	GEN'L AGGREGATE LIMIT APPLIES PER:		*	^ .			PRODUCTS-COMP/OP AGG	\$2,000,000	
	POLICY X PRO- JECT LOC	Ì		<u> </u>					
	AUTOMOBILE LIABILITY Applies to Off and On Site Risks	X	x				COMBINED SINGLE LIMIT (Ea accident)	\$1.000.000	
	ANY AUTO	^	^		/·····		BODILY INJURY(Per person)	\$	
	X ALL OWNED SCHEDULED AUTOS AUTOS						BODILY INJURY(Per accident)	\$	
	X HIRED AUTOS X NON-OWNED AUTOS			·		*	PROPERTY DAMAGE (Per accident)	\$	
								\$	
	X UMBRELLA LIAB X OCCUR				\ :		EACH OCCURRENCE	\$1,000,000	
	EXCESS LIAB CLAIMS-MADE	Х	Χ		*		AGGREGATE	\$1,000,000	
	DED RETENTION \$						*	\$	
	WORKERS' COMPENSATION AND		.,		•	/	WC STATU- TORY OTH- ER		
	EMPLOYERS 'LIABILITY Applies to Off Site Y/N	N/A	X				* LIMITS	\$1,000,00	
	ANY PROPRIETOR/PARTNER/EXECUTIVE						E.L. EACH ACCIDENT	0	
	OFFICER/MEMBER EXCLUDED?						E.L. DISEASE – EA	\$1,000,00	
1	(Mandatory in NH) If yes, describe under						ÉMPLOYEE E.L. DISEASE – POLICY	0 \$1,000,00	
	DESCRIPTION OF OPERATIONS below						LIMIT	0	
	OTHER								

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Workers' Compensation and Commercial General Liability coverages shown above do not apply to any Designated Project at the Memphis International Airport – only for off-site activities/operations. The Memphis-Shelby County Airport Authority, its officers, commissioners, representatives, agents and employees ATIMA and [AWARDING CONTRACTOR] are additional insureds applicable to the Auto Liability Insurance and off-site Commercial General Liability insurance policies including Excess Umbrella. 30 Day Notice of Cancellation or Non-Renewal other than 10 days for non-payment of premium is provided to MSCAA. Waiver of Subrogation in favor of MSCAA is provided by all policies.

CERTIFICATE HOLDER	CANCELLATION
MSCAA OCIP c/o Willis Towers Watson . Attn: OCIP Administrator	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

Contract: Contractor Name

500 North Akard St., Suite 4300	AUTHORIZED REPRESENTATIVE
300 North Akard St., Suite 4300	A STREET NEW YORK TO STREET THE S
Dallas, TX 75201	<u>'</u>
Dallas, 1 x 75201	

EXHIBIT D TO CONSTRUCTION CONTRACT FOR PARKING GUIDANCE SYSTEM

BY AND BETWEEN THE MEMPHIS-SHELBY COUNTY AIRPORT AUTHORITY AND (CONTRACTOR NAME)

CONSTRUCTION SAFETY AND HEALTH GUIDELINES

OCIP CONSTRUCTION SAFETY AND HEALTH GUIDELINES

Memphis-Shelby County Airport Authority

Construction Safety and Health Guidelines





Revision	Date
1	11/30/2012
2	05/02/2016
3	02/06/2017

Page 66

Contract: Contractor Name
Parking Guidance System
MSCAA Project No. 24-1477-00

Confirmation of these Project Safety & Health Guidelines

It is the responsibility of the Contractor to maintain total control of safety to ensure that employees and the general public are provided with an environment free of hazards during construction and renovation activities. This program does not relieve the Contractor of their responsibilities regarding the safety of their employees, the employees of their Subcontractors and sub-subcontractors, protection of the general public and the preservation of property.

Contractors shall develop their own written site-specific safety and health plans for the Memphis-Shelby County Airport Authority. At minimum, the safety and health plan shall meet the requirements of 29CFR1926 – Federal OSHA Construction regulations and the requirements established in the Memphis-Shelby County Airport Authority Construction Safety Guidelines. In short, as required by law, each Contractor is responsible for protecting the health and safety of its employees and the employees of each subcontractor and sub-subcontractor while ensuring they have a safe and healthful place to work. The site-specific safety and health program shall be submitted for approval within fifteen (15) days after the Notice to Proceed for approval to the Project Safety Manager, Wes Shelby, 4225 Airways Blvd., Memphis, TN.

The Safety Requirements of these safety guidelines are a supplementary document to all Government rules, codes and regulations. It does not negate, abrogate, alter or otherwise change any provisions of these rules, codes and/or regulations, and is intended to supplement and enforce the individual program of each contractor and the overall safety effort. It is understood that the ultimate responsibility for providing a safe place to work rests with each individual Contractor.

In the event of a conflict between the provisions of these guidelines and applicable local, State or Federal safety and health laws, regulations and/or standards, contract documents or the Contractor's Safety Plan the more stringent shall apply.

By Signature	, each individual	confirms their unders	standing of the cor	itents of this ma	nual and shall co	onform to the standard
of safety outl	ined in this manu	al.	_			

Contractor – Project Manager	Contractor – Field Supervisor
Date	 Date

Page 67

Contract: Contractor Name
Parking Guidance System
MSCAA Project No. 24-1477-00

POLICY STATEMENT	
Definitions	
PREFACE	• • • • • • • • • • • • • • • • • • • •
INTRODUCTION	
Construction Safety and Health Guidelines, Purpose and Scope	
RESPONSIBILITIES	72
General 72	
Contractors	
Workplace Substance Abuse Policy	
INSTRUCTION AND TRAINING	
Safety Orientation Program	
PROTECTION OF THE PUBLIC	
Group Tours and Site Visitors	
Harassment-Free Work Policy	
Employee Harassment	
Sexual Harassment	
Reporting of Harassment	
REPORTING, ACCIDENT INVESTIGATION, AND RECORDKEEPING	
Reporting	
Record-Keeping and Files	
Accident Investigation	
Return-To-WorkWORK PRACTICE CONTROL	
Overview77 Hazard Communication Program	70
Record-Keeping and Files	
SPECIFIC PROJECT SAFETY REQUIREMENTS	
Controls for possible conflicts between construction operations and aircraft	
Scaffolds, Stair Towers and Work Platforms	
Tagging	
Walking and Working Surfaces	
Barrier Identification Tape	
Fall Protection	
Confined Space Entry	_
Employee Ground Transportation	
Housekeeping - MUST BE A CONTINUING PROCESS	
Project Electrical Requirements	
Cranes and Hoisting Equipment	
Rigging 85	
Excavation (Any process which disturbs soil)	85
Earthmoving Equipment and Trucks	85
Welding & Cutting	
Personal Protective Equipment	86
Eye and Face Protection	86
Head Protection	
Hearing Protection	
Respiratory Protection	87
Foot Protection	
Clothing	
Appendix A - Safety Orientation	87
Appendix B – Employee Disciplinary Guideline	90
Appendix C - Critical Lift Checklist	
Appendix D – Substance Abuse	
A.p. Price of the control of the con	96
Appendix F - Report of Damage to Equipment or Property	97
Appendix G - Contractor Monthly Report of Safety Statistics	97

POLICY STATEMENT

Memphis-Shelby County Airport Authority is committed that all construction workers have the best possible working environment while working on this project. It shall be the responsibility of each Contractor/Subcontractor to abide by the Safety and Health Provisions listed in OSHA 29 CFR 1926.

In addition, each Contractor, Subcontractor and Sub-Subcontractor shall abide by **Memphis-Shelby County Airport Authority** Construction Safety Guidelines, Federal Regulations, State laws and regulations, local and county laws and regulations which are applicable.

The primary goal established for the **Memphis-Shelby County Airport Authority** is to safely perform work with "**ZERO ACCIDENTS**"; totally free from lost time injuries for the mutual benefit of the worker, environment, and community.

The safety goals and objectives established for the Project can only be achieved when everyone commits to perform their tasks safely and efficiently. This commitment to achieve these goals will result in both increased productivity and the PREVENTION of job related injuries and illnesses. This will be considered as *safe construction*.

Definitions

OCIP Team – Means the Owner **Memphis-Shelby County Airport Authority**, Willis Towers Watson and all applicable insurance carrier representatives or the representative of defined such agencies and firms working together to implement the OCIP insurance program.

Construction Managers – Means the Management Group or General Contractor that has direct contract with the Owner **Memphis-Shelby County Airport Authority** to provide the overall control of the construction at the project.

General Contractor – Means the Contractor that has direct contract with the owner or Construction Managers as bid for the project. The General Contractor is also the controlling contractor on the construction site when a Construction Manager is not present.

Subcontractor – Means the contractor and or contractors that carry contracts with the General Contractor or Construction Managers. Subcontractors bid portions of the scope of work to be completed.

Sub-Subcontractors – Means any subcontractors of a subcontractors working or contracted to do work on the project.

Critical Lift – A lift that exceeds 75% of the rated capacity of the crane or requires the use of more than one crane. Also, relates to the installation of equipment and or materials that are critical to the completion of the project and damage to such equipment and/or material could result in delays to the **project**.

The General Public – Is defined as all persons not employed by or under contract, subcontract or sub-subcontract to the **Memphis-Shelby County Airport Authority**.

PREFACE

From the inception of **Memphis-Shelby County Airport Authority** there has been a determination and commitment to provide a safe environment for all workers and for the public from hazards associated with the construction of the Project.

All Contractors shall implement measures that will create safety awareness, promote safe work practices at the job site and pursue the contract objectives in the safest possible manner. Each Contractor shall bear sole and exclusive responsibility for safety in all phases of their work. Nothing contained herein shall relieve such responsibility.

Page 69

Contract: Contractor Name

Each Contractor shall be responsible for all its subcontractors' and sub-subcontractors' compliance with the project safety requirements.

Contractors shall develop their own written site-specific safety and health plan for the MSCAA OCIP. At minimum, the safety and health plan shall conform to the requirements addressed in the Occupational Safety and Health Act of 1970 and all additions and revisions thereto, and the requirements established in the **Memphis-Shelby County Airport Authority** Construction Safety Guidelines. In short, as required by law, each Contractor is responsible for protecting the health and safety of its employees while ensuring they have a safe and healthful place to work.

Contractor developed plans/program(s).

Programs will be reviewed and approved by OCIP Team. Example(s) of such OSHA mandated plans/programs are shown below.

Site Traffic Control Plan Fall Protection Plan Fire Protection Plan Trench Safety Plan

Respiratory Protection Plan Hazard Communication Program

Confined Space Entry Scaffold Safety Program
Hearing Conservation Program Ladder Safety Training

Dust Control Plan

Emergency Procedures shall be made part of the Contractor's Safety Program. The following provisions shall be included in the emergency plan:

- a. Highest ranking supervisor automatically becomes responsible for the handling any emergency that occurs during his working hours; they may call upon the assistance of any available worker. A responsible supervisor must be designated for each shift.
- b. On a regular basis, at both supervisory and "weekly tool box meetings" instruct and update all employees in any course of action for emergencies.
- c. Establish teams to handle each of the various emergencies.
- d. Following an emergency, ranking personnel shall secure the area as expediently as possible and provide access and an account of the emergency to authorized representative(s) of MSCAA. Questions from the media should be referred to MSCAA.

Emergency procedures that may occur during any 24-hour period in the following categories must be established by each contractor:

- a. Fire
- b. Employee injury
- c. Pedestrian injury due to work activity of any kind
- d. Property damage and damage to above ground and buried utilities
- e. Public demonstrations
- f. Bomb threats

On a regular basis, the Contractor shall review and, when necessary, update Emergency Procedures for maximum effectiveness. The contractor should provide MSCAA, the Construction manager, and the on-site safety rep a telephone list of key management personnel, for after-hours emergency contact.

Should a serious accident or emergency occur, the contractor shall contact the Construction Manager immediately. If an emergency requires the presence of an ambulance or the Fire Department, including nights, weekends and holidays, the contractor shall call MSCAA emergency dispatch at (901)922-8333. Non injury accidents need to be reported to the airport police at (901)922-8298. **DO USE 911**

Site Access

- 1. Use only designated haul routes/crossings.
- 2. Stay in assigned work area as identified on plans and as defined by fences and barricades. Barricades/fences must not be crossed.

Page 70

Contract: Contractor Name

3. Instructions from guards and escort personnel must be obeyed.

Contractors, Subcontractors, and Sub-Subcontractors will be monitored for implementation and application of their respective safety programs at the work site. Members of the OCIP Team shall have the authority to stop work when either site conditions and/or work practices present an imminent danger until those conditions and/or practices are corrected. Contractors will be notified of any non-compliance and corrective action required. This notice, when delivered to the contractor or their representative at the site of the work, shall be deemed sufficient notice of non-compliance and corrective action required. After receiving the notice, the contractor shall immediately take corrective action. If the contractor fails or refuses to take corrective action promptly, a stop work order may be issued. The cost to bring the work activity into compliance shall be incurred by the Contractor, Subcontractor or Sub-subcontractor. The Contractor, Subcontractor or Sub-Subcontractor shall not submit a request for extension of time or increased costs as a result of any such stop work order. Members of the OCIP Team shall not be liable for any damages experienced by the Contractor due to the work stoppage. Progress payments may also cease until the Contractor and/or its Subcontractor and Sub-Subcontractors is in full compliance with all applicable safety and health rules, standards and regulations.

Each Contractor and their subcontractors and sub-subcontractors shall establish and enforce an effective disciplinary program (Appendix B). Contractors shall discipline and/or dismiss employees who violate established rules and regulations. This includes immediate termination for serious violations, repeated violations, or the refusal to follow safety and health rules.

OCIP Team members shall have the authority to effectively remove from the site, any person (employees including supervisors and management of any contractor) who is regarded as a frequent violator of safe work practices, or who fails to ensure persons working under their supervision or in a work place they control are not exposed to serious work hazards. Any Competent Person assigned to identify existing and predictable hazards and authorized to eliminate them, which fails to perform this duty for any reason shall be replaced by the employer.

The Contractor shall not receive additional payment or reimbursement for safety items and procedures which have been identified as required by the Project Safety and Health Guidelines.

Failure to comply with the contract safety requirements will be considered as non-compliance with the contract and may result in remedial action including withholding of progress payments due the Contractor and/or termination of the Contractor from the site.

In the event the work or any portion thereof is shut down by either an outside agency or because of an unsafe condition as determined by the OCIP Team, the responsible Contractor shall bear the total cost caused by that shut down.

In no case shall the Contractor be relieved of overall responsibility for compliance with the requirements of federal, state and local safety and health laws for all work to be performed under the contract

For any construction equipment working near operating right of way and in aircraft safety areas that could encroach into MSCAA's operating right of way and air craft safety areas shall submit to MSCAA (and obtain approval from the MSCAA) a plan describing the use of such equipment, and the necessary precautions to be taken to preclude any accidental encroachment unto the right of way or aircraft safety area.

INTRODUCTION

Construction Safety and Health Guidelines, Purpose and Scope

These guidelines are established to aid in the prevention of job-related accidents and health problems during the construction of the **Memphis-Shelby County Airport Authority**. These guidelines set forth elements which all Contractors, subcontractors and sub-subcontractors shall include in their safety plan. This manual is not all-inclusive. Other elements may be added, or conveyed individually to Contractors to whom they expressly apply. There are other essentials which some Contractors, by nature of the specific type of work being performed, must integrate within their own safety plan.

Page 71

Contract: Contractor Name

These guidelines set forth basic rules and regulations for all personnel involved in the construction of the Project. The intent of these guidelines is to enhance and supplement the safety and health standards which are required by law, in contract documents, and are applicable to the construction projects for which it is applied. These guidelines do not cover the full spectrum of published safety and health standards mandated by law, and Contractors shall not assume that they are responsible only for those which are referenced in this manual, nor that they are current and quoted as published. It is the responsibility of the Contractor and its employees to ensure that they are in compliance and their safety plan is in compliance with all safety directives required by law.

In the event of a conflict between the provisions of these guidelines and applicable local, State or Federal safety and health laws, regulations and/or standards, contract documents or the Contractor's Safety Plan the more stringent shall apply.

RESPONSIBILITIES

General

Each participant involved in the construction of the Project is individually responsible for conducting their activities to ensure compliance with all applicable safety and health requirements. Construction activities of the Contractor and their Subcontractors and sub-subcontractors will be monitored for compliance with FAA, MSCAA, Federal, State, County, and local safety and health regulations and contract safety and health requirements.

Contractors

The Contractor shall be responsible for the safety and health of employees, subcontractors, sub-subcontractors, visitors, and vendors in accordance with State, Local and Federal regulations, and the Contract Documents. Each Contractor shall establish and submit for review a written Safety and Health Plan which includes details commensurate with the work to be performed. The Contractor's Safety and Health Plan shall clearly describe the contractor's commitments for meeting its obligations to provide a safe and healthful work environment for its employees and subcontractor employees, to protect vendors, visitors, and members of the general public. The Contractor's Safety and Health Plan shall reference Federal OSHA standards, and any other rules or regulations applicable to construction activities.

Each Contractor shall designate an on-site Safety Representative who is charged with the responsibility of on-site safety management. The Safety Representative's sole duty shall be safety management and shall not have other collateral duties. At minimum the safety representative shall meet the requirements of a "competent person" as defined by OSHA for all phases of construction and have a minimum of three (3) years construction safety experience. A resume shall be provided that outlines such items as: work experience, education, training completed and professional organizations, etc. The safety representative shall remain on the Project until contract acceptance (full-term of contract). Safety representative must be knowledgeable on SC-230, SC-240, and other safety requirements as outlined in GP-200, the safety plan and site safety manual. The safety representative shall be interview by the OCIP Team.

As a condition of this contract, a safety improvement team shall be established for this project. The following guidelines (Appendix H) shall be followed.

As a condition of their contract, all Contractors shall submit to the Project Safety Manager or designee:

- > A site-specific safety plan within fifteen (15) days after receipt of Notice to proceed and prior to start of any construction activities.
- The name and qualifications (resume) of designated on-site safety person;
- An immediate copy of all citations and/or warning of safety violations received from any state or federal jurisdiction, agency, insurance company, or by any of its subtier contractor.

