Construction Safety and Security Compliance for South Valley Regional Airport And Tooele Valley Airport-Bolinder Field

September, 2012

Construction Safety and Security Compliance
For
South Valley Regional Airport
West Jordan, Utah
And
Toole Valley Airport-Bolinder Field
Erda, Utah

TABLE OF CONTENTS

I. AIRPORT EMERGENCY NUMBERS

EMERGENCY TELEPHONE NUMBER

911

FOR

POLICE FIRE RESCUE

INFORMATION, COMPLIANCE, AND ASSISTANCE

GENERAL AVIATION (GA) MANAGER

OFFICE: **(801) 647-5532 (24 HOURS/DAY, 7 DAYS/WEEK)**

CONTROL CENTER: **(801) 575-2401 (24 HOURS/DAY, 7 DAYS/WEEK)**

ADDITIONAL INFORMATION, CONTACTS

ENGINEERING: **(801) 575-2900 (MON-FRI, 8:00 AM TO 4:30 PM)**

BADGING: **(801) 575-2423 (MON-FRI, 8:00 AM TO 9:00 PM)**
(CLOSED SATURDAYS, SUNDAYS AND HOLIDAYS
(CLOSED DAILY, 12:00 PM TO 1:00 PM)

SECURITY: **(801) 647-5532 (GA MANAGER)**

II. CONSTRUCTION SAFETY FOR SALT LAKE CITY DEPARTMENT OF AIRPORTS

This manual provides general information to Contractors on the requirements and procedures for accident prevention, safety, and security; at the South Valley Regional Airport and Bolinder Field, Tooele Valley, Utah… this includes construction, repair, or services required by the Salt Lake City Department of Airports (SLCDA) and its tenants. The SLCDA's safety objective is to achieve accident-free construction projects.

Contractors shall conduct their operations in a manner that will provide safe working conditions for all employees and the protection of the public and all others who may be affected by construction activities. Nothing contained in this manual is intended to relieve any Contractor or supplier of the obligations assumed by the Contractor under contract with the City or as required by law.

Safety must be an integral part of each 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 marking, barricading, and lighting airside construction areas is to delineate hazardous areas and prevent unauthorized incursions into the area by personnel, vehicles, equipment, and aircraft during construction.

Requirements and procedures in this manual may be altered, on a case by case basis, if determined by the SLCDA that safety is not compromised and the proposed alternative better meets operational or project needs. Any such alterations or deviations shall be at the sole discretion of SLCDA.

The critical operational areas at the South Valley Regional Airport and Bolinder Field, hereafter referred to as "the Airport," are defined as follows:

> The Aircraft Operations Area (AOA), for the purpose of this document, is defined as any part of the Airport utilized for aircraft operations and includes any area inside the perimeter fence.
>
> The Aircraft Movement Area (AMA) is defined as runways, taxiways, and other areas of the Airport that are utilized for taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and parking areas. The AMA is a restricted area. All vehicle and pedestrian access is prohibited without the approval of the SLCDA.

The SLCDA reserves the right to review the Contractor's safety program/record, attend safety meetings and periodically inspect work sites for compliance with the requirements described in this manual and the contract documents.

III. SAFETY AREAS

Runways and taxiways have safety areas. These safety area dimensions will be based on the type of aircraft using the runway and taxiway during construction activities.

A. Design Standards

The runway and taxiway safety areas shall be:

1. **Cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations.**

2. **Drained by grading or storm sewers to prevent water accumulation.**

3. **Capable under dry conditions of supporting construction and maintenance equipment, aircraft rescue, fire-fighting equipment, and the occasional passage of aircraft without causing structural damage to the aircraft.**

4. **Free of objects, except for objects that need to be located in the runway safety area because of their functions. These objects shall be constructed on low impact resistant supports (frangible mounted structures) to the lowest practical height with the frangible point no higher than 3 inches above finished grade. Other objects, such as manholes, shall be constructed at grade. In no case shall their height exceed 3 inches above grade.**

5. **The dimensions of the safety areas vary, or as shown in the contract drawings. If runway and taxiway closures are necessary, construction may be limited to nighttime, requiring 48-hour prior coordination. Anything that impacts aircraft operations shall be coordinated with the General Aviation Manager through the appropriate Project Engineer.**

B. Restricted Areas

Object Free Area (OFA), Obstacle Free Zone (OFZ), Primary Surface and Transitional Surface.

1. Runway and Taxiway Surfaces. When aircraft operations are being conducted on a runway or taxiway, construction activity is prohibited within any of the above listed areas, as defined in the Federal Aviation Administration's (FAA) Advisory Circular (AC) 150/5300-13, "Airport Design" current edition, unless approved on a case-by-case basis by the GA Manager**,** where construction equipment and material is properly marked and lighted.

These restricted areas vary depending on runway or taxiway design group. A taxiway OFA extends out to 65.5 feet from the centerline for group II aircraft.

A runway primary surface extends out to 500 feet from the runway centerline and the transitional surface is a 7:1 slope up to 150 feet. Any equipment in these areas must be approved by the GA Manager.

When working near a runway or taxiway ask the GA Manager for assistance in defining these areas before work begins.

2. **Approach Surfaces: When aircraft operations are being conducted near an active runway, construction activity is prohibited to penetrate the surfaces, defined in AC 150/5300-13, current edition, "Airport Design" unless approved by the GA Manager. The runway threshold may be relocated or displaced to eliminate the penetration.**

C. Taxiways and Taxilanes on Aprons

Construction activity may be safely permitted within safety areas of taxiways and on aprons in use provided the activity is first coordinated with the GA Manager, local notice to airmen (NOTAMs) are issued, marking and lighting provisions are implemented, and it is determined that the height of equipment and materials is safely below any part of the aircraft using the taxiway/taxilanes that might overhang those areas. Construction activity is allowed no closer than 65.5 feet from the centerline of an active taxiway or taxilane.

IV. FLAGGERS AND OBSERVERS

All flaggers will be UDOT certified, and conduct flagging operations to UDOT standards. It is the Contractors responsibility to provide certified flaggers. Observers and spotters shall complete additional training provided by SLCDA.

A. Communications

All flaggers, spotters and observers controlling equipment crossing active aircraft areas are required to have a fully operational cellular telephone to contact the GA Manager to report any problems that may affect aircraft operations. They shall be familiar with all Airport phone numbers. All observers and flaggers will immediately contact the GA Manager or Airport Control if any equipment or vehicle becomes disabled or is unable to yield to aircraft for any reason.

