Layton
CONSTRUCTING WITH INTEGRITY

LAYTON CONSTRUCTION COMPANY, LLC

2023

Project Safety Management Plan

SAFETY 360°
EVERYBODY | EVERYWHERE | EVERYDAY

PSMP Change Log

12/2002

The Safety Declaration is updated for 2023, to include 1) references to federal, state, and local requirements, 2) a change in the fall protection section recommending, instead of requiring, self-retracting lanyards (yoyos), and 3) updated branding, pictures, and language.

12/2022

The Severe Weather or Other Natural Disasters section was updated to include additional information and to direct project teams to create an applicable severe weather plan depending on their region. Lightning instructions were also added.

12/2022

The Utility Protection Policy section is updated to add overhead utilities in the first paragraph.

12/2022

The Excavation and Trenching section was re-worded to clarify expectations and requirements.

12/2022

The entire PSMP includes updated branding, pictures, and language.

Acknowledge of Receipt and Compliance Agreement

I have received and read the Layton Project Safety Management Plan

I have received, read, and understood the Layton Construction Company LLC (Layton) Project Safety Management Plan (PSMP).

On all Layton projects, I agree that my company, its workers, all levels of my company's lower-tier subcontractor companies, and all levels of my company's lower-tier subcontractor workers will comply with federal, state, and local environmental, safety, and health requirements and will conform to the requirements of the Layton PSMP. If there is any difference between a Layton requirement in the PSMP and a federal, state, or local requirement, the more stringent requirement will apply.

Project Name: _____

Project Location: _____

Company Name: _____

Printed Name of Principal: _____

Title of Principal: _____

Signature of Principal: _____ Date: _____

Project Information

Project Name: _____

Project Number: _____

Project Address _____

Project Superintendent: _____

Project Superintendent Phone: _____

Project Manager: _____

Project Manager Phone: _____

Project Safety Professional: _____

Project Safety Professional Phone: _____

Scope of Work: _____

_____

_____

_____

_____

Safety Declaration

Safety and accident prevention must be a part of the bid preparation when choosing to work with Layton Construction. When bids are presented, it is understood that the submitting company will meet regulatory and Layton standards for safety and accident prevention on all Layton projects, as outlined in this Safety Declaration and more thoroughly specified in the Layton Project Safety Management Plan. When a Layton requirement and a federal, state, or local requirement differ, the more stringent requirement will apply.

Trade Partner Pre-Mobilization

Prior to mobilization, each trade partner's project management and field supervisors will attend a pre-mobilization meeting led by the Layton project team. Trade partner field supervisors will discuss detailed project-specific safety hazards and describe how they and their lower-tier subcontractors intend to implement and conform to the Layton Project Safety Management Plan (PSMP).

Daily All-Hands Production/Safety Huddle

As led by the Layton project team at the beginning of each shift, all trade partner employees and lower-tier trade partner employees will participate in warm-up/stretching exercises, a meaningful discussion of planned work activities, and a critical review of each trade partner's pre-task plan.

GENERAL REQUIREMENTS

The stricter of 29 CFR 1926 and the Layton Project Safety Management Plan (laytonconstruction.com)

Trade Partner Supervision and Safety Inspection and Oversight Requirements

Each trade partner and lower-tier subcontractor supervisor should have OSHA 30-hour training. Each trade partner will provide an on-site, full-time safety professional when the trade partner and its lower-tier trade partners collectively have 50 or more employees on site, unless the trade partner is working under a Layton Corrective Action Plan, where a full-time safety professional may be required for fewer on-site employees. Trade partner supervisors will complete documented weekly safety audits in the Construct PM mobile app. These audits will describe the corrective actions taken for hazardous or non-compliant issues found.

Crew Pre-task Planning

Prior to beginning its work tasks, each trade partner work crew supervisor will engage in a meaningful pre-task planning meeting. Each planning meeting must be an open discussion between the supervisor and the workers accountable to the supervisor, completed in the work area when possible. Supervisors must analyze tasks to be performed and identify the work sequence, hazards, training, controls, tools, and emergency action plans necessary to protect the workers. Tasks, especially high-hazard tasks, must be described, and the means to implement each task's hazard control methods must be communicated. Supervisors must ensure that workers understand the hazards and hazard control expectations beyond the use of PPE. At least daily, each supervisor must submit in the Construct PM mobile app the crew's completed pre-task plan.

30-foot LaPSZ (Layton Personal Safety Zone)

The LaPSZ (Layton Personal Safety Zone) is the 30-foot bubble surrounding an individual. It is that individual's duty to watch for people, equipment, traffic, and other hazards and at-risk behaviors appearing within the 30-foot LaPSZ. All individuals on a Layton project are obligated to stop at-risk work and behavior within their 30-foot LaPSZ and to commend safe work and behavior.

Maximum Lifting Weight for Workers

No lift shall exceed 75 pounds unless a lift plan is approved by the Layton project team.

Weekly Trade Partner Coordination Meeting

Each trade partner supervisor will attend a weekly planning, coordination, and safety meeting led by the Layton project team.

Disciplinary Action

Trade partner and lower-tier subcontractor workers who fail to abide by the requirements of the Layton Project Safety Management Plan may be suspended or removed from the site. This is intended to preserve safety-conscious working conditions for all workers and encourage each employee to be responsible and conscientious.

Incident Reporting

All incidents (injuries, illnesses, property damage, close calls) will be reported immediately to the Layton project team, regardless of the actual or potential consequences. On a case-by-case basis, as determined by the Layton project team, post-incident drug testing may be required for anyone involved in an incident involving injury or property damage.

Personal Protective Equipment

Unless the task requires a higher level of personal protection, at a minimum, clear eye protection conforming to ANSI/ISEA Z87.1, hard hats conforming to ANSI/ISEA Z89.1, high-visibility apparel conforming to ANSI/ISEA 107 Class 2, and gloves conforming to ANSI/ISEA 105 Cut Level A3 will always be worn on the site outside of an office setting or an enclosed cab. Protective footwear conforming to ASTM F2413 will be worn at all times on the site.

Housekeeping

Each trade partner will practice good housekeeping. Each trade partner will remove trash and debris during and after each shift. Cords and hoses will be elevated, bridged, buried, or controlled to eliminate trip hazards and reduce damage from equipment travel. Work areas will be kept organized and free from clutter. Walkways and stairs will be kept clear.

Fall Protection

Each trade partner will abide strictly by Layton's safe work practices when working from heights. When exposed to a fall of six feet or more, fall protection must be used. When engineering controls do not eliminate the fall hazard, 100% tie-off is required using a full-body harness fully compliant with 29 CFR 1926 Subpart M. Shock absorbing lanyards are prohibited; self-retracting deceleration devices (yoyos) are recommended. When using ladders, each trade partner will follow the Layton Ladder Tag process.

Equipment Operation

Equipment operators must show proof of training. All equipment must be operated and maintained in strict accordance with the manufacturers' written instructions.

Signature CEO/Principal _____ Date _____

Company _____ Name _____ Title _____

Environmental Safety and Health Commitment

At Layton Construction, the commitment to environmental, safety and health is an extension of our philosophy of Constructing with Integrity.

Our commitment to safety excellence is emphasized by:

- Management's commitment and accountability to provide a safe and healthy work environment.
- Encouraging open communication between all project personnel and soliciting input, support, and action to achieve an injury-free environment.
- Providing training and equipment to help ensure employee safety and project success.
- Promoting safety as a value rather than a directive and extending that value into all areas of our lives.

At the Layton Companies, environmental, safety and health are everyone's responsibility. As a condition of employment with Layton Construction, all employees are accountable to adopt safety as a value and comply with the best practices of the highest level of environmental, safety and health standards and guidelines.

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Layton Construction Standards of Environmental, Safety, and Health

The purpose of Layton Construction's environmental, safety, and health (ESH) standards is to assist project management, subcontractors, and field employees in understanding Layton Construction's Safety 360 philosophy and the ESH expectations and requirements for its projects. The ESH standards within this document represent the expectation of performance on **every** Layton Construction project.

Safety 360

Layton Construction is committed to an injury-free environment. Safety 360 is the shared corporate and individual belief that safety is a value not compromised by cost or schedule. Everyone has the right to go home safely at the end of the day. Safety 360 has three basic premises:

- All incidents and injuries are preventable – no level of incident or injury is acceptable
- Injury-free operations are possible in construction – if a prevailing mindset and conviction exists to do the right thing and to do what is necessary to achieve that state
- Elevate safety awareness daily – a journey of continuous improvement to advance safety and achieve a heightened state of awareness where field employees are responsible and accountable for their own safety and the safety of their co-workers

An injury-free environment includes a willingness to adapt to any new safety initiatives implemented during construction by the Layton Construction project team emphasizing the continual improvement process to protect field employees.

Responsibility and Accountability

Everyone associated with the project must understand his or her responsibilities concerning ESH on the project. With the responsibilities defined, project management, supervision, subcontractors, and craft workers will be held accountable for their ESH performance.

Project management includes project executives, project directors, project managers, project superintendents, project engineers, and the ESH vice president/ESH team leaders.
Front-line supervision includes general superintendents, superintendents, field engineers, general foremen, and foremen.

The matrix on the following page (Table 1) serves to associate tasks with position(s) responsible.

TABLE 1 Accountability Matrix

SUBJECT	PROJECT MANAGEMENT WILL ENSURE THAT:	FRONT-LINE SUPERVISION WILL ENSURE THAT:	CRAFT EMPLOYEE WILL:	SUBCONTRACTOR SITE-SAFETY REPRESENTATIVE WILL:
Project Management Plan (PMP)	All project team members participate in preparing the PMP.	Aspects of the PMP pertaining to ESH are communicated in site orientations to the craft workers.	Be required to participate in site specific orientation to understand the content of the PMP.	Support the team in preparing the PMP and identify ESH risks and how to mitigate them.
Project Safety Management Plan (PSMP)	The PSMP is fully understood, implemented, and complied with by Layton Construction, subcontractors, vendors, or third parties working or visiting the project.	The PSMP is fully understood, implemented in work planning, and communicated to craft workers. The project is compliant with all aspects of the PSMP.	Be required to participate in site-specific orientation to understand the content of the PSMP and the established ESH policies, rules, procedures, and initiatives.	Understand and support the implementation of the content of the PSMP and the established ESH policies, rules, procedures, and initiatives.
Work Practices	Front-line supervision is communicating safe work practices to all craft workers.	All work tasks and expectations are properly communicated to craft workers and that all craft understand and comply.	Understand and follow the established ESH policies, rules, procedures, and initiatives as communicated to them by their supervisor.	Ensure the project conforms to the PSMP and established ESH practices, and complies with federal, state, local regulations and company rules and procedures.
Site-Specific ESH Rules	The site-specific ESH policies, rules, and procedures, and initiatives are implemented and enforced by front-line supervision.	The site-specific ESH policies, rules, and procedures, and initiatives are understood, communicated, implemented, and enforced.	Understand and follow the established site-specific ESH policies, rules, procedures, and initiatives as communicated to them by their supervisor.	Assess project conformance to site-specific ESH policies, rules, procedures, and initiatives. Document assessments of ESH conformance in Construct PM as issues.
Site Orientation	Resources are available to conduct effective and meaningful site orientation for all workers. Project management participates in site orientations.	Front-line supervision participates meaningfully in site orientations. Craft workers attend site orientation prior to beginning work on the site.	Attend site orientation prior to beginning work on the site. Understand and follow the established ESH policies, rules, procedures, and initiatives covered in the orientation.	Support the project management team and front-line supervision in the implementation of the policies, rules, procedures, and initiatives covered in the orientation.

SUBJECT	PROJECT MANAGEMENT WILL ENSURE THAT:	FRONT-LINE SUPERVISION WILL ENSURE THAT:	CRAFT EMPLOYEE WILL:	SUBCONTRACTOR SITE-SAFETY REPRESENTATIVE WILL:
ESH Training	Resources are available to develop and implement effective and meaningful ESH training. Training records are maintained. Training records are produced, when required.	Front-line supervision conducts pre-mobilization meetings prior to a subcontractor starting work. All craft employees are effectively and properly trained in hazard recognition and safe work practices applicable to their work.	Attend all required project ESH training. Understand and follow the work practices, rules, and procedures discussed during training. Have training completion documents available onsite.	Ensure that the project management team, front-line supervision, and craft employees have received effective and proper ESH training. Assist project front-line supervision in training craft on hazard recognition and safe work practices.
Safety Planning	The prequalification system is utilized for subcontractor selection. Front-line supervision identifies, evaluates, and controls the project site risks, and provides resources to implement effective and reliable risk controls. Front-line supervision pauses work when something changes, when the work is not going according to the plan, or when work is assigned that has not been planned.	An effective and thorough pre-task plan is conducted for all work, involving all members of the work crew. Pre-task planning identifies the work steps and tasks to be completed, the hazards and risks associated with the work tasks, and the means to control those hazards and risks. Craft pause work when something changes, when the work is not going according to the plan, or when work is assigned that has not been planned. Completed pre-task plans are uploaded in Construct PM.	Fully participate in each pre-task planning meeting. Understand the work steps and tasks, the hazards and risks of the tasks, and the required practices to control the hazards and risks. Implement the hazard and risks controls. Pause work when something changes, when the work is not going according to the plan, or when work is assigned that has not been planned.	Assist in evaluating hazards and risks. Assist in determining methods of eliminating or reducing the hazard, utilizing the hierarchy of controls. Complete daily and weekly inspections and observations, discuss findings with front-line supervision, and upload inspection reports in Construct PM.
Incidents and Close Calls	All incidents and close calls are analyzed properly and thoroughly. Incidents and close calls are reported to executive management and the ESH team the same day of occurrence. An incident analysis with root causes and assigned corrective actions is completed by the end of the third business day after an incident occurs.	A thorough incident analysis occurs and meaningful corrective actions to prevent recurrence are developed and assigned.	Participate in the incident analysis process and contribute ideas and solutions.	Assist front-line supervision in analyzing all incidents and close calls.

Orientation, Training, and Meetings

To promote and help ensure an injury-free environment, ESH training is a requirement for all Layton Construction and subcontractor craft workers assigned to the project.

FOREMAN/FRONT-LINE SUPERVISOR - PRE-MOBILIZATION MEETING

All front-line supervisors are required to attend a pre-mobilization meeting prior to the mobilization of their work crews so they can receive site-specific training, review permits, forms, procedures, and safety initiatives required by the project. In this meeting, the team will discuss site-specific information necessary to adequately coordinate work and prepare work crews to complete the scope of work with the highest quality and safety. Competent person, training documentation, and any other applicable items will be delivered to the Layton project team at this time. A typical pre-mobilization meeting agenda is shown in Appendix 14.

OSHA 30-HOUR TRAINING

Layton strongly encourages the subcontractor's lead supervisor on the site to have completed the OSHA 30-hour outreach training and provide documentation of completion at the pre-mobilization.

EMPLOYEE SITE-SPECIFIC ORIENTATION

All front-line supervisors and all craft workers (including all lower-tier subcontractor workers) shall attend a site-specific orientation conducted by the Layton project team **prior** to starting any work on the site. The site orientation will provide general ESH information, project-specific policies, rules, procedures, and safety initiatives, and expectations for safe work performance. Attendance sheets shall be kept, and each person attending will receive a sticker for their hardhat upon completion of the site orientation.

DAILY ALL-HANDS PRODUCTION/SAFETY HUDDLE

All front-line supervisors and all craft workers (including all lower-tier subcontractor workers) shall participate in a daily pre-shift production and safety coordination huddle conducted by the Layton project team. Layton reserves the right to remove any subcontractor management or supervision personnel that do not regularly attend the daily huddle. The daily huddle starts with a safety share, and includes stretch-and-flex, a description of the work activities for the shift, coordination discussions among subcontractors, safety concerns, descriptions of new work activities, new and continuing hazards and risks, and any incidents that have occurred on the project as well as corrective actions taken.

ESH TRAINING

In addition to site-specific orientation, Layton Construction, along with federal, state, or local regulations, require ESH-related, task-specific training for craft workers. To help with understanding these training requirements and to further our goal of an injury-free workplace, the training matrix (Table 2) is included to assist in the identification of applicable training requirements. Layton Construction may evaluate orientations and training sessions periodically to verify they are being properly conducted and that the contents adequately cover the standards, policies, rules, procedures, and initiatives contained in the PSMP or federal, state, or local regulations. Project management or supervision will communicate the established ESH policies, rules, procedures, and initiatives to all vendors and third-party individuals visiting the project.

Each subcontractor shall maintain thorough, accurate written records of all ESH training and shall provide these records to Layton Construction when requested. In some cases (as described below), training and certification records shall be maintained on the site.

TABLE 2 ESH Training Matrix

TOPIC	WHO NEEDS TRAINING	WHAT TRAINING IS NEEDED
30-hour OSHA Outreach Training in Construction	Lead supervisor; recommended for all front-line supervisors.	30-hour OSHA Outreach Training in Construction conducted by an accredited OSHA Outreach Trainer/Outreach Training Program.
Project-specific Site Orientation	All project management, supervision, and craft workers entering the project.	Project-specific site orientation shall be conducted by the Layton Construction project team. Site orientation shall contain the following topics: • Application of this PSMP on the site • Site-specific ESH policies, rules, and procedures • Site-specific emergency action plan • Each person's responsibilities in carrying out the site's expectations • The site's disciplinary program • Expectations for attendance at the daily huddle and pre-task planning meetings Each person conducting any work anywhere on the site must attend the Layton Construction site orientation prior to performing work on the site. At all times, workers must display proof that they have successfully completed site orientation.
Hazard Communication	All workers entering the project.	In addition to a written hazard communication program and a labeling and safety data sheet maintenance process, formal, employer-provided training fully consistent with the specific training elements found in 29 CFR 1910.1200(h) is required.
Respiratory Protection	All workers for which respiratory protection is required, including dust masks.	In addition to a written respiratory protection program, medical monitoring, and a fit-testing protocol, formal, employer-provided training fully consistent with the specific training elements found in 29 CFR 1910.134(k) is required.
Fall Protection	All workers who might be exposed to a fall hazard.	Formal, employer-provided training fully consistent with the specific training and certification elements found in 29 CFR 1926.503 is required.
PPE	All workers using PPE.	Refer to the Personal Protective Equipment (PPE) section in this PSMP. NOTE: Unless the task requires a higher level of protection, gloves conforming to ANSI/ISEA 105 Cut Level A3 shall always be worn by all personnel on all Layton Construction projects. Initial and annual PPE training is required on the following topics: • Proper use and care of required PPE • How to recognize hazards where PPE (or additional PPE) is required • How to properly don, doff, adjust, and wear PPE Following an incident where the improper use of PPE was a factor, or when an employee demonstrates a lack of understanding or demonstrates improper use of PPE, retraining will be required.
Forklifts/ Powered Industrial Trucks	All operators of forklifts/ powered industrial trucks.	Formal, employer-provided training fully consistent with the specific training and certification elements found in 29 CFR 1910.178(l) is required. At all times, workers must have proof of their training and certification to operate forklifts / powered industrial trucks.

TOPIC	WHO NEEDS TRAINING	WHAT TRAINING IS NEEDED
Confined Spaces	All workers attending to, supervising, entering, or working solely within confined spaces for which a permit is NOT required for entry.	Formal, employer-provided training fully consistent with the specific training elements found in 29 CFR 1926.1207 is required.
Permit-required Confined Spaces	All workers attending to, supervising, entering, or working within confined spaces that require a permit for entry.	In addition to having a written permit-required confined space program, formal, employer-provided training fully consistent with the specific training and elements found in 29 CFR 1926.1207 and 29 CFR 1910.146(g) is required.
Excavation/ Trenches	All workers entering or working within an excavation/trench.	Training is required on the following topics: • Hazards of the space (slides, cave-ins, water accumulation, etc.) • Safe means of access/egress • Proper support system procedures (erection, maintenance, disassembly, and inspection)
Lockout/Tagout	All workers affected by hazardous energy sources.	Training is required on the following topics: • Nature of known hazardous energy sources • Project-specific lockout/tagout procedures
Gas Welding, Arc Welding, and Cutting	All workers conducting gas welding and/or cutting.	Training is required on the following topics: • The safe use of fuel gas systems • What to do with unattended machines and electrode holders • Operations around water, and in damp or humid conditions • Shield-arc welding safe work practices
Hot Work with Combustibles, Flammables	Workers conducting hot work activities such as cutting, welding, brazing, or grinding.	Training is required on the following topics: • Hazards of the area • Duties of a person assigned as a fire watch • How to use a fire extinguisher • Permits, and the hot work permit approval process
Scaffolding	Workers working from scaffolding.	Formal, employer-provided training fully consistent with the specific training elements found in 29 CFR 1926.454 is required. In addition to these requirements, workers shall be trained on the site's scaffold tagging system.
Crane Baskets	Workers working from crane baskets.	Training is required on the following topics: • Safe work rules • 100% fall protection • Lift plans contents • Emergency procedures
Mobile Elevated Work Platforms (MEWPs)	Workers operating or working from scissor lifts and articulating boom lifts.	Training is required on the following topics: • Safe work rules • Fall protection • Emergency procedures At all times, workers must have proof of their training and authorization to operate MEWPs.

LaPSZ - Layton Personal Safety Zone

The 30-foot LaPSZ (Layton Personal Safety Zone) is the 30-foot-wide sphere surrounding an individual, 15 feet in all directions from the individual. It is the obligation and duty of individuals to watch for people, equipment, traffic, or other potential hazards within their 30-foot LaPSZ and encourage safe work practices from everyone within this zone. "Being our brother's keeper" helps ensure our success at accomplishing our work. All individuals, including Layton Construction employees, co-workers, subcontractor employees, vendors, visitors, and owners are responsible to watch for and stop unsafe actions or situations within their 30-foot LaPSZs. It is also important to watch for and proactively commend safe actions and situations as they are observed to create a positive safety culture on each Layton Construction project. If a hazard is noticed in the 30-foot LaPSZ, immediate action should be taken to correct the unsafe situation, including pausing the work and reporting the concern to a supervisor. These observations can also be documented in Construct PM as issues. Although an individual may not be able to see what activities are underway above or below deck floors in their 30-foot LaPSZ, questions must be asked to learn of any changing conditions that may occur affecting the work environment above or below.

HAZARD RECOGNITION

The key to the 30-foot LaPSZ program is hazard recognition. Each person needs to be aware of the activity and people in their line of sight and to draw upon safety training and work experience to act when they notice a potential hazard. Attendance at the pre-shift daily huddle and pre-task planning meetings will assist with work coordination and eliminate some potential hazards before work commences for that shift. When a hazard is recognized, the deficiency should be pointed out respectfully. They should first **remind** the person of the hazard, safety policy, standard, or initiative; then **request** the cooperation and compliance; and if necessary, **report** the situation to a supervisor if unresolved.

ACCOUNTABILITY

Layton Construction has invested a great deal of time and resources to encourage employee safety. Accountability for all workers on Layton projects includes the following safety expectations and consequences.

- Workers are empowered and expected to correct hazards and safety violations in their 30-foot LaPSZ.
- There are no exceptions! Employees at all levels are expected to participate in LaPSZ.
- If an incident occurs within a worker's 30-foot area of responsibility, the worker will be asked to participate in the incident analysis process.
- Workers who do not follow the Layton Construction safety policies, procedures, and initiatives will be disciplined, including possible removal from the project.
- Every individual is entitled to work in a safe environment. Each employer and employee are asked to adopt the 30-foot LaPSZ and do everything in their power to protect themselves and others.

ESH Regulations

Layton Construction and subcontractors shall comply with all applicable government regulations, specific client policies and regulations, and this PSMP. If any of these standards, requirements, rules, procedures, or initiatives conflict, the most stringent one will prevail.

Monthly Inspection Procedures

Monthly inspections involve items that are to be inspected by a designated competent person.

Definition of a competent person: The person capable of identifying existing and predictable hazards and who has the authority to take prompt corrective measures to eliminate the hazards and remove individuals that are in danger.

Equipment requiring monthly inspection includes the following:

- Personal fall protection and fall arrest systems
- Electrical cords and power tools
- Ladders
- Fire extinguishers
- Rigging

GENERAL GUIDELINES

The name of the Competent Person shall be documented and published to all employees; any employee who falsifies a monthly inspection result will be disciplined up to and including termination. The color code of the month will be mentioned at the weekly toolbox safety meetings.

SAFETY COLOR CODE OF THE MONTH (SEE APPENDIX 13)

January and July	**Yellow**
February and August	**White**
March and September	**Brown**
April and October	**Green**
May and November	**Red**
June and December	**Blue**

PERSONAL FALL PROTECTION

All fall protection equipment shall be inspected before each use in accordance with 29 CFR 1926.502(d)(21). Monthly inspection of fall protection body harnesses, self-retracting lifelines (SRLs/Yoyos), and wall chains shall be inspected for cuts, tears, abrasions, worn stitching, cracks, burns, and freely moving parts. No alterations are allowed, and each item will include correct labeling from the manufacturer. All personal fall protection that is damaged shall be removed from service, destroyed, or sent to the manufacturer for repair. The monthly color code tape shall be visibly placed on the fall arrest equipment. All inspections of fall protection shall be completed in writing each week.

ELECTRICAL CORDS AND POWER TOOLS

Any employee using electrical equipment and/or cords shall perform a pre-use visual inspection of each cord set, plug, receptacle, spider box, temporary power panel, and tool or equipment connected by cord and plug with periodic inspections documented monthly. Any possible hazards, damage, or missing parts that pose a hazard shall be reported, and the equipment removed from service, repaired, or destroyed. A tag shall be placed on the item stating, **"Caution: Do Not Use."** The competent person shall perform the following test on ground fault circuit interrupters (GFCIs) and the equipment identified above. These tests shall be performed and documented monthly:

- Continuity
- Polarity
- Ground continuity
- GFCIs shall be tested with an approved trip tester
- Double-insulated equipment shall be inspected for damages
- The monthly color code tape shall be placed on the male and female end of the extension cord or power tool to ensure the entire length has been inspected

LADDERS

The employee using the ladder shall perform a daily visual inspection and sign the ladder tag affixed to the ladder. Ladders must meet OSHA/ANSI specifications including:

- Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced, when the ladder is in position for use.
    - Rungs, cleats, and steps of portable ladders (except as provided below) and fixed ladders (including individual rung/step ladders) shall be spaced not less than 10 inches (25 cm) apart, nor more than 14 inches (36 cm) apart, as measured between center lines of the rungs, cleats, and steps.
    - Rungs, cleats, and steps of step stools shall be not less than 8 inches (20 cm) apart, nor more than 12 inches (31 cm) apart, as measured between center lines of the rungs, cleats, and steps.
    - Rungs, cleats, and steps of the base section of extension trestle ladders shall not be less than 8 inches (20 cm) nor more than 18 inches (46 cm) apart, as measured between center lines of the rungs, cleats, and steps. The rung spacing on the extension section of the extension trestle ladder shall be not less than 6 inches (15 cm) nor more than 12 inches (31 cm), as measured between center lines of the rungs, cleats, and steps.
- The minimum clear distance between the sides of individual-rung/step ladders and the minimum clear distance between the side rails of other fixed ladders shall be 16 inches (41 cm).
- The minimum clear distance between side rails for all portable ladders shall be 11 1/2 inches (29 cm).
- The rungs of individual-rung/step ladders shall be shaped such that employees' feet cannot slide off the end of the rungs.
- The rungs and steps of portable metal ladders shall be corrugated, knurled, dimpled, coated with skid-resistant material, or otherwise treated to minimize slipping.

A competent person shall perform monthly portable ladder inspections in accordance with 29 CFR 1926.1053(b)(15) and 29 CFR 1926.1053(b)(16). Bends, dents, cracks, loose or missing rivets, disconnected braces, and corrosion can weaken a ladder. The competent person shall carefully inspect the area around rivet points on fiberglass ladders for hairline stress cracks. Any damaged ladder shall be removed from service and tagged, **"Caution: Do Not Use."** Destroy any defective ladders immediately and remove them from the site.

The monthly color code tape shall be placed on the right-side rail at eye level between 5 and 6 feet high.