The Contractor shall:

Page 72

Contract: Contractor Name

- Ensure that all employees, subcontractors' and sub-subcontractors' employees are given a comprehensive Safety and Health orientation. This orientation shall include general Safety and Health procedures and policies as well as the project specific rules, regulations and specific hazards. Employees shall be advised that disregard for these rules, or any other applicable Safety and Health regulations shall be subject to company disciplinary action and/or removal from the project. All workers shall complete an acknowledgment that indicates the worker has read, understood, and will abide by the rules and regulations. The following information shall be obtained from all employees: worker's name, date of orientation, Contractor's name and project name (Appendix A).
- > Investigate all accidents and incidents that result in personal injury or illness to workers, damage to buildings or equipment and any incident with the general public.
- Conduct daily job inspections, identify unsafe conditions or work practices and assure they are corrected, and maintain documentation.
- Conduct weekly, documented, safety meetings with Contractor supervisory personnel.
- Attend monthly Safety committee meetings and participate
- Assure that employees acting in a supervisory capacity understand and enforce all safe work practices. Foreman and supervisors are required to have completed a 10-hour OSHA Outreach hazard recognition course within Two (2) years prior to directing work on the project. Documentation must be made available for review
- Assure that employees acting in a supervisory capacity understand and enforce all safe work practices. Foreman and supervisors are required to have completed a 10-hour OSHA Outreach hazard recognition course within Two (2) years prior to directing work on the project. Documentation must be made available for review.
- Assure a Competent Person is provided at work locations where required by OSHA.
- > Assure that all Personal Protective Equipment (PPE) is available and being used as required.
- Assure all construction equipment and motor vehicles certification, inspection, repair and controls are in compliance with the safety requirements of the project and OSHA. Annual crane certification shall be available for review for each to a crane on the project.
- Prior to making critical crane lift, detailed lift plan shall be submitted. (See Appendix C, "Critical Lift Checklist")
- Assure that all hand and power tools are in safe working order.
- Assure that all work areas are kept clear of debris and trash and that adequate trash barrels are placed throughout the work area and emptied frequently.
- > Provide the appropriate number and types of sanitary facilities for employees.
- Assure that fall protection equipment is provided and used. Inspections of this equipment shall be documented and on file for review.
- Assure that all perimeter cables, barricades, or any other safety-related items are installed correctly and maintained. If another Contractor must remove a safety item, coordinate this activity with the Contractor who installed the device and other Contractors who may be exposed. Safety devices shall be replaced by the Contractor removing them. Warning signs, tags, or barricades shall be installed if other safety devices are removed.
- Assure that employees receive adequate training as required by the Project and OSHA. Additional training for foreman and safety representative may be required based on unique hazards involved in a task.

WORKPLACE SUBSTANCE ABUSE POLICY

The contractor shall submit as a part of their overall Safety and Health Plan a copy of their company Workplace Substance Abuse policy. This policy shall at minimum comply with Appendix D, "Substance Abuse".

The Contractor shall ensure that all subcontractors and sub-subcontractors are in compliance. The Contractor shall submit a monthly notarized letter stating they and their subcontractors are in compliance with the Project's Substance Abuse Policy.

Contractors should contact the State of Tennessee, at 1-800-332-2667, if there are questions concerning the Tennessee Drug Free Workplace Program. Contractors should also consult their own legal counsel.

INSTRUCTION AND TRAINING

Page 73

Contract: Contractor Name

Safety Orientation Program

Newly employed, promoted, and/or transferred personnel shall receive an orientation regarding the general safety and health rules and regulations as well as the site specific policies and hazards prior to starting work on the construction site. The Contractor shall be responsible for the orientation of their employees, Subcontractors and sub-subcontractors, and visitors. Documentation of this orientation shall be maintained on file for review (Appendix A). Hard hat stickers (provided by the Project) are to be issued to an employee following their orientation, and then documented on training Log Sheet. It is the responsibility of the contractor to ensure that non-English speaking employees receive these same instructions in a language they understand. Safety orientation of all personnel shall include at a minimum the following topics:

- Unique hazards of the project
- Employer/personnel responsibilities under OSHA Standards location of required posters
- Personal protective equipment, including appropriate work attire
- Confined space entry
- 6-Foot fall rule 100% continuous fall protection (including steel erection and scaffolds)
- ➤ 100% eye protection, 100% hard hat protection
- Appropriate guarding and other warning devices
- Housekeeping
- > Fire protection
- Accident reporting procedures First-aid facilities Emergency procedures
- Crane and lifting hazards
- Scaffolding tagging requirements
- Hazard communication/ Right-to-Know, location of MSDS's
- Substance abuse policy
- Disciplinary procedures
- > Trenching & excavation
- Electrical hazards

PROTECTION OF THE PUBLIC

All necessary precautions to prevent injury to the public or damage to property of others shall be taken. The "Public" is defined as all persons not employed by or under contractor or subcontractor to **Memphis-Shelby County Airport Authority**. Installation of temporary barriers and/or fencing designated to protect the Public shall be reviewed and approved by the Owner and/or their representative. Precautions shall include but not be limited to the following:

- 1. Work shall not be performed in any area occupied by the Public unless specifically permitted according to the terms of the contract or in writing.
- 2. When necessary to maintain public use of work areas involving vehicular roadways, etc., the contractor shall protect the Public in accordance with the applicable regulations.
- 3. Appropriate warnings, signs and instructional safety signs shall be conspicuously posted where necessary. In addition, a signal person shall control the moving of motorized equipment in areas where the public might be endangered. All signage warnings and traffic control shall comply with the particular agency that takes judicial precedence.
- 4. Each project work area shall be protected by a fence constructed and erected per MSCAA requirements.
- 5. Barricades for the general public or public roadways shall be secured against accidental displacement and in place at all times, except when temporary removal is required. As such times, a flag person shall be assigned to control the unprotected area. Barricades used on the airfield will be reconstructed erected and maintained per MSCAA/FAA requirements.
- 6. Required signs and symbols shall be visible at all times when work is being performed and shall be removed or covered promptly when the hazards no longer exist.

Page 74

Contract: Contractor Name Parking Guidance System

MSCAA Project No. 24-1477-00

Group Tours and Site Visitors

It is particularly important that a high degree of protection be afforded to all persons on the authorized tours of construction work-sites. The following instructions shall be complied with, as applicable, by the Contractor and those responsible for arranging such tours. The following procedures shall be followed:

- a) Group tours shall be cleared through the site **Memphis-Shelby County Airport Authority** office, allowing maximum advance notice.
- b) If visitors to the site will be on foot or out of the vehicle/bus, the individual or organization requesting the tour shall ensure that:
 - In all cases, the Construction Manager, MSCAA and the contractor shall advised of any tour in a timely manner prior to the tour taking place.
 - Release and Hold Harmless Agreement Each visitor shall be required to sign a release and hold harmless agreement prior to the commencement of the tour.
 - MSCAA will coordinate the tour arrangements and ensure notification to the Construction Manager
 - Tour groups are limited to no more than (25) twenty-five persons.
 - Visitors are required to wear appropriate clothing and shoes.
 - Children under 18 years of age are not be permitted on the Project tours.
 - All visitors shall comply with Contractor safety requirements.
 - Site Memphis-Shelby County Airport Authority or designee personnel will escort Tours.

HARASSMENT-FREE WORK POLICY

Employee Harassment

It is the policy of **Memphis-Shelby County Airport Authority** to provide a workplace free from employee harassment on the basis of race, color, religion, sex, national origin, age, handicap, disability, etc. Improper interference with the ability of an employee to perform their work activities will not be tolerated. Harassment can appear in many forms, including derogatory comments, jokes, slurs, unwanted physical contact, derogatory drawings or threats.

Sexual Harassment

Unwant	ed sexual advances, requests for sexual favors and other verbal physical conduct of a sexual nature will not be
tolerate	d. Sexual harassing conduct includes, but is not limited to:
	Unwelcome sexual flirtation, touching, advances or propositions
	Verbal abuse of a sexual nature, including graphic or suggestive comments about an individual's dress or degrading
	words used to describe and individual
	The display in the work place of sexually suggestive objects or pictures, including nude photographs
	Other verbal or physical conduct of a sexual nature can affect an employee's work performance

Reporting of Harassment

It is the policy of **Memphis-Shelby County Airport Authority** to actively investigate any alleged incidence of harassment. Anyone who believes they have been harassed should contact the project manager. Any allegation or compliant will be held in the strictest confidence.

Any employee who commits a wrongful act of harassment shall be subject to disciplinary action, up to and including

Page 75

termination.

REPORTING, ACCIDENT INVESTIGATION, AND RECORDKEEPING

Contractors shall provide an American Red Cross and CPR Certified First Aid representative and designate an appropriate area for the first aid and medical care to treat injured employees at the job site. A copy of the First Aid Representative's qualifications shall be submitted to the Project Safety Manager.

The contractor must designate an individual to coordinate injury treatment with the workers' compensation carrier. The contractors' designated representative should also coordinate return to work and availability of modified work.

To coordinate medical services, the contractor will complete "Employee Medical Data Sheet" and "Company Drug Screen Request: forms.

Reporting

All accidents resulting in employee injury, property damage, or involving the general public shall be reported immediately to the designated project representative and the Project Safety Manager.

The Contractor and their subcontractors and sub-subcontractors shall complete a Supervisor's Incident Report Form (See Appendix E) and submit the report to the Project Safety Manager for all job-related accidents involving any of the following:

- 1. Any employee injury of the contractor, any subcontractor or sub-subcontractor.
- 2. Any injury and/or incident with the general public (including any alleged injuries reported by a member of the general public).
- 3. Equipment
- 4. Property

A formal accident investigation report and "First Report of Injury" shall be submitted within 24 hours. Pertinent facts that are not available within the above time shall be submitted as soon as available in a supplemental report.

A drug and alcohol test shall be administered to employee(s) injured and/or any employees in a work crew involved in an accident involving bodily injury.

Record-Keeping and Files

The Contractor and all Subcontractors and sub-subcontractors shall maintain a master or central file for safety and health related documentation on the jobsite. Files shall be maintained in such a manner that distinguishes each contractor and their subcontractors from other subcontractors and sub-subcontractors.

See Insurance manual for claim reporting procedures.

Accident Investigation

All accident/incidents shall be investigated by the contractor's safety supervisor and/or their safety designee. An accident investigation report must be submitted to the Designated Project Representative, OCIP Administrator/Willis Towers Watson and OCIP Insurance Carrier within twenty-four (24) hours of the occurrence.

The accident investigation should generate appropriate recommendations for corrective actions to prevent recurrence of similar accidents. Depending upon severity of the accident, the foreman of the injured worker may be requested to appear at the job safety and coordination meeting to:

Page 76

Contract: Contractor Name

- 1. Describe the cause of accident.
- 2. Report as to what corrective action has been initiated to avoid future accidents.

The Contractor and all Subcontractors shall maintain a current OSHA 300 log. The log shall be available for review by any OCIP team member at any time.

The Contractor and all Subcontractors and Sub-Subcontractors shall submit on a monthly basis a monthly summary of accident/incidents for the project. The summary shall follow the format contained within (Appendix G).

Under the direction of MSCAA AD HOC Committee may be appointed for investigation of serious accidents that result in loss of life, injury to several workers on pedestrians or major property loss. The committee will submit a report to MSCAA at the conclusion of the investigation.

RETURN-TO-WORK

Under the OCIP Program, every effort shall be made to **return employees to work as soon as possible** after an accident and under the direction of the physician. The insurance carrier will be in contact with the physician to determine the employee's physical demands and limitations.

A return-to-work program shall be developed and implemented by each Contractor to assist workers who are temporarily disabled due to an injury or illness. The Contractor and all subcontractors shall participate in the return-to-work program.

The Contractor, Subcontractor or Sub-subcontractor shall agree that their injured employees shall be treated by an authorized medical treating facility. The medical facility shall be utilized for initial treatment and evaluation of all injured employees. Follow-up care will be provided in accordance with applicable Workers' Compensation statutes.

When employees report a work related illness or injury, they shall be taken to the approved medical facility for examination and/or treatment. If the doctor determines that the employee qualifies for "Return to Work" ("light-duty"), the doctor will complete appropriate forms indicating the restrictions and conditions for transitional work.

The Contractor, Subcontractor or Sub-subcontractor shall provide modified work until the employee is able to resume regular duties. All modified work is temporary in nature and is designed to facilitate a return to regular duties as soon as possible. Modified duty positions may be offered at any location of the project or on any shift. Modified work can also be provided at other work locations of the Contractor with approval from the OCIP Team.

In no case shall an injured employee be laid-off or terminated from a "alternative work" position, unless first discussed with the Owner and it's representatives.

WORK PRACTICE CONTROL

Overview

The primary focus of these Safety and Health Guidelines is to provide guidance for Contractors. Each Contractor shall have on site and available for employee review a written safety and health plan. This plan shall cover work exposures the contractors work operations. It is a project requirement that each and every employee conduct their operations in accordance with OSHA and all other applicable standards for all project operations

Memphis-Shelby County Airport Authority prohibits the use, possession, concealment, transportation, promotion or sale of the following controlled items:

a. Firearms, weapons, and ammunition – except when authorized for security reasons.

Page 77

- b. Switchblades.
- c. Unauthorized explosives, including fireworks.
- d. Stolen or contraband.

Hazard Communication Program

The Contractor shall develop a written Hazard Communication Program that contains at minimum the following elements:

- > The name of the program coordinator.
- > A list of hazardous substances present within the Contractor's workplace.
- A written system that ensures MSDS's are obtained and made readily accessible to all employees, including lower tier subcontractor personnel, on each shift. In the event of an emergency, MSDS's shall be made available on an immediate basis.
- > A labeling program that ensures that containers of hazardous substances in the workplace are properly labeled with the name of the substance and any applicable hazard warnings.
- A training program regarding hazards of substances that are used in the workplace and the protective measures that must be taken by the emplooyee or any other persons potentially exposed to the hazardous substances.

The Contractor shall ensure that each employee, prior to working with, or being potentially exposed to hazardous substances, receives initial training on the Hazard Communication Program and the safe use of the hazardous substances. Additional training shall be provided to employees whenever new substances are introduced to the workplace.

Permanent records shall be maintained by the Contractor, describing all Hazard Communication Program training.

Record-Keeping and Files

The Contractor and all Subcontractors and sub-subcontractors shall maintain a master or central file for safety and health related documentation on the jobsite. Files shall be maintained in such a manner that distinguishes each contractor and their subcontractors from other subcontractors and sub-subcontractors.

Contractors shall submit and/or have available on site:

REPORT NAME	Annual	Immediately	24 Hr.	Weekly ¹	Monthly ²	Per Occurrence	Per Request
Annual Crane Inspection	Х						х
Chemical Inventory					Х		х
Contractor Weekly Inspection				Х			Х
Critical Lift Checklist						Х	х
First Report of Injury		х				Х	
Incident Investigation		х				Х	
MSDS's					Х		х
OSHA 300 Log					х		х
OSHA Citations		Х				Х	
Safety Observation				Х			
Safety Plan of Action or JSA ³				Х		Х	х
Safety Statistics					Х		Х
Safety Training					Х		х
Substance Abuse Policy compliance notarized letter					х		Х
Toolbox Safety Meetings				Х			Х
Daily equipment / Vehicle Inspections							Х

Daily -- Daily inspections are required on all equipment / vehicles.

Page 78

Contract: Contractor Name

¹ Weekly – Weekly reports are due the following Tuesday morning

- ² Monthly Monthly reports are due by the 6th of the following month.
- ³ Safety Action Plan or JSA As required by contract or specification

The Owner and it's Representatives shall have the right to review all documentation at any time upon request. The Contractor shall give full cooperation during these reviews.

The following documentation shall be in the safety files:

- A written project site specific Safety & Health Plan
- > Hazard Communication Program, including current MSDS's. A project specific MSDS file shall be maintained on-site for employee review
- Site emergency plans
- All required safety & health permits
- Weekly safety meeting reports including meeting topic(s) and employee attendance sheets
- Specific job hazard worker training
- > Daily jobsite safety inspection reports including documentation of corrective measures
- > Equipment inspection reports
- Crane inspection reports daily and monthly (annual certification reports required prior to equipment operation)
- Employee orientation training records
- > Accident investigation reports, including near-misses
- Job hazard analysis
- Competent person qualifications
- Written safety violations
- Noise and air quality monitoring

Job Safety Analysis (JSA)

In order to provide Contractor employees with a safe workplace through pre-planning hazardous work, a Job Safety Analysis (JSA) shall be prepared. JSA's shall be required when thorough pre-job planning, it is determined that the process, equipment or procedure indicates potential for serious injury and/or property damage. The Contractor shall also prepare a JSA upon request by an OCIP Team member. . JSA's will be done daily. JSA's should be kept in the work area, possibly at the tool box and/or where they are readily available to the workers. JSA's will be also be on file with the contractor.

The JSA shall be used by Contractors to analyze the jobs they perform, to identify the existing and potential hazards associated with each job step and establish controls for them. These JSA's shall be used as a task specific training tool to instruct employees, inspectors, and visitors of potential hazards and required safety precautions. Each employee working on the project shall sign a training log indicating that they understand the hazards of the project as indicated on the JSA.

Examples of activities that may require a JSA:

- Potential for collapse, (work-in trenching, tunneling. This may include demolition, etc).
- Potential release of stored energy, (electrical, pressure, explosive, etc).
- Crane supported work plate form use.
- Critical crane lifts (two cranes used to lift one load).
- Unusual crane operation as defined by the CIP Team.
- > Potential exposure to uncontrolled hazardous materials or wastes.
- Blasting operations
- Abrasive /Sandblasting, Hydro blasting, etc.
- > Potential injury from burns, both chemical and thermal.
- Respirator use.
- Potential oxygen-deficient environments.
- > Entry into confined space.
- Potential of entanglement in, on, or between objects.
- Work in public streets and highways.
- Lockout/Tagout.
- Operations involving fall exposure.
- Structural Steel Erection.
- Use of new or Hazardous Materials, procedures, equipment.