B. Crossings

If approved by the GA Manager, vehicle and pedestrian crossings of active taxiways and high-use or congested ramp areas may be permitted if the following provisions are met:

1. **The GA Manager is notified before any activity begins and when the activity ends every day.**

2. **Airport Operations has coordinated the activity with the Engineer or Contractor, made proper notifications before beginning a crossings procedure.**

3. **An Airport representative is available to contact Air Traffic Control or issue a NOTAM if there are any problems.**

4. **All involved personnel understand that all equipment and pedestrians must yield to all aircraft. Aircraft always have the right of way.**

V. CONSTRUCTION LIMIT BOUNDARIES

A. Setback Lines

Visible setback lines will be established prior to construction activity taking place adjacent to active taxiways and aprons. All vehicles, equipment, and construction activity must stay behind these lines unless provisions are made with Airport and Engineering personnel. Locations where setback lines will be placed are determined by the Airport's largest predominant aircraft; setback lines will be located at 65.5 feet from the taxiway or apron taxilane centerline.

At the discretion of Airport Operations and Engineering personnel, setback lines will be delineated according to the scope and timeframe of each project. Short-term projects (less than 12 hours duration) involving limited personnel may be delineated with type II or vertical panel barricades placed 10 feet apart, during low visibility or night the delineators must be lit with red blinking lights visible from 360 degrees. For projects involving numerous personnel and subcontractors, setback lines will be delineated with rubber-based upright delineators with alternating orange and white flag lines between delineators. Contractors will maintain setback lines in a clearly visible condition until project completion. If approved by the GA Manager~~,~~ construction may be permitted within the setback lines if the following provisions are met:

1. A designated observer/spotter (other than the equipment operator) is on the site to direct the operator and equipment to yield to oncoming aircraft. The observer/spotter must be able to immediately get the attention of the operator and direct equipment beyond the setback lines. Equipment must be in position to immediately respond.

2. It is determined by Airport Operations and Engineering personnel that the height of the equipment and materials is safely below any part of the aircraft using the AOA that might overhang those areas.

If the above-stated provisions cannot be met, construction activity will not be allowed until a taxiway/apron closure can be scheduled with Airport Operations.

B. Trenches, Excavations, and Stockpiled Material

Open trenches exceeding 3 inches in depth and 5 inches in width or stockpiled material are not permitted within the limits of safety areas of operational runways or taxiways. Construction contractors must prominently mark open trenches and excavations at the construction site, as approved by the airport operator, and light them with red lights during hours of restricted visibility or darkness.

C. Equipment Height

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 AC 150/5300-13, "Airport Design" current edition, unless a favorable airspace finding has been made by the FAA and the SLCDA, and approved by the GA Manager. Equipment that penetrates the Part 77 imaginary surface must display a checkered flag during daytime use and a red obstruction light during nighttime use.

D. Proximity of Construction Activity to Navigational Aids

Construction activity in the vicinity of navigational aids requires special consideration. The effect of the activity and its permissible distance and direction from the aid must be evaluated in each instance. A coordinated evaluation by SLCDA and the FAA is necessary. Technical involvement by FAA Airports, Air Traffic, and Airway Facilities specialists is needed as well as construction, engineering and management input. Stockpiling materials and movement and parking of equipment that block or interfere with electronic signals is prohibited.

E. Construction Vehicle Traffic

Because each construction situation differs, the Contractor must coordinate construction vehicle traffic with the SLCDA.

F. Limitations of Construction

1. Open-flame welding or torch-cutting operations are prohibited unless adequate fire and safety precautions are provided.

2. Stockpiled material should be constrained in a manner to prevent movement resulting from aircraft blast or wind conditions. Material will not be stored near areas susceptible to jet blast.

G. Marking and Lighting of Closed or Hazardous Areas on the Airport

1. When areas on the Airport are closed or present hazards due to construction activities, they should be marked and lighted according to

   AC 150/5340-1H "Standards for Airport Markings", current edition and this manual Marking and lighting must be approved by the GA Manager.

2. If construction involves an extended closure of a runway, an illuminated cross ("X") shall be required at each end and shall be serviced and maintained by the Contractor.

VI. AIRPORT SAFETY CONSIDERATIONS

The Contractor will be required to coordinate work so as to satisfy clearance requirements for arrival and departure of scheduled aircraft and maintain compliance with AC 150/5370-2 "Operational Safety on Airports During Construction", current edition. The AC sets forth guidelines for maintaining desired levels of operational safety during construction. All construction personnel should become familiar with the contents of this AC. Contractors will conform to all local and state laws and will adhere to OSHA rules and guidelines.

A. Potential Hazards

Potential hazards include the following:

1. Excavation adjacent to runways, taxiways, and aprons.

2. **Stockpiled earth, construction material, temporary structures, and other obstacles in proximity to aircraft operations areas and approach zones.**

3. **Runway surfacing projects resulting in excessive lips greater than 1 inch for runways and 3 inches for edges between old and new surfaces at runway edges and ends.**

4. **Heavy equipment, stationary or mobile, operating or idle near the AOA or in safety areas.**

5. **Proximity of equipment or material that may degrade radiated signals or impairs monitoring of navigational aids.**

6. **Tall but relatively low visibility units, such as cranes, drills, and the like, in critical areas such as safety areas and approach zones.**

7. **Improper or malfunctioning lights or unlighted airport hazards.**

8. **Holes, obstacles, loose pavement, trash, and other debris on or near the AOA.**

9. **Failure to maintain fencing during construction to deter human and animal incursion into the AOA.**

10. **Open trenches alongside pavement.**

11. **Improper marking or lighting of runways, taxiways, and displaced thresholds.**

12. **Attractions for birds, such as trash, grass seeding, or ponded water on or near airports.**

13. **Inadequate or improper methods of marking temporarily closed aircraft operations areas, including improper and unsecured barricades.**

14. **Obliterated markings on active operational areas.**

NOTE: Safety area encroachments, improper ground vehicle operations, and unmarked or uncovered holes and trenches in the vicinity of aircraft operating surfaces are the three most recurring threats to airside safety during construction.

B. Aircraft Emergency

In the event of an aircraft emergency or severe weather conditions that may affect aircraft operations as determined by SLCDA, the Contractor's personnel and/or equipment may be required to immediately vacate the area.

C. Helicopter Operations

"Contractor to exercise additional vigilance and caution due to the nature of helicopter operations at this Airport. Significant amounts of helicopter traffic occur on the north ramp area and the (4) four helipads located on taxiway B."

