FINAL CONSTRUCTION SAFETY & PHASING PLAN PMGAA Runway 12R-30L Reconstruction

PMGAA Project No.: 1072

PMGAA Solicitation No.: 2023-022-IFB FAA Project No.: 3-04-0078-TBD-2023

ADOT Grant No.: TBD

Dibble Project No.: 1020023.2303

Taxiway H Demolition and Taxiway B2 Construction

PMGAA Project No.: 741

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Kimley-Horn Project No.: 091134047

Prepared For: Phoenix-Mesa Gateway Airport Authority

March 29, 2023







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Jared Bass, PE Vice President, Sr. Project Manager **Dibble**



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GENERAL CONSIDERATIONS

1.1 Coordination

The *Runway '12R-30L' Reconstruction* project includes the reconstruction of the 7,255-foot portion of Runway '12R-30L' between the previously reconstructed thresholds. In addition to the need to reconstruct the runway concrete pavement, the intent of this project is to also fix the non-standard transverse and longitudinal grades within the runway pavement and non-standard grades within the Runway Safety Area (RSA). This project will also include the following items:

- Reconstruction of an additional 532-feet of Runway '12R' and 340-feet of Runway '30L' thresholds. This is because the existing transverse / longitudinal slopes in these areas also need to be adjusted to meet FAA standards.
- Re-grading of infield areas with modifications to existing drainage infrastructure.
- Reconstruction of 35-foot wide runway shoulders with a new AC pavement section.
- Reconstruction of the temporary AC pavement sections at connector Taxiways 'K' and 'B3' with a new PCCP section (Additive Alternate Bid 1, Schedule II).
- Runway lighting and signage improvements including replacement of all Distance Remaining Signs.
- New runway pavement markings within the limits of reconstructed PCCP.

This project also includes the demolition of Taxiway 'H' and construction of new Taxiway 'B2' located between Runway '12R-30L' and Taxiway 'B'. This work includes installing new taxiway signs, taxiway edge lights, and drainage infrastructure.

This project includes four schedules. Depending on funding availability, the project award could be one of three alternatives.

- 1. Schedule I Only
- 2. Schedules I and II
- 3. Schedules I-IV

The scope details for each bid schedule are identified below:

Base Bid – Bid Schedule I (Runway '12R'-30L' Reconstruction) – includes reconstructing approximately 1,690-feet of Runway '12R-30L' pavement between Taxiway 'B3' and Taxiway 'L'. This portion of the project will include reconstruction of approximately 340-feet of the previously reconstructed Runway '30L' threshold; reconstruction of the runway shoulders; installation of new airfield lighting conduit, cable, and runway edge light base cans, replacement of the Distance Remaining Signs south of Taxiway 'B3'; infield grading and drainage improvements; and new pavement markings within the pavement reconstruction limits.

The major work elements for Schedule I are identified below.

- 28,160 square yards of reconstructed PCCP runway pavement
- 13,145 square yards of reconstructed AC shoulder pavement
- Placement of new runway markings
- New runway edge light cable and conduit
- Replacement of runway edge light base cans
- 8 new LED distance remaining signs

Additive Alternate No. 1 – Bid Schedule II (Runway '12R'-30L' Reconstruction) – includes reconstructing approximately 1,365-feet of Runway '12R-30L' pavement between 660-feet north of Taxiway 'K' and the south edge of Taxiway 'B3'. This portion of the project will include reconstruction of the runway shoulders; installation of new airfield lighting conduit, cable, and runway edge light base cans, replacement of the Distance Remaining Signs within the Schedule II runway pavement reconstruction limits; infield



grading and drainage improvements; and new pavement markings within the pavement reconstruction limits.

The major work elements for Schedule II are identified below.

- 22,750 square yards of reconstructed PCCP runway pavement
- 10,615 square yards of reconstructed AC shoulder pavement
- Placement of new runway markings
- New runway edge light cable and conduit
- Replacement of runway edge light base cans
- 4 new LED distance remaining signs

Additive Alternate 2 for this project is divided into two bid schedules as detailed below.

Additive Alternate Bid 2 - Bid Schedule III (Runway '12R'-30L' Reconstruction) — includes reconstructing approximately 4,200-feet of Runway '12R-30L' pavement between the Runway '12R' reconstructed threshold and a location 660-feet north of Taxiway 'K'. This portion of the project will also include reconstruction of approximately 532-feet of the previously reconstructed Runway '12R' threshold; reconstruction of the runway shoulders; installation of new airfield lighting conduit, cable, and runway edge light base cans, replacement of the Distance Remaining Signs; infield grading and drainage improvements; and new pavement markings within the pavement reconstruction limits.

The major work elements for Schedule III are identified below.

- 70,000 square yards of reconstructed PCCP runway pavement
- 36,665 square yards of reconstructed AC shoulder pavement
- Placement of new runway markings
- New runway edge light cable and conduit
- Replacement of runway edge light base cans
- 8 new LED distance remaining signs
- New LED Runway Edge lights for the entire runway

Additive Alternate Bid 2 – Bid Schedule IV (Taxiway 'H' Demolition and Taxiway 'B2' Construction) – includes the demolition of Taxiway 'H' and construction of new Taxiway 'B2'. This portion of the project was designed and bid by Kimley-Horn as part of a previous project and is being packaged with Additive Alternate Bid 2 of the Runway Reconstruction project.

The major work elements, with approximate quantities, for Schedule IV are identified on the following page.

- 6,520 square yards of PCCP removal
- 15,910 square yards of AC pavement removal
- 6,710 square yards of new PCCP taxiway pavement
- 6,900 square yards of new AC shoulder pavement
- 6,500 square feet of taxiway markings
- 3,850 linear feet of new taxiway edge light conduit
- 30 new taxiway edge lights

See **Appendix A** – *Project Site Plans*.

This Construction Safety and Phasing Plan (CSPP) provides specific information to the Contractor and/or Subcontractors selected to carry out the construction contract for the Phoenix-Mesa Gateway Airport (PMGAA or Airport) Runway '12R-30L' Reconstruction (Project). This plan includes the requirements and procedures for accident prevention, safety requirements, and security considerations at the Airport. The Airport's safety objective is to achieve accident-free construction projects. Furthermore, the Contractor



must be in full compliance. The CSPP and project safety and phasing requirements will be discussed in detail at the Pre-Bid and Pre-Construction Conferences.

The Contractor and Subcontractors shall conduct their operations in a manner that will provide safe working conditions for all employees and protection of the public and all others who may be affected by construction activities. Nothing contained in this plan is intended to relieve the Contractor, Subcontractors or suppliers of the obligations assumed by them under contract with the Airport or as required by law.

Safety must be an integral part of the job. Full participation, cooperation, and support are necessary to ensure the safety and health of all persons and property involved in the project. The purpose of phasing, marking, barricading, and lighting of airside construction areas is to delineate hazardous areas and prevent unauthorized incursions into the areas by personnel, vehicles, equipment, and aircraft during construction, and to positively separate construction activity from aircraft operations.

A Pre-Construction Meeting will be scheduled prior to the issuance of the Notice to Proceed. Invitees and attendees will include the Airport Design, Construction, and Operations personnel; the Engineer; the Contractor's Project Superintendent; Pertinent Subcontractors; and representatives from the FAA and ADOT. Relevant safety-related issues will be discussed in detail at this meeting.

Topics of discussion will include the FAA Advisory Circular (AC) 150/5370-2G, Operational Safety on Airports During Construction; project scope; the Resident Engineer's responsibility and authority; identifying the Contractor's Superintendent; NOTAM responsibility; phasing and scheduling of work; Notice to Proceed date; safety during construction; the Contractor's Safety Plan Compliance Document; security, badging and escorting requirements; quality control and testing; test reports; maintenance of record drawings; and other contract and Federal requirements.

The Pre-Construction Meeting has not yet been scheduled.

1.2 Construction Progress Meetings

Weekly construction progress meetings will be held, for which the invitees and attendees will include at minimum the Airport personnel, the Resident Engineer, the Contractor's Project Superintendent, and the lead personnel of each Subcontractor. In addition to the discussions on the progress of the project, operational safety procedures identified within this Safety Plan will be reviewed and discussed.

1.3 Construction Phase Scheduling

The Project has a base bid and two bid alternatives with four bid schedules.

Base Bid - Schedule I includes reconstructing approximately 1,690-feet of Runway '12R-30L' pavement portion between Taxiway 'B3' and Taxiway 'L'. This work includes the construction of a 310-foot asphalt transition section between the new runway profile elevation and the existing runway pavement elevations just south of Taxiway 'B3'.

Additive Alternate Bid 1 - Schedule II includes reconstructing approximately 1,365-feet of Runway '12R-30L' pavement between 660-feet north of Taxiway 'K' and the south edge of Taxiway 'B3'. Further if Additive Alternate Bid 1 is awarded it will also include an additional 310-feet of PCCP construction up to the limits of the Base Bid PCCP construction limits. Additionally, the northern portion of the Additive Alternate 1 construction limits includes the construction of a 290-foot asphalt transition section between the new runway profile elevation and the existing runway pavement elevations.

Additive Alternate Bid 2 -Schedule III includes reconstructing approximately 4,200-feet of Runway '12R-30L' pavement between the Runway '12R' reconstructed threshold and a location 660-feet north of Taxiway 'K'. Further if Additive Alternate Bid 2 is awarded it will also include an additional 290-feet of PCCP construction up to the limits of the Additive Alternate Bid 1 PCCP construction limits.

Additive Alternate Bid 2 - Schedule IV includes demolition of existing connector Taxiway 'H' and construction of new connector Taxiway 'B2'.



The Contractor will be required to immediately notify the Airport and Resident Engineer of any changes to the original project scope or schedule. The Airport will coordinate (as needed) any changes with the impacted stakeholders (i.e. FCT, airlines, tenants, FAA, etc.).

Refer to Section 2, *Phasing* for detailed phase specific information.

1.4 FAA ATO Coordination

The Airport staff will be responsible for continually coordinating with the FAA/ATO and Serco, Inc. during construction, as required.

2. PHASING

Construction phasing exhibits are provided in **Appendix B**. The construction phasing limits are dependent on the bid award and phasing was developed based on several factors: contractor and aircraft safety, impact to aircraft traffic and airport operations, temporary taxiway and runway closure duration, constructability, and construction costs.

The timelines below have been provided to assist the Contractor. The Contractor will be responsible to submit their own *Safety Plan Compliance Document* and detailed Barricade Plans at the Pre-Construction Meeting for review and approval by the Resident Engineer and Airport. The Contractor will have a total of 90 calendar days to reach substantial completion for the Base Bid work (Schedule I), 120 calendar days to reach substantial completion for the Base Bid and Additive Alternate Bid 1 work (Schedule I & II), and if Additive Alternate Bid 2 (Schedules III & IV) is awarded, the Contractor will have an additional 180 calendar days to reach substantial completion. Following substantial completion, the Contractor will have a total of 14 calendar days to reach final completion for all work and sub-phases.