Page 79

- Material Storage & Handling.
- Powder actuated tool use.
- Suspended scaffolds.
- Scaffold erection.
- Scaffold dismantlement
- Rock drilling.
- > Work on live electrical systems.

SPECIFIC PROJECT SAFETY REQUIREMENTS

Controls for possible conflicts between construction operations and aircraft

- 1) Contractor must request that a notice to Airmen (NOTAM) be issued prior to start of any construction that might affect navigable airspace or surface movement.
- 2) Barricades and temporary lighting must be installed and maintained per specs.
- 3) Operators of equipment/vehicles must be instructed on routes and haul procedures.
- 4) All personnel must stay in defined work areas. Fences/barricades are not to be crossed.
- 5) No access to active taxiways/runways will be allowed without prior authorization and direction/escort by MSCAA personnel.

Scaffolds, Stair Towers and Work Platforms

The Project requires 100% continuous fall protection during the erection and dismantling of scaffolds where employees may be exposed to a fall greater than (6) six feet. A competent person must be present during erection, dismantling or moving of scaffold. The Contractor/Subcontractor shall develop and use a scaffold tagging system similar to the following:

Tagging

The tagging procedure, at minimum, shall consist of three (3) tags. The appropriate tag will be placed on a scaffold approved by the competent person. Each tag must have at least the following information and be visible by all employees:

- Date tag was placed date of the last inspection.
- Name of person inspecting. All tags must be weather resistant.

A **GREEN** tag means the scaffold complies with federal OSHA regulations and can be used by any person.

A **YELLOW** tag indicates the scaffold is complete but does not meet all federal OSHA specifications. This tag will be used only in special circumstances. Special precautions, such as wearing a safety harnesses may be required because any accessory, such as a handrail, could not be installed due to the location of the scaffold.

A **RED** tag shall be placed on a scaffold that is being erected, dismantled, damaged and/or defective. No employees except members of the erection/dismantling crew shall work from a red tagged scaffold.

Employees will be instructed to read tags before using scaffolds. If a tag is not attached to the scaffold, **DO NOT USE** the scaffold.

Exceptions: Single buck or Baker scaffolds need not be tagged.

Walking and Working Surfaces

Page 80

Contract: Contractor Name

Barrier Identification Tape

Barrier identification tape is strictly prohibited from being used for <u>any form of personnel fall protection</u>. Barricade tape around excavations can be used for short term (24-hours), after this period physical barriers are required.

- YELLOW barricade tape shall be used for CAUTION/WARNING
- RED barricade tape shall be used for DANGER DO NOT ENTER

Note: Once the area barricaded is free of the hazard(s) for which it was erected the tape will be removed and properly discarded.

Fall Protection

Employees shall not be exposed to fall hazards. When an employee observes a fall hazard, they will notify their supervisor of the hazard. The responsible Contractor will immediately correct the hazard. 100% continuous fall protection, for fall hazards greater than six (6') feet, shall be implemented on this Project - including steel erection and scaffold use, erection and dismantling.

Each Contractor shall be responsible for meeting fall protection requirements in their overall safety and health program.

Each Contractor shall evaluate <u>ALL</u> fall exposure conditions or tasks and must develop a Fall Protection Plan which outlines what methods, procedures and/or devices will be used in their program.

Each Contractor shall be responsible for implementing the requirements to achieve fall protection in accordance with all Federal, State, local rules, regulations, and the OCIP Safety and Health Guideline.

All fall protection systems used on this project shall comply with OSHA regulations and the project safety guidelines. Fall protection shall provide a positive means of protection. **Controlled Access Zones and Safety Monitoring Systems are not considered positive means of fall protection and shall not be permitted**. Any employee exposed to a fall greater than six (6) feet shall use approved fall protection equipment or devices. Fall protection systems shall be designed and installed under the direction of a Registered Professional Engineer or Qualified Person. Fall protection is required, as a minimum, under the following examples:

- Formwork and reinforcing steel. Each employee on the face of formwork or reinforcing steel shall be protected from falling 6 feet or more to lower levels by Personal Fall Arrest Systems, safety net systems, or positioning device systems.
- When working from a telescoping, articulating, or rotating type lifts and scissors lifts, personnel shall wear a safety harness with shock absorbing lanyard, secured to an approved anchorage point.
- > When working on a ladder higher than six (6) feet from a solid surface, if the employee's torso extends past the side rails or if a vertical ladder extended a total of 20' or greater.
- When working on a platform or other support not equipped with an adequate guardrail, which is higher than six (6) feet from a solid surface.
- > When working from a crane-suspended work platform, a safety harness with shock absorbing lanyard is mandatory.
- When an employee may have to be lowered into or raised from a confined space, a personal fall arrest system will be worn. The employee will be supported by an approved platform or a boatswain's chair, with certified hoisting device and fall arrest device.
- When working adjacent to an unguarded floor opening or sloped roof, a lifeline system is desirable for mobility. A positive means of fall protection must be provided unless it can be proven infeasible.
- When working adjacent to a deep excavation, pit or trench. Employees will be instructed on the proper wearing and use of personal Fall Protection Arresting Device Systems.
- Barricade tape is not adequate fall protection.

The Fall Protection Plan shall detail in writing when fall protection is required and exactly how this protection is to be provided. This written plan is required for any Contractor exposing workers to falls six (6) feet or greater.

Page 81

Contract: Contractor Name

The Contractor shall prepare a written training program to ensure that each employee who might be exposed to fall hazards is knowledgeable of the Fall Protection Plan requirements. The program shall enable each employee the ability to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to eliminate or minimize these hazards.

The Contractor shall assure that each employee has been trained.

Personnel, who have been trained, then re-trained and continue to violate the established fall protection plan/regulations shall be removed from the project <u>IMMEDIATELY</u>.

Confined Space Entry

All employees required to enter a confined space shall be knowledgeable of the hazards involved with confined space entry. Prior to the start of such an entry the Contractor involved in the work will develop a Confined Space Entry Procedure. The Contractor shall train all personnel who will enter the confined space. No one shall enter a confined space area until properly instructed. Contractors shall identify all confined spaces within their work area with a sign identifying the area as a confined space.

A Confined Space Entry procedure shall be used to:

- Prevent inadvertent operation of equipment and/or work process while people are working in the confined space.
- Eliminate unexpected exposure to hazardous materials, oxygen deficient or inert/toxic gaseous atmosphere while working in confined spaces.
- > Plan for a timely and effective response to an emergency during a confined space entry.

Confined Spaces are considered to be areas with limited entry and exit, or poor natural ventilation, and not intended for human occupancy. Examples of a confined space include: tanks, covered basins, vaults, columns, mixers, manholes, pipelines, sumps, ditches or excavations. All spaces shall be considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise.

Safety considerations include but are not limited to: atmosphere testing for gaseous conditions/lack of oxygen, appropriate personal protective and emergency equipment, and additional personnel as needed to assure communications and assist the individual conducting the entry.

A Permit Required Confined Space means confined space that has one or more of the following:

- May or may not potentially contain a hazardous atmosphere;
- Contains a material that has potential for engulfing entrant;
- Has internal configuration that could trap the entrant;
- Contains any other recognized serious health or safety hazard;

Contractors shall provide their own permit.

A Non-Permit Required Confined Space is a confined space that does not contain or with respect to atmospheric hazards, the potential of causing death or serious physical harm.

Employee Ground Transportation

The purpose of this section is to establish minimum acceptable guidelines for the safe transportation of all personnel traveling within the Project confines. Eliminate personal accidents and injuries resulting from improper equipment use.

Contractors are responsible for assuring that all personnel follow the requirements of this section and prohibit improper transportation of employees and visitors. Transporting employees in cargo beds of pick-ups, vans, etc. is prohibited, unless approved seats and seat belts are provided and used.

Page 82

Contract: Contractor Name

- > Operators must be qualified. Vehicle operators must have valid state operator's license
- > All equipment/vehicles must be identified (company logo) per specifications.
- > Safe speed must be maintained and adjusted to site conditions.
- Use flashers/headlamps as directed.
- Mobile cranes, forklifts, winch trucks, front-end loaders, tractors and other materials handling equipment are not permitted to transport passengers.
- Trucks
 - A maximum of three passengers are permitted to ride inside of the truck cab unless the cab is specifically designed to accommodate additional passengers.
 - Passengers shall ride with all portions of their bodies inside the truck body or frame.
 - Passengers shall be in the seated position, with the seat belts secured and adjusted properly, before the vehicle is set in motion.
 - Riding on a vehicle's bumper or tailgate is prohibited.
 - Tailgates will be closed and latched before the vehicle is operated.
 - Passengers are not permitted to ride in the body of a dump truck, in the bed of a pickup truck or in trailers.
 - Passengers are not permitted to ride on top of the load or to hold materials from shifting.
 - Vehicles must be designed to accommodate passenger transportation or the vehicle shall not be used for that purpose.
 - Drivers transporting passengers shall follow the posted speed limit and Project traffic rules.
 - The Contractor shall establish a designated employee parking area. Employee vehicles shall not be allowed on the construction project.

Housekeeping - MUST BE A CONTINUING PROCESS

The purpose of this section is to incorporate into the day-to-day work activity a good housekeeping action plan that will be followed by all Contractors working on the project.

- > Contractors, through inspection and example, are responsible for assuring that trash and debris remain out of the work areas. Contractors are responsible for all of their work areas and the work areas of their subcontractors and subsubcontractors. If poor housekeeping practices are observed, corrective action will be discussed with the appropriate Contractor to remind them that cluttered work areas will not be tolerated and that their work area(s) pose a hazard to his employees and other personnel.
- > Should the Contractor fails to address and correct their poor housekeeping upon 24 hour written notification, the "owner" may at its option, cause the same to be removed and charge the expense of such removal to the appropriate Contractor.
- Specific attention is needed for operations to the Aircraft Operation Area (AOA).
- Contractors shall monitor their work areas daily or more frequently if needed to assure that all debris is removed to minimize hazards.
- Immediately available vacuum sweeper for cleaning taxiway/runway crossings.
- > Personnel immediately available for taxiway and runway cleanup. (Provide brooms to supplement cleanup by sweeper.)
- Access to taxiway/runway crossings for cleanup only at the direction of MSCAA guard.
- Loading of haulage vehicles to minimize spillage.
- Maintenance of vehicles/equipment so that no fluids will leak.
- Provide waste containers at the direction of the Construction Manager.

Project Electrical Requirements

- The Contractor shall implement an electrical safety program. This safety program element shall include safe installation, work practices, maintenance, and special equipment considerations. All electrical installations, either temporary or permanent, shall be in conformance with the National Electrical Safety Code, NFPA-70, ANSI-C1, and low and high voltage electrical safety orders OSHA code requirements. Only qualified employees shall install electrical tools and equipment, defective and/or improperly installed equipment shall be repaired immediately.
- Only qualified electricians familiar with code requirements shall be allowed to perform electrical work.
- > Extension cords used with portable electrical tools and appliances shall be heavy duty (minimum 12 AWG) and of the

Page 83

- three-wire type. Cords shall be covered, elevated or otherwise protected from damage that would create a hazard to construction site personnel.
- ➤ Electrical cords and equipment shall be visually inspected before each shift for external defects. All damaged and defective cords shall be removed from service immediately (this includes cords with the ground prong missing). Cords shall be repaired with approved heat-shrink methods, electrical tape is not permitted.
- All temporary electrical tools, cords and equipment shall be properly protected by ground fault circuit interrupters (GCFI). All portable generators shall have properly functioning GFCI outlets. GFCI receptacles shall be tested monthly with a multi-range GFCI tester (the tests shall be documented) to insure the GFCI is properly functioning and protecting the worker.
- A "task-specific" lockout/tagout safety plan shall be established to ensure power sources to equipment and/or machinery are isolated and de-energized. This plan shall establish minimum steps necessary to disable equipment and machinery to prevent the unexpected release of potentially hazardous energy. Lockout/Tagout shall be performed in accordance with 29 CFR 1910.147.

Cranes and Hoisting Equipment

- Cranes and hoists shall not be used without a current annual certificate of examination and testing issued by an accredited crane examiner. Annual inspection certificates shall be available when cranes arrive on-site. Operators manual shall be in the cab of each crane prior to crane operation.
- Only qualified and designated personnel shall operate cranes or hoisting equipment. Crane operators must have current (Certified Crane Operator) CCO certification and/or local or state certification.
- Rated load capacities and recommended operating speeds, special hazard warnings, or instructions, shall be conspicuously posted on all equipment; they shall be visible to the operator from his/her control station, and an accessible fire extinguisher of 10:ABC rating, shall be available at all operator stations or cabs of equipment. Crane operations position shall be kept clear of loose tools or material.
- > Outrigger cribbing shall be used for all crane operations. The size of the cribbing shall be determined by taking the cranes capacity and dividing by 5 (example: 40 to crane divided by 5 = 8 sq. ft. per outrigger).
- All cranes working over shafts or lifting personnel platforms shall have anti-two block devices installed and operating properly.
- Radio or other positive means of communication shall be used to direct the operator when the point of operation is not in direct view of the operator.
- The operator shall respond to signals from only one person. The operator shall not follow any signal which is not understood, but shall always obey a stop signal.
- The operator shall be responsible for the operations and load under their control at all times. Whenever there are doubts about the safety of movement, the operator shall stop operations until safety is assured.
- A warning signal, such as a horn, shall be sounded to alert personnel to proximity of moving loads. Loads should not be passed over personnel, and personnel should not be permitted to work in the area directly under a suspended load.
- > Concrete buckets Employees shall be permitted to work under concrete buckets while the buckets are elevated.
- > Employees shall keep out from under suspended loads at all times.
- > Employees shall not ride on loads, slings, hooks, buckets or other load handling attachments.
- All repairs, adjustments, modifications, rigging assembly or dismantling shall be conducted only by qualified and authorized personnel.
- > The swing radius shall be barricaded or other positive means shall be taken to prevent personnel from entering the area between the counter weight/swing radius and any stationary and/or outside obstructions.
- > A critical lift checklist will be completed and submitted anytime:
 - 2 cranes are used to make a lift
 - when a lift exceeds 75% of the load chart
 - or any unusual conditions are encountered (See Appendix C, "Critical Lift Checklist")
- Crane suspended work platforms shall only be used if there is no other safe means to reach the work area. The Contractor shall complete a JSA prior to the lift.
- Any overhead wire shall be considered to be energized unless and until the person owning such line or operating officials of the electrical utility supplying the line assures that it is NOT ENERGIZED and it has been visibly grounded at the work site.
- Taglines shall be used to control all loads
- Daily inspection of all cranes shall be completed and documented prior to crane use

Page 84

Rigging

- Major rigging operations shall be planned and supervised by Competent Personnel to ensure that the best methods and most suitable equipment and tackle are employed. This should be the superintendent or foreman in charge.
- Job site management shall ensure that:
 - Proper rigging equipment is available.
 - All rigging is inspected before use. Documented inspections are required.
 - Correct load ratings are available for the material and equipment used for rigging.
 - Rigging material and equipment are maintained in proper working condition.
- The supervisor of the hoisting operation shall be responsible for:
 - Proper rigging of the load.
 - Supervision of the rigging crew.
 - Ensuring that the rigging material and equipment have the necessary capacity for the job and are in safe condition.
 - Ensuring correct assembly of rigging material or equipment as required during the operation, such as the correct installation of lifting bolts.
 - Safety of the rigging crew and other personnel as they are affected by the rigging operation.

Excavation (Any process which disturbs soil)

- A. Contact MSCAA/FAA thru the Construction Manager at least 72 hours prior to proposed work for location of underground hazards (cables, ducts, fuel lines, etc.). A request form will be provided to the contractor.
- B. The contractor must contact Tennessee one call at least 72 hours prior to proposed excavation for location of utilities. Contractor must make arrangements to have personnel at the site when utilities are located. Documentation of the control number must be maintained on site.
- C. Utilities must be located/marked prior to any process that disturbs the soil.

Earthmoving Equipment and Trucks

- > All earthmoving equipment shall be maintained in safe working condition and shall be appropriate and adequate for the intended use.
- Only authorized personnel shall operate equipment. Operators of equipment, machinery or vehicles shall be qualified and properly licensed for the operation involved.
- > Equipment maintenance shall be performed only by qualified mechanics.
- > Equipment operators and truck drivers shall make a documented pre-shift safety inspection of their equipment. Any conditions that effect safe operation will be corrected before use.
- > Equipment shall not be operated unless all required safety devices are in place and functioning properly.
- Careless, reckless or otherwise unsafe operation or use of equipment shall result in discipline and may constitute grounds for dismissal.
- ➤ Before performing any service or repair work, all equipment shall be stopped and positively secured against movement or operation, locked and tagged out of service, unless it is designed to be serviced while running, following the manufacturer's instructions.
- When equipment is serviced or repaired, the operator shall dismount until the service or repair is completed and then make a complete walk-around safety check before remounting.
- All heavy equipment including: cranes, forklifts, dozers, end-loaders, skid-steers, etc., shall have a reverse signal/backup alarm audible above surrounding background noise.
- All off-highway earthmoving equipment and trucks such as loaders, dozers, scrapers, motor graders, rock trucks, tractors, rollers and compactors shall be equipped with roll-over protective structures (ROPS) and seat belts.
- Seat belts shall be used and adjusted properly by operators of all heavy equipment.
- Mobile equipment shall not be left unattended unless parked securely to prevent movement, with all ground engaging tools lowered to the ground, brakes set and the engine off.

Page 85

- > Equipment parked at night shall be lighted, barricaded or otherwise clearly marked when exposed to traffic. Keys shall not be left in equipment overnight.
- Personnel shall not be transported or ride on equipment or vehicles that are not equipped with seats for passengers.
- ➤ When fueling equipment or vehicles with gasoline or liquefied petroleum gas (LPG) the engine shall be shut down.
- All equipment and vehicles shall be equipped with appropriate fire extinguisher or fire suppression system.
- ➤ Haul roads shall be designed, constructed and maintained for safe operation consistent with the type of haulage equipment in use. Standard traffic control signs shall be used where necessary.
- > Elevated roadways shall have axle high beams or guards maintained on their outer banks.
- Equipment, tools, and materials hauled on pickups and flat bead trucks must be secured to prevent them from falling onto the road.