FIRE EXTINGUISHERS

Fire extinguishers shall be inspected monthly in accordance with 29 CFR 1926.150(a) and 29 CFR 1926.150(c). This will ensure that the fire extinguisher is ready in case of need. Check that the extinguisher is charged by looking at the green arrow on the pressure indicator to ensure it is in the green section.

- Be sure the lock pin is firmly in place.
- Keep the extinguisher clean.
- Check for dents, scratches, corrosion, or any other damage.
- Check the discharge nozzle; make sure it is clean and free of debris.
- Tip fire extinguisher upside down and lightly tap bottom with a rubber mallet.
- Fire extinguishers shall be placed within 100 feet of a Class A fire hazard and near stairways on a project.
- Check for the annual state inspection tag.

Fire extinguishers that do not meet the criteria above shall be taken out of service and repaired, recharged, or removed from the site. The monthly color code tape shall be placed on the hose of the extinguisher as close to the handle as possible.

RIGGING

All rigging shall be inspected prior to each use and or monthly, whichever comes, in accordance with 29 CFR 1926.251(a)(1). Proof-testing of rigging should be done annually by a qualified person. Damaged or defective rigging shall immediately be removed from service and either repaired or destroyed. All rigging (chains, wire rope chokers, synthetic webbing) shall have a manufacturers identification tag stating the name or trademark of the

manufacturer, the size and rated capacity, and the type of material. This identification tag MUST BE LEGIBLE. The monthly color code tape shall be placed on the end of the rigging below the identification tag. All documented inspections shall be completed the first week of every month. All existing color code tape shall be removed each July and January (at minimum).

TOPIC	WHO NEEDS TRAINING
Wire Rope	Looking for evidence of heat damage, broken wires (10 in one lay or 5 in one strand) of a lay, kinking, smashing, corrosion, bird caging, distorted rope structure, or damage to attachment points
Natural Rope and Synthetic Fiber Slings	Looking for abnormal wear, powder between strands, broken or cut fibers, variation in the size or roundness of strands, discoloration or rotting, or distortion of hardware in the sling
Synthetic Webbing	Looking for acid and caustic burns, melting or charring of any part of the sling surface, snags, punctures, tears or cuts, distortion of fittings or broken or worn stitching
Hooks	Looking for distortion such as bending, twisting, or increased throat openings, wear, cracks, nicks, or gouges, damaged or malfunctioning latch engagement, as well as damaged or malfunctioning hook attachment

Notification of Unsafe or Hazardous Conditions

Each person on a Layton Construction project has the right and responsibility to notify project management or supervision of any unsafe or hazardous condition that may be present without fear of retribution. Project management or supervision shall take immediate action to correct or remove any hazards brought to their attention.

Disciplinary Program

At-risk behavior on the project will not be tolerated. Each person has a responsibility to work safely, and front-line supervisors are responsible to correct at-risk behavior of employees under their direction. If you see something that does not look right, stop, and follow the LaPSZ procedure, or report it to your supervisor. Discipline is intended to preserve safe conditions for all employees and encourage individuals to be responsible. Disciplinary action may include verbal warnings, written warnings, and removal from the project (days without pay). For minor offenses, the employee will be expected to agree to improve behavior. These minor offenses, if not corrected may later be recorded as a written warning. Suspension or discharge will result from major offenses, those with serious or costly consequences, or for repeated minor offenses for which an employee shows lack of effort to correct deficiencies. Examples of major offenses are those related to fall protection, confined space, red-barricaded space, electrical or lockout/tagout violations, or disregarding specific instructions that resulted in an onsite incident (including property damage, injury, or a close call event).

Daily/Weekly Inspections

Layton Construction and all subcontractors shall perform safety inspections of their scopes of work. All subcontractors shall be required to purchase and utilize an iPad or tablet for use on the site. The checklist and reporting tools presented in Construct PM will serve as the only acceptable method to record these safety and quality inspections. The required checklists include: Daily Pre-Task Plan, Weekly Safety Inspection, Weekly Safety Meeting. Other safety checklists based on the scope of work also may be assigned and are then considered

required. Subcontractors working on a Safety Corrective Action Program (CAP) shall also be required to complete the weekly Safety CAP Compliance checklist. Issues related to safety will be assigned to subcontractors as needed; these issues need to be rectified and marked as "work complete" so that the Layton project team can close the issue following inspection.

PRE-TASK PLANNING

A pre-task planning meeting shall be completed at least daily by each work crew performing work on the project. Pre-task planning shall be completed in the field, in the location where the work crew will perform the scope of work, and with meaningful participation from the entire work crew. Layton Construction and all subcontractors are required to use the pre-task plan checklist in Construct PM to upload the paper form (see Appendix 4). Each front-line supervisor with input from the crew will analyze the tasks, identify the work sequence, possible hazards, training requirements, necessary controls, and emergency action plans needed to protect workers from any identified hazards. The day's work will be broken down into individual steps including known hazards associated with each step and how to mitigate that hazard. All craft workers will sign the plan signifying that they understand the work activities, hazards, and controls.

The completed pre-task plan will remain visibly located near the work activity for review throughout the day. After completion it will be uploaded into Construct PM as an attachment for documentation purposes.

ACCOUNTABILITY: PLAN-DO-CHECK-ACT

The intent of the pre-task plan is to help ensure all workers are knowledgeable of their work tasks, ready to anticipate hazards, and prepared to adopt the planned, safe means and methods to accomplish each task safely. Accountability for the pre-task planning process includes four key components:

Plan – The crew lead or foreman is accountable for leading the work crew to identify hazards and develop mitigation methods.

Do – The crew lead and workers are accountable for following the plan to accomplish the work.

Check – The crew lead and workers are jointly responsible to spot check the process, both the quality of the plan and the rigor of compliance

Act – The crew lead and workers are accountable to identify unforeseen conditions and to act to improve the plan and mitigate the hazard going forward.

Subcontractor General and Project-Specific Requirements

Subcontractors must demonstrate safety knowledge relevant to 29 CFR Part 1926 (OSHA's Safety and Health Regulations for Construction). Subcontractors will be required to provide current certificates of their project supervisor's safety competency in the form of: 30-Hour OSHA Outreach Training, Current certification as a Safety Trained Supervisor (STS) through the Board of Certified Safety Professionals (BCSP), Construction Site Safety Supervisor Certification through National Center for Construction Education and Research (NCCER), or equivalent. This documentation is to be attached to the Competent Person Form required with submittals, as well as during the pre-mobilization Meeting (in case supervision changes between pre-award and start of project). If any supervisor changes are made following mobilization, certifications will be provided immediately to Layton Construction.

Each subcontractor will designate a safety representative **prior** to mobilization. The onsite safety representative will be a competent person **who has completed at minimum 10 hours of OSHA awareness training**, and who may have other onsite duties.

Subcontractors with 50 or more workers (including lower-tiered subcontractors) shall provide a **full-time, onsite** safety professional upon mobilization. This person shall have no other onsite responsibilities.

Subcontractors working under a Red CAP or a Yellow CAP have different requirements for a full-time safety professional. For a subcontractor working under a Red CAP, the subcontractor shall provide a **full-time, onsite** safety professional upon at any point when 10 or more workers (including lower-tiered subcontractors) are onsite. For a subcontractor working under a Yellow CAP, the subcontractor shall provide a **full-time, onsite** safety professional upon at any point when 25 or more workers (including lower-tiered subcontractors) are onsite. In all cases, the full-time onsite safety professional shall have no other onsite responsibilities.

Layton Construction reserves the right to require a full-time, onsite safety professional at any time.

Subcontractors shall submit to Layton Construction the resume(s) of the proposed safety professional(s) or safety representative(s), which will be reviewed by the Layton Construction project team at pre-mobilization. Layton Construction will determine whether the proposed safety professional or safety representative has the required training and experience required for the specific project.

Subcontractor safety professionals and safety representatives shall have full authority to implement safety corrections and recommendations and shall have the authority and responsibility to ensure the proper implementation of this PSMP. In addition, along with any other worker, subcontractor safety professionals and safety representatives shall have the authority to stop any work they deem unsafe.

Subcontractor full-time, onsite safety professionals shall have the following **minimum** qualifications:

- Five years construction experience, one year of which includes onsite construction safety responsibilities
- Specialized training relevant to scope of work
- OSHA 30-hour construction safety awareness course
- Working knowledge of safety regulations and hazard control methods
- Demonstrated ability to conduct safety training
-

The minimum duties of the designated safety professional and/or representative will be:

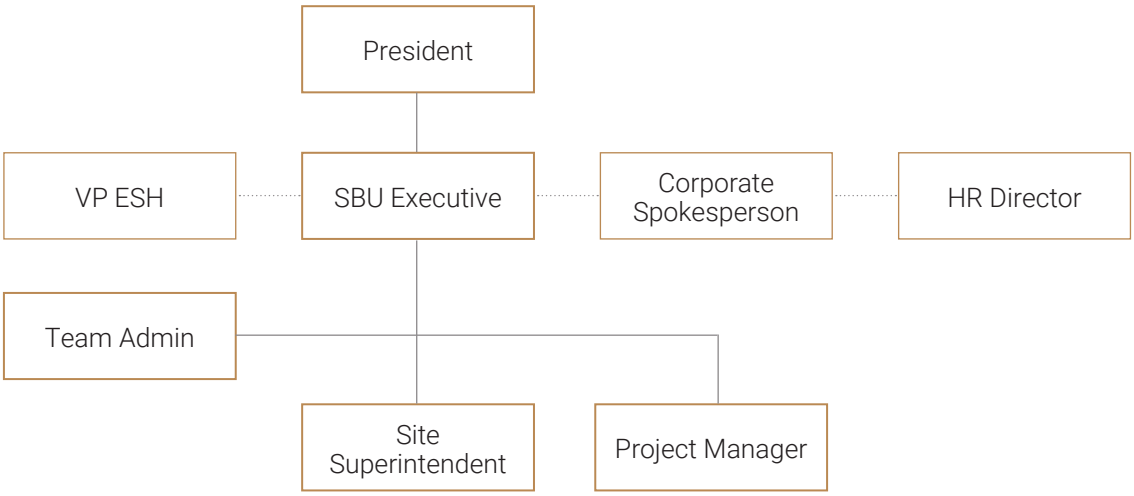
- Investigate any incidents or close calls and report the findings to Layton Construction
- Attend safety meetings as required by Layton Construction
- Conduct regular safety meetings with workers to instruct them on project safety practices and requirements
- Conduct written daily safety inspections of work activities and document them in Construct PM through either checklists or issues (both conforming and non-conforming) to ensure compliance with safe work practices and this PSMP
- Take direction from Layton Construction related to timely abatement and control of hazards

Following the completion of a project, subcontractors will be evaluated based on performance and adherence to this manual. It is expected that subcontractors actively participate in checklist submission in Construct PM including at minimum, pre-task planning, weekly safety meetings, weekly safety inspections, and CAP checklists (if applicable). This information will be tracked real-time during active construction in Domo. A post-project audit will be conducted such as housekeeping evaluation, safe work practices, participation in safety initiatives, attendance at daily huddles, pre-task planning meetings, subcontractor coordination meetings, and weekly focus walks. Quality and re-work will be accessed in addition to safety during the post-project audit.

Crisis and Emergency Preparedness Plan

Every Layton project shall have an established and rehearsed plan of response to an emergency or crisis condition. The intent of this section is to provide guidance as to what information is needed such that a consistent response can be expected.

Crisis Management Team Organization



GENERAL RESPONSE PROCEDURE

The Layton project management team will establish and train site personnel regarding emergency response procedures.

The Layton project management team will maintain, as necessary, emergency response supplies and equipment to meet emergency response needs.

Layton Construction supervisors will notify emergency response personnel of emergencies at the project site.

The appropriate supervisor or responding personnel will initiate the notification process, which includes alerting local response organizations (such as ambulance or fire personnel) and/or others as required.

Notify the following immediately:

- Project manager
- Project superintendent
- Project safety manager
- ESH VP
- SBU executive vice president
- Director of corporate communications/company spokesperson

Layton Construction Management (ESH VP and SBU EVP) must be called as soon as possible

If necessary, the project superintendent will coordinate with local emergency organizations and provide the following:

- Technical information about hazardous materials and products
- Quantity and/or size of hazardous materials or products
- Locations and methods of storage for hazardous materials or products
- Report known hazards of materials or products
- Provide a copy of the Safety Data Sheet (SDS)

Layton Construction site management will make site equipment and supplies available until the emergency has been resolved.

First Hour Response: Site Superintendent Checklist

- Contact emergency services (911)
- Contact project safety manager
- Account for all employees
- Project safety manager to contact regional safety manager and ESH VP (if needed)
- Notify the SBU executive vice president
- Do not move potential evidence
- Direct all outside inquiries to company spokesperson
- Post people to restrict entry to site or direct emergency response teams
- Notify owner/developer (varies by project)

Site Actions - General Response Procedures

- Ensure the scene is safe before entering the area
- Review site for hazards. Isolate hazardous area(s)
- Secure the site from further hazards (i.e., turn off utilities, remove hazardous substances not involved, stop flows of product or water, etc.)
- Attend to the injured, render first aid
- Call 911 or facility emergency number. Give the following information:
    - Name of person reporting the emergency
    - Nature and severity of the injury or illness
    - Locations and phone extension from which they are calling
    - Number of people involved
    - Directions to the site of the emergency
- Secure and isolate incident site. Do not move anything that does not have to be moved, only things to assist the injured or make the area safe. Make note of those items that must be moved. For major incidents, site emergency shutdown is required
- Take a roll call. Account for each site employee, vendor, owner's rep, and trade contractor employees
- Keep only those onsite who are essential in the recovery process. Release those who are not needed and require them to leave the site

- Establish first aid and evacuation areas, if needed, where ambulance or air evacuation services have access
- Control site access
- Start investigation and reporting procedures

First Hour Response: Business Unit Executive VP

- Contacted by the site superintendent
- Determine what/where/when the event happened and who is involved
- Verify current status of site operations or shutdown
- Notify Dave Layton
- Notify corporate spokesperson
- Advise project assistant and receptionists where to route calls
- Notify VP chief human resource officer

Emergency Preparedness Training

Employees and subcontractor management and employees will be trained on the subjects below as appropriate:

- Emergency notification and reporting procedures
- Site emergency and evacuation procedures
- Points of assembly
- A site map will be posted for all contractor and subcontractor employees, showing the points of assembly locations

Crisis Communications Plan (Media Requests)

If contacted by the news media concerning an incident, be supportive. However, communications must be coordinated effectively.

- Designate a single company spokesperson (vice president of marketing and communications, unless assigned to someone else on the job site due to a remote location or other circumstances). Refer media calls immediately to the company spokesperson
  - Designated Spokesperson: Tim Garrick (480) 416-2686
- Establish a controlled access site for media at a safe distance from the incident to maintain scene safety and coordination (at a distance from the scene, jobsite management trailers and employee jobsite gates)

  Gathering Location: _____

- The company spokesperson and project management team will develop an initial statement of known information that can be provided as soon as possible
- Provide regular updated information as it becomes available
- Create a log of persons from the media including organization, phone numbers, and email addresses for effective continued communication
- Project Management and site employees should not engage in social media activity regarding the incident. Unauthorized posting to social media about an incident is subject to disciplinary action up to and including termination of employment.

Emergency Action Plan

Project management will ensure the Emergency Action Plan is communicated to all workers during orientation. Specific emergency procedures and emergency phone numbers will be posted in lunch areas, near all telephones and on all project bulletin boards. The plan will be reviewed periodically by Layton Construction to ensure continued accuracy and applicability. Daily pre-task plans will also address emergency plans.

This plan will be reviewed by all workers and posted with a site plan in prominent locations accessible to all.

Project Name: _____

Work Location: _____

This is a project specific Emergency Action Plan communicating evacuation procedures, specific alarms, and assembly points, should an emergency evacuation become necessary because of severe weather, fire, hazardous chemical release, explosion, or other emergencies that could cause harm.

It is each person's responsibility to familiarize themselves with evacuation routes, alarms, and assembly points in case an emergency evacuation of the work area is required. **Caution:** Evacuation routes, alarms, or assembly points may differ from one emergency to another. The implementation of a successful emergency response depends on thoughtful planning, training, and execution.

Evacuation

- Exit signs will be conspicuously posted along evacuation routes.
- A signal or alarm will be designated to initiate evacuation.
- Personnel should de-energize tools and equipment and check the work area for fellow workers in need of assistance.
- Evaluate stairs for safe passage before accessing.
- Report any hazardous conditions that are known to exist within the building to your supervisor.
- A site plan drawing will be developed for each project's evacuation plan. The drawing will clearly identify the following:
    - Building footprint
    - Primary and secondary assembly area points
    - Exits
    - Fire alarm pull stations or air horn locations
    - Site telephones
    - Stairs
    - Fire extinguishers
    - Layton Construction's project office
    - First aid kit locations
    - Emergency numbers

Medical Emergency

During the safety orientation, workers will be given information on how to summon medical assistance in case of a medical emergency. Everyone should know the following information:

Emergency Phone Number: 911

Project Address: _____

When reporting a medical emergency, the person will state their name, the nature of the emergency, the severity of the emergency, and where assistance is needed. Someone may be required to meet medical personnel and guide them to where the emergency is located.

Do NOT move an injured worker before medical assistance arrives unless further injury is possible.

Fire

In case of fire, evacuate the work area immediately and report to the pre-determined assembly point.

In case of Fire or Emergency:

Emergency Phone Number:	911
Alarm or Notification:	Site Specific: _____
Evacuation Route:	_____
Primary Assembly Point A	Is located at _____
Primary Assembly Point B	Is located at _____

Utility Shutdown:

Gas (if applicable)	Responsible Person: _____
Electricity (if applicable)	Responsible Person: _____

Severe Weather or Other Natural Disasters

Should weather conditions such as severe thunderstorms or tornadoes develop around or near the project, follow the direction of the immediate supervisor. All projects will have a severe weather plan specific to the region (such as hurricane, tornado, earthquake, tsunami, or any other severe weather or natural disasters) where severe weather events are possible will have a contingency plan in place. Refer to the Jostle library for templates.

Lightning

If you are caught outside with no safe shelter nearby, the following actions might reduce your risk of being struck by lightning: Immediately get off elevated exterior work, no work will recommence until there is no lightning within a 10-mile radius, or 30 minutes as published by the National Commission for the Certification of Crane Operators (NCCCO).

Chemical Release or Explosion

Workers will immediately evacuate their work area upon hearing the alarm or being notified of the emergency and ordered to evacuate. No employee is exempt from evacuation even if the evacuation is a drill. Everyone is required to report immediately to their designated assembly point and be accounted for. Failure to report may endanger others if they must search for you. Do not leave the project without prior authorization from front-line supervision.

A Layton Construction employee will contact an identified remediation company to respond to chemical spills that require expert attention. The company will be identified in the PMP.

Layton Construction Safety Policies

The purpose of Layton Construction's safety policies is to assist project management, supervision, subcontractors, and workers in understanding Layton Construction's injury-free philosophy and the health and safety expectations and requirements for its projects. The safety policies within this document represent the expectation of performance at **EVERY** Layton Construction project.

Incident and Injury Management and Reporting Policy

To control and manage any incident on a Layton Construction project, the following measures will be followed. Each project will have Layton Construction and subcontractor personnel onsite during all work activities that are trained in first aid and cardiopulmonary resuscitation (CPR), documentation of the training will be provided when requested.

An **incident** is defined as any unplanned or undesired event that results in a work-related injury/illness, environmental damage, property damage, or disruption of business.

A **close call** is any situation that has the potential, under slightly different circumstances, to result in a work-related injury/illness, property damage, serious environmental impact, or disruption of business.

Every incident shall be reported immediately to the Layton Construction project team, which will immediately notify the Layton Construction ESH department. Layton Construction supervision will take control of the administrative management of the incident and thoroughly investigate to determine the probable root cause. Layton Construction and applicable subcontractor front-line supervision will be involved in the investigation process. The Layton ESH claims specialist must be notified within 24 hours of any injury that occurs on **ANY** Layton Construction project site (CCIP or non-CCIP). Layton Construction reserves the right to appoint a supervisor from the subcontractor to keep track of the injured person until a full release to work can be obtained. Training will be completed with this supervisor, and a Layton Construction contact will be given to so that a close working relationship can be established to ensure that all the needs of the injured employee are met, as well as the needs of the injury management program. All employees working on Layton Construction projects will follow the Return-to-Work Policy in this manual, each subcontractor will be responsible to ensure that their employees comply with this Return-to-Work Policy. Light duty is a mandatory requirement on each project to help in the quick recovery of the employee. Subcontractors will establish their own Light Duty Program or ask how to use light duty onsite.

SITE CONTROL FOLLOWING AN INCIDENT

Following an incident, if necessary, administer first aid until help arrives. First aid kits will be in both the Layton Construction jobsite trailer and in each subcontractor's job trailer/gang box for accessibility if required. These first aid kits will be stocked and re-stocked as required, a monthly inspection should be completed and documented. If the injury is significant and 911 has been called, place employees strategically to direct the emergency response team to the incident scene. For emergencies requiring evacuation, each project will develop a site-specific Crisis Management Plan (see pg. 18). Once the incident is under control, and if necessary, all injured parties are treated and/or transported to a local treatment facility, the investigation team will perform an investigation. The team will consist of the project manager as the team leader, the project superintendent, subcontractor foreman, injured employee, project safety manager, and any others deemed necessary.

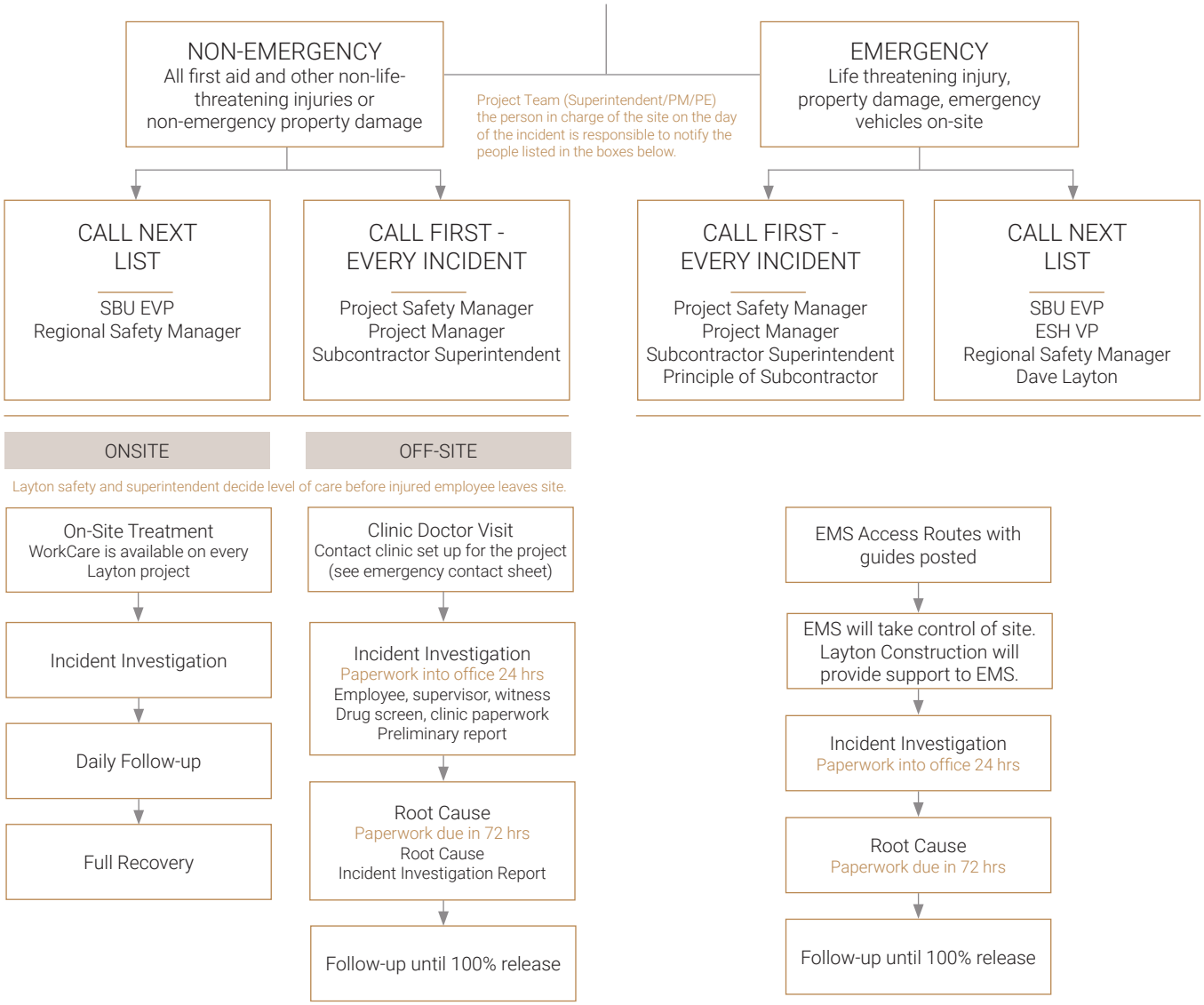
REPORTING AN INCIDENT

In the event of any injury or property damage incident, subcontractor supervision will contact the Layton Construction superintendent and obtain an incident packet that will contain all the applicable literature, including:

- Employee Injury Report
- Supervisors Investigation Report
- Witness Statement Form
- Site-Authorization Treatment Form (for CCIP projects)
- Rx First Fill Form (CCIP projects)

These written reports shall be submitted to Layton Construction management during the same shift. The subcontractor supervisor will submit a copy of a First Report of Injury form (from a doctor) to Layton Construction management the next business day following the doctor or clinic visit. **Failure to comply with these claim procedures will result in a flat fee of $5,000 to be paid by Subcontractor to Layton Construction for additional costs to manage the claim.**

Injury/Incident Flow Chart



Incident Investigation

All incidents on Layton Construction projects will be thoroughly investigated.

EVIDENCE

It is in the best interest of all parties that all physical evidence remains undisturbed and not tampered with, regardless of the circumstances involved, unless doing so is necessary for safety reasons. Take photographs prior to moving any evidence for documentation purposes, if possible. Secure the area of the incident as soon as possible to prevent any alteration of the scene prior to the investigation. If any equipment, tools, or materials were involved in the incident, remove them from service for safekeeping. If this proves to be impractical the area in which the incident occurred, barricade the area and post security personnel to keep unauthorized personnel out of the area. The secure area will only be reopened upon approval from the Layton Construction safety manager.

DRAWING, PHOTOGRAPHS, AND DIAGRAMS

Drawings, photographs, and diagrams should be marked up to indicate the location of the incident. All measurements of time, distance, size, weight, etc. must be accurate. In the event of unknowns (e.g., speed, distance, weight), every attempt must be made to closely approximate the same with tables, formulas, or calculations which must be kept as part of the incident analysis.

INCIDENT ANALYSIS FORMS

The injured employee will complete the Employee Report Form, which gives personal information so that insurance can be filed on their behalf (in the case of a non-CCIP project the personal information can be omitted from this report). Make sure that the employee fills out the description of incident as completely as possible to assist the incident analysis team in determining the root cause of the incident.

The injured employee's supervisor will complete the Supervisor Report Form, as well as gather other pertinent documents needed in the analysis (training records, pre-task plan forms, salary data if required, etc.). This supervisor will be expected to keep the Layton Construction project management team apprised of the recovery progress of the injured employee until 100% full release to duty occurs.

Any witnesses in the 30-foot LaPSZ zone should complete a Witness Statement Form, they should consider the facts of what they saw the employee doing immediately prior to the incident, including what the witness saw during the morning huddle, pre-task planning, etc.

