Los Angeles World Airports

AIRPORTS DEVELOPMENT GROUP

LAWA Construction Safety Requirements

Revision 3: January 6, 2015



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Safety Philosophy:

Safety is a core value and is part of everything we do. Our goal is a culture of safety excellence. We believe that all accidents are preventable. We will conduct all of our operations in the field and in the office with a goal of zero incidents. To help achieve this our safety program focuses on the following core values:

- Safety Starts at the Top: We understand the importance of creating a safe and healthy work environment and we are committed to designing and maintaining effective and responsible work processes and procedures based on industry best practices and world class training. Our executive, senior and project managers will lead the SH&E process and continuously demonstrate support and commitment.

- Personal Ownership: It is the responsibility of each individual working within LAWA Airports Development Group (ADG) to comply with ADG's safety program. Our staff will be encouraged and empowered to become actively engaged in our safety processes through active participation in safety training, audits, observations and inspections. This includes constant awareness of real or potential safety hazards, incident prevention strategies and due diligence in resolving them via communications, resourcefulness and transparency. Employees will be encouraged to participate in health initiatives and adopt a healthy lifestyle.

- Continuous Improvement: We will continue to improve our program in order to achieve and sustain our goals. We will learn from our experience and share best practices and lessons learned. Our managers and safety professionals will oversee investigations of all recordable incidents and serious near misses to identify contributing factors and root causes in order to prevent a reoccurrence. Lessons learned shall be identified, communicated and implemented.

- Inclusion: Our project staff will work closely with our sub consultants, contractors, and subcontractors to provide a safe environment for employees, airport tenants, and members of the public. Our goal of zero incidents will be equally shared by all program participants.

Roger Johnson
LAWA ADG
Deputy Executive Director

Safety Policy:

It is the objective of the LAWA Airports Development Group to achieve an accident free environment thus safety and health must be a part of every operation. In keeping with this the LAWA ADG Program Safety Requirements have been developed to provide the general requirements for construction safety practices while working at LAWA properties.

Without question, it is everyone's responsibility at all level to create a safe environment. Project construction delivery team members and contractors are charged with the responsibility of conducting their operations in a manner that will provide safe conditions for all persons. This requires cooperation in all safety and health matters. Only through such a cooperative effort can an effective safety and health program be established and preserved. Safety is an integral part of each job. Full participation, cooperation, and support is necessary and required to ensure the safety and health of all persons.

Nothing contained in these safety requirements relieves any Contractor, sub-contractor, Construction Manager at Risk, Design Builder, vendor or supplier of their obligations to provide a safety and healthy work environment.

Program Safety Manager (PSM) Responsibilities: The Program Safety Manager is responsible for overseeing and monitoring the implementation of the LAWA Construction Safety Requirements. The PSM will perform the following:

1.1. Work with all parties to provide for the effective implementation of the LAWA Construction Safety Requirements.

1.2. Update the LAWA Construction Safety Requirements, as appropriate.

1.3. Provide guidance to the program management team on safety matters.

1.4. Coordinate with LAWA's Risk Management.

2. **LAWA Project Manager Responsibilities**: The Project Manager or his/her designee is responsible for the direct oversight and monitoring the contractor's implementation of the project specific safety program. The Project Manager or his/her designee has the responsibility to perform the following:

2.1. Facilitate a pre-bid conference where the LAWA Construction Safety Requirements are presented.

2.2. Review applicable contract documents for safety related compliance and issues.

2.3. Review and accept or reject Contractor's project specific safety plans and programs.

2.4. Review resumes, interview the Contractor's proposed site specific safety professional(s), and accept or reject proposed candidate(s).

2.5. Ensure that all required safety deliverables have been received and accepted prior to the issuance of the notice to proceed.

2.6. Facilitate a pre-construction conference (to take place after the receipt and acceptance of required safety deliverables); this conference shall begin with safety as the first agenda item.

2.7. Ensure Contractor's implementation of the approved site specific safety plan.

2.8. Oversee the accident prevention procedures for personnel working at the construction site.

2.9. Coordinate, attend and lead a weekly project safety walk. Mandatory weekly safety walk participants shall include: Contractor PM, Contractor designated safety professional, Contractor field supervisory personnel, and others as required.

2.10. Attend the monthly LAWA Construction Safety Meeting.

2.11. Stop any construction activity or task which, in their judgment, constitutes an immediate or evolving situation of imminent danger.

2.12. Require the removal of any Contractor personnel from the job site for cause.

2.13. Report immediately any unsafe working condition to the Contractor and LAWA PSM.

2.14. Promptly notify the Contractor and LAWA PSM in writing of noncompliance/violations with any of the safety requirements.

2.15. Maintain written documentation of communications with the Contractor concerning accident prevention in the program document control files.

2.16. Receive and review copies of the Contractor's Daily Reports, Safety Inspection Records, Equipment Maintenance Log, Accident Report Forms, and other forms as they apply.

2.17. Enforce the requirements of the contract related to construction safety. Should Contractor fail to observe the requirements of the contract, or fail to abate a hazardous condition the Project Manager or its agents shall have the right to stop all work performed by Contractor.

3. **Contractor's Project Manager Responsibilities**: Shall ensure compliance with all provisions of the contract, including the LAWA Construction Safety Requirements, CAL/OSHA and other agency and industry safety requirements and standards. The Contractor's Project Manager has the responsibility to perform the following:

3.1. Ensure compliance with Appendix D Code of Safe Practices.

3.2. Submit resumes and schedule interviews for the Contractor's proposed site specific safety professional(s) with the LAWA PM. Upon approval ensure Contractor's Safety Professional is available at work site at all times during performance of work.

3.3. Remove from worksite any of its employees or subcontractors' employees that refuse to abide by safety, health and environmental rules and regulations.

3.4. Ensure compliance with Contractor's approved Incident Prevention Plan Appendix B. This plan shall include prevention of hazardous, unsafe, unhealthful or environmentally unsound conditions or activities. This plan shall also include verification of written pre-activity plans. There shall be a Job Hazard Analysis (JHA) on file for each scope of work and a Task Hazard Analysis (THA) completed daily (and when tasks change) to address each crew and activity within the broader scope of work. If Contractor becomes aware of any hazardous, unsafe, unhealthful or environmentally unsound condition or activity at work site, it shall promptly take all necessary steps to eliminate, terminate, abate or rectify the condition or activity and notify the Owner or its agents both verbally and in writing at the earliest possible moment.

3.5. Ensure that construction tools are inventoried and secured in accordance with Appendix D.

3.6. Inspect the work site and appropriate work records to ascertain Contractor's and subcontractors' compliance with the safety, health and environmental requirements of the contract.

3.7. Upon notification of the contract award, the Contractor shall submit in writing a Site Specific Safety Plan, an Injury and Illness Prevention Program (IIPP) and Code of Safe Practice in accordance with CAL/OSHA requirements to the LAWA Project Manager. The IIPP and Code of Safe Practice must comply with the LAWA Construction Safety Requirements. Delay in submitting the IIPP will not constitute grounds for a contract schedule extension or delay claim.

3.8. Ensure that work does not begin until the Site Specific Safety Plan, IIPP, Code of Safe Practices as well as the required safety professional(s) are accepted and in place.

3.9. Plan and execute all work to comply with the safety requirements contained herein as well as in the contract documents and provisions; federal, state and local laws and regulations; and industry standards (see Appendix E).

3.10. Ensure that the Contractor safety professional(s) is not removed from the job without written acceptance by the LAWA Project Manager. No work will be allowed to take place without an approved Contractor safety professional on site.

3.11. Maintain an orientation program for all project workers in compliance with Appendix D.

3.11.1. Orientations must be completed prior to accessing the worksite.

3.11.2. Written documentation of all orientation attendees must be submitted to the LAWA Project Manager and PSM.

3.11.3. Documentation must include an outline of orientation topics, name and signature of instructor, date, time and duration of training.

3.11.4. Orientation program must include sub-contractors, vendors and visitors.

3.11.5. Documentation must be submitted within seven (7) calendar days of training.

3.12. Hold safety meetings on a weekly basis that all Sub-Contractors will also attend. Documentation of topics discussed and attendees, including signatures, shall be maintained.

3.13. Take immediate action to correct all substandard safety conditions in accordance with the Contractor's approved Incident Response Plan (see Appendix C).

3.14. Attend and take an active part in all supervisory safety meetings, including the weekly project safety walk scheduled by the LAWA PM.

3.15. Submit LAWA Monthly Safety Metrics Report by the 10th day of each month or the previous Friday if the 10th falls on a weekend or holiday.

3.16. Disseminate information on observed unsafe work practices and/ or conditions to all project workers.

3.17. Encourage safety suggestions from project employees.

3.18. Provide the LAWA PM copies of all CAL/OSHA or environmental citations. Call for job site stand down to direct corrective action on recordable injuries, near misses and serious violations, and when directed by the LAWA PM or LAWA PSM.

3.19. Attend the monthly LAWA Program Wide Safety Meeting.

3.19.1. Ensure attendance of all Contractor approved safety professionals.

3.19.2. Ensure attendance of at least one individual from each sub-contractor.

3.20. Upon request, attend special safety meetings held or sponsored by LAWA and/or LAWA's Authorized Representative.

3.21. Ensure that at a minimum, a daily and/or once-per-shift safety inspection of the project is completed to eliminate unsafe acts and/or conditions.

3.22. In the event of an incident ensure that all reporting, notifications, and incident response undertakings are completed in accordance with Appendix C.

3.23. Respond in writing to any received safety violation notices or loss control surveys within the time frame specified on the document, or 48 hours, whichever is less.

3.24. Facilitate a return to work program for any injured project employee.

3.25. Ensure that all injured workers receive medical treatment if needed, including follow-up visits.

The LAWA Construction Program Safety Requirements have been developed by Los Angeles World Airports (LAWA) to promote safety; minimizing the hazards and risks associated with the construction projects. It is this policy's goal to eliminate personal injuries and property damage associated with construction activities. The effectiveness of the Construction Safety Program depends upon the active participation of the Contractor and recognizes dependency on active participation and cooperation of Contractor's staff in carrying out the following basic procedures in all phases of the project.

4. **Pre-Construction:**

4.1.1. Pre-bid conference: During the pre-bid conference the LAWA Construction Program Safety Requirements will be presented. These contractual agreements form the basis of our safety system in this multi-employer work site. The Pre bid conference is an opportunity for the Contactor to assess the demands for compliance, implementation and maintenance of the LAWA Construction Safety Requirements.

4.1.2. The Contractor shall submit for approval a Cal/OSHA compliant Injury and Illness Prevention Plan (IIPP). The IIPP shall be approved prior to the issuance of the Notice to Proceed. See Appendix K for IIPP required elements.

4.1.3. The Contractor shall submit for approval a Cal/OSHA compliant Code of Safe Practices (COSP). The Contractor's COSP must address and/or incorporate the LAWA COSP in Appendix D. The COSP shall be approved prior to the issuance of the Notice to Proceed.

4.1.4. The Contractor shall submit for approval a Site Specific Safety Plan (SSSP). The Contractor's SSSP must meet or exceed the LAWA SSSP in Appendix L. The SSSP shall be approved prior to the issuance of the Notice to Proceed.

4.1.5. Safety professionals are required on each project in accordance with Appendix G. The Contractor shall submit for approval the resumes of their proposed safety professional(s).

4.1.6. All proposed Contractor safety professionals will be interviewed by the LAWA PM or their designee prior to being approved to be on site.

4.1.7. On-site construction work cannot begin until the required safety personnel positions have been filled by approved persons.

4.1.8. Pre-construction conference will take place after the receipt and acceptance of all required safety deliverables. This conference shall begin with safety as the first agenda item and all approved Contractor safety professionals must be in attendance.

5. **Construction:**

5.1. Plan safety into all work activities in accordance with the Incident Prevention Plan (IPP) to minimize the potential for personal injury, property damage, and loss of productive time. Maintain a system of prompt detection and correction of unsafe practices and conditions. See Appendix B.

5.2. Comply with all federal, state and local laws, ordinances, regulations, industry standards, Airport regulations (see Appendix E), and LAWA Construction Safety Requirements.

5.3. All approved safety professionals must engage in continuing education in order to maintain qualifications/certifications in accordance with Appendix G.

5.4. Through the approved Incident Response Plan (IRP) the Contractor will ensure prompt notification, thorough investigation, and accurate reporting of all incidents. Upon request of the LAWA PM additional investigations may be required. Incident responses must determine the root causes and implement necessary corrective action. See Appendix C.

6. **TCO/Punch List**

6.1. Contractor will continue to perform work in compliance with LAWA Construction Safety Requirements.

6.2. Non construction personnel must remain protected and/or excluded from all construction activities.

6.3. Approved barricading methods must be used in accordance with LAWA Construction and Logistics Management (CALM) regulations.

Jason Townsell Program Safety Manager	1/6/15
Roger Johnson Deputy Executive Director	1/6/15

1. **Work Stoppages**

   Construction may be stopped by LAWA at any time if the intent of the regulations regarding safety or Security Requirements is being violated or that a hazardous condition exists. This decision to suspend the operation will be final and will only be rescinded by LAWA when satisfied that the Contractor has taken action to correct the condition and prevent recurrence.

   Frequent field inspections will be made by LAWA or authorized representative during the critical phases of the work to ensure that the Contractor is following the recommended safety procedures. The Inspector will report any violations or potential safety hazards to LAWA who will in turn advise the Contractor of the concern for immediate correction by the Contractor.