Welding & Cutting

- Welding leads and cutting hoses shall be kept clear of walkways and stairways.
- > Flash arrestors shall be installed provided in both oxygen and acetylene hoses at the regulator connection.
- > Welders shall wear approved eye and head protection when welding. Personnel assisting the welder shall also wear approved eye protection.
- Prior to welding or cutting a "20-ABC" rated fire extinguisher shall be within easy reach of the worker. A fire watch shall be stationed at all locations where sparks and/or flames may fall to a lower floor/work area or to another side of a wall.
- A suitable cylinder truck, with chain shall be used to keep cylinders from being knocked over while in use.
- Spent welding rods shall be picked up and disposed of daily.
- When practical all welding and cutting operations shall be shielded by non-combustible or flame-proof screens.
- Oxygen and acetylene cylinders shall not be stored inside buildings.
- > Rubber boot protectors shall be provided on all welding leads were they make connections at the welding machine

Personal Protective Equipment

Eye and Face Protection

All employees shall wear safety glasses 100% of the time while on the construction site. Minimum eye protection shall include approved safety glasses <u>with side shields</u> which meet the standards specified in ANSI Z-87.1-1989 (this shall also include prescription eye wear).

Additional eye and face protection in combination shall be worn when:

- Welding, burning or cutting with torches
- Using abrasive wheels, portable grinders or files
- Chipping concrete, stone or metal
- Working with any materials subject to scaling, flaking or chipping
- Drilling or working under dusty conditions
- Using explosive actuated fastening or nailing tools
- Working with compressed air or other gases

Only clear safety glasses shall be worn inside any building(s).

Head Protection

All construction workers shall wear hard hats which meet ANSI Z 89.1-1986, 100% of the time while on the construction site. Hard hats shall display the company decal where the employee works.

All delivery personnel, vendors and visitors shall wear approved hard hats while on the project.

Hearing Protection

Page 86

Contract: Contractor Name

Work areas shall be monitored to identify areas of high noise exposure (85 dBA and higher). All work areas identified as high noise exposure shall be properly posted to warn employees of the exposure.

Appropriate hearing protection shall be worn in work areas where noise levels are 85 dBA or greater.

Respiratory Protection

Contractors whose work activities warrants that employees wear respiratory protection, shall establish and implement a respiratory protection program. The program shall meet the requirements set forth in 29 CFR 1926.134.

Foot Protection

All personnel on the construction site shall wear leather hard-soled work boots. No one is permitted to wear sneakers (including ANSI approved), tennis shoes or athletic shoes of any type, sandals, high heels or thongs on the construction site.

Clothing

Suitable clothing for construction shall be worn on the construction site. Shirts with sleeves (at least t-shirt (4 inches) in length), full length pants and reflective safety vests shall be required. Shorts, sweat pants or tank-tops are not allowed.

Appendix A - Safety Orientation

- To be completed by all employees on the jobsite. To be completed by site supervision and bloyee prior to beginning work.
Alcohol and/or drug use, fighting or horseplay are prohibited and will result in immediate termination 100 % eye protection, hard hats and reflective safety vests are required when on the construction project Review potential hazards on the project and the precautions to be taken to prevent injury Disciplinary Policy: Non-serious violation First violation - Verbal warning Second violation - Verbal & written warning Third violation - Verbal & written warning and three day suspension without pay Fourth violation - Employee discharge from company
Serious violation - (see disciplinary policy) First violation - Verbal & written warning Second violation - Employee discharge from company Hazard Communication Program - location of MSDS's and written program on the project All accidents, injuries and unsafe conditions shall be reported to supervisor immediately Medical treatment protocols for injuries requiring off-site medical treatment with a doctor Safety meetings are held on a weekly basis (attendance is mandatory) All employees shall dress properly while working. Minimum attire is long pants, shirt with at least 4 inch sleeves and sturdy above the ankle work boots Ground fault circuit interrupters (GFCI) are required on all tools. All extension cords and power tools shall be properly grounded. Notify supervision immediately if defective equipment exists. All employees exposed to a fall exposure of six or greater, shall be protected by the means of fall protection. Specific training is required for fall protection. Employee are not allowed to work in excavations 4 feet or more in depth, unless they are properly sloped or protected by shielding or shoring Lockout/tagout is required when working on equipment or tools where unexpected start-up may occur or the release of energy may result in injury Before any employee is allowed to wear a respirator (including paper masks) they must be medically approved by a doctor and fittested

Page 87

Contract: Contractor Name

	Scaffolds shall be inspected and tagged prior to use by any personnel. Red tag means DO NOT USE; Yellow Tag means section of scaffold does not meet OSHA standards and Green Tag means SAFE FOR USE.
	Other hazards discussed related to the construction project:
Eq	uipment Issued
	Hardhat
	Safety Glasses
	Orange vest
	Fall Protection Harness & Lanyard
	Respirator
	Other

Page 88

Contract: Contractor Name
Parking Guidance System
MSCAA Project No. 24-1477-00

☐ Show employee around the project and discuss potential	hazards
☐ Introduce employee to crew members	
Assign new employee to experienced work crew	
☐ Specify work duties	
☐ Where to eat lunch	
This is to acknowledge that I have completed new employed Safety Program may be grounds for dismissal.	e orientation and understand that failure to comply with the
Employee Print Name:	Date:
Emergency Contact:	
Employee Signature:	
Supervision Signature:	Date:

To be completed by supervisor in the field with the employee

Page 89

Contract: Contractor Name

Appendix B - Employee Disciplinary Guideline

The discipline policy is intended to encourage compliance with the requirements of the Federal Occupational Safety and Health Act of 1970 (OSHA) and all additions and revisions thereto, as well as other applicable federal, state and local requirements and this Safety and Health Guideline. Workers performing work in an unsafe manner that would endanger the employee, other workers or the public shall be subject to discipline or termination.

The Project Representative in conjunction with the Project Manager and Project Foreman will determine the course of action best suited to the circumstances. The steps to be taken shall be progressive, except in the most egregious circumstances and shall include:

a) Non-Serious – Initial, isolated, or rare instances of violation, that do not result in danger to the employee, property, or others, should be corrected through non disciplinary discussion and instruction. Safety violations of a less serious nature will be handled as follows:

First Offense Verbal Warning Second Offense Written Warning

Third Offense Employee given three-day suspension without pay

Fourth Offense Employee Discharge

b) Serious - One which could result in serious injury or loss of life or serious loss of property, shall be subject to:

First Offense Employee given three-day suspension without pay

Second Offense Employee Discharge

c) **Supervisor Accountability** – If two or more employees working for the same supervisor are found in serious violation as described above, that subcontractor supervisor is also subject to disciplinary action up to and including immediate discharge.

Documentation - Notice of safety violation (written) shall be given to the employee, and a copy sent to the Project Safety Representative.

Page 90

Contract: Contractor Name

Appendix C - Critical Lift Checklist

Project:	Date:	
Description of Lift:		
Name of supervisor in charge of lift:		
Name of crane operator(s):		
Name of signal person(s):		
Crane Data:	Load Data:	
Make and Model:	Gross Load Weight:	
Boom Length:	Rigging Weight:	
Counterweight:	Load block & line Weight:	
Capacity:	Max. Load Radius:	
	Min. Load Angle:	
	Max. Boom Angle:	
	Min. Boom Angle:	
	Net Load Weight:	
Pre-Lift Requirements:		
Load is within chart limits.		
Has the Center of Gravity of the Load bed	en established and marked?	
Is rigging adequate and in good condition	1?	
Load chart utilized is for exact crane mod	del; boom type, length, tip; counterweight.	
Competent person in charge of lift: Name	•	
Competent signal person identified: Nam	e	
Pre-pick meeting held with crew		
Written crane inspection completed within	n 1 day of critical pick	
Swing path not over personnel		
Footing is sound and level (soil conditions/compaction, underground tunnel or utilities).		
Pre-planning for radio or hand signal com	nmunications.	
Minimum clearances from power lines ca	ın and will be maintained.	
The load radius has been measured with	tape measure.	
Weather conditions have been checked,	including wind speed.	
Load will not touch boom at any time.		
For dual crane lift – diagrams have been	prepared.	
Pad blocking is adequate and substantial	l.	
Outriggers are fully extended.		
	Signed:	
	Supervisor in Charge	

Page 91

Contract: Contractor Name
Parking Guidance System
MSCAA Project No. 24-1477-00

Appendix D - Substance Abuse

Policy Statement

The Owner **Memphis-Shelby County Airport Authority** and the OCIP Team are committed to providing project employees with a drug-free and alcohol-free workplace. It is our goal to protect the health and safety of these employees and visitors to our job site, promote a productive workplace, and protect the reputation of our project.

Consistent with those goals, the use, possession, distribution or sale at project sites of drugs, drug paraphernalia or alcohol is prohibited. A program of drug and alcohol testing will be instituted to monitor compliance with this policy.

Contractors / Subcontractors refusing to comply with this Drug and Alcohol Policy will not be permitted to work on this OCIP project and will be noted as being in violation of their contract with the (Project Name) / or other contractors & subcontractors working on this project.

This Policy does not represent a contract between the Owner **Memphis-Shelby County Airport Authority**, Design and Development, the OCIP Team, Owners of project, Construction Managers, General Contractors, Subcontractors, employees or perspective employees of the project.

Policy Administration

It is our combined goal to protect the health and safety of personnel, craft workers, and visitors to our job site; to promote a productive workplace, and protect the reputation of this OCIP.

Prohibited Substances

- Drugs or Drug is defined as any substance which may impair mental or motor function including but not limited to illegal drugs, controlled substances, designer drugs, synthetic drugs, look alike drugs, and under circumstances described in this policy -prescription drugs.
- Alcohol is defined as any beverage or substance containing alcohol, ethyl alcohol or ethanol. "Alcohol Testing or Alcohol test means testing by certified breath-alcohol technician using a DOT approved initial screening device or urine alcohol testing conducted by a certified laboratory and confirmed by gas chromatography/mass spectroscopy (GC/MS)". Test levels must not meet or exceed.04 grams per 210 liter of breath.

Pre-Project Testing

Prior to the beginning work on this Project, employers will be required to insure that all employees have met the requirements of this policy with a negative (passing) test result. Employers and employees not meeting the requirements will not be allowed to work on this OCIP job site.

Additional Testing of Employees

- 1. **Post-Accident**: It is agreed that drug and alcohol testing of employees shall be required after each and every work related incident. This testing shall take place at the medical facility providing treatment for the injury. A work related accident is defined as an accident resulting in an injury requiring treatment by a physician to the employee or other employees injured and / or resulting in damage to property or equipment.
- 2. **Reasonable Suspicion**: Is defined as supervision having a reason to suspect employee drug or alcohol use. The employer will bear the cost of this test.

Points of Understanding Regarding Substance Abuse Testing

Page 92

- The employer, the medical facility and the testing laboratory agree that the results of the described tests are to be held in strictest CONFIDENCE between the employer, the OCIP Workers Compensation Carrier and the medical facility (MRO). This is an issue of employee – employer relationship (employment) and falls under the requirements within the employers program.
- 2. This statement is noted for the purpose of adjudicating a workers compensation claim. The OCIP Workers Compensation Carrier requires the employer to report all accident related drug and alcohol test results to them immediately.

Testing Procedures

- At a minimum pre-project and post-accident testing is required.
- Testing shall include the following drugs at a minimum:
 Marijuana, Cocaine, Opiates, Amphetamines, Phencyclidine, Barbiturates, Benzodiazepines, Methadone, Propoxyphene
- 3. For reasons of safety, any employee subject to a reasonable suspicion test shall be suspended until test results are available.

Prescription Drugs

The use of current valid prescription Drugs that may impair an Employee's ability to safely perform his or her duties must be reported to the safety director, supervisor and management personnel.

Alcoholic Beverages

Under no circumstances are alcoholic beverages allowed on the project site.

Disciplinary Action

- 1. A positive pre-project or post-accident test will result in worker dismissal from this project site
- **2.** Employees found using, selling, possessing or manufacturing drugs shall be removed from this project and may be reported to local law enforcement.

Confidentiality

All actions taken under this policy will be in conformance with the Local Drug Testing Act

Subcontractors and Vendors

Subcontractors, sub-tiered contractors, vendors and their employees shall cooperate with this policy in achieving a drug-free and alcohol-free workplace.

Amendments to Policy

Amendments to this policy may be issued to comply with project owner requirements, state or local laws, or federal contract requirements.

Contract is	equirements.		
Company Name	е		
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Page 93

Contract: Contractor Name

DRUG AND ALCOHOL POLICY ACKNOWLEDGMENT AND ACCEPTANCE STATEMENT

I certify that I have read and understand the statement and policy. I further understand that prior to employment and during employment, I am subject to drug and alcohol screening tests. I agree to provide the specimen appropriate to such drug or alcohol test(s) as may be required. I further understand that my property and I may be subject to search under the terms of this policy while I am on the Owner's premises. Failure to provide the appropriate specimen, or to permit a search, will subject me to removal from this site.

I also understand that I will not be allowed to go to work prior to the reporting of my pre-employment drug test results.

If I am an employee of a subcontractor company, an employee of an affiliate company assigned to the job site, or a contract staff, I understand that I am subject to pre-employment drug testing and all testing conditions of this Policy. Failure to provide the appropriate specimen or to permit a search or a positive test result will result in my immediate removal from this job site.

Signature	Date	
Print Name and Title		
Witness		

Page 94

Guidelines for Reasonable Suspicion

Observation Checklist

1.	Walking	Stumbling _ Swaying _	Staggering Unsteady	Falling Holding On	Unable to Walk Normal	
2.	Standing	Swaying _ Staggering _	Rigid Sagging at Kne	ees	Unable to Stand Feet Wide Apart	
3.	Speech	Shouting Rambling Incoherent	Silent Mute Confused	Whispering Slurred Normal	Slow Slobbering	
4.	Demeanor	Cooperative Silent Sarcastic	Polite Talkative Fighting	Calm Crying	Sleepy Excited	
5.	Actions	Resisting Communicatio Drowsy Calm	Fighting ns Profanity	Threatening	Erratic Hostile	
6.	Eyes	Bloodshot _ Droopy _	Watery Closed	Dilated Normal	Glassy	
7.	Face	Flushed _	Pale	Sweaty	Normal	
8.	Appearance/ Clothing	Unruly _ Body _ Excrement	Messy Stains	Dirty Neat	Partially Dressed Normal	
9.	Breath	Alcoholic _ Odor	Faint Alcohol Odor	No Odor		
10.	Movement	Fumbling _ Nervous _	Jerky Normal	Slow	Hyperactive	
11.	Eating/ Chewing	Gum	Candy	Mints	Other – identify	
12.		ons: (Visible drug use credible reports, etc.)		e, etc.: attendance; po	oor work performance or accident; ta	mpering
Ob:	served by:		(Observed by:		
Dat	e:	Time:		Location:		

Page 95

Appendix E - Supervisor's Report of Bodily Injury

Date of Accident_____

Contractor/Subc	ontractor Involved			
First Aid:	Recordable	Lost Time	Fatality	
Damage*	Fire	Property		
Equipment				
Injured Person:_			SSN:	
Address:			Occupation:	
			Home Phone:	
Male	_ Female	Age		
Nature of Injury:				
Hospital				
Physician				
Witnesses:				
Equipment and/o	or Materials Involved:			
Cause Of Accide	ent:			
Superintendent's	Corrective Action:			
Employee's Sign	ature:			
Supt. Signature_				
		d/or equipment excludir ment or Property" (Appe	ng motor vehicles. Indicate owner endix F).	's names

Location of Accident _____ am/pm

Date Returned to Work:_____

Page 96

Contract: Contractor Name

Appendix F - Report of Damage to Equipment or Property

-						
Yes	S	No)			
	Yes Yes Yes	Obtained No No No No No	Statement Yes Yes Yes Yes Yes Yes	Attached No No No No No		
	Temperature					
		-				
ack of this sheet for	additional info	ormation and	sketches.			
	Title					
	Employe	ee Name				
	\$AM	Yes \$Statement Yes Yes Yes Yes Yes Yes Yes Wet Wet pack of this sheet for additional info	Yes No	Yes No \$ Statement Obtained Yes No Yes Yes No Yes Yes No Yes Yes No Yes Yes No Yes		

Page 97

Contract: Contractor Name
Parking Guidance System
MSCAA Project No. 24-1477-00

Appendix G - Contractor Monthly Report of Safety Statistics

MONTHLY		CONTRACT NO: CONTRACTOR/SUBCONTRACTOR NAME:					
MONTHLY ACCIDENT EXPERIENCE SUMMARY		MONTH YEAR					
		REPORT					
		THROUG					
	THIS MONTH		YEAR TO DATE	PROJECT TO DATE			
HOURS WORKED							
PAYROLL							
A. FIRST-AID CASES							
B. OSHA RECORDABLE CASES							
C. LOST TIME CASES (list each under comments)							
D. TOTAL LOST WORK DAYS							
E. PROPERTY DAMAGE							
F. EQUIPMENT							
G. GENERAL PUBLIC							
OSHA Recordable Incidence Rate*							
Lost Time Incident Rate*							
COMMENTS:							
Prepared By:	Date	F	PM/Superintendent	Date			

Appendix H - Safety Improvement Team Guidelines

The Owner recognizes that a cooperative effort is required to insure a safe construction project. Therefore, the Contractor shall establish a Safety Improvement Team to facilitate the proper cooperative attitude.

The Safety Improvement Team shall be composed of an equal number of employee and management representatives. The management personnel (4) will consist of one Owner representative, one person from the Contractor, one from the workers' compensation/general liability insurance carrier and a representative of subcontractor supervision. The employee members (4) shall be selected from the various subcontractor trades on a voluntary basis or by nomination to serve a minimum of one year each.