Base Bid (Schedule I) Phase 1: 90 Calendar Days Total

If only the Base Bid is awarded the project will include the reconstruction of approx. 1,690-feet of Runway '12R-30L'. All work will take place during a single construction phase. Runway '12R-30L' will be closed from just south of Taxiway 'K' to the end of Runway '30L'. For the entire duration of the phase aircraft traffic will be diverted onto and off of the Runway at Taxiway 'K'. A lighted "X" will be placed on the Runway '30L' runway designation marking to signal the runway closure to arriving aircraft. Runway '12R-30L' will remain open between the Runway '12R' end and Taxiway 'K' to permit short-field landings on Runway '12R' and short-field departures from Taxiway 'K'. Barricades will be installed across Runway '12R-30L' approx. 300-feet south of Taxiway 'K' to ensure a clear Extended Runway Safety Area for short-field arrivals on Runway '12R'. Additionally, temporary Runway End Lights will be installed on the south side of Taxiway 'K'. These lights and the runway edge lights north of Taxiway 'K' will be powered by the Taxiway 'K' lighting system to allow for nighttime operations.

Base Bid + Additive Alternate Bid 1 (Schedules I & II) Phase 1: 120 Calendar Days Total

If the Base Bid and Additive Alternate Bid 1 are both awarded the project will include the reconstruction of approx. 3,055-feet of Runway '12R-30L'. All work will take place during a single construction phase. Runway '12R-30L' will be closed from approximate 640-feet south of Taxiway 'H' to the end of Runway '30L'. For the entire duration of the phase aircraft traffic will be diverted onto and off of the Runway at Taxiway 'H'. A lighted "X" will be placed on the Runway '30L' runway designation marking to signal the Runway closure to arriving aircraft. Runway '12R-30L' will remain open between the Runway '12R' end and Taxiway 'H' to permit short-field landings on Runway '12R' and short-field departures from Taxiway 'H'. Barricades will be installed across Runway '12R-30L' approx. 650-feet south of Taxiway 'H' to ensure a clear Extended Runway Safety Area for short-field arrivals on Runway '12R'. Additionally, temporary Runway End Lights will be installed on the south side of Taxiway 'H'. These lights and the runway edge lights for the open section of the



runway will be powered by the Taxiway 'G' lighting circuit to allow for nighttime operations.

Base Bid + Additive Alternate Bid 1 + Additive Alternate Bid 2 (Schedules I -IV)

If all bid schedules are awarded construction will take place in two construction phases. Phase 1 work will be completed as detailed above for the combination of Schedules I & II totaling 120 calendar days. Phase 2 work will be completed as detailed below.

Additive Alternate Bid 2 (Schedules III & IV) Phase 2:

Phase 2A - 180 Calendar Days Total

Phase 2A work involves the reconstruction of approx. 4,200-feet of Runway '12R', the removal of existing connector Taxiway 'H', and construction of new connector Taxiway 'B2'. This work will be completed as part of a single partial closure of Runway '12R-30L'. Runway '12R-30L' will be closed from just north of Taxiway 'K' to just south of Taxiway 'G' to allow Taxiway 'G' to remain open for the duration of phase 2 except for as described herein. During Phase 2A aircraft traffic will be diverted onto and off of the Runway at Taxiway 'K'. A lighted "X" will be placed north of the Runway '12R' threshold (within the limits of the blast pad) to signal the Runway closure to arriving aircraft. Runway '12R-30L' will remain open between the Runway '30L' end and Taxiway 'K' to permit short-field landings on Runway '30L' and short-field departures from Taxiway 'K'. Barricades will be installed across Runway '12R-30L' approx. 500-feet north of Taxiway 'K' to ensure a clear Extended Runway Safety Area for short-field arrivals on Runway '30L'. Additionally, temporary Runway End Lights will be installed on the north side of Taxiway 'K'. These lights will be powered by the runway lighting system to allow for nighttime operations.

Phase 2B - 21 Calendar Days (concurrent with Phase 2A)

Phase 2B includes the following elements:

- Partial demolition of Taxiway 'H' (within the Taxiway 'B' ADG IV TOFA)
- Infield grading (within the Taxiway 'B' ADG IV TOFA)
- Construction of Taxiway 'B' shoulder (AC)
- Installation of Taxiway 'B' edge lights
- Updated Taxiway 'Y3' signage

Phase 2C - Completed in 150 Calendar Days (concurrent with Phase 2A)

Phase 2C includes the following elements:

- Remaining demolition of Taxiway 'H'
- Full construction of Taxiway 'B2' including new drainage infrastructure
- All electrical, signage, and pavement marking

Phase 2D - 10 Calendar Days (Nighttime Only - concurrent with Phase 2A)

Phase 2D includes the following:

Replacement of airfield lighting cable within the Taxiway 'G' / Runway '12R-30L' intersection

At the end of phase 2 a full runway closure for a single night will be required in order to install the new LED runway edge lights for the entire runway.



Refer to **Appendix B** – *Construction Phasing Plans* for airfield closures, aircraft detours and movements, and barricade locations. As shown in **Appendix B**, low profile barricades will be placed at:

Base Bid Phase 1 – Runway '12R-30L' south of Taxiway 'K' and Taxiway connectors 'B3', 'L', and 'N' east of Taxiway 'B'

Base Bid + Additive Alternate Bid 1 Phase 1 – Runway '12R-30L' north of Taxiway 'K' and Taxiway connectors 'K', 'B3', 'L', and 'N' east of Taxiway 'B'

Phase 2A – Runway '12R-30L' south of Taxiway 'G', entrance to Taxiway 'H' from TW 'B', north of Taxiway 'K' (These barricades will remain in place for the duration of construction) Each sub-phase is identified below with additional barricade placements.

Phase 2B – Taxiway 'B' (south of Taxiway 'Y2', north of Taxiway 'A1') and across Taxiway 'Y3' west of Taxiway 'B'

Phase 2C - Taxiway 'B' (south of Taxiway 'Y3' and north of Taxiway 'A1')

Phase 2D- Taxiway 'G' (east of Taxiway 'B' and west of Runway '12C-30C' threshold)

3. AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION ACTIVITY

3.1 Identification of Affected Areas

The areas affected by the project are identified in the construction drawings and are evaluated to determine possible safety problems, please see **Appendix B** – *Construction Phasing Plans*.

3.2 Closed or Partially Closed Facilities

Portions of Runway '12R-30L' will be closed during construction, as detailed in **Appendix B**. See **Tables** 1, 2, & 3 for more detail on areas affected by construction and closures.

3.3 ARFF Access Routes

This project will have minimal impact on ARFF access routes and they will remain open to ARFF use. During Additive Alternate 1 (Schedule II) Phase 1, Taxiway 'K' will be closed to ARFF use; alternate ARFF routes will be coordinated by the airport during the closure of the taxiway. The Contractor will be directed to maintain the alternate access routes and all other existing routes that may be used by ARFF vehicles within the Airfield Operations Area (AOA) at all times.

3.4 Airport and Airline Support Vehicle Access Routes

Airport support vehicle access routes will be maintained throughout the duration of the project except for the duration of Phase 2B. The vehicle service road (VSR) will be relocated on the Apron between Taxiway 'H' and Taxiway 'Y3'. If the Contractor elects to use the existing Airfield Perimeter or other Service roads, the Contractor will be required to maintain those roads at all times. Furthermore, the Contractor will be directed that Airfield Operations will always have the right-of-way. The construction haul road locations are shown in **Appendix B** – *Construction Phasing Plans*. The Airport may modify haul road locations at the time of construction based on operational concerns.

3.5 Interruption of Utilities

No underground utilities used for firefighting (including water) within the AOA are anticipated to be impacted by the construction of this project. While every effort has been made to include the locations and depths of known utilities within the project areas, the Contractor will be required to pothole for utilities to avoid damage to them.



An existing fire hydrant along South Sossaman Road may be used for construction water; however, the Contractor will be required to coordinate with the Airport and City of Mesa in such a manner so as not to impact firefighting operations.

3.6 Affected Approach and Departure Surfaces

All work will require partial closures of Runway '12R-30L' with small aircraft (Aircraft Category I/II) only allowed to operate on the open portions for short takeoff and landings. As such, the Contractor will be required to abide by the Part 77 airspace requirements at all times, and for all equipment, material and batch plants that may be required for this project. Construction equipment will be limited to stay below the approach surfaces at all times. Coordinates along the haul routes having a height of 15-ft will be submitted to OE/AAA to be evaluated for Airspace impact.

Construction activity shall be prohibited when equipment penetrates the imaginary surface described in Title 14 CFR Part 77 and any restricted area as defined in the current edition of FAA AC 150/5300-13B, Airport Design, unless a favorable airspace finding has been made by the FAA and the Authority and approved by the Operations Specialist on Duty. Equipment that penetrates the Part 77 imaginary surface must display a red obstruction light during nighttime use and an orange and white checkered flag during the day.

NOTE: The Contractor will be advised that it may take up to 12 weeks to obtain an airspace determination for construction equipment, and they must submit information required for inclusion into the 7460 airspace evaluation submittal as soon as feasible after Notice of Award in order to not delay the project schedule. This review should be included in the Contractor's schedule.

3.7 Construction Staging Area and Haul Routes

The Contractor's Staging and Storage Area haul routes, and construction access areas are shown in **Appendix B** – *Construction Phasing Plans*. The Contractor's Staging areas are located outside of all Object Free Areas. Construction access areas and haul routes have been established to minimize impact to airfield operations. The Contractor will be required to supply gate guards at all construction entrances to the airfield when in use. Gate guards will not be required as long as the gates are closed and locked.

During construction, crossing guards are required to be stationed at active Taxiways for construction traffic crossing activity as shown on the phasing sheets and as detailed below:

- Base Bid (Phase 1): Taxiway 'P'
- Base Bid + Additive Alternate Bid 1 (Phase 1): Taxiway 'P'
- Additive Alternate Bid 2 (Phase 2): Taxiway 'G'

Transient haul truck drivers are not required to obtain an Airport ID badge but are required to check in with the Contractor's security guard. The driver shall be issued an orange/white checkered flag to be mounted on the highest point of the truck; and shall be returned to the security guard upon check out. The driver shall be advised to remain on the marked haul route and follow the appropriate signs to the intended work area. At no time shall a driver unfamiliar with the worksite be allowed to deviate from the marked haul route. Additionally, during times of low visibility or darkness, the drivers shall be required to use a flashing amber beacon.

3.8 Temporary Runway and/or Taxi Operations

When the Contractor's operations impact any Runway Object Free Area (ROFA), the respective Runway will be closed, limited, or offset as required in FAA AC 150/5370-2G: *Operational Safety on Airports During Construction*. Reference Section 2, *Phasing* for further information on the required, temporary Runway operations for each construction phase.



3.9 Detours for ARFF and Other Airport Vehicles

All determined airport support vehicle access routes or alternate routes, including established ARFF routes, will be coordinated and maintained throughout the project by the Contractor and Airport personnel. However, because each construction situation is different, the Contractor must coordinate construction vehicle traffic with the Airport Operations for each phase of construction. Contractor vehicle movements to and from the site must conform to approved Access and Haul Roads or as directed by the Airport at the weekly construction meetings. The Airport will coordinate with all stakeholders any detours from existing Airfield Service Roads as needed, throughout the duration of the project.