2. **Intermittent Construction Operations**

   When directed to cease construction and move from the area, the Contractor shall immediately respond and move all material, equipment and personnel outside the affected area(s). Operations shall not be resumed until directed by LAWA. Every reasonable effort will be made to cause minimum disturbance to the Contractor's operations; however, no guarantee can be made as to the extent to which disturbance can be avoided.

1.0 The Contractor shall create and implement an IPP. The IPP will be developed as a project-wide standard operating procedure (SOP). The Contractor IPP must meet or exceed the elements of this appendix.

2.0 Risk Assessment Process

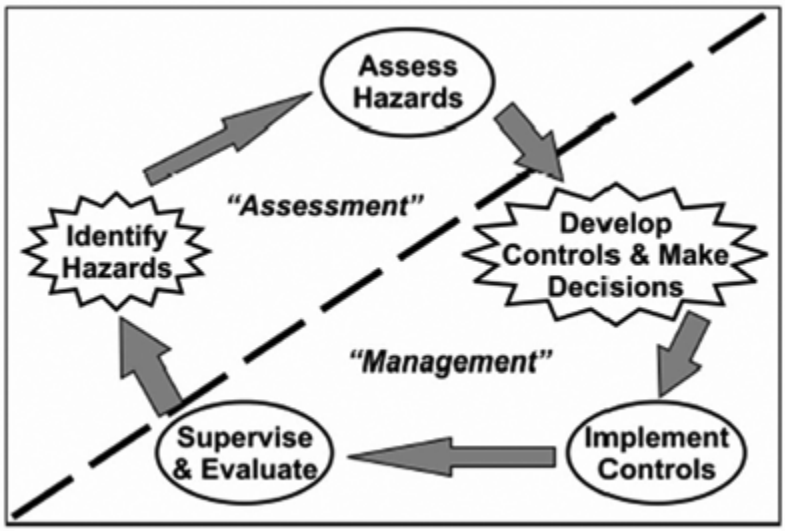
2.1 Risk Assessments or the Job Hazard Analysis (JHA) must be completed and present on site with all work crews prior to commencement of work. The risk assessment must at a minimum include: Task, Hazard, Control, Measured Risk (risk after controls implemented), Supervision and Evaluation. The risk measurement must be broken down into probability and severity see 2.3 below.

2.2 Document your risk assessment on a JHA (see Appendix F). The JHA is developed and completed when the project team lays out the work. Each scope of work at a minimum must have a separate JHA. Some work may require the scope to be broken down into more manageable parts with separate JHA's. The JHA must be updated as changes to the scope occur. Use the model in 2.5 below to evaluate changes to scope.

2.3 Use the below risk assessment matrix to measure and communicate risk levels. The Contractor must define severity in both dollars and injury.

RISK ASSESSMENT MATRIX						
		Probability				
Severity		Frequent A	Likely B	Occasional C	Seldom D	Unlikely E
Catastrophic	I	E	E	H	H	M
Critical	II	E	H	H	M	L
Marginal	III	H	M	M	L	L
Negligible	IV	M	L	L	L	L
E-Extremely High		H-High		M-Moderate		L-Low

2.4 The risk assessment is a five step cyclical process that continually improves with each cycle.



2.5 Step 1 is to identify the tasks associated with their work. Defining The Tasks: The best way to ensure repeatable results when defining tasks is through the use of a model to guide our analysis. The factors which must be considered are: Scope of Work, Equipment Used, The Terrain-Weather-Time of Day, Planning Time, Workforce Quality, and the Public around our work (SETT-WP). The SETT-WP factors are then integrated into the 5-step Risk Management Process with the safest as practically achievable plan being implemented with the risk decision being made at the appropriate level. The analysis is captured and documented by the project management team or Superintendent through the development of a work plan and Job Hazard Analysis (JHA). The Superintendent and Forman use the JHA to create a daily Task Hazard Analysis (THA) and brief the workers from the THA (See Appendix F).

2.5.1 Scope: The project work plan must be clearly stated, briefed back and rehearsed if possible, to ensure project team members are capable of performing each task within the scope. Reduced clarity in scope or work plan increases probability for inefficient production and or mishaps. Each and every member of the team should be able to do a mental walk through of their tasks, similar to the way members of a football team do for each and every play the team performs on the football field. The more you train and rehearse, the lower the risk during execution.

2.5.2 Equipment: Equipment includes the condition, serviceability, inspection, status of maintenance, applicability for the chosen scope, and the training of operators. Basically, project planners must ensure the equipment, scope, and operators are compatible. If not, the chances of project failure and risks are increased.

2.5.3 Terrain/Weather: Terrain, weather, time of day, and site specific constraints can have a profound effect on project accomplishment. Terrain can be very difficult to cross under ideal conditions and be totally impassable in rain, snow, or similar atmospheric conditions. Terrain and weather have completely changed the course and outcome of entire projects. Project planning requires constant forecasting and in many cases, long term forecasts and pattern assessments, to determine the best time to accomplish certain aspects of the scope. The weather and terrain will, in many instances, necessitate a different approach to planning, training, and accomplishing tasks. Site specific constraints must be incorporated into risk assessments to prevent production delays.

2.5.4 Time: Planning time directly affects Project Managers and planners' ability to properly assess all of the SETT-WP factors. If planning time is short, the ability to assess and mitigate identified hazards can be severely reduced. Reduced planning times interfere with rehearsals and refresher training. If a team is trained to standard and frequently performs the tasks associated with its scope, then shorter planning times will have less negative effect than in an untrained team.

2.5.5 Workers Available: The experience, training, motivation, fatigue level, and morale of the team are a few of the risk factors to consider when planning a project. In most cases, and in accident history, many mishaps are related to human error and are directly attributable to the aforementioned factors. Project teams that train to standard and accept nothing less, perform to standard. If a worker cannot measure up to the standards of the team, the project manager must make critical decisions and develop countermeasures to compensate for the non-standard performer. The scope must be planned and assessed to ensure that the weakest link in the chain, usually the newest or least proficient worker, does not cause a failure.

2.5.6 Public (The affect the project has on the public and non-construction personnel): Many of the projects we perform are located within areas that are accessible to the public. During the execution of the project, we must maintain their safety and protect them from mishaps.

2.5.7 Step 1 Continued is to identify the hazards associated with their tasks. Hazards are developed based on the tasks identified above. Hazard identification is effectively completed with input from Foremen and Laborers. This task should not be attempted by supervisory personnel alone.

2.6 Step 2 is to assess the hazard or measure the risk associated with their tasks. The goal of risk measurement is for all leaders to measure risk with precision. Uniformity in risk measurement will allow leaders to manage the risk even if accuracy is off a little. Define the severity in both human injury and in dollars as mentioned above. Define probability as follows: Frequent (99%), Likely (75%), Occasional (50%), Seldom (25%), Unlikely (1%). By using a specific definition for each category individual bias and subjectivity will be minimized and uniformity in risk measurement will increase.

2.7 Step 3 is to develop controls and make risk decisions.

2.7.1 Develop controls from the hazards identified in 2.5.7 above. The goal of control development is to mitigate to the lowest practicable level the risk with each hazard. No work is permitted to proceed with risk levels above “moderate” after controls are implemented.

2.7.2 We must build from continual assessment of our work in order to develop effective controls. Everyone must implement controls to mitigate hazards; regularly reassess and update them to ensure that we are performing our tasks and operations in a safe manner; without unnecessarily hindering our projects.

2.7.3 Contractor’s PM must sign off on all JHA’s declaring the residual risk to be acceptable.

2.8 Step 4 is to implement controls

2.8.1 Assign responsibility to lead workers to ensure that the controls are implemented.

2.8.2 Review controls prior to planned work ensuring that all controls are completed and available.

2.9 Step 5 is to supervise and evaluate

2.9.1 Assign responsibility to supervise the work to ensure that controls stay implemented and evaluate effectiveness.

2.9.2 Conduct daily site audits to ensure that no unidentified tasks or hazards are present and that all controls are implemented.

2.9.3 At the conclusion of the work review the entire risk assessment to determine if all tasks were identified, all hazards identified, the controls implemented were effective, that the risk levels were accurate.

3.0 The Contractor must have individual work crews develop a Task Hazard Analysis (THA) for their daily work. This THA must be developed and created prior to the commencement of work, signed by all workers involved in the task, and kept on their person or nearby equipment while work is in progress. The THA must be updated as changes occur, and the changes must be immediately briefed to the work crews.

4.0 The Contractor will ensure that all project personnel have been trained on your IPP.

5.0 The IPP SOP is an ongoing cyclical process that improves with each cycle. At the completion of each portion of scope the contractor must conduct an after action review to assess the veracity of the JHA to ascertain improvements for the next cycle.

6.0 Pre-Activity Check Lists will be created for all work that has an initial risk level of moderate or greater. No work with high or extremely high residual risks is allowed. See the attachment below for an example check list.

Example Pre-Activity Checklist

(All items on the pre-activity checklist must be affirmed prior to an activity beginning)

- Is the contractor's safety representative immediately available onsite?
- Have all workers involved in the activity received a site specific orientation?
- Has the contractor effectively communicated to all of its employees and subcontractor employees' relevant safety, health, fire, environmental and other rules and regulations necessary to comply with all applicable laws, rules, and regulations?
- Have all utilities been identified, marked, and discussed?
- Have all relevant permits been issued for the activity?
- Has a comprehensive pre-task plan (JHA and THA) capturing all foreseeable hazards been completed for the activity?

- Has the Contractor's Project Manager signed the JHA?
- Has the THA been reviewed and signed by each crew member involved in the activity?
- Has a pre-activity safety briefing where the THA was reviewed by all workers been held?
- Have employees been appropriately trained in the hazards relevant to the work?
- Have all on-site field staff completed a 10 hour OSHA construction class within the last 4 years?
- Have all field supervisory staff completed a 30 hour OSHA construction class within the last 4 years?

Contractors shall develop and implement an airport specific Incident Response Plan (IRP). The IRP will be utilized as a project-wide standard operating procedure.

The intent of this contractor IRP is to ensure the effective handling of incidents that affect contractor employees, the general public, as well as any airport property. This process will require all incidents to be communicated and investigated in a manner enabling timely corrective action. The IRP shall (at a minimum) incorporate the following**:**

Incident Response Protocol

Step 1 – Emergency Response

- Fire
- Life Safety/Medical
- Environmental
- Property

Step 2 - Verbal Notification

In the event of an incident or injury, contractor shall immediately notify the following:

- LAWA Emergency
- ARCC
- LAWA PSM
- LAWA PM

Step 2- Written Notification (see Appendix F)

Contractor shall provide written notification within 1 hour of an incident, regardless of the severity.

The written Initial Notification Form, at a minimum, shall include the following:

- What the nature of the incident was?
- Who was directly involved in the incident?
- The date, time, and location of the incident?

- Why the incident occurred?
- What initial actions were taken?

Within that first hour the Initial Notification Form shall be provided to the LAWA PM and LAWA PSM.

With the exception of rescue and emergency procedures, Contractor shall secure the area. The incident scene shall not be disturbed until it has been released by the investigating official. Contractor shall provide notification to the LAWA PM and LAWA PSM that a Post Incident Drug Screen has been conducted for all involved personnel.

Incident Investigation

Contractor must investigate thoroughly all, but not limited to, the following:

- Any incident that results in the injury of an employee
- Any incident that results in a “utility strike”
- Any incident that results in interruption or impact to airport operations
- Any incident that results in equipment or property damage
- All near misses

Within 24 hours of the incident Contractor shall complete a thorough incident investigation, and provide the report to the LAWA PM and LAWA PSM.

This report should include, at a minimum the following:

- Incident Summary (including collateral loss)
- Witness Statement(s)
- Employee Statement(s)
- Root Cause(s)
- Disciplinary Action
- Re-training documentation

Root Cause Analysis

Contractor shall ensure that all root causes have been identified and that adequate preventive measures have been implemented to prevent future occurrences of repeat or similar incidents.

Contractor shall coordinate a formal investigative review meeting (Cause Analysis) within 72 hours of all incidents; this meeting shall be facilitated by the Contractor's PM. Attendees must include LAWA PM, LAWA PSM, LAWA Construction Inspector, LAWA Facilities Maintenance Group Representative, Contractor Project Superintendent, Contractor Safety Professional(s), Subcontractor Safety Representative (if applicable), Competent Person (if applicable), and any craft person involved in the incident.

Contractor shall provide a printed agenda with the following items at a minimum to be reviewed:

- Completed Official Incident Report
- Incident Timeline (beginning with verification of employee orientation)
- Completed JHA with signatures from day of the incident
- The Root Cause Analysis
- Work Status Report
- Corrective action and verification of dissemination (training sign-in sheet).

Failure to facilitate the Cause Analysis meeting may result in a Notice of Non-Compliance.

Written Emergency Plan

Contractor must develop plans for providing medical service including first-aid, CPR and defibrillation.

A copy of the emergency plan is to be posted at the work site, first-aid station, and/or bulletin board.

Contractor shall develop a layout drawing of the site indicating but not limited to the following:

- Fire/ambulance access roads
- Police access points

- Location of first-aid stations
- Evacuation muster points
- Map(s) from work site to medical facilities
- Locations of required warning or danger alarm systems
- Location of offices
- Private vehicle parking
- Equipment parking
- Storage of all flammable/ combustible liquids, gases or other hazardous materials; includes estimated quantities.

