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Subcontractor Safety Manual

a CIANBRO company

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1. Introduction

A/Z Corporation (A/Z) is committed to providing a safe and healthy work environment for everyone involved in all A/Z projects. To this end, we have developed a comprehensive Subcontractor Safety Program that addresses the safety concerns of each project as well as the safety expectations of A/Z and our clients. This program supplements, but does not supersede the A/Z Corporation Safety Manual, safety programs of our clients, or other applicable requirements. The requirements of this program may vary depending on specific job sites' pre- existing conditions.

We look forward to providing our clients with a construction project characterized by pro-active safety management, effective job safety planning, and control of job site hazards. We are confident that with all participants' active involvement, this program will protect everyone working on A/Z projects from workplace injuries and illnesses. We expect that all organizations and every individual will join us in providing a model of construction safety excellence on all A/Z projects.

Keep in mind that compliance with OSHA standards is considered the minimum standard for A/Z projects. A/Z requires a higher level of performance when it comes to safety. While working on an A/Z project, please remember that safety is everyone's business all the time. We ask for your cooperation, participation, and input to ensure the success of this program.

A. Incident & Injury Free (IIF)

A/Z has a strong and steadfast commitment to safety and the well-being of team members through the implementation of an "Incident & Injury-Free" (IIF) safety initiative, which strives to eliminate danger at A/Z construction worksites and facilities through a highly personal approach. An Incident & Injury-Free Culture is:

- A shared value for safety (versus only a priority),
- A workplace where individuals take responsibility for their safety and the safety of their co-workers,
- A culture where people's safety actions are driven from choice, not from formal compliance,
- A shared commitment at all levels throughout the project.

Practically speaking, an incident & injury-free culture doesn't mean "zero injuries"; it means creating an environment where injuries are not acceptable and where team members do everything possible to prevent them. The focus is not going forever injury-free, the focus is continuous, sustainable improvement.

B. A/Z Safety Policy

As previously noted, a primary objective on every A/Z project is to provide a safe and healthy work environment for all team members and trade contractors. To accomplish this objective, the A/Z Project Management Team will actively manage safety issues on a project. A/Z may, in its sole discretion, require a Trade Contractor to provide a safety designee or full-time safety representative upon written demand.

This Subcontractor Safety Manual shall be utilized by all personnel who will work on any A/Z project including all Trade Contractors, Sub-Tier and all Sub-Contractors, Vendors, and Visitors on a project site. Any person who does not abide by these basic construction safety practices and procedures will not be allowed to continue work on this, or any, A/Z project. The site Superintendent, Project Manager, Safety Coordinator, and Safety Director shall have the authority and responsibility to ensure that all work is executed in a safe manner and in compliance with this Program as well as all applicable regulations. If necessary, work will be stopped and violators will be required to leave the project site. No A/Z trade contractors will be allowed to work in conditions that are unsafe or be allowed to create unsafe conditions.

Trade Contractors, Supervisors, and Foremen shall be held accountable for the performance of their team members and crews. In serious and/or repeat offenses, the responsible Supervisor(s) may also be required to leave the project to ensure the safety of others. The Trade Contractor shall bear the consequences in the event work is halted or personnel are removed from the project due to safety violations. These consequences may include, but are not limited to, delay and/or liquidated damages, charges for stabilizing or repairing work left by the Trade Contractor, charges for completion of the work, charges for safety enforcement, charges for overtime of A/Z team members or those of other Trade Contractors to correct unsafe conditions or regain lost time to schedule, inclusive of management and home office costs to A/Z. Additional safety violation fines may be assessed against a violating Trade Contractor (or a Subcontractor or Vendor under the Trade Contractor's control). Such fines will be withheld by invoicing the Trade Contractor's requisition, and all funds shall be utilized for improving project safety.

All Subcontractor team members must be thoroughly trained to recognize and understand the hazards associated with their occupation, the measures to control or eliminate the hazards, and regulatory requirements related to the work they perform.

C. Administration

The Management of A/Z shall provide the resources necessary to ensure our Subcontractors are competent to safely perform the tasks they are assigned, including Supervision and Project Management. These resources shall include safety orientation training, written reference materials and a reference resource in the form of a qualified Safety Director and/or Safety Coordinator. The most important resource is the commitment of A/Z's Executive and Senior Management in supporting all safety programs and policies. A/Z also provides the required resources to screen and pre-qualify all Subcontractors to ensure that each Contractor's safety program meets or exceeds the minimum requirements.

1. The following administrative procedures will be utilized on all A/Z projects to ensure the success of the safety program:
2. All Subcontractor and/or Trades' meetings will begin with safety as the first topic of discussion.
3. All Trade Contractors (and their sub-tier Contractors) shall submit a written safety program to A/Z's Safety Director for review. This program shall include;
    a. Company safety administration procedures and personnel responsible for safety;
    b. Training requirements;
    c. Project Specific Job Hazard Analysis (JHA), and hazard control plan;
    d. Worksite inspection procedures including documentation;
    e. Corrective actions and disciplinary actions;
    f. Specific programs which apply to the scope of work of the Trade Contractor including but not limited to, Hazard Communication, Fall Protection, Lockout/Tagout, and Confined Space Entry;
    g. Listing of all "competent persons" as required by OSHA regulations and/or A/Z;
    h. Emergency preparedness;
    i. Substance abuse policy.
4. All personnel working on the project will attend a safety orientation prior to start of work. Hardhat stickers to verify safety training will be issued and must be visibly worn on the site at all times.
5. The A/Z Project Management Team will perform job site safety observations on a regular basis. Any concerns will be brought to the attention of the responsible party for prompt action.
6. Toolbox talks will be provided by each Subcontractor on an A/Z project weekly at a minimum and will cover topics relevant to the work being performed. Tool Box Talk topics and attendance records must be submitted to the A/Z Project Manager each week.

2. General Project Working Rules

A. Vendor Evaluations:

The A/Z Procurement Department continually conducts performance evaluations of its vendors, realizing that good vendors are assets of the company. Core evaluation criteria include safety metrics, such as TRIR, EMR, DART, Fatality Rate to be used as criteria for selecting subcontractors?

B. Safety:

Identifying potential hazards before beginning work and developing a plan to address those hazards (Job Hazard Analysis) will be an essential element of the safety program on an A/Z project. All personnel on-site are required to follow all safety-related rules and procedures and act in a professional, courteous manner.

C. Health and Safety Plans:

All Contractors are required to submit copies of their corporate health and safety plans to A/Z. To ensure that all potential workplace hazards have been identified and addressed, subcontractors and lower-tier subcontractors will develop and document Job Hazard Analyses (JHA) for all significant activities for approval by A/Z before beginning the work. At a minimum, all affected workers must read and sign the completed JHA prior to beginning work on-site.

D. Emergency Preparedness:

A/Z jobsites shall have an Emergency Evacuation Plan in writing that will be initiated by the A/Z Project Manager. The plan shall describe the actions to be executed by all Subcontractors and visitors on the premises in the event of an emergency. Alarm notifications may vary depending on the client site. In some instances, a loud, distinguishable, emergency alarm system may be established to notify Subcontractors in the event of an emergency. Communication with the A/Z Project Manager to be aware of the site-specific evacuation notification is critical. Primary and secondary meeting areas will be assigned for post evacuation. These areas will be a safe distance away from the work area in order to conduct accurate headcounts. Subcontractor field supervision must inform their personnel of the written emergency preparedness procedures. This shall be documented and addressed in a safety meeting and forwarded to the A/Z Project Manager.

E. Training:

All Contractor-training records must be made available to A/Z representatives and client representatives upon request. All Contractors are responsible for providing adequate and required federal, state, and client-specific training to their team members.

F. OSHA Records:

All Contractors must maintain OSHA required records as defined in 29 CFR 1904. Specifically, an OSHA 300 Log must be maintained which records and classifies any and all OSHA recordable occupational injuries and illnesses, and for noting the extent and outcome of each case. For every injury or illness entered on the Log, it is necessary to record additional information on the supplementary record, OSHA 301 Form. The supplementary record describes how the injury or illness exposure occurred, lists the objects or substances involved, and indicates the nature of the injury or illness and the part(s) of the body affected.

G. Orientation:

All personnel working on an A/Z project shall attend a project-specific safety orientation prior to executing any work. A hardhat sticker or badge will be issued and must be worn at all times on site.

H. Discipline – Enforcement:

All contractors and suppliers shall participate in the project safety plan. Should an eminent dangerous condition be discovered, all work in the area of danger will be stopped until corrections are effected. Should A/Z find contractor areas of work or individuals being or acting in non- compliance with OSHA or the Project Safety Plan, A/Z shall have the authority to order immediate correction of the noncompliant occurrence. At orientation, new team members are given their first warning:

These are the rules; if an individual fails to follow them, they will receive a citation.

- 1st Citation: Notice is sent to the employer. The employee must come in and see A/Z to review the violation so A/Z can be sure the employee knows how serious this citation is and what corrective action must be taken. A fine for the Contractor may be imposed.
- 2nd Citation: The individual will be removed from the property. A fine on the Contractor may be imposed.

This constitutes three (3) warnings. At this point, the individual will be banned from further access to the site.

"Immediate removal from the project site" Citations will result when:

- Any employee, supervisor or manager exposes themselves or other team members to eminent loss of life or limb.
- Any employee, supervisor or manager openly exhibits disregard, defiance or disrespect for the project safety plan.
- Any employee, supervisor or manager knowingly falsifies any investigative document or testimony involved in an investigation.
- Violent physical encounters (fighting) occur. All individuals involved in the incident are subject to removal.
- Threats are made against any safety personnel performing their duties.
- Theft or destruction of property occurs.
- Any employee, supervisor or manager consumes, possesses, distributes or is under the influence of alcohol/drugs.
- Fall Hazards from Elevated Heights (not protected or secured from falling)
- Safe Electrical Work Practices (electrical safety in the workplace (NFPA 70E) - lock and/or tag out)
- Confined Space Entry (observed or discovered after the task in violation of OSHA regulations)
- Excavations and/or Trenches (excavation exceeding 5'-0" in depth without OSHA compliant systems)
- Job Hazard Analysis and/or Daily Safe Plan of Action (working without an approved Job Hazard Analysis (JHA) and/or Daily Safe Plan of Action (SPA)
- Control Access Zone (crossing or removing red (danger) tape without permission)
- All Operated Equipment & Vehicles (operating equipment without proper training, certifications, and/or licenses)
- Distracted Driving (engaged in distracted driving behaviors)

I. Safety Meetings:

All Contractors must conduct weekly safety meetings and all team members must attend. Meeting topics should be job-specific. Attendance records with employee's signature (as well as meeting topic literature) are to be submitted to the A/Z Project Management weekly. Trade Contractor's invoice requisitions will be processed contingent on this requirement.