VII. GENERAL SAFETY ISSUES

A. General

1. **The Contractor must, at all times, conduct the work in conformance with requirements of the SLCDA and the FAA.**

2. **Aircraft traffic will continue to use existing runways, aprons, and taxiways of the Airport during the time that work under a contract is being performed. The Contractor shall at all time so conduct the work as to create no hindrance, hazard, or obstacle to aircraft using the Airport.**

3. **Runway closures, when authorized, are typically from 2300 to 0600 hours. The Contractor will schedule and organize the work so that a minimum of closings or crossings of runways and taxiways will be required during the project.**

4. **All construction-related activity taking place within any active area of the AMA requires the approval of a SLCDA. Spotters and/or flaggers having radio or telephone contact with the SLCDA may be used with the approval of the GA Manager. Any command or instruction given by SLCDA flaggers, or spotters shall be immediately obeyed.**

5. **The Contractor may be working on an active AOA in which jet takeoff noise can be as high as 120 decibels. All Contractor personnel shall comply with industry standards for personal hearing protection when working within these areas.**

6. **The Airport environment requires a high degree of care to control debris and dust. Spilled material on active roadways, taxiways, runways, and aprons shall be swept up immediately. The Contractor shall be aware that the AOA is subject to jet blasts, which are equivalent to wind velocities of 75 to 90 miles per hour; therefore, constant dust control measures will be required to prevent loose material from blowing across the airfield.**

7. **Sanitary facilities shall be provided at appropriate locations for the Contractor's employees. Public facilities at the Airport are not to be used.**

8. **The speed limit on all airside roadways is 20 miles per hour unless otherwise posted.**

9. **Peak hours for the AOA are from 0600 to 2300. Non-peak hours are defined as the period from 2300 to 0600.**

10. **All personnel operating a motor vehicle on Airport property shall have a valid driver's license.**

11. **Use of audio earphones and headsets are prohibited on the AOA unless directly related to job requirements.**

12. **Beacons and flags must be maintained in good working condition and flags shall be replaced if they become faded, discolored, or ragged.**

13. **Construction projects affecting any aircraft operation area will be inspected by Airport Operations prior to construction personnel and cleanup equipment leaving the area.**

14. **All electrical wire, cable, rope, trenches, holes, or any other object or surface variation that may interfere with or be damaged by airport field mowers or other equipment must be marked and/or barricaded to clearly denote the object or area.**

15. **Manholes drain inlets and junction boxes must have approved covers in place at all times or they must be barricaded to clearly denote the uncovered opening.**

B. Fines and Warnings

Safety and security precautions are necessary at the Airport. Failure of the Contractor to adhere to prescribed requirements may have consequences that jeopardize the health, safety or lives of customers and employees at the Airport. Therefore, when the Contractor is found to be in violation of safety, security, badging/licensing requirements or any other procedure in this manual, the Contractor may be issued a misdemeanor citation.

The Operations Division has the option to issue warnings on the first offense based upon the circumstances of the incident. Individuals involved in noncompliance violations may be prohibited from working at the Airport pending investigation of the matter.

Penalties for violations related to SLCDA procedures include the following:

1. **Warning citation, Airport ID badge confiscation, (if applicable) retraining, and a letter from the employer stating what action if any has been taken to prevent this from happening again.**

2. **Project shutdown and/or removal of personnel involved from the AOA.**

3. **Class B Misdemeanor citation–Salt Lake City Ordinance Title 16.**

   Project shutdown or misdemeanor citation may be issued on a first offense.

C. Signs

All permanent signs affected by construction shall be replaced by temporary signs acceptable to the SLCDA. The Contractor shall submit a sign relocation plan to the SLCDA for approval prior to any relocation of any existing signs. When construction takes place near the AMA and at the discretion of Airport Operations and Engineering personnel, signs stating "ACTIVE RUNWAY/TAXIWAY DO NOT ENTER" may be required.

D. Barricades

Airside construction sites shall be barricaded and lighted to delineate the work area. Extended projects on **paved surfaces** delineating hazardous areas, in which an aircraft may not enter, shall be defined by water filled low profile closure barriers (exhibit No. 7) with omni-directional red flashing beacons and flags. The low profile barricades shall be weighted to prevent displacement from jet blast, prop wash or other surface wind currents.

Construction areas closed less than 10 hours on taxiways, runways or ramps shall be defined by the placement of Type II Construction Barricades with red flashing beacons and shall be secured in place with two sandbags. Orange Portable flat panel Traffic Delineators with red flashing beacons may be used. Red flashing beacons are not required on barricades during daylight hours and good visibility. Barricades shall be placed 10 feet apart beginning with a barricade placed on the centerline of taxiway, runway or ramp areas. The Contractor shall have a person on call 24 hours a day to maintain all barricades including lights and flags used to delineate construction and hazardous areas in fully operational condition.

Construction projects over 12 hours on non-paved areas in active taxiway and runway **object free areas** (Runway Object Free area, group II, 250' from centerline; Taxiway Object Free area, group II, 65.5' from centerline) shall be barricaded with rubber based upright delineators placed 20' apart with alternating orange and white flag lines between delineators along the construction boundary facing the taxiway or runway. Remaining construction boundary lines shall be barricaded to adequately delineate any hazardous areas.

Open trenches and excavations in taxiway and runway object free areas must be marked and lighted with red lights during hours of restricted visibility or darkness.

E. Lighting

Temporary light plants used in conjunction with nighttime work cannot be located in such a manner as to be an obstruction or hazard. In addition, these light plants cannot be located where the glare of the light will cause visual or physical interference to operating aircraft.

When existing edge lighting is rendered inoperable on an active runway or taxiway, the Contractor must install temporary edge lights. The lights and wiring shall meet National Electrical Code (NEC) Article 300, and AC 150/5340-24 "Runway and Taxiway Edge Lighting System," current edition, for permanent lighting. Any active runway or taxiway lights requiring temporary removal shall be replaced by a temporary installation. A temporary connection shall be made to connect all remaining active runway or taxiway lights in a construction area where several lights may have been decommissioned.

Temporary edge lights shall be securely fastened down and the electrical power cable shall be protected. Airfield lighting cables operate at high voltage. They have the potential of 5000 volts and should have only qualified personnel handling them.

The Contractor shall provide an orange and white obstruction flag for all stationary cranes erected on the construction site. All moveable cranes shall be equipped with red obstruction lights if the boom cannot be lowered during hours of darkness. The Operations Division will issue NOTAMs on obstructions; lighting; the Contractor shall notify the Engineer if any relocation takes place.

All construction personnel that are working on the AOA during hours of darkness shall wear clothing with reflective markings.

F. Pavement Markings

All existing pavement markings requiring removal shall be obliterated by either sandblasting or black paint at the direction of the SLCDA.

All permanent pavement markings shall be restored at project completion.

G. Haul Routes

Where haul routes cross active taxiways, a UDOT certified flagger will be positioned on both sides of the taxiway or vehicles will be escorted. If haul routes cross an active ramp area or taxilane, flaggers may be required, and will be determined by the scope and time frame of the project. If the Contractor's haul road crosses any area used by aircraft for taxiing, takeoff, or parking, a power broom and/or hand sweeping shall be used to keep this area clean of debris, which could damage aircraft. The Contractor shall be liable for any damages that occur. Contractor's haul routes must be restored to their original condition at the completion of the project.

H. Transition Ramps

Construction projects on airside may involve overlays and/or milling operations on runway or taxiway surfaces. This operation will require the construction of temporary ramps to allow runway or taxiway use between actual work shifts during the airside non-peak hours.