PRELIMINARY REPORT

A preliminary report will be completed within 24 hours of an incident. The final analysis report will be completed as soon as possible, preferably within 72 hours, but no later than 7 days post-incident. An accurate, detailed narrative description of the operation being performed at the time of the incident is important in determining root cause and corrective actions. Analysis reports should summarize the following: Who was impacted, what happened, when did it happen, and why did it happen. Some things to consider analyzing:

- What activities were occurring in the area at the time of the incident (include drawings, photographs, and diagrams)
- What were the weather conditions at the time of the accident?
- Corrective actions required, identify factors that should be considered for correction or additional attention, to prevent a recurrence of the incident. Describe any immediate action taken to correct the circumstances leading up to the incident. List any actions that need further attention
- Recommend if further corrective action should be assigned, and if practical, set a target date for the completion of the corrective action

ROOT CAUSE ANALYSIS

A root cause analysis meeting will be held following all significant injury or property damage incidents at the work site to ensure the root causes have been determined and proper corrective action has been initiated. A Root Cause Analysis Form may be completed and filed with the analysis report for documentation purposes. The following personnel will attend this meeting: the injured party, witnesses, subcontractor management (including supervisor, project manager, and safety representative), and the Layton management team including superintendent, project manager, and safety manager, and construction manager/vice president, as well as any others that are deemed appropriate.

The root cause analysis involves a closer look at four criteria that may have been a factor in the development of the conditions that led up to an incident.

- **Management** – Do we have policy enforcement, hazard recognition, accountability, supervisor training, production priority, corrective action, proper resources, craft safety training, hiring practices, maintenance, and adequate staffing?
- **Employee** – Was the employee following procedure, trained, previously injured, mental ability, physical capacity, proper equipment use, utilizing short cuts, and was PPE properly worn?
- **Equipment** – Was the proper equipment used, including tool selection, tool availability, maintenance, tool guarding, visual warnings?
- **Environment** – What about the site layout, chemicals involved, temperature, weather, noise, radiation, terrain, vibration, ergonomics, lighting, biological influences, and ventilation?

POST-INCIDENT REVIEW MEETING

At this meeting, the Layton Construction project team and Layton Construction senior project management, supervision, and involved subcontractors will follow up on any corrective actions assigned during the Root Cause Analysis meeting.

RECORDKEEPING

All recordable injuries will be recorded on the appropriate OSHA 300 log (i.e., for Layton employees, on the Layton OSHA 300 log, for subcontractor employees on the subcontractor's OSHA 300 log) within 7 calendar days of the incident. The OSHA 300A will be signed by a company official and posted in a place visible to employees from February 1st- April 30th each year. These records will be maintained for five 5 years.

Return to Work Policy – Light Duty Policy

Layton Construction is committed to providing a safe workplace environment for all employees, in the event of a work-related injury Layton Construction has a "Modified Alternate Duty Requirement" which will be implemented by all subcontractors working on Layton Construction projects. The purpose is to minimize the risks and financial burdens to the workforce. Each subcontractor **MUST** provide an injured employee the opportunity to maximize rehabilitation and recovery from the injury and enable an early return to work by accommodating temporary work assignments in compliance with medical restrictions.

Note:

Modified duty positions do not have to be on a Layton Construction project. The injured workers' employer can provide this position at any alternative site. The insurer may provide recommendations for modified duty labor through cooperative organizations if the contractor/subcontractor are unable to accommodate the employee.

The modified duty must include, but not be limited to:

- Communication between the employer and the injured employee and the physician, the employer's modified duty requirement and facilitate modified duty with physicians and the employee
- The injured employee must provide copies of all medical notes, that include a statement on work capacity.
- Modified duty assignments must comply with all medical limitations as outlined by a physician
- The injured employee is not to assume normal work activities unless there is medical documentation releasing the employee to his/her normal duties

Subcontractor and its sub-tiers must provide a modified return to work program for any of its injured employees insured under workers' compensation as part of the CCIP. **Failure to provide reasonable accommodations to an injured worker will result in a penalty assessment to the subcontractor of any tier of $1,500 weekly until such time as the injured worker is returned to work. Subcontractors are responsible for the assessments of their sub-subcontractors.**

Substance Abuse Policy

Layton Construction is committed to providing a safe, drug-free workplace for all employees. This substance abuse policy applies to all Layton Construction, subcontractors of any tier, vendors, and any third-party employees (including management) working on or visiting the project. To ensure safe and productive working conditions are consistent with business necessity, Layton Construction prohibits the use, possession, or distribution on its premises, any of the following: alcoholic beverages, intoxicants, narcotics, illegal or unauthorized drugs or drug paraphernalia. Employees will not report for work under the influence of any illegal or unauthorized drug, alcoholic beverage, intoxicant, narcotic, or other controlled substance. This includes legally prescribed drugs and medicines, which may in any way adversely affect employee's working ability alertness and/or coordination, or which may adversely affect the safety of others on the job.

PRESCRIPTION DRUGS

Legally prescribed drugs may be permitted on company premises or work locations provided these drugs are in the original prescription container and prescribed for the current use of the person possessing the drug. It is the responsibility of each employee who is taking prescription medication to inform the physician of current job responsibilities, as well as to inform the direct supervisor of any medication that would restrict him from performing duties in a safe and efficient manner.

DRUG TESTING

Consistent with the intent of this policy, Layton Construction reserves the right to require drug testing of anyone as a condition of employment and thereafter may require randomly selected workers to take drug tests to ensure continuing compliance with the Layton Construction drug policy. Layton Construction also reserves the right to drug test based on reasonable suspicion. Our drug testing facilities conduct a 10-panel drug test, specifically testing for the following substances: marijuana, cocaine, opiates, barbiturates, amphetamines, benzodiazepines, phencyclidine, methadone, propoxyphene, and alcohol (if post-accident or reasonable suspicion). Additionally, any worker on the project involved in an incident resulting in an injury/illness or property damage are immediately subject to a mandatory drug test. The employee will be sent to a certified drug testing facility, if the sample is non-negative the drug testing facility will send the sample for further analysis. All information, interviews, reports, statements, memorandums, or test results received by Layton Construction will be kept as confidential as possible. Employees may request a written copy of the drug test results and may explain a positive test result in a confidential setting by contacting Human Resources. Employees and prospective employees may request a retest of the original sample at their own expense by contacting the drug testing facility.

DISCIPLINARY ACTION FOR DRUG POLICY VIOLATIONS

Any employee who violates this policy, including failing to pass a drug test, refusing to submit to a drug test, or tampering with or adulterating a sample will be subject to disciplinary action, including refusal to hire, immediate termination, immediate removal from a jobsite, and future prohibition from the premises. Former employees terminated for violation of this drug and alcohol policy may be considered for rehire with Layton Construction after six (6) months. Additionally, the former employee must successfully complete a drug/alcohol rehabilitation program and must successfully pass a drug test. Alternatively, a former employee may be eligible for rehire if a substance abuse professional determines the former employee is not a candidate for a rehabilitation program and he passes a pre-employment drug test. The former employee must make a personal commitment to remain drug free and to abide by this policy. If rehired, such employees may be subject to periodic unannounced drug testing up to six (6) times within a 12-month period. After a second non-negative drug test, and employee will be terminated and not be eligible for re-hire.

SEARCHES

Layton Construction reserves the right to search any company property, facilities, equipment, employee vehicles, or other personal property located on company property or work sites. Layton Construction may seize any controlled substances and report the same to law enforcement personnel. Refusal to submit to a search may result in suspension and possible termination.

Tobacco Policy

Layton Construction encourages a smoke-free workplace. There will be **NO** smoking, e-cigarettes, or chewing tobacco except in designated areas on all Layton Construction projects.

Cell Phone Use Policy on Layton Construction Projects

Cell phone and phone camera use on Layton Projects will be limited to emergency, company, or project-related business (Construct PM checklists). Serious accidents are on the rise due to individuals talking, texting, or using apps while walking. No radios, iPods, earbuds, etc. are allowed on any Layton Construction project site. Personal devices are only allowed during company approved breaks. If emergency use is anticipated, notify your supervisor of the expected need to receive personal communication. Individuals using cell phone or mobile devices (iPads or IOS devices for ConstrucPM) MUST position themselves out of the line of fire and remain stationary while completing the task. Once the task has been completed, the individual will look around prior to walking again.

Absolutely no cell phone use while operating equipment or vehicles while on the project!

Driving Safety

All employees who operate a motor vehicle on a Layton Construction project must possess a valid driver's license. All occupants must always wear a seatbelt while the vehicle is in motion. It is expected that employees will follow all traffic laws and rules of the road while on company business. Employees are strictly prohibited from operating a motor vehicle while under the influence of drugs or alcohol. This includes blood alcohol level at or above the local legal limit, illegal drugs, and prescription medications that cause impairment (see Substance Abuse policy). Pre-driving inspection should be completed, including walking around the vehicle to check for any defects to the vehicle, barriers blocking the path, or debris. Company owned vehicles must follow a maintenance program meeting at minimum the manufacturer's recommendations. All motor vehicle incidents that involve a company owned vehicle (either leased or when receiving an auto allowance), will be reported and investigated. Any cargo loaded will be adequately stored, tied down, or secured to prevent unintentional movement of the load.

Personal Protective Equipment (PPE)

Except for footwear, PPE shall be provided by the employer. In accordance with 29 CFR 1926.28, a PPE assessment shall be completed prior to commencement of any work activity where PPE may be needed.

All Layton Construction employees, subcontractors, vendors, and third-party individuals shall, at a minimum, wear the following PPE without exception while on the project (except in the office, lunch areas, and enclosed cabs). Additional PPE may be required based upon the PPE assessments.

- Hard hats conforming to ANSI/ISEA Z89.1
- Clear eye protection conforming to ANSI/ISEA Z87.1
- Protective footwear conforming to ASTM F2413
- High-visibility apparel conforming to ANSI/ISEA 107 Class 2
- Gloves conforming to ANSI/ISEA 105 Cut Level A3

All employees shall be trained annually on proper use and care of required PPE, as well as hazard recognition of when additional PPE is required, how to properly don, doff, adjust, and wear PPE. When an employee demonstrates a lack of understanding, improper use, or following an incident, retraining will be required. Documentation records of PPE training shall be maintained and provided if requested. All PPE shall be inspected daily prior to use and be maintained in a reliable and sanitary condition. Any PPE that is determined to be damaged, defective, or insufficient in any way must be discarded form service and immediately replaced by the employer.

HEAD PROTECTION

Hardhats must conform to ANSI/ISEA Z89.1 and worn in accordance with manufacturer's recommendations. Hard hats shall be worn at all times on the project. The employee's name must be displayed on the front of the hard hat so that a person speaking to them can easily see this information.

EYE AND FACE PROTECTION

Eye and face protection must conform to ANSI/ISEA Z87.1 and worn at all times. Employees requiring corrective lenses must wear prescription safety glasses conforming to ANSI/ISEA Z87.1 or they must wear over-the-glasses (OTG) safety eyewear conforming to ANSI/ISEA Z87.1. Clear safety glasses are required as a minimum in all interior work situations and low-light conditions. Where eyes may be exposed to injurious or corrosive materials, an eyewash station must be easily accessible to the workers. The following eye/face protective equipment must be used when performing the following work activities.

ACTIVITY	SAFETY EQUIPMENT
Welding	Welding hood and safety glasses with side shields
Burning	Burning goggles with shield
Abrasive Grinding or Cutting	Face shield and safety glasses with side shields
Drilling	Goggles or face shield
Reaming	Face shield and safety glasses with side shields
Chemical Handling	Goggles and face shield
Molten Materials	Goggles and face shield
Corrosive Liquids	Goggles and face shield
Concrete Pouring	Safety glasses with side slields

FOOT PROTECTION

Sturdy, above the ankle protective footwear conforming to ASTM F2413 shall be worn at all times on the project. The level of footwear protection is based on the PPE assessment or site requirements.

HIGH VISIBILITY ATTIRE

Every worker, visitor, and vendor shall wear high-visibility apparel conforming to at last ANSI/ISEA 107 Class 2. More reflective apparel conforming to a higher class of ANSI/ISEA 107 apparel will be required when working in traffic or at night. Only welders are excluded from this requirement while performing welding operations.

HAND PROTECTION – GLOVE POLICY

All Layton employees, visitors, and subcontractor employees shall be required to wear gloves 100% of the time, except as noted in the exceptions section of the glove policy below. **At a minimum, gloves shall conform to ANSI/ISEA 105 Cut Level A3**, unless the task specifically requires a higher cut level. Fingerless gloves are prohibited. The gloves selected shall be suitable for the task.

General and Moderate Duty Use

This will be the typically accepted glove for general use for all workers not exposed to more specific hazards. All typical low-cut hazard operations will be covered under this guideline. The acceptable glove options will be a glove with conforming to ANSI/ISEA 105 Cut Level A3 or greater, or leather work gloves. If using the touchscreen sensitive gloves, they must conform to ANSI/ISEA 105 Cut Level A3 or higher. NOTE: If the task requires a higher level of cut protection, gloves conforming to a higher ANSI/ISEA 105 cut level are required.

High Cut Hazard Use

This will be the general requirement for those exposed to a high cut hazard. If the hazard assessment calls for a high cut hazard protection or a trade typically exposed to high cut hazards in the normal daily work practices, gloves conforming to ANSI/ISEA 105 Cut Level A6 are required. This includes, but is not limited to, ALL knife work, sheet metal fabrication work, sheet metal cutting operations, and some glass installation.

Exceptions

As there will be some exceptions that must be considered, these should be covered in each day's hazard assessment in the pre-task plan. This would be for specific task outlined in the pre-task plan, and alternate means of hazard mitigation shall be identified and employed.

Hand and finger protection will be specifically addressed in the development of the pre-task plan, and the appropriate protection will be identified. Each employer's competent person will assist in recommending the correct glove for the task.

HEARING PROTECTION

Approved hearing protection shall be worn as specified in posted areas and while working with or around machines, tools, and equipment producing high noise levels (at or above 85 dBA). A good rule to follow is if you must raise your voice to be heard, you need hearing protection. Exposure to impulsive or impact noise will not exceed 140 dB noise level.

DURATION PER DAY (HOURS)	SOUND LEVEL DBA SLOW RESPONSE
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

Impulsive or Impact Noise

EQUIPMENT OR TOOLS	SOUND LEVEL CREATED
Pneumatic Chip Hammer	103-113
Jack Hammer	102-111
Concrete Joint Cutter	99-102
Chop Saw	88-102
Stud Welder	101
Bulldozer	93-95
Crane	90-96
Hammer	87-95
Backhoe	84-93

All subcontractors will have a hearing protection program conforming to what is described next.

Noise measuring must be done to see if employees are being exposed to noise that is 85 dBA or louder on an 8-hour time-weighted average (TWA). This measuring can be either sampling performed when needed or monitoring performed all the time. All employees that have the potential to work in areas where noise levels may exceed 85 dBA must meet the following requirements.

- Successfully complete hearing conservation training and complete a refresher training annually.
- Annually complete audiometric testing.
- Complete a baseline audiometric exam within the first 6-months of employment. Employee must have a minimum of 14-hours without exposure to workplace noise prior to completing the baseline audiometric exam.
- Shall be provided hearing protectors by Layton Construction.
- Employee health records (audiometric testing data) will be maintained for a minimum of 30 years from the last day of employment. Health records are available to the affected employee upon request.

Subcontractors shall provide all employees that meet the threshold for participation in the hearing conservation program written notice within 21 days of determination. In the event of threshold shift, hearing conservation programs plans will be re-evaluated to ensure adequate controls are in place. Hearing protection (PPE, administrative controls) will be evaluated for each specific noise environment to ensure adequate controls are in place.

Subcontractors shall fully comply with federal and state regulatory standards for occupational hearing conservation, and the guidance described above shall not to be interpreted to supersede legal requirements. The most stringent standard will apply.

RESPIRATORY PROTECTION

A competent person will determine if a hazard exists which requires respiratory protection prior to start of work. Written documentation supporting this hazard assessment will be made available to Layton Construction upon request. For all Layton Construction employees, the program director will be the VP of ESH. Each subcontractor working on any Layton Construction project will include a comprehensive respiratory protection program for all subcontractor employees onsite. Whenever respirator protection is required, the requirements outlined in 29 CFR 1910.134 shall be followed.

- Develop a formal, written respiratory protection program.
- Have affected workers complete a medical questionnaire for respirator use.
- Submit questionnaires to a physician / licensed health care professional (PLHCP) for review and further testing.
    - Once medical approval to wear a respirator is received from the PLHCP, select the appropriate type of respirator to protect workers from the hazard(s).
    - For air purifying respirators, choose the appropriate filter/cartridge.
    - For supplied air respirators, ensure breathing air source provides "Grade D" breathing air.
- Train affected workers about the specific type(s) of respirator(s) being used.
- Fit test the workers with the specific type(s) of respirator being used and ensure the proper facial seal.
- The employer will supply the employee with proper respiratory equipment when it is deemed necessary or is requested by the employee for use on the jobsite.
- Respiratory protection shall be selected based on the respiratory hazard.
- All respiratory protection equipment shall be kept in good condition, being properly cleaned, and stored.
- All respiratory protection equipment must be inspected prior to each use, and if there are any defects the item will immediately be discarded and replaced with a new item.
- An employee must leave the area if there is a gas or vapor breakthrough, if they begin to have breathing issues, breathing resistance, or if leakage of the face shield occurs.
- Layton Construction and/or its subcontractors will not perform wany work that constitutes immediate danger to life or health.

If a worker desires to voluntarily wear a filtering face piece (dust mask) and a respirator is not required, the front-line supervisor must inform the worker about the limitations of the selected respirator. Voluntary use of a disposable respirator form or an equivalent form must be completed.

WORK ATTIRE

Shirts will have a minimum sleeve length of three (3) inches. Tank tops, and cut-off shirts are not permitted. Long trousers are required that fit properly around the waist and ankles and are proper length as to not present a tripping hazard. Trousers that are worn low on the hips or high are prohibited. Shorts are prohibited.

ADDITIONAL PROTECTIONS

Where engineering and administrative controls do not fully mitigate the hazard, Layton Construction may require workers to wear additional PPE to reduce the likelihood of a work-related injury or illness.

Sanitation

TOILET FACILITIES

Adequate chemical toilets are available on the jobsite for the use of employees. Chemical toilets will be serviced often enough to prevent overflowing, creation of unsanitary conditions, a health hazard or nuisance, and will be maintained and in good repair to prevent leakage of the contents to the surrounding areas. The facilities will be placed to ensure easy access/egress.

WASH FACILITIES

Wash facilities will be available at the jobsite for washing hands prior to eating or drinking.

DRINKING WATER

Employers will provide daily, fresh clean drinking water to their employees. Drinking water will be dispensed in containers with a tight sealing lid and labeled as Drinking Water. Drinking water containers are to be cleaned daily. Adequate cups will be made available at each drinking water container. Cups will be stored in a durable clean dispenser. A trash can or other receptacle will be provided to collect used cups. Contractors are responsible for cleaning up around the water container area daily. The dipping of cups into the container, storing soda cans and bottles, drinking directly from the spout, or placing hands or other material into the drinking water is prohibited. Employers have the option of providing plastic disposable water bottles instead, unless prohibited in the contract. If water bottles are provided, they need to be disposed of properly.

Heat Illness Prevention

To control the risk of heat-related injury or illness on Layton Construction projects the following heat illness prevention program will be followed by all subcontractors and sub-tiers on any Layton Construction jobsite. Projects in California will reference Cal/OSHA 8 CCR Section 3395.

PROVISION OF WATER

Water is a key preventative measure to minimize the risk of heat-related illness. All employees will have access to potable drinking water in sufficient quantity for the entire work shift. All subcontractors will have sufficient water supplies in all locations where craftsmen are working (see Drinking Water section). The frequent drinking of water will be encouraged by supervisors, through training during weekly toolbox safety meetings.

ACCESS TO SHADE

Access to rest and shade or other cooling measures are important preventative steps to minimize the risk of heat related illnesses. Employees will be provided access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of no less than five minutes if they feel that they need a recovery period from the heat. Such access to shade will be permitted at all times. Employees will have access to an office, construction trailer, or other building with air conditioning. Employers will provide an area for employees to take breaks which are readily accessible, in the shade and open to the air or ventilated and cooled, and near sufficient supplies of drinking water. Toolbox safety meetings will be held to instruct employees in the requirement for breaks in areas of shade and near location of drinking water.

WRITTEN PROCEDURES

Written procedures help reduce the risk of heat related illnesses and ensure that emergency assistance is provided without delay. The written procedure will be used during applicable trainings such as weekly safety meetings, toolbox talks, or other training forums as needed. The written procedure will include recognition of symptoms of heat illness, and how to respond if medical intervention becomes necessary. This will include how emergency medical services will be provided should they be necessary. When a heat illness is suspected, the injured person will be taken to a cool shaded area and evaluated, proper medical treatment will be administered until emergency response arrives.

TRAINING

Both supervisors and non-supervisors shall have adequate heat illness training. Training is critical to help reduce the risk of heat-related illnesses and to assist with obtaining emergency assistance without delay. All employees including supervisors will receive training on the following:

- All employees will attend a site orientation prior to being permitted to start work on the project. This orientation will include training and requirements for the identification of heat illnesses and the requirements for preventing and treatment of heat injury and illness.
- Employer's written program and procedures related to heat illness prevention and treatments, including procedure for contacting emergency medical services if required.

- Immediate reporting of any symptoms or signs of heat illness.
- Environmental and personal risk factors, including the common signs and symptoms of heat illness.
- The importance of frequent consumption of water, up to 4 cups per hour, when working in hot environments.
- All supervisors will receive periodic additional training in heat related illness prevention methods.

Daily Huddle and Stretch-and-Flex

Prior to the commencement of work, a huddle will be held where all Layton project team members, subcontractors (including tiers), and their employees that will be working during that shift will be assembled. This time serves for general announcements, safety moment, events unique to that day, and recognition of good work completed on the project. Research suggests that most re-occurring and disabling injuries that plague the construction industry are soft tissue injuries, to mitigate this trend warm-up and stretching will be included in the Daily Huddle.

Maximum Lifting Policy

Layton Construction Company has implemented a 75 lbs. maximum lifting requirement for all employees and craft workers on any Layton Construction project. Proper training and lifting mechanics will help ensure that 75 lbs. can be lifted without injury, but generally the 50-75 lbs. range should be avoided as much as possible. In general materials weighing greater than 75 lbs. should be moved by carts, dollies, pallet jacks, forklifts, or crane/hoists. There may be special circumstances when individuals may have to manually move material weighing over 75 lbs. Anytime material greater than 75 lbs. is to be moved manually, hazards associated with the same should be discussed during the Daily Pre-Task Planning by each crew.

Proper planning for material handling is an essential preventative step to eliminate incidents from occurring on Layton Construction project sites.

Utility Protection Policy

Prior to start of work that could possibly interrupt any live utility, the Layton Construction superintendent and the subcontractor creating the exposure must complete the Layton Construction Utility Protection Permit. Work could include: excavation, demolition of any scale, concrete cutting, core drilling, and re-work or floor/wall/roof penetrations, overhead utilities. The permit process is meant to force critical pre-planning and to establish the means to discover, identify and mark the locations of utilities, and to ensure all affected crafts in the area are aware and educated on the protection system. Superintendents will include utility protection as a topic in the weekly subcontractor coordination meeting.

Layton Construction superintendent and subcontractor will identify the work activity that could cause a utility interruption. The subcontractor will be provided the Utility Protection Permit form to be uploaded into Construct PM (see Appendix 17) and will complete all sections with assistance from Layton Construction superintendent if needed. Discovery methods used to locate utilities will be scheduled and completed with findings reviewed and posted if necessary. Following discovery all employees or affected crews in the area will be trained on live utilities or protected methods in place. This information will be documented in Construct PM to include any training(s) and requisite signatures.

Environmental Policy

Layton Construction is committed to protecting the environment by identifying and complying with all local, state, federal, and client regulations and requirements. It is the responsibility of Layton Construction, subcontractors, vendors, or other third-party individuals to help identify and analyze Environmental Safety and Health (ESH) regulations and work with the Layton Construction ESH Managers to coordinate any concerns. Outside legal representation may assist with regulatory interpretations as needed. It will be the responsibility of all subcontractors

to comply with the regulations. Prior to commencement of construction activities, a comprehensive search that identifies relevant federal, state, and local regulations will be conducted. Any regulation that applies to the operation will be identified and a specific plan of compliance will be developed.

NON-HAZARDOUS MATERIALS

All non-hazardous materials and trash will be put in the contractor provided trash containers. Housekeeping will be done daily without exception by all subcontractor (including tiers) crews.

HAZARDOUS MATERIALS

In the event of a spill of one quart or more of petroleum type and/or other hazardous substance, the Layton Construction ESH manager will coordinate containment with the subcontractor. Once the spill is contained, Layton Construction will coordinate clean up and disposal with the owner. All work will actively stop in the immediate area of the hazardous material spill and will not resume until the area has been cleaned and released by the Layton Construction ESH manager. A 20-pound ABC fire extinguisher will be placed near the spill area, no closer than 25 feet and no further than 50 feet and will remain until remedial activities are complete

WATER

To prevent the contamination of water, the Storm Water Pollution Prevention Plan (SWPPP) will be developed by a qualified person. Before site work commences, best management practices will be installed in accordance with the SWPPP plan.

Air Pollution Control Plan

The written Air Pollution Control Plan is to establish requirements to prevent or minimize air pollution associated with onsite construction activities. The requirements should comply with all federal, state, and local laws, regulations, and standards. Where local or state regulations require more stringent or different controls, the project must incorporate those requirements into the Air Pollution Control Plan. The Air Pollution Control Plan (APCP) applies to all subcontractors and their sub-tiers.

Construction related air pollution can be caused by dust, vapors, fumes, mist, gas, smoke, or odorous substances. The APCP is required to ensure this air pollution does not extend beyond the site property boundary in sufficient quantities and duration that exceed or contribute to exceeding government laws, regulations, and standards or that cause deterioration of the "quality of life" in neighboring properties (i.e., nuisance). The following are examples of construction-related activities that potentially generate air pollution:

- Site preparation and civil engineering work (i.e., grubbing, clearing, scraping, excavating, piling, and tilling, that con produce dust or emissions.
- Vehicular traffic dust from exposed earth and gravel surfaces.
- Soil treatment with lime, pesticides, fungicides, dust suppressants, or fertilizers.
- Surface preparation and coating that can create dust, vapors, or spray from sand/bead blasting, painting, epoxy coating, hot tar roofing, and asphalt paving.
- Mobile equipment that generates dust, vapors, and spray to include portable concrete batch plants, rock crushers, chippers, thermal treatment of debris and soils, tank vents and portable electrical generators.
- Demolition activities that can create dust, asbestos or lead during removal of buildings, structures, pipes, and tanks.

SITE PREPARATION AND VEHICULAR TRAFFIC

Many local jurisdictions require that a dust control plan be prepared and submitted for approval prior to beginning site preparation or earthwork. Prior to beginning construction, a dust control plan should be obtained from the earthwork subcontractor. The dust control plan must be included in the site specific APCP. The dust control plan must include the criteria and frequency for applying water to potentially dusty areas of the site subject to vehicular traffic.

APPLICATION OF CHEMICALS TO THE SOIL

Chemicals are often applied to the surface of soils for purposes of stabilization/moisture control (lime), sterilization (pesticides, fungicides) or to support landscape plantings. Site specific approvals/permits are not required by local jurisdictions, however, there may be local restrictions prohibiting the use of certain chemicals because of the site's proximity to sensitive receptors (i.e., employees, residents, local creeks, lakes, estuaries, wetlands, or protected flora or fauna, etc.). Prior to applying chemicals to the soil/ground the subcontractor will coordinate with Layton Construction to ensure that any adverse conditions to the site are addressed and documented.

CONSTRUCTION MATERIAL SURFACE PREPARATION AND COATING

The construction of roads, buildings and other structures often requires the surface to be prepared prior to applying surface coatings. These activities along with the surface coatings themselves, can result in the generation of air pollutants. In preparing the surfaces, sand or bead blasting is often used, which generates aggregate and metal dust particles. The application of surface coatings (i.e., epoxy coatings, paint, hot tar roofing, and asphalt paving materials, etc.) can generate fumes, vapors, and strong odors. All materials/chemicals to be used in these activities will be approved prior to any of the materials arriving onsite. Any subcontractor conducting such activities will ensure that they are in compliance with the Air Pollution Control Plan (APCP). Ensuring that all dust, particulate, and other air-borne pollutants never impact sensitive receptors. All waste produced by surface preparation and coating activities must be disposed of properly.