3.10 Maintenance of Essential Utilities

While not anticipated, essential utilities for structures/buildings may be impacted during construction. The Contractor will be required to provide temporary means of service for any impacted utilities until the impacted utilities are restored. There are several active utility duct banks crossings under Runway '12R-30L'. The Contractor shall confirm depths of all duct banks and either protect them in place or reconstruct the duct bank crossing as detailed within the construction drawings.

3.11 Temporary ATC Procedures

If only the Base Bid is awarded, Runway '12R-30L' will be shortened for the duration of construction to approx. 5,520 feet and will only be open between Taxiway 'G' and Taxiway 'K'. Only arrivals and departures on this shortened portion of the Runway will be allowed and limited to Group II aircraft or smaller. All aircraft movement will be managed by the FA Contract Tower (FCT).

If the Base Bid and Additive Alternate Bid 1 are awarded, Runway '12R-30L' will be shortened for the duration of construction to approx. 3,245-feet and will only be open between Taxiway 'G' and Taxiway 'H'. Only arrivals and departures on this shortened portion of the Runway will be allowed and limited to Group I aircraft or smaller. All aircraft movement will be managed by the FCT.

If the Base Bid, Additive Alternate Bid 1, and Additive Alternate Bid 2 are all awarded construction will take place during two phases. For Phase 1, Runway '12R-30L' will be shortened as described above for the Base Bid and Additive Alternate Bid 1 scenario. For Phase 2, Runway '12R-30L' will be shortened to approx. 5,034 feet and will only be open between Taxiway 'K' and Taxiway 'N'. Only arrivals and departures on this shortened portion of the Runway will be allowed and limited to Group II aircraft or smaller. All aircraft movement will be managed by the FCT.

The IWA FCT will be kept abreast of all construction activities throughout the duration of the project. The Contractor will provide construction schedules at least three weeks ahead of the proposed construction activities to be given to FCT by the Airport Project Coordinator. The FCT will be expected to provide feedback about any concerns that the FCT has for construction areas and Contractor movements. Project sketches will be provided to the FCT so that they are aware of the impacts to aircraft operations on the ground and in the air.

While the Airport will ultimately be responsible for issuing NOTAMs related to construction activities and restrictions, the FCT will be responsible for redirecting pilots from proceeding into construction areas.



3.12 Areas and Operations Affected by Construction Activity

Table 1 - Summary of Base Bid (Schedule I) Operational Effects

Project	inway '12R-30L' Reconstruction Base Bid Only			
Phase/ Duration (Calendar Days)	Existing Operations	Phase 1 (90)		
Scope of Work	N/A	Reconstruction of approx. 1,690 feet of Runway and the construction of temporary asphalt pavement south of TW 'B3', plus RW electrical, signage, and lighting south of TW 'B3'.		
Runway '12R-30L' Operations	Carrier: 95 / day GA: 534 / day Military: 65 / day	Carrier: 0 / day GA: 534 / day Military: 0 / day		
Taxiways 'G', 'K', and 'P' (Between RW '12R-30L' and RW '12L-30R') Average Aircraft Operations	Carrier: 95 / day GA: 534 / day Military: 65 / day	Carrier: 95 / day GA: 534 / day Military: 65 / day		
Effects of Construction Operations	N/A	RW `12R-30L' will be closed from `30L' threshold to TW `K', with aircraft traffic diverted onto and off the open portion of the Runway at TW `K'		
Runway `12R-30L' ADG	V	II		
Runway `12R-30L' Approach Visibility Minimums	1 mile	1 mile		
Runway '12R-30L' Declared Distances Runway '12R-30L'	TORA: 10,401 ft TODA: 10,401 ft ASDA: 10,401 ft LDA: 10,401 ft RNAV (GPS), PAPI-4	TORA: 5,521 ft TODA: 5,521 ft ASDA: 5,521 ft LDA: 5,521 ft RNAV (GPS); temporary Runway End Lights		
NAVAIDs Taxiways `K', `B', `B3', `L', and `N' ADG	V	V		
Special Conditions ARFF Index: C FCT Operational Hours: 05:00 - 24:00 local		RW `12R-30L' will remain open between the RW `12R' end and TW `K' to permit short-field landings on RW `12R' and short-field departures from TW `K'. Aircraft will be controlled by FCT.		



Table 2 - Summary of Base Bid + Additive Alternate Bid 1 (Schedules I & II)

Operational Effects

Project	Runway '12R-30L' Reconstruction Base Bid + Additive Alternate Bid 1			
Phase/ Duration (Calendar Days)	Existing Operations	Phase 1 (120)		
Scope of Work	N/A	Reconstruction of approx. 3,055 feet of Runway and the construction of temporary asphalt pavement north of TW 'K', plus RW electrical, signage, and lighting from north of TW 'K' to the end of the Runway.		
Runway '12R-30L' Operations	Carrier: 95 / day GA: 534 / day Military: 65 / day	Carrier: 0 / day GA: 534 / day Military: 0 / day		
Taxiways 'G' and 'P' (Between RW '12R-30L' and RW '12L-30R') Average Aircraft Operations	Carrier: 95 / day GA: 534 / day Military: 65 / day	Carrier: 95 / day GA: 534 / day Military: 65 / day		
Effects of Construction Operations	N/A	RW `12R-30L' will be closed from `30L' threshold to TW `H', with aircraft traffic diverted onto and off the open portion of the Runway at TW `H'		
Runway `12R-30L' ADG	V	II		
Runway `12R-30L' Approach Visibility Minimums	1 mile	1 mile		
Runway `12R-30L' Declared Distances	TORA: 10,401 ft TODA: 10,401 ft ASDA: 10,401 ft LDA: 10,401 ft	TORA: 3,247 ft TODA: 3,247 ft ASDA: 3,247 ft LDA: 3,247 ft		
Runway `12R-30L' NAVAIDs	RNAV (GPS), PAPI-4	RNAV (GPS); temporary Runway End Lights		
Taxiways `K', `B', `B3', `L', and `N' ADG	V	V		
Special Conditions	ARFF Index: C FCT Operational Hours: 05:00 - 24:00 local	RW `12R-30L' will remain open between the RW `12R' end and TW `H' to permit short-field landings on RW `12R' and short-field departures from TW `H'. Aircraft will be controlled by FCT.		



Table 3 - Summary of Additive Alternate Bid 2 (Schedules III & IV) Operational Effects

Project Runway '12R-30L' Reconstruction (Phase 2)					
Phase/ Duration (Calendar Days)	Existing Operations	Phase 2A (150)	Phase 2B (21)	Phase 2C (150)	Phase 1D (10)
Scope of Work	N/A	Reconstruction of approx. 4,200 feet of RW '12R-30L' including RW shoulders and RSA grading, plus all RW electrical and signage	Partial demo of TW 'H' within the TW 'B' TOFA; grading; construction of TW 'B' shoulder and TW edge light installation; Updated TW 'Y3' signage	Remaining demo of TW 'H'; Full construction of TW 'B2' (within and outside of TW 'B' TOFA); All TW electrical, signage, and pavement marking	Installation of new airfield lighting cable and placement of Runway markings within the TW 'G' and 'RW12R-30L' intersection (Nighttime only)
Runway '12R-30L' Operations	Carrier: 95 / day GA: 534 / day Military: 65 / day	Carrier: 0 / day GA: 534 / day Military: 0 / day			
Taxiways 'G', 'K', and 'P' (Between RW '12R-30L' and RW '12L-30R') Average Aircraft Operations	Carrier: 95 / day GA: 534 / day Military: 65 / day		Carrier: 95 / day GA: 534 / day Military: 65 / day		
Effects of Construction Operations	N/A	RW '12R-30L' will be closed from just north of TW 'K' to south of TW 'G', with aircraft traffic diverted onto and off the Runway at TW 'K'.	Vehicle service road and North Apron restrictions between TW 'H' and TW 'Y4'; TW 'H' closed /demo'd; portion of TW 'B' closed	Portion of TW 'B' closed	TW 'G' / RW '12R-30L' intersection closed (Nighttime only)
Runway `12R-30L' ADG	`12R-30L' V II				
Runway '12R-30L' Approach Visibility Minimums	1 mile	1 mile			
Runway '12R-30L' Declared Distances	TORA: 10,401 ft TODA: 10,401 ft ASDA: 10,401 ft LDA: 10,401 ft	TODA: 5,034 ft			
Runway 12R-30L' NAVAIDs RNAV (GPS), PAPI-4 (RW 12R and RW 30L) RNAV (GPS) for RW '30L' ap		S) for RW '30L' appr	oproach only and 'RW 30L PAPIs'		
Taxiways `G', `B', `H', and `K' ADG	V	TW 'B' and TW	V exce `G' TOFA and TSA adjı	pt for: usted to ADG IV during	g construction.
Special Conditions	ARFF Index: C FCT Operational Hours: 05:00 – 24:00 local	RW `12R-30L' will remain open between the RW `30L' end and TW `K' to permit small aircraft (Aircraft Category I/II) short-field landings on RW `30L' and short-field departures from TW `K'. Aircraft will be controlled by FCT.			



4. NAVIGATION AIDS (NAVAIDS)

4.1 NAVAID Critical Areas

The construction associated with this project will not take place within any NAVAID critical areas.

4.2 Effects of Construction on NAVAID Performance

Base Bid Only (Phase 1)

If only the Base Bid is awarded, construction will take place as part of a single phase. The Runway '3oL' PAPIs and Runway '12R-3oL' medium intensity Runway lights (MIRLs) south of the temporary relocated threshold will be out of service during construction, while approx. 4,775 feet of Runway '12R-3oL' is closed. Aircraft will have 5,521 feet of runway for RW '12R' arrivals and RW '3oL' short field departures from Taxiway 'K'.

Base Bid + Additive Alternate Bid 1 (Phase 1)

If the Base Bid and Additive Alternate Bid 1 are awarded, construction will take place as part of a single phase. The Runway '3oL' PAPIs and Runway '12R-3oL' MIRLs south of the temporary relocated threshold will be out of service during construction, while approx. 7,300 feet of Runway '12R-3oL' is closed. Aircraft will have 3,247 feet of runway for RW '12R' arrivals and RW '3oL' short field departures from Taxiway 'H'.

Additive Alternate Bid 2 (Phase 2)

If the Additive Alternate Bid 2 is awarded, this work will take place as a separate construction phase – Phase 2. During Phase 2, the Runway '12R-30L' MIRLS north of Taxiway 'K' will be out of service while approx. 5,100 feet of Runway '12R-30L' is closed. Aircraft will have 5,034 feet of runway available for RW '30L' arrivals and RW '12R' short field departures from Taxiway 'K'.

During all phases of construction, the distance remaining sign panels will be replaced as needed to correctly display the available runway length for short-field arrivals and departures.

4.3 Protections of NAVAID Facilities

The Runway '12R-30L' PAPIs and distance remaining signs will be disabled as needed and protected in place during construction. Distance remaining signs which are required for the open portions of the runway will have the correct distance panels installed by the electrical Contractor.