J. Stretch & Flex:

Stretching is important in maintaining the muscle's pliability and length. When a muscle shortens, the ability to perform a task involving that muscle decreases which can then increase the risk of injury. Maintaining the muscle's proper length and pliability allows the body to maintain the proper biomechanical position and decreases the possibility for injury. An on-site stretching program encourages all team members to participate. Participation in the A/Z stretching programs is required and should be conducted during the morning safety briefing. The stretch and flex component should not exceed 10 minutes. Team members should engage in this program to the extent that their judgment and physical capabilities allow and should not perform motions that may aggravate previous injuries or other physical conditions. A discussion with one's medical provider is highly recommended before participating in any stretch and flex program.

K. Incident Occurrence & Reporting:

All incidents, accidents, injuries, and near misses, no matter how minor, must be verbally reported to the A/Z Project Manager or Superintendent immediately. In the event of an incident involving injury, illness, property damage, or near-miss at the project site involving Trade Contractor's team members, agents, or third parties, the Trade Contractor will conduct an investigation and shall furnish A/Z with a written Incident Report within twenty-four (24) hours of the incident. Said Incident Report shall include, without limitation, a description of the events leading up to the incident, nature of the injury, illness, or property damage, time and location of the incident, identity of persons involved in the incident including any witnesses, medical care, and/or treatment rendered, and if the incident will result in an OSHA Recordable Case. In addition, the Trade Contractor shall conduct an Incident Review Meeting as set forth below:

Incident Review Meetings

Trade Contractor shall identify the root causes of the incident and document any and all corrective action steps to help prevent future incidents by holding an Incident Review Meeting not later than seventy-two (72) hours following an incident. Incident Review Meetings will be held when:

- One (1) or more days away from work (lost time*) occur as a result of an on-site incident
- Multiple incidents with similar injuries or causal factors occur
- "Near-miss" incidents occur where the potential for serious injury existed
- Major property damage occurs from causes such as fire, chemical release, etc.
- If recommended by A/Z Senior Management or its Director of EH&S after a review of the totality of the circumstances surrounding the incident

The need for an incident review meeting will be determined by A/Z's Director of EH&S after reviewing the written Incident Report and/or discussing the incident with the A/Z Project Management Team.

Incident Review Responsibilities

Trade Contractor's Supervisor and/or Safety Representative will be responsible for conducting the investigation of the incident. Trade Contractor's Project Manager will conduct the Incident Review Meeting and shall be responsible for writing and distributing the meeting minutes and any follow-up reports, as needed and necessary.
The incident review meeting attendees shall include without exception:

- Supervisor of the injured employee
- Project Manager of the injured employee
- Senior Management of the injured employee (Owner, Vice President, Director)
- A/Z Project Director
- A/Z Project Manager
- A/Z Superintendent
- A/Z Safety Coordinator
- Other personnel providing valuable input

Failure to Conduct an Incident Investigation and/or Review Meeting

If Trade Contractor fails to conduct an Incident Investigation and/or Review Meeting, or otherwise fails to discharge its duties and obligations as required, or if A/Z is required to conduct an investigation, create reports, or interface with the Owner or other regulatory agent or body on behalf of the Trade Contractor, then Trade Contractor shall be in breach of its contract agreement. As such, Trade Contractor's invoice requisitions shall be withheld until compliance with this requirement is satisfied. A/Z may also back charge the Trade Contractor for the costs associated with the time spent, liabilities assumed, and administrative expenses connected with or arising out of the investigation and/or processing of the incident.

L. Inspections:

Subcontractor supervisors shall be able to demonstrate knowledge of the safety audit, assessment, and inspection processes as well as their individual responsibilities regarding implementation and compliance enforcement. Subcontractor supervisors shall be made available to participate in A/Z safety audits and assessments as requested. Specifically, Subcontractor supervisors will be expected to manage the following work elements:

Daily Assessments

Subcontractor and lower-tier subcontractor supervisors shall visually assess their work areas each day for unsafe conditions and practices. Subcontractor shall monitor the closure of corrective actions to completion.

A/Z Audits and Assessments

A/Z Safety Representatives shall conduct weekly documented audits and assessments of Subcontractor work sites. Subcontractor shall ensure that its personnel cooperate and participate with A/Z in the execution of these assessments.

Non-Compliance

If A/Z identifies a significant or repeated violation of safety regulatory requirements or an imminent danger situation, Subcontractor shall take immediate necessary steps to ensure compliance with safety requirements. Failure to abate the violation or continued failure to comply with the Basic Safety Rules and Regulations shall be deemed a breach of the Subcontractor's contract agreement, and may result in a stand-down of the Subcontractor's activities, removal from the A/Z project site, and/or a monetary fine as described within the Safety Violations section of this document. A/Z may also back charge the Trade Contractor for the costs associated with the time spent, liabilities assumed, and administrative expenses connected with or arising out of the abatement of the violation/infraction.

M. Post-Job Safety Review:

The purpose of the post-job review is to close out the job and capture lessons learned, e.g., good work practices or adverse work practices and adequacy of controls, through feedback from workers regarding the activity completed. A good post-job review will address pre-job briefing expectations of what was identified and expected to be accomplished, and what was to be avoided and determine the success of meeting those goals.

N. Stop Work:

Any A/Z employee, contracted personnel, or person employed by any company under contract to A/Z, will be authorized to stop work that may be considered hazardous to personnel, equipment, or the environment.

O. Personal Protective Equipment (PPE):

ANSI approved hard-hats, safety glasses with side shields, hard- toed safety shoes, task-specific gloves (minimal Kevlar cut level 4) and high visibility attire (vests and/or shirts) are to be worn at all times on all A/Z projects. Trade Contractors shall be responsible for providing and maintaining all PPE, as well as training team members on the proper use of PPE. Other PPE is to be worn whenever appropriate. At a minimum, all applicable OSHA standards must be followed.

P. Hazardous Materials:

The quantity of hazardous materials (fuels, solvents, oils, paints, etc.) brought on an A/Z project site should be kept to a minimum and stored in designated areas approved by A/Z Site Management. Any hazardous chemicals brought onto a job site (as defined by the OSHA Hazard Communication Standard and GHS Program) must be properly labeled and accompanied by a current safety data sheet (SDS). SDS books shall have an accurate table of contents. Flammable liquid (including gasoline and diesel fuel) must be kept in approved and clearly labeled safety cans. The Contractor who brought them to the project site is responsible for removing any unused hazardous materials from the site.

Q. Warning Signs:

All posted warning, safety, or security signs and barriers will be observed. Contractors will provide barriers, barricades, etc., whenever such protection is needed. Warning signs will be conspicuously posted, indicating the hazard. Where signs and barricades do not provide adequate protection, particularly along a road, flagmen will be used.

R. Temporary Barricades:

Temporary barricades will be erected and maintained to warn or protect workers whenever hazards or processes such as those listed below are encountered on the project. This list includes, but is not limited to the following:

- Floor or wall openings
- Working above other workers
- Open excavations/trenches
- Unguarded equipment
- Overhead loads
- Closed stairwells
- Exposure to vehicular traffic
- Startup operations and testing of equipment/systems
- Process hazards such as discharges, open systems, etc.

When barricading is required, the following guidelines should be followed:

- Yellow “Caution” tape is used to limit the passage of workers through the barricaded area. This barricading should only be used to protect workers from hazards that are not severe or the potential for severe injury or death is unlikely.
- Red “Danger” tape is used to prohibit the passage of unauthorized workers through the barricaded area. This barricading should be used to protect workers from hazards that have the potential to cause serious injury or death. Red Danger tape is NOT a substitute for a guard rail. Danger tape is not to be used if the hazards cannot be eliminated or removed during a single work shift.
- Rigid barricades are used when protection is required beyond a work shift or longer. It will be used to protect workers from unguarded moving machinery/equipment, vehicular or heavy equipment traffic, and low light conditions. Rigid barricading will consist of standard guardrail, temporary chain link fencing, tube and coupler scaffold members with construction fencing attached and concrete barriers.

S. Housekeeping:

All Contractors are expected to maintain their work area in a condition that is clean, orderly, and free from obvious hazards. Poor housekeeping on any A/Z project is not acceptable. Specific measures to maintain the orderly condition of the work area will be:

a. Storage and lay down areas should be coordinated with other contractors and the A/Z Superintendent;
b. All pedestrian walkways must be protected from debris;
c. Materials stored on-site must be kept to a minimum to allow the greatest area available to work;
d. Deliveries should be scheduled on an "as-needed" basis;
e. Allow sufficient room around stored materials for safe access to both the materials and work area.;
f. Containers of flammable, combustible, and hazardous material will be labeled to identify contents and kept in a closed-top container inside a regulated flammable storage cabinet when not in use. Containers of such products must be kept to a minimum on-site;
g. Keep in mind other trades may need access to areas near your storage (coordinate with the A/Z Superintendent);
h. All areas must remain broom clean as work progresses. Accumulation of debris that causes a hazard during a work shift will not be allowed. Debris and waste material must be removed from the work area often enough to maintain a safe and uncluttered condition;
i. Nails protruding from boards/pallets must be removed or bent over;
j. Each Trade Contractor is responsible for removing waste material from the work area to the appropriate dumpster or disposal area. If a requirement of the project, segregation of materials, debris, and trash may be needed. A/Z will back charge Trade Contractors for any cleaning required which the Trade Contractor does not perform;
k. All rolling objects such as pipe, rod, and conduit shall be chocked, blocked, or racked;
l. Breaks and lunch will only be allowed in areas designated by the A/Z Project Management.

T. Protecting the Public:

Contractor must protect the public with appropriate and visible protective systems when the public could be exposed to hazards.

- Exterior Protection Procedures: Keep sidewalks, entrances, lobbies, corridors, aisles, doors, and exits clear of obstructions to permit safe entrance and exit at all times. Post appropriate warning and instructional safety signs. Barricades must be provided where sidewalks, sheds, bridge fences, or guardrails are not required between work areas and pedestrian walkways, roadways, and occupied buildings. Barricades must be secure, except where temporary removal is necessary to perform work.
- Interior Protection Procedures: Before starting work in occupied buildings, contractors must coordinate with a Company Representative and develop a work plan. The SOW must include risks such as: electricity or gas outages, excessive noise generation, chemical fumes, asbestos, and fire exit blockages. The work plan must address provisions for proper communication and related control measures. Control measures may include providing PPE, scheduling work during non- business hours, or area evacuation. Contractor must notify the Company of revisions to this plan.

U. Fire Extinguishers:

All Contractors are required to provide the appropriate number and type of 20 lb. fire extinguishers for their respective work area. In addition, fire extinguishers are required at all hot work locations. These extinguishers must be fully charged and inspected monthly.

V. First Aid Kit and Eyewash Stations:

Contractors are required to provide the appropriate size first aid kit and number of eyewash stations to accommodate their team members.

W. Drugs and Alcohol:

The use of illicit drugs and alcohol is strictly prohibited. Consumption of alcohol or drugs during or prior to work, which would impair judgment or performance is prohibited. Violators will be subject to immediate dismissal.

X. Harassment:

Harassment based upon age, race, sex, religion, national origin or sexual orientation is strictly prohibited on any A/Z site. Violators of this policy will be dealt with immediately and severely.