Emergency Numbers

The following emergency telephone numbers, at a minimum, shall be included in the given work area:

LAWA Emergency……..... (424) 646-7911

ARCC…… (424) 646-5292

LAWA PSM……..(424) 646-7360

LAWA SAFETY DEPARTMENT CONTACT LIST

Jason Townsell	(424) 646-7360	Program Safety Manager
Vaughn Jarrett	(424) 646-5376	Assistant Safety Manager
David Baldovin	(714) 612-9069	Assistant Safety Manager
Jorge Padilla	(424) 646-7436	Assistant Safety Manager
Aaron Morrow	(424) 646-7568	Assistant Safety Manager
Stan Evans	(424) 646-7596	Assistant Safety Manager
Rich Contreras	(949) 510-5223	PLA Representative/Safety

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General Provisions

1.1 In addition to these safety requirements all work shall be done in compliance with all applicable standards and regulations (See Appendix E).

1.2 The Contractor shall protect the health and safety of its employees, the public and other persons; prevent damage to property, materials, supplies, and equipment; and avoid interrupting the normal operation of the airport.

1.3 Before starting work, the Contractor shall provide, and have available in good repair and working order, all flags, signs, barricades, lights, electrical generators, and other equipment and materials as may be required for the protection of personnel, air traffic, vehicular traffic, and the construction work. All personnel shall have the proper LAWA-issued identification badges and have received the required training and instruction.

1.4 No person shall be required or instructed to work in surroundings or under conditions that are unsafe to his or her health.

1.5 Workers shall not be permitted to work more the 12 hours in any given 24 hour period and must be provided a day off of work at least 1 out of every 7 days.

1.6 The contractor is responsible for initiating and maintaining a safety and health program that complies with all federal, state and local laws, regulations and industry standards (Appendix E).

1.7 All field workers shall have completed within the last 4 years an OSHA 10 hour course; proof of training completion shall be immediately available.

1.8 All field supervisory staff shall have completed within the last 4 years an OSHA 30 hour course; proof of training completion shall be immediately available.

1.9 The Contractor shall erect and maintain safety and health bulletin boards in commonly accessed areas in clear view of the on-site workers. It shall contain, at minimum, the following safety and health information:

1.9.1 A map denoting the route from the project site to the nearest emergency facility

1.9.2 Emergency phone numbers

1.9.3 A copy of the current hazard analysis (e.g., JHA, THA, AHA, etc.)

1.9.4 Safety and Health promotional posters

1.9.5 A map denoting the location of LAWA critical infrastructure and a plan to protect it

1.10 All personnel shall be provided with the LAWA, as well as the Contractor's site specific safety and health orientation prior to the start of work. Continuous safety and health training provided by the Contractor throughout the entirety of the project is also required.

1.11 While on duty; employees shall not use or be under the influence of alcohol, narcotics, intoxicants, or other mind-altering substances.

1.11.1 Employees found to be under the influence of or consuming such substances will be immediately removed from the job site. Contractors shall enforce the drug-free workplace requirements.

1.11.2 Any employee under a physician's treatment and taking prescribed narcotics or any medication that may prevent one being ready, willing and able to safely perform position duties shall provide a medical clearance statement to his or her supervisor

1.12 While on duty; gambling, fighting and/or horseplay shall not be tolerated.

1.13 No burning is permitted on LAWA property.

1.14 Smoking/Vaping by personnel is prohibited on the AOA.

1.15 Potential interference with the electronic signals from radios or electronic navigational aids that may affect normal airport operations is prohibited.

1.16 The use of electronic devices during work is prohibited when their use creates a distraction or unsafe condition.

1.17 Any Contractor/Subcontractor employee who is found to be in violation of these safety rules or other Owner's policies or procedures may be removed from the job site.

1.18 Impacts caused by failure of the Contractor, subcontractors at all tiers, and all others to comply, implement and maintain the provisions of the LAWA Construction Safety Requirements shall not be cause for a claim of delay or increased cost to LAWA.

2.0 Cranes (All Lifting Equipment and Rotary Wing Aircraft)

2.1 Pick Plan Requirements: The contractor shall provide a Pick Plan to the Project Manager and Program Safety Manager office for review at least 48 hours prior to equipment mobilization.

This Pick Plan must include the following:

2.1.1 A narrative describing the planned work and include the flowing information.

2.1.1.1 Equipment mobilization route, work location, and any planned movement.

2.1.1.2 Recognition that all work will be compliant with: all applicable laws, regulations, contractual requirements, and the LAWA LAWA Construction Safety Requirements.

2.1.1.3 Acknowledgment of exposure to non-construction personnel and the controls employed to protect them.

2.1.1.4 A statement about the % maximum lift of the planned work.

2.1.1.5 A statement defining the maximum wind allowed for the planned work. This wind limit must acknowledge the reduced capacity of the lift. The combined % maximum lift and reduced capacity shall not exceed 75% without compliance with 2.1 above.

2.1.1.6 A statement describing the communication plan between the equipment operator and all who will be communicating with the operator.

2.1.2 The manufacturer’s data sheet for each piece of equipment.

2.1.3 The contractors plan for % of maximum lift capacity for the greatest % lifts for each phase of work.

2.1.4 All applicable inspections.

2.1.5 The operator's credentials or current operator card.

2.1.6 The operator's current medical clearance certificate (not medical record).

2.1.7 Identify the Qualified Rigger and provide credential.

2.1.8 Identify Signalman with a statement from the employer that they are trained and qualified to perform the planned work.

2.1.9 Any changes in personnel or equipment must be presented to the Project Manager and Program Safety Manager's Office 24 hours prior to commencement of work.

2.1.10 A copy of the approved FAA 7460.

2.2 General Requirements

2.2.1 Lifts greater than 75% of the equipment capacity are considered a critical lift. All critical lifts are prohibited.

2.2.2 All lifts will cease when winds reach 25 MPH.

2.2.3 No chains are allowed for rigging or lifting with any equipment. With the prior concurrence of the Program Safety Manager that no other practical method is available chain falls may be used on a case by case basis.

2.2.4 The contractor will ensure that no materials will be lifted over workers or any other person.

2.2.5 Multi-lift rigging of crane loads is not allowed.

2.2.6 All sling and crane load line hooks shall have safety latches installed.

2.2.7 All outrigger cranes shall only be operated with outriggers fully extended, wheels not in contact with the ground, and appropriate cribbing in place.

2.2.8 Crane suspended work platforms and rotary wing aircraft shall not be permitted without the Contractor's Safety Professional(s), Contractor's Project Manager, an Engineer, LAWA PM, and the LAWA PSM all agreeing that there is not another practical method to complete the work.

2.2.9 The swing radius of all cranes must be barricaded with rope, chain, or a similar material (Plastic tape of any kind is not allowed).

2.2.10 Daily crane inspections must be conducted and documented.

2.2.11 All cranes shall be lowered and stowed when not in use.

2.2.12 No crane or equipment outriggers may be set up over fueling/hydrant pits, electrical/communications handholds or similar structures.

3.0 Excavation / Underground

3.1 Excavation work shall be pre-planned to identify and review safe work practices, hazard recognition procedures, and soil determination/analysis.

3.2 Open trenches or excavations will not be permitted within the limits of restricted areas of operational runways, taxiways, or ramps.

3.3 Open trenches or excavations are not permitted within the Taxiway Safety Area (TSA) while the taxiway is open.

3.4 Prior to excavation at least one visual and one manual analysis (per Cal/OSHA Title 8 CCR 1541.1 Appendix A) of soil conditions shall be made. The results of the both the manual and visual soil analysis shall be documented; documentation shall be immediately available at the excavation site.

3.5 While excavating, the exact locations of the underground utilities must be determined by safe and acceptable methods (see section 15.0 – Protection of Utilities of this document).

3.6 All trench banks shall be sloped to the proper angle of slope defined by OSHA/CalOSHA guidelines. Any deviation from OSHA/CalOSHA's guidelines must be designed and approved by a Registered Professional Engineer. If the angle of the slope cannot be achieved, the trench shall be shored per all regulatory requirements.

3.7 Excavation inspections are to be completed and documented daily by competent person; documentation shall be immediately available at the excavation site. The inspection must include a review of soil conditions, protective systems, spoil piles, access and egress systems, surcharge loads, public protection, changing conditions, and hazardous conditions.

3.8 Dust pollution shall be minimized during excavation and the watering of the area should be undertaken where necessary to minimize dust transference.

3.9 Stockpiles shall aim to minimize the effects of attrition and wind action. They shall be sited and shaped to minimize the potential for dust generation. Handling operations shall be kept to a minimum and materials must be deposited onto the stockpile from the minimum practicable height. The surface of long-term stockpiles shall be stabilized and prominently marked.

3.10 Open trenches, excavations, and stockpiled material at the construction site shall be prominently marked with red flags and lighted during hours of restricted visibility and/or darkness. Open trenches shall be substantially barricaded with orange "safety fence". Safety fence will be maintained so as to be plainly visible, maintain original color and construction.

3.11 Barricades around open holes, trenches, drop-offs, etc. shall be weighted or secured to the ground to prevent displacement by wind or jet blast.

3.12 Coverings for open trenches or excavations shall be of sufficient strength to support the weight of the heaviest aircraft or vehicle operating on the runway, taxiway, apron or roadway.

3.13 The Contractor shall design sheeting, shoring, and bracing of trenches and excavations greater than 5 feet in depth in accordance with Article 6 of CAL OSHA and the California State Labor Code. The standards of design referred to in the Labor Code shall be those of Cal/OSHA. The shoring procedure designed by the Contractor shall be suitable for the site subsurface conditions and project

operational constraints. The Contractor shall submit information required by Section 6705 of the California State Labor Code. Submittals shall be made in accordance with the PR – Submittal Procedures.

4.0 Electrical

4.1 All electrical installations shall meet the current NFPA 70E and building code requirements.

4.2 All live electrical parts shall be clearly labeled, protected and covered at all times.

4.3 Treat all equipment and parts as if they are energized unless verified to be otherwise by a qualified person.

4.4 Safety signs, barricades, and/or attendants shall be required to prevent accidental contact with live electrical parts and equipment.

4.5 All disconnects for motors, branch circuits, service feeders; etc. must be marked to include what it controls.

4.6 Extension cords must be a minimum 12 gauge, and be of the three (3) wire prong type.

4.7 Do not alter electrical plugs (remove ground pins) and receptacles that prevent grounding.

4.8 Electrical equipment used in hazardous locations must be rated and approved for the specific location.

4.9 Contractor shall not run extension cords through doors, windows, walls, and over metal objects such as conduit, pipes, and racks. To avoid damage and/or trip hazards, cords will be hung overhead (utilizing non-conductive materials) when crossing over walkways, aisles and passageways.

4.10 The use of Assured Equipment Grounding Program as the sole means of worker protection will not be allowed on the Project.

4.11 All temporary electrical service 110-120volts 15-20 amp circuits shall be equipped with Ground Fault Current Interrupters (G.F.C.I.), as well as, any

permanent power sources used for construction activities. This includes all corded equipment plugged into permanent power as well as all generators.

4.12 GFCI's shall be tested in accordance with manufacturer's requirements; test logs shall be immediately available.

4.13 All panel schedules shall remain current identifying the proper disconnects and locations.

4.14 All electrical installations shall have adequate working space, and panels labeled for Arc-Flash protection.

4.15 Temporary lights must be protected against accidental contact or breakage.

4.16 All power tools must be double insulated or properly grounded.

4.17 The Contractor must properly lockout/tagout any machinery or equipment in accordance with protocol summarized in the lockout/tagout section in these standards.

5.0 Lockout/Tagout

5.1 The Contractor must have a written Lock-out/Tag-out program that meets or exceeds applicable standards (see appendix E).

5.2 Contractor shall de-energize all energy sources (electrical, hydraulic, pneumatic, steam, gravity, thermal, gravitational, etc.) prior to performing work, to verify a zero energy state. In no case shall work begin before circuits, equipment and/or machinery is tested to ensure that they are, in fact, de-energized.

5.3 Locks and tags must be used by all personnel working on or around all equipment and or machinery.

5.4 Lockout tags and locks shall not be used for purposes other than lockout activities. Each Contractor employee must affix their own lock(s)/tag(s).

5.5 Any waterline shutdown shall require tagout by the Contractor, applicable tier sub(s), and LAWA maintenance (Minimum three tagout cards).

5.6 Individuals who remove a tag or lock not belonging to them, or overrides a tag or lock in any way, may be removed from site.

6.0 Hot work

6.1 Contractor shall establish a Fire Prevention Plan which complies with applicable standard.

6.2 The use of any device that produces open flame(s) or any spark producing work (e.g. welding cutting, burning, grinding, brazing, arcing, etc.) shall require a written hot work permit.

6.3 A fire watch with no other responsibilities shall be established and present for the duration of any hot-work and for at least 30 minutes after completion of hot work.

6.4 The Contractor shall create and implement a task specific Hot Work Permit system to be completed daily. The permit must identify hazards directly associated with the specific task and be posted within the specific area of the operation.

6.5 Flash-back protection shall be provided by an approved device that will prevent the flame from passing into the fuel-gas system. Flash-back arrestors shall be installed between gauges feeds.

6.6 Oxygen and fuel gas pressure regulators, including their related gauges, shall be in proper working order while in use.

6.7 Gas cylinders shall be properly secured at all times to prevent tipping, falling or rolling.

6.8 The gas cylinders should be stored in a cool, dry, well-ventilated, fire-resistant area.

6.9 When a gas cylinder is empty or not being used, ensure that the valve is closed, the regulator removed and that the valve protector cap is secured in place.

Note: gas cylinders that haven't been used for greater than 2 hours is considered storage

6.10 Gas cylinders should be transported using hand trucks designed for that purpose and the cylinders should be secured so that they do not tip, fall or roll.

6.11 Contractor shall protect the public and others from all visual flash during welding operations.

6.12 Fire Extinguishers shall be maintained, inspected, and immediately available in the work area.

7.0 Blasting and Explosives

7.1 Contractor must follow all applicable laws, standards and policies which apply to the use and/or storage of explosive materials at the airport.