DEMOLITION

The demolition of buildings, tanks, and piping systems can often result in the release of air pollutants. Depending on the age of the building, these materials could contain asbestos, or lead-based paint. Ductwork or pipes may contain residual chemicals of concern such as arsenic, adhesives/coatings, solvent, or petroleum vapors. Tanks may contain materials that can release vapors or pose a potential hazardous situation when being removed. State and/or local permits are usually required for demolition of asbestos-containing/coated structures, pipes, and equipment or for removal of underground fuel/chemical tanks. A certified asbestos removal contractor will be used for any asbestos removal activity. All permits and licenses must be available for review. Sand/bead blasting of metal tanks, heavy equipment and steel structures generates spent abrasive material and residual rust and paint chips. The paint being removed may contain lead, requiring additional steps to be taken to prevent the release of these materials. Prior to removal, dismantling, or disassembly of tanks, pipes, pumps, or valves, they must be checked to verify that they contain no liquids, sludge, or residues. These residues must be removed in accordance with government, owner, and contractor requirements prior to demolition.

Hazard Communication

All workers on the project are entitled to know the properties and potential safety and health hazards of chemicals or substances that they may encounter on the project. Each project will develop a written project-specific Hazard Communication Plan. This plan will be placed in a location where workers can easily access and review the plan and the Safety Data Sheets (SDSs). Prime subcontractors will submit to Layton Construction a copy of their SDSs of all known hazardous chemicals that are in their work area including all lower-tier subcontractors.

It will be the responsibility of each prime subcontractor supervision or project manager to ensure SDS are received prior to the time of delivery of a hazardous chemical. Prime subcontractors will keep SDS on location for each hazardous chemical or substance used on site. Project management and front-line supervision will ensure all hazardous chemicals are properly labeled in accordance with the SDS. Containers that hazardous chemicals have been transferred into for use during a single shift will be properly labeled.

Each worker will receive annual training on the Hazard Communication Program, this will include at minimum: the location of the SDS, labeling requirements, and any specific safety or health instruction about the hazardous chemical or substance. Prior to exposure or use of any hazardous chemical or substance workers will be trained

in physical and health hazards, required PPE, procedures to protect against the hazards, emergency procedures in case of exposure or accidental spill, engineering and administrative controls, and labeling requirements. Whenever a new chemical or substance is introduced into the workplace, workers will be briefed of its hazards during pre-task planning.

Anyone that may have business in or near a work area that hazardous chemicals are being used will be notified of the hazards they may encounter. If a worker believes they have encountered a hazardous chemical or substance unfamiliar to them, they will immediately notify a supervisor. Project supervision will attempt to identify the hazardous chemical or substance and initiate all precautions to handle and dispose of the material.

Layton Construction Site-Specific Standards

The standards below have been selected for this project following an analysis of risks and processes anticipated for the anticipated scope of work. It is important to note that in the event a standard or policy is not included the relevant standards in CFR 1910 and CFR 1926 the OSHA standards remain in effect.

Asbestos Procedures/Processes

Asbestos containing material (ACM) and/or presumed Asbestos Containing Material (PACM - certain materials pre-1980) are classified as hazardous material by OSHA and the EPA. It is never the intent of Layton Construction to include asbestos removal/abatement in the scope of work. All hazardous material abatement will be the responsibility of the building owner. Any scope of work requiring demolition (no matter quantities) will require a complete asbestos inspection/survey by the building and/or facility owner to determine the presence, location, and quantity of ACM and/or PACM. No employee will be exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter of air as an eight (8)-hour time-weighted average (TWA). No employee will be exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty (30) minutes.

In the event that ACM is discovered or disturbed, Layton Construction ESH VP, CEO, and in-house Council must be notified immediately. A contracted asbestos expert will be contacted to advise and ensure proper notification, protection, best practices, and protocol are followed, and the owner will begin the abatement process. Only a licensed contractor will repair and/or abate disturbed or damaged ACM/PACM material. When ACM/PACM is found, all work will stop immediately, and possible exposed crafts will be removed from the area. All notifications will be made, proper labeling and material control measures will be put in place until the hazardous material is abated. The immediate area at the ACM/PACM will be barricaded and signage displayed with no entry until authorized by Layton Construction.

All Layton Construction employees will complete annual asbestos awareness training to provide a general understanding of the hazards and responsibilities when ACM/PACM is introduced into the scope of work, including known ACM products, cancer and lung effects, and protective measures. All subcontractors will provide proof of employee asbestos awareness training for those employees working onsite that may come into contact with areas that contain ACM/PACM.

PRE-CONSTRUCTION

Identify and consult the certified asbestos inspector/expert that will help evaluate facility asbestos inspection completeness relevant to Layton Construction scope of work and provide support if ACM is discovered after abatement. The asbestos inspection report is to remain at the project, through completion, for review by employees or regulators, if requested. Work will not start on any project requiring demolition until the asbestos inspection is provided by the facility owner (per OSHA regulations 1926.1101(k)(2)(i)). The asbestos report, locations, and quantities of ACM/PACM will be communicated to the subcontractors that will be exposed to

these sites prior to work beginning. This notification will be documented in a pre-construction orientation. ACM material that will remain in the facility during the renovation will be posted/identified and all crafts with possible exposure will be notified of the ACM location and the requirement not to disturb.

ASBESTOS ABATEMENT CONTRACTOR

If discovered a licensed asbestos abatement contractor will complete the repair/abatement. The contractor will follow all federal, state, and local regulations. PPE will be provided by the company to include, coveralls or full-body clothing, gloves, head coverings, and foot coverings, face shields, vented goggles, or any other appropriate protective equipment. Engineering controls and work practices will be used to reduce and maintain employee exposure to or below the TWA and/or excursion limit, except to the extent that such controls are not feasible. Wherever the feasible engineering controls and work practices are not sufficient to reduce employee exposure to or below the TWA and/or excursion limit, the employer will provide respiratory protective equipment to reduce employee exposure to the lowest levels achievable. Respirators must be used when necessary to install or implement feasible engineering and work-practice controls, during maintenance and repair activities when engineering controls are not possible, and emergencies. During the abatement process warning signs will be posted at each regulated area and at all approaches to the regulated area so that an employee can and take necessary protective steps before entering the area.

Arsenic Awareness

Arsenic is a naturally occurring chemical element that is widely distributed in the Earth's crust. Arsenic levels in the environment can vary by locality, and is found in water, air, and soil. There are two general forms of arsenic, organic meaning the arsenic compound contains carbon, and inorganic. Research indicates that toxicity levels are higher and associated health effects are more severe with inorganic arsenic. Arsenic can be harmful to the eyes, skin, liver, kidneys, lungs, and lymphatic systems. Exposure to arsenic can also cause cancer. Workers may be harmed from exposure to arsenic, the level of exposure depends on the dose, duration, and work being done. Arsenic is used in many industries, in paints, wood preservatives, agricultural chemicals, and in glass manufacturing.

Arsenic exposure in the workplace occurs through inhalation, ingestion, dermal, or eye contact. Chronic exposure to arsenic leads to distinct skin diseases, such as arsenical keratinosis, which is characterized by excessive formation of scaly skin on the palms and soles, darkened patches of skin, wart formation, skin lesions, acne, and increased risk of skin cancers. Chronic arsenic poisoning can also cause sudden constriction in arteries or veins, reducing blood flow, decreased nerve function, lung, liver, kidney and bladder, and other cancers. Acute exposures can cause lung distress and death.

When a worker could be exposed to arsenic during work activities, ensuring that the SDS sheet is followed explicitly. To eliminate possible exposure to arsenic in the workplace the hierarchy of controls should be established, and all requisite PPE should be worn, including the appropriate respiratory protection when required.

Abrasive Blasting

Abrasive blasting is primarily used for surface preparation of metal surfaces to prepare them to accept a coating or lining. Abrasives and surface coatings on the materials blasted are shattered and pulverized during blasting operations and the dust formed will contain particles of respirable size. The composition and toxicity of the dust from these sources will be considered when making an evaluation of the potential health hazards. Exposure of employees to inhalation, ingestion, skin absorption, or contact with any material or substance at a concentration above those specified in the Threshold Limit Values of Airborne Contaminants for 1970 of the American Conference of Governmental Industrial Hygienists, will be avoided. Any subcontractor conducting abrasive blasting will coordinate activities with Layton Construction project team, and any other subcontractors in the

vicinity. A blasting zone where dust is visible should be established and marked off with signs around the area to communicate the hazard. If silica exposure is anticipated, follow Table 1 to ensure proper protection for exposed personnel.

INSPECTION REQUIREMENTS

Machines and hoses will be inspected daily prior to use, parts showing excessive wear will be repaired or replaced. Other inspections completed per manufacturer's instructions. The blast nozzle will be bonded and grounded to prevent the build-up of static charges. The blast cleaning nozzles will be equipped with an operating valve which must be held open manually. A support will be provided on which the nozzle may be mounted when not in use. Hoses should be joined by external metallic connectors; these connectors will have pin-clips to prevent disengagement. Anti-whip arresters will be used between each connector.

PPE REQUIREMENTS

Eye, face, hearing, and respiratory protection will be provided to all personnel working in the area where blasting is to take place, when possible, limit the number of employees in the vicinity of blasting. When needed additional eye and face protection will be supplied to the operator when the respirator design does not provide enough protection. Abrasive blasting hoods will always be worn by abrasive blasting operators during blasting operations. All employees using respirators will follow the respiratory protection plan outlined in this document, including medical evaluation, fit testing, and training. Abrasive blasting respirators will be worn by all abrasive blasting operators under certain conditions. Respirators will be cleaned daily using either vacuum or water, and kept in maximum operating condition, after daily cleaning respirators will be kept in an upright position to prevent debris from spilling inside. Air for abrasive blasting respirators must be free of harmful quantities of dusts, mists, or noxious gases.

HOUSEKEEPING

Good housekeeping practices will be followed with active abrasive blasting operations to eliminate slip, trip, and fall hazards from hoses. Once active abrasive blasting operations have concluded, clean the area completely to eliminate any excess materials, dust, and debris. Compressed air will not be used for cleaning purposes except where the pressure is reduced to less than 30 p.s.i.

Bloodborne Pathogens

Bloodborne pathogens are infectious microorganisms present in blood, saliva, and mucous that can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV), the virus that causes AIDS. Workers exposed to bloodborne pathogens are at risk for serious or life-threatening illnesses.

Identification of possible engineering or work practice codes will be addressed prior to the start of work. Each jobsite will develop an exposure control plan for the jobsite, this plan will be trained on during orientation to the jobsite. The exposure control plan will be readily available to all employees in case of exposure. All employees who may be exposed to any bodily fluids will be trained to use universal precautions and treat human blood and bodily fluids as OPIM (as if known to be infectious for bloodborne pathogens). Each employee exposed to occupational hazards will be provided a Hepatitis B vaccine. All employee medical records will be kept through employment plus 30 years as required by the OSHA standard.

Each employee will complete annual training and re-training and provide documentation of that training as necessary. These records will be maintained for at least 3 years. Subcontractors may be required to provide proof of training of their employees.

All jobsites will have pre-determined areas where handwashing and/or antiseptic hand cleansers will be available. Proper personal hygiene will be expected at all times. Anytime and employee comes in contact with bodily fluid, they will immediately wash the exposed area and notify their supervisor of the exposure. If any equipment or worksurface is exposed to any bodily fluids it will be cleaned prior to continuation of work.

All bloodborne pathogen PPE will be readily accessible throughout the project site and included in all first aid kits.

Cadmium Awareness

Layton Construction does not expect exposure to cadmium, if the possibility of exposure exists, we will work with the owner to utilize the hierarchy of controls to engineer out the hazard, if it is not possible the following protocols will be followed to complete the work safely. This program will be evaluated and updated annually.

Cadmium is a soft, blue-white, malleable, lustrous metal, or a grayish white powder. Some cadmium compounds may also appear as a brown, yellow, or red powdery substance. Cadmium is used frequently as a rust-preventive coating on steel and as an alloying element. It is easy to mistake cadmium plated steel for galvanized steel, when heated, cadmium leaves an olive-drab color as it oxidizes. Cadmium oxide fumes often cause no immediate symptoms until a few hours after exposure.

Cadmium can cause local skin or eye irritation. Acute exposure to high concentrations of cadmium fumes can produce severe lung irritation. Long-term exposure to low levels of cadmium in the air can result in emphysema and can damage the kidneys. Cadmium fumes or fine dust can cause serious injury or death when inhaled.

- Skin exposure may result in redness or pain, if eyes are exposed wash with large amounts of water and seek medical attention immediately
- Ingestion may result in vomiting, abdominal pain, nausea, headache and sore throat, treat symptoms, but seek medical attention immediately
- Inhalation – if large amounts of cadmium are inhaled, move the exposed person to fresh air and seek immediate medical attention

All equipment and processes that may contain cadmium will be identified on the JHA, only trained and qualified personnel will be authorized to work near cadmium. The exposure limit TWA is five (5) micrograms per cubic meter (5 ug/m3).

Only trained and qualified personnel may operate welding, cutting, or brazing equipment, training certifications will be presented upon request to Layton Construction. The training will include a test to determine competency as well as annual practical training to ensure awareness of the hazards associated with the work. Appropriate PPE will be worn at all times, including a respirator if necessary (see respiratory protection section).

If an employee is exposed to cadmium medical evaluations will be provided to determine exposure and medical history at no cost to the employee. These results can be requested to be provided to the employee's personnel physician.

Lead

It is never the intent of Layton Construction to include quantity of lead removal/abatement in the scope of work. All hazardous material abatement will be the responsibility of the building owner. Any scope of work requiring demolition (no matter quantities) will require a complete asbestos inspection/survey by the building and/or facility owner to determine the presence, location, and quantity of lead.

Lead poisoning can happen if a person is exposed to very high levels of lead over a short period of time. Exposure can take place in several ways – workers can inhale lead fumes or dust, or even ingest lead through contaminated hands. The hazard can follow the worker home by collecting on skin, clothes, hair, tools, and vehicles. Possible health effects from lead exposure include the following: abdominal pain, constipation, tiredness, headaches, irritability, loss of appetite, memory loss, pain or tingling in the hands or feet, and general feeling of weakness. Exposure to high levels of lead may lead to anemia, weakness, and kidney or brain damage.

Anytime an employee will be assigned to work in an area with possible lead exposure initial training must be completed prior to the start of work, annual refresher training is mandatory for employees working in areas where lead exposure is suspected. No employee should disturb any material thought to contain lead. While working on any Layton Construction jobsite any possible lead exposure in any area of the project will be reported to Layton Construction project team immediately and this information will be communicated to all subcontractors working on the project. Communication about lead exposure will be addressed in the morning daily production/safety huddle.

When welding, cutting, burning, grinding, chipping, abrasive blasting, or rivet busting on painted or coated surfaces, a pre-assessment will be required to determine if the surface(s) contain lead-based paint. No work will be performed prior to an assessment. If sampling results for lead-based paint are positive for 0.02% lead by weight, OSHA Standard 29 CFR 1926.62 will be followed.

An initial hazard assessment is required and will be performed to determine worker exposure levels. The assessment will involve personal sampling of a representative group of workers performing different tasks unless historical data is available. During the initial exposure assessment, workers will wear protective clothing and the proper respiratory protection until the results of the assessment are known. Training will be completed prior to worker exposure, during orientation (site-specific), and the training documentation will be supplied to Layton Construction prior to working onsite. If lead is present, the employee will take all precautions to ensure that they are not exposed, i.e., washing hands and face after exposure.

Copies of sampling results will be made available to Layton Construction. Area sampling of a work area will not be used for determining worker exposure levels. These results will be shared with all subcontractors working in the area of exposure, to protect all workers from possible exposure.

If sampling results indicate the exposure limits are above 30 µg/m3 but below 50 µg/m3, the following are required:

- Written compliance plan
- Medical surveillance (blood lead)
- Personal monitoring
- Hazard communication training for lead

If sampling results are above 50 µg/m3, the following are required:

- Written compliance plan
- Engineering controls
- Respiratory protection
- Protective clothing
- Medical surveillance
- Clean change rooms and showers
- Clean lunchrooms
- Warning signs
- Training

Each worker is to be notified in writing of their blood and/or personal monitoring results within five working days after the results are known.

Barricades, enclosures, track mats and/or ventilation protocols shall be provided to ensure the protection of the other workers, members of the public, or building occupants. Signs will be posted in areas where the PEL is exceeded, such as Danger Lead, may damage fertility or the unborn child, causes damage to the central nervous system, do not eat, drink, or smoke in this area.

Silica

In an effort to limit worker exposure to respirable silica employers must plan tasks and training to meet OSHA standards CFR1926.1153(k) Respirable Silica and CFR 1910.1200 Hazard Communication Standard. Exposure tasks may include using masonry saws, grinders, drills, jackhammers, handheld powered chipping tools, operating vehicle-mounted drilling rigs, milling, operating crushing machines, and using heavy equipment for demolition tasks. Employers following the requirements outlined in Table 1 (See Appendix 16), it will be assumed the work falls below the permissible exposure limit. Table 1 lists 18 silica-generating tasks along with specific engineering controls and respirator requirements. The employer is responsible to ensure exposure limits are not exceeded. Employers who DO NOT follow the requirements outlined in Table 1 will be required to measure workers' exposure to silica and independently decide which dust controls work best to limit exposures to the permissible exposure limits in the workplace. Regardless of which exposure control method is used, all construction employers covered by the standard are required to:

1. Establish and implement a written exposure control plan that identifies tasks that involve exposure and methods used to protect workers, including procedures to restrict access to work areas where high exposures may occur.
2. Designate a Competent Person to implement the written exposure control plan and train workers on work operations that result in silica exposure and ways to limit the exposure.
3. Restrict housekeeping practices that expose workers to silica where feasible alternatives are available.
4. Offer medical exams, including chest X-rays and lung function tests, every three years for workers who are required by the standard to wear a respirator for 30 or more days per year and keep records of workers' silica exposure and medical exams.
5. Train workers on work operations that result in silica exposure and ways to limit exposure.
6. Keep records of workers' silica exposure and medical exams.

Hexavalent Chromium

Hexavalent chromium is essential in several industrial applications such as chromate pigments in dyes, inks, and plastics, and chrome plating when chromium metal is deposited on a surface using chromic acid to prevent corrosion in paints, primers, and other coatings. Hexavalent chromium may also be a byproduct of industrial processes and maintenance operations.

When levels of hexavalent chromium cannot be reduced to less than 2.5 micrograms per cubic meter of air (2.5 $\mu g/m^3$) calculated as an 8-hour time-weighted average (TWA) an exposure program assessment will be put in place. No employee will be exposed to an airborne concentration of chromium (VI) in excel of 5 micrograms per cubic meter of air (5 $\mu g/m^3$), calculated at an 8-hour TWA.

Welders are most likely to be exposed to chromium VI when fumes are released while welding stainless steels, chromium alloys, and chrome-coated metals.

Only trained and qualified employees can operate welding, cutting, or brazing equipment. Training will include both written and practical applications and certifications will be provided during pre-mobilization meetings and be kept onsite and available upon request. Training will be completed and reviewed on an annual basis. All areas with possible exposure to chromium VI will be regulated and marked as authorized access only.

Repeated and prolonged exposure to the inhalation of hexavalent chromium can lead to harmful health effects including bronchitis, pneumonia, asthma, and lung cancer. Some symptoms of inhalation exposure to chromium VI include runny nose, sneezing, coughing, itching, and burning sensation. Inhalation is the most likely route of entry, employees can inhale dusts, mists, and fumes containing chromium VI, fresh air is the only method that will prevent airborne exposure and eye exposure. Some employees who come in contact with hexavalent chromium may develop an allergic reaction known as contact dermatitis. When an employee becomes allergic, brief skin contact causes swelling and a red itchy rash. Contact dermatitis becomes longer lasting and more severe with repeated skin exposure. Direct skin contact can also lead to skin ulcers, which are small, crusted skin sores that heal slowly and leave scars. Skin exposure can be prevented by using the appropriate skin protection such as Tyvek and disposable gloves. Appropriate changing room facilities will be provided with separate areas for contaminated clothing and fresh clothing. No contaminated PPE will be removed from the jobsite except by the appropriate disposal/cleaning companies. Chromium VI will not be removed from PPE by blowing, shaking, or any other means that will disperse chromium VI into the air.

Hydrogen Sulfide (H2S)

Exposure to H2S while relatively rare in construction, exposure can have both short-term (acute) and long-term effects on human health. Although most people can smell very low concentrations of H2S it is dangerous that this provides adequate warning.

Hydrogen sulfide may be encountered during drilling operations. The gas may be associated with recycled drilling mud, water from sour crude wells, blowouts, tank gauging, and field maintenance. Hydrogen sulfide may also be present in refineries and is associated with decaying material in natural settings. Where the potential for H2S exposure exists, the following protocol will be put in place.

The health effects of hydrogen sulfide include irritation of the eyes, nose, throat, and respiratory system. Hydrogen sulfide is both an irritant and a chemical asphyxiant with effects on both oxygen utilization and the central nervous system. Its health effects can vary depending on the level and duration of exposure.

PURPOSE

The purpose of this program is to establish minimum requirements for site specific H2S safety, which will enhance safety in the occupational setting where hydrogen sulfide is present or is recognized as being potentially present

SCOPE

This program sets forth accepted practices for H2S. This program applies to all employees of Layton Construction and employees of subcontractors working on Layton Construction projects.

DEFINITIONS

- Contingency Plan – a site-specific written document that provides an organized plan for alerting and protecting the public within an area of exposure following the accidental release of all potentially hazardous atmospheric concentrations of hydrogen sulfide.
- Exposure level – permissible exposure level of hydrogen sulfide is 10 PPM for an 8-hour, time weighted average.
- Gas Detector Instrument – an instrument/detector to measure levels of H2S. Instruments may be electronically or manually operated.
- Hydrogen Sulfide (H2S) – is an extremely deadly, toxic gas that in its pure state is colorless and is heavier than air. Additionally, it is the second most toxic gas known to man, ranking behind hydrogen cyanide and ahead of carbon monoxide. It has the odor of rotten eggs as a low concentration, but in higher concentrations it rapidly paralyzes the olfactory nerves (sense of smell). Is soluble in water and is flammable and poses a definite threat of explosion.

- Parts Per Million (PPM) – parts of vapor or gas per million parts of contaminated air by volume.
- Personal H2S Monitor – an electronic instrument worn on the person that is set to alarm at 10PPM of H2S.
- Venting – the process of discharging a material to the atmosphere through a series piping and/or venting devices, to facilitate the proper and safe dispersion of toxic materials and to minimize personnel exposure.

KEY RESPONSIBILITIES
MANAGERS AND SUPERVISORS

Supervisors will ensure that all employees who are to be assigned to work at locations where hydrogen sulfide is known to be present, or suspected to be present in any concentration, have been trained in hydrogen sulfide safety. They will ensure that employees have been medically approved to wear respirators and trained on the safe use of respirators, including a respirator fit test in accordance with OSHA's respirator protection program. To ensure employees have been trained and familiar with personal H2S monitors and gas detection instruments. All employees will go through site safety orientation, including any additional client procedures for H2S. To ensure that all respiratory equipment to perform required work is available. Each employee will be provided a copy of the H2S safety plan.

EMPLOYEES

Employees are responsible to comply with all aspects of the H2S program.

GENERAL

Layton Construction will have a written confined space program per 29 CFR 1910.146 and employees should be trained under CF1910.146(g) and Layton Construction will be aware of owner's contingency plan provisions.

Every person entering a H2S designated location, regardless of the concentration, will wear a personal H2S monitor that is set to alarm at 10PPM and will carry a 5-minute escape pack with them at all times.

When work requires opening any equipment on location that has the potential of releasing concentrations of H2S at 100 PPM or higher, two or more H2S trained persons will be present and follow these procedures prior to and during the opening of equipment:

- Each person entering the H2S location will don a personal H2S monitor prior to entry.
- A special safety meeting will be held with everyone on location to discuss the work plan, the responsibilities of each person and the site-specific contingency plan.
- Each person will have either a self-contained breathing apparatus (SCBA) or a supplied airline respirator equipped with a 5-minute escape pack and will be worn when opening the equipment to the surrounding atmosphere.
- At least one person (per two workers) equipped with a SCBA will act as the stand-by person and may not participate in the work being performed until the atmosphere has been tested and found to have no H2S present in quantities over 10PPM. The stand-by person will be stationed up wind, within 100 feet and in clear view of the workers.
- If an operator or other third party provides the stand-by person, it will be the responsibility of the Layton Construction manager/supervisor in charge to verify that the person has been H2S, CPR, and First Aid trained, and that they have been provided the proper respiratory equipment.

After the equipment has been locked and tagged out (per Layton Construction Lockout/Tagout procedure), opened and the H2S concentration has been cleared to less than 10 PPM, the stand-by person will no longer be required. Work may then be performed without respiratory equipment, except for the required 5-minute escape pack.

SAFE WORK PROCEDURES

Maintain compliance with permit requirements of Layton Construction and any requirements by the client. Verify that proper safety equipment is available, functioning properly and is utilized. Make sure to check and remain aware of wind conditions and direction. Perform a thorough check of the downwind area prior to the start of any

potentially hazardous work activity. Check for other personnel and ignition sources. Ventilate work areas by venting and purging lines and vessels prior to the beginning of any work activities. Keep all non-essential personnel away from work areas with potential H2S hazards. Immediately vacate the area when any H2S monitor sounds and do not re-enter without proper respiratory protection.

MONITORS AND GAS DETECTOR CALIBRATION

Each personal H2S monitor will be calibrated at least monthly, and the results recorded on the calibration log. Those monitors that do not require calibrating will be bump checked with calibration gas to test alarms, monthly or prior to use if not used routinely.

Concrete Construction

All vertical and horizontal rebar, form stakes, metal and/or plastic conduit, and/or small pipe stub-ups will be protected with approved caps or other industry accepted alternatives to protect against impalement and injury. Workers that will operate vibrators, pump nozzles, and concrete buckets will wear appropriate eye and foot protection. Long sleeve shirts will be worn to protect bare skin from exposure to concrete and the possibility of concrete burn and contact dermatitis. Finishers will wear kneepads and impervious gloves when hand-finishing concrete. Vinegar will be in the area of work in case of exposure.

Workers engaged in vertical rebar assembly will comply with the six-foot fall protection rule. Positioning devices alone are not approved fall protection but can be used in conjunction with personal fall protection equipment. Walkways along form walls will be constructed in accordance with OSHA scaffold and fall protection standards.

Prefabricated forms and form-making material will be always stacked neatly. When stripping concrete forms, all material will be immediately removed and stacked in an orderly manner. Forming material or debris will not block walkways and aisles. Subcontractor will remove rebar, tie-wire, and other debris from the work area daily. Ensure that reinforcing steel and forms for walls, piers, columns, stairs, and similar vertical structures are adequately supported to prevent overturning or collapse and are designed and installed under the supervision of a Qualified Person. Ensure that uncoiled wire mesh is adequately secured to prevent recoiling.

Equip buckets with a discharge device that an employee can operate without being exposed to the load. Equip buckets with safety devices to prevent premature or accidental dumping and ensure that the release is self-closing. Follow safe rigging practices when handling concrete buckets. No employee is permitted to ride a concrete bucket. When using bull floats, inspect the area to insure there is no energized equipment or power liens nearby that the handles could touch. Concrete buggy handles must not extend beyond the wheels on either side of the buggy. Rotating-type powered concrete trowels will be equipped with dead-man controls that automatically shut down the equipment when the operator's hands are removed from the controls.

POST-TENSIONING OPERATIONS

No worker(s), except those essential to the post-tensioning operation, will be permitted behind the jack. Warning signs and barriers will be erected to limit access to the post-tensioning area during post-tensioning operations.

Precast Concrete

A qualified person is required to be responsible for the inspection of all rigging and hardware and the supervision of the rigging of precast concrete members.