If Additive Alternate Bid 2 is awarded, the Runway '12R' PAPIs will be removed and salvaged to allow for RSA grading and the construction of new concrete pads. The existing PAPI units will be installed on new concrete pads.

4.4 Required Distance from NAVAIDs to Construction Areas

The existing segmented circle and wind cone fall within the Construction Phase 2 project limits. If the Additive Alternate Bid 2 is awarded, these NAVAIDs will be removed, the area graded, and replaced in the same location upon the completion of Construction Phase 2.

4.5 Coordination Procedures with FAA/ATO

The Airport staff will be responsible for continually coordinating as required with the FAA/ATO during construction.

5. CONTRACTOR ACCESS

5.1 General

Any time access is required within restricted areas within the airport, the Contractor shall be responsible for assuring that no breaches of airport security occur. Restricted areas are fenced and must remain fenced



at all times. The gates will remain closed and locked, or a guard (badged by the airport) will be provided at the Contractor's expense. The Contractor will furnish the guard with a roster of his personnel and will ensure that each individual has adequate identification. The Contractor will be issued up to three keys for access through an airport secure gate.

The following additional measures must also be taken:

- No person shall enter the Contractor's worksite without authorization. Any person found within the worksite without proper identification as described herein shall be considered unauthorized and shall be reported to Airport Operations.
- All persons authorized access to the worksite shall display a valid Airport ID badge issued by the Airport or be escorted by a badge holder authorized to escort.
- All badged personnel are authorized to provide escorts except when operating equipment.
- Failure to provide an escort can result in loss of escort privileges, fines, revocation of the security badge, or all three.

Reference Section 3.7, *Construction Staging Area and Haul Routes* for additional requirements imposed on the Contractor regarding the Staging Area and Haul Routes.

5.2 49 CFR Part 1542, Airport Security

This project will require that the Contractor and any employees, equipment operators, Subcontractors, and delivery staff working on the airfield undergo the security badging process and will be responsible for being vigilant in helping to maintain security of the airfield. The Contractor will be responsible for posting employees/gate guards at Contractor access points into the secured area of the airfield and for locking each access gate when leaving the project each day.

The airport is operated in strict compliance with Transportation Security Administration (TSA) and Federal Aviation Regulations (FAR), which prohibit unauthorized persons or vehicles in the Air Operations Area (AOA). Equipment and workmen will be restricted to the work area defined on the plans. Any violation by Contractor's personnel or Subcontractors will subject the Contractor to penalties imposed by the TSA, FAA or the Airport.

The Contractor will assume all fines assessed to them by the Airport and all fines against the Airport assessed to them by the FAA/TSA for the Contractor's security violations. Typical FAA/TSA fines are ten thousand dollars (\$10,000.00) or more per incident.

The Contractor shall be responsible for the protection of the construction site, and all work, materials, equipment, and existing facilities thereon, against vandals and other unauthorized persons. Security measures shall include additional security fencing, barricades, lighting, and other measures as the Contractor may deem necessary to protect the site.

The Contractor's responsibilities for work areas are as follows:

- The Contractor shall be held responsible for controlling his employees, Subcontractors, and their employees with regard to traffic movement.
- The Contractor shall rebuild, repair, restore, and make good at his own expense all injuries
 or damages to any portion of the work occasioned by his use of these facilities before
 completion and acceptance of his work.
- The Contractor shall submit to the Resident Engineer in writing a detailed work plan for each construction phase. This plan shall be submitted 14 calendar days prior to the start of each construction phase. No work within the construction phase may commence until the phase work plan is approved.



- The Contractor shall submit to the Resident Engineer in writing a plan, by construction
 phase, for controlling construction equipment and vehicular movements in the Air
 Operations Area (AOA). This plan shall be submitted at the Pre-Construction Meeting. No
 work may commence until this plan is approved by the Airport. The plan must include
 material haul roads.
- The Contractor shall provide a responsible Traffic Manager whose duty shall be to direct all
 construction traffic on or near active Runways, Taxiways, haul roads and highways. Paved
 surfaces shall be kept clear at all times and specifically must be kept free from all debris
 which might damage aircraft.

The following language shall be used in all solicitations, contracts and subcontracts requiring the distribution of security badges to Contractor, Subcontractor or material supplier employees:

Airport Access Badging: All Contractor and/or Subcontractor personnel performing work functions in accordance with this Contract shall obtain and properly display a Phoenix-Mesa Gateway Airport (IWA) airport security badge. After review and approval by the Prime Contractor's Authorized Signatory, each applicant shall schedule an appointment with the Badging Office to drop off their Security Badge Application form. The Prime Contractor is responsible for all payments to the Badging Office for all badges issued under the awarded construction contract.

All Contractor and sub-Contractor personnel that are to be issued an Airport Identification Badge are required to attend and successfully complete a training class before being issued an identification badge. Fees for the security badge include attendance for the necessary training classes. Attendance at the security classes and issuance of the security badge may take 2 hours per person.

The types of training required will be determined by the scope and location of the work involved. All personnel that will receive Airport badges shall attend the security training. Additionally, personnel operating vehicles or equipment within the Restricted Area of the airport will attend Airport Driver training, all personnel working near active movement areas will attend the Operational Safety on Airports training and any personnel acting as a Gate Guard/Crossing Guard will attend the Gate Guard/Crossing Guard training.

Additional information, including a "Frequently Asked Questions" is available via the Internet at www.gatewayairport.com or by contacting the Authority Badging Office at 480.988.7522 or via email to badgingoffice@gatewayairport.com. The Badging Office is located at 5803 S. Sossaman Rd., Mesa AZ 85212.

The Contractor should allow thirty (30) business days lead time for employee badges to be issued.

The Contractor shall immediately notify Airport Operations/Badging Office of any Contractor personnel whose employment status has changed.

The Contractor shall be responsible for retrieving all security badges and keys and return them to the Badging Office. A fee will be charged for each badge that is damaged, lost or not returned.

The Authority Badging Office will require the following from each badge applicant before a security badge is issued:



Contractor-Provided Escorts - The job superintendent and assistant superintendent will be responsible for escorting their non-badged employees, visitors, vendors, subcontractors and material suppliers while on the job site, assuring that no breeches of the Airport security program occur.

Airport security badges are issued by the Authority Airport Operations and will be required when working within the Restricted Area. It is recommended that Superintendents, Foremen, Supervisors, or Leads be issued an airport security badge who then can provide the required escort for their work crew.

Additional information related to badging is listed below.

- Airport ID badges issued by the Airport are property of the Airport and must be surrendered upon the request of any Airport personnel.
- No person shall loan or provide airport ID badges to anyone other than to whom the badge was issued.
- Airport ID badges must be properly displayed on the outermost garment, above the waist, at all times while within the Restricted Area.
- Airport ID badges shall not be mutilated or altered from its original form in any way, nor shall any such media be reproduced or copied in such a manner as to degrade the security of the ID system.
- Airport ID badges are non-transferable.
- Damaged badges will be subject to a replacement fee.
- Contractors are required to wear the armband that accompanies the badge.
- The Contractor shall be assessed a fee for each lost/unreturned badge.
- The Contractor must immediately report to the Badging Office any lost badge or any employee who quits or is terminated, and the employee's badge must be returned to the Authority.

No weapons will be allowed on the airport by any Contractor personnel at any time.

5.3 Location of Stockpiled Construction Materials

All Contractor materials, equipment, and supplies shall be within the Contractor's designated Staging and Storage Areas. All Staging and Storage Areas shall be marked, debris boxes covered, and areas kept neat and clean of debris, see **Appendix A** – *Project Site Plans*.

For equipment that must remain in the work area, the following conditions must be met:

- Be located outside of the Runway/Taxiway safety and obstruction free areas.
- Be marked with lighted barricades around the equipment perimeter with a spacing of no more than 10 feet.
- Be coordinated at least 48 hours in advance with the Resident Engineer.
- The highest point of the equipment must be marked and lit with a red flashing/steady burning omni-directional obstruction light.

Stockpiled materials shall be removed daily from within aircraft movement areas and kept within the Contractor's designated staging and storage areas. Stockpiled material may be located within the Air Operations Area only upon prior coordination and approval of the Resident Engineer. No exceptions will be made for excavated or stored materials to remain within active Runway or Taxiway safety areas and object free zones.

Furthermore, Construction activity shall be prohibited when equipment penetrates the imaginary surfaces described in Title 14 CFR Part 77 and any restricted area as defined in the most current edition of FAA AC 150/5300-13B, *Airport Design*, unless a favorable airspace finding has been made by the FAA and the Airport and approved by the Airport Operations Superintendent or authorized Operations Specialist on



Duty. Equipment that penetrates the Part 77 imaginary surface(s) must display an orange and white checkered flag during daytime operations and a red obstruction light during nighttime use.

5.3.1 Stockpiles within Runway Object Free Areas (ROFAs)

No stockpiles within the Runway Object Free Area (ROFA) are anticipated for this project.

5.3.2 Proper Stockpiling of Materials

Stockpiled materials must be stabilized with water to avoid dust during windy conditions. Daily inspections by the Contractor will be required of the stockpiles and other areas within the construction limits that may be affected by windy conditions. Construction Administration personnel will also be performing daily inspections on these areas to ensure compliance with this aspect.

5.4 Vehicle and Pedestrian Operations

5.4.1 Construction Site Parking

Construction parking will be allowed in the Contractor's Staging and Storage Areas, which are outside of any Object Free Areas. No personal vehicles will be allowed onto the airfield except for inside the Contractor's Staging and Storage Areas. See *Contractor Access Areas* for further information.

5.4.2 Construction Equipment Parking

Construction equipment parking will be in the Contractor's Staging and Storage Areas for any equipment that is not in use. See *Contractor Access Areas* for further information.

5.4.3 Access Haul Roads

Access and haul roads on Airport property will be delineated with the use of low-profile barricades, vertical panel barricades, flagging, temporary construction fencing, escorts, or a combination thereof. Contractor access and haul roads will be verified by the Airport at the time of construction. Only under special circumstances, may the Contractor request special approval from the Airport and Resident Engineer to leave equipment outside the staging and storage areas. See Section 3.7, *Construction Staging Areas and Haul Routes* for further information.

5.4.4 Marking and Lighting of Construction Vehicles

All Contractor and Subcontractor vehicles and construction equipment will be required to have properly marked with the company name at least four (4) inches in height on both sides of the vehicle. All vehicles must have a 3' x 3' orange and white checkered flag at the tallest point on the vehicle for daytime construction activities, and a flashing amber or yellow beacon, mounted at the highest point, for nighttime construction activities.

All vehicle marking and lighting must comply with the most recent version of Advisory Circular 150/5210-5D, *Painting, Marking and Lighting of Vehicles Used on an Airport.*

5.4.5 Proper Vehicle Operations

For the purposes of this project, the AOA is defined as any area within the secured (fenced) area of Phoenix-Mesa Gateway Airport except the Contractor's Staging and Storage Areas, see **Appendix B**. No vehicle shall operate within the Air Operations Area (AOA):

- Unless operated by an individual in possession of a valid Airport Identification Badge with a driver's endorsement or under the direct escort of someone who is.
- In a careless or negligent manner.
- With disregard for the rights and safety of others.
- At a speed or in a way which endangers persons or property.
- While the driver is under the influence of drugs or alcohol.
- If such vehicle is loaded or maintained as to endanger persons or property.