The Contractor's Safety Manager shall serve as the Safety Improvement Team advisor and is responsible for providing meeting agendas and minutes, giving assignments to the committee, and publicizing committee accomplishments. Safety Improvement Team meeting minutes and attendance roster shall be maintained.

The Contractor's Safety Manager is responsible for assuring that Committee members are adequately trained to perform their duties and responsibilities.

The Contractor's Safety Manager is responsible for assuring that subcontractors with 25 or more employees establish their own Safety Improvement Team commensurate with the NRS requirements.

The primary purpose of the Safety Improvement Team is to evaluate safety and health program effectiveness, suggestions, hazard reports, hotline reports, etc., and to provide suggestions and recommendations to improve workplace safety.

Additional duties include advising and educating employees in safe working practices, investigating accidents and their causes, recommending preventative measures, inspecting work areas, and other duties as assigned

Meetings shall be held at least monthly, discussion items shall include:

Inspection Reports

Accident Reports

The safety of construction methods and practices

Review and make recommendations on employee hazard reports, hotlines, etc.

The Safety Improvement Team members will receive their regular rates of pay while performing Safety Improvement Team duties. Time spent performing Safety Improvement Team duties shall be documented using normal time reporting procedures.

Page 99

Contract: Contractor Name

EXHIBIT E TO CONSTRUCTION CONTRACT FOR PARKING GUIDANCE SYSTEM

BY AND BETWEEN THE MEMPHIS-SHELBY COUNTY AIRPORT AUTHORITY AND (CONTRACTOR NAME)

FAA REQUIRED CONTRACT PROVISIONS

FAA REQUIRED CONTRACT PROVISIONS - ALL CONTRACTS

Federal laws and regulations require that recipients of federal assistance (Sponsors) include contract provisions in certain contracts, requests for proposals, or invitations to bid. The provisions are as follows:

1. Title VI Clauses for Compliance with Nondiscrimination Requirements (FAA Provision A6.4.1). (Reference: 49 USC § 47123)

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:

- **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.
- **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the 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.
- 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.
- **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.
- **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.

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

Page 100

Contract: Contractor Name

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.

2. Title VI List of Pertinent Nondiscrimination Acts and Authorities (FAA Provision A6.4.5).

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 U.S.C. § 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 U.S.C. § 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 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (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, which 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 (42 U.S.C. §§ 12131 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 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, which ensures non-discrimination 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. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et. seq).

3. Federal Fair Labor Standards Act (FAA Provision A17). (Reference: 29 U.S.C. § 201, et seq.)

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, 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.

4. Occupational Safety and Health Act of 1970 (FAA Provision A20). (Reference: 29 CFR part 1910)

Page 101

Contract: Contractor Name

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. Contractor must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The Contractor 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 (20 CFR Part 1910). Contractor 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.

5. General Civil Rights Provisions (FAA Provision A5). (Reference: 49 U.S.C. § 47123)

The Contractor agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This 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 of Title VI of the Civil Rights Act of 1964. If the Contractor transfers its obligation to another, the transferee is obligated in the same manner as the Contractor. The above provision obligates the Contractor for the period during which the property is owned, used or possessed by the Contractor and the airport remains obligated to the Federal Aviation Administration.

Page 102

Contract: Contractor Name

EXHIBIT F TO CONSTRUCTION CONTRACT FOR PARKING GUIDANCE SYSTEM

BY AND BETWEEN THE MEMPHIS-SHELBY COUNTY AIRPORT AUTHORITY AND (CONTRACTOR NAME)

STATE REQUIRED CONTRACT PROVISIONS

STANDARD TERMS AND CONDITIONS:

Grantees shall not assign an Aeronautics Grant Contract or enter into a subcontract for any of the services performed under an Aeronautics Grant Contract without obtaining the prior written approval of the State. If such subcontracts are approved by the State, each shall contain, at a minimum, sections of the Aeronautics Grant Contract pertaining to "Conflicts of Interest," "Lobbying," "Nondiscrimination," "Public Accountability," "Public Notice," and "Records" (as identified by the section headings). Notwithstanding any use of approved subcontractors, the Grantee shall remain responsible for all work performed.

CONTRACT CLAUSES:

- F.1. Conflicts of Interest. Contractor warrants that no part of the total contract amount shall be paid directly or indirectly to an employee or official of the State of Tennessee as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to MSCAA in connection with any work contemplated or performed relative to this Contract.
- F.2. <u>Lobbying</u>. The Contractor certifies, to the best of its knowledge and belief, that:
 - a. No federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an 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.
 - b. If any funds other than federally 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 contract, grant, loan, or cooperative agreement, the Promisor shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.
 - c. The Contractor shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients 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 and is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352.

F.3. Nondiscrimination. Contractor hereby agrees, warrants, and assures that no person shall be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination in the performance of this Grant Contract or in the employment practices of the Contractor on the grounds of handicap or disability, age, race, color, religion, sex, national origin, or any other classification protected by federal, Tennessee state constitutional,

Page 103

Contract: Contractor Name

or statutory law. The Contractor shall, upon request, show proof of nondiscrimination and shall post in conspicuous places, available to all employees and applicants, notices of nondiscrimination.

F.4. Public Accountability. If the Contractor is subject to Tenn. Code Ann. § 8-4-401 et seq., or if this Contract involves the provision of services to citizens by Contractor on behalf of the State, Contractor agrees to establish a system through which recipients of services may present grievances about the operation of the service program. The Contractor shall also display in a prominent place, located near the passageway through which the public enters in order to receive Grant supported services, a sign at least eleven inches (11") in height and seventeen inches (17") in width stating:

NOTICE: THIS AGENCY IS A RECIPIENT OF TAXPAYER FUNDING. IF YOU OBSERVE AN AGENCY DIRECTOR OR EMPLOYEE ENGAGING IN ANY ACTIVITY WHICH YOU CONSIDER TO BE ILLEGAL, IMPROPER, OR WASTEFUL, PLEASE CALL THE STATE COMPTROLLER'S TOLL-FREE HOTLINE: 1-800-232-5454.

The sign shall be on the form prescribed by the Comptroller of the Treasury. MSCAA shall obtain copies of the sign from the Tennessee Department of Transportation, Aeronautics Division, and upon request from the Contractor, provide Contractor with any necessary signs.

- F.5. <u>Public Notice</u>. All notices, informational pamphlets, press releases, research reports, signs, and similar public notices prepared and released by the Contractor in relation to this Contract shall include the statement, "This project is funded under a grant contract with the State of Tennessee." All notices by the Contractor in relation to this Contract shall be approved by the State.
- F.6. Records. The Contractor and any approved subcontractor shall maintain documentation for all charges under this Contract. The books, records, and documents of the Contractor and any approved subcontractor, insofar as they relate to work performed or money received under this Grant Contract, shall be maintained in accordance with applicable Tennessee law. In no case shall the records be maintained for a period of less than five (5) full years from the date of the final payment. The Contractor's records shall be subject to audit at any reasonable time and upon reasonable notice by the Tennessee Department of Transportation, the Comptroller of the Treasury, or their duly appointed representatives.

The records shall be maintained in accordance with Governmental Accounting Standards Board (GASB) Accounting Standards or the Financial Accounting Standards Board (FASB) Accounting Standards Codification, as applicable, and any related AICPA Industry Audit and Accounting guides.

In addition, documentation of grant applications, budgets, reports, awards, and expenditures will be maintained in accordance with U.S. Office of Management and Budget's *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*.

Contract expenditures shall be made in accordance with local government purchasing policies and procedures and purchasing procedures for local governments authorized under state law.

The Contractor shall also comply with any recordkeeping and reporting requirements prescribed by the Tennessee Comptroller of the Treasury.

The Contractor shall establish a system of internal controls that utilize the COSO Internal Control - Integrated Framework model as the basic foundation for the internal control system. The Contractor shall incorporate any additional Comptroller of the Treasury directives into its internal control system.

Any other required records or reports which are not contemplated in the above standards shall follow the format designated by the head of the Tennessee Department of Transportation, the Central Procurement Office, or the Commissioner of Finance and Administration of the State of Tennessee.

Page 104

Contract: Contractor Name

DIVISION 1 – SECTION 01100

SUMMARY OF THE WORK, SEQUENCE OF CONSTRUCTION & LIQUIDATED DAMAGES

PART 1 GENERAL

Related Work:

1. Documents affecting the work of this Section include but are not necessarily limited to Division 0 and Division 1 and other Sections of these Specifications.

1.01 SUMMARY

SUMMARY OF WORK

- A. The "Project," of which the "Work" of this Contract is a part, is titled Parking Guidance System (PGS).
- B. The "Work" of this Contract is defined in the Contract Documents to include, but not be limited to, design, development, programming, reliability testing, fabrication, unit testing, system testing, packaging, shipping, installation and start-up, documentation, user training, warranty, and maintenance of a PGS for the Economy and Long/Short Term parking garages. It shall also include the design, provision, and installation of dynamic digital signage to display parking space availability. The PGS will generally consist of the following components, features, and functions (quantities may change by future addendum) all as detailed in the Request for Proposals.
- C. Not Used
- D. Not Used
- E. Not Used

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.01 PROJECT PHASING AND COMPLETION

A. This is a fixed-duration Contract required to be substantially completed in TO BE NEGOTIATED BASED ON SUBMITTED SCHEDULE calendar days from the Notice to Proceed ("NTP") date. The project scope of work is as stated in Paragraphs 1.01 (A) and (B) above. Final Completion of the project shall be within TO BE NEGOTIATED BASED ON SUBMITTED SCHEDULE calendar days of the Substantial Completion Date.

<u>Substantial Completion</u> of the project shall be defined as the stage of construction when work is substantially completed and excludes all punch list items, record drawings, O&M manuals, lien waivers, maintenance training, warranties, consent of surety to final payment, and all other required closeout documentation. Substantial completion shall occur when the Work is sufficiently complete in accordance with the Contract Documents, so the Owner can occupy or utilize the Work for its intended use, <u>and</u> when only minor punch list work remains to be done, <u>and</u> a certificate of occupancy has been issued.

<u>Final Completion/Final Acceptance</u> of the project shall be defined as all activities by the Contractor and subcontractors necessary for 100% completion of the work and final project closeout, including all punch list items, O&M manuals, lien waivers, maintenance training,

warranties, Owner Controlled Insurance Program closeout paperwork, DBE paperwork, Final Project Record Documents and all other required closeout documentation and any other documentation requested by the Owner. Final Completion shall include demobilization. Demobilization includes but is not limited to removal of personnel, equipment, contractor-owned stockpiles, supplies, and incidentals from the Project/Phase site; cleanup of all offices, buildings, batch plant, staging/lay-down areas, and other facilities, as applicable to each Project/Phase; and restoration of all areas to preconstruction condition or better or to other condition as stipulated in the project plans and specifications.

- B. 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 the contract time will be charged. Contractor shall be mobilized and on site ready for work on the date stated in the Notice to Proceed.
- C. <u>Mobilization</u> shall consist of all preparatory work and operations needed to begin construction activities on the date mutually agreed including but not limited to, movement of personnel, equipment, stockpiles, supplies and incidentals to the project site; the establishment of all offices, buildings, batch plant, staging/lay-down areas and other facilities necessary for work on the project; all other work and operations which must be performed or costs incurred prior to beginning work on the various items on the project site, and utility services for all offices, buildings, batch plant, staging/lay-down areas, and other facilities.
- D. All days are calendar days.
- E. The work site will be available as described on the plans and applicable sections of these specifications. Work is permitted 24 hours per day, 7 days per week. Excessive noise producing activities shall be limited between the hours of 7:00 AM and 6:00 PM (Local Time). Excessive noise producing activities should be restricted and will not be permitted to interrupt normal Airport Operations, except with prior written approval of the Owner. Airport Operations, including but not limited to aircraft, vehicular, pedestrian and/or passenger traffic flow(s) are to be planned and discussed with final written approval of the Owner, and prior to any change(s). All change(s) shall be provided sufficient time for communication to all stakeholders and to the public.
- F. 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.
- G. 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.
- H. If the Contractor is prevented from working due to any other legitimate/excusable reason, he shall notify the Owner in writing as per the Contract of the delay and request a corresponding increase in the number of contract days.
- I. The Owner reserves the right to adjust the 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. If adjustment in construction limits is required, the Owner and Contractor shall collaborate to minimize schedule or cost impacts.

3.02 LIQUIDATED DAMAGES

- A. The OWNER and the CONTRACTOR recognize that time is an essential element of this contract and that delay in completing this project will result in damages due to public inconvenience, obstruction to aviation and vehicular traffic, interference with businesses both on and off the airport, increased operational costs to airport users, and increased costs to the OWNER associated with engineering services, inspections, testing, and project administration. It is therefore agreed that in view of the difficulty of making a precise determination of such damages, the CONTRACTOR will pay the OWNER, sums of money in the amounts herein stipulated, not as a penalty, but as Liquidated Damages for not meeting the schedule for specific critical Project Milestones.
- B. If the CONTRACTOR fails to deliver equipment or materials, or perform any services within the times and dates specified in this Contract to achieve the established Milestones, or any extensions granted in writing, the CONTRACTOR shall pay to the OWNER as Liquidated Damages, the sums specified in Table 1, below:

Table 1

Milestone	Completion Date	Liquidated Damages		
Substantial Completion	INSERT # OF DAYS	\$1,000 per Day or any portion thereof		
Substantial Completion	calendar days			
Final Completion	INSERT # OF DAYS	\$500 man Day on any montion themself		
Final Completion	calendar days	\$500 per Day or any portion thereof		

- C. Application of Liquidated Damages is not a Change to the Contract. The application of any Liquidated Damages to one Milestone shall not effect a change in the subsequent Contract Milestone dates or relieve CONTRACTOR of his responsibility to meet all construction schedules. If multiple Milestone dates are missed, Liquidated Damages for more than one Milestone will be imposed concurrently.
- D. If Liquidated Damages are imposed, the OWNER shall deduct the same from any amounts due the CONTRACTOR at the time Liquidated Damages are imposed. If sufficient amounts are not due to the CONTRACTOR to cover such Liquidated Damages, then the OWNER shall invoice the CONTRACTOR for the amounts due to the OWNER. Such invoices shall become due and payable immediately upon receipt by the CONTRACTOR.
- E. Liquidated Damages are in addition to any other damages or penalties which may be assessed and withheld under other provisions of this contract.

END OF SECTION 01100

DIVISION 1- SECTION 01320

SCHEDULES AND REPORTS

PART 1 GENERAL

1.01 SUMMARY

A. The work under this Contract shall be planned, scheduled and reported using computerized precedence diagram format of the Critical Path Method in calendar days, unless otherwise specifically provided in the Contract Documents. The Detailed Construction Schedule shall be developed by using the latest revision of Microsoft Project or approved equal computer software.

B. Related Work:

- Documents affecting work of this Section include but are not necessarily limited to other Sections of these Specifications.
- 2. Other provisions concerning Schedules and Reports are stated to Specification Sections: 01100 Summary of Work, Sequence of Construction & Liquidated Damages

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

- A. The Detailed Construction Schedule shall be developed by using the latest revision of Microsoft Project or approved equal computer software that is compatible with Owner's scheduling software.
- B. The primary objectives of the requirements of this section are:
 - 1. to insure adequate planning and execution of the Work by Contractor;
 - 2. to assist Owner and Program Manager in evaluating the progress of the Work;
 - 3. to provide a mechanism or tool for use by the Owner, Program Manager and Contractor in determining and monitoring any actions of the Contractor which may be required in order to comply with the requirements of the Contract relating to the timely completion of the various portions of the Work;
- C. The Detailed Construction Schedule, defined in Paragraph 3.04, shall represent the Contractor's commitment and intended plan for completion of the Work in compliance with the Contract. The Contractor will not:
 - 1. Misrepresent to the Owner its planning, scheduling, and coordination of the work;
 - 2. Utilize schedules different from those provided to the Owner and Program Manager for the direction, execution and coordination of the work;
 - 3. Utilize schedules which are not feasible or realistic; or
 - 4. Prepare schedules, updates, revisions or reports which do not accurately reflect the Contractor's actual intent or the Contractor's reasonable and actual expectations as to: the

sequences of activities, labor availability, productivity, or efficiency; expected or reasonably foreseeable inclement weather conditions; the percentage complete of any activity or path of activities; completion of any item of work or activity; projected dates of completion; delays, slippage, or problems encountered or expected and Subcontractor requests for time extensions,

- D. Once approved by the Program Manager or Owner, the Detailed Construction Schedule will become the Schedule of Record for coordinating the work, scheduling the work, monitoring the work, issuing progress payments, evaluating time extension requests, and all other objectives listed in Paragraph 3.01.B. The Contractor is required to employ whatever means he deems necessary to implement the Detailed Construction Schedule and to comply with the requirements of this Section. Updates shall be provided to the Program Manager or Owner at each construction progress meeting or as requested by the Program Manager or Owner. Updates shall be both electronic media and hard copy.
- E. Contractor is responsible for determining the sequence of activities, the time estimates of the detailed construction activities and the means, methods, techniques and procedures to be employed. Each construction schedule shall represent the Contractor's best judgment of how he will prosecute the Work in compliance with the Contract.
- F. Contractor shall consult with his Subcontractors and Suppliers (if any) relating to the preparation of each construction schedule. Subcontractors shall receive copies of each construction schedule and shall be continually advised of any updates or revisions to each construction schedule as the Work progresses.
- G. When there are separate contractors working concurrently at the Airport whose work must interface or be coordinated with the Work of Contractor, Contractor shall coordinate his activities with the activities of the separate contractors and shall, as part of the submission of the construction schedule, include a summary of the schedule coordination between projects.
- H. To carry out the intent of this Section, the Contractor agrees that the reasonable exercise of any rights under this Section by the Engineer or Owner shall not be grounds for any claim by Contractor or any of his Suppliers, Subcontractors or Sub-subcontractors of alleged interference, lack of cooperation, delay, disruption, negligence or hindrance by Owner or Engineer, and Contractor covenants not to sue therefor.
- I. It is understood and agreed that the Detailed Construction Schedule, defined in Paragraph 3.04, is to represent Contractor's best plan and commitment for the Work; however, Contractor acknowledges that the Detailed Construction Schedule may have to be revised from time-to-time as progress proceeds. Contractor further acknowledges and agrees that the Owner and Program Manager shall be notified immediately of any changes, modifications or adjustments to the schedule which cause scheduled milestones to change. Changes to Substantial Completion and Final Completion must be approved by the Owner.
- J. It is understood and agreed that should the Program Manager or Owner provide the Contractor, at Contractor's request, with any advice relating to the scheduling or coordination of the Work or any other matter that:
 - 1. Owner and Program Manager shall not be liable to Contractor for any errors, omissions, negligence or deficiencies which may in any way occur because of same;
 - 2. Such advice is provided solely as aids in the development by Contractor of a representation of Contractor's actual construction plan and schedule in accordance with the requirements of the Contract Documents, and Owner and Program Manager shall not be liable to Contractor should Contractor rely on such advice or counsel to his detriment;

- 3. Such advice shall not relieve Contractor of any responsibility under Paragraph 3.01.E hereof for all construction means, methods techniques, sequences and procedures and for planning, scheduling and coordinating all portions of the Work; and
- 4. Any advice provided by the Program Manager or Owner or the lack or alleged untimeliness thereof will not in any way take the place of or relieve the Contractor of full responsibility for compliance with all requirements of the Contract, including, but not limited to the obligations to complete the Work within the Contract.
- K. Approval or acceptance by the Owner or Program Manager of any Contractor's construction schedule, or any revisions or updates thereto, shall not relieve the Contractor of the responsibility for accomplishing the Work by the Project Substantial Completion date.
- Contractor shall be solely responsible for expediting the delivery of all materials and equipment to be furnished by him so that the progress of construction shall be maintained according to the currently approved construction schedule for the Work. Contractor shall notify the Owner or Program Manager in writing, and in a timely and reasonable manner, whenever Contractor determines or anticipates that the delivery date of any material or equipment to be furnished by Contractor will be later than the delivery date indicated by the currently approved construction schedule, or the current update thereof as herein provided.