I. Grade and Vegetation

Unless specified, all construction grades and vegetation must be restored to their original condition and be free of ruts and depressions. As directed by SLCDA an approved seed mix shall be planted.

J. Closures/Interruptions

If any roadway or taxiway is interrupted because of the means and/or methods used by the Contractor, an alternate detour roadway or taxiway must be provided. The Contractor shall submit a plan to the Engineer for approval prior to use. All alternate routes must be properly delineated for AOA/AMA use.

K. Staging Areas and Environmental Compliance

The staging area cannot be located in high traffic areas within the AOA. Any staging areas used must be left environmentally clean during and at completion of the construction project. This includes keeping the area clean of debris, oil spills, and other undesirable elements. Any hazardous or regulated waste material produced by the Contractor must be properly disposed of at the Contractor's expense according to all local, state, and federal regulations. The Contractor may be required to provide test results to confirm an area has been left environmentally clean with any contamination removed.

L. Debris Hazards

Each construction project will have procedures for regular cleanup and containment of construction material and debris. Special attention will be given to the cleaning of cracks and pavement joints. All taxiways, aprons, and runways must remain clean. Waste containers with attached lids shall be required on construction sites.

Special attention should be given to securing lightweight construction material (concrete insulating blankets, tarps, insulation, etc.). Specific securing procedures and/or chain-link enclosures may be required.

Contractors will provide their own equipment for vehicle and equipment washing and clean up. The SLCDA wash facility will be used by Airport personnel only unless specific permission from the Airfield Maintenance Supervisor has been granted.

When working in an airport environment, immediate access to a power sweeper is required when construction occurs on any aircraft pavement area unless an appropriate alternative has been approved by the GA Manager and Engineer.

M. Airport Assistance Form

SLCDA has a construction "Airport Assistance Form" that shall be utilized if necessary. When the SLCDA determines that the Contractor involved in a construction project is hindering operations at the Airport and that the Contractor is not equipped or unable to rectify the problem within an established timeframe, the "Airport Assistance Form" will be implemented (Exhibit No. 4). A copy of the assistance form can be found on the Airport's web site or at the back of this manual. The process for this work is as follows:

1. **Airport Inspector or GA Manager will initiate work.**

2. **Airport Maintenance will list equipment and labor used and forward form to Engineering.**

3. **Engineering will determine billing amount and action to be taken in regards to billing. Engineering will distribute completed form to other divisions.**

4. **Payment for any Airport assistance will be handled through the standard monthly Contractor invoicing.**

If anything affects aircraft operations, violates, or is in noncompliance of FAA or any other contract requirement, the GA Manager must be notified immediately.

VIII. SECURITY REQUIREMENTS

A. Airport Issued Identification (ID) Badge Requirements

Depending on the nature and/or duration of the construction project at South Valley Regional Airport, Airport-issued identification may be required. If the Engineering Department and the GA Manager determine badges are required, the following requirements will apply.

To ensure the security of general aviation facilities, access required at South Valley Regional Airport through the automated gates requires an access card. The card serves as both identification media and an access card to open the gates.

To obtain a U42 Airport card, the general contractor must submit an U42 Hangar Card Application (SLCDA Form) for each employee requiring access to the badging office 24 hours prior to the badge issue. The 24-hour requirement is necessary to conduct a warrants check. Individuals with an outstanding warrant will not be allowed to continue the badging process until the warrant is resolved. The forms are available electronically or copies may be obtained from the Airport's Badging Office.

After the 24-hour requirement, each applicant will be required to take the Airport's General Aviation Security Awareness Training. The training takes approximately 20 minutes and can be scheduled by calling the Badging Office at 575-2423. Once the training is completed, the badge will be issued. The general contactor must submit to the Badging Office a $100 deposit for each badge issued for the project (including subcontractor employees). The deposit will be returned at the end of the project for each badge returned.

For lost or stolen badges, there is a $25 replacement fee. The initial $100 deposit will be returned to the general contractor at the end of the project if the replacement badge is returned when no longer needed.

Individuals working on the construction site on a temporary basis are not required to obtain a General Aviation badge or an "escort required" badge; however, the employee must be under continuous escort while working on the construction site.

Deliveries to the job site can be made with a proper escort.

If a manual construction gate is used for access to the construction site, the general contractor will be required to place a gate guard at the gate to open and secure the gate during active use of the site.

B. Vehicle Requirements

1. Vehicle markings

All vehicles and equipment, except those under escort, must be marked with the company name or logo on both sides in no less than 2-inch-high letters of a contrasting color. Markings may be painted on the vehicle, or magnetic signs may be used. Construction vehicles under escort are the responsibility of the properly equipped lead vehicle and are not required to have a flag or beacon.

All Contractor vehicles and equipment operating in the AOA must display orange and white checkered flags or flashing yellow beacons during daytime use and flashing yellow beacons during nighttime use. The flag shall be on a staff attached to the vehicle and shall be at least a 3 foot square having a checkered pattern of International Orange and White squares at least one (1) foot on each side. Flags and beacons must be mounted on the vehicle where they are visible from any direction.

C. Access Points/Gates/Gate Guards

1. All manual gates used for Contractor access must be staffed by qualified and trained gate guards provided by the Contractor at all times when the gates are open and in use. The gate guard is required to check each person entering the secure area through the gate for proper vehicle markings. Anyone not in compliance with these requirements or under approved escort will be denied access.

2. When not actively in use, the gate will be kept closed and locked. During periods of operation, the gate must be pulled shut or an approved barricade must be placed in front of the gate to require a vehicle to stop so that an inadvertent entry into the secure area is prevented.

3. Access to construction sites through manual vehicle gates shall be coordinated with Airport staff. Contractor lock may, if approved, be placed on construction access gate. Manual vehicle gates used for construction access will be unlocked and opened at the beginning of each shift by a Salt Lake City Department of Airports employee or designee. The qualified gate guard must be present and prepared to perform all gate guard duties when the gate is unlocked. At the end of the shift, the gate will be closed and locked. The Contractor shall coordinate all required gate access times twenty four (24) hours in advance with the Engineer.

D. Contractor Provided Construction Gate Guards

1. Contractor shall provide qualified personnel to perform gate guard services at manual construction gates used for access to restricted areas of the Airport.

2. Personnel assigned to provide gate guard services shall:

   a) Have the ability to clearly speak, read, write and understand the English language.

b) Be supervised and checked at frequent intervals by Contractor's supervisor and Department of Airports personnel to ensure they are in compliance with all security requirements associated with staffing a perimeter gate access point leading to a restricted area of the airport.

c). Wear a safety vest at all times.

d) Personnel assigned to provide gate guard services **shall not carry a firearm.**

e) Have the ability to communicate directly with the Airport's General Aviation Manager or Control Center by cellular telephone provided by the Contractor.