Unloading of Precast Concrete Members

Prior to precast concrete members being unloaded, all rigging and hardware will be inspected, the precast member is properly rigged, and the load is stable before releasing the binders.

Placement of Precast Concrete Members

Precast members are not to be moved over workers. Workers involved in the setting or connecting of precast members will strictly adhere to the 100% fall protection policy with no exception. No worker will use hands to reach under a precast member to adjust a shim or bearing pad.

Confined Space

Layton Construction is classified as the controlling contractor per OSHA 29 CFR 1926 Subpart AA Construction confined space and will be the primary point of contract for information about permit spaces at the work site. The host employer (owner) must provide information it has about permit spaces at the work site to the controlling contractor, who then passes it on to the subcontractors whose employees will enter the spaces. This process will be reviewed annually and adjusted as necessary. The duties of entrants, attendants, and supervisors is outlined below and in the confined space permit, when in doubt, refer to the standard.

When multiple employers are working in a confined space, Layton Construction will require all subcontractors to coordinate work, to ensure clean communication and a safe work environment for all subcontractors. Measures such as barriers or barricades will be erected when necessary to prevent unauthorized entry, or other external hazards from compromising the confined space.

All personnel will know the hazards of entry. The entrant will properly use equipment, communicate with the attendant, alert the attendant of unsafe conditions, and exit the space when a hazardous condition develops. The attendant will monitor entrant behaviors, maintain a head count of entrants, remain outside the entry point, ensure the permit is posted, communicate with entrants, order evacuations, and summon rescue. The entry supervisor will verify atmospheric monitoring, ensure hazards identified are mitigated, verify rescue service availability, remove unauthorized personnel, and terminate the entry when appropriate.

In the event of a confined space emergency, the rescue response procedure will be followed, Layton Construction will be immediately notified to provide emergency response assistance in addition to the rescue team designated in the rescue response plan. Layton Construction does not perform work in confined spaces where IDLH conditions are present.

Procedures to ensure safe work on Layton Construction work sites for all personnel who enter confined spaces will cover: the requirements for safe entry, work, and exit of personnel assigned to work in confined spaces. These requirements apply to all Layton Construction staff and includes subcontractors and sub-tiers. Identification of confined spaces (aka equipment, tanks, vessels, silos, storage bins, hoppers, vaults, pits, manholes) which have the following physical characteristics:

- Large enough and so configured that a person can bodily enter and perform assigned work (this includes spaces where the head and trunk can enter even if the whole body could not fit)
- Limited or restricted means for entry or exit (aka man-way door, hatch, cover)
- Not designed for continuous personnel occupancy (aka a hazardous situation is typically present in the space)

If all three conditions above are present, the space is a confined space. Proceed to classify the confined space based on the potential hazard in the space.

Prior to commencement of work, each employer must ensure that a competent person has identified all confined spaces in which any employee may work and identifies each space that is a permit space, through consideration and evaluation of the elements of that space, including testing as necessary. All entry employers conducting work on a Layton Construction site will decide how employees it directs will enter a permit space, the entry employer must have a written permit space program implemented onsite. Entry employers must give Layton Construction information about the entry program and any hazards they encounter in the space.

Prior to any worker entering a confined space, they will submit training records to Layton Construction. This training will include contents of the Confined Space Entry Plan, known hazards in the confined space, emergency procedures in case of an emergency, correct use of PPE (when required), Hot Work Permit (if required), atmosphere testing requirements, Lockout/Tagout procedures, and fall protection (if required).

Entry certification and confined space entry permits must comply with 29 CFR 1910.146 and 29 CFR 1926 Subpart AA, Confined Spaces in Construction. There are 5 key differences in the construction rule, and several areas where OSHA has clarified existing requirements. These new standard addresses more directly the needs of the construction industry.

1. More detailed provisions requiring coordinated activities when there are multiple employers at the worksite. This will ensure hazards are not introduced into a confined space by workers performing tasks outside the space. An example would be a generator running near the entrance of a confined space causing a buildup of carbon monoxide within the space.
2. Requiring a Competent Person to evaluate the work site and identify confined spaces, including permit spaces.
3. Requiring continuous atmospheric monitoring whenever possible.
4. Requiring continuous monitoring of engulfment hazards. For example, when workers are performing work in a storm sewer, a storm upstream from the workers could cause flash flooding. An electric sensor or observer posted upstream from the work site could alert workers in the space at the first sign of the hazard, giving the workers time to evacuate the space safety.
5. Allowing for the suspension of a permit, instead of cancellation, in the event of changes for the entry conditions list on the permit or an unexpected event requiring evacuation of the space. The space must be returned to the entry conditions listed on the permit before re-entry.

Mobile Elevated Work Platforms (MEWPs)

The overhead and underground utility considerations for aerial lifts are located in the crane section of this document.
Scissor lifts will be used in accordance with 1926.452(w). Aerial lifts will be inspected daily prior to use, this inspection will include the testing of the controls to ensure they are in safe working condition. Aerial lifts will not be used as material hoists unless the load is contained within the basket and meets the lift's rated capacity. The lift will not be modified for hoisting material unless the manufacturer approves in writing. Personal fall arrest will be worn and attached to the boom or basket when working from an aerial lift. The gates of aerial lifts will be properly engaged whenever the lift is in use. Aerial lifts will be equipped with a reverse signal alarm, and when necessary due to obstructed view, spotters will be used.

TRAINING REQUIREMENTS

Only trained personnel who have been deemed competent and designated by their supervisor are authorized to operate any mobile elevated work platform. Employees will have training certifications on their person and show proof of training if requested.

SUSPENDED SCAFFOLDS

A competent person will evaluate suspended scaffolding and anchorages and suspension lines before each use. Workers working from suspended scaffolding will wear a full body harness attached to an independent vertical lifeline. When welding is required from swing stage scaffolding, the scaffold will be grounded, and suspension ropes protected. In all cases activities will be consistent with manufacturer's recommendations.

MOBILE SCAFFOLDS (AKA BAKER SCAFFOLD)

It is recommended that handrails be in place anytime the working platform is in excess of 4 feet above the ground but is MANDATORY that handrails be in place at six (6) feet above the ground. Wheels on mobile scaffolding will be locked in place when workers are working from it, self-propelling is prohibited.

MAXIMUM INTENDED LOAD FOR SCAFFOLDS

Each scaffold and scaffold component will be capable of supporting without failure, its own weight and at least four times the intended maximum load. The rated load capacity of a scaffold is defined below:

- Light Duty – 25 lbs. per square foot
- Medium Duty – 50 lbs. per square foot
- Heavy Duty – 75 lbs. per square foot

Layton Construction requires that heavy duty scaffolding be used in all cases where the scaffolding is utilized by multiple subcontractors. If a special use requires light or medium duty scaffold, they will be so labeled and used only by a single subcontractor.

Crane Safety

Every crane operating on a Layton Construction project must have the following documentation in the cab of the crane available for review: manufacturer's operating manual, manufacturer's lift charts, last annual inspection, last monthly inspection, and exception reports (if any). If at any time during the lifting process the crane operator has the authority to stop the lift and request a review by a qualified person to determine that safety has been assured.

Accessible areas within the swing radius or the rotating superstructure must be barricaded to prevent serious injury or death to workers. Crane baskets are not permitted without the prior approval of site management and Layton Construction ESH manager. No employee will work or travel on any part of the crane boom without proper personal fall arrest equipment. No worker will be allowed to climb the tower or get on the boom when the crane is in operation. No load will be swung over any public street that is occupied by the general public unless authorized by local authorities.

OPERATOR, RIGGER, AND SIGNALMAN QUALIFICATIONS

All crane operators on Layton Construction projects are to be a certified crane operator (CCO) and possesses all the requisite skills and demonstrate requisite skills to safely operate the applicable equipment. However, until CCO's are available at all US locations, Layton Construction will make every effort to use operators who are certified by the National Commission for the Certification of Crane Operators (NCCCO) for the cranes they are operating. Prior to any lifts the operator's competency will be verified through their employer and made available to Layton Construction site management and be always available. This certification does not ensure that an operator is capable of safely operating a particular piece of equipment.

Qualifications for riggers and signalmen will be compliant with OSHA standards, verification of certifications must be presented to Layton site leadership prior to crane operations.

A signalman will be used when the crane operator's view is obstructed.

REQUIRED CERTIFICATIONS

Review and inspect NCCCO Certification Card for type of cranes the operator is certified to operate. Verify on the application for employment or by subcontractor certification that the applicant has operated cranes in the classification for which they are being hired. Layton Construction reserves the right to remove an operator from the site if, in Layton Construction's judgment the operator is unfit to operate the applicable crane. Upon determining that the potential operator is qualified, project specific training will be given to the operator.

INSPECTION AND OVERSIGHT REQUIREMENTS

Ongoing comprehensive inspections are a critical component that ensures the on-going safe operation of all cranes. Prior to any crane arriving on a Layton Construction project, the previous monthly and annual inspection will be submitted and reviewed by Layton Construction site management. Verification that all noted defects

have been corrected will be included with the inspection form. A **qualified** third party will inspect all structural components in accordance with manufacturer's recommendations. The crane rental company will perform all maintenance and inspections in accordance with manufacturer recommendations. The erection of tower cranes will be directed by a third-party inspector and upon completion of erection a new annual inspection will be accomplished, and all defects corrected and documented prior to any lift.

Daily Inspections must be accomplished by a qualified operator and documented in Construct PM for all cranes on a Layton Construction project. It is mandatory that the equipment checklist is used to document that this requirement has been met.

Monthly Inspections will be accomplished for all cranes used on the project for greater than 21 days or 3 consecutive weeks, regardless of operating days during that period. The monthly inspection forms are required to be completed and maintained in the cab of the equipment, and a copy uploaded into Construct PM for project documentation. Monthly forms will be retained for a minimum of three (3) months and some local agencies may require them to be retained longer.

Annual Inspections will be accomplished for all cranes used on that project for greater than 365 calendar days, regardless of operating days during that period. The annual inspection must be accomplished by either a vendor, manufacturer, or third-party inspector and the forms maintained in the cab of the equipment, with a copy uploaded in Construct PM for project documentation.

FAA AND OTHER AGENCY NOTIFICATIONS

The Federal Aviation Administration (FAA) requires a permit on construction cranes any time they will exceed 200 feet in height, **OR** when they are placed within 20,000 feet (3.79 miles) of an airport regardless of height. The FAA required FAA Form 7460-1 to be submitted at least 30 days before the date the proposed construction is to begin, the date the application for a construction permit is to be filed, the FAA requires that four (4) copies of the FAA Form 7460-1 be sent to the local/regional FAA Director. In addition to the FAA, other local statues may require additional notification.

PRE-ERECTION REQUIREMENTS

Geotechnical requirements: soil conditions must be fully assessed prior to any crane arriving at the site. Items to consider include travel, slope, and soil loading ability. Prior to the erection of any tower crane a geo-technical evaluation will be accomplished and incorporated into the foundation design of the engineered system. For mobile cranes, outrigger size, location, and soil condition must be considered when planning. Soil bearing capacity is to be determined by a vendor and outrigger sizing established prior to the crane arriving onsite. Tower crane foundations must be a designed system, certified by a professional engineer, taking all loads and soil conditions into consideration.

OVERHEAD AND UNDERGROUND UTILITY CONSIDERATIONS

Prior to the assembly/erection of any crane it must be determined if any part of the crane, load line, or load (including rigging and lifting accessories) could get in the direction or area of assembly within proximity of a power line. Minimum clearance distances are on the table below. In the event this clearance must be encroached the line will be de-energized prior to the planned encroachment. If the voltage is unknown, a 20-foot minimum clearance must be maintained.

VOLTAGES (NOMINAL kV, ALTERNATING CURRENT)	MINIMUM CLEARANCE DISTANCE (FEET)
Up to 50	10
Over 50 to 200	15
Over 200 to 350	20
Over 350 to 500	25
Over 500 to 750	35
Over 750 to 1,000	45
Over 1,000	As established by the power line owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution

WORKING IN PROXIMITY OF HIGH VOLTAGE TRANSMISSION LINES

Layton Construction project teams will determine the presence of electrical transmission lines and develop a specific plan that assures no worker will have the potential to be harmed from unplanned electrical discharge. The Layton Construction project team will contact the power provider to evaluate the load being carried, and if the power can be shut off during the construction process.

Where the power cannot be shut off the following distances will be maintained at all times:

- Less than 300V to 50kV no worker shall work closer than 10 feet from the transmission line
- Greater than 50kV no worker shall work closer than 10 feet + 0.4 inches for each additional kV

Any work that involves involving high voltage shall ONLY be accomplished by person(s) trained and competent in such work, and a specific work permit will be prepared and presented to the Layton Construction project team prior to commencement of work.

LIFT AND PRE-TASK PLANNING

Prior to any lifts a lift plan will be completed, reviewed, and signed off on by the senior superintendent and safety manager. The final lift plan should fully incorporate the current site conditions, including utility locations and any possible intersections with public access areas. A Daily Pre-Task Plan must be accomplished prior to any lift for that specific day to ensure that no deviations from the lift plan exist.

CRITICAL AND MAJOR LIFT PLANNING AND PROCEDURES

The decision to designate a lift as a critical lift is a management decision, incorporating both critical and major lifts. Guidelines provided here are intended to aid in making that decision. The manager who has the responsibility for the item being lifted has the authority to require that it be handled as a critical lift. In addition, the manager at the facility where the lift will be performed also has the authority to require that it be handled as a critical lift. The manager who designated the lift as a critical lift will ensure that a person-in-charge (PIC) is assigned. The PIC need not be in the Layton Construction Organization. A definition of a critical or major lift is: if load reaches 75% of the crane's maximum capacity, two (2) or more cranes are needed to make a pick, or when hoisting personnel.

The PIC will ensure that a step-by-step procedure is prepared for all critical lifts. Although individual procedures are prepared for the one-time critical lifts, general procedures may be employed to accomplish routine recurrent critical lifts. Any non-routine or critical equipment lift (as determined by the project manager, superintendent, or safety manager). Critical equipment may include equipment that meets one of the following criteria:

- The load item if damaged or upset would result in a release into the environment of radioactive or hazardous material exceeding the established permissible environmental limits
- The load item is unique and, if damaged, would be irreplaceable or not repairable and is vital to a system, facility, or project operation
- The cost to replace or repair the load item, or the delay in operations of having the load damaged, would have a negative impact on the facility, organization, or budget to the extent that it would affect program commitments

A lift not meeting the above criteria will also be designated critical if mishandling or dropping of the load would cause any of the above noted consequences to nearby installations or facilities. Further site-specific criteria may be developed to supplement those cited above and may include loads which require exceptional care in handling because of size, weight, close-tolerance installation, or high susceptibility to damage as well as lifts using multiple pieces of lifting equipment.

APPROVAL AND REVISION OF CRITICAL LIFTS

The critical lift procedures should be reviewed at a pre-lift meeting by the responsible contractor, the crane operator(s), Layton Construction site management, ESH manager, author of the lift plan, and manager of the lift operation. Any revisions to the procedure will be reviewed and approved through the same cycle as the original procedure.

PRE-LIFT MEETING

Before any critical lift is performed, a pre-lift meeting with all participating personnel will be held. During the meeting, the critical lift procedures will be reviewed, and questions will be resolved. The pre-lift meeting will be documented. Practice lifts are recommended (if used, requirements for the practice lifts should be documented in the procedure).

JUMPING CRANES

Jumping of cranes must follow similar protocols as a critical or a major lift and requires a comprehensive written plan to address the following:

- Number of sections to be added/removed
- Work sequences
- Rigging to be used
- Inspection of all rigging equipment including shackles, hooks, etc.
- Review of all equipment such as collars, ties, and bolts, including capacities and a record of visual inspection by a competent person
- Relevant weather warnings and emergency procedures
- Full compliance with manufacturer's recommendations

DISMANTLING CRANES

A written crane plan is required for the dismantling of any crane.

CRANE INCIDENTS

All incidents involving crane operations (aka unsafe observation, near miss, etc.) must be reported immediately to Layton Construction project management, including the safety manager. Layton Construction will collaborate with other subcontractors if appropriate and develop a corrective action plan in response to the cause of the incident prior to resuming any crane operations.

CRANE MANAGEMENT SYSTEMS

Documentation Control – every crane operating on a Layton Construction project must have the following documentation in the cab of the crane and immediately available for review:

- The last annual inspection
- The last monthly inspection
- Qualified person certifications

- Exception reports (if any)
- Manufacturer's operating manual – this manual includes specifications that will be followed during assembly, operation, and disassembly, including that a competent/qualified person will direct and supervise work
- Manufacturer's lift charts

Rigging

Riggers must be properly trained and qualified to rig material or equipment lifted by a crane. Rigger's training documentation will be made available to Layton Construction at the pre-mob meeting. If any changes are made in riggers onsite, updated training records will be provided prior to any rigging work.

Tag lines will be used when required in accordance with 1926.953(d) to keep loads under control, or in other circumstances where the safety of employees dictates the use of tag lines.

All hooks will be equipped with safety latches, safety latches on hooks that are disabled and/or shakeout ("pelican") hooks will not be used unless in compliance with Subpart R 29CFR1926. All rigging equipment and spreader bars will have the manufacturer's tag. Rigging equipment and spreader bars not tagged or marked will be immediately removed from the project.

All rigging will be inspected daily before each shift, during use, and after use by a qualified rigger and documented in writing, and in Construct PM Equipment checklist, for Layton Construction documentation purposes. This includes rigging equipment such as chains and slings including nylon straps, continuous chockers and wire rope chockers; as well as all rigging hardware such as hooks and shackles or any hardware used in the rigging of material for lifting and hoisting purposes. In addition, all chain slings such as single chains, or chain 2, 3, and 4 ways or in any configuration will have the following inspected:

- Missing or illegible identification
- Indications of heat damage including weld splatter or arc strikes
- Excessive pitting or corrosion
- Bent, twisted, distorted, stretched, elongated, cracked, or broken load bearing components
- Excessive nicks or gouges
- Evidence of unauthorized (other than the manufacturer) welding or modification
- Swivels unable to freely rotate
- Other conditions including visible damage that causes doubt as to continued use

All chain slings will be returned to the vendor/manufacturer at least annually and have a complete inspection by a qualified person to ensure that the integrity of that chain or chain sling configuration is suitable for use (ASME: B30.26- 4.8.4) up to and including the loss of metal not to exceed 10% of the original catalog dimension (ASME: B30.26-4.8.5) all other rigging equipment will meet or exceed the OSHA standard 1926.251, 1910.184 as well as ASME: B30.26-2015).

Demolition

Prior to start of any demolition work, the subcontractor must ensure a competent person has performed an engineering survey of the building or area to be demolished to determine the condition and location of utilities, whether hazardous materials exist, means and methods of performing the work, and sequencing. No work will commence until a written engineering survey has been completed and submitted to Layton Construction.

Debris and material will not be dropped through walls, floor holes, windows, or other elevated work areas without the area below being barricaded and properly signed. Under no circumstances will materials be dropped more than 20 feet without using a chute. Debris chutes will have a substantial gate at all elevated openings.

If demolition of a building will involve implosions, the demolition contractor will submit to Layton Construction a detailed safety plan to specifically address site preparation, installation of explosives, debris/dust control and blaster qualifications.

Electrical

No work will be performed on any energized electrical circuit, bus bars, equipment, or panels unless an approved written work plan is developed in accordance with Chapter 1 of NFPA 70E and submitted to the Layton Construction superintendent for review prior to performance of work (see Appendix 5 Energized Work Permit). As the general contractor, Layton Construction is obligated to ensure all electrical subcontractors follow the NFPA 70E standards regulating electrical safety. Layton Construction will advise subcontractors of hazards unique to the jobsite. When unanticipated hazards are revealed during the work process, work will stop, Layton Construction team will be notified, and the identified hazard is fully mitigated before work can resume. The standard must be followed when any "live work" is completed on a Layton Construction project. All electrical subcontractors working on Layton Construction project must know and follow these standards. Employees should treat de-energized parts as live when working near the equipment.

Temporary lighting will be placed such that adequate lighting is always provided during active construction.

INSPECTION PROGRAM

A Competent Person will inspect all cord sets, portable electrical equipment, tools, and appliances not part of any permanent building or structural electrical system to prevent any worker from receiving an accidental electric shock. All temporary cords will be three wire types S, ST, SO, or STO with a 16 or heavier wire gauge.

Daily Inspections: Each cord set, attachment cap, plug, and receptacle of cord sets, portable electrical equipment, tools, or appliances connected by a cord and plug, will be visually inspected daily by the user for external damage, such as deformed or missing ground pins, insulation damage, frayed wires, or indications of possible internal damage. Any electrical equipment, tool, appliance, or cord set that is damaged or defective will be immediately removed from service and tagged out as defective equipment for repair. A qualified electrician will repair tagged electrical items.

Monthly Inspections: Each cord set, receptacle, and cord-plug connected electrical equipment, tools, or appliances not part of the building or structure's permanent wiring, will be visually inspected for damage or missing ground pin, insulation damage, frayed or exposed wires, and signs of internal damage. The color of the month tape will be applied following this inspection procedure. Any defective electrical equipment will be immediately removed from service and tagged as defective equipment for repair.

Please refer to the overhead/underground utilities distance chart on pg. 40. Ensure that all unqualified employees maintain proper distance of at least 10 feet from all overhead/underground utilities. When a qualified person is working in the vicinity of overhead lines, whether in an elevated position or on the ground, the person may not approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in the table below.

VOLTAGE RANGE (PHAS E TO PHASE)	MINIMUM APPROACH DISTANCE
300 V and less	1 ft. 0 in. (30.5 cm)
Over 300V, not over 750V	1 ft. 6 in. (46 cm)
Over 750V, not over 2kV	2 ft. 0 in. (61 cm)
Over 2kV, not over 15kV	3 ft. 0 in. (91 cm)
Over 15kV, not over 37kV	3 ft. 6 in. (107 cm)
Over 37kV, not over 87.5kV	4 ft. 0 in. (122 cm)
Over 121kV, not over 140kV	4 ft. 6 in. (137 cm)

TRAINING REQUIREMENTS

For all employees required to work on or near electrical work (limited approach boundary), the following trainings and refresher periods will be verified by the Layton Construction project team.

- Trained in safety-related work practices meeting the requirements of CFR 1910.332(b)(1).
- Re-training will be required for any employee that is observed to be non-compliant with safety-related work practices OR when working conditions change. Re=training will be accomplished at planned intervals not to exceed 3 years.
- All training records for employees will be maintained during the tenure of employment and for a minimum of five years.

ADDITIONAL REQUIREMENTS FOR WORK IN LIMITED APPROACH BOUNDARY

The following procedures will be in place prior to any work being authorized on or near any energized electrical circuit, equipment, or panels. These procedures will receive a formal audit annually in addition to the daily and weekly checklist requirements.

- A formal risk assessment has been accomplished identifying hazards and having a mitigation plan in place. The risk assessment will be documented using the Layton Construction checklist in Construct PM. The risk assessment will fully assess the potential of arc flash and ensure that risk is mitigated prior to authorizing work.
- A procedure in place that stops work when unanticipated hazards are observed.
- A comprehensive pre-task plan is accomplished daily prior to access with the Limited Approach Zone AND all work permits are reviewed and approved daily.
- Employees will be informed and alerted regarding the potential of hazards daily in the pre-task planning process.
- Only qualified persons will complete and perform tasks such as testing, troubleshooting, and voltage measuring on electrical equipment.
- All equipment used for testing will be properly rated for the equipment to which they are to be connected.
- All equipment will be tested and verified by a competent person and determined to be in proper working order, both prior to and after the test is performed.
- All insulating tools, PPE, and other equipment will be inspected daily prior to use and immediately after any incident. The maximum test interval for rubber insulating PPE will not exceed 24 hours. All PPE will fully comply with standards outlined in CFR 1910, CFR 1926, and ANSI references with these regulations.
- Conductive articles of jewelry and clothing (such as watch bands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, or metal headgear) may not be worn if they might contact exposed energized parts. However, such articles may be worn if they are rendered nonconductive by covering, wrapping, or other insulating means.
- A work permit is required daily for all work on energized electrical equipment.

GROUND FAULT CIRCUIT INTERRUPTERS (GFCI)

All cord sets and cord-plug electrical equipment, tools or appliances that are 120 volts will be connected to a ground fault circuit interrupter (GFCI). No cord set or cord-plug electrical equipment, tool, or appliance will be plugged directly into any permanent building or structural electrical system not equipped with a GFCI. Exemptions are office equipment and appliances in site offices. When the source of electricity is from a portable, or vehicle mounted generator, a GFCI is required, and the generator is to be grounded if required by the manufacturer. Each craft worker will periodically inspect, test, and reset the GFCI device being used to ensure it is working properly. If the GFCI device is not functioning properly it will be reported to subcontractor supervisor to correct, and if needed to notify the Layton Construction project team.

DOUBLE-INSULATED TOOLS

Double-insulated tools are allowable if the case bears the Underwriter Laboratories "double-insulated" label. Tools where this label has been removed, painted over or otherwise not readable must be removed from service.

INSPECTION PROGRAM

An inspection program must be established to inspect all cord sets, portable electrical equipment, tools, and appliances as described below and before first use, before returned to service following any repair, and after an incident that could have caused damage.

DAILY INSPECTION

Each cord set, attachment cap, plug, and receptacle of cord sets, portable electrical equipment, tools, or appliances connected by a cord and plug, will be visually inspected daily by user for external damage, such as deformed or missing ground pins, insulation damage, frayed wires, or indications of possible internal damage. Exceptions include cord sets and receptacles that are fixed to the permanent electrical system and are not exposed or damaged.

Any tool, electrical equipment, power tool, appliance, or cord set that is damaged or defective will be immediately removed from service and tagged out as defective equipment for repair. A qualified electrician will repair tagged electrical items.

All cord sets, receptacles and cord-plug connected electrical equipment, tools, or appliances not part of the building or structure's permanent wiring, will have the following performed each month, visually inspect for damage or missing ground pin, inspect insulation for damage, inspect for frayed or exposed wires, inspect signs of internal damage, once inspected the color tape for the month will be applied.

GENERAL ELECTRICAL RULES

All subcontractors will provide proof of electrical awareness training prior to the start of any work. This will include safe work practices to prevent electric shock, including proper PPE, daily inspection protocol, and daily pre-task planning expectations. Qualified employees must adhere to the approach distances in Table S5 when working in the vicinity of overhead lines. All unqualified persons must maintain a distance of over 10 feet when working near overhead powerlines.

All cord sets will be elevated above the work surface when practical. Wire, nails, or other conductive material will not be used to hang or attach cord sets or welding leads. Cord sets that cross roadways will be protected from damage from vehicle and equipment traffic by devices such as hose bridges. Light stringers, and halogen lamps will have the light bulbs protected from accidental contact or breakage and will be hung per manufacturer specifications and must have UL listed and be OSHA approved. UL approved covers are required on all panels, load centers, and pull boxes prior to energizing. Necessary steps will be taken to prevent unauthorized or unqualified workers access to energize electrical parts or equipment.

Ladders used when servicing energized electrical equipment must be nonconductive.

Lock Out/ Tag Out

The Layton project team will establish a Lockout/Tagout procedure to ensure that workers are not exposed to the hazards from moving machinery or equipment and the hazards posed by an energized source (pneumatic, steam, hydraulic, chemical). This program is reviewed annually to ensure that the procedures are being followed, in addition periodic inspections throughout the year will be performed by a competent person. If any deficiencies are discovered during these periodic inspections, training and re-training will be completed immediately with both the employee and the supervisor to ensure that all parties are aware of correct practices. These inspections will be documented in Construct PM. Refer to Appendix 11 for the Lockout/Tagout Checklist. Safety locks and tags for individuals will be applied to all circuits, switches, valves, isolating devices, and any other energy sources to ensure equipment, machinery, or processes, that have been considered functioning, charged, or could otherwise be operable have been rendered non-operational or de-energized. In the event of a group of workers, each individual will be issues their own lock/tag to ensure that every individual is protected.