7.2 Class “A” explosives are not permitted at all LAWA airports.

7.3 Permission to transport or store Class B explosives on airport property requires prior permission from the Airport Traffic Control Tower, Los Angeles Fire Department, Fire Station 80, and Airfield Operations.

8.0 Tools Management Plan

8.1 All construction projects that take place in sterile areas or within the Security Identification Display Area/Air Operations shall maintain an inventory of all tools. The inventory shall be completed upon entering the area to work and upon exiting the area at the completion of work.

8.2 Tool inventory form shall include at a minimum:

8.2.1 Name of the tool management plan supervisor

8.2.2 Name/description of the tool

8.2.3 Serial number of the tool (if applicable)

8.2.4 Name of worker to whom the tools were issued

8.2.5 Number of each item issued

8.2.6 Number of each item returned (to be completed at the end of shift)

8.3 Unattended inventoried tools are to be stored in a locked box.

8.4 Tools must be kept within five feet of the worker responsible at all times.

8.5 Tool inventory forms must be immediately available at all times.

8.6 Any worker who leaves a tool unattended may be removed from the site.

8.7 Concrete and metal drills one half inch or larger shall be equipped with an auto shut-off.

8.8 Contractor shall provide safety devices on all compressors with hoses exceeding a half inch inside diameter at the source of supply or branch line to reduce pressure in case of hose failure. Hose sections must be secured with both pins and whip checks.

8.9 Damaged or defective tools and cords shall be tagged and removed from service immediately.

9.0 Confined Space

9.1 All confined space entry and work operations are to be conducted as per OSHA and Cal OSHA's "Permit Required Confined Space" requirements. A written permit must be utilized for all entries and work operations and must be posted close to the entry point and available for review at all times by LAWA and/or designee.

9.2 Atmospheric testing of confined spaces must be conducted prior to entry and continuously throughout the work process. Atmospheric testing readings must be recorded on the Entry Permit at least once each hour for the duration of the entry and work operation.

NOTE: Control of atmospheric hazards through forced air ventilation does not constitute elimination of the hazards.

9.3 **Confined Space Reclassification:** A permit-required confined space may be reclassified as a non-permit confined space under the following procedures:

9.3.1 If the permit space poses no actual or potential atmospheric hazards.

9.3.2 All hazards within the space are eliminated without entry into the space.

9.3.3 The permit space may be reclassified as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated.

9.3.4 The reclassification of a confined space will be documented and submitted to the LAWA Project Manager and LAWA Program Safety Manager, available to LAWA and/or designee, upon request.

9.4 Confined Space Rescue

9.4.1 All rescue operations are the responsibility of the Contractor.

9.4.2 A written Non-Entry Rescue Plan must be submitted and implemented.

9.4.3 Planned Entry Rescue shall not be permitted without the Contractor's Safety Professional(s), Contractor's Project Manager, an Engineer, LAWA PM, and the LAWA PSM all agreeing that there is not another practical method to perform rescue.

9.4.4 LAFD is not permitted to be used for Confined Space Rescue.

9.4.5 All rescue operations shall be completed within 4 minutes of an emergency condition being identified.

10.0 Fall Protection

10.1 If Contractor has personnel working at heights, exposed to fall hazards and using fall protection equipment, they shall develop a Site-Specific Fall Protection, Prevention and Rescue Plan. The plan shall describe in detail the following:

10.1.1 Description of the project or task performed;

10.1.2 Training requirements to include the safe use of fall protection plan;

10.1.3 Anticipated hazards and fall hazard prevention and control;

10.1.4 Rescue plan and procedures;

10.1.5 Design of anchorages/fall arrest and horizontal lifeline systems.

10.2 The fall protection threshold height requirement is six (6) feet for all work.

10.3 The use of controlled access zones, safety monitor systems, or controlled decking zones are not allowed to be used for fall protection.

10.4 Employees working at grade or at the same surface as exposed protruding reinforcing steel or other similar projections shall be protected with guardrails, troughs, or protective covers.

10.5 When conducting inspection, investigation or assessment work during construction activities, fall protection is required for employees exposed to fall hazards.

10.6 Covers shall be installed on any hole two (2) inches in its least dimensions on all walking/working surfaces.

10.7 When using Aerial Lift and Scissor Lift Equipment; workers shall be tied off to an approved anchor point. Fall protection equipment used shall prohibit workers from climbing out of the equipment.

11.0 Ladders

11.1 Ladders shall not be placed in passageways, doorways, drives, or any locations where they may be displaced by any other worker or the general public unless protected by barricades or guards.

11.2 Ladders shall be inspected for visible defects on a daily basis and tagged safe for use.

11.3 Tags shall be readily visible, made of materials that will withstand the environment in which they are used, be legible and shall include name and date of last inspection.

11.4 Broken or damaged ladders shall be tagged “DO NOT USE” or similar wording and removed from jobsite.

11.5 Ladders shall be secured as necessary to hold them rigidly into place and to support the loads that will be imposed upon them.

11.6 Metal/conductive ladders are prohibited to be used on LAWA construction sites.

11.7 At no point shall the waist (Belt buckle) extend above the top cap of an A-Frame ladder.

12.0 Demolition

12.1 A written demolition work plan must be completed and submitted as part of the site specific safety plan prior to commencing any demolition work.

12.2 A written pre-activity checklist confirming that all stakeholders (including all Contractors and Subs) agree that demolition activities may proceed shall be completed prior to the commencement of demolition activity.

12.2.1 This checklist must be completed for each area of demolition throughout the entirety of the project.

12.3 The demolition plan shall ensure that during the course of demolition, no utilities adjacent to the demolition site are to be affected by the demolition operation.

12.4 Material, tools, or other objects shall not be thrown from buildings or structures.

12.5 Prior to demolition all utilities are to be de-energized, cut, capped, and made safe.

12.6 Demolition debris shall be removed at frequent intervals and the site kept clean at all times.

13.0 Security

13.1 All security violations shall be challenged by the individual who observes it. All workers shall be trained, as part of the Contractor's orientation, on what to do when a security violation is noted, whether air or land side of the Project.

13.2 Workers who violate security procedures may be removed from the site.

13.3 The Contractor shall comply with all requirements of the Airport Security Plan (ASP) and with the security requirements specified herein.

13.4 The Contractor shall designate, and submit to LAWA in writing, the name of its Contractor Security Officer (CSO). The CSO shall be accountable for the security requirements for the Contractor.

13.5 The Contractor's Security Officer (CSO) will be responsible for all security precautions. Prior to the commencement of the work, the CSO shall provide LAWA an outline of a proposed security protection plan as described in this section (i.e., challenging, ID checks, gate control and general site security) for all work contemplated under the contract.

13.6 Perimeter Fence Security

13.6.1 Contractor shall not open gates or remove fencing without approval of LAWA. Adequate precautions shall be taken to prevent entrance of unauthorized persons to Airport-restricted areas or inadvertent entry of dogs or large animals into the AOA.

13.6.2 Prior to securing work each evening, Contractor shall ensure that all access gates which have been opened are closed and locked, and that perimeter fencing is restored to a condition that will maintain present security standards.

13.6.3 No Contractor or Subcontractor will be permitted to store materials, park equipment or erect permanent or semi-permanent structures within ten (10) feet of either side of the AOA perimeter security fence.

13.6.4 The gates shown on the drawings shall be used for access to the worksite(s). Use of a gate for continuous access will require the gate be manned by a guard with a LAWA-issued identification badge, equipped with a cell phone or radio, portable lights, and a guard shack. The Contractor shall schedule with LAWA a minimum of 24 hours prior to requiring any access through any AOA gates.

13.6.5 Gate guards shall be provided by the Contractor as required. If required, the Contractor must provide three (3) guards per shift at each active gate.

13.6.6 Prior to removing or making any holes in any Airport perimeter fencing, the Contractor shall obtain permission and written approval from LAWA, and take adequate precautions to prevent entry of unauthorized personnel or animals.

14.0 Work Platforms and Scaffolding

14.1 Contractors shall use a scaffold tagging system in which all scaffolds are tagged by the Competent Person. Tags shall be color coded: green indicates the scaffold has been inspected and is safe to use; red indicates the scaffold in unsafe to use. Tags shall be readily visible, made of materials that will withstand

the environment in which they are used, be legible and shall include Competent Person's name, signature, and date of last inspection.

14.2 The maximum intended working load for each scaffold shall be posted at a conspicuous location at each job site or be provided to each supervisory employee who shall have it readily available at the job site.

14.3 All casters or wheels shall be locked when a scaffold is occupied.

14.4 No person shall be allowed to ride on manually propelled scaffold at any time.

14.5 All Aerial Lift and Scissor Lift Equipment shall be lowered and stowed when not in use.

15.0 Protection of Utilities

15.1 When working around underground utilities the utilities shall be located, marked and pot holed. Marks are to be maintained as required in the contract.

15.2 The Contractor must submit a Utility Protection Plan to the LAWA Project Manager prior to any activities that may result in a utility strike. The Utility Protection Plan must include the following:

15.2.1 A map of the area where work will take place denoting known utilities and critical infrastructure.

15.2.2 Methods of positive protection for all critical infrastructure, this includes but is not limited to: FAA, DWP, and LAWA property.

15.2.3 A discussion on methods employed to locate unknown utilities:

15.2.3.1 Review of As Built drawings

15.2.3.2 Research and review of tenant drawings form previous work

15.2.3.3 Pot hole and excavation to uncover utilities

15.2.3.4 Scanning (X-ray, GPR, EMG)

15.2.3.5 Reverse engineering of known infrastructure to help assess the work area

15.2.3.6 Interviews with LAWA and tenant personnel to obtain institutional knowledge.

15.2.4 A risk assessment of the utility or work area describing how dangerous or disruptive it will be if the utility is struck. The risk must be expressed in a probability and severity format.

16.0 Utility Shutdown Request (USR) and Area Shutdown Request (ASR)

16.1 Refer to the Design and Construction Handbook for guidance on the USR/ASR process.

16.2 Contact LAWA Shutdown Control Center for the ASR/USR processing.

16.3 Utility and Area shutdowns are an integral component to safe work practices. The contractor will ensure 100% compliance with the LAWA USR and ASR program.

16.4 All safety requirements set forth herein shall be complied with throughout the execution of all USR(s)/ASR(s).

17.0 Personal Protective Equipment

17.1 The Contractor shall be responsible for providing and requiring the use of required personal protective equipment for all project workers.

17.2 Approved hard hats shall be worn at all times while on the construction site. Cowboy and other novelty hats are not permitted. Each employee's proper name shall be affixed to the front of the hard hat.

17.3 Hearing protection shall be worn when exposed to noise levels above 85 decibels (dB).

17.4 A serviceable pair of ANSI Z41 rated work boots shall be worn at all times when on the worksite.

17.5 Serviceable ANSI Z87.1 rated eye protection shall be worn at all times when on the worksite.

17.6 A face shield must be worn when exposed to flying material.

17.7 Reflective garments meeting ANSI 107-2010, Class 2 or better must be worn at all times while on the construction site.

17.8 Full length pants shall be required at all times. Shirts must cover the entire mid-section and the sleeves must cover the entire shoulder or be 4" in length, whichever is greater.

17.9 Long hair shall be contained under a hard hat or net if the individual is working where hair may become entangled.

17.10 Appropriate protective gloves shall be worn when workers may be exposed to abrasions, hazardous substances, burns, cuts, punctures, live electricity, or other hazards. Workers shall receive effective training to ensure that the appropriate type of glove is used for protection of the applicable hazard.

18.0 Material Handling and Storage

18.1 Employees shall be trained and shall use safe lifting techniques.

18.2 Material handling devices shall be available for the material handling needs of an activity.

18.3 Whenever heavy or bulky material is to be moved, the material handling needs shall be evaluated in terms of weight, size, distance, and path of movement and documented on hazard assessment. The following hierarchy shall be followed in selecting a means for material handling:

18.3.1 Elimination of material handling needs by engineering controls

18.3.2 Movement by mechanical device (e.g., lift truck, overhead crane)

18.3.3 Movement by manual means with handling aid (e.g. dollies or cart); or Movement by using safe lifting techniques.

18.3.4 Where the movement of materials may be hazardous to persons, taglines or other devices shall be used to control the loads being handled by hoisting equipment.

18.3.5 When moving materials, using powered industrial trucks or heavy moving equipment, all loads shall be secured in a safe manner as to prevent shifting during transportation.

18.4 Materials and equipment shall be stored in approved areas when not in use and where they will not constitute a hazard to airport operations. The Contractor shall inspect all construction and storage areas as often as necessary to be aware of conditions and identify potential hazards and implement corrective actions. All stockpiled materials shall be prominently marked.

19.0 Steel Erection

19.1 All workers on steel with a fall exposure of 6 feet or greater will be 100% protected by a Personal Fall Arrest System (PFAS).

19.2 Multi lift rigging of steel is prohibited.

20.0 AOA (Air Operations Area) Safety

20.1 Contractor shall follow the United States Department of Transportation, Federal Aviation Administration Advisory Circular No. 150/5370-2F or as updated regarding guidelines for operational safety on airports during construction.

20.2 Contractor shall submit a CSPP (Construction Safety and Phasing Plan) per Federal Aviation Administration Advisory Circular No. 150/5370-2F to the Project Manager prior to beginning construction.

20.3 Prevent employees, Subcontractors, suppliers, and vendors or equipment from intruding upon the Air Operations Area (AOA), without the knowledge and concurrence of LAWA Airport Operations.