Y. Soliciting:

Soliciting other team members for any reason is prohibited. Distribution of literature or posting of unauthorized materials is prohibited. Any material to be distributed or posted on an A/Z project site must be approved by the A/Z Project Manager.

Z. Fighting:

Fighting, provoking a fight, or engaging in horseplay is strictly prohibited. Team members who engage in such activities will be discharged from the site.

AA. Dress Code:

All team members are required to wear, at a minimum, shirts with 4" sleeves and long pants. Shorts, sweat pants, and tank tops are prohibited. Printed material on apparel shall be non-offensive. Long hair must be tied back and excessive or hanging jewelry should not be worn.

BB. Personal Electronic Equipment:

The use of portable radios, listening devices, recorders and cameras, including cameras incorporated into a cellular phone or other device are prohibited in the work area on A/Z project sites. Portable phones, pagers, and two-way radios may be required to be intrinsically safe depending on the project-specific working environment.

CC. Company Vehicles:

All company vehicles must be equipped with a functional back-up alarm. All vehicles must have working seat belts, company identification (company logo), registration, and current Insurance (Insurance Certificate must be on file with A/Z) before entering an A/Z project site. No one will be allowed to ride in a vehicle without using the manufactures' seat belt. At no time will personnel be allowed to ride in the bed of pick-up trucks. Prior to a vehicle coming on-site, A/Z must approve the vehicle. Parked vehicles cannot obstruct any roadway or travel path and must be choked if parked on a hill. Additionally, the safe driving technique, First Move Forward shall be practiced, which involves planning ahead when parking. When an individual looks for a space in a parking lot with open-ended stalls, choose one that you can pull through

and park facing out. In the event that you cannot pull through a parking space, you should back into it whenever possible. In both cases, when you exit, drive forward out of the space. This technique can significantly reduce backing accidents.

DD. Temporary Utilities & Facilities:

A/Z will provide portable toilets, reasonable power (120 volt) within 100 feet of the work area, temporary lighting, and accessible water for the project. Each subcontractor will provide drinking water for their team members and any necessary electricity other than 120 volt not specifically requested and agreed to prior to contract award. A/Z will also provide temporary building heat if required. This item is subject to change depending on the project site.

EE. Compressed Gas Cylinders:

Valve protection caps will be in place when compressed gas cylinders are transported, moved, or stored. Cylinder valves will be closed when work is finished, and when cylinders are empty or moved. Compressed cylinders must also be secured (chained) in an upright position at all times, unless cylinders are being moved. Acetylene cylinders shall always be in the upright position. Gas regulators will be in proper working order and designed for the specific gas(es). Cutting torches must be equipped with flashback arrestors at the gauges. Regulators will be removed before gas cylinders are relocated. Oil and oily rags will be kept away from oxygen equipment, and compressed cylinders containing flammable gases will be stored at least 20 feet from combustible materials and sources of spark or flame. Liquefied petroleum gas shall not be stored within any building or on any roof at any A/Z project site.

3. Ladders

A. General Requirements

All ladders utilized on any A/Z project must conform to manufacturer's specifications, applicable OSHA requirements, and this Safety Manual. The following general requirements apply to the use of any ladders (extension ladders, stepladders, job made ladders, etc.) on A/Z projects.

1. Ladders purchased shall be manufacturer-certified minimally as ANSI Type IA or IAA.
2. Contractors will have a ladder training and inspection program as defined in 29 CFR 1926, Subpart X, before any person is allowed to use or work from ladders;
3. Ladders shall be free from structural defects, used only for their intended purpose, and inspected prior to each use. Ladders with structural defects must be taken out of service immediately and tagged "Do Not Use";
4. Fall protection is required when working off a ladder six feet or more above a lower level. Ladders should not be used for performing lengthy tasks. Performing work from a ladder is prohibited within twelve (12') feet of any guardrail and during high winds;

5. Ladders must be placed on a stable surface to ensure that they will not move while being used;
6. Ladders used for access to an upper floor or platform must extend at least three feet above the landing and be securely tied-off to prevent movement;
7. The areas around the top and base of ladders must be free of tripping hazards, such as loose materials, trash, and electric cords;
8. Metal ladders will not be used for electrical work or in areas where they could contact energized wiring. The use of metal ladders is restricted to special applications where the heavier wooden or fiberglass ladders are not practical;
9. Job-made ladders may only be used when approved by A/Z Project Supervision and must be constructed to conform to established OSHA standards;
10. Always face the ladder and maintain three points of contact when ascending or descending;
11. Be sure that your shoes are free of mud, grease, or other substances, which could cause a slip or fall;
12. Ladders which project into passageways or doorways, where they could be struck by personnel, moving equipment, or materials being handled, must be protected by barricades or guards.

B. Stepladders

1. Always set all four feet of a stepladder on a level, solid, and firm surface.
2. Stepladders should only be used when they are fully opened and the spreaders are locked in place
3. Never climb the back section of a stepladder or straddle the front and back sections.
4. Never work off the top two rungs or the pail shelf of a stepladder.
5.

C. Extension & Straight Ladders

1. The base of the ladder must be set back a safe distance from the vertical—approximately one-fourth of the working length of the ladder;
2. Extension and straight ladders must be tied off at the top to prevent movement;
3. Extension ladders must be overlapped a minimum of three rungs up to 36 feet, four rungs up to 48 feet, or five rungs up to 66 feet. Never use an extension ladder greater than 66 feet long;
4. Straight ladders greater than 30 feet in length shall not be used;
5. Never work from the top three rungs of an extension or straight ladder.

D. Floor/Wall Openings

Floor openings greater than two inches in diameter will be guarded by substantial barriers, railings, and/or covering materials. Materials must be strong enough to sustain twice the maximum anticipated load of pedestrian or vehicular traffic. Floor hole covers will have a sign reading “WARNING-FLOOR HOLE.” The cover will be secured from displacement

and will extend adequately beyond the edge of the hole. Floor areas elevated more than four feet must be provided with standard guardrails.

E. Leading Edges

Personnel who are constructing a leading-edge six feet or more above lower levels shall be protected from falling by guardrail systems, safety net systems, or personal fall arrest systems. Personnel on a walking/working surface six feet or more above a lower level where leading edges are under construction, but who are not engaged in the leading edge work, shall be protected from falling by a guardrail system, safety net system, or personal fall arrest system. If a guardrail system is chosen to provide the fall protection, and a controlled access zone has already been established for leading-edge work, the control line may be used in lieu of a guardrail along the edge that parallels the leading edge. For personnel in a hoist area using a guardrail system where portions of the guardrail are removed to facilitate the hoisting operation or the individual must lean through the access opening or out over the edge of the access opening, that individual shall be protected from fall hazards by a personal fall arrest system.

4. Scaffolding

A. General Requirements

Scaffolds shall be erected and used in accordance with this Safety Manual and applicable OSHA regulation (29 CFR 1926, Subpart L). The following requirements apply to all scaffolding used on any A/Z Project.

1. The use of conventional pipe scaffolding systems will not be allowed unless specifically authorized in writing by A/Z's Director of Environmental Health & Safety. The use of "Tube Lock" scaffolding systems with "full decks, railings and toe boards" is a mandated safety requirement.
2. All personnel shall have scaffold awareness training before being allowed to work from any scaffolding;
3. Scaffolds and their components shall be capable of supporting at least four times the maximum intended load and must be constructed on solid footings or anchorages;
4. **Loading**. All scaffolds shall be designed for one of the intended loads described in Section 4.1 to 4.4. No scaffold shall be loaded in excess of the maximum load for which it is designed. Loads shall not be concentrated so as to cause stresses in excess of the allowable values designated for the applicable material described.
5. **Light duty scaffold**. The light-duty scaffold is to be used for loads up to 25 pounds per square foot (122.05 kg/m2), and is intended for use by carpenters, painters, or others of similar trades. It shall not be used to support loads more severe than those imposed by such workers and a minimum amount of lightweight materials.

6. **Medium duty scaffold**. The medium-duty scaffold is to be used for loads up to 50 pounds per square foot (244.1 kg/m2), and is intended for use by bricklayers, plasterers, pipefitters or other similar trades. It shall not be used to support loads more severe than those imposed by such workers and a moderate amount of their materials.
7. **Heavy-duty scaffold**. The heavy-duty scaffold is to be used for loads up to 75 pounds per square foot (366.15 kg/m2), and is intended for use by stone masons. It shall not be used to support loads more severe than those imposed by such workers and a reasonable supply of their materials.
8. **Excess loads**. Scaffolds with loads exceeding 75 pounds per square foot (366.15 kg/m2) shall be designed by a registered design professional.
9. **Multiple trades**. When more than one trade is to use a scaffold simultaneously, the scaffold shall, at a minimum, be designed for a minimum of 50 pounds per square foot (244 kg/m2).
10. A competent person must supervise the erection, alteration, and dismantling of scaffolds and must inspect the scaffold prior to use each shift. The inspections must be documented by signing off on an inspection tag, indicating that the scaffold is safe to use. Name(s) of each competent person(s) must be provided in writing to A/Z prior to the start of any scaffold activity;
11. Scaffolds that are being erected or are otherwise not safe to use must be tagged in a manner that informs all workers that the scaffold must not be used;
12. **Erection and removal**. When a new working level is desired, the existing planks shall be left undisturbed until the new working level is framed. As the platform level is abandoned with the progress of the work, all members other than the planking, railing, and toe-boards shall be left intact. When removing a scaffold, the sequence of removing the members shall be the reverse of that used in erection.
13. All authorized frame scaffolds over 125 feet high must be designed by a registered Professional Engineer;
14. Scaffolds should be erected as close as possible to a permanent structure and shall be secured to the structure every 30 feet horizontally and every 26 feet vertically;
15. Rolling scaffold must have legible manufacture labels affixed to each section, and will maintain a four- to-one height to base ratio. Additionally, all wheels must be locked when the scaffold is occupied, and it is prohibited for rolling scaffold to be occupied while it is being moved;
16. All planking shall be at least 2x10 inch full-thickness scaffold grade lumber and inspected before each use to ensure that they are free from defects. Any defective planking must be removed from service and destroyed immediately. Nominal grade lumber is not allowed for scaffold planking;
17. Each platform on all working levels of scaffolds shall be fully planked or decked between the front uprights and the guardrail supports with no more than one inch between adjacent planks or fabricated platforms;

18. All planking of platforms shall be overlapped (minimum 12 inches) and must extend over their end supports at least 6 inches but not more than 12 inches. Scaffold planks that do not overlap sufficiently or do not extend over their end supports at least 6 inches must be secured from movement;
19. All scaffolds more than six feet high must have approved guardrails (42" top rail, 21" mid-rail, and four- inch toe board as described in Fall Protection section above) on all exposed ends and sides. Guardrails are not required on the building, tank, or structure side of the scaffold if the platform is less than 14 inches from the structure. Where acceptable railings cannot be used, a personal fall arrest system (as described above) or other acceptable fall protection method will be required;
20. An access ladder or equivalent safe access shall be provided and must be secured to prevent movement;
21. Tools, materials, and debris must not be allowed to accumulate on the scaffolding in quantities that may cause a hazardous condition;
22. Where persons are required to work or pass under the scaffold, a screen shall be provided on each working level between the toe board and the top rail.