3. The Contractor shall provide temporary restroom facilities for use by the gate guards at the access gate. If the gate is to be used for access at night, the Contractor shall provide and maintain in working condition a temporary light plant to illuminate the gate area.

E. Gate Guard Duties:

1. Security responsibilities include:

a) Checking all incoming individuals and vehicles for Airport authorized identification and permits to prevent unauthorized entrance into secure areas.

b) Ensuring that the security gate is closed when not actively being used to prevent security breaches.

F. Fencing

If a temporary fence is erected, displacing a portion of the Airport perimeter fence, it must meet permanent fence standards. These standards require 8 feet of chain link fabric with 3 strands of barbed wire angled away from the secure area at 45 degrees, with posts embedded in concrete as detailed in the contract documents.

G. Clear Zone

A Clear zone of four feet is required on the public side of the perimeter fence. No equipment or materials may be stored within this clear zone area.

H. Security Violations

1 Failure to maintain a secure Airport environment is grounds for possible citation and/or a stop to construction activity. Construction activity shall not resume until all deficiencies are rectified.

2. When an individual is found in violation of the rules and regulations outlined in the Airport's Security Program retraining must occur and depending on the seriousness of the violation, access privileges may be permanently revoked. Any security violation will be investigated by the Airport Security Coordinator and action taken as appropriate.

IX. GLOSSARY

Advisory Circular (AC):

Documents produced by the FAA providing guidelines. Advisory Circular(s) are available at Internet address http://www.faa.gov/airports/resources/advisory-circulars/

Aircraft Movement Area (AMA):

The taxiways and runways controlled by the FAA ATCT. These areas are defined by movement area boundary lines. (Exhibit No. 2)

Aircraft Operations Area (AOA):

The AMA expanded to include ramps/aprons and all areas inside the Airport perimeter fence. (Exhibit No. 1)

Airport Control Center:

The Control Center receives and routes all calls that come into the Airport. The Control Center handles all dispatch functions for Airfield, Terminal Services, , and Maintenance personnel. For routine assistance or to put in a work order, please call (801) 575-2401.

For any on-Airport emergency at South Valley Regional Airport, call 911.

Apron:

The area near the buildings where aircraft load/unload and are serviced–also referred to as the ramp.

General Aviation (GA) Manager – The operations representative designated by the owner for the purpose of providing the owners directives relating to aircraft/airport operations.

Contractor:

The entity responsible for the completion of a contract or portion of a contract.

Engineer:

The engineering representative designated to represent the Owner for the purpose of providing the Owner's directives relating to this Contract and for all administration and communication required between the Owner and the Contractor on Airport projects.

Federal Aviation Administration (FAA):

Federal agency that governs aviation and activities at civilian airports.

Foreign Object Debris (FOD):

Unwanted, dangerous items on the ramps, taxiways, and runways that could damage an aircraft.

Object Free Area (OFA):

An area on the ground centered on a runway, taxiway, or taxilane centerline provided to enhance the safety of aircraft operations by having the area free of objects, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes.

Obstacle Free Zone (OFZ):

The OFZ is the airspace below 150 feet above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVIDS that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway, and for missed approaches.

Owner:

Salt Lake City Corporation

Primary Surface:

A surface longitudinally centered on a runway extending 200' beyond each end of the runway. The width varies from 250' for utility runways having only visual approaches to 1000' for precision instruments runways.

Transitional Surface:

A surface that extends outward and upward at right angles from the sides of the primary surface and the approach surface at a slope of 7 to 1.

Safety Areas:

Runway: Runways 16/34 is 250 feet each side of the centerline, 1,000 feet off each end; (Exhibit No. 3)

Taxiway: *6*5.5 feet each side of the centerline. (Exhibit No. 3)

Salt Lake City Department of Airports (Airport) (SLCDA):

A division of Salt Lake City Corporation that is responsible for the Salt Lake City International Airport as well as South Valley Regional Airport and the Tooele Valley Airport.

Secure Area:

This area of the Airport refers to the acreage around the runways, protected by the secure exits from buildings, secure gates, and chain-link fences or any other area identified by SLCDA as secure or restricted.