5.4.6 Vehicle Driver Training Requirements

All Contractor and Subcontractor personnel that are to be issued an Airport Identification Badge, including for vehicular privileges, are required to attend and successfully complete a training class before being issued an identification badge. Fees for the security badge include attendance for the necessary training classes.

The types of training required will be determined by the scope and location of the work involved. All personnel that will receive Airport badges shall attend the security training. Additionally, personnel operating vehicles or equipment within restricted area of the airport will attend driver training provided by the airport, all personnel working near active movement areas will attend the Operational Safety on Airports training and any personnel acting as a Gate Guard/Crossing Guard will attend the Gate Guard/Crossing Guard training. See Section 5.2, 49 CFR Part 1542, Airport Security for further information.

5.4.7 Two-Way Radio Communications Procedures

Should any Contractor employee need to communicate via radio with the Air Traffic Control Tower, the following procedures will be used:

- All flaggers, spotters and observers controlling equipment crossing active aircraft areas will
 receive training and are required to have a fully operational and Authority-approved radio
 to contact the FCT to report any problems that may affect aircraft operations (Contractor
 must provide the Authority-approved radio). They shall be familiar with radio call signs,
 channels and phone numbers. All observers and flaggers shall immediately contact
 Operations if any equipment or vehicle becomes disabled or is unable to yield to aircraft for
 any reason.
- Use telephone equipment to contact Airport Operations and the contractor Foreman for notification of any security violation or threat to airport safety. Report any failure of radio or back-up equipment immediately.
- Assure that all authorized contractor employees or suppliers use designated haul route and contractor staging and storage areas.

These procedures will also be discussed at length during the Pre-Construction Meeting for this project and will be part of the vehicle driver training.

5.4.8 Maintenance of Airport Secured Area

The Contractor will be required to maintain situational awareness for the duration of this project, and will be required to report suspicious situations, persons, and/or materials to the nearest Airport employee. See Section 5.2, 49 CFR Part 1542, *Airport Security* for further information.

6. WILDELIFE MANAGEMENT

Construction contractors must operate in accordance with the airport operator's wildlife hazard management plan, controlling and removing waste or loose materials that might attract wildlife, see AC 150/5200-33C, Hazardous Wildlife Attractants On or Near Airports.

6.1 FOD

The Contractor shall perform daily inspections of the work areas (including the Contractor's Staging and Storage Areas) to remove any trash, debris, and food scraps, and place these items in an appropriate trash receptacle. Trash receptacles, regardless of type and size, must always be covered and secured to eliminate the possibility of contents from escaping.



6.2 Standing Water

The Contractor shall approach his/her operations in a manner that minimizes the potential for standing water. When water begins to stand on site, the Contractor shall begin pumping water to drain the area within 24 hours to prevent the attraction of wildlife.

6.3 Tall Grass and Seeds

The Contractor shall mow areas under his/her responsibility, including, but not limited to, project site, Staging and Storage Areas and exclusive-use haul roads, to prevent the growth of vegetation over 6 inches. Requirements for turf establishment should comply with the guidance in AC 150/5370-10H, *Standard Specifications for Construction of Airports*, Items C-102, and T-901.

6.4 Properly Maintained Fencing and Gates

The Contractor shall close and lock any airfield access gates that are not actively in use. Any fencing installed by the Contractor shall be properly maintained to prevent the intrusion of wildlife and unauthorized people.

6.5 Disruption of Existing Wildlife Habitat

The Contractor shall report any significant wildlife sightings within the AOA to Airport Operations.

6.6 Airport Wildlife Management Procedures

The Contractor will be required to follow any Airport Wildlife Management Procedures that are in place at the airport; however, at a minimum the Contractor will be required to perform the following:

- Close and lock any airfield access gates that are not in use.
- Report any significant wildlife sightings within the AOA to Airport Operations.
- Keep site free of wildlife attractants; food scraps, wrappers, beverage containers, etc.

7. FOREIGN OBJECT DEBRIS MANAGEMENT

This project will include the movement of construction vehicles adjacent to active airfield pavements, therefore the Contractor will be required to maintain a fully operational sweeper vehicle on-site during the project (non-metallic brush broom sweeper preferred – no metal brushes allowed on the airfield). Furthermore, once any portion of any construction phase is ready to be opened to aircraft traffic, the Contractor, Resident Engineer, and Airport personnel shall drive and/or walk the area to determine that all Foreign Object Debris (FOD) that may have been generated is no longer present.

The Contractor will be required to keep water on construction areas to minimize the possibility of FOD generated by wind. The Contractor will be required to conduct FOD checks continuously during each working shift and at the end of each working shift/day to remove any FOD that has made its way onto the airfield pavements from the Contractor's construction activities. Airport Operations and Construction Administration personnel will be present for these FOD checks to ensure compliance.

8. HAZARDOUS MATERIAL MANAGEMENT

Any hazardous or regulated waste material produced by the Contractor's operations shall be properly disposed of at the Contractor's expense pursuant to all local, state and federal regulations. The Contractor may be required to provide test results to confirm that a contaminated area has been properly remediated. Any hazardous materials situation that poses a threat to safety or property shall be immediately reported to emergency personnel, by dialing '911', and to Airport Operations.

9. NOTIFICATION OF CONSTRUCTION ACTIVITIES

All proposed construction activities that affect operations at the Airport will be immediately relayed to all Airport Users and the FAA by way of meetings, advisories, NOTAMs, and the filing of Form 7460 as



appropriate (minimum of 60 days prior to the proposed construction), all issued by one of the Airport's designated staff or Resident Engineer.

Anticipated night work by the Contractor will need the Authority approval prior to proceeding with the night work.

9.1 Maintenance of a List of Responsible Representatives/Points of Contact

A full list of Points of Contact and Contact Procedures will be developed prior to the Pre-Construction Meeting for this project. Under normal circumstances, all communications concerning the construction project between airport stakeholders and the Contractor shall be channeled through the Resident Engineer who shall be the primary point of contact for all communications concerning the construction project. Matters relating to Airport Operations and Airport Traffic Control will be handled through the Airport and the FCT, with assistance from the Resident Engineer and/or Contractor as needed.

Information, Compliance, and Assistance Airport Operations					
PMGAA Project Manager (Bob Draper)	480-988-7705	(Mon-Thurs, 7:00 am -6:00 pm)			
Operations Specialist on Duty	480-988-7570	(24 Hours/Day, 7 Days/Week)			
Emergency (Mesa Dispatch)	911	(24 Hours/Day, 7 Days/Week)			
Non-Emergency (Police, Fire, Rescue)	480-644-2211	(24 Hours/Day, 7 Days/Week)			
Badging	480-988-7522	(Mon-Thu, 7:00 am to 5:00 pm)			
Dauging	400-900-7322	(Closed noon to 1pm)			

9.2 Local ATO/Technical Operations Personnel

The Airport will be responsible for all communications with the local ATO/Technical Operations.

9.3 ATCT Managers on Duty

The Airport will acquire a list of the FCT Managers on duty for the project prior to construction commencing. This list will be available for use by Airport staff by the date of the Pre-Construction Meeting. This will also be a regular item discussed at the weekly construction meetings.

9.4 Authorized Representatives to the FAA's Operational Control Center (OCC)

The Airport staff will be responsible for notifying the OCC about closed facilities and/or hazardous conditions at the Airport. The OCC will be notified about closed facilities as soon as practicable following reliable scheduling meetings.

Unanticipated hazardous conditions will be immediately relayed to the OCC by Airport staff.

9.5 Notice to Air Missions (NOTAM)

Construction NOTAMs will be filed by the Airport staff approximately three (3) days prior to construction beginning in the area which the NOTAM references, or prior to any change in airfield conditions which may affect operations or safety. The Contractor will be required to submit pertinent information to the airport for any construction items that would require the issuance of a NOTAM a minimum of 2 weeks prior to the work being performed.



9.6 OCC Notification about Closed Facilities and/or Hazardous Conditions on the Airfield

The Airport staff will be responsible for notifying the OCC about closed facilities and/or hazardous conditions at the Airport. The OCC will be notified about closed facilities as soon as practicable following reliable scheduling meetings. Unanticipated hazardous conditions will be immediately relayed to the OCC by Airport staff.

9.7 Emergency Notification Procedures

In the event of a serious injury requiring medical attention call 911. If calling from a cell phone tell the emergency operator to connect to the City of Mesa Emergency Dispatch, otherwise the call may be routed to Pinal County Dispatch and that could delay emergency response. All injuries must also be reported to Airport Operations as soon as possible after notifying 911.

The Contractor shall submit to the Resident Engineer a list of personnel who can be contacted 24 hours a day, seven (7) days a week and can respond in a reasonable time frame regarding any possible emergency on the work site. The list must include names, job title and phone numbers.

9.8 Coordination with ARFF for Non-Emergency Issues

For any non-emergency issue that needs coordination with the Airport's ARFF, the Contractor should notify Airport Operations or the Airport Project Manager. Non-emergency issues include but are not limited to:

- Coordination with ARFF for work in the vicinity of the ARFF building
- Coordination with ARFF for ARFF access routes around construction work areas

9.9 FAA Notification under CFR Parts 77 and 157

During Phase 2, the existing segmented circle and wind cone located adjacent to the Runway 12R end will require relocation; however, it is not anticipated that this relocation will affect CFR Parts 77 and 157. In any case, the Airport will coordinate with the FAA as needed.

9.10 Reimbursable Agreements for Flight Checks

No flight checks or reimbursable agreements are anticipated as a result of Phase 1 or Phase 2 construction.

10. INSPECTION REQUIREMENTS

10.1 Daily and Interim Inspections

Daily inspections will be required for areas with haul routes on active airfield pavements to ensure that Foreign Object Debris (FOD) is minimized. In addition, daily inspections of Contractor access areas will be performed to help ensure safety of the airfield. Daily inspections will be conducted by an Airport Operations employee, a Contractor representative, and a Construction Administration field representative.

Special inspections will be required for airfield facilities serving areas that are ready to be re-opened to aircraft traffic after certain phases of the project. Special inspections will be attended by an Airport Operations employee, a Contractor representative, and a Construction Administration field representative.

All discrepancies noted in the inspection must be corrected to the satisfaction of the Resident Engineer prior to the Contractor leaving the worksite.

Should any inspection reveal any FOD concerns, the Contractor shall have a crew ready to remove any FOD prior to reopening the pavements. Should any inspection reveal work that does not meet Contract requirements or that is deficient in any way, the Contractor shall mobilize a crew as soon as possible to remedy the deficient areas to avoid prolonging the continued closure of the area(s).



10.2 Final Inspections

Inspections will be required at the Substantial Completion and Final Completion phases of the project. These inspections will be attended by the Contractor, Airport Operations Superintendent, an FAA Grant Manager, an ADOT Grant Manager, the Resident Engineer, and Construction Administration representatives. A punch list will be developed at the Substantial Completion inspection, and any items placed on the punch list will be required to be completed within 30 days. Final Inspection will be scheduled 30 days after the substantial completion walkthrough.