5. Aerial Lifts

All aerial lifts (scissor lifts, extensible or articulating boom platforms, or ladder trucks) used on any A/Z project must comply with OSHA requirements (29 CFR 1926.453), manufacturer's specifications, and this Safety Manual. Aerial lifts may only be operated on solid surfaces that are free from obstructions or holes that could cause the lift to topple.

Aerial lift operators must receive training for the specific equipment (manufacturer and model) they will operate. Only team members who are properly trained and certified shall operate aerial lifts. Names and copies of training documents/licenses for each person assigned to the site that will operate lifts of any kind shall be provided to the A/Z Project Manager prior to the use of any lift. Team members operating or working from aerial lifts must complete the A/Z lift inspection form daily prior to operating the lift and be equipped with a personal fall arrest system that is tied off to an acceptable anchorage within the lift and not the guardrails. Team members must always stand firmly on the floor of the basket and shall not climb, sit or stand on the railings or edge of the basket.

Lift controls shall be tested each day prior to use to determine that they are in safe working condition. Boom platforms (extensible or articulating) must have both platform (upper) and lower controls. The upper controls must be within easy reach of the operator and the lower controls must provide for overriding the upper controls. Lower level controls must not be operated unless permission has been obtained from the employee in the lift except in the case of an emergency.

When aerial lifts are operated in the vicinity of energized electrical equipment, a minimum safe approach distance (MSAD) must be maintained in compliance with the table below. The insulated portion of an aerial lift shall not be altered in any way that might reduce its insulating value.

6. Minimum Safe Approach Distances

Minimum Safe Approach Distances (M.S.A.D.) to energized (exposed or insulated) power lines and equipment. Never maneuver machine or personnel inside PROHIBITED ZONE. ASSUME all electrical parts and wiring is ENERGIZED unless known otherwise.

Voltage Range	M.S.A.D.	
(Phase to Phase)	(feet)	(meters)
0 to 300 V	Avoid Contact	
Over 300 V to 50 kV	10	3.05
Over 50 kV to 200 kV	15	4.60
Over 200 kV to 350 kV	20	6.10
Over 350 kV to 500 kV	25	7.62
Over 500 kV to 750 kV	35	10.67
Over 750 kV to 1,000 kV	45	13.72

7. Forklifts/Lulls

Forklift operations and designs shall be in conformance with applicable requirements specified under Federal, State, and local regulations. Only trained and certified operators (licensed for the States that require it for Lull operation) shall be permitted to operate a forklift, and documentation must be provided to the A/Z Project Manager to support this. Operators shall remain seat belted in the forklift seat at all times and must keep all body parts inside the cab area. Passengers are not permitted on forklifts. Forklifts shall be used only for their intended purpose. No modifications or additions which could affect the capacity or safe operation of the forklift shall be made without the manufacturer's written approval. Do not use a forklift as a personnel hoist unless a properly designed platform is securely attached to the forks. While not in use, forklifts shall be turned off with the mast lowered completely, forks resting on the ground, set in neutral, and the brake on. Forklifts shall never be left running while unattended. Wheels shall be chocked if set on an incline.

8. Confined Space Entry

Any work requiring entry into permit-required confined spaces (as defined in 29 CFR 1910.146 and OSHA 1926 Subpart AA Confined Space requirements) must be carried out in compliance with OSHA requirements, A/Z requirements, and the requirements of the client if pertinent. The key components are:

1. Before entering a confined space, the contractor must obtain authorization from the A/Z Project Manager;
2. A Confined Space Entry Permit must be completed for ALL confined spaces prior to entry;
3. Each contractor employee must have successfully completed confined space training prior to working in a confined space and documentation must be provided to support this;
4. Any identified hazards in the space or in an area which might affect entry operations must be eliminated or controlled;
5. The air quality in the space must be continuously monitored for oxygen, flammable gases and vapors, and toxic air contaminants;
6. Continuous forced air ventilation must be provided in the immediate area where people are working;
7. Approved retrieval systems are required for any entrant;
8. An attendant who monitors the entry operations from outside the space and is dedicated to that task only is required for each confined space entry;
9. Rescue services must be communicated with, readily available, and identified before entry into the space.

9. Lockout/Tag-Out

Lockout/Tag-Out (in compliance with 29 CFR 1910.147) must be employed whenever maintenance, servicing, or demolition work is being performed on equipment, machinery, or systems where the unexpected energization of the machines or equipment or the release of stored energy could cause injury to team members. Training must be provided for all team members who will be authorized to lock and tag out equipment or systems as well as for team members whose work could be affected by a lockout/tag-out. Documentation must be provided to support this. The general procedure for Lockout/Tag-Out is as follows:

1. Notify A/Z Project Manager and/or Superintendent and obtain a Lockout/Tag-Out Permit;
2. Notify all affected team members (A/Z team members, sub-tier and all subcontractors, client, etc.) that a lockout will be employed and the reason why;
3. Shut off the equipment or system by the normal shut off procedure (on/off switch, button, valve, etc.);
4. Each person performing maintenance or service work shall place an energy isolating device so the equipment or system is isolated from its energy source;
5. Ensure that any stored energy (hydraulic systems, steam, air, heat, water, etc.) has been dissipated or restrained;

6. Ensure no one is exposed and then turn the equipment or systems on to verify that a zero energy state is maintained;
7. Once the work is complete, ensure that everyone is out of the immediate area and all equipment has been restored to its proper condition;
8. Remove all lockout/tag-out devices so the equipment or system can be restored to full operation. The person who installed the lock is the only one authorized to remove the lock.

10. Powder/Air-Activated Tools

1. Contractor team members will have a valid qualification card in their possession when operating a powder-actuated tool;
2. All manufacturers' instructions concerning service, inspection, and operation will be available and followed;
3. Tools and powder loads will be stored in a safe locked storage place when not in use;
4. Post appropriate warning signs for ear, face, or eye protection;
5. A loaded powder-actuated tool will never be left unattended;
6. Misfired cartridges will be segregated from fired cartridges and disposed of per manufacturer's recommendations;
7. Fired cartridges will not be allowed to accumulate on the floor or in the work area.
8. Powder Actuated tools using lead-free primers are preferred (for example, Hilti CleanTec).
9. Use of gas-powered or pneumatic tools or CO2 powered nailers are also preferred.
10. If lead-containing primers are used, then the contractor must comply with all provisions of OSHA's Lead in Construction Standard (1926.62), including but not limited to conducting Exposure Assessments, Lead training, PPE selection, medical surveillance, etc. In addition, the contractor shall control any lead exposures to other contractors. Contractor shall provide all applicable documentation to A/Z for review.

11. Respirable Crystalline Silica

Silica is the second most common mineral on earth, found in the common form as “sand” and “rock”. The three main forms or ‘polymorphs’ of silica are alpha quartz, cristobalite and tridymite. The polymer most abundant and most hazardous to human health is alpha quartz, and is commonly referred to as crystalline silica.

The health hazards of silica come from breathing in the dust. If crystalline silica becomes airborne through industrial activities, exposures to fine crystalline silica dust can lead to a disabling, and sometimes fatal disease called silicosis. Many of the activities performed on construction projects result in the creation/release of silica dust, thus potentially exposing personnel. These activities include, but are not necessarily limited to:

- Sweeping
- Jack-hammering
- Saw-cutting
- Drilling (of concrete)
- Excavating and Truck Loading activities

Due to the risk posed by respirable silica, it is critical that all personnel involved in activities that could potentially create silica dust take specific actions to ensure that, as much as practicable, a hazard is not created and that OSHA regulations 29 CFR 1926.1153 for respirable crystalline silica are observed and complied with. Contractors shall submit their silica protection program for review by A/Z prior to the pre-construction conference.

As a minimum, the contractor’s silica protection program shall comply with OSHA regulations, and shall address the following items:

- Statement of the contractor's commitment to prevent silicosis and to comply with OSHA's standards.
- Description of air monitoring to determine the silica levels generated by tasks to provide a basis for:
  - Selecting engineering controls,
  - Selecting respiratory protection,
  - Selecting work practices to reduce dust, and
  - Determining if a medical surveillance program is necessary.
- Description of engineering controls which are proposed for the project to eliminate or reduce the amount of silica in the air and the build-up of dust on equipment and surfaces.
- Description of less hazardous materials than crystalline silica which are proposed for abrasive blasting and automatic blast cleaning machines or tools to be utilized.
- Description of high-efficiency particulate air filter vacuums to be used by team members and work practices to vacuum, hose down, or wet clean work areas and equipment.

- Description of warning signs and other barriers proposed to identify work areas where respirable silica may be present and to limit access to only authorized team members.
- Description of personal protective equipment and clothing to be provided to team members and changing facilities if necessitated by the level of silica dust exposure.
- Certification of training provided to team members about health effects of silica exposure, engineering controls and work practices that reduce dust, the importance of maintenance and good housekeeping, as well as the proper type and fitting of respirators; and include a statement that the employee is or is not enrolled in a medical surveillance program.

12. Excavation

All excavation work on any A/Z project site must comply with the OSHA requirements contained in 29 CFR 1926, Subpart P. Prior to beginning any excavation activity, the A/Z Excavation Permit must be completed and any underground utilities must be located by contacting the owner and/or the utility companies (Call Before You Dig 800-922-4455), (Dig Safe 888-344-7233), (MISS UTILITY (800-257-7777), PA1CALL (800-242-1776) etc. All soil is classified as Type C unless manually tested to prove otherwise. All excavations must meet the Type C sloping requirements of 1 ½ to 1, or approved engineered shoring when trench is deeper than five feet and personnel will be entering the excavation. If any personnel will be entering an excavation, the following precautions must be taken:

1. At a depth of four feet or greater, a safe means of access/egress must be provided (stairs, ladders, ramps, etc) such that no employee would need to travel more than 25 feet to reach the means of egress/access;
2. At a depth of five feet or greater, the excavation must be protected from cave-in by approved sloping, benching, shoring, trench boxes, or other professionally engineered system;
3. All spoil piles, material, and equipment must be located at least two feet from the edge of the excavation;
4. A competent person must inspect all excavations daily prior to team members working in the excavation and document the inspection on the A/Z Excavation Permit;
5. Team members shall not work in an excavation where water has accumulated;
6. Where hazardous atmospheres (oxygen deficiency, flammable gases or vapors, or toxic contaminants) may exist, air monitoring must be performed to ensure that the air quality is acceptable prior to entry;
7. Team members entering deep and narrow excavations, as defined in 29 CFR 1926.651(g)(2)(ii), will be required to wear a safety retrieval device.

Guardrails, barricades, or other acceptable protective systems must be used to prevent workers or the general public from falling into any open excavation. Team members exposed to public vehicular traffic must wear reflective class II

traffic vests. Excavation equipment should be considered to be electrically grounded to guard against striking underground electrical utility installations.