Exhibit No. 1–AIR OPERATIONS AREA TVY

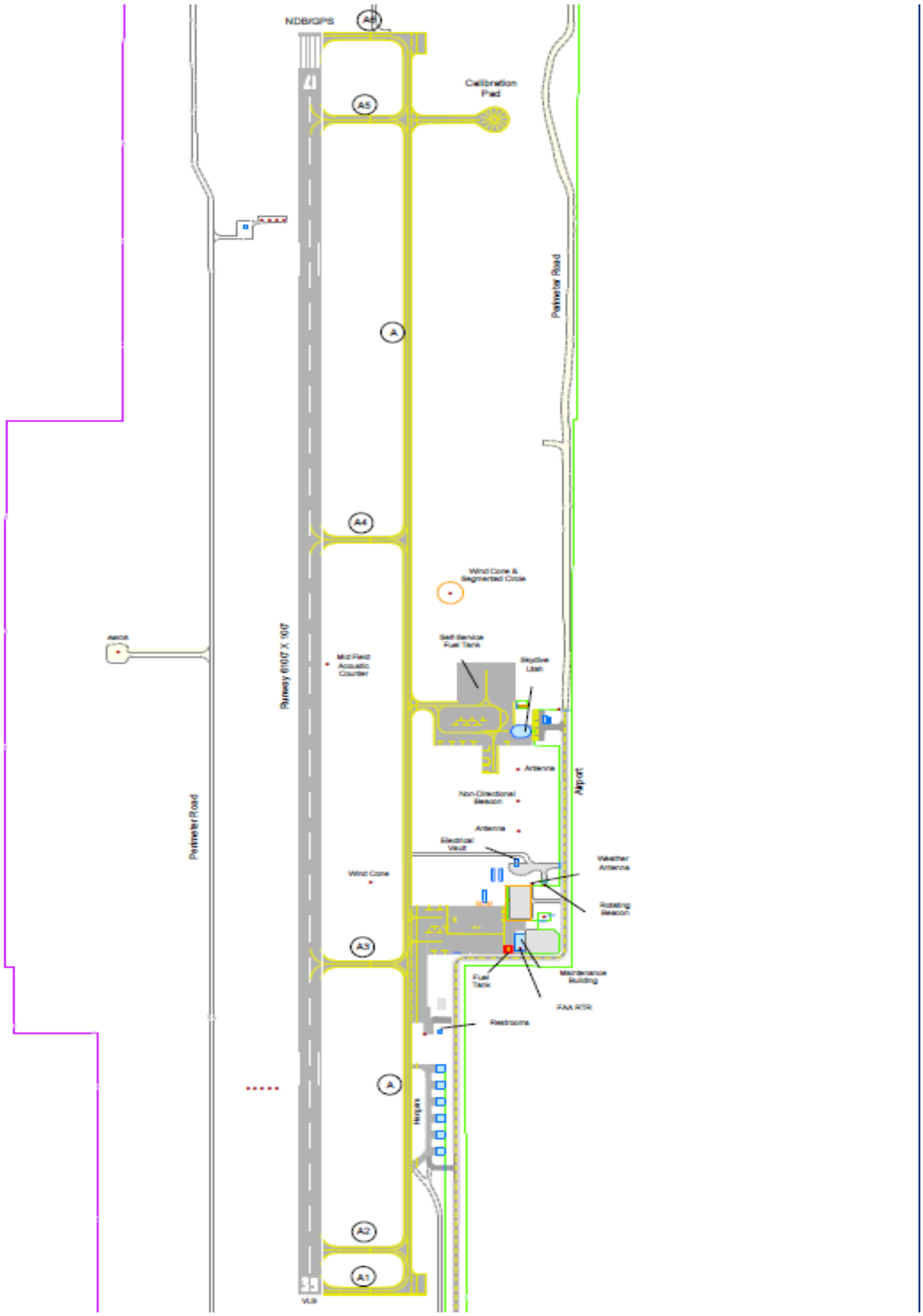


Exhibit No. 2–Aircraft Movement Area U42

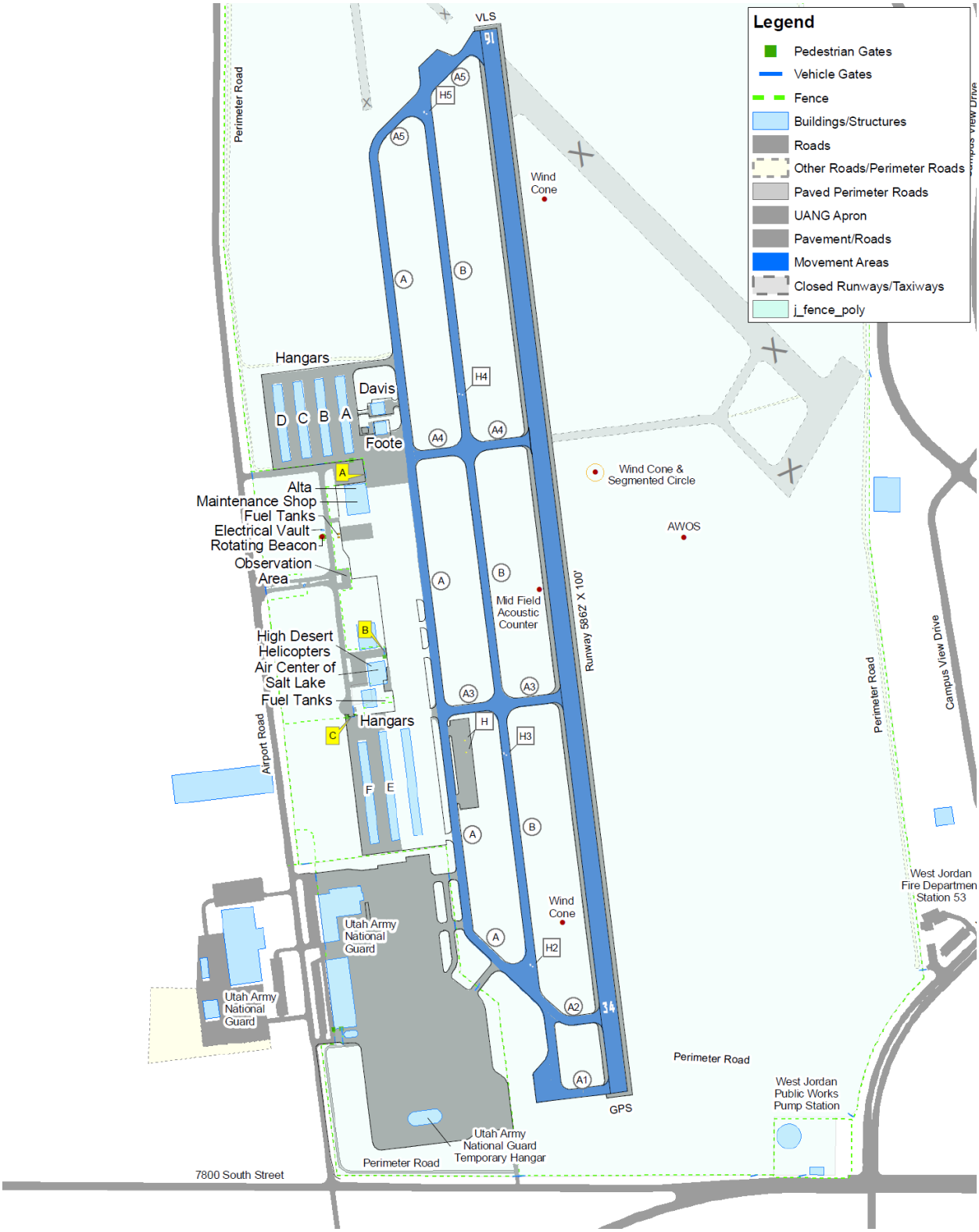
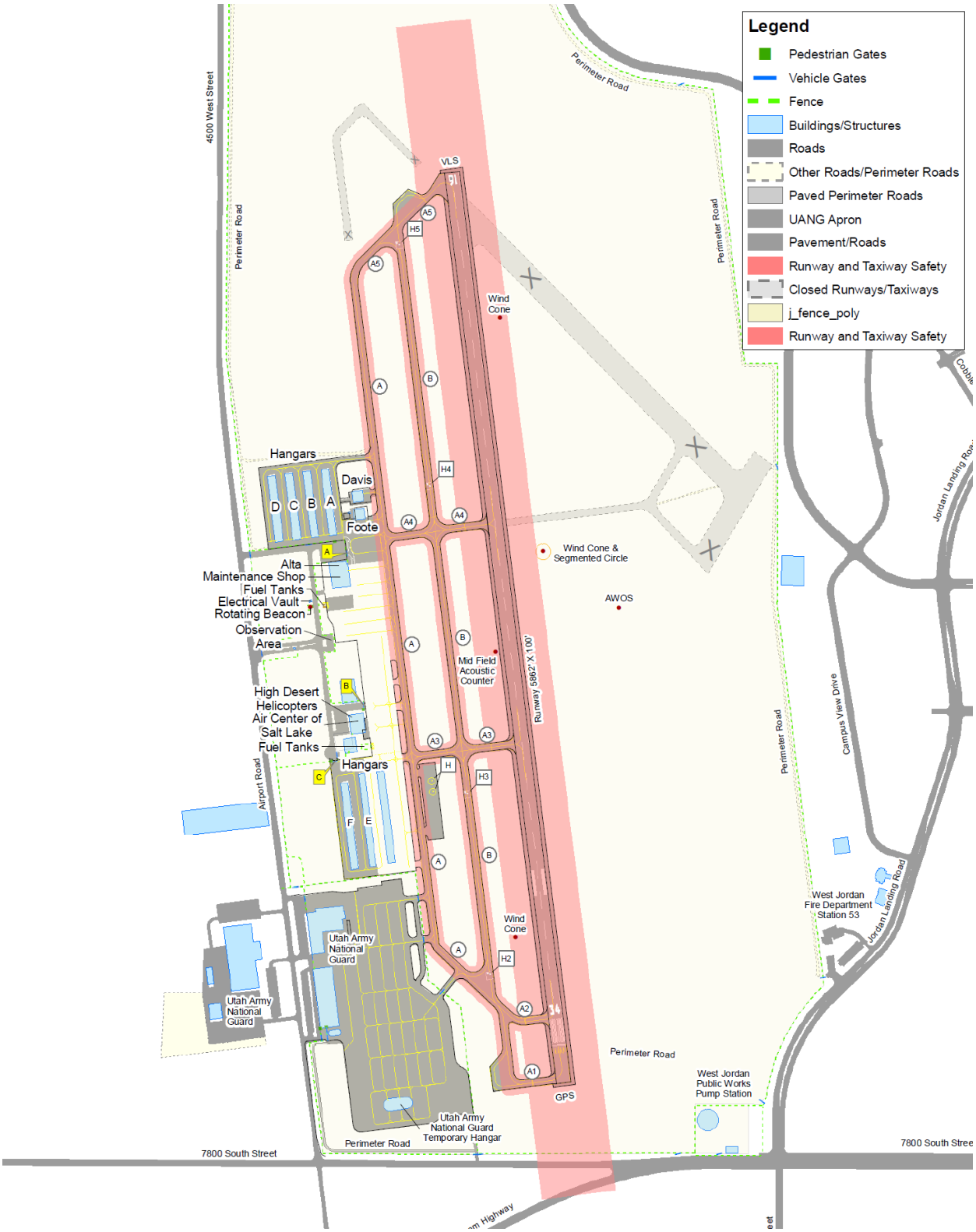