11. UNDERGROUND UTILITIES

Prior to beginning construction on the airfield, the Contractor will be required to Blue Stake and pothole any existing utilities in the project areas that may conflict with other project elements. Protection of utilities may include, but is not limited to, flagging utilities, marking lines on pavement, placement of barricades along utility lines and at manholes. Refer to the Special Provisions for detailed direction for the location of underground utilities.

12. PENALTIES

The Contractor will be required to enforce his company's safety policies with the employees working on this project. In addition, the Airport may enforce policies that are in place to protect the safety of the Airport property, its users, and the local Airspace. These policies include, but are not limited to, the following:

- Informal conversations with the subject person or party
- Formal meetings/conversations with the subject person or party and their supervisors/managers
- Formal written notices of non-compliance from the Airport
- Immediate removal from Airport property
- Notification of law enforcement personnel for persons that cause situations posing dangerous threats to property or personal safety.

Due to the safety and security precautions necessary at the Airport, failure of the Contractor to adhere to the prescribed requirements/regulations can result in consequences that may jeopardize the health, welfare and lives of the customers and employees at the Airport, as well as the Contractor's own employees. Therefore, if the Contractor is found to be out of compliance with the security, airfield badging/licensing and airfield safety requirements by either the Airport's personnel or the Resident Engineer or his representatives, the Airport may issue a Notice of Violation (NOV). The Contractor may appeal the NOV; however, appeals must be made in writing, and within four (4) calendar days of the offending incident, to the Airport Operations Superintendent. The appeal shall state, in sufficient detail, why the NOV/circumstances are unwarranted. A final and binding decision on the appeal will be made by the Airport Director within ten (10) working days of receipt of the appeal, and the Contractor will then be notified of this decision in writing. No further appeals to the specific NOV will be considered/accepted.

Subsequent fines and/or requirements, if any, will be applied in accordance with



Table 4 - Schedule of Fines, and the applicable amount will be withheld from the Contractor's monthly payment application following the date of the violation. The Prime Contractor shall be held financially responsible for all NOV's issued to their Subcontractors, lower tier Subcontractors, or material suppliers associated with this Contract.



Table 4 - Schedule of Fines

Description of Fines	1 st Offense	2 nd Offense	3 rd Offense
Not having proper and current Airport Security Badge or not properly displaying Airport Security Badge.	\$1,000	\$5,000	\$15,000
Unauthorized access to AOA by construction personnel or access through construction gate by unauthorized personnel.	\$1,000	\$5,000	\$15,000
Failure to Escort / be Escorted.	\$1,000	\$5,000	\$15,000
Operating a vehicle or mobile construction equipment without a current Ramp Driver's permit.	\$1,000	\$5,000	\$15,000
Failure to stop at a designated Stop, or exceeding the maximum speed limit, or deviating from designated service roadway or haul routes.	\$1,000	\$5,000	\$15,000
Failure to yield to airside personnel or vehicles.	\$1,000	\$5,000	\$15,000
No logo on vehicle or logo is not correct in name and dimension.	\$1,000	\$5,000	\$15,000
Runway incursion.	\$15,000	\$20,000	\$25,000
Runway/Taxiway deviation of an active Taxiway, or apron.	\$10,000	\$15,000	\$20,000
Safety violation, such as insufficient barricades, no flags or amber beacons on vehicle or equipment, no red obstruction lighting on cement silo, batch plants, cranes or other equipment with significant height, or failure to yield to aircraft, etc.	\$5,000	\$10,000	\$15,000
Non-compliance with the Authority's lock-out tag-out procedures.	\$5,000	\$10,000	\$15,000
Failure to backfill open trenches within time specified.	\$5,000	\$10,000	\$15,000
Failure to provide lighted barricades.	\$5,000	\$10,000	\$15,000
Failure to provide functional temporary edge lighting.	\$5,000	\$10,000	\$15,000
All other NOV not listed in this table.	\$1,000	\$5,000	\$15,000



13. SPECIAL CONDITIONS

Special unforeseen conditions or circumstances may require the activation of special procedures by the Airport. In cases involving aircraft emergencies or distressed aircraft, the Contractor may be required to temporarily halt construction activities and immediately vacate the area in which he is working. The nearest Airport Operations employee will be expected to notify all Contractor personnel in the vicinity and promote safe and orderly removal of all Contractor personnel and equipment to an area that is no longer in conflict with the emergency at hand. The Contractor will be expected to immediately comply with all Airport personnel directions and may not return to the subject work area until given the permission to do so.

In the event of low-visibility conditions, or other conditions which may signal the need for additional unimpeded space next to Runways or Taxiways, the Contractor may be required to move to another work area of the project or temporarily stop work. The Contractor will be made aware of the possibility of these situations during the Pre-Construction Meeting.

14. RUNWAY AND TAXIWAY VISUAL AIDS - MARKING, LIGHTING, SIGNS, AND VISUAL NAVAIDS

14.1 General

Temporary visual aids may be used from time to time as the project progresses to increase safety. Any temporary visual aid, including temporary edge lights or threshold lights for relocated thresholds, will be secured either in-pavement or with heavy items preventing blow-away (against jet-blast, prop wash or an approximate 90 mph wind), while at the same time not obscuring the objects themselves.

14.2 Frangibility Requirements

All temporary visual aids must have frangible connections. Connections shall be submitted for approval by the Resident Engineer.

14.3 Permanent Markings

Any permanent markings that may be required for this project will meet the requirements of FAA Advisory Circular 150/5340-1M, *Standards for Airport Markings*.

14.4 Temporary Markings

No temporary markings are required for this project.

14.5 Lighting and Visual Aids

Lighting for all barricades used within the AOA shall be omnidirectional. All barricading and lighting shall conform to the details in the plans and specifications. Low-profile barricades shall be placed side-by-side and shall be placed to prevent ground vehicle traffic from moving onto active airfield pavements (barring a deliberate act), and alert aircraft traffic of closed facilities.

Appendices B and **C** show the placement of all barricades and their locations.

Lighting for any closed facilities will be disconnected or covered and secured with a material that prevents light leakage. Disconnected lighting shall be completed to not affect the remaining portion of facilities that may be open to aircraft traffic.

Lighted X's will be used any time a Runway is closed due to work being performed on the actual Runway itself, or within the safety areas of the Runway. The lighted X's will be placed over the Runway designation markings in accordance with AC 150/5340-1M, *Standards for Airport Markings*.



Lighting shall conform to AC 150/5340-30J: *Design and Installation Details for Airport Visual Aids* and AC 150/5345-50B: *Specification for Portable Runway and Taxiway Lights*.

14.6 Signs

Signs shall conform to AC 150/5345-53D: Airport Lighting Equipment Certification Program, AC 150/5345-44K: Specification for Runway and Taxiway Signs and AC 150/5340-18G: Standards for Airport Sign Systems.

Temporary airfield signing is not anticipated for this project. However, airfield signage illuminated to indicate an open facility that is actually closed due to construction shall be covered and secured with a material that prevents light leakage. Signs may be partially covered, as a number of signs have multiple panels. In this case, only the affected panels shall be covered.

15. MARKING AND SIGNS FOR ACCESS ROUTES

Temporary signing used for Contractor access/haul routes, open trenching or other hazards shall be clear, concise, reflective, and large enough to minimize safety-related issues. All temporary signing shall meet the requirements of the most current version of AC 150/5340-18G, and to the extent practicable, with the MUTCD and/or State highway specifications. All temporary signs shall also be properly weighted and/or secured to withstand site and elemental conditions. The contractor shall provide vertical panel barricades along its haul route spaced at 200-ft on center on both sides staggered.

16. HAZARD MARKING AND LIGHTING

16.1 General

Hazards, such as open trenches, manholes, stockpiled materials, small areas under repair, waste areas, and steep embankments shall be barricaded and lighted with orange fabric construction fencing to prohibit accidental falls. The Contractor's site-specific and company safety plans/guidelines shall address the protection of these areas and the protection of the employees against these hazards. The Contractor shall also assign a Project Safety Officer for the project to monitor and enforce the Contractor's safety guidelines and the provisions of this Construction Safety Plan.

When areas on the Airport are closed or present hazards due to construction activities, they should be marked and lighted according to AC 150/5340-1M, *Standards for Airport Markings*. Marking and lighting must be approved by the Operations Specialist on Duty.

Some less obvious construction related hazards include, but are not limited to, the following:

- Loose debris, trash, etc. in the work areas
- Loose debris, trash, etc. on or in the bed of vehicles
- Jet blast/Prop blast
- Aircraft engine run-up noise

The Contractor shall be vigilant in keeping the work areas in a safe and trash-free condition as much as possible to prevent debris from making its way onto active airfield pavements. The Contractor shall also exercise due care when working in the vicinity of active aircraft. This can include the use of hearing protection and the securing of clothing and hardhats while working.

16.2 Equipment

Construction areas will be barricaded with either vertical panel or low-profile barricades on aircraft movement areas. For construction areas that do not include aircraft operating areas, vertical panel barricades may be used to prohibit vehicle and pedestrian traffic. All barricades must have flashing red or steady burn lights.



Barricades, temporary markers approved by the Airport, and any other warning equipment placed or left in areas adjacent to any open aircraft movement area, (i.e. Runway, Taxiway, taxilane, etc.), shall be as low to the ground as possible, not more than 18 inches in height (unless otherwise noted on the phasing plans). All barricades and temporary markers shall also be properly secured to withstand the site and elemental conditions such as typical winds, prop wash, and jet blast. All barricading requirements regarding type, spacing, etc. were provided in the plans and are further identified in the Contract Documents, specifically the Special Provisions Section 60. Low-profile barricades shall be used and shall be reflective, have an omnidirectional steady-burning or flashing red LED light, and shall be properly secured (screwed-in). Clamps or straps will not be allowed. Barricades shall be placed such that a breach is physically prevented barring a deliberate act.

Temporarily closed Taxiways will be denoted with barricades as outlined in this report and identified on the project plans. If determined necessary by the Airport, partially closed Taxiways shall have the appropriate markings obliterated (with either sandblasting or water-blasting) that would indicate a fully operational facility. Taxiway closure markers, conforming to AC 150/5340-1M, *Standards for Airport Markings*, shall be placed on temporarily closed Taxiways near Taxiway/Runway intersections.

Red lights on low-profile barricades shall be of the omni-directional, flashing or steady-burn type. The rate of flash and illumination, as well as barricade reflectivity, shall meet the requirements of the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). Additional lighting shall be provided if determined necessary by Airport Operations.

16.2.1 Maintenance

The Contractor shall designate an employee (or Subcontractor) to be responsible for the regular maintenance of barricades and lighting. In addition, the Contractor shall provide an emergency contact number for the responsible individual to perform any emergency maintenance on any barricades or lighting and ensure functional operation of all hazard lighting and barricades 24 hours per day, 7 days per week. The designated person or Subcontractor shall be able to respond to the Airport within one (1) hour of notification of a non-functioning barricade.