13. Electrical Safety

There will be reasonable power (120 volt) provided within 100 feet of the work area, but each contractor will be responsible for providing any necessary electricity other than 120 volt unless otherwise agreed to and incorporated into subcontractor's individual contracts. Under no circumstances should emergency power or UPS power receptacles be used. These receptacles are usually identified by color-coding (red for emergency power, blue for UPS power) or labeling. All use of electrical equipment must comply with relevant OSHA requirements as defined in 29 CFR 1926 Subpart K.

A/Z has a strict "no live-work policy" that conforms to OSHA standards and requires the shutdown of live electrical circuits that may be contacted by workers during the execution of the project. Electrical work shall proceed only after the evaluation of potential live-work areas and a review of a schedule of live work shutdowns has been completed.

Ground Fault Circuit Interrupters (GFCIs) shall be used for all electrical (120 volt) equipment to protect team members from ground fault hazards. The following general electrical safety precautions must be used:

1. Power tools shall either be double insulated or grounded
2. Extension cords must be of the three-wire type, twelve (12) gauge or larger, UL listed, double insulated and must be inspected regularly to ensure they are in good condition. Worn or frayed cords will not be used.
3. Extension cords shall be run overhead to prevent tripping hazards and minimize damage to the cord. The cords will not be fastened with staples or extend across an aisle or walkway. Cords will not be run through doorways where the door could cut or damage the cord.
4. Bulbs on temporary lights will be guarded to prevent accidental contact. Temporary lights will not be suspended by their electrical cords unless designed for this use. Temporary lights shall also be protected by a GFCI and be lit at all times.
5. Any faulty or damaged cords or equipment must be immediately removed from service and tagged "Do Not Use".
6. Energized electrical conductors and circuit parts to which an employee might be exposed shall be put into an electrically safe work condition before an employee works within the Limited Approach Boundary of those conductors or parts.
7. Only authorized and qualified electricians may work on energized electrical conductors or circuit parts and shall be performed by written permit only in accordance with NFPA 70E current edition.

8. Workers working in areas where there are potential electrical hazards shall be provided with, and shall use, electrical protective equipment that is appropriate for the specific parts of the body to be protected and for the work to be performed.
9. Protective equipment shall be maintained in a safe, reliable condition and shall be readily available and periodically inspected or tested.
10. If the insulating capability of protective equipment may be subject to damage during use, the insulating material shall be protected.
11. Workers shall wear nonconductive head protection wherever there is a danger of head injury from electric shock or burns due to contact with exposed energized parts.
12. Workers shall wear protective equipment in accordance with NFPA 70E current edition for the eyes or face wherever there is danger of injury to the eyes or face from electric arcs or flashes or from flying objects resulting from electrical explosion.
13. When working near exposed energized conductors or circuit parts, each worker shall use insulated tools or handling equipment if the tools or handling equipment might make contact with such conductors or parts. If the insulating capability of insulated tools or handling equipment is subject to damage, the insulating material shall be protected.
14. Protective shields, protective barriers, or insulating materials shall be used to protect each worker from shock, burns, or other electrically related injuries while that worker is working near exposed energized parts that might be accidentally contacted or where dangerous electric heating or arcing might occur. When normally enclosed live parts are exposed for maintenance or repair, they shall be guarded to protect unqualified persons from contact with the live parts.

14. Welding & Hot Work

Only trained and authorized personnel shall perform welding operations. The general safety precautions for performing welding activities would include:

A. General

- ALL hot work requires the issuance of a Hot Work Permit issued by the A/Z Superintendent.
- During the entire course of the Work, A/Z and Trade Contractor shall provide a dedicated fire watch detail utilizing its own forces including all necessary fire protection and safety equipment, acceptable to A/Z at each location where burning, welding or other 'hot work' is being performed. Fire watch detail must be trained in compliance with applicable OSHA standards and remain in effect for a minimum of 30 minutes following the completion of Hot Work activity.

- Welders shall use proper PPE, including proper eye shade protection, welding hood, long sleeves, welding jackets, welding gloves, and any other PPE identified in the JHA.
- Welding equipment shall be visually inspected daily prior to use.
- Damaged or defective equipment must be immediately removed from service.
- A 20 Lb type ABC fire extinguisher must be within 30 feet of the welding area.
- Combustible materials should be removed from the immediate area or protected from sparks and slag.
- Welding cables shall be run overhead when possible and always protected from physical damage
- Whenever practicable, all arc welding and cutting operations shall be shielded by noncombustible or flameproof screens, which will protect workers and other persons working in the vicinity from the direct rays of the arc.
- When welding, cutting, or heating is performed on walls, floors, and ceilings, since direct penetration of sparks or heat transfer may introduce a fire hazard to an adjacent area, the same precautions shall be taken on the opposite side as are taken on the side on which the welding is being performed.
- Other personnel in the area must be protected from sparks and slag.

B. Electric Arc Welding

- A suitable approved fire extinguisher shall be ready for instant use in any location where welding is done. Screens, shields, or other safeguards should be provided for the protection of men or materials, below or otherwise exposed to sparks, slag, falling objects, or the direct rays of the arc.
- A dedicated fire watch shall be present at all welding operations and remain for at least 30 minutes after the hot work has halted.
- The welder shall wear approved eye and head protection. Individuals assisting the welder shall also wear protective glasses, head protection and protective clothing. Adequate exhaust ventilation shall be maintained at all welding and cutting work areas.
- Electric welding equipment, including cables, shall meet the requirements of the National Electric Code. All arc welding and cutting cables shall be of the completely insulated flexible type capable of handling the maximum current requirements of the work. Cables in need of repair shall not be used. The frames of all arc welding and cutting machines shall be grounded either through a third wire in the cable connecting the circuit connector or through a separate wire which is grounded at the source of the current. All ground connections shall be inspected to ensure that they are mechanically strong and electrically adequate for the required current. Welding practices shall comply with all applicable regulations.
- Work permits shall be obtained daily, prior to any welding operations on the site.

C. Gas Welding or Cutting

- When gas cylinders are stored, moved, or transported, the valve protection cap shall be in place. When cylinders are hoisted, they shall be secured in an approved cage or basket. The valve cap shall never be used for hoisting. All cylinders shall be stored, transported, and used in an upright position. If the cylinder is not equipped with a valve wheel, a key shall be kept on the valve stem while in use.
- At the end of each workday or if work is suspended for a substantial period of time, compressed gas cylinder valves must be closed, regulators removed and properly stored.
- Cylinders containing oxygen or acetylene or other fuel gas shall not be taken into confined spaces.
- Cylinders containing oxygen or acetylene or other fuel gas shall be stored in designated areas outside the structure as approved by A/Z.
- No one shall use a cylinder's contents for purposes other than those intended by the supplier.
- All hoses used for carrying acetylene, oxygen, or other fuel gas shall be inspected at the beginning of each working shift. Defective hoses shall be removed from service.
- Oxygen cylinders and fittings shall be kept away from oil and grease. Oxygen shall not be directed at oily surfaces, greasy clothes, or hands.
- Regulators, gauges, backflow check valves, and torches shall be kept in proper working order.
- An approved fire extinguisher shall be readily available.
- Flash arrestors are required on the oxygen and acetylene hoses; positioned at the regulators.
- Appropriate personal protective equipment, such as burning glasses, shields, and/or gloves, shall be used. Adequate exhaust ventilation shall be maintained at all welding and cutting work areas.
- Work permits shall be obtained daily, prior to any burning or cutting operations on the site.

15. Pressure Testing Safety

Pressure testing involves hazards, such as the release of hazardous energy, being struck by loose fittings or burst pipe. In addition, if an inert gas, such as nitrogen is used, it can displace oxygen and can create an oxygen- deficient atmosphere, which can be harmful or fatal. If flammable gas is used, it can cause an explosion if there is an ignition source.

The following procedure shall set forth the minimum requirements to ensure that pressure testing is performed safely. Contractors shall also develop a site/task-specific Job hazard Analysis (JHA), as well as their own procedures for safely pressure testing pipe, and review with A/Z prior to starting this activity.

- Contractor performing pressure testing shall barricade area off and place signage restricting access to only authorized personnel.

- Authorized personnel shall wear appropriate PPE consistent with the contractors JHA. (examples should include: hard hat, safety glasses, face shield, gloves, etc. in accordance with the SDS for testing medium).
- All mechanical devices, such as valves and blinds used to isolate the system shall have a lock and tag affixed by the contractor to prevent accident pressure release.
- Contractor and authorized personnel shall walk down the system and check the integrity of all connections, caps, seals and fittings within the system to be tested to ensure they are secure.
- Contractor shall install additional supports on piping necessary for increased pressure or weight of testing medium.
- Test equipment and gauges shall be inspected by the contractor and confirmed to be in proper working order before testing is begun.
- Maximum test pressure and duration of the test shall be communicated to the contractor's authorized testing personnel and A/Z.
- Contractor to develop a Venting procedure for dissipating inert gas safely.
- Contractor shall develop a drain procedure to drain water or other fluids safely, without polluting drains or creating slippery conditions.
- Contractor shall review the JHA with all authorized personnel prior to the test.
- Testing shall be performed under the supervision of the contractor supervisor.
- Testing shall be conducted in accordance with pipe and testing equipment manufacturer's precautions and specifications.
- Test pressure shall not exceed the maximum allowable test pressure for any vessel, pumps, valves, or other components in the system.
- All repairs or adjustments to the system being tested shall be done only after the system pressure is safely and completely relieved and the test gauges indicate 0 PSIG pressure.
- Only mechanical devices, such as gate or ball valves shall be used for incremental release of flow in depressurizing systems. The opening or 'breaking' of flanges shall never be used as a means of depressurizing a tested system.
- Upon acceptance of the pressure test, pressure in the system shall be completely relieved so that the test gauges indicate 0 PSIG, and verified by contractor's supervisor.
- Contractor shall conduct all testing in accordance with applicable laws, codes, and ASME B31, B16 and related standards.