Exhibit No. 3–Runway/Taxiway Safety Zones U42



Revised 09-15-12

Exhibit No. 4

AIRPORT ASSISTANCE FORM

The following information is to be completed by the Airport Duty Manager or Inspector:

Date: _____ Project Number: _____

SLCDA personnel requesting assistance: _____
(Name)

_____
(Signature)

Assistance for: _____
(Contractor/Company)

_____
(Authorized Name/Signature)

Work requested: _____

_____

_____

Location: _____

_____

_____

Reason: _____

_____

Contract related work? ( ) Yes ( ) No

The following information is to be completed by Maintenance:

Equipment and labor used: _____

_____

_____

_____

Start Time: _____ Completion Time: _____

Total Hours: _____ Cost: _____

Notes: _____

_____

_____

_____

DISTRIBUTION: R. Berg P. Higgins J. Bingham K. Robins
M. Widdison Contractor File

Exhibit No. 4 (Continued)

TYPE OF ASSISTANCE	COST/HOUR
SWEEPING	
Towed Runway Broom	$300
Jet Air	$200
Road Sweeper	$200
Motor Grader	$175
Front End Loader	$175
Drain Cleaning	$150
Painting	Cost to be determined
Asphalting	Cost to be determined
General Labor (included in the above services)	$ 50
ELECTRICAL ASSISTANCE	
75-foot Boom Truck	$350
48-foot Boom Truck	$230
Ditch Witch Trencher	$230
Light Plant	$ 85
Underground Locator	$115
Airfield Lighting Trailer	$175
Electrical Labor (included in the above services)	$ 60

Billing in one-hour increments rounded to the next hour with a one-hour minimum charge. These costs are effective as of February 2003 and are subject to change.

SAMPLE

BADGE REQUEST LETTER
(COMPANY LETTERHEAD)
(To include name, address, and telephone number)

(DATE)

Connie M. Proctor
Superintendent of Airport Operations
Salt Lake City Department of Airports
P.O. Box 145550
Salt Lake City, UT 84114-5550

Ref: (project name and number)

Dear Ms. Proctor:

The purpose of this letter is to advise you of *(company name*) activities at Salt Lake City International Airport and request authorization to apply for security identification badges. The badges will be needed until (*date project expires*).

(*Company name*) is engaged in... (*a brief description of your activities at Salt Lake City International Airport to include locations on the airport where proposed activities will occur, a point of contact, and the reason why your employees will require access to the restricted area of the airport).*

Attached is a list of all sub-contractors (if applicable) authorized to work on this project.

To fulfill the requirements of the Salt Lake City International Airport Security Program and the Policy and Procedure SLCAC 1-1A, the individual(s) listed on the attached Authorized Agent Designation form is (are) designated as certification officials(s) (*must be a company officer or their local management representative with the authority to bind the company*).

The individuals listed on the Authorized Agent Designation form are familiar with the Airport Security Program and will comply with the fingerprint-based criminal history records check and security threat assessment required of all signers authorized to sign for individuals requesting unescorted access into the secure area of the Airport. They will sign all applications for ID badges, act as a liaison with the Airport's Access Control Section for anyone whom they request access to the restricted areas of the Airport, and will ensure (COMPANY NAME) employees who are issued Salt Lake City International Airport ID badges comply with the Program. I understand that each applicant requiring unescorted

Access to the secure area of the Airport must submit to the fingerprint-based criminal history records check and security threat assessment. (COMPANY NAME) understands that a $30 fee for fingerprinting and s security threat assessment for each applicant will be invoiced on a monthly basis. (COMPANY NAME) will ensure a strict accounting of all ID badges is maintained, to include prompt reporting of any lost badges and return of ID badges upon termination or transfer of any employee. I understand that there will be a $100 fee imposed for any non-returned SIDA badge. I understand that all Airport ID's are, and remain, the property of the Department of Airports and that failure on the part of my company or employees to abide by Airport rules and regulations may result in revocation of access privileges and confiscation of all outstanding ID's.

As a condition of any such grant of access, I agree that any Transportation Security Administration fine levied against the Airport as a result of the actions or omissions of anyone for whom one of the certification official(s) has requested access to the restricted area of Salt Lake City International Airport will be paid by (*company name*).