3.02 NOT USED

3.03 DETAILED CONSTRUCTION SCHEDULE DRAFT

- A. No later than two (2) weeks after the Notice to Proceed, the Contractor shall complete a draft of the Detailed Construction Schedule in accordance with the requirements of this Paragraph 3.03.
- B. The Detailed Construction Schedule Draft shall represent the Contractor's commitment and intended plan for completion of the Work in compliance with Contract Times listed elsewhere in the Contract. The Detailed Construction Schedule Draft shall take into account all foreseeable activities to be accomplished by any separate contractors, and interface dates with utility owners, the Owner's operations and others. The Detailed Construction Schedule Draft shall anticipate all necessary manpower and resources to accomplish the activities within the durations set forth therein.
- C. The Detailed Construction Schedule Draft shall consist of a time-scaled, detailed network graphic representation of all activities, which are part of the Contractor's construction plan. The Detailed Construction Schedule Draft submission shall include, but not be limited to, the following information:
 - 1. Project name;
 - 2. Activities of completed Work ready for use by next trade, Owner, etc.;
 - 3. Activities relating to different areas of responsibility, such as subcontracted Work, which is distinctly separate from that being done by the Contractor directly;
 - 4. Activities relating to different categories of Work as distinguished by craft or crew requirements;
 - 5. Activities relating to different categories of Work as distinguished by equipment requirements;
 - 6. Activities relating to different categories of Work as distinguished by materials;
 - 7. activities relating to distinct and identifiable subdivisions of Work;
 - 8. Activities relating to locations of Work within the Project that necessitates different times or crews to perform;
 - 9. Activities relating to outage schedules for existing utility services that will be interrupted during the performance of the Work;
 - 10. Activities relating to acquisition and installation of equipment, materials and supplies installed by the Owner and/or separate contractors;
 - 11. Activities relating to material to be stored on site;
 - 12. Contract Times consistent with those required in the contract;
 - 13. Milestones as identified in the Scope of Services.

3.04 DETAILED CONSTRUCTION SCHEDULE

- A. Prior to any monthly Application for Payment, the Contractor shall complete the Detailed Construction Schedule to the satisfaction of the Program Manager or Owner.
- B. The Detailed Construction Schedule shall represent the Contractor's commitment and intended plan for completion of the Work in compliance with the Contract.
- C. The Owner/Program Manager reserves the right to require the Contractor to furnish such manpower, materials facilities and equipment and shall work such hours, including additional shifts and overtime operations as may be necessary, to ensure completion of the Work or specified portions thereof within the specific dates as set forth in the Contract Documents. If it becomes apparent to the Owner or Program Manager that the work, or any required portion thereof, will not be completed by any such dates, the Contractor shall undertake the following actions, at no additional cost to the Owner, and comply with the requirements as set forth in Section 01320, 3.07 and 3.08, in order to ensure that it complies with all completion requirements:
 - 1. Increase the quantity of manpower, materials, trades, crafts, and equipment and facilities on the site;
 - 2. Increase the number of working hours per shift, shifts per working day, or any combination of the foregoing; and
 - 3. Reschedule activities to achieve maximum activity accomplishment.

C. Detailed Construction Schedule Content

- 1. The Detailed Construction Schedule shall consist of a time-scaled graphic representation of all activities, which are part of the Contractor's construction plan and an accompanying listing of each activity's dependencies and interrelationships.
- 2. All activity durations shall be given in calendar days
- Contractor shall plan his operations and schedule the work to ensure that the critical path
 runs through on-site construction activities and that off-site procurement activities do not
 control the critical path of the Detailed Construction Schedule, unless approved in writing
 by the Owner or Program Manager.

3.05 WEATHER RELATED DELAYS

- A. If the basis exists for an extension of time in accordance with Section 3.03(a) of the Contract, an extension of time on the basis of weather may be granted only for the number of Weather Delay Days in excess of the number of days listed as the baseline for that month.
- B. The Contractor shall anticipate and account for, as a minimum, the potential loss of the number of **baseline** calendar days listed below for each calendar month due to bad weather and shall schedule the work accordingly.

Vertical Construction Projects (Buildings)											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
6	6	8	6	8	5	6	6	4	5	5	7

- C. The preceding days were derived from historical data provided by the National Climatic Data Center regarding rainfall at Memphis International Airport. They represent a number of calendar days for each month during construction activity exposed to weather conditions is expected to be prevented and suspended by cause of adverse weather. Suspension of construction activity for the number of days each month as listed in 3.05B above is included in the work and not eligible for extension
- D. The calendar days listed above in 3.05B are the minimum number of weather-related days the Contractor shall consider in developing his Detailed Construction Schedule. It is further understood that said calendar day period shall be derived through assuming that work will take place on a calendar day basis. The Contractor shall make their own determination as to the likely impact of weather on his operation and shall include as part of the Detailed Construction Schedule submission an accounting of how the impact of anticipated weather was determined and accounted for in the schedule.
- D. A Weather Delay Day may be requested if adverse weather prevents the contractor or subcontractor from working 6-hours (Working Day) for critical path construction activities included in the day's schedule. Weekend days or holidays may only be considered if the Contractor had previously scheduled critical path construction activities on that day.
- E. The existence of Weather Delay Days in excess of the table above will not relieve the Contractor's obligation to demonstrate and document that delays caused by abnormal weather are specific to the planned work activities or that such activities thus delayed were on Contractor's then-current Progress Schedule's critical path for the Project.
- F. Reconciliation of Weather Delay Days will be determined on a monthly basis.
- G. In the event Weather Delay Days exceed the number of baseline days stated above in a given month, the Contractor will receive day-for-day time extension for each calendar month above the baseline days in accordance with Section 3.03(a) of the Contract.

3.06 UPDATING OF CONSTRUCTION SCHEDULE/PROGRESS REPORTS

A. The Detailed Construction Schedule will be reviewed and updated as needed during each project progress meeting.

3.07 RECOVERY SCHEDULE

A. Should the updated Detailed Construction Schedule, at any time during Contractor's performance, show, in the sole opinion of the Owner or Program Manager, that the Contractor is fourteen (14) or more days behind schedule for any location or for a proven contractor delay category of work, or should Contractor be required to undertake actions under Paragraph 3.04.C hereof, the Contractor shall immediately prepare a Recovery Schedule explaining and displaying how Contractor intends to reschedule his Work in order to regain compliance with the Approved Detailed Construction Schedule during the immediate subsequent pay period.

3.08 SCHEDULE REVISIONS

A. Should Contractor desire to or be otherwise required under the Contract to make modifications or changes in his method of operation, his sequence of Work or the durations of the activities in his Construction Schedule, he shall do so in accordance with Paragraph 3.04 of this specification. The approved Detailed Construction Schedule may only be revised by the written approval of the Owner or Program Manager as provided herein.

END OF SECTION 01320

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Memphis-Shelby County Airport Authority

Memphis, Tennessee

Attachment K MSCAA Design and Construction Standards

MSCAA DESIGN GUIDE and CONSTRUCTION STANDARDS

INDEX

SEC ₁	Γ ION	<u>PAGE</u>
Airfie	eld Construction Standards	2
A.	Joints and Joint Sealants	2
B.	Sodded Areas	2
C.	Drainage	2
D.	Concrete Aprons	
E.	Perimeter Fence	
F.	Construction Contractors	3
Airfie	eld Electrical Construction Standards	4
A.	General	4
B.	Testing	
C.	Constant Current Regulators	
D.	Marking and Labeling	
E.	Lighting Cans, Junction Cans, Junction Can Plazas and Hand Holes	
F.	Connectors	
G.	Fixtures	
Н.	Signs	
Facili	ties Construction Standards	
A.	General	
В.	Penetrations	
C.	Signage	
D.	Electrical	
E.	Mechanical	
F.	Plumbing	
G.	Fire Alarm and Suppression Systems	
Н.	Antennae	
I.	Miscellaneous	
J.	Construction Contractors	
	ng Standards	
Α.	Airfield	
B.	Roads	
C.	Paint Vendors	
D.	Terminal, Concourses, and South Parking Garage	
E.	Administration Building	
F.	Airfield Maintenance Building	
G.	Miscellaneous	
	rred Equipment	
A.	Architectural Finishes	
B.	Plumbing & Restrooms	
C.	Doors	
D.	Electrical	
E.	Mechanical	
F.	Miscellaneous	25

Airfield Construction Standards

A. Joints and Joint Sealants

- 1. All joints to be beveled on new construction and reseal projects.
- 2. All concrete joint sealants to be a non-sag silicone or preformed material. Silicone is preferred on reseal projects.

B. Sodded Areas

- 1. All safety areas are to be 100% sod.
- 2. All areas that have had earth disturbed shall be sodded and fertilized.
- 3. Any sodded area within 2' of an apron, pad or drainage structure shall be compacted to a minimum of 95% (Modified Proctor).

C. Drainage

- 1. Concrete down drains should be installed on any area that is sloped for drainage.
- 2. Any drain pipes that travel outside the SIDA fence should have proper security grates installed.
- 3. Outlets should have a run off pad; concrete if preferred but asphalt is acceptable for aprons or run-off pads.
- 4. The sub-base for concrete down drains, drain inlets or outlets should be compacted to a minimum of 95% (Modified Proctor).
- 5. All drain and under drain joints or connections should be properly grouted or sealed. All drain inlets and manholes boxes entries shall be properly grouted or sealed inside and outside junction structure.

D. Concrete Aprons

- 1. All sign bases, junction boxes and manholes on new construction are to have a minimum of a 6 ft. apron around the sign or structure, sloped away from the sign or structure.
- 2. Aprons should have a minimum thickness of 4".
- 3. Aprons should be flush with the structure bases and sloped to be flush with soil. The slope shall not exceed the FAA maximum.
- 4. The sub bases should be compacted for the structure bases and aprons to a minimum of 95% (Modified Proctor).

E. Perimeter Fence

- 1. Perimeter fence shall be a minimum of 10' tall fabric and shall include three-stand, double-sided barbed wire and 18" diameter concentric razor wire secured at 12" spacing.
- 2. Perimeter fence shall include a 6' paved lane under the fence. This will eliminate washouts, animal intrusions, reduce maintenance, and allow easy inspections by Airport Police.
- 3. Rolling, automatic gate operators shall be commercially/industrially rated and designed for high-security environments. Operators for gates with openings less than 15 feet must

operate at a minimum speed of 20" per second. Operators for gates with openings 15 feet or wider must include variable frequency drives and operate at a minimum speed of 36" per second.

F. Construction Contractors

- 1. The Contractor shall maintain all sodded areas through the duration of the contract. The Contractor shall be responsible for the upkeep of contracted areas including grass cutting, rut repair and maintaining proper drainage ditches.
- 2. Security grates that are installed must be maintained and in good working order by the contractor for the duration of the contract.
- 3. All areas that were used by the contractor must be left in conditions that will not hinder the normal routine maintenance of Airfield; this includes, but is not limited to debris removal, grading, drainage, and re-seeding or sod.

Airfield Electrical Construction Standards

A. General

- 1. Work performed shall be accomplished by crews with a minimum of one licensed journeyman per three apprentices.
- 2. All temporary cable installations shall be protected either by burying cable in grass areas or by installation in conduit for above ground applications. Other methods may be used for short term or emergency situations if approved by the Airfield Maintenance Electrical Supervisor. Location of temporary cables shall be marked sufficiently to prevent damage from construction and maintenance equipment.
- 3. In all circumstances enough cable shall be provided at light cans, junction cans and hand holes so as to allow a minimum of 3 feet extending above ground for maintenance purposes. The exception to this is in the installation of taxiway centerline lights on SMGCS routes where two interleaved circuits are present in the same light can. In this instance only the circuit that is attached to the transformer in an individual light can, should have the extra conductor provided. This prevents the can from becoming cluttered unnecessarily.
- 4. Constant current series circuits shall be limited in capacity to a maximum of 20kW. Preferred capacity is 15kW or less.

B. Testing

- 1. The contractor shall furnish all necessary equipment and appliances for testing the underground cable circuits after installation.
- 2. The contractor shall demonstrate that all lighting power and control circuits are continuous and free from short circuits and unspecified grounds.
- 3. The insulation resistance to ground of all non-grounded series circuits shall be not less than $500 \text{ M}\Omega$ and shall be maintained at the required level by the contractor during the term of the warranty period.
- 4. Each new series circuit, or new part of existing circuits being extended or replaced, shall be tested as follows:
 - i. Low voltage megger tests shall be performed to comply with (c.) above. Circuits shall then be subjected to a Hi-Pot test in accordance with engineer's specifications.
- 5. All new fixture installations may, at the owner's request, be subjected to photometric testing to certify performance in accordance with FAA specifications.

C. Constant Current Regulators

- 1. The constant current regulators shall be magnetic designs; the susceptibility to extraneous signals of solid-state designs is not acceptable. The regulators shall not have solid-state controls in the series circuit and shall be designed to prohibit radio communications interference. The regulators shall limit transient current peaks without the use of solid-state series circuit controls with soft-on feature.
- 2. Each regulator shall include a true RMS ammeter, and ON/OFF/REMOTE switch and brightness controls.

- 3. In addition, the regulators shall be provided with SPDT contacts rated 2 amperes at 120 volts to indicate the following functions for remote monitoring:
- 4. REMOTE/LOCAL selected at control switch. Primary Power ON.
- 5. Constant current regulators, including standby regulators furnished or installed by the contractor shall be provided with seismic restraints and include all necessary equipment including control and monitoring equipment (Crouse-Hinds/Transtech digitrac units) to make the regulators operational.

D. Marking and Labeling

- 1. Wire identification. The contractor shall furnish and install self-sticking wire labels or identifying tags on all control wires at the point where they connect to the control equipment or to the terminal blocks.
- Series circuit cables shall be identified with Thomas and Betts ty-rap #TY546MT or approved equivalent suitable for wet environments. Metal tags secured by tie wire or other means shall not be acceptable. All marking means shall be approved by the Airfield Maintenance Electrical Supervisor.
- 3. All conductors of series circuit conductors shall be marked with their circuit designation at all points where the conductor is accessible.
- 4. The contractor shall furnish and install engraved plastic labels on the cases of regulators, breakers, and distribution and control relay cases. All circuit breakers or other disconnecting means shall be marked and identified with their circuit designation.
- 5. Fiber optic runs should include #10 THWN stranded yellow tracer wire for locating purposes and connected in its entirety as a continuous conductor. Alternatively, armored fiber optic cables will be considered in lieu of tracer wire.
- 6. Underground electrical warning tape shall be installed above all underground conduit installations not concrete encased in unpaved areas. Warning tape shall be located as shown on the plans above the counterpoise wire.

E. Lighting Cans, Junction Cans, Junction Can Plazas and Hand Holes

- 1. Except in extreme cases where other means are not practical, manholes or hand holes larger than 4 feet x 4 feet x 4 feet deep shall not be used.
- 2. Hand holes shall be equipped with spring loaded/assisted hinged covers of a design easily opened by one person.
- 3. The preferred method of connectivity shall be by use of junction can plazas consisting of FAA L-868 cans installed in concrete plazas. Each can shall contain a single circuit with the designation of the circuit imprinted in a brass marker embedded in the concrete adjacent to the can. If deemed necessary, and at the approval of the Airfield Maintenance Electrical Supervisor, more than one circuit may be installed in a conduit/can. Can lids should be flush with concrete plazas with dam rings on the cans.
- 4. All ducts installed under paved areas shall be encased in concrete.
- 5. All unused conduits shall have the open ends plugged with removable tapered plugs and be provided with a pull rope equivalent to IDEAL Power-Fish pull line (200 lb strength)

- 6. Drain lines shall be installed to provide positive drainage to eliminate standing water in airfield lighting bases, junction cans, and hand holes in locations determined by the designer.
- 7. L-868 cans used for the installation of in-pavement lights shall be of a two-piece design with the top section including a multi-hole ring (VEGA #2419MEM) as manufactured by Jaquith Industries.
- 8. Fixture hold down bolts shall be all-thread stainless steel, type 304 or as recommended by the fixture manufacturer.
- 9. Fixture hold down bolts for in-pavement lights shall be tightened to the proper torque per fixture manufacture's specifications. All bolt holes shall be cleaned using a source of compressed air prior to installation of any bolts. Threads on all bolts shall be coated with anti-seize compound approved for use on stainless steel. Bolts shall not extend past the threaded adapter ring or into the can. Final tightening of the bolts shall be done using a properly calibrated torque wrench of the required range and verified by the engineer. Electrically or pneumatically operated wrenches shall not be used to achieve the final torque on bolts.
- 10. Lock washers installed on hold down bolts for all fixtures shall be two piece 316 or 316L stainless steel washer. CRC type washers shall not be acceptable.
- 11. All cans shall have factory-installed hubs. Grommet cans are **not** acceptable unless approved for the application by the Airfield Maintenance Electrical Supervisor. Stub-in connections into existing light bases shall be Meyers hub installation.