16. Crane Operations & Hoisting

The use of cranes, hoists, derricks, and elevators can present serious safety concerns and their use must be carried out in compliance with OSHA requirements 29 CFR 1926 Subpart N and Subpart CC. This applies to power-operated equipment used in construction that can hoist, lower and horizontally move a suspended load. Such equipment includes, but is not limited to: articulating cranes (such as knuckle-boom cranes); crawler cranes; floating cranes; cranes on barges; locomotive cranes; mobile cranes (such as wheel-mounted, rough- terrain, all-terrain, commercial truck-mounted, and boom truck cranes); multi-purpose machines when configured to hoist and lower (by means of a winch or hook) and horizontally move a suspended load; industrial cranes (such as carry-deck cranes); dedicated pile drivers; service/ mechanic trucks with a hoisting device; a crane on a monorail; tower cranes (such as fixed jib ("hammerhead boom"), luffing boom and self-erecting); pedestal cranes; portal cranes; overhead and gantry cranes; straddle cranes; side-boom tractors; derricks; and variations of such equipment. General requirements for the safe use of any of these pieces of equipment would include:

- A written A/Z Lift Plan and all supporting documents must be submitted to the A/Z Safety Department for approval prior to all lifts. A critical lift as described on the A/Z Lift Plan will require additional review by a Registered Engineer;
- All manufacturer's specifications, recommendations, and limitations must be followed;
- In all crane assembly and disassembly (A/D) activities the use of an A/D director with a thorough understanding of the procedures shall be required;
- Rated load charts, recommended operating speeds, special hazard warnings or instructions must be conspicuously posted on all equipment and complied with;
- A competent person must visually inspect all equipment prior to each use, and during use to make sure it is in safe operating condition in accordance with the manufacturer's recommendation and ANSI B30 Standard for the type of crane being inspected and the most current version. Any deficiencies must be corrected before the equipment can be used. This inspection shall be completed prior to each shift starting work;
- A thorough and documented 3rd party annual inspection must be performed on all crane equipment. The inspection record must be submitted to the A/Z Project Manager prior to operation;
- The crane operator(s) shall be proficient in the operation of the crane(s) and licensed in the State/City where the operation is being performed. Certification by the National Commission for the Certification of Crane Operators (NCCO) or equal is required. Copies of licenses and certifications must be submitted to the A/Z Project Manager prior to operation;
- Hand signals used to crane operators shall be those prescribed by the applicable ANSI standard for the type of crane in use. An illustration of the signals shall be posted at the job site. Proof of training documentation for qualified Signal Personnel must be submitted to A/Z Project Management prior to operation;

- Accessible areas within the swing radius of the rear of the rotating superstructure of the crane shall be barricaded in such a manner as to prevent an individual from being struck or crushed by the crane;
- A qualified rigger shall be identified on the A/Z Lift Plan for overseeing and supervising all rigged loads. Rigging equipment shall be inspected by the Contractors designated Competent Person prior to its initial use on the job site and prior to each shift thereafter to ensure that it is safe. Records of all inspections will be kept on the site and shall be made available to A/Z upon request. All rigging equipment that is defective or damages shall be immediately removed from the project site. The headache ball hook and all other rigging hooks, with the exception of "shake-out" hooks, must be equipped with a self-closing keeper or "mouse". Chain slings are prohibited from use for any lifting operation unless specifically designed for a unique application. All hooks used for overhead lifting shall be equipped with safety latches or alternate lifting methods such as clamps will be used. Shake-out/sorting hooks may only be used for unloading materials from trucks and will not be used for overhead lifting;
- All personnel shall be kept clear of loads about to be lifted and of suspended loads;
- "Tag Lines" shall be provided and used when hoisting all loads aloft;
- Except where electrical distribution and transmission lines have been de-energized and visibly grounded at point of work or where insulating barriers, not a part of or an attachment to the equipment or machinery, have been erected to prevent physical contact with the lines, equipment or machines shall be operated proximate to power lines only in accordance with 29 CFR 1926.550.

17. Steel & Precast Concrete Erection

A site-specific erection plan will be prepared by the Steel Erection Contractor's Qualified Person and reviewed with the A/Z Project Safety Coordinator and A/Z Project Superintendent prior to start of work. Erection of structural members will not begin until the erection plan has been submitted and reviewed. The Erection Contractor's Qualified Person shall approve all changes in the safety erection plan. A copy of the erection plan shall be maintained at the project site showing all approved changes with a copy provided to A/Z. The implementation of the erection plan shall be under the supervision of a competent person.

- A safe means of access to the level being worked shall be maintained. Climbing and sliding on columns or diagonals, is not allowed.
- Containers, buckets, bags, etc. shall be provided for storing or carrying bolts or rivets. When bolts, driftpins, or rivet heads are being removed, a means shall be provided to prevent accidental displacement. Tools shall be secured in such a manner to prevent accidental falling.

- Lifeline attachments, dynamic fall restraints and other fall protection provisions shall be considered during shop drawing preparation, shall be incorporated in fabricated pieces, and shall have safety lines or devices attached prior to erection wherever possible.
- A tag line shall be used to control all loads.
- For the protection of other crafts on the project, signs shall be posted in the erection area, "Danger Men Working Overhead" and only ironworkers allowed in this area. This will include shakeout areas, erection areas and the load travel path from the storage area to the erection area.
- When loads are being hoisted, all personnel are to be prevented from walking under the lift. No one shall be permitted to ride a lifting load under any circumstances.
- Crane Personnel Platforms will not be used for any purpose without the written approval of A/Z.
- Material shall not be hoisted to a structure unless it is ready to be put into place and secured.
- Bundles of metal decking or small material shall be so secured as to prevent their falling out from the rigging. All metal decking will be secured in place as soon as practical but in no instance will decking remain unsecured at the end of the workday.
- Christmas treeing (multiple lifts) of no more than three pieces is allowed.
- All team members engaged in all erection activities, including connecting, bolting-up, decking, welding, or any other activity that exposes them to a fall of 6 feet or greater to a lower level, shall be provided with and use fall protection.
- Neither “Controlled Access Zones” nor “Safety-monitor systems” are permitted.
- The exception contained within OSHA Standard 1926.501 (b) (12), allowing for a written fall protection program in lieu of other requirements is prohibited.

18. Noise/Hearing Protection

Excessive exposure to loud noises (>85-90 decibels) can damage hearing or cause a variety of other problems, including elevated blood pressure, headaches, and fatigue. Therefore, any team members exposed to noise levels of 85 dB or above must receive Hearing Awareness training and wear approved hearing protection. Earplugs and earmuffs are the most common forms of hearing protection. Each hearing protection device is assigned a Noise Reduction Rating (NRR). The NRR should be used in determining what type of hearing protection is acceptable for each situation.

19. Respiratory Protection

Engineering controls such as ventilation or containment are the most effective means of protecting against inhalation exposures to airborne contaminants. When these forms of controls are not feasible, respiratory protective equipment

will be required. To be effective, however, the contaminant and its concentration must be identified, the respirator must be properly selected, used, and maintained, and any person using a respirator must be properly trained and medically qualified. Any use of respirators must comply with the OSHA requirements described in 29 CFR 1910.134. Training and a thorough medical evaluation as required in the OSHA standard must be completed before respiratory protective equipment can be used, and documentation must be provided to support this.

20. Asbestos & Lead

Asbestos is found in a wide variety of building materials (roofing shingles, flooring tiles, roofing and flooring mastics, insulating materials, etc.) and is common in buildings constructed prior to 1980. Licensed asbestos abatement contractors will abate any materials known or suspected to contain asbestos within the scope of any A/Z project. If there are any questions or concerns about known or suspected asbestos-containing material, the A/Z Project Manager should be notified immediately.

Lead is commonly added to industrial paints because of its characteristic to resist corrosion. Any work involving welding, cutting, brazing, blasting, etc., on lead paint surfaces could result in employee exposures to lead. Activities that may disrupt painted surfaces should only be carried out after the paint has been tested to ensure that it does not contain lead. If paint is found to contain lead, a licensed abatement contractor shall be used to remove the lead hazard. If there are any questions related to lead hazards on this project, they should be directed to the A/Z Project Manager.

21. Interim Life Safety Matters for Occupied Facilities

Whenever construction affects a facility's ability to accommodate occupants (either because of disruption of services, interruption of normal operations, or when hazards are present), it will become necessary to implement interim life safety measures, as follows:

- Ensure that all exits are clear. This includes areas directly affected as well as all other exits.
- Ensure that there is free access to emergency services, that vehicles, material, etc. are not blocking the access route.
- Disabling of fire protection systems. A small disaster could escalate if the fire protection system is not functional. Care should be given to provide an alternate system while the primary system is off-line. This includes scheduled maintenance, upgrade, repairs, or adding of coverage resulting in disabling system, and disabling system to allow maintenance or repairs to be completed on other systems (e.g. hot work).
- Fire alarm, detection, and suppression systems must not be impaired. A temporary (but equivalent) system shall be used if the system is impaired. These temporary systems must be tested monthly.

- Temporary construction partitions shall be smoke tight and noncombustible. Adequate signage shall discourage casual observers from opening or entering the partitions.
- Additional (double) fire-fighting equipment must be provided, as well as personnel trained in its use.
- Smoking is prohibited in and adjacent to all construction areas. Strict enforcement must occur.
- Construction site shall be kept clean and orderly. This includes material piles, debris, platforms, and break areas.
- Fire drills/evacuation drills may be conducted at the discretion of A/Z and the Owner. Contractors are required to participate in these drills. Any costs incurred by the contractors related to these drills are the responsibility of the contractors.
- Hazard surveillance of sites shall be increased and documented. Attention is to be given to evacuation routes, construction areas, storage, office/lunch areas, and fuel storage.
- Whenever the safety of adjacent areas is compromised because of construction, staff shall be informed. Alternate exit routes shall be identified.
- The construction site must be restricted from all but authorized staff. Adequate signage shall be provided.
- Alternate access must be provided for public and emergency traffic whenever disruption occurs.
- Effective storage, housekeeping, and debris-removal policies and procedures must be in place to reduce collection of combustibles in construction areas.
- Whenever fire zones are altered, the owner's staff will be informed in regard to new or different life safety measures regarding their changed compartmentation and fire safety.

22. Emergency Procedures

Each Subcontractor must train their team members on the proper procedures for responding to emergencies (medical emergencies, fires, evacuations, etc.) on the worksite. Project-specific information to be covered would include:

1. Emergency Phone Numbers
2. Evacuation Alarms and Procedures
3. Evacuation Assembly Areas
4. Incident Reporting Procedures
5. Nearest Medical Facility
6. Poison Control Phone Number

23. Injury Management

A/Z has an aggressive Injury Management Program, which ensures that our team members receive the best care, A/Z Corporation is informed of any injuries in the field, and that injuries are properly and accurately reported and recorded when required. All injuries, no matter how minor, must be reported to the A/Z Project Management Team immediately.

Copies of all Incident Reports (First Report of Injury forms), investigation reports, and other paperwork shall be submitted within 48 hours to the A/Z Project Manager. Additionally, A/Z will conduct an accident investigation concurrently with the Trade/Sub Contractor.

It is strongly suggested by A/Z that all Trade Contractors adopt an aggressive Injury Management Program if you do not already have one. This program reduces OSHA Recordable Cases, saves money in insurance and lost time costs, and allows team members to go back to work as soon as possible.

24. Safety Violations

All contractors and suppliers shall participate in the project safety plan. Should an eminent dangerous condition be discovered, all work in the area of danger will be stopped until corrections are affected. Should A/Z find contractor areas of work or individuals being or acting in non-compliance with OSHA or the Project Safety Plan, A/Z shall have the authority to order immediate correction of the noncompliant occurrence.

A/Z will conduct weekly safety inspections to ensure compliance with all Federal, State, Client, and A/Z requirements. Our clients may also conduct job site inspections at any time. All Trade/Subcontractors will be required to comply with all applicable safety regulations and requirements, specifically Federal OSHA standards, A/Z standards, and our client's safety program (the more stringent requirement will prevail). If a Contractor fails to meet these requirements, A/Z reserves the right to issue a safety violation. All safety violations will be assessed against the Contractor, not the Contractor's employee.