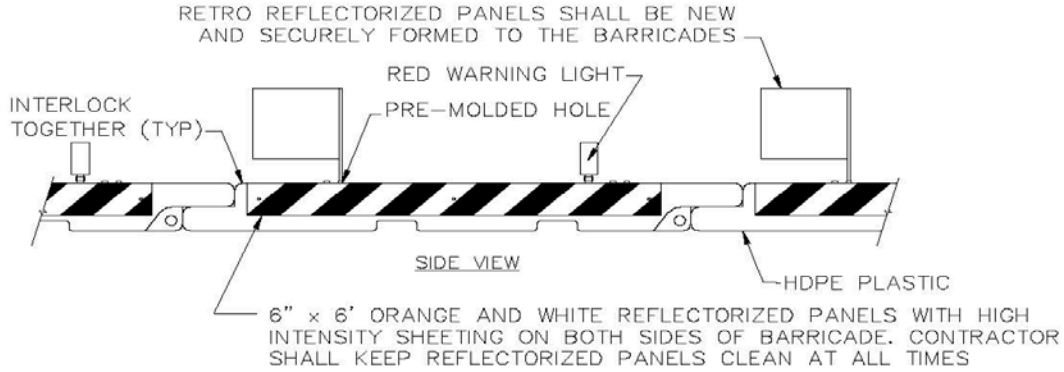
I certify that I have authority to bind (*company name*) to this agreement.

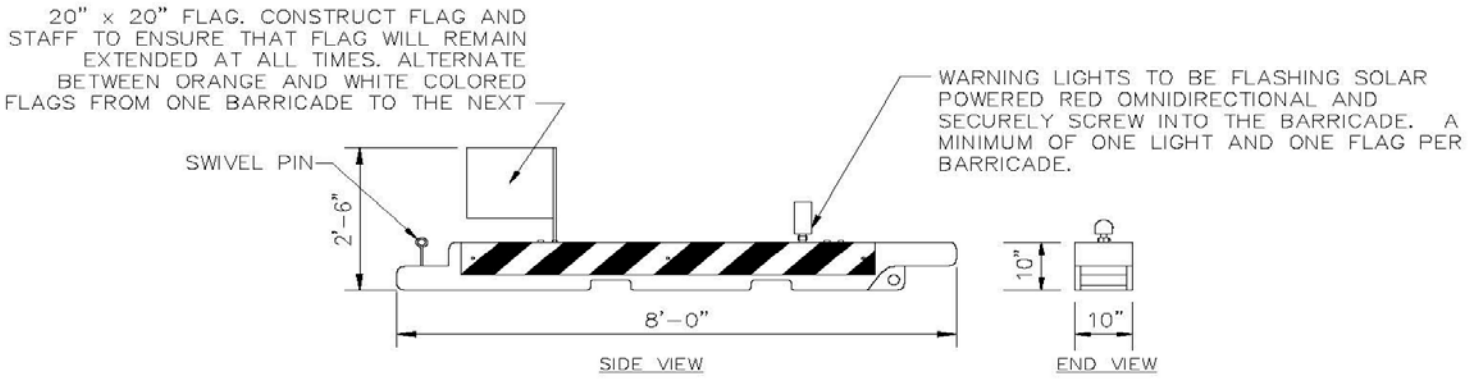
Sincerely,

Signature
(*Company officer or local manager*)

cc: Kristian Wade, Access Control
Project Engineer

Exhibit No. 6
Low Profile Portable Plastic Barricades





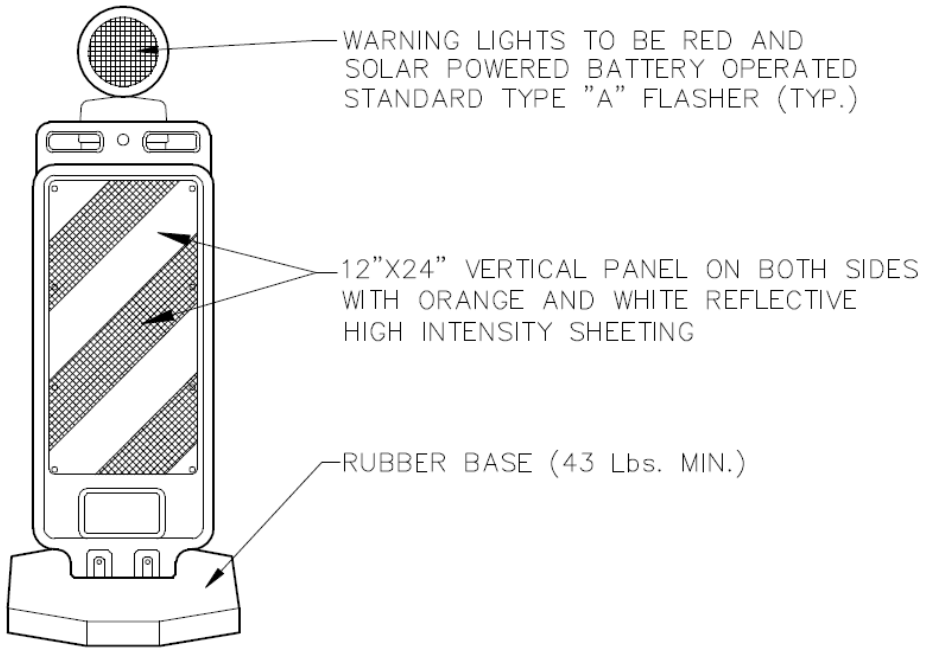
NOTES:
1. USE MULTI-BARRIER MODEL AR-10x96 HDPE SPN OR APPROVED EQUAL, ALL ORANGE.
2. BARRICADES TO BE IN COMPLIANCE WITH AC 150/5370-2E.
3. OMNIDIRECTIONAL LIGHTS SHALL BE: FLASHING, SOLAR POWERED, LED CONE BARRIER LIGHTS, RED IN COLOR, A MINIMUM OPERATING TIME OF 100 HOURS AT FULL CHARGE, A FLASH RATE OF 55/MIN, 1.2V NI-CAD BATTERY AND SCREW INTO THE AR-10x96 BARRICADE. USE MODEL CO1 FLASHING RED SOLAR LIGHT OR APPROVED EQUAL.
4. ALL LIGHTS SHALL BE NEW WHEN BARRICADES ARE INSTALLED.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE CARE AND MAINTENANCE OF ALL BARRICADES, LIGHTS AND FLAGS.
6. FLAGS SHALL BE MAINTAINED IN GOOD CONDITION AT ALL TIMES, AS DETERMINED BY THE ENGINEER. WORN OR TATTERED FLAGS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL REPLACE BROKEN OR FAILED LIGHTS IMMEDIATELY.
7. INSTALLED BARRICADES SHALL BE FILLED WITH WATER. DURING SUB-FREEZING TEMPERATURES FILL WITH POTASSIUM ACETATE OR CALCIUM CHLORIDE SOLUTION.

LOW PROFILE PLASTIC BARRICADE

REVISED 1/11

51

Exhibit No. 7
Construction Barricades Portable Traffic Delineator



NOTES:
1. 20' MAXIMUM SPACING BETWEEN BARRICADES
2. USE ROADTECH 33000 SERIES BARRICADE OR APPROVED EQUAL