F. Connectors

1. L-823 connectors used to splice L-824 type C #8 AWG cables shall be Elastimold style 54-D4-D4 or equivalent. L-823 connectors shall be made waterproof by a double layer of rubber tape (scotch 23 or equal) covered by a double layer of plastic tape (scotch 88 or equal). Heat shrink, is not allowable. One-piece shrink kits that encapsulate the entire splice shall not be used. Provide Scotch 23/Scotch 88 waterproofing at center connection to extend 1-1/2" each side of break and at each end of splice kit.

G. Fixtures

- 1. Runway and taxiway elevated light fixtures shall use a quartz bi-pin type lamp of the minimum wattage required for the application unless LED fixtures are approved by Airfield Maintenance Electrical Supervisor.
- 2. In-pavement fixtures should be manufactured of aluminum and utilize no more than two lamps with a maximum total wattage of 100 watts per fixture. L-850C edge lights and fixtures used for stop bars and runway guard lights may exceed this wattage, however.

H. Signs

- 1. Signs should be re-lampable without the use of tools.
- 2. Concrete foundations for signs shall contain separate housings for transformers. Transformers shall not be housed under a leg of the sign or any portion of the sign. Sign power should be fed through the sign leg.

- 3. Where practical, signs should be style 5, size 3, and be installed on a dedicated circuit.
- 4. All signs installed on the airfield should be marked on each end with 4" vinyl reflective labels with the sign's designation as shown on the plans.

Facilities Construction Standards

A. General

- All work shall comply with the applicable construction codes and MSCAA standards. The
 contractor shall be responsible for construction code permits and shall arrange for all code
 required inspections. Copies of permits shall be supplied to the Manager of Building
 Maintenance.
- 2. Utilities will not be interrupted without prior coordination and approval from the MSCAA Building Maintenance Manager, telephone number (901) 922-8615 or the Maintenance Service Desk at (901) 922-8040. Approval is required for each and every interruption. A minimum of a 24-hour notice is required for utility interruptions.
- 3. All salvaged equipment shall be returned to MSCAA at their designated location for their use or disposed of off-site as directed by MSCAA.
- 4. Asbestos Containing Materials (ACMs) are specifically prohibited without specific written approval from MSCAA. Any installation of ACMs without prior written approval must be removed immediately by the installer in accord with local ACM removal regulations.

B. Penetrations

- 1. All concrete floor and roof penetrations must be accomplished by core drilling. Use of rotary hammer or other impact tools for this purpose is prohibited. Core drilling efforts must be coordinated with tenants occupying space below the cored floor slab. The contractor will be responsible for any damage resulting from core drilling.
- 2. Sealing of new and pre-existing floor penetrations must be filled full depth with hydraulic cement and sealed with epoxy or polyurethane caulk as noted under the Preferred Brands heading (pages 17 & 18). The installation shall be inspected by the MSCAA Development Division. Contractor shall coordinate with MSCAA Development Division for any x-ray or ultra-sound requirements for concrete floor/roof penetrations. No drilling through concrete beams unless approved by Development.
- 3. When drilling or core drilling through floors, walls, ceilings etc., the contractor is responsible for inspecting for electrical, plumbing, etc and is fully responsible for all repairs to anything damaged.
- 4. No drilling or ramset fastening is allowed in pan sections of the concrete structure. Any attachments installed above the ceiling will be suspended from the joist structure only.
- 5. No holes shall be drilled and no anchors shall be attached to the glazed brick, glazed wall tiles, or metal wall panels. Attachments shall be anchored in the mortar joints exclusively.
- 6. Penetrations through the roof are typically prohibited. When unavoidable, roof penetrations shall be coordinated with MSCAA and will be the responsibility of the contractor to restore the roof to such a condition as not to invalidate the roof warranty.
- 7. Hydraulic cement and core drill sealant shall be installed full depth. After curing, epoxy or polyurethane caulk shall be applied at the bottom of the plug and polyurethane caulk shall be applied at the top surface.

C. Signage

1. Signage shall comply with the standards established by MSCAA and final approval shall be the responsibility of MSCAA Development Division.

D. Electrical

- 1. Fiber optic runs should include #10 THWN stranded yellow tracer wire for locating purposes and connected in its entirety as a continuous conductor. Alternatively, armored fiber optic cables will be considered in lieu of tracer wire.
- 2. All electrical conductors will be installed in conduit and use of flex conduit is limited to runs of 6 feet or less. Conduit couplings and connectors utilizing setscrew fasteners are prohibited. Conduit shall be concealed from public view wherever possible. All conduits and electrical raceways shall contain an equipment grounding conductor.
- 3. All electrical conductors #14 AWG & larger shall be stranded copper wire unless otherwise approved in writing by MSCAA.
- 4. All emergency devices including emergency lights, exit lights, etc., shall be connected to emergency circuits. MSCAA does not allow battery packs.
- 5. MSCAA does not allow Bodine ballasts in fluorescent lighting fixtures. LED is preferred in all lay-in fixtures. Prior approval by Development must be received for use of fluorescent lay-in fixtures and the lamps shall be T8.
- 6. All use of cable trays is subject to MSCAA review and approval. Conduit installation must be independently supported and shall not be strapped to cable trays or any of the cable trays' support systems, including hangers and braces.
- 7. All equipment shall meet the appropriate UL listing for its intended purpose.
- 8. 23-kV rated cable shall conform to MLG&W standards. This requires cable having an aluminum or copper conductor, extruded conductor shield, ethylene propylene rubber insulation, extruded semi-conducting insulation shield, copper concentric neutral, and polyethylene jacket. The cable shall be suitable for direct burial, conduit/duct and aerial installations. All designers should re-verify MLG&W standards prior to publication of construction documents.

E. Mechanical

- 1. The use of flex duct shall not exceed more than four (4) feet and banded with metal straps, no tape. Use of flex duct other than at the end of a line or connected to air diffusers must be approved by MSCAA.
- 2. Controls for the HVAC system shall be open architecture and compatible with the JCI Metasys Extended Architecture System.
- 3. VAV Boxes shall be pressure dependent, electronic controls with no auxiliary fan or local filter.
- 4. A copy of the test and balance report shall be submitted to MSCAA Development. An independent contractor shall perform the testing and complete the report.
- 5. The contractor shall align all motors to the associated pump, gearbox, fan, etc. MSCAA Development and Maintenance shall inspect alignment prior to acceptance. Maximum

- allowable angular and parallel misalignment is 0.003.
- 6. Heat trace cables shall have indicator lights installed in a visible location that illuminate when the cables are in operation.
- 7. UV lighting in HVAC and HEPA (MERV-14 Rating) filtration systems.

F. Plumbing

1. Brass ball valves shall be installed at the water supply point of origin and in the ceiling directly above any newly installed plumbing fixture where a utility chase wall is not present. If a walk-in utility chase exists, then ball valves shall be installed in the accessible chase no more than five (5) feet above finished floor. There shall be no more than 4 plumbing fixtures on one ball valve. Brass valve tags shall be placed on all newly installed valves clearly identifying the origin and destination.

G. Fire Alarm and Suppression Systems

- 1. The fire suppression system shall interface with the airport's Simplex Fire Alarm System.
- 2. All dry sprinkler pipe and fittings must be galvanized. All grooves in piping shall be the correct depth per industry standards.
- 3. See section Facilities Construction Standards Construction Contractors for additional requirements.

H. Antennae

- 1. All work shall comply with the applicable construction codes and MSCAA standards.
- No antenna is permitted on the roof; it must be installed within the infrastructure on one of
 the antenna farms or roof mounted antenna racks or in very limited cases with prior
 approval parapet mounted. Proposed antenna locations must be approved by MSCAA
 Development.
- 3. Cables are not allowed on the roof or to run bare down a wall. A conduit from the parapet location down the wall with an LB connector into the wall below the spandrel beam is required. Parapet mount must be properly sealed to prevent leaks through the concrete. Any wall penetrations must also be sealed. Cables from antennas mounted on racks must utilize the conduit pathway at the rack location.
- 4. Cables above the ceiling must be independently supported from the roof structure and run by a licensed low voltage contractor, or a licensed electrical contractor, in accordance with applicable codes.
- 5. Installer shall be responsible for construction code permits and shall arrange for all code required inspections. Copies of permits shall be supplied to the Manager of Building Maintenance.
- 6. MSCAA Maintenance will not provide the escort for antenna work; either installer or Operator must be badged or tenant will have to escort antenna personnel.

I. Miscellaneous

1. Relocation and/or removal of any security device including CCTV cameras, access control

- equipment, etc. must be approved by MSCAA Development.
- 2. Non-shrink grout shall be used with all tile work, up to four (4) feet in height, laid on top of an approved waterproofing membrane.
- 3. All 12" X 12" ceiling tile shall be installed with the arrow on the back of the tile pointing south.
- 4. All flammable gas and liquid systems that are piped into buildings shall be properly equipped with seismic shutoff valves. Seismic shutoff valves shall be designed and installed to comply with all governing code requirements, insurance requirements, and MSCAA Construction Standard requirements. In the case of conflict between the listed requirements, the most stringent shall apply.
- 5. For in-pavement loop installations, loop wire must meet IMSA Spec 51-7. Lead-in wire, if needed, must meet IMSA Spec 50-2. Loop wire shall be one continuous length with no splices from the junction box or control cabinet and back again. The wire shall be twisted by hand four twists per foot in the lead-in slot. Loops must be cut in a rectangular shape, with each 90 degree corner transected with a 45 degree cut to prevent over bending/stressing of the loop wire. Loop saw cuts should be ½" to 3/8" wide and a minimum of 1½" deep in concrete and 2" deep in asphalt. Loop Lead-in saw cuts should be 3/8" wide and a minimum of 1½" deep in concrete and 2" deep in asphalt. Properly seal the saw cuts with Dow Corning 890 SL self-leveling sealant.
- The terrazzo floor shall be protected during construction. The removal, cutting, disfigurement or covering of the Terrazzo floor shall be reviewed and approved by MSCAA Development.
- 7. Only black steel pipe is permitted for use on systems containing diesel fuel, including tank vent stack piping, tank fill piping, and tank drain piping. No other material, including galvanized pipe, is allowed.
- 8. 90° brushed stainless steel corner protectors shall be installed on all new interior wall construction. The protectors shall be type 304 grade stainless, 22 gauge, 44" tall, 1.5" wings with a 3/8" wall grip edge, and a 1" radius at the top. Protectors shall be installed on top of the cove base and be adhered to the wall with F-26 construction adhesive.
- 9. Fire rated solid wood blocking that extends from wall stud to wall stud shall be installed for support of framed openings, wall mounted cabinets, wall mounted door hardware, wall mounted monitors, plumbing fixtures, toilet partitions, toilet accessories, mirrors, etc. on all new construction walls or remodels, excluding brick or block walls.
- 10. All fryers in kitchens must include automated in-line used cooking oil containment systems for proper collection and disposal. Tenants will be responsible for installation, maintenance, and used cooking oil recycling.

J. Construction Contractors

- 1. Electrical work performed shall be accomplished by crews with a minimum of one licensed journeyman per three apprentices.
- 2. The Contractor shall be responsible for maintaining a clean construction site and any space used for the removal of debris. The contractor shall be responsible for repair of any damage

caused by construction to as good or better condition.

- 3. If directed by Development the Contractor shall erect a temporary wall around the construction site. All temporary walls shall be constructed of metal studs; anchored on bottom with double stick tape and anchored to the roof deck on top (attachment to ceiling tiles or grid is prohibited). The outside (public side) of the wall shall be finished floor to ceiling with 5/8" drywall with 2 coats of flat off white latex paint. The bottom of the wall shall be trimmed with 4" black cove base. A 2"x6" chair rail, blocked 2" off the wall, shall be installed 36" to center above finished floor. The chair rail shall be sanded and painted with two coats of bronze paint (PPG Pitt-Tech Acrylic High Gloss DTM Industrial Enamel Bronze Tone). The Contractor shall retain responsibility during construction to maintain the wall for aesthetic and security issues. MSCAA Development Division shall approve its location, any attachments to terrazzo floors and all signage and/or graphics. For short durations and in areas of limited public visibility, temporary walls may consist of metal studs and BC grade plywood with a high build primer and premium latex paint; use of these materials is allowed only with specific approval from MSCAA Development Division.
- 4. Walk-off mats shall be used at all access points to the construction area to prevent tracking of dust and debris and is responsible for cleanup if any dirt, dust and/or debris gets outside their construction limits.
- 5. When accessible to the public, the schedule of construction efforts and removal of debris shall be coordinated so as not to disrupt other tenants or endanger the safety of the public. Final approval shall be the responsibility of MSCAA Development Division. Unless directed otherwise, working at MEM requires a badge; coordinate with MSCAA Operations Division for specific project requirements. For badging information, the Identification Office telephone number is (901) 922-8005.
- 6. The contractor shall inform MSCAA Development Division, telephone number (901) 922-8033 at least 48 hours prior to startup of construction.
- 7. A set of completed as-built drawings shall be supplied to Development upon completion of the project.
- 8. Fire Alarm System the Contractor shall contact Simplex to verify that the designer worked with Simplex during the design. If design is the responsibility of the Contractor, Contractor shall contact Simplex to design the installation.
- 9. A pre-test of the modifications to the fire alarm system shall be conducted with Simplex and the Contractor. This pre-test must be scheduled and successfully completed at least 24 hours in advance of any test with the Memphis Fire Department. MSCAA's Development Maintenance and Communications will participate in the pre-test, so close coordination is required. A minimum of 72 hours advanced notification is required to both Simplex and MSCAA to schedule the pre-test. The pre-test must be performed after hours. Upon completion of the pre-test, Simplex will provide written confirmation of the successful completion of the pre-test, a copy of which is to be provided to the MFD fire marshal, and a copy is to be provided to MSCAA.
- 10. The test with the Memphis Fire Department for occupancy must be performed after hours and closely coordinated with MSCAA Development, Maintenance and t Communications. Provide MSCAA a copy of any documentation from MFD, including deficiencies noted

with the fire system, or approval of the system.

Painting Standards

A. Airfield

1. Airfield painting shall comply with the latest revision of the P-620 specification. Thermoplastic markings are not acceptable.

B. Roads

1. Road painting shall comply with the latest revision of the TT-P-1952 specification. Thermoplastic markings are not acceptable.

C. Paint Vendors

- 1. This vendor list is provided for reference only in regards to the specific products listed in the following paragraphs. The list is not exhaustive or exclusive as equivalent vendors will be considered by MSCAA Paint Shop.
- 2. PPG Architectural Finishes, Inc. (1525 Three Place, Memphis, TN, 38116)
- 3. Sherwin-Williams (3850 Lamar Avenue, Suite 1, Memphis, TN)
- 4. Farrell-Calhoun (3185 Millbranch Avenue, Memphis, TN)

D. Terminal, Concourses, and South Parking Garage

- 1. Exterior White Fasciae, Cargo Docks, Ramp, Walls, and Columns
 - i. Sherwin-Williams Universal Primer (or equivalent)
 - ii. PPG Pitt-Tech Acrylic Satin White
 - iii. Sherwin-Williams A-100 Acrylic Satin White
- 2. Exterior CMU Walls
 - i. Block Filler
 - ii. PPG Pitt-Tech Acrylic Satin White
 - iii. Sherwin-Williams A-100 Acrylic Satin White
- 3. Interior Walls
 - i. Sherwin-Williams B31W4400 Promar 400 Interior Latex Semi-Gloss White
 - ii. Farrell-Calhoun Acrylic Interior Semi-Gloss Latex Enamel 650 Carriage House
 - iii. Offices (including Airport Police, most of Building Maintenance, and Cargo Building Offices): Farrell-Calhoun Acrylic Interior Semi-Gloss Latex Enamel 650 Carriage House
 - iv. Offices (Mezzanine & Apron level concourse B): Farrell-Calhoun Interior Premium Eggshell Latex Enamel 370 Snowglory
 - v. Gypsum Ceilings/Walls: Pittsburgh Paints PPG 1006-1 Color: Gypsum Various Sheens
 - vi. Aluminum Curtainwall: Valspar Sherwin Williams Fluorpon Special Color: Special White 391B495

4. Doors and Frames

- i. Brown Doors: Sherwin Williams Pro Industrial Acrylic Semi-Gloss Kodiak Olive
- ii. Green Doors: Sherwin Williams Pro Industrial Acrylic Semi-Gloss Blarney Stone
- iii. Brown Frames: Sherwin Williams Pro Industrial Acrylic Semi-Gloss Bronze Tone
- iv. Grey Frames and doors: Farrell-Calhoun Interior Alkyd Enamel Semi-Gloss Zen Retreat
- v. White Frames and doors (Concourse B): Farrell-Calhoun Interior Alkyd Enamel Semi-Gloss Gypsum

5. Window Bases

i. Farrell-Calhoun Acrylic Interior Semi-Gloss Latex Enamel 650 – Carriage House

6. Exterior Metal Structures

- i. Alkyd Industrial Gloss Enamel White
- ii. Alkyd Industrial Gloss Enamel Farrell Calhoun Zen Retreat