Barricading and lighting equipment shall be secured to prevent blow-down. This may include the use of water-filled items, sandbags, and/or flat heavy footings. Temporary lighting may be secured to the pavement with nails or screws.

16.2.2 Supplement Barricades with Signs

Signage shall be installed when determined necessary by Airport Operations, i.e. "No Entry".

17. WORK ZONE LIGHTING FOR NIGHTTIME CONSTRUCTION

Lighting equipment must adequately illuminate the work area for construction performed during nighttime hours following minimum illumination levels per AC 150/5370-10, *Standard Specifications for Construction of Airports*, current edition.

18. PROTECTION OF RUNWAY AND TAXIWAY SAFETY AREAS

18.1 Construction within Runway Safety Areas

No construction will take place within the RSA of an active runway. This project requires partial closures of Runway '12R-30L' for Phase 1 and Phase 2 construction. To maintain safety on the airfield there are measures that include strict coordination with the Airport, FCT, and the Resident Engineer. Contractor



requests to perform work outside of the current construction area that would impact a Safety Area require at least a 48-hour notice to the Airport.

18.2 Adjustment of Runway Safety Areas

No **permanent** impact or adjustment to any RSA is anticipated for this project for an active runway. Temporary extended runway safety areas are provided for the short field runway arrivals and departures for each phase.

During Phase 1 an extended runway safety area is provided north of Taxiway 'K' beyond the temporary threshold lights.

During Phase 2 an extended runway safety area is provided south of the temporary relocated threshold south of Taxiway 'B2' beyond the temporary threshold lights.

Refer to **Appendix B** for barricade placement locations which include allowance for the extended runway safety areas beyond the temporary threshold locations.

Any temporary adjustments made to RSA dimensions will require issuing of a local NOTAM to be coordinated between airport operations, FCT, and FAA District Office.

18.3 Jet Blast Protection

Contractor's company safety plan/guidelines shall include a provision for jet blast protection. At a minimum, it should address requirements for the securing of clothing and hardhats, as well as any requirements for hearing protection.

18.4 Excavations

18.4.1 Requirements for Open Procedures

No trenches shall be left open within RSA's unless the RSA is closed. Any trenching within an RSA needing to be left open after the Contractor leaves the work site for the day shall be properly plated and capable of safely supporting aircraft traffic, but it is the intent that this be a unique situation with very limited occurrences. Any requests of this type shall be submitted in writing to the Resident Engineer at least 48 hours prior to the construction. The Resident Engineer will confer with the Airport and the FAA, and any decision related to the specific situation at hand shall be final.

Contractors shall close trenches located within active safety areas at the end of each workday. No open trenches or excavations will be allowed within 250 feet parallel to a runway centerline without prior coordination and approval with the Resident Engineer.

Additional requirements:

- Open trenches and spoils length not to exceed 500 feet in length at any one time.
- Spoils from excavations are to be placed on the runway/taxiway side that is closest to the trench.
- Spoil height is not to exceed 4 feet or any height that would cause a visual obstruction.
- Spoils not returned to the trench or removed from the worksite are to be properly marked with lighted barricades with a spacing of no more than 10 feet or as required to properly delineate the trench.

Furthermore, all grading and soil erosion control shall be addressed as identified in the construction documents.



18.4.2 Appropriate Covering of Excavations within RSA

Hazards such as open trenches, major excavations, manholes, and steep embankments shall be barricaded, lighted, and outlined with appropriate orange fabric construction fencing (or similar construction safety item approved by the airport) to prohibit accidental falls. The Contractor's site-specific and company safety plans/guidelines shall address the protection of these areas and the protection of the employees against these hazards. See *Hazard Marking and Lighting* for further information, and *Requirements for Open Procedures* for requirements for appropriated covering or filling of excavations within the RSA during operation of the adjacent Runway.

18.4.3 Marking of Excavations and Open Trenches

Hazards, such as open trenches, major excavations, manholes, and steep embankments shall be barricaded and lighted to prohibit accidental falls. The Contractor's site-specific and company safety plans/guidelines shall address the protection of these areas and the protection of the employees against these hazards. See *Hazard Marking and Lighting* for further information.

18.4.4 Erosion Control

The Contractor will be required to maintain graded infields (per RSA/TSA standards) while work is being performed. Upon completion of work within the graded infields, the Contractor will be required to leave the area in accordance with the specification standards, or as identified in the plans.

18.5 Runway Object Free Area (ROFA)

Construction activities will not occur within any Object Free Areas of an active Runway. Respective sections of Runway '12R-30L' under construction will be closed to aircraft traffic. There are measures that include strict coordination with the Airport, FCT, and the Resident Engineer. Contractor requests to perform work within an OFA will require at least a 48-hour notice to the Airport.

The Contractor will be required to place barricades along the RSA of any active Runway while work is taking place within the Runway OFA and parallel to but outside the RSA to prevent incursions. The Contractor will be required to coordinate with Airport Operations while constructing within an OFA, and the Airport will be responsible for all NOTAMs.

18.6 Taxiway Safety Area (TSA)

18.6.1 Construction Within Taxiway Safety Areas

No construction activities will occur within active Taxiway Safety Areas (TSAs). However, during Phases 1 and 2, construction will take place within portions of TSAs for closed Taxiways.

Phase 1 (Schedule I or Schedules I & II)

See Appendix B, Construction Drawing sheets **G1-2.1** and **G2-2.1** for construction occurring within the TSAs of inactive taxiways.

Phase 2 (Schedules III and IV)

See Appendix B, Construction Drawing Sheets **G3-2.1 through G3-2.5** for construction occurring within the TSAs of inactive taxiways.

Strict coordination with the Airport, FCT, and the Resident Engineer will occur during these times. Contractor requests to perform work outside of the identified construction areas that would impact a Safety Area requires at least a 48-hour notice to the Airport.

18.6.2 Adjustment of Taxiway Safety Areas

During Phase 1, the TSA for Taxiways 'G', 'B', and 'K' will be adjusted to ADG IV design standards for both the TSA and TOFA. This reduces the TSA from 214 feet to 171 feet and reduces the TOFA from 320 feet to



243 feet wide centered on the taxiway centerline. There are no changes to TSA's or TOFA's during Phase 2 construction.

18.6.3 Blasting Operations

Blasting is not allowed on this project.

18.6.4 Requirements for Open Procedures

No trenches shall be left open within TSAs. Any trenching within a TSA needing to be left open after the Contractor leaves the work site for the day shall be properly plated and capable of safely supporting aircraft traffic, but it is the intent that this be a unique situation with very limited occurrences. Any requests of this type shall be submitted in writing to the Resident Engineer at least 48 hours prior to the construction. The Resident Engineer will confer with the Airport and the FAA, and any decision related to the particular situation at hand shall be final.

Contractors shall close trenches located within active safety areas at the end of each workday. No open trenches or excavations will be allowed within the TOFA of any active Taxiway or RSA of any active Runway without prior coordination and approval with the Resident Engineer.

Additional requirements:

- Open trenches and spoils length not to exceed 500 feet in length at any one time.
- Spoils from excavations are to be placed on the Runway/Taxiway side that is closest to the trench.
- Spoil height is not to exceed 4 feet or any height that would cause a visual obstruction.
- Spoils not returned to the trench or removed from the worksite are to be properly marked with lighted barricades with a spacing of no more than 10 feet or as required to properly delineate the trench.

Furthermore, all grading and soil erosion control shall be addressed as identified in the construction documents.

18.6.5 Appropriate Covering of Excavations within TSAs

No major excavations within active TSAs are anticipated on this project.

18.6.6 Marking of Excavations and Open Trenches

Hazards, such as open trenches, major excavations, manholes, and steep embankments shall be barricaded and lighted to prohibit accidental falls. The Contractor's site-specific and company safety plans/guidelines shall address the protection of these areas and the protection of the employees against these hazards. See *Hazard Marking and Lighting* for further information.

18.6.7 Maintenance of TSA's

No impact or adjustment to any TSA is anticipated for this project for an active Taxiway except as noted above (Section 18.6.2).

18.7 Taxiway Object Free Area (TOFA)

When construction impacts any TOFA of an active Taxiway, the respective Taxiway will be closed. Reference Section 2, *Phasing* and **Tables 1** and **2** for additional information regarding the construction phasing.

Construction equipment not in use shall be returned to the Contractor's Staging Area by the Contractor, where practicable. In no case shall construction equipment be left within any Object Free Areas.

18.8 Obstacle Free Zone (OFZ)

The Runway '12R-30L' OFZ is 400 feet wide, centered on the Runway centerline. During both Phase 1 and Phase 2 construction the runway will be partially open to small aircraft operations for short field arrivals and departures. Work will not take place within the OFZ of the partially opened sections of runway. Refer to **Appendix B** for more detailed information.



18.9 Runway Approach and Departure Surfaces

During Phase 1 (Schedule I & II) and Phase 2, portions of Runway '12R-30L' will be closed. See **Tables 1** and **2** for information related to how the closures affect the approach and departure surfaces for each Runway end.

19. OTHER LIMITATIONS ON CONSTRUCTION

Specific limitations on construction are included but not limited to the following:

19.1 Prohibitions

19.1.1 Use of Open Flame Welding/Torches

Open flame welding and the use of torches shall be approved by the Airport prior to the project commencing. Open flame welding and the use of torches may require a "Hot-Work Permit" by a governing agency (the City of Mesa). If this type of work is required on this project, the Contractor shall notify the Airport Operations Superintendent.

19.1.2 Use of Electrical Blasting Caps

The use of electrical blasting caps is not permitted on the Airport property.

19.1.3 Use of Tall Equipment

The use of tall equipment is not permitted unless a 7460-1 determination letter is issued.

19.2 Restrictions

19.2.1 Airfield Lighting Vault Lock-Out/Tag-Out Policy

The purpose of this procedure is to standardize the lock-out/tag-out procedures between Electrical Contractors, Airport Electricians:

- Airport electricians responding to lockout/tagout will provide access for the Contractor electricians, assist and observe.
- The Contractor will submit a lockout/tagout plan for airport approval. The lockout/tagout plan must meet all applicable OSHA and industry standards.
- The Airport is responsible for notifying all affected parties.