No person will remove another worker's safety lock or attempt to energize any piece of equipment, machinery or process that has been locked out and tagged. The training will include recognition of hazardous energy source, type, and magnitude of energy available, methods and means necessary for energy isolation and control. Each authorized employee will receive adequate training. The training will address that all affected employees are instructed in the purpose and use of the energy control procedure. There will be training provisions included for any other employee whose work operations are or may be in an area where energy control procedures may be utilized. The employee training will also address when lockout/tagout systems are used including the limitations of a tag (tags are warning devices and do not provide physical restraint). The training will include that a tag is not to be removed without authorization, the tag is never to be ignored or defeated in any way.

Retraining is required when there is a change in job assignments, in machines, a change in the energy control procedures, or a new hazard is introduced. All training and/or retraining must be documented, signed, and certified.

The machine or equipment will be turned off or shutdown using the procedures established for the machine or equipment. An orderly shutdown must be utilized to avoid any additional or increased hazard(s) to employees as a result of the equipment stoppage.

DE-ENERGIZING EQUIPMENT AND PROCESSES

A Layton Construction representative will coordinate with the operating facility representative when any energized equipment or process must be de-energized. All circuits and sources of energy that require locking and tagging to make the equipment inoperable will be identified. The operating facility representative will notify personnel that may be affected by the de-energizing. The front-line supervisor for each individual overseeing the work will sign out sufficient safety locks to lockout the piece of equipment, or process.

The operating facility representative and front-line supervisors will make certain the operating controls to the equipment, machinery, or process are in the "off" or "neutral" position. Once verified that the controls are in the "off" or "neutral" position, the operating facility will place a safety lock and tag on the energy isolating device first. Next the front-line supervisor will apply their safety lock and tag to each isolating device that provides power, or other energy to the machinery, equipment, or process. The tag will contain the name of the front-line supervisor, company name, date, and phone number. Once the front-line supervisor has placed their safety lock and tag on the energy-isolating device, all affected workers will then apply a safety lock and tag to the energy-isolating device. Alternatively, the front-line supervisor may place the key to the equipment safety locks in a safety lock box, place the individual safety lock, and tag on the safety lock box, and then have each affected worker place their safety lock and tag on the lock box.

Prior to any work being performed on the piece of equipment, machinery, or process, the operating facility representative and front-line supervisor will verify that it is inoperable. The operating facility representative will attempt to operate the piece of equipment, machinery, or process. After verifying it is inoperable, the switch will be returned to the "off" or "neutral" position. Before an authorized or affected employee turns off a machine, or equipment, the authorized employee will have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled and the methods or means to control the energy. Stored or residual energy will be dissipated by whatever means are necessary. Capacitors will be discharged, and high capacitance elements short-circuited and grounded by a qualified electrician.

RE-ENERGIZING EQUIPMENT AND PROCESSES

When the required work is completed and the machinery, equipment, or process can be returned to service, the front-line supervisor will contact the operating facility representative to notify of completed work operations. The front-line supervisor will make a visual inspection of the equipment, machinery, or process to ensure all workers have completed their work and equipment, tools, and other material is removed from the area.

After confirming all workers, materials, tools, and other equipment are out of the area, the operating controls are still in the "off" or "neutral" position, and each worker has removed their safety lock and tag, the front-line supervisor will remove their safety lock and tag from each of the isolating devices. If a worker fails to remove his or her safety lock at the completion of the job or assigned duties, their immediate supervisor will notify Layton Construction project team and the ESH professional. Every attempt should be made to contact the worker and require them to return to the project to remove their lock. If the worker is unwilling or cannot return to the project, it must be verified that they are not physically at the project before the safety lock can be removed. All safety lock removal incidents will be investigated following the incident investigation procedure, and disciplinary action and retraining will occur.

The management representative will notify the operating facility representative that the equipment, machinery, or process is clear to be energized.

DE-ENERGIZING FLUID PROCESSES

Layton Construction will coordinate with the operating facility when any fluid process requires de-energizing. Any vessel, pipe, hose, or process that contains a hazardous liquid or gas will be purged with nitrogen or flushed before work begins as described in the Pre-Task Plan for the activity. All valves or gates and where blanks are required to be installed to isolate the work area will be identified.

The front-line supervisor overseeing the work will sign out sufficient safety locks and tags to completely isolate the system. The operating facility representative and front-line supervisor will verify that each valve or gate is in the "off", "neutral", or "closed" position. The operating facility representative will place as safety lock on the valve or gate first, then the front-line supervisor will apply a safety lock to each valve or gate and visible warning tag that includes the name of the front-line supervisor, company, date, and phone number. Next all affected workers will then apply a safety lock and tag to the energy-isolating device. Alternatively, the front-line supervisor may place the key to their equipment safety lock in a safety lock box, place their individual safety lock and tag on the safety lock box and then have each affected worker place their safety lock and tag on the lock box. The required blanks will be placed at this time. Prior to commencing work, the operating facility representative and front-line supervisor will verify the system and all piping, hoses, valves, and processes are de-energized, and that any stored energy is dissipated or restrained. Welded valve connections should have the valve handles removed and the stem tagged **"DO NOT OPERATE"** all other valves and isolating devices must be physically prohibited from operating. Hydraulic and pneumatic equipment or machinery will be blocked to prevent movement.

RE-ENERGIZING FLUID PROCESSES

The front-line supervisor will make a visual inspection of the area to ensure all workers, equipment, tools, and materials are removed from the area. After confirming this, while the valves and gates are in the "off", "neutral", or "closed" position, each worker will remove their safety lock and tag, then the front-line supervisor will remove their safety lock and tag from each of the isolating devices. The management representative will be notifying the operating facility representative that the system is ready to be energized.

Equipment and Vehicles

Only company and/or delivery vehicles used for the sole purpose of conducting work tasks onsite are permitted in construction areas. Equipment used onsite must have an audible backup alarm, and the driver and all passengers of any vehicle will wear seat belts.

Heavy equipment (cranes, forklifts, dump trucks, excavators/back hoes, man-lifts, etc.) used on the project will be inspected prior to use and comply with applicable OSHA and ANSI standards, which will be documented daily in Construct PM pre-shift. At minimum the operator will check brakes, lights, backup alarm, horn, hydraulic systems, steering mechanism, operating controls, missors, fire extinguisher, limit switches, and look for any leaks. Only certified operators who have supplied Layton Construction with their certifications will be allowed to operate heavy equipment onsite. This certification must be completed by a qualified instructor and will include formal, practical,

and site-specific operator evaluations. Once reviewed these operators will be identified by the appropriate hardhat sticker. Employees will be re-trained every three (3) years, or earlier if needed based on unsafe operations, change in type of vehicle, or if workplace conditions warrant additional training. Topics covered during training must include proper inspection procedures, basic knowledge of machinery, safe practices during operation of equipment, and hazard awareness during operation. Certification cards must be available upon request.

Rollover protective structures (ROPS) will protect all equipment, including forklifts, and any equipment with a windshield will be free of cracks and other visible damage, seatbelts are required to be always worn when provided. Forklifts will have an approved fork attachment for rigging when used to suspend loads from forks, free rigging from forks will not be allowed on any Layton Construction project

No equipment will be used to transport personnel unless it is specifically designed to do so, this includes beds of pickup trucks.

Prior to loading/unloading the operator will visually verify that trailer chocks, supports, and dock plates are in place.

Excavation and Trenching

Prior to any disruption of ground, excavation, or trenching on the project, Layton Construction project teams will request locations for existing underground utilities from the owner and notify public utility locating authorities. No work will commence prior to the utilities being located and a Utility Protection Permit completed and reviewed by Layton Construction project team and the assigned Layton Construction safety professional. All utilities within two (2) feet of the excavation and or are crossing the excavation will be located first by hand digging or the use of a vacuum truck. Once the utilities are exposed, they need to be protected from damage. (i.e., shielding and shoring). A full-time spotter will be used while equipment is operating within four (4) feet of the exposed utilities to ensure they are not damaged. If excavation and trenching operations cover multiple days, the competent person will inspect the exposed utilities for any damage and or possible issues prior to commencing the new workday. The newly discovered issues and or hazards will be communicated to the excavation team then documented in their pre-task plan. All subcontractors will identify the competent person and submit qualifications for review and approval by Layton Construction. The competent person will analyze the soil of the work area to determine the condition and type of soil to ascertain proper sloping and shoring requirements. The competent person will inspect excavations and trenches at the beginning of each day before work begins and when conditions change. Any excavation or trench at four (4) feet or greater in depth will be evaluated for atmospheric hazards. A registered professional engineer must design all excavations over 20-feet in depth.

During excavation or trenching operations on the project, all trenches and excavations will be barricaded, and signage posted at the work area. Fall protection will be provided for excavations six (6) feet or more in depth. Trenches or excavations will be sloped or benched in accordance with local rules and regulations, and as determined by the competent person (Type C soil will not be benched). Supporting systems (shoring, piling, or trench boxes) will be utilized for all trenches and excavations where sloping or benching cannot be utilized. Spoil piles and all other material will be placed at minimum of two (2) feet from the edges of all activities. The Utility Protection Permit will be utilized when existing utilities are affected by excavation activities. When underground utilities are suspected, they will be located first by hand digging, or the use of non-destructive hydro excavation. All equipment, materials, supplies, permanent installations at the surface of the excavation that could present a hazard to personnel working in the excavation must be removed or supported.

Employees will not work in excavations where there is accumulated water, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation. The precautions necessary to protect employees vary with each situation but may include:

- Special support or shield systems to protect from cave-ins.
- Water removal to control the level of accumulating water, *if water is controlled or prevented from accumulating by using water removal equipment, the water removal equipment and operations will be monitored by a competent person to ensure proper operation.*
- If excavation work interrupts the natural drainage of surface water, diversion ditches or other suitable means will be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation.
- Excavations subjected to runoff from heavy rains will require an inspection by a competent person.

Adequate access and walkways must be always maintained during trenching or excavating activities. Walkways will be provided where employees are permitted to cross over excavations, guardrails will be provided where walkways create a 6-foot or greater exposure to lower levels. Access points will be placed such that no worker travels more than 25 feet in any direction.

Fall Prevention/Protection

The project is committed to the philosophy of 100% continuous fall protection whenever workers are exposed to fall hazards of six-feet (6') or greater.

Layton Construction, subcontractors, vendors, or other third-party individuals will take all practical measures to eliminate, prevent, and control fall hazards. All work will be planned with the intent to eliminate identified fall hazards. When a fall hazard has been identified and cannot be eliminated, then effective means of fall protection will be implemented. A fall protection program will be developed by a qualified person. All fall protection will be attached to an anchorage point that will support 5,000 lbs. and will be rigged to limit free fall distance. Acceptable fall protection systems include:

- Guardrail systems
- Safety netting
- Covers for floor, roof, and wall openings
- Protection from falling objects
- Personal fall arrest systems

Workers exposed to fall hazards that cannot be eliminated will be equipped, trained, and given periodic refresher training in fall protection to minimize the adverse effects of accidental falls. Fall protection training records will be available for review by Layton Construction. Re-training will be required when deficiencies are evident, when work practices are changed, or when fall protection equipment is modified. The use of personal fall arrest systems requires the submission of a Rescue Plan for each condition. Elevated work will address protection from falling objects if work below is permitted.

100% Fall Protection means protection from fall at ALL TIMES when working at or above six-feet. This means it is mandatory for all trades, including but not limited to:

- Structural steel erection (bolt up and connectors)
- Decking Operations
- Re-bar assembly
- Concrete forming
- Pre-cast erection
- Masonry
- Carpentry
- Scaffold erection/disassembly
- Roofing

Personal Fall Arrest Systems will consist of a full-body harness meeting ANSI requirement, self-retracting decelerating devices (SLR/yoyo's) are recommended, and shock absorbing lanyards are prohibited. Locking snap hook and anchorage points must meet OSHA regulations, positioning device systems should be used for positioning only they are not a fall arrest system. Workers will not tie off to a perimeter cable or wire rope handrail unless engineered for such use. Subcontractors will submit all engineered documentation on horizontal lifelines to Layton Construction for review and approval. All horizontal lifelines will be installed under the direct supervision of a qualified person.

When wire rope is used to construct guardrail systems, at least ¼" diameter cable will be used with cable clamps as required by wire rope manufactures. Wire rope will be flagged with high visibility tape or ribbon every six (6) feet. If any component of a guardrail system must be removed, a Layton Construction Guardrail Removal Permit must be issued (Appendix 7). Any contractor that must remove a fall protection system in the course of their work will be responsible for immediately replacing the protective system.

Floor openings 2-inches or greater and all wall opening will be guarded or covered with an appropriate cover or guardrail. Floor covers will be secured to the floor to prevent easy removal. The floor or wall cover will be properly marked with a Danger sign stating **"COVER-DO NOT REMOVE."**

Elevated work will address protection from falling objects if work is permitted below.

Fire Protection Prevention

FIRE PROTECTION

Layton Construction will develop a Fire Protection Plan in accordance with OSHA 29 CFR 1926 Subpart F. Temporary fire protection measures such as fire extinguishers, temporary hose lines, and temporary standpipes are required during construction. Each temporary building and trailer (shops, field offices, storage boxes, etc.) will have its own appropriately sized and located class ABC fire extinguisher. Access to fire hydrants and extinguishers will be always maintained and clear access to buildings and other structures will always be maintained. All employees will be trained annually on the hazards of firefighting and how to properly use a fire-extinguisher. If a fire extinguisher is discharged for any purpose, it will be reported to Layton Construction. Fire extinguishers will be conspicuously located, inspected monthly, and protected from freezing. Fire extinguishers will be placed within the immediate area of any welding/cutting operation or flammable liquid storage area. Fire extinguishers will be placed within five (5) feet whenever gasoline operated equipment is used.

FIRE PREVENTION

Temporary buildings located within another building or structure will be constructed of non-combustible material or have a fire resistance rating of one (1) hour. Plastic tarps or covers (visqueen) used for any purpose inside an occupied building or where welding, cutting, or open flame is present will be made of fire-retardant material.

Combustible refuse from construction operations will not be burned or dumped anywhere on the construction site. Such refuse will be removed at end of shift. Storage of large quantities of construction debris will be placed in metal dumpsters. Oily rags and waste are to be stored separately in metal containers fitted with self-closing lids.

Storage of compressed gasses will include:

- Valves, regulators, and hoses removed with valve caps securely on.
- Secured upright at all times, including when transported in vehicles.
- Fuel and oxygen cylinders separated by a minimum of 20 feet.
- Empty cylinders stored separate from full cylinders, no cylinders in use.

Oily rags and waste are to be stored separately in metal containers fitted with self-closing lids. Trash and refuse must be placed in trash containers provided for this purpose.

FIRE AND FLAMMABLE LIQUID STORAGE AND DISPENSING

Only approved high flash point solvents are to be used for cleaning purposes, use of low flash point solvents is discouraged. **Methylene chloride** is a known carcinogen and solvents containing it are prohibited.

Flammable and Combustible Liquids will be stored, dispensed, and used in accordance with OSHA and NFPA Requirements. **"NO SMOKING"** signs will be visibly posted. When stored outside then they cannot be within 20 feet of any structure, or they must be in a properly constructed storage locker. Outside storage areas will be kept free of weeds and other combustible materials. Storage of flammables will be in an enclosure away from open flame, heat, direct sun, or other sources of ignition. No more than a total of 25 gallons flammable and combustible liquids can be stored outside of an approved locker. All flammable and combustible liquids will be stored in approved portable containers marked as to contents and ownership.

Fuel and flammable liquid tanks, drums, or barrels will have the proper DOT placard and be labeled as to content. All storage tanks/drums will be placed in a berm or other secondary containment. Berms will be lined with a minimum 6-mil plastic sheeting that is fuel resistant. PVC linings are not allowed. All fuel storage tanks, and compressed gas cylinders will be protected from vehicle traffic.

Layton Construction will designate vehicle refueling locations. All fuel dispensing points will be located away from storm drains and wetlands. The following will be required at all refueling locations:

- A portable 20 lb. ABC fire extinguisher will be placed no closer than 25 feet or further than 75 feet from the fueling point
- **"NO SMOKING"** signs will be posted
- Self-locking fuel nozzle prohibited
- Spill kit will be stored nearby
- Tanks will be grounded and when dispensing flammable liquids, the containers will be bonded

Hand and Power Tools

Hand and power tools are to be operated according to manufactures' instructions and guidelines and appropriate Personal Protective Equipment (PPE) are to be worn. All hand and power tools will be kept in good condition with regular maintenance.

FIXED BLADE UTILITY KNIVES

No fixed blade utility knives will be used on any Layton Construction project, only retractable-blade knives will be utilized. Retractable-blade knives feature a handle that is shaped to fit the hand and a push-button slide that fully retracts into the handle for safety and can also be adjusted for cutting depths. Spring loaded retractable blades are preferred.

INSPECTION REQUIREMENTS

Daily inspection of hand tools is required, if after inspection a tool is found to be defective, it must be removed from service.

HAND TOOLS

Impact tools such as chisels, wedges, etc. are not to have mushroomed heads and wooden handles will not be splintered or cracked. Pocketknives will not be used for stripping wire.

ELECTRIC TOOLS

Never lift or carry a power tool by its cord, guards and safety switches will not be removed or made inoperative, and all electric tools must have a three-wire cord unless it is double insulated.

PORTABLE ABRASIVE WHEEL TOOLS

Guards will not be removed and grinding disks and wheels will be checked to verify they are the correct one for the grinder and rpm.

PNEUMATIC TOOLS

Air hoses ½ inch in diameter or greater will have a safety excess valve installed at the source of air. Air receivers need to be equipped with a readily visible pressure gauge that is equipped with spring-loaded safety valves. The total relieving capacity of these safety valves should prevent the receiver from exceeding the maximum allowable working pressure by more than 10%. Valves will be tested frequently to ensure that they are in proper working order, and they cannot be made inoperable by any means. Proper draining of the receiver should be performed by opening the drain valve frequently to prevent the accumulation of liquids. Clips, whips, or retainers are required at each air hose coupling and to prevent attachments from being ejected from the tool. Only the pneumatic nail guns requiring the muzzle to be pressed against the work surface to fire are allowed. Hose couplings will be secured to prevent displacement. Pneumatic nail guns will be disconnected from the air supply when unattached. Compressed air equipment will be visibly inspected prior to each use to ensure that all components are in working order. Additionally, equipment will be inspected according to the manufacturers recommended methods and frequency.

POWDER ACTUATED TOOLS

Workers will be certified/authorized to operate a powder actuated tool and required to carry their training card at all times. Fired cartridges will be placed in a container or bucket and properly disposed of regularly. The powder-actuated tool must not be able to fire until it is placed against the surface with a force of 5 pounds or greater. Misfired cartridges are to be placed in water for 48 hours.

Hot Work Operations

Hot work activities include burning, welding, cutting, grinding, or other operations that produce a flame or sparks. Prior to performing "Hot Work" operations, workers will complete a Hot Work Permit in Construct PM (Appendix 9). The Hot Work Permit will be approved prior to the commencement of hot work.

GENERAL REQUIREMENTS

A Hot Work Permit will be issued before any hot work is performed. Any welding, flame cutting, brazing, grinding, any work that produces sparks, as well as use of portable heaters, fuel, or gas will require a Hot Work Permit. There may be other types of work depending on specific locations that may also require a permit. The Hot Work Permit is valid only for the date and shift that is indicated on the permit. When practical material involved in hot work should be moved to a safe location. When a Hot Work Permit is required, please ensure that precautionary measures are taken.

- Gratings and openings will be completely covered to prevent sparks and slag from falling to a level below.
- Fire extinguishers are located in the immediate area of work.
- No flammable or combustible material is stored within 35 feet in any direction, if materials cannot be moved, positive means such as the use of non-combustible shields or fire blankets will be used to confine heat and sparks to prevent them from contacting the combustible material.
- No welding, cutting, or heating will be done where the application of flammable liquids or heavy dust concentrations may create a hazard.
- Fire watch personnel will be identified, trained, and equipped with an extinguisher rated at 20A, 60B:C or greater and will be immediately available in the work area (within 25 feet of all hot work), and remain for a minimum of one hour after hot work has ended to detect and extinguish possible smoldering fires. They will have no other tasks while assigned as fire watch.
- If applicable, any Confined Space Entry procedures will be followed.

TRAINING

Workers will be trained prior to performing any hot work in the following as a minimum: a review of the work to be performed, precautions to be taken, emergency procedure in case of fire, and how to use the fire extinguisher correctly.

HOT WORK PERMIT PROCESS

A Hot Work Permit must be authorized by the Layton Construction superintendent, or designated person overseeing the project, this permit is available in digital form in Construct PM (See Appendix 9 for Hot Work Permit). The person performing the work will review and sign the permit and keep a copy in the work area. The person giving approval for the permit must ensure that the area is periodically surveyed to ensure that all conditions remain suitable for hot work. Expired Hot Work Permits will be kept on file for at least a month beyond the expiration date Construct PM Hot Work Permits will remain in the system permanently). Each permit will be dated and will carry and expiration time. In the event the hot work will extend past the permit's expiration time, a new permit must be obtained, or the existing permit extended by the authorized person. The supervisor will be notified when the hot work is complete.

Combustible gas indicators will be calibrated, and bump tested prior to performing tests. If the meter is to be used multiple times during the shift, it only needs to be bump tested at the beginning of the shift. The calibration results must be documented on a logbook maintained at the job site, or digitally in Construct PM.

FIRE WATCH PROCEDURE

Fire watch personnel will be trained to understand the nature of hot work and be provided proper PPE to complete their tasks safely. Fire watch will assist in survey of the area to ensure the necessary fire protection equipment is in place and ready for use. Fire watch personnel will remain in constant communication with personnel doing hot work, the fire watch must be always in the ready position when hot work is being performed. The ready position is considered being attentive and having the fire extinguisher immediately available prior to the start of work. The fire watch will be equipped with all Personal Protective Equipment (PPE) needed to perform the work safely. The fire watch is authorized to stop work whenever they feel the conditions are unsafe, or if the work description on the permit is being exceeded. Assigned fire watch will never leave the area for any reason without a replacement and remain in the area for at least one hour following the completion of hot work. When bulkheads or walls are involved in hot work, both sides require a fire watch, caution must be used so that heat transfer does not create a hazard.

Housekeeping

The Layton Construction housekeeping policy is that all equipment, tools, or materials, will be stored, stacked, located, and placed to prevent any incident or injury which could occur in the work area. All work areas will give the direct and obvious impression of a clean and orderly workplace. The Layton "Good Housekeeping" program was initiated to improve productivity, reduce waste and construction debris, improve housekeeping, and increase worker safety on all Layton Construction jobsites. The plan is intended to minimize onsite waste and debris by increasing onsite cleanliness, material organization, and to encourage off-site prefabrication. Implementation of the "Good Housekeeping" program will be discussed during the pre-mobilization meeting each subcontractor will employ sufficient personnel to maintain a clean and organized work area. Subcontractors will participate, if needed, in a "project wide cleanup effort" to maintain appropriate housekeeping of common areas.

Some minimum standards are outlined below for all Layton Construction project sites:

- Debris and loose material will not be placed in an area where winds could blow materials into or off any elevated platforms
- Mud and dirt tracked onto public streets or alleyways will be removed continuously during the workday
- Access walkways, roadways, and fire lanes will not be blocked with material, tools, ladders, scaffolds, welding, leads, air hose, or electrical cords

- Electrical extension cords, light stringers, air hoses, and welding leads will be buried, controlled, elevated above walkways a minimum of seven feet or bridged with the area marked with signage
- Welding rods, nuts, bolts, and washers will be kept in proper containers
- Shackles, slings, chokers, ladders, and safety equipment will be removed from the work area when not in use and stored properly
- Trash containers will be placed at appropriate locations, recycling bins are also encouraged
- All nails will be removed from scrap and lumber or bent over flat to the surface
- Rubbish, trash, and debris will be removed from the work area daily
- Once concrete is poured, work areas will be broom swept at the end of each shift
- Where drinking water is dispensed, an adequate trash container will be located for disposal of drinking cups

Ladders and Stairways

Fall protection while working from a ladder is addressed in the section on Fall Protection.

Stairs or ramps will be provided where there is a change in elevation of 19 inches or greater. Stairways having four or more risers or rising 30 inches or more will have a stair rail system, 36 inches high on each unprotected side. Metal pan stairs will not be used until the pans are filled to prevent a tripping hazard.

Workers will be trained on the safe use of ladders and each ladder is to be inspected and tagged daily prior to use and any ladder that is not in working order will be immediately removed from the project and destroyed. All ladders will be heavy-duty type with a minimum capacity rating of 250 lbs. Ladders are built to hold a limited amount of weight. Ladders must not be used if the weight placed on them is greater than the ladder's weight capacity. Ladder landings will remain clear of all obstacles and obstructions to allow easy access on and off the ladder, and ladders will extend past the bearing point no less than 36 inches. A ladder that does not support itself will be placed at a safe angle utilizing the 4:1 ratio. When ladders are used to access upper levels, they must be secured to prevent displacement. Every ladder must have a Ladder tag affixed with signature of inspection completed daily. Ladders will only be used for the purpose they were designed, ladders are never used in a horizontal position, or as scaffolding.

STEPLADDERS

Stepladders will only be used with the spreaders fully extended with the spreader bar locked in place. Workers will not stand on the top three rungs of a ladder, or when knees are above the top of the ladder. Stepladders will not be used as straight ladders. Workers will not straddle the top of a stepladder or stand on the back of a stepladder unless designated for this use.

STRAIGHT/EXTENSION LADDERS

Ladders will be set up so that the horizontal distance at the bottom is not less than ¼ of the vertical distance to the bearing point. Workers will not stand on the top three rungs of a ladder. No worker will work when his/her knees are above the top of a ladder. All straight ladders will have non-skid feet at the base.

JOB-MADE LADDERS

Job-made ladders will be constructed for intended use, if a ladder is to provide the only means of access or exit from a working area for 25 or more employees, or simultaneous two-way traffic is expected, a double cleat ladder will be installed.

Lasers

All workers that will use a laser will be trained in proper use and hazards associated with lasers. No worker will install, adjust, or operate any laser equipment without a valid qualification card. Standard laser warning signs will be placed around the perimeter of the area the laser is being used. No work will be allowed until all proper signage is in place. No laser equipment will be used that does not contain a label, indicating make, maximum output, and

beam spread. Whenever a laser is not in use, shutters or caps will be used and the laser will be turned off. When performing internal alignment, lasers will only be guided by mechanical or electronic means. When environmental conditions exist such as rain, fog, snow, or extremely dusty conditions, use of lasers will not be permitted. Workers using lasers will use appropriate eye protection. No laser beam will be directed at any worker.

Maintenance and Protection of Traffic

When it becomes necessary to temporarily close a public street or alley, a written traffic control plan is required showing how the closure will occur and submitted to Layton Construction for review. Refer to the Manual of Uniform Traffic Control Devices (MUTCD) part VI when developing a traffic control plan. At minimum the written Traffic Control Plan will contain the time the street will be required to be closed, a plan illustrating detour routes for traffic impacted by the closed streets, and detailed drawing showing the signage, flaggers, etc. All workers will wear high visibility attire in accordance with the ANSI requirements. Workers assigned as flagmen will be trained as recommended in the Manual of Uniform Traffic Control Devices and state DOT. Work will be stopped if it fails to follow the traffic control plan or occupies a city street or sidewalk without authorization.

Masonry Construction

A limited access zone is required to be in place prior to the construction of any masonry wall. Masonry walls over eight feet in height will be adequately braced to prevent collapse and remain in place until permanent support is in place. All masons using scaffolds must have scaffold user training and be able to provide documentation if requested by Layton Construction. All scaffolds used in masonry tasks will have adequate handrail protection in the material loading areas. If guardrails are removed to load materials, 100% fall protection must be worn during loading. A Guardrails Removal Permit (see Appendix 7) must be submitted prior to any guardrail removal.