20.4 The contractor shall prevent foreign object debris (FOD) from accumulating on the AOA.

20.5 Plastic tape of any kind is not allowed to be used not the AOA.

20.6 The Contractor shall not allow any material or equipment to obscure pavement markings, pavement edges, or detract from the visibility of runway/taxiway markings or lighting.

20.7 The contractor shall secure all material and equipment, at all times, (such as lightweight construction materials) to prevent displacement from wind or jet blast.

20.8 The contractor shall monitor and control dust, as per contract documents, by using water trucks, sweeping and other additional means to prevent any exposures above recognized limits or which could interfere with airport operations.

20.9 The Contractor shall take all necessary steps to prevent the following hazards:

20.9.1 Mounds or piles of earth, construction materials, temporary structures, or other objects in the vicinity of any operational runway, taxiway safety areas, taxi lane, object free areas, obstacle free zones, and related safety approach or departure areas.

20.9.2 Vehicles or equipment (whether operating or idle) on any open runway, taxiway, taxi lane, or in any related approach, departure, or any safety area.

20.9.3 Objects, especially tall cranes or drills that are not properly lighted or flagged, or activities on or anywhere in the vicinity of active runways, approaches or departures which could be distracting, confusing or alarming to pilots during aircraft operations.

20.10 The Contractor must provide adequate clearances for takeoffs and landing over obstructions or work or storage areas.

20.11 Night work lighting shall not be directed in such a manner that it interferes with airport operations.

20.12 The Contractor shall provide or maintain the following:

20.12.1 Temporary runway and taxiway threshold marking and lighting as required.

20.12.2 An employee on twenty-four hour call (and another person as back-up) to maintain construction barricades and signal flashers at airside. Contact numbers shall be provided to the Project Manager prior to start of work and updates submitted upon any change.

20.12.3 Daily inspections of temporary airside fencing. Repairs shall be given top priority to deter human and animal intrusion into the Airport Operations Areas.

20.12.4 All Flag Persons shall be trained to DOT, State and AOA requirements.

20.13 Construction Activity and Aircraft Movements:

20.13.1 Prior to the start of the construction activities affecting aircraft movement areas, the safety requirements relating thereto will be coordinated by LAWA between Airport Operations, air carriers, fixed base operators, other users and appropriate representatives of the FAA. This coordination will be based upon the Contractor's approved construction schedule with the primary purpose of compliance with the contract document requirements.

20.13.2 For construction activity to be performed in other than the AOA, the storage of materials and parking of equipment, when not in use or about to be installed, should not encroach upon the AOA. In protecting operational areas the minimum clearances maintained for runways and taxiways shall be in agreement with Federal Aviation Regulations (FAR) Part 77 (latest version).

20.13.3 When necessary to accomplish construction within areas defined by FAR Part 77, while aircraft operations are in progress, the following minimum distances from runways and taxiways shall be maintained, unless otherwise specified.

20.13.3.1 Distance from runway centerline - 250 feet

20.13.3.2 Distance from taxiway centerline - 200 feet

20.13.3.3 Distance from runway threshold - (longitudinally) -1000 feet

20.13.3.4 Limitation of Construction Activities

20.13.4 No lips or drop-offs will be allowed between temporary panels or surfaces and adjacent pavement. Other construction shall not result in lips greater than 1 inch, for pavement traveled by aircraft; and 3 inches for edges between old and new surfaces at edges and ends not traveled by aircraft.

20.13.5 Welding, cutting or other open-flame operations are prohibited unless adequate fire and safety precautions are provided and have

been approved in writing by the local Fire Authority having jurisdiction.

20.13.6 Open trenches, excavations and stockpiled material at the construction site shall be prominently marked with barricades and lights.

20.13.7 Stockpiled material for use during the current work shift shall be located within the barricaded work area and limited in height to avoid obstruction in line-of- sight considerations for aircraft, air traffic control and flagging personnel and constrained in a manner to prevent movement resulting from aircraft blast or wind conditions. No material may be stored in the work areas during non- working hours.

20.13.8 The Contractor will ensure that all lighting fixtures are shielded and positioned to protect against interference with the vision of pilots and air traffic controllers.

20.13.9 During non-working hours all trenches and excavations outside of the barricaded work areas shall be backfilled or covered.

20.13.10 Non-working hours shall be defined as those hours when construction is not taking place within a work area.

20.13.11 Barricades and Marking of Barricades

20.13.11.1 Continuous burning “Standing Red” barricade lights and/or other lighted hazard devices stipulated on the phasing plans shall be 100% operative at all times while in place. It shall be the Contractor's responsibility to immediately repair or replace any light or flasher that is not operating.

20.13.11.2 Barricades and hazard lights shall be in place prior to commencing construction operations, and shall be maintained in near new appearance for the life of the contract.

20.13.12 No ramp, apron, taxiway, or runway area shall be closed to aircraft without approval of the Engineer. This will enable Notices to Airmen

(NOTAMS), or other advisory communications to be issued. A minimum of 5-days' notice of requested closing shall be directed to LAWA. LAWA will arrange inspections prior to opening any area to air traffic. Any waste material, and/or debris must be removed from aprons promptly to avoid possible damage to aircraft.

20.13.13 When Airport roadways and public highways are used in connection with construction under this Contract; the Contractor shall remove all debris from the surfaces of such roadways. Trucks and equipment shall have all accumulated dirt, mud, rocks and debris removed when leaving the work area. Loads shall have 6 inches of freeboard and secured to prohibit loss of material. If spillage occurs, such roadways shall be swept clean immediately after such spillage to allow for safe operation of vehicles as determined by LAWA. If the Contractor is negligent in cleanup and LAWA forces are required to perform the work, the expense of said cleanup shall be paid by the Contractor.

20.13.14 No loose material or waste (FOD), capable of causing damage to aircraft or capable of being ingested into jet engines may be left in the working area on or next to runways, taxiways, ramps, or aprons. The Contractor shall direct special attention to all areas which are operational to aircraft during construction. These shall be kept clean and clear of all materials or debris at all time. Any food waste shall be promptly cleared to prevent attracting birds and animals.

20.13.15 Existing Pavements and Facilities

20.13.15.1 The Contractor shall preserve and/or protect existing and new pavements and other facilities from damage due to construction operations. Existing pavements, facilities, utilities, or equipment which are damaged shall be replaced or reconstructed to original strength and appearance at the Contractor's expense. The Contractor shall take immediate action to replace any damaged facilities and equipment and reconstruct any damaged area which is to remain in service.

20.13.15.2 Any distress appearing within and/or jeopardizing any public right-of-way due to the construction should immediately be

notified to LAWA and be repaired by the Contractor at the Contractor's expense to the satisfaction of LAWA.

20.13.16 Storage Areas

20.13.16.1 The Contractor Staging Area, as depicted on the plans, shall be used to store all idle equipment, supplies and construction materials. Storage shall not interfere with operational areas.

20.13.16.2 When not in use during working hours, and at all other times, all material and equipment shall be stored at the storage site indicated on the drawings unless prior approval is provided by LAWA.

20.13.16.3 The Contractor shall not store materials or equipment in areas in which the equipment or materials will affect the operation of FAA electronic equipment.

20.13.16.4 All equipment storage and movement shall have prior written approval of LAWA.

20.13.16.5 No materials may be stored on the AOA unless authorized by LAWA.

20.13.16.6 Contractor's vehicles, equipment and materials shall be stored in areas designated on the drawings. Upon completion of the work, the storage areas shall be cleaned up and returned to their original condition to the satisfaction of LAWA.

20.13.16.7 During all non-working hours, equipment shall be parked in the Contractor's Staging area designated on the drawings with the restrictions listed thereon. Parking of construction workers' private vehicles shall not be allowed within storage areas located on the AOA.

20.13.16.8 The Staging area shall be used to store all bulk materials needed for the project must be fenced at the Contractor's expense. However, barricades with red flashing lights shall be installed where potential conflicts with aircraft or ground

vehicular traffic exists. Stockpiles shall not penetrate the FAR Part 77 imaginary surfaces or present FOD problems.

20.13.16.9 Equipment and materials shall not be stored between runways, except as approved, in writing, by LAWA.

20.13.17 Obstructions to Navigation

20.13.17.1 Penetrations of the imaginary surfaces defined in FAR Part 77 shall not be permitted without advance notification of, and approval by LAWA. It will be necessary for the Contractor to file FAA Form 7460-1 with the FAA to obtain approval prior for operation of equipment 15 feet or more in height, including but not limited to vehicles, cranes, or other construction equipment, structures, stockpiled materials, excavated earth, etc. It shall be the Contractor's sole responsibility to file this document. Allow at least 45 days for FAA and review and approval prior to expected use of such equipment.

20.13.17.2 When penetrations more than 15 feet above ground level (AGL) are unavoidable, they shall be brought to the attention of LAWA, as far in advance as possible to allow NOTAMS to be prepared and distributed to appropriate FAA divisions for publication and dissemination. Contractor shall comply with the provisions of AC 70/7460-1, latest edition, in the marking and lighting of obstacles. The Contractor shall allow at least 45 days for FAA review and approval. No delays will be granted the Contractor for his failure to submit the necessary documents in a timely manner.

20.13.17.3 Appropriate sketches shall be prepared by the Contractor with precise locations shown on the Airport Layout Plan, Height Restriction Plan, or other similar drawing, along with elevations depicting the obstructing object's relationship to the imaginary surfaces.

20.14 Daily Inspections

20.14.1 LAWA will conduct a daily inspection of each construction site before workers leave for the day to ensure that areas surrounding the sites are safe for aircraft operations. LAWA will be watchful for food scraps and debris that can be ingested into aircraft engines (FOD), loose polyethylene and other light materials capable of being blown onto aircraft movement areas by wind, unlighted construction and obstruction lights, vehicles and equipment left outside construction areas, construction areas left unlocked, access gates left open, weak partitions or fences, etc. All discrepancies shall be corrected before workers depart from the work site.

20.14.2 LAWA will review potentially hazardous conditions which may occur during airport construction and maintenance and may include, but is not limited to the following:

20.14.2.1 Trenches, holes, or excavation on or adjacent to any open runway or related safety area.

20.14.2.2 Unmarked/unlighted holes or excavations in any apron, open taxiway, open taxi lane, or related safety area.

20.14.2.3 Mounds or piles of earth, construction materials, temporary structures, or other objects on or in the vicinity of any open runway, taxiway, taxi lane or in a related safety, approach or departure area.

20.14.2.4 Pavement drop-offs or pavement turf lips (either permanent or temporary) which would cause, if crossed at normal operating speeds, damage to aircraft that normally use the airport.

20.14.2.5 Vehicles or equipment (whether operating or idle) on any open runway, taxiway, taxi lane, or in any related safety, approach or departure area.

20.14.2.6 Vehicles, equipment, excavations, stockpiles, or other materials which could impinge upon NAVAID critical areas and degrade or otherwise interfere with electronic signals from radios or electronic NAVAIDs or interfere with visual

NAVAID facilities. NAVAID critical areas are shown on the plans.

20.14.2.7 Unmarked utility, NAVAID, weather service, runway lighting, or other power or signal cables that could be damaged during construction.

20.14.2.8 Objects (whether marked/flagged or not) or activities anywhere on or in the vicinity of airport which could be distracting, confusing, or alarming to pilots during aircraft operations.

20.14.2.9 Un-flagged/un-lit low visibility items (such as tall cranes, drills, etc.) in the vicinity of an active runway, or in any approach or departure area.

20.14.2.10 Misleading or malfunctioning obstruction lights.

20.14.2.11 Unlighted/unmarked obstruction in an approach to any open runway.

20.14.2.12 Inadequate approach/departure surfaces (needed to assure adequate landing/takeoff clearance over obstructions or work or storage areas).

20.14.2.13 Inadequate, confusing, or misleading (to pilots) marking /lighting of runways (including, displaced or relocated thresholds), taxiways, or taxi lanes.

20.14.2.14 Water, dirt, debris, or other transient accumulation which temporarily obscures pavement marking, pavement edges, or derogates the visibility of runway/taxiway marking, lighting or of construction and maintenance areas.

20.14.2.15 Inadequate or improper methods of marking, barricading, or lighting temporarily closed portions of airport operation areas.

20.14.2.16 Trash or other materials with foreign object damage (FOD) potential, whether on runways, taxiways, aprons or related safety areas.

20.14.2.17 Inadequate fencing or other marking to separate construction or maintenance areas from open aircraft operating areas.

20.14.2.18 Inadequate control of vehicle and human access, and non-essential, non- aeronautical activities, on open aircraft operating areas.

20.14.2.19 Improper radio communication maintained between construction/ maintenance vehicles and LAWA Ops/Inspection or other on-field communications facility (e.g., FAA Flight Service Station (FSS) or Unicom radio).

20.14.2.20 Construction/maintenance activities or materials which could hamper Airport Rescue and Fire Fighting (ARFF) vehicle access from ARFF stations to all parts of the runway/taxiway system, runway approach and departure areas, or aircraft parking locations.

20.14.2.21 Bird attractants such as edibles (food scraps, etc.), trees, brush, other trash, grass/crop seeding, or pond water on or near the airport.

20.14.2.22 Personnel at the construction site without proper LAWA identification or improper escorts for persons at the job site without proper identification.

20.14.2.23 Vehicles, involved in the project, that do not meet the safety requirements of LAWA.

20.14.2.24 Improperly marked, lighted and flagged vehicles involved in the project.

20.14.2.25 The time restrictions for all work shifts, including the nightly work shifts, are totally inclusive of the Contractor moving onto the site, performing work activities, performing all clean-up, having the work area, pavements, and haul routes inspected and approved by the Inspector(s) and moving off the site. The Contractor shall provide adequate lighting for the needs of the Inspection personnel.