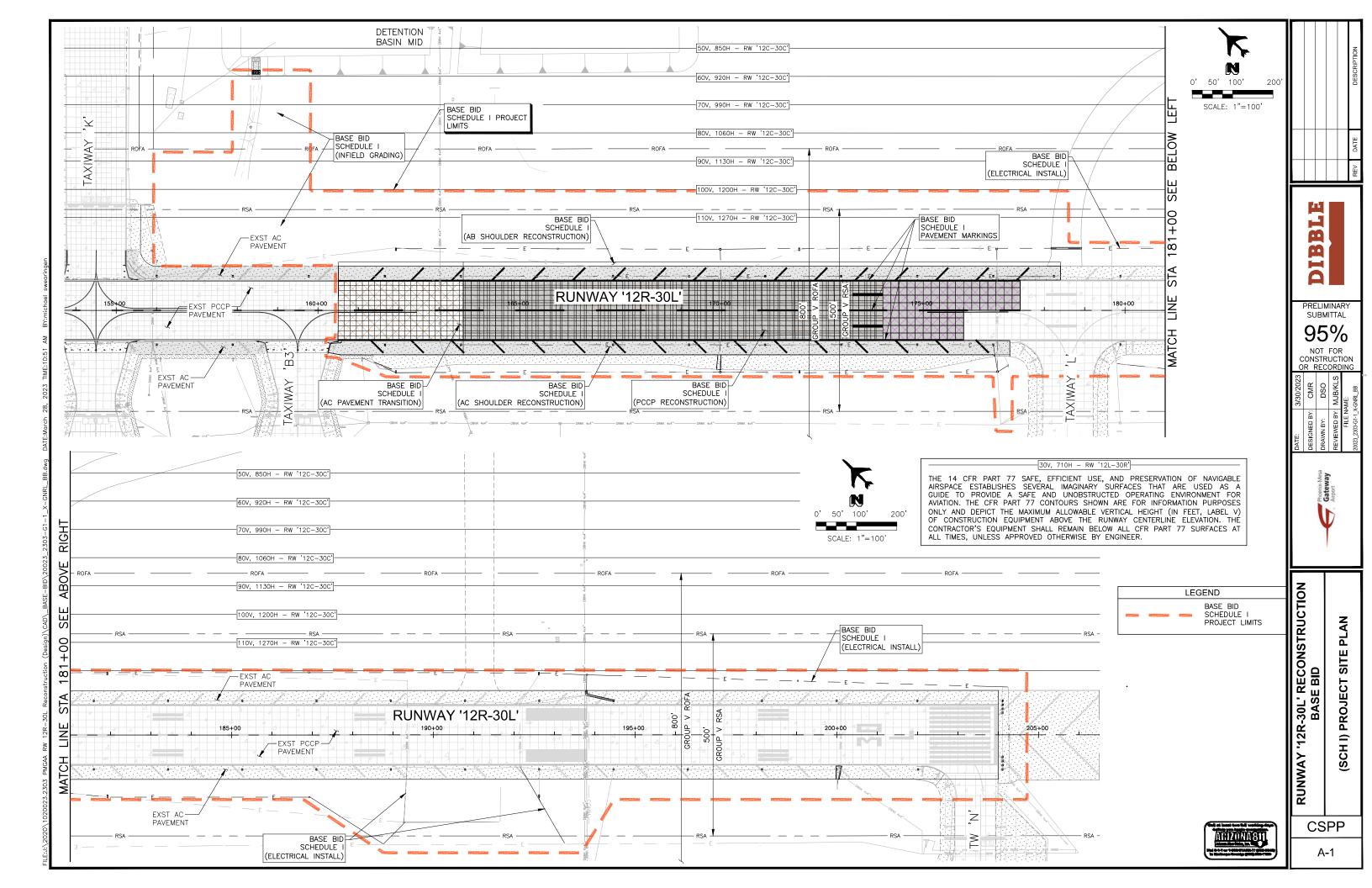
19.2.2 Contractor Employee Safety

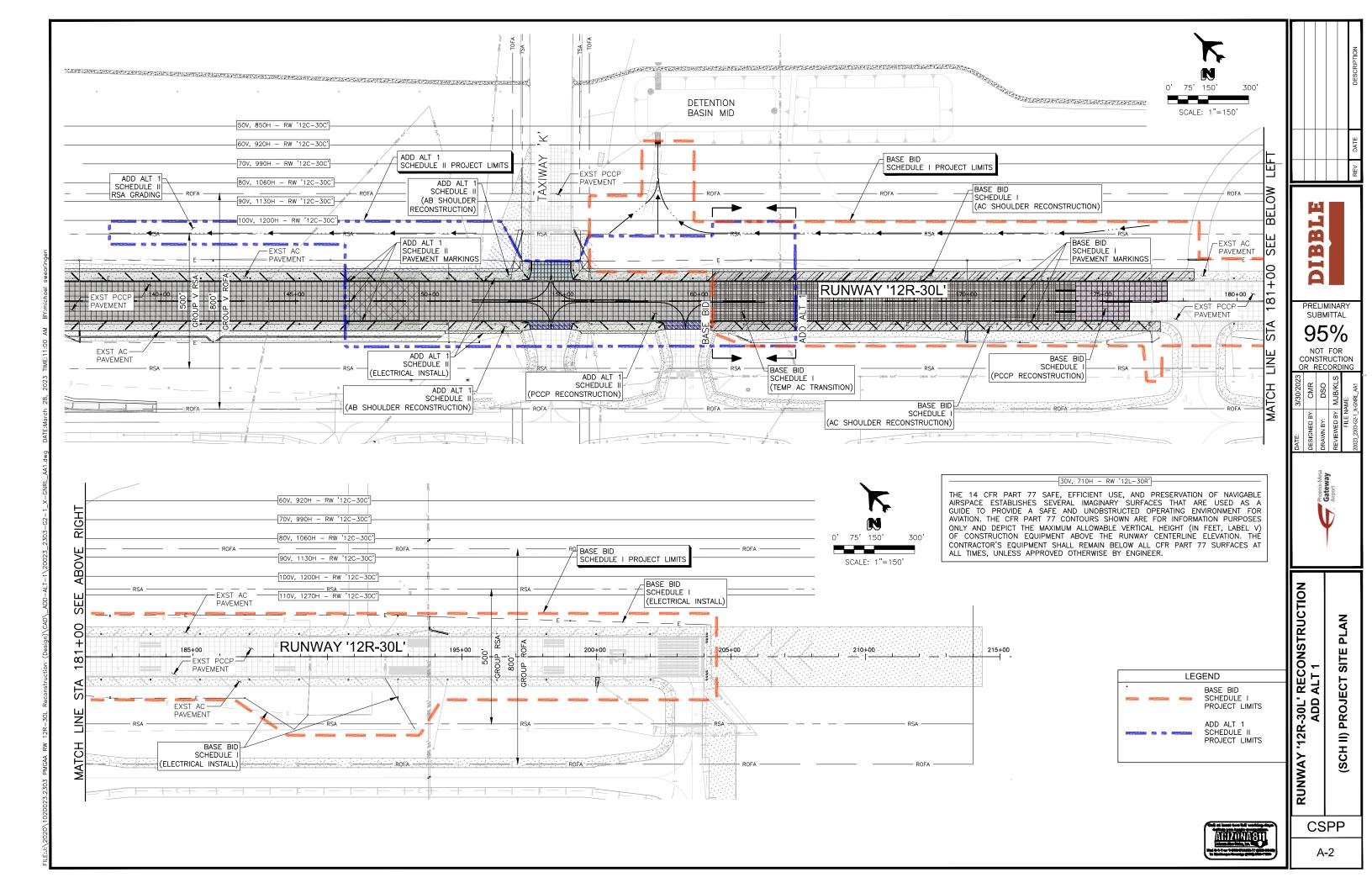
The Contractor and its employees shall employ safe practices per the Contractor's safety procedures and industry safety standards. The Contractor's safety procedures will ultimately dictate the use of protective clothing and equipment for its employees, but at a minimum, the Contractor's employees must be equipped with a Type 2 safety vest and hard hat, and every employee that enters the site must be wearing said vest and hard hat. The vest and hard hat must be worn the entire time that the employee is within the AOA.

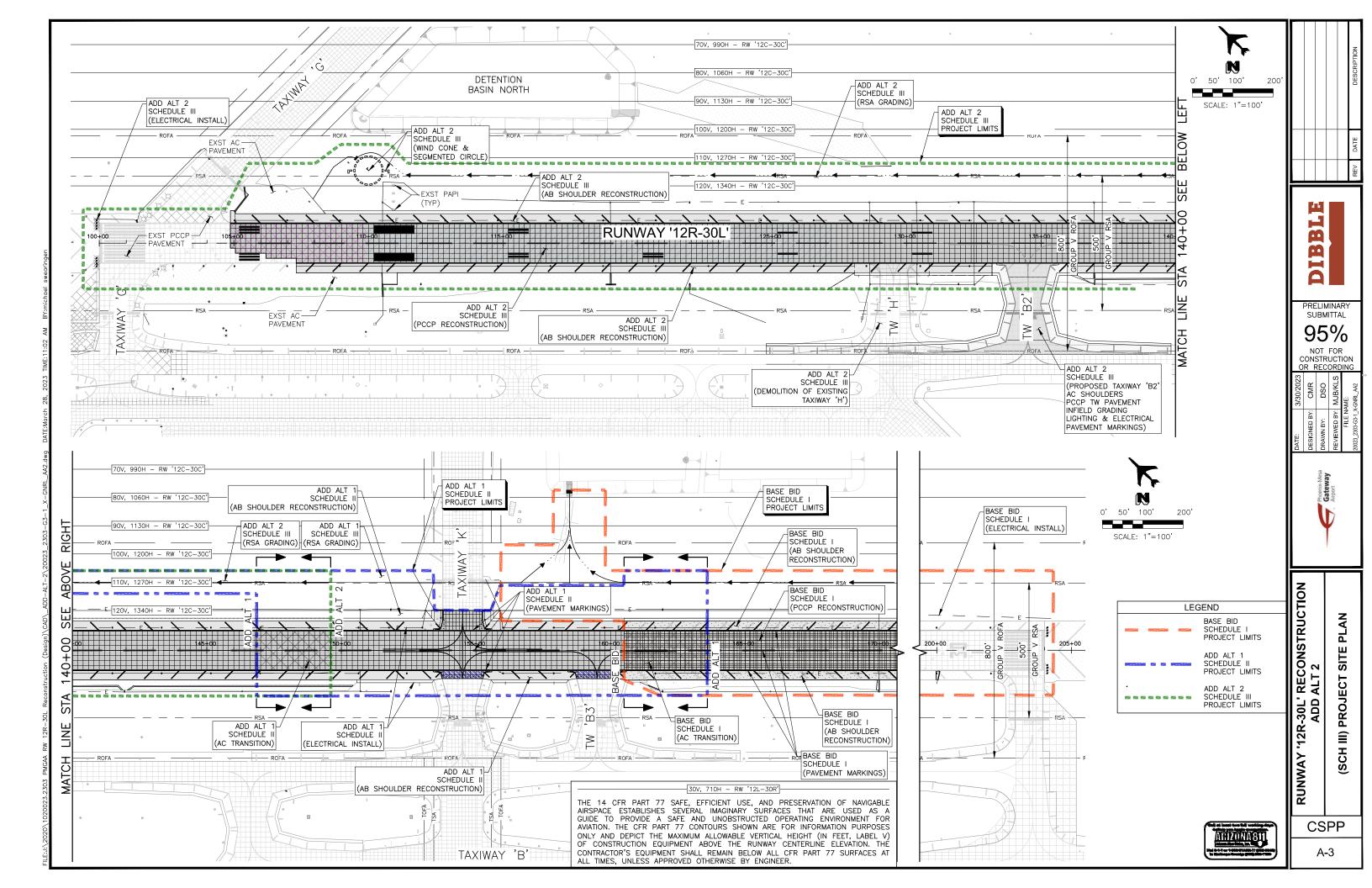


Appendix A - Project Site Plans











Appendix B - Construction Phasing Plans