Scaffolding

All scaffolding used on the project will meet the requirements established in Subpart L of OSHA 29 CFR 1926. Each contractor using scaffolds must designate a scaffolding competent person to direct and supervise the erection and dismantling of all scaffolding on the project, only qualified/competent personnel are allowed to modify scaffolding systems. Scaffolding will be inspected daily by the competent person prior to use and the tag signed at the time of inspection. Each trade using the scaffold must designate a competent person and they must inspect the scaffold daily prior to any person from that trade using the scaffold. One of the following color-coded scaffold tags will be attached to each scaffold:

- Green Tag – scaffolding is complete and ready for use
- Red Tag – scaffolding is incomplete and not ready for use
- Yellow Tag – scaffolding is usable but personal fall protection is required

Workers required to work from scaffolding will receive training, and have training records available upon request that covers at minimum:

- Nature of any known hazards, such as electrical, fall, or falling objects
- Correct method of erecting, maintaining, and disassembling fall protection systems
- Falling object protection system
- Proper handling of equipment or material on the scaffold
- Maximum load- carrying capacity of the scaffold

In the event where there is reason to believe that an employee lacks the understanding of safe erection, use, or dismantling of scaffolds, the employee will be retrained. The disciplinary program will be utilized when unsafe behaviors are observed In addition, when employees are exposed to new hazards not encountered before, additional training will be provided prior to start of work, this includes jobsite specific hazards, new type of scaffold/ system, and any other equipment on which the employee has not previously been trained.

ERECTION

Prior to erection, all scaffolding components will be inspected for defects and any damaged components will not be used, only scaffolding-grade planking will be utilized. Scaffolding will be erected on a firm foundation/footing, and scaffold poles, legs, posts, frame, and uprights will bear on metal base plates and mud sills. Scaffold legs, poles, posts, frames, and uprights will be pinned or locked to prevent uplift. No scaffold will be enclosed unless a qualified engineer designs and approves the attachment to the adjacent structure. Scaffold platforms will be constructed with no space between the platform components. The space between the platform components and the scaffold uprights will not exceed one inch. Because of special circumstances such as building a scaffold around a pipe, the space opening between the scaffold and the object/structure cannot exceed 9 ½ inches. Scaffold planks will extend past the horizontal support a minimum of six (6) inches, but not more than twelve (12) inches, unless cleated or restrained by hooks. Scaffold plank will not be overlapped unless the overlap occurs at a horizontal support, and the minimum planking overlap is twelve (12) inches. Ladders or stairs must be used to access any scaffold platform that is more than two feet above or below the point of access.

End frames of tubular welded scaffold can be used as a ladder if the following criteria are used:

- Specifically designed and constructed as ladder rungs
- Rung length of at least eight inches
- Spacing between rungs not to exceed 16 ¾ inches
- A walk-through frame or gate is provided for access at each landing
- No worker will climb up or down a scaffold using the cross bracing

Workers working below scaffolding will also be protected from falling objects. Scaffold will be equipped with toe plates, screening, debris netting, catch platforms, or a canopy structure.

Steel Erection

No steel erection will begin without a written Notice to Commence Steel Erection (see Appendix 13) from Layton Construction. Workers engaged in steel erection activities including but not limited to connecting, decking, and bolt up are **not exempt** from Layton Construction's 100% fall protection requirements when working from six (6) feet or greater. Perimeter safety cable installed by steel erector will remain in place unless otherwise instructed by Layton Construction. Training records indicating workers have received required steel erection training will be provided during the pre-mobilization meeting, and if any changes at site-specific orientation. These records will be maintained at the project in Construct PM and available for review by Layton Construction.

All steel deliveries will be coordinated with the Layton Construction project team to ensure maintenance of traffic around the project. No deliveries will be unbound until inspected and deemed secure by a qualified person. Design criteria for any multi-lift device that may be used on the project will be available on the project for review by the Layton Construction Environmental Safety and Health Department. Work will be planned so no load will be swung over the public, other workers, or occupied structures. During bolt-up activities, all steps will be taken to protect workers below from falling objects.

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. Anyone who enters an identified restricted work area without authorization will be subject to disciplinary action up to and including termination.

- 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, "Caution" or "Danger" tape should be installed at least 15 feet from excavations, trenches, holes, leading edges, and floor or wall openings. Install a standard "Caution" or "Danger" tag that identifies the hazard at regular intervals around the barricaded area including the name and contact information of the competent person that erected the barricade. Temporary barricades will not impede stairs, walkways, driveways, or aisles without approval from Layton construction project team, and identification of alternative passageways is determined. The following guidelines in determining type of Temporary barricades will be followed:

- **Yellow "Caution" Tape** is used to limit the passage through the barricaded area. This barricading should only be used to protect from hazards that are not sever or when the potential for severe injury or death is unlikely.
- **Red "Danger" Tape** is used to prohibit the passage through the barricaded area. This barricading should be used to protect 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. Danger tape should always be approved by the Layton Construction superintendent.
- **Radiation "Danger" Tape** is used to identify x-raying operations and warn of a radiation hazard in the area.

When rigid barricading is required, it should support and maintain construction fencing to prevent tipping or sagging. If there is a danger of vehicles or heavy equipment striking the barricade pins should be installed in concrete barriers. There should be adequate access to the work area, and once the work is complete and the hazard is eliminated the rigid barricade will be removed immediately.

Rigid Barricades are used when protection is required beyond a single work shift. 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, or concrete barriers

Tilt Up Panel Construction Procedure

GENERAL REQUIREMENTS

The nature of tilt-up construction dictates the need for thorough pre-planning. The economy and success of tilt-up construction is realized by an efficient onsite production operation with each step of the construction sequence building on the previous step. The erection of the wall panels is the most important phase of tilt-up construction. It is critical for the engineers and contractors to plan and review this process completely and thoroughly. Construction documents will be submitted to a third-party lift engineer for review and approval. The QA panel check off form will be used for documentation.

SLAB AS A WORK PLATFORM

The quality of the floor slab in a tilt-up constructed building is extremely important. The tilt-up panels are normally cast on the floor slab of the building and any imperfection in the floor slab will be mirrored in the panel. For best results, the floor slab should have a hard, dense, steel trowel surface. Slab thickness and compressive strength must meet bracing designs. You may have to pour a thickened slab at brace locations.

BOND BREAKER AND CURING COMPOUNDS

Bond breakers and curing compounds are among the most critical materials used on a tilt-up project. These products should have their performance criteria carefully evaluated. The application of the curing compound on the floor slab is one of the critical steps in the preparation process. Check the slab and bond breaker before pouring any concrete. The slab should have a slightly tacky, soapy feeling. Bond breaker can be tested by dropping a

small amount of water on the casting bed, from two feet above to allow it to splatter. If the bond breaker is applied correctly, the water will bead into small droplets as it would on a freshly waxed automobile. If the water does not bead, re-spray all the suspected areas of the casting slab. Whenever there is doubt about sufficient bond breaker on the casting slab, always apply more. It is the cheapest insurance available for as successful tilt-up job.

Tilt Up Panel Erection Procedure

PREPARATION FOR LIFTING

Clean the panel and the surrounding floor slab area. Locate and prepare all pertinent embedded devices that are accessible. Do any dressing or patching that can be accomplished on the ground. Attach all pipe braces and strong backs as required. Each panel should be numbered and clearly identified according to the panel layout/erection sequence plan. Place the identifying mark in a position that will not be exposed when the structure is completed. Mark locations and heights of all shims in case they are displaced. The structure footing should also be marked with the corresponding identifying numbers to give the erection crew clear indication where each panel goes. The footing should be appropriately marked to show the proper position of each panel on the footing. All lifting inserts should be uncovered, cleaned out and tested with a hardware unit several days prior to erection day. Rotary hammers, drills, leveling shims, cutting torch, steel wedges, pry bars, level and plumb bob, and full set of hand tools will be available at the job site. Have a set of back up tools onsite. For larger panels, you may need a port-a power for alignment. Verify concrete compressive strength at time of initial lift is at least the strength listed in the insert selection chart for the insert being used. Have additional cylinders cast on your last tilt panel pour.

CRANE CLASSIFICATION

Cranes selected for tilt-up projects will be properly certified. Contractors will make certain that they have documentation available at the job site attesting to the crane's certification.

EQUIPMENT AND CREW

The erection contractor must itemize the rigging and equipment required for a proper and safe lift. The erection details supplied by the lift engineer will specify all rigging configurations and cable lengths required for the project. These details are an integral part of the erection stress calculations and should be strictly adhered to. The reaction details will specify the diameter and safe working load of the rigging cables. All crews will complete and train on panel construction through the job hazard analysis process.

DAY OF ERECTION SAFETY MEETING

A full crew Pre-Task Plan safety meeting will be held each day prior to lifting, where all pertinent safety details are discussed, and all questions answered. Reinforce the need for all concerned to be alert during lifting. Only members of the erection crew will be allowed in the area. The rigger foreman will be identified at the safety meeting, this individual will be the one the crane operator looks to for all signals during the lifting process. The rigger foreman must be experienced with handling panels and be familiar with the precise set of hand and arm signals to communicate with the crane operator. During the safety meeting, the rigger foreman should demonstrate the proper use of the lifting hardware and bracing hardware, and how to use any necessary tools or equipment.

PRIOR TO LIFTING

Check wind conditions prior to lifting a panel. Make sure the area is clear of spectators. Inspect all panels for projections (such as rebar) that may interfere with the process. Inspect all rigging and hardware for alignment and be sure that the rigging is free of snags. If non-swivel sheaves are being used, make certain the sheaves are properly aligned. Braces are usually attached to the panels prior to lifting, be sure that the braces will not be trapped by the rigging during the lift. Be alert for panels sticking to the casting bed. Carefully positioned pry bars and/or wedges at the insert lines can often help the cranes successfully release the panels from the casting bed.

DURING THE LIFT

As the cables are being tensioned, they invariably tend to twist and rotate the hardware. Twisting the hardware can cause side loading. The rigging crew needs to be alert for this condition and halt the lift to realign the hardware. It is the rigger foreman's responsibility to be alert to any obstacles in the path of the panel and crew.

PLUMBING THE PANELS

Make certain that the panels being plumbed does not strike a previously erected panel or panel bracing. Keep the area surrounding the panel clear of workers until the panel is firmly braced. If the panel being plumbed is a closure panel, take exact measurement prior to lifting to be sure the panel will fit. Tilt-up panels should be as plumb as possible prior to attaching the bracing to the floor slab. Temporarily out-of-plumb should not exceed 4" at the top of the panel. Fine tuning of the panel to be plumb before releasing the crane. When the panel is going to support an adjacent spandrel or lintel panel. The supporting panels need to be accurately placed in their exact position to prevent the need of adjusting them after placement of the spandrel or lintel panel. When the bracing design specifies a subsequent system of knee, lateral, and end or cross bracing. Attempts to adjust a panel after subsequent bracing is in place would necessitate loosening or removing the bracing, putting the panel and workers in a dangerous position.

BRACING PANELS

All bracing should be in place and complete before relaxing the crane load. The crane load should be released slowly. Do not release the crane load if for any reason, the bracing does not appear to be adequate. Bracing anchors must be installed per manufacturer's instructions. Do not use wedge anchors for braces. Bracing will be monitored daily with special attention after high winds, always check the tightness of bolts. Bolted hardware must have full bearing on the concrete surface and attachment bolts bear fully on the hardware. Caution must be taken so that the hardware is not subjected to a side loading that will cause an additional unintended loading. Coil bolts must have a minimum coil penetration through the insert coil but are not bearing on concrete at the bottom of the void. There are instances when the crane's position will prevent the lateral bracing from being completed. Once the crane has cleared the area, the lateral and end bracing can be completed. This should be accomplished as soon as possible, no more than one panel behind the erection crew. Bracing on erected panels must be completed at the end of the workday.

AFTER THE LIFT

When constructing the floor slab, a perimeter strip, generally three to five feet wide is often open to facilitate the footing excavation. This excavation area can be up to five or six feet deep, depending on the building design, and won't be backfilled until after the wall panels have been erected. The perimeter strip must be backfilled and compacted very carefully to avoid movement or bending of the panel. Wall braces should never be removed until all structural connections are complete. Note that they perimeter strip between the floor slab and the wall panels is considered a structural connection. If the building's structural drawings do not indicate when the braces can be removed the engineer of record will be consulted.

Welding and Cutting

When burning or welding using compressed gases, flame arrestors will be installed on both the torch side and regulator side of the oxygen and gas hoses.

ARC WELDING AND CUTTING

Welding current return circuits or grounds must carry their current without hot or sparkling contacts and without passage of current through equipment or structures. Specifically, welding current must not be allowed to pass through any of the following materials:

- Acetylene, fuel gas, oxygen, or other compressed gas cylinders
- Tanks or containers used for gasoline, oil or other flammable or combustible material
- Pipes carrying compress, steam, gases or flammable or combustible liquids

- Conduits carrying electrical conductors
- Chains, wire ropes, metal hand railings, or ladders, machines, shafts, bearings, or weighing scales

Whenever practical, all arc welding and cutting operations will be shielded by non-combustible or flame-proof screens. Screens will be mandatory when arc welding or cutting creates exposure for other crafts or individuals. The ground for the welding circuit will be mechanically strong and electrically adequate for the service required and should be attached directly to the work piece. When possible, electrode and ground cables will be supported to prevent obstructions interfering with the safe passage of workers. Cables with worn insulation may not be used.

GAS WELDING, CUTTING, AND SOLDERING

All employees utilizing compressed gas cylinders for use the gas welding, cutting, and soldering will be trained on the proper use, handling, and storage of compressed gas cylinders. Gas identification will be stenciled or stamped on the cylinder or affixed with a label. No compressed gas cylinder will be accepted for use that does not legibly identify its contents by name.

All cylinders will be inspected visually to determine that the gas cylinders are in safe condition. Cylinders must be transported in a vertical secured position using a cylinder basket or cart and must not be rolled. Regulators should be removed, and cylinders capped before movement. Cylinders should not be dropped or permitted to strike violently, and protective caps are not used to lift cylinders. A suitable cylinder cart, chain, or other secure non-flammable fastening should be used to keep cylinders from being knocked over while in use, when inside of buildings cylinders will be stored in a well-ventilated dry location, cylinders will not be kept in unventilated enclosures such as lockers or cupboards. Storage for full cylinders will be marked and separated from those storage areas for empty cylinders. Cylinders of oxygen will not be stored next to cylinders of acetylene or other fuel gas. They will be separated by 20 feet or by non-combustible barrier with ½ hour fire rating. Oxygen cylinders, cylinder valves, couplings, regulators, hose, and apparatus will be kept free of and away from oil and grease. Oil or grease in the presence of oxygen under pressure may ignite violently.

Empty cylinders will have their valves closed. Leading cylinders will be moved to an isolated, well-ventilated area, away from ignition sources. Soapy water will be used to detect leaks. If the lead is at the junction of the cylinder valve and cylinder, do no try to repair, contact the supplier and ask for response instructions. Valve protection caps will always be in place except when cylinders are in use or connected for use. Compressed gas cylinders, empty or full will be always secured in an upright position. Empty cylinders should be marked EMPTY or MT for identification and stored in the designated storage area for empty containers (separate from full containers). Only tools provided by the supplier will be used to open and close cylinder valves, when a cylinder cap cannot be removed by hand, the cylinder will be tagged "Do Not Use" and returned to the designated storage area for return to the vendor. Regulators and hoses will be frequently inspected for leaks, worn places and loose connections. Regulators will also be checked for operable gauges. Approved flash arresters will be provided in both oxygen and acetylene hoses at the regulator connection.

Forms Appedix

APPENDIX 1:	Layton Incident Report Forms (Employee, Supervisor, Witness)
APPENDIX 2:	Housekeeping and Material Handling Plan
APPENDIX 3:	Competent Person Form
APPENDIX 4:	Confined Space Entry Permit
APPENDIX 5:	Daily Pre-Task Plan
APPENDIX 6:	Energized Work/ARC Flash Permit
APPENDIX 7:	Excavation Permit
APPENDIX 8:	Guard Rail Removal Permit
APPENDIX 9:	Harness and Lanyard Inspection
APPENDIX 10:	Hot Work Permit
APPENDIX 11:	Critical Lift Checklist Form
APPENDIX 12:	Lockout/Tagout Checklist
APPENDIX 13:	Monthly Inspection Color Code Sign
APPENDIX 14:	Notice to Commence Steel Erection
APPENDIX 15:	Pre-Mobilization Meeting Agenda
APPENDIX 16:	Scaffold Tags
APPENDIX 17:	Silica Standards - Table 1
APPENDIX 18:	Utility Protection Permit
APPENDIX 19:	Notice of Non-Compliance
APPENDIX 20:	100% Glove Policy

Employee Incident Report

☐ Layton Construction ☐ Subcontractor

Is Subcontractor working under a CAP? ☐ Yes ☐ No

Project Name : _____

Project Number: _____

Where did the Incident Occur? _____

Date of Incident: _____ / _____ / _____ Time of Incident: _____

Date of Report: _____ / _____ / _____

Name of Company: _____

Employee's Name: (First, Middle, Last): _____

Birthdate: _____ / _____ / _____ Age: _____ Social Security: _____ - _____ - _____

Street Address: _____

City: _____ State: _____ Zip: _____

Phone Number: _____

Marital Status: ☐ Married ☐ Single ☐ Divorced # of Dependents: _____

Job Title: _____

Years of Experience: _____ Hire Date: _____ / _____ / _____ State Hired In: _____

Hourly Wage: _____ ☐ Full Time ☐ Part Time

Supervisor's Name: _____

Time Shift Began: _____ Date/Time Asked for Medical Attention: _____

Circle the Answers Below:

All Hands Huddle Attendance	Yes	No
Stretch & Flex Performed?	Yes	No
Pre-Task Plan Completed?	Yes	No

# of Hours Worked prior to Incident

WEEK	# HRS WORKED
Day of Incident	
Last Week	
Previous Week	
Previous Week	
Previous Week	

Body Part Injured: _____

_____

Task Being Performed: _____

Description of Incident: What Happened? _____

_____

_____

Names of Witnesses: _____

Signature of Employee: _____ Date: _____

Supervisor Incident Report

☐ Layton Construction ☐ Subcontractor

Project Name : _____

Project Number: _____

Date of Incident: _____ / _____ / _____ Time of Incident: _____

Date of Report: _____ / _____ / _____

Name of Company: _____

Employee's Name: (First, Middle, Last): _____

LCC Supervisor's Name: _____

Subcontractor Supervisor Name: _____

Craft Type: _____ # Years of Experience: _____

Where Was the Employee Treated? ☐ Clinic ☐ ER Date Restriction / LTA Started: _____

Medical Status: ☐ FA ☐ REC ☐ REC/R ☐ LTA

Was Safety Equipment Provided? ☐ Yes ☐ No

Was Safety Equipment Being Used? ☐ Yes ☐ No

Pre-Task Plan Completed Day Of? ☐ Yes ☐ No

Scope Safety Plan Completed? ☐ Yes ☐ No

# of Hours Worked prior to Incident

WEEK	# HRS WORKED
Last Week	
Previous Week	
Previous Week	
Previous Week	

Task Being Performed: _____

Description of Incident: _____

Is the Incident Questionable? State Reason: _____

Signature of Supervisor: _____ Phone Number: _____

Witness Statement Report

Witness is Employed By: ☐ Layton Construction ☐ Subcontractor

Project Name : _____

Project Number: _____

Employee Involved in the Incident: _____

Name of Company: _____

Witness Name: _____

Witness Phone Number: _____

Witness Address: _____

City, State, Zip: _____

DESCRIPTION OF INCIDENT

Location of Incident on Project: _____

Date of Incident: _____ / _____ / _____ Time of Incident: _____ : _____

Date of Report: _____ / _____ / _____

Who Was Involved: _____

What Happened? _____

What or Who Caused the Incident: _____

Signature of Witness: _____ Date: _____

Housekeeping and Material Handling Plan

Please fill out form completely. If additional room is required, you may attach additional pages to this plan.

Project Name : _____

Subcontractor Company: _____

Start Date: _____ / _____ / _____

Contact Person : _____ Contact Phone: _____

MATERIALS HANDLING

1. List primary activities of your work (masonry, concrete, steel erection, etc.)

   _____

2. What products do you intend to bring PREFABRICATED to the site?

   _____

3. How will you ensure products staged on site are mobile and easily relocated?

   _____

4. If you are dealing with "bulk" type products (drywall mud, fasteners, clips, etc.) how do you propose to improve the delivery, staging, and utilization on-site?

   _____

5. What will you do to minimize the amount of excess "packaging" brought to the site?

   _____

   _____

6. How will you minimize the amount of cut-offs and general trash/debris created from dealing with stock length materials?

   _____

7. Describe additional tasks/methods of work you intend to implement to improve job site efficiency:

   _____

   _____

8. Describe how you plan to maintain a clean and efficient work area. Provide a commitment level of resources to ensure a clean and effective work area:

   _____

   _____

9. What would you like to see Layton do to improve YOUR job site efficiency?

   _____

   _____

DAILY WORK AREA CLEANUP AND SCRAP REMOVAL

What type of containers will be used for control and removal of daily scrap?

_____

_____

To protect supplied dumpster

_____

To contractor supplied dumpster

_____

To contractor yard

_____

Other - explain

_____

BREAK/LUNCH AREA CONTROL

Assigned area? _____

_____ Number of 30-gallon containers (Minimum of one per company, one additional for every 20 employees)

Furnished by (name on logo on containers)?

_____

Individual(s) responsible for emptying car

_____

Mandatory pre-shift empty days: ☐ Mon ☐ Tues ☐ Wed ☐ Thurs ☐ Fri

EMPLOYEE PARKING

Assigned location _____

_____ Number of garbage containers (minimum of one per contractor)

CORD AND HOSE CONTROL

Mandatory pre-use inspection by employees

Periodic inspection by Supervisor? How Often?

_____

Roll up daily or weekly (all hoses not bridged, buried, protected, or elevated)? ☐ Daily ☐ Weekly

All cords and hoses organized to one side of access or work area if not elevated.

Print Name: _____ Date: _____

Signature: _____ Layton Supervisor: _____

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DESIGNATED COMPETENT PERSON ACKNOWLEDGEMENT FORM

Project Name: _____ **Project #**: _____

Purpose

The purpose of this procedure is to define and list the areas within 29 CFR 1926, OSHA's Construction Standards, where a Competent Person is required to be a part of a particular project activity.

Definition

A Competent Person is someone who, by reason of education, training, and experience, is capable of identifying existing and predictable hazards in the surrounding or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. The training records and documentation will be submitted with this form at the pre-mobilization meeting.

Responsibility

The designated Competent Person is responsible for recognizing and correcting safety hazards specific to the area of competency. This person has the authority to stop work in the event of any potential safety concern on the job site. This representative is considered the contact person for Layton Construction on safety related issues. This form must be completed by the subcontractor and the subcontractor's designated Competent Person(s). Where a subcontractor is responsible for multiple crafts, it is necessary to maintain additional designated Competent Persons and forms for each additional tier. This form must be updated any time there is a change in the designated representative(s). This designated person must be on the project site whenever the area of competency is functioning.

Acknowledgement

I, _____ representing _____, have assigned the below listed
Subcontractor Supervisor (Print) *(Company Name)*

personnel to be the Competent Person(s) in the areas indicated and I acknowledge that this individual has been thoroughly trained and is experienced in hazard recognition and has the authority to stop work and correct hazards in the event of a potential hazardous or imminent danger situation.

_____ _____
(Subcontractor Supervisor Signature) *Date*

Area of Competency

a. Project Competent Person (Safety Representative)

b. Asbestos	k. Electrical	t. Materials / Personnel Hoists
c. Accident Prevention	l. Excavations/Trenches	u. Mechanical Demo
d. Bolting/Riveting/Fitting	m. Fall Protection	v. Respiratory Protection
e. Caissons/Cofferdams	n. First Aid/CPR	w. Scaffolding
f. Concrete/Forms/Shoring	o. Hearing Protection	x. Slings
g. Compressed Air	p. Ionizing Radiation	y. Tilt Panel Operations
h. Confined Space Entry	q. Ladders	z. Tunnels/Shafts
i. Cranes/Derricks	r. Lead	aa. Underground Construction
j. Demolition	s. Lift Slab Operations	bb. Welding / Cutting

I acknowledge that I have been thoroughly trained and have the experience to perform the duties as a Competent Person in the areas indicated above. I understand that I have the responsibility and authority to correct hazards and to stop work in the event of a potential hazardous or imminent danger situation.

Competent Person (Signature)	**Competent Person (Print Name)**	**Areas of Competency** *List letter(s)*	**Date**
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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CONFINED SPACE ENTRY PERMIT

DESCRIPTION – REQUIRED FOR ALL ENTRIES

Permit #: _____ Subcontractor: _____
Supervisor: _____ Location: _____
Type: ☐ Non-Permit ☐ Permit Date and Time of Entry: / / AM/PM
Location of Confined Space: _____

Type of Confined Space: ☐ *Tank* ☐ Pipe ☐ Manhole ☐ Tunnel ☐ Vault ☐ Other: _____
Work Description/Purpose of Entry: _____

Hazards: _____

VERIFICATIONS – REQUIRED FOR ALL ENTRIES

	Date	Entry Supervisor's Initials
Lockout/Tag out (electrical, mechanical, hydraulic, etc.)		
Purged, Cleaned, Drained, and Ventilated		
Employee Training		

	Required	Verified		Required	Verified
Safety Department Notified	X	☐	Authorized Entry Log at Access	☐	☐
Adequate Access	X	☐	Fire Extinguisher Available	☐	☐
Adequate Lighting (low voltage)	X	☐	Attendant	☐	☐
Harness / Lifelines	X	☐	Warning Signs Posted at Access	☐	☐
Training	X	☐	Respirators Required? If required, what type?_____	☐	☐
Ventilation Adequacy	X	☐			
Communications Equipment	X	☐	Protective Clothing Required (describe)	☐	☐
Continuous Air Monitoring	X	☐	Rescue Equipment/Service Available (Tri-pod/winch or emergency services)	☐	☐
			Hot Work Permit Required	☐	☐

* Attach a separate log if more entrants are involved in permit required confined space activity than allowed for on this form.

Attendant(s) Name(s):

Entrant(s) Name(s):

AIR MONITORING – REQUIRED FOR ALL ENTRIES

Make: _____ Model: _____ ID# _____
Field Calibration Date: _____ Calibrated By: _____
Atmosphere Checked By: _____

Contaminants	Permissible Levels	1st Check*	Time	2nd Check*	Time	3rd Check*	Time
% Oxygen (O2)	19.5% to 23.5%						
LEL	Less than 10%						
Carbon Monoxide (CO)	Less than 35 ppm						
Hydrogen Sulfide (H2S)	Less than 10 ppm						
Other:							

* 1ST CHECK TO BE COMPLETED PRIOR TO ENTRY

IN CASE OF EMERGENCY, CALL: ***OR***

AUTHORIZATION

Entry Supervisor: Date:

SAFETY 360°

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Daily Pre-Task Plan *(THIS DOES NOT REPLACE THE JHA)*

Date: _____

Company Name: _____ Are you on CAP?: ☐

The pre-task plan meeting should be an open discussion between front-line supervisor and the craft workers, completed where possible in the work area. Trade front-line supervisor/competent person will thoroughly plan tasks to be performed and identify the work sequences, hazards, training, controls and recognize the crew level of experience and emergency action plans necessary. Tasks should be clearly communicated and discussed including high hazard tasks and mitigation methods beyond PPE, ensuring that craft workers understand the hazards and expectations.

Work Conditions. *Please describe the conditions in the area where the crew will be performing work (site conditions, weather, anything else significant):* _____

Coordination. *Please list any other trades in the area, and if coordination has been addressed:* _____

Staging of Materials, and Required Preparation. *Please address where the materials required for work today are stored, and how they will be moved and staged at the work area and any preparation required:* _____

Equipment *(when required). Address any equipment in use, inspection will be documented in BIM360 Field:* _____

Task – explanation of what is expected with addressing each task and steps to complete it as well as the high hazards discussed with the crew and how to avoid incidents. Steps will address work activities. Mitigation measures will address possible hazards, and how to 1- eliminate 2- substitute 3- engineering 4- administrate 5- PPE (PPE is not hazard elimination, but utilized to protect from hazardous conditions and to protect, prevent, or lessen severity of injury (used as a last resort.) If the task is changed, the PTP must be updated and new tasks reviewed with the crew (if necessary, create a new PTP.)