All costs of correction shall be borne by the Trade contractor deemed responsible. If more than one contractor is deemed responsible, A/Z's division of responsibility shall be final. Nothing contained herein, however, shall serve to relieve the contractor of their liabilities and/or obligations under OSHA as well as other applicable Federal, State, and local requirements as well as the Project Safety Plan.

A/Z will issue a written, 24-hour notice in this regard requiring immediate response by the contractor. Repeated violations or lack of cooperation with regard to the Project Safety Plan by team members of a contractor will indicate non-compliance with provisions included in the contract and may be reason for the employee being barred from the project site and/or for termination of the contractor's contract. Failure to abate the violation or continued failure to comply with the Basic Safety Rules and Regulations may result in a monetary fine. A/Z may withhold payment of any sums due contractors for failure to follow the Project Safety Plan policies and procedures. These funds will be used to fund a

reward/incentive program for those who work and are safe individuals or groups. Any money remaining at the completion of the project will be donated on behalf of all workers and companies employed on the project to a local charity.

The following depicts the fines that may be assessed for safety violations. A/Z reserves the right to assess fines on any safety violations not specifically covered here:

Safety Violation	1st Offense	2nd Offense	3rd Offense
Clothing not adequate	removal	$100/ removal	$200/ removal
Confined space violation	$200/ removal	$500/ removal	$1,000/ removal
Electrical cord defective or no use of GFCI	$100	$250	$500
Electrical cords not protected on floor or not raised	$100	$250	$500
Equipment violation or use of defective or damaged tools	$100	$250	$500
ANSI rated eye protection missing	$100	$250	$500
Failure to protect public	$100	$250	$500
Fall protection not present or failed to be utilized	$200	$500	$1,000/ removal
Fire extinguisher missing	$100	$250	$500
Fire watch missing	$100	$250	$500
Possession or use of firearms, illegal drugs, or alcohol	$200/ removal	$500/ removal	$1,000/ removal
ANSI rated safety toed footwear not adequate	$100	$250	$500
Gas cylinders stored incorrectly/not identified	$100	$250	$500
Horseplay, fighting or theft	$200/ removal	$500/ removal	$1,000/ removal
Hand protection missing	$100	$250	$500
ANSI rated hard hat missing	$100	$250	$500

Safety Violation	1st Offense	2nd Offense	3rd Offense
Hearing protection missing	$100	$250	$500
Hot work permit missing	$100	$250	$500
Housekeeping poor	$100	$250	$500
Ladder defective	$100	$250	$500
Extension ladder not secured	$100	$250	$500
Lockout violation	$200	$500	$1,000/ removal
Material storage improper	$100	$250	$500
SDS missing	$100	$250	$500
Open floor hole	$200	$500	$1,000
Safety orientation not attended	$100	$250	$500
Improper use of extension and/or stepladder	$100	$250	$500
Scaffold erection and/or use violation	$100	$250	$500
Smoking in non-designated area	$100	$250	$500
Standing on top of ladder	$100	$250	$500
Tool box safety meeting not held	$100	$250	$500
Traffic citation	$100	$250	$500
Trench/excavation permit missing	$200	$500	$1,000
Trenching violations	$200	$500	$1,000/ removal
Uncertified lifting device	$100	$250	$500
Written specific activity JHA or Daily SPA missing	$100	$250	$500
Failure to immediately report an accident or injury	$100	$250	$500
Performing live electrical hot work without an A/Z permit of	$200	$500	$1,000

Note: A/Z reserves the right that any offense may result in the immediate removal of the offending person from the project. **Repeat offenses will result in the removal of companies from A/Z's Subcontractor List.**

25. Employee Behavior

No Contractor shall use, possess, purchase, sell, transfer, or be under the influence of alcohol, drugs or other controlled substances on any A/Z project site or while operating equipment. Additionally, substance abuse that affects a Contractor's work performance or results in the Contractor being under the influence or impaired while working is also prohibited. Substance abuse includes the misuse of alcohol, drugs, or other substances that have known mind or function altering effects on a person. Prohibited substances include any psychoactive or controlled substances, except as legally prescribed by a licensed physician and used in accordance with the prescription.

Consistent with our policy of equal employment opportunity, harassment in the workplace based on a person's race, sex, sexual orientation, religion, national origin, age, or disability will not be tolerated. Any employee caught in such activities will be subject to immediate discipline. Contractors are expected to conduct themselves in a professional manner. Foul language, rude gestures, and offensive clothing have no place on an A/Z project site.

26. Safety Absolutes

To ensure the health and well-being of our Trade Contractors these safety absolutes are meant to ensure avoidance of specific exposures in certain circumstances that are known to have significant risk and significant impact. This policy applies to all work performed. Any deviation, unless spelled out specifically in the policy, requires the permission of the A/Z President or their designee.

Additionally, A/Z implements and expects our Trade Contractors to adopt a Zero Tolerance standard for violations of the following:

1. Fall Hazards from Elevated Heights
2. Safe Electrical Work Practices
3. Confined Space Entry
4. Excavations and/or Trenches
5. Job Hazard Analysis and/or Safe Plan of Action
6. Control Access Zone
7. All Operated Equipment & Vehicles
8. Distracted Driving

27. Safety Absolutes Definitions

Below are the minimum measures to be administered for the A/Z safety absolutes:

A. Fall Hazards from Elevated Heights

Trade Contractors working where fall hazards exist as outlined in A/Z's and/or host facility's fall protection program, not protected or secured from falling by one of the OSHA and A/Z approved methods (guard rail system, safety nets or 100% tied off). Note: Any deviation from this requirement must have a written Job Hazard Analysis that must be approved by the Director of Safety or designee.

B. Safe Electrical Work Practices

Trade Contractors not following A/Z and/or host facilities safe electrical work practices (electrical safety in the workplace (NFPA 70E) - lock and/or tag out) program(s).

C. Confined Space Entry

Trade Contractors and their foreman observed or discovered after the task without a preplanning meeting and/or a permit or working in or entering a confined space.

D. Excavations and/or Trenches

Trade Contractors in trenches or excavation exceeding 5'-0" in depth, observed or discovered after the task, without OSHA compliant systems.

E. Job Hazard Analysis (JHA) and/or Daily Safe Plan of Action (SPA)

Before conducting any physical project work a JHA and DAILY SPA must be obtained which:

- Defines the scope of work.
- Identifies the hazards and assesses risk.
- Establishes control measures to eliminate or mitigate hazards.
- Links the work to other associated work permits or simultaneous operations.
- Is authorized by the responsible person(s).
- Communicates above information to all involved in the work.
- Ensures adequate control over the return to normal operations.

F. Control Access Zone

Trade Contractors crossing or removing red (danger) tape without permission from an authorized member of the crew performing work within the danger zone. Radiation tape is the same as red (danger) tape.

G. All Operated Equipment and Vehicles

Trade Contractors knowingly operating equipment with faulty safety systems without the project manager's/superintendent's approval and an alternate Job Hazard Analysis in place.

Trade Contractors operating equipment without proper certifications/licenses or not classified as a Novice Operator.

Trade Contractors inappropriately using equipment and/or not following OSHA, A/Z policies and the manufacturer's operating requirements.

Trade Contractors operating equipment within the caution zone (usually defined as 20') of an overhead power line, without a specific activity plan that follows A/Z procedures and has the approval of the appropriate levels of review.

Operators who make unplanned contact with known (or should have been known) live utilities, whether they are overhead, underground, above ground, or concealed such as (live electrical, chemical, oil and gas, or other forms of distribution lines) without having taken all standard precautions.

Trade Contractors performing critical lifts (loads > 75% chart capacity etc.) with hoisting equipment without completing the A/Z "Pre-lift Checklist" with review and sign off.

H. Distracted Driving

Trade Contractors engaging in any of the following prohibited distracted driving behaviors:

- Texting.
- Any use of a cell phone's or smartphone's applications or features unless able to use hands-free.
- Programming of a phone's applications, features, or any other electronic device is prohibited while driving. Example: GPS, computer, IPOD, MP3 Player, or similar devices. Your normal car controls, climate, radio, etc., are approved to be adjusted while driving.
- Reading and writing while driving is prohibited.
- Eating a meal and/or personal grooming. Personal grooming can be very distracting as you are usually looking at your task, not the road. Eating while driving is prohibited unless it is a snack-like food or non-alcoholic beverage.

28. Safety Absolutes Accountability

Disciplinary Measures to be applied as a minimum for any violation listed as safety absolutes:

A. First Offense

At a minimum, three full days dismissal from A/Z sites, (example: violation happened on a Wednesday so the Trade Contractor is not eligible to return to work until the following Tuesday after a time lapse of three business days) and documented warning notice. A Lesson Learned investigation conducted by the Trade Contractor project management and submitted to the Director of Safety. If termination is warranted after this first offense the Trade Contractor may be considered for work on A/Z projects after 12 months; however, rehire requires the approval of the President. For equipment violations, the Trade Contractor certification to operate for that specific piece of equipment will be revoked for A/Z sites. Recertification is required following the 30-day suspension. The Regional Vice President and the President may enforce stricter penalties depending on the individual situation.

B. Second Offense

(within one year from the first offense): Immediate termination documented in writing. Trade Contractor may reapply to work on A/Z projects after 12 months; however, rehire requires approval of the President and the Regional Vice President.

These minimum disciplinary measures can be increased up to permanent removal from A/Z projects for the first offense if warranted by accumulative unsatisfactory performance or willful behavior because of the potential risk of serious injury or death upon approval by the President or Regional Vice President.

In order to ensure fairness in the process, any termination of a Trade Contractor, due to an accountability issue, will require concurrence of the next highest level of authority. Any individual who feels they have not been treated fairly will be given the opportunity to discuss their situation with the President or Regional Vice President.

As a minimum standard: Any manager or supervisor who knowingly allows a violation or an unsafe practice as covered in this Safety Absolutes policy and procedure is subject to disciplinary measures, to include termination.

29. Stretch & Flex Policy

To ensure the health and well-being of our Trade Contractors. This policy applies to all work performed. Any deviation, unless spelled out specifically in the policy, requires the permission of the President or the designee. Stretch & Flex shall be performed daily.

- Participation in the stretching programs is required and should be conducted during the morning safety briefing.
- The stretch and flex component should not exceed 10 minutes.
- Trade Contractors should engage in this program to the extent that their judgment and physical capabilities allow and should not perform motions that may aggravate previous injuries or other physical conditions. A discussion with your medical provider is highly recommended before participating in any stretch and flex program.
- Initially, the Project Manager, Superintendent, or Field Leader should conduct an introduction to the program and overview of strains and sprains. Subsequently, those same individuals or a designated volunteer should then lead the daily stretching program, at the start of the shift, by using the examples provided below. When stretching, be sure to introduce the stretch gradually and take care not to overdo. Give appropriate instruction and feedback if performed incorrectly.