20.14.2.26 Any Aircraft Movement Surface or adjoining runway, taxiway or taxi lane safety area that does not pass inspection must remain closed until such time cleanup is performed and approved.

20.14.3 Emergency Procedures

20.14.3.1 The Contractor shall become familiarize with airport emergency procedures and shall conduct operations so as not to conflict with such events. Clear routes for Airport Rescue and Fire Fighting (ARFF) equipment shall be maintained in operational condition at all times.

20.14.3.2 In case of any emergency caused by an accident, fire, or personal injury or illness, Airport Police are to be immediately notified. Police will coordinate with other emergency agencies as necessary. The Contractor shall also notify LAWA so that any coordination or closures that may be required can be addressed immediately.

20.14.4 Marking of Equipment/Restrictions on cranes

20.14.4.1 Each vehicle or piece of equipment anywhere on the Airport site that extends higher than 15 feet above ground shall be equipped with a flag mounted firmly on the highest part of the equipment, and shall be obstruction lighted per the current edition of FAA Advisory Circular 70/7460-1 when the visibility is less than three (3) miles or during periods of darkness. Federal Aviation Regulation Part 77, states that no permanent or temporary structure can exceed an imaginary surface which begins 500 feet laterally from the runway centerline, and extends outward and upward at a 7:1 ratio. In addition, the crane must be obstruction lighted per Advisory Circular 70/7460-1 whenever visibility is less than three (3) miles and it must be lowered at the end of the day. Flags should be rectangular in shape with stiffeners to keep them from dropping in calm wind. This flag shall be not less than 3 feet square consisting of five 1-foot squares of

international orange color and four 1-foot squares of white color.

20.14.4.2 Depending on the location of the construction site, there may be severe restrictions on the use of equipment that extends skyward, such as cranes and concrete pumping booms. Some of these restrictions include limitations on the height cranes can be extended during times of reduced visibility, e.g., cranes may not be raised unless visibility is 3 miles or greater. Contact LAWA for further information, if cranes or other vertically extendable equipment will be used on the project.

20.14.4.3 If cranes or other equipment exceeding 15 feet in height are to be used, the Contractor will be required to submit for approval the FAA's application Form7460-1 to:

Federal Aviation Administration
Attention: Airports Division, AWP-600
P.O. Box 9207
Los Angeles, CA 90009

21.0 Emergency Procedures

21.1 Emergency plans to ensure employee safety in case of fire or other emergency shall be prepared, in writing, and reviewed with all affected employees. Emergency plans shall be tested to ensure their effectiveness.

21.2 Plans shall include escape procedures and routes, critical plan operations, employee accounting following an emergency evacuation, rescue and medical duties, means of reporting emergencies, and persons to be contacted for information or clarification.

21.3 Emergency telephone numbers and reporting instructions, ARCC, fire, and police shall be conspicuously and clearly posted at the work site.

21.3.1 **LAWA Emergency: (424) 646-7911**

21.3.2 **Airport Response Coordination Center (ARCC): (424) 646-5292**

21.4 The Contractor's emergency procedures should be continually reviewed and adjusted to provide maximum effectiveness. All such procedures are to be included in the Contractor's Site Specific Safety Plan.

21.5 Contractor shall see that at least one designated person shall be available at all times on the job site while work is being conducted to render first-aid and CPR.

21.5.1 Designated individual(s) must carry a current and valid certification from ARC, AHA or any equivalent training program that can be verified.

21.5.2 A minimum ratio of one such qualified person for every ten (10) employees shall be maintained throughout the course of construction.

21.6 First-aid kits shall be located in the immediate area, be easily accessible to all workers, and protected from the weather. The individual contents of the first-aid kits shall be Type II or Type III and at a minimum, meet the requirements for a 16-unit container.

21.7 First-aid kits locations shall be clearly marked and distributed throughout the site(s).

22.0 Protection of the Public and Property

22.1 For the purpose of this section, "public" shall be construed as all non-construction personnel.

22.2 It is the contractor's responsibility to control potentially dangerous areas that exist within and around the construction project.

22.3 A pre-construction survey of the site property, adjacent utilities, property, streets and operations must be performed prior to mobilization to assess surrounding exposures and current conditions of soils and nearby structures.

22.3.1 The findings of this survey should be documented and should be a part of the planning process for the safety of persons and property during construction operations.

22.3.2 These findings should also be reflected on the contractor's site safety plan.

22.4 Appropriate warnings, signs and instructional safety signs shall be conspicuously posted where necessary. In addition, a Contractor designated qualified signal person shall control the moving of motorized equipment in areas where the public might be endangered.

22.5 Work areas must be contained and kept free of debris on a daily basis. Construction supplies should be secured to minimize the potential of materials blowing off open areas. Only proper securing methods should be used. Use of brick, concrete block, wood or other unsecured material is prohibited.

22.6 Protective devices shall be designed to protect the public and others on or adjacent to the Site from potential exposures created by the work.

22.7 Protective devices shall be maintained in a clean and smooth condition so as not to cause cuts, nicks, splinters, or snag clothing.

22.8 Protective devices shall be designed to withstand the reasonably anticipated forces in or around the work area, including but not limited to, wind, vibration, runoff, and other natural or man-made conditions.

22.9 Contractor shall remove each protective device when the device is no longer required.

22.10 Separate and protect work areas from occupied areas with cones, barriers, or other temporary barricades if workers must leave a work area momentarily.

22.11 Maintain doors or gates closed/secured when these open directly into occupied areas.

22.12 Tour all work areas regularly, especially if the type of work being done is deemed to create problems and exposures to accidents. Make sure that unsafe conditions are corrected before leaving scene of work.

22.13 Dust and noise shall be controlled properly to allow the airport to maintain its regular operations without interruptions.

22.14 The Contractor's emergency procedures should be continually reviewed and adjusted to provide maximum effectiveness. All such procedures are to be included in the Contractor's Site Specific Safety Plan and coordinated with the Construction Manager, LAWA Inspectors and Operations. Initial emergency procedures and any subsequent amendments must be submitted in writing to the Construction Manager and PSM upon completion.

23.0 Motor Vehicle & Equipment

23.1 Motor vehicle operations within and on the Airport premises shall be governed generally by the provisions of the California State Motor Vehicle Codes and Traffic Direction procedures and signals for turns. Lights and safe-driving precaution shall be in conformity therewith. In addition, motor vehicles shall conform to all special regulations prescribed by LAWA.

23.2 Traffic on perimeter roads, enplaning and deplaning drives, public thoroughfares and parking areas of the Airport is limited to those vehicles properly licensed to operate on public streets and highways. If construction equipment not licensed for use on public highways is to be used at any time to travel along public roadways, specific authorization must be given by LAWA in advance. If authorization is granted the equipment shall be escorted by an approved escort vehicle at all times.

23.3 All vehicular equipment in the Air Operations Area (AOA), access road, aircraft parking or storage areas shall at all times comply with any lawful signal or direction of LAWA employees. All traffic signs, lights, and signals shall be obeyed, unless otherwise directed by LAWA employees.

23.4 Every person operating motorized equipment of any character on any area shall operate the same in a careful and prudent manner and at a rate of speed posted or fixed by this section and at no time greater than is reasonable and proper under the conditions existing at the point of operating, taking into account traffic and road conditions, view, obstructions, and shall be consistent with all conditions so as not to endanger the life, limb, or property or the rights of others entitled to the use thereof.

23.5 Fork Lift Operators must be trained and certified as per OSHA/Cal OSHA. All forklift operators must have proof of training on their person, at all times while operating, indicating that they are a certified operator. All Contractors must be

able to submit proof of training for each forklift operator who will be utilized on the Project.

23.6 Forklifts may not be used as a lifting device by utilizing rigging in any form, to move, carry or support a load unless specifically allowed (through written verification) by the machine manufacturer and utilizing only manufacturer means and methods. The Contractor must be able to submit appropriate written documentation to LAWA and/or designee, upon request.

23.7 Spoil covers shall be used whenever trucks are loaded and operating on LAWA property.

23.8 All vehicles and equipment shall have a functional back up alarm and spotters shall be used.

23.9 The Contractor shall provide means for cleaning haul vehicles to prevent mud or other deleterious materials from accumulating on ramps, taxiways, runways and airport roads.

23.10 All construction equipment windshields and side windows shall be clean and unbroken. Safety equipment such as head, tail, brake, and clearance lights, etc., shall be kept clean and tested daily, or at the beginning of each shift while operating in the AOA. Equipment deficiencies that interfere with the safe operation of equipment on the AOA must be repaired immediately.

23.11 Equipment and vehicles must be marked as mandated by FAA.

24.0 Hazardous or Toxic Agents and Environments

24.1 Exposure, through inhalation, ingestion, skin absorption, or physical contact, to any chemical, biological, or physical agent in excess of the acceptable limits shall be prohibited.

24.2 All operations, materials, and equipment shall be evaluated to determine the presence of hazardous environments or if hazardous or toxic agents could be released into the work environment.

24.3 Safety Data Sheets (SDS) for the materials on site shall be immediately available. Applicable information contained in the SDS shall be incorporated in the JHA, THA, AHA, etc.

24.4 All storage of hazardous or toxic agents shall be in accordance with the recommendations of the manufacturer.

24.5 All portable or temporary ventilation systems shall remove dusts, fumes, mists, vapors and gases away from the worker and the work environment or provide air to prevent an oxygen deficient atmosphere.

24.6 Silica sand shall NOT be used as an abrasive blasting media. Alternative abrasive blasting materials are available and shall be used.

24.7 When there are warnings or indications of impending severe weather (heavy rains, thunderstorms, heavy winds, lightning, etc.) weather conditions shall be monitored by Contractor. Appropriate precautions shall be taken to protect personnel and property from the effects of severe weather.

24.8 Employers shall develop a comprehensive written site-specific heat/cold stress monitoring plan, in accordance with Cal OSHA and ACGIH as guidance, and other references the employer determines applicable to protect employees exposed to extreme temperatures.

24.9 Do not use equipment and tools powered by gasoline engines inside buildings or other partially enclosed spaces.

24.10 The use of low-emission equipment is recommended. If propane powered tools and equipment are necessary, the following measures shall be taken to protect employees from exposure to carbon monoxide (CO) and nitrogen oxides.

24.10.1 Regular and proper maintenance of equipment;

24.10.2 Installation of after-treatment devices;

24.10.3 Continuous monitoring and ventilation of work area.

25.0 Housekeeping

25.1 All areas of the job site shall be kept as clean as possible, taking into consideration the nature of the work. Regular cleaning shall be conducted in order to maintain safe and sanitary conditions in the workplace.

25.2 Work areas shall be continuously inspected for potential Foreign Object Debris (FOD) that might damage aircraft propellers or jet aircraft. This includes, but is not limited to; anything such as edibles, miscellaneous garbage, trash or pooled water that may attract birds.

25.3 All stairways, passageways, gangways, and access ways shall be kept free of materials, supplies, obstructions, protruding nails, splinters and unnecessary openings and holes at all times.

25.4 Sufficient personnel and equipment shall be provided to ensure compliance with all housekeeping requirements.

25.5 A regular program/process (e.g. composite cleanup crew) shall be established for the cleanup of entire job site.

26.0 Traffic Control & Barricades

26.1 A competent person designated by the employer shall conduct a basic hazard assessment for the work site and job classifications required in the activity area.

26.2 A traffic control plan must be submitted to the LAWA Project Manager.

26.3 All traffic control signs or devices used for protection of construction workers and pedestrians shall conform to the requirements of the California MUTCD (Manual of Uniform Traffic Control Devices).

26.4 Signaling by flaggers and the use of flaggers, including warning garments worn by flaggers shall conform to the requirements of the California MUTCD (Manual of Uniform Traffic Control Devices).

26.5 Workers shall be trained on how to work next to motor vehicle traffic in a way that minimizes their vulnerability. Workers having specific responsibilities should be trained in the proper techniques, device usage, and placement.

26.6 Flaggers must be able to satisfactorily demonstrate the following abilities:

26.6.1 Ability to receive and communicate specific instructions clearly, firmly, and courteously.

26.6.2 Ability to move and maneuver quickly in order to avoid danger from errant vehicles.

26.6.3 Ability to control signaling devices (such as paddles and flags) in order to provide clear and positive guidance to drivers approaching a temporary traffic control zone in frequently changing situations.

26.6.4 Ability to understand and apply safe traffic control practices, sometimes in stressful or emergency situations.

26.6.5 Ability to recognize dangerous traffic situations and warn workers in sufficient time to avoid injury.

26.6.6 Provide, monitor and ensure compliance with adequate and proper fencing, barricading, marking, and lighting of construction, maintenance or other sections that are temporarily closed to normal airport use. This includes compliance with ANSI A10.34 “Protection of Public on, or Adjacent to, Construction Sites”.