7. Interior Metal Structure (Concourse B)

- a. PT-2 Valspar Super Special White
- 8. Rotunda Columns (located in the "Y" of the B Concourse)
 - a. PT-2 Valspar Super Special White

9. ID Office

- i. Walls: Farrell-Calhoun Interior Premium Eggshell Latex Enamel 370 Carriage House
- ii. Doors and Frames: match Terminal & Concourses doors and frames

10. Management Work Room

- i. Walls: Farrell-Calhoun Interior Premium Eggshell Latex Enamel 370 Carriage House
- ii. Doors and Frames: match Terminal & Concourses doors and frames

11. FIS

- i. Walls: Farrell-Calhoun Acrylic Interior Semi-Gloss Latex Enamel 650 Carriage House
- ii. Doors: PPG Pitt-Tech Acrylic Satin DTM Industrial Enamel 90-475 Quick Silver
- iii. Frames: PPG Pitt-Tech Acrylic Satin DTM Industrial Enamel 90-709/05 Dark Silver
- 12. Painted Floors (Building Maintenance areas)
 - i. Farrell-Calhoun Floor and Deck Enamel 702 Medium Gray

E. Administration Building

- 1. Walls
 - i. Ceilings: Farrell-Calhoun Interior Premium Eggshell Latex Enamel 370 Zurich White

- ii. Walls: Farrell-Calhoun Interior Premium Eggshell Latex Enamel 370 Carriage House
- 2. Interior Doors and Frames
 - i. Sherwin-Williams Semi-Gloss Oil Base 1019 Grey Statue

F. Airfield Maintenance Building

- 1. Walls
 - i. Walls: Farrell-Calhoun Acrylic Interior Semi-Gloss Latex Enamel 650 Carriage House
- 2. Doors and Frames
 - i. Doors: PPG Pitt-Tech Acrylic Satin DTM Industrial Enamel 90-475 Quick Silver
 - ii. Frames: PPG Pitt-Tech Acrylic Satin DTM Industrial Enamel 90-709/05 Dark Silver

G. Miscellaneous

- 1. De-Ice Tanks
 - i. Farrell-Calhoun Premium Alkyd Industrial Gloss Enamel 800 White
- 2. Exterior Light, Sign Pole, Sign Bases, and Bollards
 - i. PPG Alkyd Industrial Enamel Gloss Z-Line Bronze Tone
- 3. Ticket Spitters and Bollards
 - i. Farrell-Calhoun Premium Alkyd Industrial Gloss Enamel 800 Safety Zone Yellow
- 4. Colored Metal Surfaces
 - i. Red: Farrell-Calhoun Premium Alkyd Industrial Gloss Enamel 800 International Red
 - ii. Orange: Farrell-Calhoun Premium Alkyd Industrial Gloss Enamel 800 International Orange
 - iii. Yellow: Farrell-Calhoun Premium Alkyd Industrial Gloss Enamel 800 Safety Zone Yellow

Preferred Equipment

A. Architectural Finishes

- 1. Flooring: VCT Armstrong
- 2. Cove Base
 - i. Terminal Building: Armstrong or Roppe
 - ii. Administration Building: Johnsonite Rubber 700 Series; 4" high; #24 Grey Haze
 - iii. Offices: Flexco Rubber wallflowers series; 4" high; #03 Charcoal
- 3. 4" Rubber Wall Base
 - i. Manufacturer: Roppe
 - ii. Color: 123 Charcoal
- 4. 3/8" Epoxy Terrazzo TZ-3
 - i. Manufacturer: Key Resin
 - ii. Color: KEY 100-1779 Gull Wing Grey
 - iii. Location: Concourse B
- 5. 3/8" Epoxy Terrazzo TZ-1
 - i. Manufacturer: Key Resin
 - ii. Color: KEY 001-563 White Diamond
 - iii. Location: Concourse B
- 6. 3/8" Epoxy Terrazzo TZ-2
 - i. Manufacturer: Key Resin
 - ii. Color: Key 28-27 Hearthstone
 - iii. Location: Concourse B
- 7. 3/8" Epoxy Terrazzo TZ-4
 - i. Manufacturer: Key Resin
 - ii. Color: KEY 100-675 Pewter
 - iii. Location: Concourse B
- 8. 3/8" Epoxy Terrazzo TZ-5
 - i. Manufacturer: Key Resin
 - ii. Color: KEY 100-2018 Whale Gray
 - iii. Location: Concourse B
- 9. 3/8" Epoxy Terrazzo TZ-6
 - i. Manufacturer: Key Resin

ii. Color: KEY 001-563 White Diamond

iii. Location: Concourse B

10. 3/8" Epoxy Terrazzo TZ-7

i. Manufacturer: Key Resin

ii. Color: KEY 001-754 Whiteish

iii. Location: Concourse A, B, & C Terminals

11. 3/8" Epoxy Terrazzo TZ-8

i. Manufacturer: Key Resin

ii. Color: KEY 012 Black

iii. Location: Concourse B

12. 3/8" Epoxy Terrazzo TZ-9

i. Manufacturer: Key Resin

ii. Color: KEY 001-753 White Glass

iii. Location: Concourse B

13. Accent Wall Tile T-1A

i. Manufacturer: Fireclay

ii. Product: Glazed Wall Tile White Clay Body (3"X12")

iii. Color: White Wash (V1)

iv. Grout Color: Laticrete #89 Smoke Grey

v. Location: Concourse B

14. Accent Wall Tile T-1B

i. Manufacturer: Fireclay

ii. Product: Glazed Wall Tile White Clay Body (3"X12")

iii. Color: Foggy Morning

iv. Grout Color: Laticrete #89 Smoke Grey

v. Location: Concourse B

15. Accent Wall Tile T-1C

i. Manufacturer: Fireclay

ii. Product: Glazed Wall Tile White Clay Body (3"X12")

iii. Color: Powder Blue

iv. Grout Color: Laticrete #89 Smoke Grey

v. Location: Concourse B

16. Accent Wall Tile T-1D

- i. Manufacturer: Fireclay
- ii. Product: Glazed Wall Tile White Clay Body (3"X12")
- iii. Color: Mayan Blue
- iv. Grout Color: Laticrete #89 Smoke Grey
- v. Location: Concourse B

17. Accent Wall Tile T-1E

- i. Manufacturer: Fireclay
- ii. Product: Glazed Wall Tile White Clay Body (3"X12")
- iii. Color: Martinique
- iv. Grout Color: Laticrete #89 Smoke Grey
- v. Location: Concourse B

18. Porcelain Tile T-2 (restroom Floor)

- i. Manufacturer: Casalgrande Padana
- ii. Product: Balsaltina 18"X18" Naturale Finish
- iii. Color: Linosa
- iv. Grout Color: Laticrete #45 Raven
- v. Location: Concourse B

19. Ceiling Tile

- i. Armstrong 2' x 2', Cortega Angled Tegular 704A (2' x 2' x 5/8")
- ii. Armstrong 2' x 2', Fissured Square Lay-in 756A (2' x 2' x 5/8")
- iii. Armstrong 2' x 4', Cortega Second Look 2765 (2' x 4' x 3/4")
- iv. Armstrong 44"X 48", Optima Techzone
- v. Armstrong 2' X 2', Ultima
- 20. Ceiling Grid: Armstrong Prelude
 - i. Mains: 7300
 - ii. 4' Ts: XL7348
 - iii. 2' Ts: XL7328
 - iv. Wall mold: 7800
- 21. Ceiling Grid: Armstrong Suprafine XL
 - i. Location: Concourse B
- 22. Ceiling Metal Panel:
 - i. Accent Ceilings & Walls
 - ii. Perforated Aluminum Acoustic Backing Torsion Spring Hinged Pans

iii. Color: Ultra White

iv. Location: Concourse B

23. Ceiling Linear Metal

i. Accent Ceilings & Walls

ii. Pattern: Barcode

iii. Color: 8424 Walnut

iv. Location: Concourse B

24. Carpet (Hold Rooms)

i. Style Name: Resonance

ii. Style Number: J0118

iii. Color: 00406 Saddle

iv. Vendor: Continental Flooring (800-825-1221 Ext 206)

v. The pattern for the carpet is to run perpendicular to the concourse for hold room installations.

25. Carpet (Offices)

i. Style Name: Live Wire

ii. Style Number: 54733

iii. Color: 33506 Animated

iv. Vendor: Continental Flooring (800-825-1221 Ext 206)

26. Carpet (MEM Executive Offices)

i. Style Name: Ripple Effect

ii. Style Number: J0116

iii. Color: 00501 Laughs & Yawns

iv. Vendor: Continental Flooring (800-825-1221 Ext 206)

27. Carpet CPT-1 (Concourse B)

i. Manufacturer: Interface

ii. Product: Custom Soundwave Verse Sample

iii. No: 265317-005

28. Carpet Tile CPT-1A (Concourse B)

i. Manufacturer: Interface

ii. Product: Custom Groundwaves Verse Samples

iii. No: 265317-008

29. Carpet Tile CPT-1B (Concourse B)

- i. Manufacturer: Interface
- ii. Product: Custom Off Line Sample
- iii. No: 265317-007
- 30. Carpet Tile CPT-1 (Concourse B)
 - i. Manufacturer: Interface
 - ii. Product: Custom Off Line Sample
 - iii. No: 265317-002
- 31. Carpet Tile CPT-1D (Concourse B)
 - i. Manufacturer: Interface
 - ii. Product: Custom SL910 Sample
 - iii. No: 265317-013
- 32. Wood Paneling (Concourse B)
 - i. Strait Grain
 - ii. Species: White Oak
 - iii. Color: Custom
- 33. Quartz QZ-1 (Concourse B)
 - i. Manufacturer: Silestone
 - ii. Color: Blanco Maple
- 34. Quartz QZ-2 (Concourse B)
 - i. Manufacturer: Silestone
 - ii. Color: Cemento Spa. Polished Finish
- 35. Quartz QZ-3 (Concourse B)
 - i. Manufacturer: Cambria
 - ii. Color: Berwyn
- 36. Quartz QZ-4 (Concourse B)
 - i. Manufacturer: Cambria
 - ii. Color: Whitehall
- 37. Quartz QZ-5 (Concourse B)
 - i. Manufacturer: Silestone
 - ii. Color: Cemento Spa. Polished Finish
- 38. Quartz QZ-6 (Concourse B)
 - i. Manufacturer: Silestone
 - ii. Color: Whitehall

- 39. Quartz QZ-7 (Concourse B)
 - i. Manufacturer: Silestone
 - ii. Color: Whitehall
- 40. Curtain Wall (Concourse B)
 - i. Manufacturer: Kawneer
 - ii. Product: 1600 System 2
 - iii. Color: Interior Valspar Super Special White / Exterior Clear Anodized
- 41. Epoxy Flooring (Concourse B)
 - i. Manufacturer: BASF Building Systems
 - ii. Product: BASF Masterdeal 2500 LT Duty
 - iii. Color: Gray
- 42. Epoxy Flooring (Concourse B)
 - i. Manufacturer: Dex-O-Tex
 - ii. Product: Color Flake L
 - iii. Color: BX 520
- 43. Exterior Aluminum Composite Metal Paneling (Concourse B)
 - i. Manufacturer: Alucobond
 - ii. Product: Alucobond Plus fire rated core
 - iii. Colors:
 - 1. Type 1: Titanium Metallic II
 - 2. Type 3A: Southwest Gold Metallic
 - 3. Type 3B: Harvest Gold Mica
 - 4. Type 3C: Driftwood Mica

B. Plumbing & Restrooms

- 1. Flush valves: Sloan, Royal
- 2. Electronic flush valve retrofits:
 - i. Urinals: Zurn ZRK-C-3.5, 3.5 GPF
 - ii. Water Closets: Zurn ZRK-C-3.5, 3.5 GPF
- 3. Plumbing fixtures: Crane, American Standard, Kohler
- 4. Partitions: Accurate, Stainless Steel, No sight design, overhead braced, Continuous, Hinge type-Integral, Hinge In-swing/out-swing standard closed position, Floor mounted
- 5. Sinks: American Standard, 0355.012 Lucerne wall mounted Lav. sink w/4" centers

- 6. Service Sinks: 8" centers w/ ZURN Z841M1 Faucet
- 7. Urinals: 6501.010 wash brook urinal American Standard white. Zurn Retro Flush Valve.
- 8. Water Closets
 - i. Wall-mounted: American Standard 2257.103 af wall toilet 4 bolt wall mount, white
 - ii. Floor-mounted: Kohler K-4368
- 9. Lavatories
 - i. Non-ADA: American Standard, vandal resistant lavatory faucet with grid drain 2385.130 polished chrome
 - ii. ADA: Delta 511-WFHDF
- 10. Faucets: Sloan Optima EBF-85M infrared
- 11. Water closet gaskets: Wade Part # M-8 for wall hung closets
- 12. Backflow devices: Watts
- 13. Water coolers: Halsey Taylor model #HAC8FS-Q(SS) wall-mounted
- 14. Toilet Accessories: Bobrick
 - i. Recessed towel dispenser and waste receptacle: B-3961
 - ii. Surface mounted toilet tissue dispenser: B-2888
 - iii. Sanitary napkin disposal: B-270
 - iv. Heavy duty robe hook: B-2116
 - v. Handicap tilt mirror: B-293 (24" x 36")
 - vi. Grab bars: stainless steel with Snap Flange
- 15. Toilet Accessories: Non-Bobrick
 - i. Foam Dispenser Spartan Chemical Company 975700
 - ii. Toilet paper dispenser: Shoreline 830 from Memphis Chemical (not for use in public restrooms)
 - iii. Toilet Seat Cover Cabinet: Franklin Brass #1988 (Stainless Steel)
- 16. Eye Wash Station: Bradley S19314F
- 17. Angle Stops: Brasscraft

C. Doors

- 1. Exterior: Steelcraft Door; 16 gauge metal, galvanized; fully reinforced for door closer and continuous gear hinge; with 24" x 32" window prep (if specified)
 - a. Standard doors shall be 3.0' x 7.0'.
 - b. Jet Bridge doors shall be 4.0' x 7.0'.
- 2. Interior: 3070 (3.0' x 7.0') solid core wooden door with prep for continuous gear hinge; with 24" x 32" window prep (if specified)

- 3. Window Kits (if specified): Anemostat #LOPRO Visionlite 24"x32" with Tempered Glass
- 4. Metal Frames: Fit door openings to frame for a Steelcraft door or solid core wooden door with fully reinforced frame for door closer and continuous gear hinge
- 5. Threshold: Aluminum to fit door frame
- 6. Drip Caps: 16 ad if outside door
- 7. Closers:
 - a. Standard Doors: LCN model 4041, arm RW/ PA, finish to match existing areas adjustment size 1-6 PC 23
 - b. Jet Bridge Doors: Dorma 1816HT Series with smoke detector

8. Hinges:

- a. New doors shall have reinforcement on the hinge side and hinges shall be continuous geared hinges by National Guard Products, Stanley, or PBB. Minimum 0.120-inch thick hinge leaves with minimum overall width of 4 inches; fabricated to full height of door and frame. Fabricate hinges non-handed and to template screw locations. Continuous hinges guaranteed for the life of the opening.
 - 1. At electrified hardware locations provide electric transfer continuous hinges with a 12" removable hinge modification accessible without de-mounting door from the frame and Molex standardized plug connectors to accommodate up to 12 wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number of concealed wires to accommodate electric function of specified hardware. Preferred hardware is Von Duprin EPT10.
- b. Existing doors without reinforcement on the hinge side shall use hinges by Stanley FBB 179-4.5 x 4.5 x USP x NRP
- 9. Lock Prep: Yale 6-pin lockset-PB5407LN 694X497 Finish US 10B
- 10. Keyways: 6-pin LFIC Cores with SA keyway
- 11. Panic Hardware: Dorma 9000 Series or Von Duprin RX QEL 98NL-F
- 12. Flush Bolts: Trimco, Burns, or Ives. Provide manual flush bolts with top rod of sufficient length to allow bolt location approximately six feet from the floor. Furnish dust proof strikes for bottom bolts. Surface bolts to be 8" in length and U.L. listed for labeled fire doors.
- 13. Low voltage door operators: Dorma ED900 Series or LCN 9000 Series

D. Electrical

- 1. Wire: THHN or equal for insulation
- 2. VFDs: PowerFlex 400 by Allen-Bradley including latest harmonic distortion units w/ Metasys board
- 3. High Voltage Substations: General Electrical, Cutler Hammer
- 4. Panels, breakers, and contactors: Westinghouse, ITE (Siemens), Square D, Allen Bradley,

Cutler Hammer

- 5. Devices: Leviton, Bryant, P&S, Hubbell
- 6. Device Covers: Stainless Steel
- 7. Lighting: G.E, Phillips, Sylvania, Lithonia
- 8. Fittings (no Set screws, couplings, or connectors): Raco, Steel City
- 9. Conduit/Wire: No MC or BX cable other than 6' or less to be used as whips from junction box to item being fed

E. Mechanical

- 1. Heaters: Trane, McQuay
- 2. Electronic Controls: Johnson Controls (FEC, NAE, BACnet MS/TP), Barber Coleman, Trane, McQuay
- 3. Valves, Hot/Chill Water: Johnson Controls, Barber Coleman, Honeywell
- 4. AHUs: Trane
- 5. Boilers: Cleaver Brooks
- 6. Chillers: Trane
- 7. Pumps: Peerless, Bell & Gossett, Aurora, Ingersoll Rand, Pyramid Pump, Grundfos
- 8. VAV Boxes (All VAVs shall be pressure dependent with electronic controls): Environmental Tech, Varitrane Systems, Tuttle & Bailey
- 9. Electronic Thermostats: TE-6700, BACnet MS/TP, N2, Johnson Control
- 10. Cooling Towers: Marley, BAC

F. Miscellaneous

- 1. Joint Seals and Floor Penetration Seals: Evazote 380 E. S. P. with Hindered Amine Light Stabilizer
- 2. Automatic Perimeter Fence Gate Operators: HySecurity