30. Stretch & Flex Movements

- Before each stretch, relax and stand with your feet shoulder-width apart and knees slightly bent.
- Keep your back straight by contracting your abdomen.
- Do the stretches at your own individual rate and ability. Remember, you are not competing.
- Stretch to the point of comfortable tension. Do not strain or bounce when stretching.
- Breathe in a relaxed manner.
- Hold each stretch for the correct count.

STRETCHING POSTER

Arm Swings
- Swing arms across the body
- Alternate arms on top and bottom
- Slightly slap your sides as you swing

10 repetitions

Shoulder Rolls
- Lift and roll shoulders and arms together
- Roll shoulders forwards then backwards

5 repetitions each direction

Overhead Stretch
- Clasp hands together
- Press above your head until your arms are straight
- Keep elbows extended
- Try to pull elbows behind your ears

10 second hold

Triceps Stretch
- Reach one hand down the middle of the back
- Place your other hand on your elbow
- Apply pressure into the hand

10 second hold each side

Lateral / Finger Stretch
- Place one hand on hip
- Reach your other arm straight over your head
- Spread your fingers
- Lean toward the hip being held

10 second hold each side

Upper Back Stretch
- Clasp your hands together
- Push your arms straight in front of you
- Push your belly button toward your spine
- Back will be rounded

10 second hold

Biceps Stretch
- Bring arms up, and straight out to your sides (form a "T")
- Thumbs down behind you
- Move your arms back until a stretch is felt

10 second hold

Chest Stretch
- Place the backs of your hands on your lower back
- Spread your chest and squeeze your shoulder blades together
- Keep your chin and chest high

10 second hold

Head Tilt
- Tilt head keeping shoulders horizontal and nose to the front
- Lift opposite arm up
- Press palm down and pull fingers up
- Press opposite hand on shoulder of arm being stretched

10 second hold each side

March with Core
- Lift one knee up
- Place both hands on top of each other on the knee that is up
- March in place while alternating hands from knee to knee
- Crunch abs like an accordion when hands meet the knees

10 repetitions

Squats
- Stand with feet shoulder width apart and chin and chest up
- Reach hips back and then bend at the knees
- Stay back on the heels with arms straight to the front
- Be sure the knees are in line with your toes

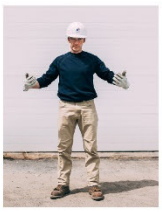
3 repetitions

Hamstring Stretch
- Put one leg in front of you, resting on the heel
- Place hands above the knee on opposite leg
- Bend forward bringing your head to your knee
- Stretch is felt in the back of the front leg

10 second hold each side

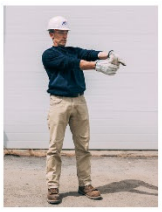
Quad Stretch
- Assume lunge position
- Shift hips slightly forward and down
- Place arms at 90 degrees and rotate the trunk toward front leg
- Stretch is felt in the hip flexor and quad muscles of the back leg

5 rotations each side



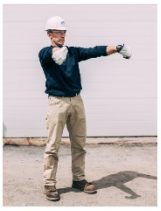
Hand and Wrist Shakes
- Shake your hands and extend the fingers of both hands
- Clench fists in and out rapidly like you would if your hands were asleep

5 seconds



Wrist Extension
- Put one arm in front of you with palm up
- Apply pressure with the opposite hand to the palm
- Raise your arm up until you feel a stretch in the arm

10 second hold each side



Supination and Pronation
- Make a fist and put both arms out in front of you with palms down
- Rotate your hands and wrists 180 degrees until your palms are facing up

10 rotations

Visualization
- Stand tall with your head and neck straight.
- Close your eyes and relax your jaw muscles
- For the next 30 seconds, breathe deeply as you visualize your days' work, eliminating hazards, working with others, and taking pride in a job well done.

When you are stretching, be sure to introduce the stretch gradually and take care not to overdo. You should only stretch to the point of mild discomfort. Know your body and don't stretch anything that causes pain. If any stretch causes you continued pain, you should avoid it and notify your safety specialist or supervisor.

Key Components
- Take your time and do not rush
- Do each stretch gently
- Focus attention on the muscle being stretched

Why We Stretch
- Prepare muscles for daily activity
- Improve range of motion
- Prevent injuries
- Promote muscle recovery from overuse
- Relax your mind and tune-up your body

Daily Focus For Leading Stretches
- Introduce stretch to be performed
- Hold for correct count
- Give appropriate instruction
- Give feedback if performed incorrectly

Supervisor's Report of Incident (SRI)

APPENDIX A

Immediate verbal notification to the Safety Department must occur upon learning of an incident. Refer to the last page for contact information. The SRI shall be filled out by the A/Z Supervisor and forwarded to the Safety Department as soon as possible following the incident. This report is for internal use only and is NOT to be forwarded to the Client Representative.

Report Prepared By:	Date of Report:	Time:
Incident Date: Incident Time:	Date & Time Supervisor was Notified of Incident:	
Project Name & Address Where Incident Occurred:		Job #:
Incident Type: ☐ Near Miss ☐ Injury ☐ Illness ☐ Motor Vehicle ☐ Property Damage ☐ Environmental Impact		
Safety Representative Notified:	Date:	Time:
Name of Client Representative Notified:	Date:	Time:
Potential Client Impact: ☐ Low ☐ Medium ☐ High		

Employee Information

☐ A/Z Team Member – Division:	☐ Subcontract Employee – Company:
Team Member Name:	A/Z Team Member Clock #:
Date of Birth: Job Title:	Driver License #:
Immediate Supervisor:	Supervisor's Phone #:

Injury/Illness/Incident Information

What was the individual doing just before the incident? Describe the activity, tools used, equipment, materials, etc.:
What happened? Explain in detail how the incident occurred:
Parts of Body Directly Affected *(hand, arm, face, etc.)*: ☐ Left ☐ Right
Initial Treatment: ☐ No Medical Treatment ☐ Minor On-Site Treatment ☐ Clinic or Hospital ☐ Ambulance Transport Name & Location of Treatment Facility:

Cause Analysis (Check All Applicable)

Type of Event	**Contributing Conditions**	**Contributing Behaviors**	**Preventative Actions**
☐ Body Motion/Body Position ☐ Caught In/Under/Between ☐ Contact By/Contact With ☐ Explosion/Fire ☐ Exposure ☐ Over-Exposure ☐ Over-Exertion ☐ Slip/Trip/Fall ☐ Struck By/Struck Against ☐ Vehicular Accident ☐ Other:_____	☐ Duties or Task Not Clear ☐ Equipment or Tool Defective/Failure ☐ Equipment or Tool Unavailable ☐ Ergonomic Factors ☐ Lighting/Temperature/Ventilation ☐ Procedure Lacking or Unclear ☐ Training Lacking or Incomplete ☐ Work Area Setup/Arrangement ☐ Work Area Clutter ☐ Unrecognized Hazard ☐ Other:_____	☐ Assistive Device Not Used ☐ Failure To Get Assistance ☐ Improper Tool/Equipment Used ☐ Inattention To Task ☐ Lack of Communication ☐ Procedure Not Followed ☐ Protective Equipment Not Worn ☐ Rushing or Hurried ☐ Safety Features of Devices Bypassed ☐ Unbalanced or Poor Position or Motion ☐ Other:_____	☐ Develop/Revise Safety Procedure ☐ Improve/Maintain Good Housekeeping ☐ Maintain Tools/Equipment ☐ Post Safety Signs ☐ Revise JHA ☐ Provide Protective Equipment ☐ Remove Equipment from Use ☐ Schedule Safety Training ☐ Other:_____

Supervisor's Report of Incident (SRI)

Cause Analysis

Was there equipment involved? Yes No If yes, what was the equipment?	Did equipment malfunction cause the incident? Yes No If yes, remove the equipment from service, tag it for identification, store it securely, and notify the Safety Department.

Corrective Action Plan (Refer to Cause Analysis Section)

What actions shall be taken to avoid a recurrence of this type of incident? (State who, what, engineering changes, procedural changes or development, rules, regulations, specifications, specific training, disciplinary, etc.)

Management Review and Approval

Supervisor:	Initial:	Date:
Project Manager:	Initial:	Date:
Safety Coordinator:	Initial:	Date:
Operations Manager:	Initial:	Date:
Safety Director:	Initial:	Date:

Comments

NOTE: Attached to this report MUST be a written statement from the individual(s) involved in the incident, as well as any photographs and/or diagrams of the incident scene.

Job Hazard Analysis (JHA)

APPENDIX B

Project Name:		Emergency Phone:	
Project Number:		Author of JHA: Date Created:	
Location:		Project Manager:	Cell:
		Project Superintendent:	Cell:
Client Contact:	Cell:	Safety Representative:	Cell:

Safety glasses (with side shields), safety shoes (steel toe or composite), hard hats, cut-level A4 gloves and high-visibility vests are required at all times on this job. Housekeeping will be performed daily and as needed throughout the day to ensure a clean and safe work environment.

Description/Scope of Work:

List of Tools and Equipment Used to Perform Work:	List of Chemical Products Used (MSDS must be Attached):

Job Steps	Risk Rating:	Potential Hazards	Recommended Safeguard Actions	Haz. Mgnt. Procedure
Describe what is done during each job step. Not too broad - not too fine. List the natural steps of the job. Use additional sheets if necessary.	Rank hazards: 1. High 2. Medium 3. Low	What can happen at each step? List according to accident type, examples are: • *Struck By* • *Caught On* • *Contacted By* • *Caught Between* • *Struck Against* • *Fall* • *Contact With* • *Strain/Overexertion* • *Trapped In* • *Exposure* • *Cut/Laceration* • *Burns*	Describe specific precautions in detail for each step and each hazard. Question the basic job method. If the methods you are utilizing to complete the task are extremely hazardous, ask yourself if it is necessary to perform the task by this method or if other less hazardous methods are available.	What procedures/policies/permits will be in place or who will be assigned as the accountable party/parties to ensure the recommended safeguard actions are implemented.
Step 1 –				

Job Hazard Analysis (JHA)

Step 2 -				
Step 3 -				
Step 4 -				
Step 5 -				
Step 6 -				
Step 7 -				

Job Hazard Analysis (JHA)

Step 8 -
Step 9 -
Step 10 -

I have read and understood the Job Hazard Analysis for this project. My signature below indicates that I am aware of and have been briefed on the specifics of the Job Hazard Analysis for this particular job.

Name (print)	Date	Signature

Remember – Doing your job right also means doing your job safely.

Report all incidents and injuries to the A/Z Project Team immediately!

A/Z Safety Department

Joe Hunter	Safety Manager	857.505.1948	**Joe Schelling**	Safety Coordinator	860.941.7233
Jeff Beck	Safety Coordinator	908.455.0489	**Paul Sarrategui**	Safety Coordinator	774.401.6205
Aidan Quinn	Safety Coordinator	860.336.9514	**Erik Golobic**	Safety Coordinator	860.912.1123
Cailey Meagher	Safety Coordinator	860.912.1114	**Nick Fitzgerald**	Safety Coordinator	860.941.8837

A/Z Safety Notification for After Business Hours: 800.400.2420 x 3333