27.0 Tunneling

All contractors and subcontractors constructing tunnels and underground chambers shall comply with the requirements of the applicable OSHA Tunnel Safety Standards, including:

27.1 Ventilation, Dust Control and Air Quality

27.2 Transportation and Haulage

27.3 Hoisting and Shafts

27.4 Check-In/Check-Out System and Visitors

27.5 Tunnel Driving Equipment

27.6 Communications

27.7 Walkways and Access

27.8 Rescue Crew and Self-Rescuers

27.9 Gas Tester

27.10 Safety Training Requirements for Gassy Classifications

27.11 Pre-Construction Meetings

27.12 Care of Injured Personnel

27.13 Operation in a Classified Gassy Tunnel

27.14 Illumination

27.15 Required Contractor Safety Inspections

Applicable Regulations and Standards

- American Board of Industrial Hygiene
- American Concrete Institute
- American Conference of Governmental Industrial Hygienist
- American National Red Cross
- American National Standards Institute (ANSI)
- American Petroleum Institute
- American Society of Mechanical Engineers
- American Society of Safety Engineers
- American Society of Testing Materials
- American Welding Society
- Associated General Contractors of America
- Board of Certified Safety Professionals
- California Air Resources Board
- California Department of Industrial Relations CAL/OSHA
- California Department of Transportation (Caltrans)
- California Manual on Uniform Traffic Control Devices (MUTCD)
- EM 385-1-1, Safety and Health Requirements Manual
- “Greenbook” Standard Specifications for Public Works Construction
- Federal Aviation Administration
- Los Angeles Department of Airports
- Construction Project Labor Agreement
- Mine Safety & Health Administration
- National Institute of Standards and Technology
- National Institute of Occupational Safety and Health
- National Fire Protection Association
- National Safety Council
- U.S. Department of Labor, OSHA
- U.S. Environmental Protection Agency
- U.S. Fire Administration
- Work Area Traffic Control Handbook (WATCH Manual), Current Edition

Table of Contents

INITIAL INCIDENT RESPONSE FORM

(TO BE COMPLETED WITHIN THE FIRST HOUR OF INCIDENT)

Today's Date:	**Report Completed by:**		
Location of Incident:	Employer: Employee:	Time of Incident:	Time Reported:

Near Miss ☐	Injury/Illness ☐	Property ☐	Fire ☐	Construction ☐ Equipment Lost	Environmental ☐	Utility Hit ☐
Minor ☐ Severe ☐	Minor ☐ Severe ☐	Minor ☐ Major ☐	Minor ☐ Major ☐	Minor ☐ Major ☐	Minor ☐ Major ☐	Minor ☐ Major ☐

Describe Incident –

Describe Property Damage (If any) –

Describe Equipment Loss/ Damage (If any) –

Describe Response Actions Taken –

Email to: **ADG PM** **ADG PSM** **LAWA Construction Inspector**	**ADG Program Safety Manager** **Jason Townsell** **C:562-565-3491** **O:424-646-7360** **jtownsell@lawa.org**	**ARCC** **424-646-5292**
ADG Project Manager	**LAWA emergency services (Ambulance, LAX Police, LAX Fire, (OPS), Property Damage etc.)** **424-646-7911**	**LAWA Inspector**

Los Angeles World Airports
AIRPORTS DEVELOPMENT GROUP

LAWA ADG Contractor Safety Metrics Report

Contractor	
Project	
Safety Manager	
Contact Phone Number	
Date	

Calendar Year 2014

	January	February	March	April	May	June	July	August	September	October	November	December
Man Hours												
Recordable Cases												
Days Away Cases												
Restriction/Transfer Cases												
THA Completed												
Near Miss Investigations												
Site Audits Completed												
ADG Safety Meeting Attendance												

For each month enter the number of: man hours worked, recordable cases, days away cases, restrictions/transfers cases, THAs completed, near miss investigations completed, site audits completed, ADG safety meeting attendance. For additional assistance please contact ADG Safety at dbaldovin@lawa.org.

TOOL INVENTORY & CONTROL FORM

Inventory Date and Time:(Out) ____________________

Inventory Date and Time:(In) ____________________

Supervisor's Title: ____________________

Supervisor's Title: ____________________

Supervisor's Name: (Out) ____________________

Supervisor's Name: (In) ____________________

Supervisor's Signature: (Out) ____________________

Supervisor's Signature: (In) ____________________

Employee Name	**Item Description** (including accessories – e.g. powder strips)	**Serial Number** (if applicable)	**Quantity**	**Returned Quantity**	**Returned Spent/Used**

Safety Professional Definitions and Credentials:

Prior to working on site, all safety professionals to include: Safety Manager, Safety Coordinator, or Safety Superintendent; must submit their resumes, be interviewed, and be approved by the LAWA Project Manager and the LAWA Program Safety Manager.

a. Safety Manager (SM): The safety manager must at a minimum have an active Board of Certified Safety Professionals (BCSP) Certified Safety Professional (CSP) credential and 5 years of vertical/tunnel or heavy civil construction experience or a BCSP Construction Health and Safety Technician (CHST) credential and 10 years of vertical/tunnel or heavy civil construction experience. No other duties may be assigned.
b. Safety Coordinator (SC): The safety coordinator must at a minimum have an active Board of Certified Safety Professionals (BCSP) Construction Health and Safety Technician (CHST) credential and five years of vertical/tunnel or heavy civil construction experience. No other duties may be assigned.
c. Safety Superintendent (SS): The Superintendent must at a minimum have an active Board of Certified Safety Professionals (BCSP) Safety Trained Supervisor (STS) credential and ten years of vertical/tunnel or heavy civil construction experience. The Safety Superintendent may perform other than safety duties when a SM or SC is present. If the SS is filling in for the SM or SS then no other duties may be assigned.

Safety Professional Staffing Requirement's:

The Contractor must have at least one safety professional on site at all times when work is active. The number of safety staff required to be on site during construction activities is provided in the table below; when counting personnel include all staff, trades, and office personnel. The prime contractor may elect to employ all required safety personnel, however; they are encouraged to require their sub-contractors to maintain safety staffing levels per the table below.

Required Minimum Safety Professionals per Total on site personnel	
Minimum Safety Professionals Present	Total Personnel Present
1 SC or SM	1-25
1 SC or SM + 1 SS	26-50
1 SM + 1 SC + 1 SS	51-75
1 SM + 2 SC + 1 SS	76-100
1 SM + 3 SC + 1 SS	100-200
Add 1 SC for each additional	1-100

Acronym	Definition
AC	Advisory Circular
ACGIH	American Conference of Governmental Industrial Hygienists
ADA	Americans with Disabilities Act
ADG	Airports Development Group
AED	Automated External Defibrillator
AGL	Above ground level
ANSI	American National Standards Institute
AOA	Air Operations Area
AQMD	Air Quality Management District
ARC	American Red Cross
ARCC	Airport Response Command Center
ARFF	Airport Rescue and Fire Fighting
ASM	Area Safety Manager
ASP	Airport Security Plan
ASR	Area Shutdown Request
ASSE	American Society of Safety Engineers
ATCT	Air Traffic Control Tower
BMP	Best Management Practices
BCSP	Board of Certified Safety Professionals
CAL/OSHA	California Occupational Safety and Health Administration
CALTRANS	California Department of Transportation
CAMUTCD	California Manual of Uniform Traffic Control Devices
CFR	Code of Federal Regulations
CHST	Construction Health and Safety Technician
CIP	Capital Improvement Program
CMS	LAWA Construction and Maintenance Services
CMT	Construction Management Team
CO	Carbon Monoxide
COSP	Code of Safe Practices
CPR	Cardiopulmonary Resuscitation
CSO	Contractor Security Officer
CSP	Certified Safety Professional

Acronym	Definition
CSPP	Construction Safety Phasing Plan
CSS	Contractor Safety Superintendent
CUP	Central Utility Plant
DART	Days Away Restrictions Transfer Rate
DOT	Department of Transportation
DWP	Department of Water and Power
EFMD	Engineering & Facilities Management Division
EEP	Emergency Evacuation Plan
EMG	Electromagnetic Wave Gradiometer
EMS	Emergency Medical Services
EPA	US Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERT	Emergency Response Team
FAA	Federal Aviation Administration
FAT	Fuel Actuated Tool
FMG	Facilities Maintenance Group
FOD	Foreign object debris
GC	General Contractor
GHS	Globally Harmonized System
GFCI	Ground Fault Current Interrupter
GPR	Ground Penetration Radar
HazCom	Hazard Communication
HAZMAT	Hazardous Material
HAZWOPER	Hazardous Waste Operations and Emergency Response
HVAC	Heating, Ventilating, and Air Conditioning
IDLH	Immediately Dangerous to Life and Health
IPP	Incident Prevention Plan
IIPP	Injury and Illness Prevention Plan
IRP	Incident Response Plan
ISO	International Organization for Standardization
JHA	Job Hazard Analysis
JV	Joint Venture

LAWA	Los Angeles World Airports
LADOT	Los Angeles Department of Transportation
LAFD	Los Angeles Fire Department
LAPD	Los Angeles Police Department
LOTO	Lockout/Tagout
LAX	Los Angeles International Airport
LAWAPD	Los Angeles International Airport Police Department
MSDS	Material Safety Data Sheet
NFPA	National Fire Protection Act
NIOSH	National Institute for Occupational Safety and Health
NOTAM	Notice to Airman
NNC	Notice of Non Compliance
NSC	National Safety Council
NTP	Notice to Proceed
OFD	Ontario Fire Department
ONT	Ontario International Airport
O&M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
OSHA VPP	Occupational Safety and Health Administration Voluntary Protection
PAT	Powder Actuated Tool
PEL	Permissible Exposure Limit
PFAS	Personal Fall Arrest System
PM	Project Manager
PMT	Project Management Team
PMP	Project Management Plan
PPE	Personal Protective Equipment
PR	Project Requirements
PSM	Program Safety Manager
RAC	Risk Assessment Code
RFP	Request for Proposal
SC	Safety Coordinator
SCBA	Self-Contained Breathing Apparatus
SDS	Safety Data Sheet

SETT-WP	Scope of work, Equipment used, the Terrain-weather-time of day,
SH&E	Safety, Health, and Environment
SIDA	Security Identification Display Area
SM	Safety Manager
SOP	Standard Operating Procedure
SPCC	Spill Prevention Control and Countermeasure (Plan)
SSSP	Site Specific Safety Plan
STS	Safety Trained Supervisor
START	Supervisory Training in Accident Reduction Techniques
TCO	Temporary Certificate of Occupancy
TCP	Traffic Control Plan
THA	Task Hazard Analysis
TRIR	Total Recordable Incident Rate
TSA	Taxiway Safety Area
TSA	Transportation Security Administration
USA	Underground Service Alert
USDOT	United States Department of Transportation
USR	Utility Shutdown Request
UXO	Unexploded Ordnance
VNY	Van Nuys Airport
VOC	Volatile Organic Compound
WC	Workers' Compensation
WATCH	Work Area Traffic Control Handbook

This glossary provides a single location to find the definition(s) for each of the terms that LAWA has previously defined in each section or subpart of this book. Please refer to the individual section or subpart for more information or context about each term.

1.0 Definitions

1.1 Advisory Circulars – Type of publication by the Federal Aviation Administration (FAA) to provide guidance for compliance with airworthiness.

1.2 Activity - A task, event, or other Contract element on a schedule that contributes to completing the contract. Activities have a description, duration and one or more logic ties.

1.3 Air Operations Area (AOA) – The area of the airport used or intended to be used for landing, taking off, surface maneuvering, loading, unloading, or servicing the aircraft. This is a security area requiring security badging and compliance with security regulations.

1.4 Airport Operations Superintendent - A representative from the Airport's Operation Division with the authority to intervene if the Contractor's actions on the airport are detrimental to the Airport's operational safety or security. Telephone 424-646-4265

1.5 Airports Development Group (ADG) – The LAWA management group of most construction projects.

1.6 LAWA Construction Safety Requirements - The safety requirements established by the Owner to provide guidance to the contractors in the recognition and correction of hazards and risks associated with the LAWA construction projects.

1.7 LAWA Program Safety Manager (PSM) – LAWA representative responsible for oversight of the implementation of the Construction Program Safety Policy Requirements.

1.8 Airport Operations Area (AOA) – The area of the airport dedicated to the movement, maintenance, servicing, loading, and unloading of aircraft and related support equipment. The AOA is a restricted area; only individuals and vehicles/ground equipment with proper identification are allowed.

1.9 Airport Security Plan (ASP) – Complete guide for establishing and maintaining a comprehensive security program for the airport system, to protect passengers, staff, airlines, aircraft, and property.

1.10 Area Shutdown request (ASR) – The area shutdowns include all Landside, Airside, and Terminal areas which require any traffic closure, restriction to public access, elevator/escalator, restroom closures, and gate/taxiway closures.

1.11 Authorized Representative – Party that is authorized by LAWA to represent LAWA in the management of LAWA contractual obligations and includes LAWA Inspectors.

1.12 Board of Certifies Safety Professionals (BCSP) - Represents the gold standard in safety certification recognized by safety professionals as the industry's most prestigious credentialing program.

1.13 California Division of Occupational Safety and Health (Cal/OSHA) - The state agency responsible for the rules and regulations concerning the occupational safety and health requirements for the job site, including construction work.

1.14 Capital Improvement Program (CIP) – A LAWA major redevelopment program to upgrade the facilities of Los Angeles International Airport (does not include LAWADP), Van Nuys and Ontario Airports.

1.15 Claims Coordinator - The on-site representative of the OCIP insurance program responsible for processing all claim reports and initial follow-up.

1.16 Code – The term Government Code, Labor Code, etc. refer to codes of the Federal and State of California

1.17 Competent Person - One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

1.18 Construction - The presence and movement of construction-related personnel, equipment, and materials in any location that could infringe upon the movement of aircraft.

1.19 Construction Health and Safety Technician (CHST) - certification designed for individuals who demonstrate competency and work part-time or full-time in health and safety activities devoted to the prevention of construction illnesses and injuries.

1.20 Construction Management Team (CMT) - In general, refers to the team assigned by LAWA to coordinate and oversee construction activities.

1.21 Construction Safety Advisory Committee or "Committee" – The committee responsible for the coordination, direction and management of the Construction Safety Policy Guidelines.

1.22 Consultant(s) - Firm(s) employed by the Owner under contractual agreements for engineering design, construction management, technical support, testing, or other related services.

1.23 Contract - A written agreement by and between LAWA and a Contractor, Construction Manager at Risk, or Design-Builder.

1.24 Contract Documents – Including but not limited to; the executed Contract Agreement, permits from other agencies, the General Conditions, Special Conditions, Project Requirements, the Plans, Standard Plans, Standard Specifications, Technical specifications, and Reference Documents.

1.25 Contractor - The term used to refer to all entities holding the construction contracts.

1.26 Contractor's Project Manager - The Contractor's employee for a given project or task who has the overall responsibility to see that the work or job is satisfactorily completed. The Contractor's Safety personnel report directly to him/her.

1.27 Contractor's Safety Coordinator (SC) - A full time safety professional hired to manage the contracted safety efforts. This person must have at minimum an active BCSP Construction and Health Safety Technician (CHST) credential and five years of vertical/tunnel and heavy civil construction experience. No other duties may be assigned.

1.28 Contractor's Safety Manager (SM) - A full time safety professional hired to manage the contracted safety efforts. This person must have at minimum an active Board of Certified Safety Professional (CSP) credential and 5 years of vertical/tunnel and heavy civil construction safety experience. No other duties may be assigned. Safety Coordinator and Safety Superintendents report directly to him/her.

1.29 Contractor Security Officer (CSO) – Is responsible for developing and implementing security policies and procedures in coordination with government agencies.

1.30 Construction Safety Phasing Plan (CSPP) - Is the primary tool used to ensure operational safety on the airport during construction.

1.31 Certified Safety Professional (CSP) - is a certification offered by the Board of Certified Safety Professionals (BCSP).

1.32 Contractor's Safety Superintendent (SS) – A full time safety professional, have an active BCSP Safety Trained Supervisor (STS) credential and ten years of vertical/tunnel and heavy civil construction experience. The Safety Superintendent may perform other than safety duties when a SM or SC is present. If the SS is filling in for the SM or SS then no other duties may be assigned.

1.33 Days Away Restriction Transfer Rate (DART) - A mathematical calculation that describes the number of recordable incidents per 100 full time employees that resulted in lost or restricted days or job transfer due to work related injuries or illnesses.

1.34 Day - Whether capitalized or not, unless otherwise specifically provided, means calendar day, including weekends and legal holidays. In the case of the plural 'days', those days will be consecutive.

1.35 Electromagnetic Wave Gradiometer (EMG) - A low-frequency electromagnetic (EM) signal used to illuminate an area to detect underground utilities and pipelines.

1.36 Engineer – The Engineer of the agency, or other person designated by the LAWA, acting either directly or through authorized agent.

1.37 Executive Director Designee - A LAWA employee or a LAWA Authorized Representative with the authority to enter into, administer, and terminate contracts.

1.38 Federal Aviation Administration (FAA) - The federal branch of the government responsible for the regulations and procedures related to air transportation.

1.39 Fire Inspector - The Owner's Representative from the Public Safety Division responsible for the fire safety of all facilities and operations at the Airport.

1.40 Foreign Object Debris (FOD) - Any object that does not belong in or near airplanes and, as a result, can injure airport or airline personnel and damage airplanes.

1.41 Fuel Actuated Tool (FAT) – A tool powered by any fuel source.

1.42 Globally Harmonized System (GHS) – Criteria for the classification of health, physical and environmental hazards, as well as specifying what information should be included on labels of hazardous chemicals as well as safety data sheets.

1.43 Ground Penetrating Radar (GPR) – Uses high-frequency (usually polarized) radio waves and transmits into the ground to help detect utilities and pipelines.

1.44 Hazard Communication (HazCom) - Aligns with the GHS of classification to provide a common and coherent approach to classifying chemicals and communicating hazard information on labels and safety data sheets.

1.45 Imminent Danger - Any conditions or practices in any place of employment which are such that a danger exists which could reasonably be expected to cause death or serious physical harm immediately or before the imminence of such danger can be eliminated through the enforcement procedures otherwise provided by this Act.

1.46 Immediately Dangerous to Life or Health (IDLH) – OSHA regulation (1910.134(b)) defines the term as "an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere."[1]

1.47 Incident Prevention Plan (IPP) – The contractor's plan for preventing incidents at LAWA.

1.48 Injury and Illness Prevention Plan (IIPP) - A basic written workplace safety program that helps improve the safety and health in your workplace and reduces costs by good management and employee involvement.

1.49 Incident Response Plan (IRP) – The contractor's plan of hoe incidents will be responded to

1.50 Job Hazard Analysis (JHA) – A technique that focuses on job task as a way to identify hazards before they occur and should include at a minimum; scope of work, Hazard, Control, Measured Risk (risk after controls implemented), Supervision and Evaluation. The risk measurement must be broken down into probability and severity according to Appendix B Section 2.3.

1.51 Job Site - The area within the limits of construction or portions of such area defined within the contract or as directed by the Engineer.

1.52 Lock out/Tag out – A safety procedure which is used in industry and research settings to ensure that dangerous energy sources including electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other sources are properly shut off and not started up again prior to the completion of maintenance or servicing work.

1.53 Los Angeles World Airports (LAWA) - The public body responsible for the operations and management of Los Angeles International Airport (LAWA), Ontario, and Van Nuys Airports and also known as “The Owner.”

1.54 Material Safety Data Sheets (MSDS) – Provides workers and emergency personnel with procedures for handling or working with that substance in a safe manner, and includes information such as physical data (melting point, boiling point, flash point, etc.), toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill-handling procedures.

1.55 Movement Area – The Runway, Taxiways, and other areas of the airport that are used for taxiing or hover taxiing, air taxiing, takeoff and landing of aircraft, exclusive of loading ramps and aircraft parking areas.

1.56 Notice of Non Compliance (NNC) – A LAWA Inspection document issued when the contractor fails or refuses to comply with the contract provisions.

1.57 Notice to Proceed - The written notice by LAWA to the Contractor notifying it to begin work on the Contract or any component thereof.

1.58 Objects Free Area - An area on the ground centered on the runway, taxiway, or taxi lane centerline provided to enhance safety of aircraft operations by having the area free of objects.

1.59 Obstacle Free Zone - The airspace below 150 ft. (45 m) above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects

1.60 Obstruction - Any object/obstacle exceeding the obstruction standards specified by 14 CFR Part 77, subpart C.

1.61 On-Site - shall mean physically located on property owned or leased by LAWA and pertaining to Airport.

1.62 Owner - Los Angeles World Airports (LAWA). Includes LAX, Ontario and Van Nuys Airports.

1.63 Powder Actuated Tool (PAT) – Known as "direct fastening", these tools rely on a controlled explosion created by small chemical propellant charge, similar to the process that discharges a firearm.

1.64 Program Safety Manager (PSM) – Individual in charge of managing and assisting contractor's with site specific environmental, health and safety policies.

1.65 Project - The term used to describe the specific construction work packages to be performed at LAX, Ontario and Van Nuys Airports.

1.66 Project Management Team – The group responsible for planning and executing the project. It consists of a Project Manager and a variable number of Project Team members, who are brought in to deliver their tasks according to the project schedule.

1.67 Public Area – Areas normally accessible to the general public, including the public portions of all ticketing, satellite and terminal buildings, parking lots and terminal roadways.

1.68 Qualified Person - one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his\her ability to solve or resolve problems relating to the subject matter, the work, or the project.

1.69 Reference Documents – Those bulletins, standards, rules, regulations, methods of analysis, codes, and specifications of other agencies, engineering societies, or associations referred to in the Contract Documents. These refer to the latest edition, including amendments in effect and published at the time of advertising the project, unless specifically referred to by edition, volume, or date.

1.70 Risk Assessment Code (RAC) - Describes the relative risk of injury, illness or premature death that could result from exposure to a hazard.

1.71 Runway Safety Area (RSA). A runway safety area is the defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.

1.72 Safety Data Sheet (SDS) – Provides workers and emergency personnel with procedures for handling or working with that substance in a safe manner, and includes information such as physical data (melting point, boiling point, flash point, etc.), toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill-handling procedures.

1.73 Safety Trained Supervisor (STS) – Certification that provides a means for employers to verify safety and health knowledge of first-line supervisors, managers, and any other person with safety responsibilities.

1.74 Security Identification Display Area (SIDA) – Any area identified in the airport security program as requiring each person to continuously display airport-approved identification, unless the person(s) is under airport approved escort.

1.75 Spill Prevention Control and Countermeasure Plan (SPCC) – Prevention of oil from entering navigable waters through the prevention, control, and mitigation of oil spills.

1.76 Site Specific Safety Plan (SSSP) – Each construction project (contract) requires its own SSSP; therefore, each SSSP must be tailored specifically to the project being conducted.

1.77 Task Hazard Analysis (THA) – A technique that uses a JHA to create a work plan to brief the workers from that THA. The work plan must be clearly stated, briefed back and rehearsed if possible, to ensure project team members are capable of performing each task within the scope.

1.78 Taxiway Safety Area (TSA) – A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally is departing the taxiway.

1.79 Total Recordable Incident Rate (TRIR) – Mathematical calculation that describes the number of recordable incident per 100 full-time employees in any given time frame.

1.80 Utility Shutdown Request (USR) – Scheduled temporary interruption of a utility or building operation service for the purpose of maintenance, repair or replacement of equipment.

1.81 Unexploded Ordnance (UXO) - Explosive weapons (bombs, shells, grenades, land mines, naval mines, etc.) that did not explode when they were employed and still pose a risk of detonation, potentially many decades after they were used or discarded.

Project Safety Requirements Quick Guide						
	Prior to NTP	Daily	Weekly	Monthly	Within 24-72 Hours	48 Hours prior to work being performed
IIPP - Injury and Illness Prevention Plan	•					
COSP - Code of Safe Practices	•					
SSSP - Site Specific Safety Plan	•					
SDS - Safety Data Sheets	•					
Graphical Project Hazard Projections	•					
Trenching Permit	•					
Excavation Inspection		•				
JHA - Job Hazard Analysis	•					
THA - Task Hazard Analysis			•			
Orientation Verification		•				
Near Miss Reports					•	
Incident Reports (1 Hour/24 Hour/72Hour)					•	
Program Wide Safety Meeting				•		
Cause Analysis Meeting					•	
Weekly Partnering Safety Walk			•			
Safety Audit/Inspection Walk		•				
Safety Metrics Report				•		
Crane Pick Plans						•
Operator Certification						•
1st Aid Certification						•
10/30 Hour OSHA Training Certification						•
Pre-Task Planning Meeting						•
Demolition Authorization						•
Hot Work Permit		•				
Tail Gate Meeting			•			
Tool Inventory		•				

SECTION I: Authority and Responsibility for Program Implementation

SECTION II: Employee Compliance

- Safety Awards Program
- Safety Discipline Program

SECTION III: Communication

- Safety Committee/Council
- Employee Report of Job Site Hazards

SECTION IV: Identification of Workplace Hazards

- Formal: Job Site Audits
- Field Observations
- Hazard Analysis and Task Hazard Analysis

SECTION V: Occupation Injury and Illness Investigation

SECTION VI: Correction of at Risk Conditions

SECTION VII: Training and Instruction

- Commencement of New Program/Annual
- New Employee Orientation
- New Job Assignments
- New Substances, Processes, Procedures or Equipment
- New or Unrecognized Hazards
- Supervisors

SECTION VIII: Recordkeeping

- Safety metrics
- Risk assessments

The Contractor is responsible to ensure that at a minimum all LAWA Construction Safety Requirements are adopted, met, or exceeded as a part of their Site Specific Safety Plan. Additionally, the following elements shall be included:

- The contractor shall incorporate a safety philosophy document separate from their safety policy document into their site specific safety program. The Safety philosophy document is an expression of your company leader's personal vision and ideology towards the safety of their human resource.
- Each contractor will incorporate a safety policy document separate from their philosophy document into their site specific safety program. The safety policy is a condition of employment and a commitment to enforce their IIPP..
- Company program for continuing safety education for all project workers including but not limited to:
    - pre-task "safety huddles"
    - safety "toolbox" meetings
    - project orientations
    - incident corrective action retraining
- Confined Space Entry Policies and Procedures
- Construction Safety and Phasing Plan (for work on the AOA)
- Demolition Policies and Procedures
- Electrical Safety Plan (NEC/NFPA 70E compliant)
- Fall Protection, Prevention and Rescue Plan
- Fire Prevention Plan
- Graphical Project Timeline Hazard Projection
- Heat Illness Prevention Program
- Housekeeping/Sanitation Policies and Procedures
- Identification of all approved Safety Professionals

  - In addition, delineate his/her authority to direct work stoppage, initiate and/or personally direct corrective actions, and expend resources to eliminate imminent hazardous conditions

- IPP (Incident Prevention Plan) (In accordance with Appendix B)
- IRP (Incident Response Plan) (In accordance with Appendix C)
- Lockout/Tagout Program (including ASR/USR Protocols)
- Progressive Disciplinary Policy for safety infractions
- Project Hazard Communication Policies and Procedures
- Project Security Policies and Procedures (Shall include Tool Management Plan which contains tool inventory policies and procedures)
- Public Protection Plan (for all non-construction personnel)
- Respiratory Protection Policies and Procedures
- Return-to-Work plan for injured workers
- Safety Incentive Plan (to be based on “Leading Indicators”)
- Site Specific Code of Safe Practices (see Appendix D)
- Spill Control and Countermeasures Plan
- Substance Abuse Prevention and Testing Policies and Procedures
- Utility Protection Plan
- Work Rest Limit Plan (identify maximum hours per consecutive days)