Task: _____

Area prep requirements for the day: _____

Step 1: _____ *Hazard:* _____

Control Measures: _____

Step 2: _____ *Hazard:* _____

Control Measures: _____

Step 3: _____ *Hazard:* _____

Control Measures: _____

Completion of Task/day: _____

Task Specific Additional PPE In Use (i.e. earplugs, face shield, FAS): _____

Task: _____

Area prep requirements for the day: _____

Step 1: _____ *Hazard:* _____

Control Measures: _____

Step 2: Hazard:
Control Measures:

Step 3: Hazard:
Control Measures:

Completion of Task/day:
Task Specific Additional PPE In Use (i.e. earplugs, face shield, FAS):

Task:
Area prep requirements for the day:
Step 1: Hazard:
Control Measures:

Step 2: Hazard:
Control Measures:

Step 3: Hazard:
Control Measures:

Completion of Task/day:
Task Specific Additional PPE In Use (i.e. earplugs, face shield, FAS):

Signatures: **Foreman/crew leader:**
Crew members: *(maximum crew size for PTP is 10 individuals)*

Examples: Work each hazard from the top down until the hazard has been FULLY mitigated

Most effective

Material Handling
Plan to limit re-handling of material
Elimination/Substitution
Training for proper lifting
Engineering Controls
Impose lifting limits
Administrative Controls

Least effective

Most effective

Excavation
Sloping/benching/trench boxes
Elimination/Substitution
Exclusion zones identified and marked
Engineering Controls
Competent person supervision
Administrative Controls

Least effective

Most effective

Ladder Use
Use scaffold or mechanical lift
Elimination/Substitution
Inspect ladder daily
Engineering Controls
Employee training
Aministrative Controls

Least effective

Most effective

Working at Height
Identify alternative access/working points
Elimination/Substitution
Signage, barriers, training
Engineering Controls
Utilize a personal fall arrest system
Administrative Controls

Least effective

Most effective

Electrical
De-energize and lockout/tagout
Engineering Controls
Signage identifying hazard
Administrative Controls
Employee training
Administrative Controls

Least effective

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ENERGIZED WORK PERMIT

An Energized Work Permit must be submitted for approval whenever work is to be performed on energized circuits. **Part 1** of this permit is to be completed by the Autorized Person, and reviewed and signed by the Safety Manager and/or the Client's Representative.

Job Name: _____ Job # _____ Today's Date: _____

Work Area: _____ Start Date: _____ Completion Date: _____

Scope of Project / Equipment information: _____

Shutdown Requested: ☐ Yes ☐ No Shutdown Approved: ☐ Yes* ☐ No**

*Lock out / Tag out Procedures for a Zero Energy State will be used ☐ Yes (If not checked do not proceed)

**Reason for non approval: _____

Signature of Client/Customer _____ Date: _____

Signature of Jobsite Foreman _____ Date: _____

Part 2 of this permit to be completed by the Safety Manager before work commences, if Shutdown request is not approved.

Equipment Voltage: ☐ 50 Volts or less ☐ 51V to 250 Volts ☐ 251V to 600V ☐ Over 600 Volts

Supervisors in charge of project: _____

Employee's performing work: _____

Required Protective Equipment:
☐ Category 1 Clothing (4 cal/cm^2) ☐ Category 2 Clothing (8 cal/cm^2) ☐ Category 2* Clothing (8 cal/cm^2)
☐ Category 3 Clothing (25 cal/cm^2) ☐ Category 4 Clothing (40 cal/cm^2) ☐ _____

Additional Protective Equipment: ☐ Voltage Tools ☐ Voltage Gloves ☐ Voltage Meters ☐ Blankets & Mats

Means of restricting access of unqualified persons from work area: _____

Is the fault energy level available at the location equal to or less than the table 130.7(C)(9)notes? ☐ YES ☐ NO
If "NO" Flash Energies could he higher then expected.

Additional Check List:	YES	N/A
was a Job Briefing to discuss Job-specific Hazards performed (JSA / Risk Assessment)?	☐	☐
Are Supervisors/Employee's Task Trained for Arc-Flash Protection and Hot Work?	☐	☐
Are line tools and voltage gloves dated for current testing date?	☐	☐
Were tools and voltage gloves inspected and field tested before use?	☐	☐
Has the work area been adequately barricaded and warning signs posted?	☐	☐
Are Lock and Tags in place for each employee were possible?	☐	☐
Are all safety warnings adhered to?	☐	☐
Are all Protective guards left in intact were possible?	☐	☐

Determine Approach Boundary from NFPA 70E, Table 130.2 (C):

☐ Limited Approach ☐ Restricted Approach ☐ Prohibited Approach

Flash Protection Boundary (distance a maximum of a 2nd degree burn could occur) NFPA 70E Table 130.3(A)* ☐

*Voltage levels between 50 & 600 Volts the flash boundary shall be 4 feet (48") based on the product of clearing time of 2 cycles (0.033 sec) and the available bolted fault current of 50 kA or any combination not exceeding 100 kA (1667 ampere seconds)

Comments: _____

Authorized Person _____ _____ Date: _____
Signature Print Name

SAFETY 360°

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EXCAVATION PERMIT

Location: _____

Permit #: _____ Date: _____

Company Name: _____ Shift: _____

Excavation Location: _____

Excavation Length

Width & Depth: _____

Soil Classification: ☐ Type A ☐ Type B ☐ Type C

NOTE: Trenches over 4 feet deep will use a protective system.

Protective System Used: ☐ Yes ☐ No

Type: ☐ **Shielding (Box)** ☐ **Sloping** ☐ **Shoring** ☐ **Benching** ☐ **Other:**

Weather: _____

Competent Person: _____ Person Completing Report _____

EXCAVATION REQUIREMENTS

YES	NO	N/A	GENERAL
☐	☐	☐	Protective system used in any trench/excavation greater than 4 feet deep
☐	☐	☐	Spoils, materials & equipment set back ≥ 2 feet from the edges of the excavation
☐	☐	☐	Engineering designs for sheeting and/or manufacturer's data on trench box capabilities on site
☐	☐	☐	Adequate signs posted and barricades provided
☐	☐	☐	Employee training conducted prior to beginning work
YES	**NO**	**N/A**	**UTILITIES**
☐	☐	☐	Utility company contacted & given 24 hours' notice &/or utilities already located & marked
☐	☐	☐	Utility locations (overhead & underground) reviewed with operator & employees
☐	☐	☐	Utilities protected, supported or removed when excavation opened
YES	**NO**	**N/A**	**WET CONDITIONS**
☐	☐	☐	Employees protected from water accumulations (continuous dewatering)
☐	☐	☐	Inspection made after every rainstorm
YES	**NO**	**N/A**	**HAZARDOUS ATMOSPHERES**
☐	☐	☐	Air monitored for methane gas prior to entering trench/excavation
☐	☐	☐	Air monitoring & ventilation provided for potentially hazardous atmospheres
☐	☐	☐	Emergency equipment available where hazardous atmospheres could or do exist
YES	**NO**	**N/A**	**ENTRY & EXIT**
☐	☐	☐	Ladders no further than 25 feet from ANY employee in ANY direction
☐	☐	☐	Ladders extend 3 feet above excavation edge and secured
☐	☐	☐	Wood ramps constructed of uniform material thickness and cleated together at bottom
☐	☐	☐	Employees protected from cave-ins where entering/exiting the excavation

NOTE: Items marked NO below MUST be corrected prior to any employee entering the excavation.

APPROVAL

Layton Construction Project Manager/Superintendent: _____ Date: _____

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GUARDRAIL REMOVAL PERMIT

Work will not be performed until this form is approved by Layton Construction Project Team.

Contact Information:

Contractor: _____ Date: _____

Foreman's Name: _____ Foreman's Phone #: _____

Write out specific Location N, S, E, W include grid (if known), and Level 1 (Level 1, Level 2, etc.)

Location	Level
_____	_____
_____	_____
_____	_____

Employee(s) Performing Work

Name	Signature
_____	_____
_____	_____
_____	_____
_____	_____

Considerations

Reason for cable being dropped / removed? _____

Number of spans being affected? _____

What other contractors are working in the area? _____

Total length of cable affected? _____

How will you continually notify other contractors? _____

Amount of time cable will be down: _____

Fall Protection Plan

If "No" is the answer to any of the questions below, the Layton Construction ESH Department must be contacted for review prior to guardrail removal.

Does your company have a fall protection program?	Yes	No
Have workers performing work been trained in Fall Protection?	Yes	No
Has fall protection been put in place?	Yes	No
Will workers be tied off within 15 feet of down cable?	Yes	No

Describe how workers will be tied off: _____

_____

Describe how the other trades will be protected from fall hazards: _____

_____

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HARNESS AND LANYARD INSPECTION

INSPECTOR:			DATE:									
JOB NAME:			LOCATION:									
INSTRUCTIONS: 1. All parts of the body harness and its attachments must be inspected for wear and damage. 2. This symbol ✓ is for YES or OK 3. This symbol **X** is for NO or REPLACE. 4. Inspect and document monthly. 5. Maintain the completed inspection report so that it is readily available to the GSK representative.			HARNESS WEBBING AND/OR LEATHER	ALL STITCHING	RIVETS & EYELETS	D RINGS & BUCKLE(S) IF APPLICABLE	LANYARD & DECELERATION DEVICE	HOOK, SAFETY LATCH	CERTIFICATION OR DATA TAG	PERSONALLY OWNED BODY HARNESS		
EMPLOYEE NAME	EMPLOYEE ID NUMBER	MFG.'S SERIAL NUMBER										
SUBMITTED BY:												
COMPANY	PRINT NAME	SIGNATURE					DATE					

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HOT WORK PERMIT

ISSUED TO:	CONTRACTOR:	PERMIT #:
DATE AND TIME TO BE USED:	EXPIRATION DATE AND TIME:	
LOCATION TO BE USED:		
SCOPE OF WORK:		

FIRE PROTECTION (REQUIRED, IF CHECKED)

- ☐ FIRE EXTINGUISHERS
- ☐ SEWERS AND DRAINS COVERED
- ☐ SPARK CONTAINMENT
- ☐ SDS REVIEWED
- ☐ AREA WET DOWN
- ☐ CHARGED FIRE HOSE
- ☐ FLAMMABLES / COMBUSTIBLES REMOVEED / COVERED
- ☐ FIRE WATCH *(REQUIRED FOR 1 HOUR AFTER WORK ENDS)

* NAME OF FIRE WATCH: _____

SITE WORK CHECKLIST

- ☐ COMBUSTIBLES PROTECTED*
- ☐ COMBUSTIBLES RELOCATED
- ☐ LOCKOUT / TAGOUT
- ☐ SDS REVIEWED
- ☐ PURGE**
- ☐ VENTILATION
- ☐ VALVES CLOSED
- ☐ WATER WASH

** GAS USED FOR PURGING:_____ * PROTECTION METHOD_____

GAS MONITORING REQUIRED ☐ YES ☐ NO

TYPE	TIME	%LEL / PPM	TESTER

LAYTON AND CONTRACTOR SUPERVISOR ISSUING PERMIT, DATE AND INITIAL IN APPROPRIATE BOX:

MON ___/___		TUE ___/___		WED ___/___		THUR ___/___		FRI ___/___		SAT ___/___	
L	C	L	C	L	C	L	C	L	C	L	C

HOT WORK IS AUTHORIZED BY: _____

PERSON RESPONSIBLE FOR HOT WORK SAFETY: _____

THIS PERMIT IS AUTHORIZED FOR ONE SHIFT ONLY (UNLESS OTHERWISE NOTED) AT THE DATE, TIME AND LOCATION SHOWN ABOVE.

RETURN THIS PERMIT WHEN WORK IS COMPLETED TO LAYTON SAFETY.

Form 16-3

CRITICAL LIFT PLAN

For use of this form, see EM 385-1-1, Section 16. Proponent is Crane HHWG.

Date:	Prepared By:
Location:	USACE District:

A "critical lift" is defined as any non-routine crane lift requiring detailed planning and additional or unusual safety precautions. Critical lifts include: lifts made where the load weight is greater than 75% of the rated capacity of the crane; lifts which require load to be lifted, swung or placed out of the operator's view ; lifts made with more than one crane; lifts involving non-routine/technically difficult rigging arrangement; hoisting personnel with a crane or derrick; or any lift which the crane operator believes should be critical.

A. TOTAL LOAD

1. Load Weight		lbs
2. Wt. of Aux. Block		lbs
3. Wt. of Main Block		lbs
4. Wt. of Lifting Beam		lbs
5. Wt. of Sling/Shackles		lbs
6. Wt. of Jib/Ext. (erected/stowed)		lbs
7. Wt. of Hoist Rope		lbs
8. Other:		lbs
TOTAL WEIGHT		

Note: Source of load weight (Drawings, Calcs, etc.) must be attached on Page 2.

B. CRANE

1. Type of Crane	Mobile Hydraulic Truck	
2. Maximum Crane Capacity		lbs.
3. Radius (Maximum)		ft.
4. Radius (Minimum)		ft.
5. Boom Length (Maximum)		ft.
6. Boom Length (Minimum)		ft.
7. Crane Capacity (Max Radius)		lbs.
8. Crane Capacity (Min Radius)		lbs.
9. Boom Angle (Maximum)		deg.
10. Boom Angle (Minimum)		deg.
11. Gross Load of Crane		lbs.
12. Lift is ____ % of the Crane's rated capacity		
13. If Jib/Ext. is to be used:		
Length		ft.
Offset		ft.
14. Rated Capacity of Jib/Ext.		lbs

C. HOIST ROPE

	Main	Aux 1	Aux 2
1. # of Parts			
2. Rope Diameter			
3. Capacity			

D. RIGGING

1. Hitch Type(s)			
2. No. of Slings:		Size:	
3. Sling Type:			
4. Sling Assembly Capacity:			lbs.
5. Shackle Size(s):			
6. Shackle Rated Capacity(s)			lbs.

E. CRANE PLACEMENT *(Mobile Cranes Only)*

1. Maximum Bearing Pressure		PSF
Note: Bearing Pressure Calculations must be attached on Page 3.		
2. Ground Conditions Suitable for Load?		YES / NO
Note: Ground Condition Calculations must be attached on Page 3.		
3. High Voltage or Electrical Hazards?		YES / NO
Note: If Electrical Hazards are present they must be shown on Page 4.		
4. Obstructions to Lift or Swing?		YES / NO
Note: If Obstructions are present they must be shown on Page 4.		
5. Travel with Load Required?		YES / NO
6. Other?		

F. OPERATOR QUALIFICATIONS

1. Certified Operator?		YES / NO
2. Option?		
3. Certified for Type, Class & Capacity?		YES / NO
4. Designated in writing by employer:		YES / NO

G. PRE-LIFT CHECKLIST

	(YES)	N/A	(NO)
1. Crane Inspected			
2. Rigging Inspected			
3. Crane Set-up			
4. Overhead Hazard Check			
5. Swing Check			
6. Counterweight Check			
7. Operator Qualifications			
8. Signal Person Qualifications			
9. Rigger Qualifications			
10. Load Chart in Crane			
11. Load Test			
12. Tag Lines			
13. Wind Conditions			
14. Traffic Hazard Check			
15. Site Control			
16. Signatures			

H. SIGNATURES

1. Crane Operator	
2. Rigger	
3. Signal Person	
4. Lift Supervisor	
5. Other	
6. Other	

Form 16-3

CRITICAL LIFT PLAN

For use of this form, see EM 385-1-1, Section 16. Proponent agency is Crane HHWG.

LOAD CALCULATIONS

Show here or attach calculations, drawings, etc.

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LOCKOUT / TAGOUT CHECKLIST

Name of Contractor(s):	Scope of Work: ❑ Temporary Electrical Service ❑ Permanent Electrical Service ❑ Mechanical Work ❑ Other _____
Name of Contractor's On Site Supervisor :	
Date of Coordination Meeting:	Date(s) LO/TO Will Be In Affect:

Electrical hazards and many forms of stored energy are unique in that there are very few properties that warn of their presence. **The goal of this Checklist is to minimize exposures with electrical equipment and other deadly hazards associated with stored energy.**

This Checklist shall be used to identify and/or review the following:

✓ Scope of work that requires LO/TO.

✓ Identify circumstances and/or locations where electrical hot work or other hazards **cannot be avoided**, and

✓ Identify the procedures and safety precautions that will be followed.

The contents of this Checklist shall be reviewed with all affected contractor employees and Layton Construction personnel.

Printed Name of Meeting Attendees:	Title/Responsibility:

1. Does the Owner or host employer have a LO/TO Permit or LO/TO requirements? **YES** **NO**

2. Has a project specific safety plan or Job Hazard Analysis (JHA) been developed by the contractor(s) doing the work? **YES** **NO**

3. What type of energy sources or systems will be worked on and/or need to be isolated and locked out (Check all that apply)

Type of System	**LO/TO Required? (Check One)**		
	YES	**NO**	**N/A**
▪ Electrical			
▪ High volt (≥ 480 v)			
▪ Low volt (< 480 v)			
▪ Mechanical			
▪ Hydraulic/Steam			
▪ Pneumatic			
▪ Chemical			
▪ Other			

4. Are other contractors or entities affected by this lock out? If yes, please identify: **YES** **NO**

_____

_____

_____

LOCKOUT / TAGOUT CHECKLIST pg. 2

5. Identify the companies and individuals who are responsible for leading the Lockout-Tagout program for their employer. These individuals must be on site for the duration of the lockout-tagout in most circumstances.

Name of Contractor	Name of Individual

Safety Equipment and Procedures Checklist

A. Will the work proceed in a flammable or Class I atmosphere? **YES** **NO**
If no, continue to item B. If Yes, check all safety equipment that will be used.

- ❑ Non sparking tools
- ❑ Intrinsically safe lights, tools, radios, etc.
- ❑ Non static charging clothing or shoes
- ❑ LEL Monitor

B. Will other trades be working in the immediate vicinity of live circuits or otherwise be affected or exposed to the hazards of the activity? **YES** **NO**

If Yes, describe safety precautions that must be taken to protect affected workers:

_____

_____

C. Check the safety equipment or procedures that will be followed to protect the safety of the workers conducting live work.

❑ Safety glasses with side shields and/or face shield	❑ Electrical blankets	❑ Gloves (electrical, hot work, or chemical resistant?)
❑ Hard hat (regular or high volt?)	❑ Blankets for hot work	❑ Insulating mats
❑ Leathers or heat resistant clothing	❑ Chemical resistant clothing	❑ Barricades around the work area
❑ Insulating tools	❑ Air monitor	❑ Retrieval equipment
❑ Low volt lighting	❑ Harness and lanyard	❑ Locks and Tags
❑	❑	❑
❑	❑	❑

Comments: _____

D. **To be completed by the employer(s) completing the work:** If work is to proceed on live, energized, charged, or otherwise operating systems, describe why work CANNOT proceed in a locked-out or de-energized state:

Layton
CONSTRUCTING WITH INTEGRITY

MONTHLY INSPECTION COLOR CODES

JAN & JUL = Yellow

FEB & AUG = White

MAR & SEPT = Brown

APR & OCT = Green

MAY & NOV = Red

JUN & DEC = Blue

Monthly focused inspections on extension cords, tool cords, ladders, etc. will be required. Each tool will be marked with colored tape designating the month of inspection. Inspections shall be performed by a competent person. Monthly focused inspections do not take the place of daily pre-use inspections.

SAFETY 360°

2023 | Layton Construction Company LLC

NOTICE TO COMMENCE STEEL ERECTION

PROJECT NAME: _____ PROJECT #: _____

Steel Erector Subcontractor:
Contact Name:
Address:

Layton Construction is hereby authorizing you to commence steel erection activities with the following notifications:

Concrete in footings, piers, and walls, and mortar in masonry piers and walls has attained, based on the appropriate ASTM standard test for field cured samples either 75% of the intended minimum compressive strength or sufficient strength to support the loads imposed during steel erection.	Name of testing agency: Attached testing reports:
Repairs or modifications were made to anchor rods/bolts: ☐ Yes ☐ No Locations of repairs/modifications:	Approval by: (Structural Engineer of Record): Approval in writing? ☐ Yes ☐ No (attach) Date approved: As built drawings available? ☐ Yes ☐ No

You are notified of your responsibility to: (Initial each)

Indicate to Layton Construction what material lay down areas are needed, and intended routes of transferring materials. Only those designated lay down areas will be utilized, and Layton Construction responsibility to maintain lay down areas will be limited to those that are designated.	Initials:
Preplan all overhead hoisting operations to prevent traveling loads over other contractor personnel, and to coordinate hoisting activities with Layton Construction and other contractors to minimize impacts on other operations.	
Provide a written site-specific erection plan if any part of your operations will deviate from the published OSHA Standard 29 CFR 1926.752(e).	
Conduct documented daily inspections of all cranes, forklifts, and other hoisting equipment utilized in steel erection activities.	
Designate a qualified trained rigger(s) to inspect all rigging equipment (Submit record of training) Name of qualified rigger:	
Maintain on the project written proof of training for all employees engaged in connecting, bolt-up, multiple lift rigging procedures, exposure to falls, equipment operation, and as required by any other specific standard.	
Assure that all columns are properly anchored by a minimum of 4 anchor bolts.	
Maintain and require the use of fall protection equipment for all employees exposed to fall elevations of 6 feet or greater as directed in the project Incident Prevention Program.	
Properly install perimeter guardrail systems on all exterior and interior leading edges consisting of a top rail and mid rail meeting the requirements of 29 CFR1926.502 (b)(1-15)	
Maintain required fire protection/prevention equipment appropriate to the type of work operation and hazards involved.	
Meet all other requirements of the Layton Construction Incident Prevention Program, Published OSHA Standards, and the requirements of local regulations.	

Layton Construction Project Manager/Superintendent

Steel Erector Subcontractor

2023 | Layton Construction Company LLC

PRE-MOBILIZATION MEETING

To: *Subcontractor Name*
From:
Subject: Preparation for the Pre-Mobilization Meeting

The purpose of this memorandum is to help you prepare for the upcoming pre-mobilization meeting. By now you have been provided the site-specific safety plan for this project which identifies our expectations and your obligations regarding safety at this project. Our goal is to work with you to ensure that processes and procedures are in place such that everyone goes home safe to their family every day. Attached to this memorandum is a checklist for your review as you prepare for this meeting.

General Information

Please be prepared to identify your person(s) designated to be responsible for safety and quality including their qualifications. Please review and be prepared to discuss any required submittals and that you are aware of inspection requirements. Layton Construction requires that you have an iPad or IOS device insofar that we will be using Construct PM to record inspections and safety observations.

- If you will NOT be self-performing the assigned scope of work please be prepared to identify your subcontractors AND provide assurance that they are prepared to comply with the site-specific safety plan and requisite inspections.
- In most cases the safety requirements of Layton Construction parallel those of OSHA. The primary variance is the required use of Construct PM. If you are not comfortable with this technology, please reach out to us and we will provide the requisite training and support.

Task Specific Information

The attached checklist has several items that are not pertinent to every subcontractor. Please review and ensure you are prepared for those items specific to your anticipated scope of work. Please be prepared to discuss your safety management plan. Specific items may include:

1. Training records for all employees designated as the "competent person".
2. PPE assessment for tasks as required by OSHA.
3. General required training that has been accomplished:
    a. Fall Protection
    b. Confined Space
    c. Hazardous Communication
    d. Working with mobile elevated work platforms (MEWP)
    e. Crane operator, rigger, signal person
    f. OSHA 10 and/or OSHA 30
4. Subcontractors working under a Corrective Action Plan (CAP) must be prepared to complete a project specific CAP checklist. The foreman should bring their iPad so that the software can be installed and tested during this meeting.

Summary

Please note that the intent of this meeting and effort is to ensure that we are well aligned with regard to risk identification and mitigation. At Layton Construction we do not assume that we have all the answers with regard to providing an injury free workplace. However, we are confident that through meaningful collaboration, clear expectations, and a commitment to safety we can in fact eliminate injuries to our valued employees.

Scaffold Tag - Red

Front

Back

Scaffold Tag - Yellow

Front

SCAFFOLD INSPECTION

INSPECTION IS REQUIRED DAILY

☐ **Fall Arrest/Protection Equipment is required by trained users.**

Required Inspections by Competent Person:

INITIALS	DATE	INITIALS	DATE

Back

KEY RESPONSIBILITIES:

Competent Person: _____

Company: _____

Phone: _____

- Construct, modify and inspect as appropriate with respect to OSHA 29CFR 1910.282, 1926.451.
- Inspect scaffold for visible defects as specified on this card.
- Toe boards are required or barricades must be placed below.
- Has the scaffolding been inspected (as indicated on this card)?
- Is fall arrest/protection equipment required (as indicated on this card)?
- Is the area below the scaffold barricaded and debris nets installed (if necessary)?
- Have any conditions changed that could impact the structural integrity of this scaffolding since the last inspection? (Example: high winds, large amount of precipitation, physical damage). If so, contact the Competent Person (above) for inspection/repairs.

Trained User:

- Have completed the scaffold safety training course conducted by a qualified person.
- Completed a PTP, follow all safe work practices, and use proper PPE associated with the scaffolding.

Scaffold Tag - Green

Front

Back

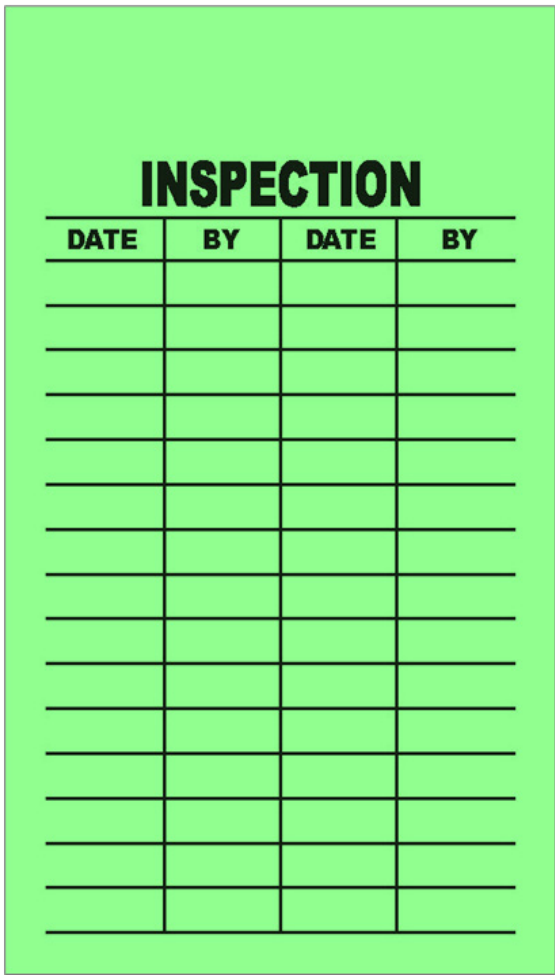

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours / shift	> 4 hours / shift
(iv) Walk-behind saws	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • When used outdoors • When used indoors or in an enclosed area	None APF 10	None APF 10
(v) Drivable saws	For tasks performed outdoors only: • Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions	None	None
(vi) Rig-mounted core saws or drills	Use tool equipped with integrated water delivery system that supplies water to cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
(vii) Handheld and stand=mounted drills (including impact and rotary hammer drills)	Use drill equipped with commercially available shroud or cowling with dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes.	None	None
(viii) Dowell drilling rigs for concrete	For tasks performed outdoors only: • Use shroud around drill bit with a dust collection system. Dust collector must have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • Use a HEPA-filtered vacuum when cleaning holes	APF 10	APF 10
(ix) Vehicle-mounted drilling rigs for rock and concrete	Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector OR Operate from within an enclosed cab and use water for dust suppression on drill bit.	None None	None None
(x) Jackhammers and handheld powered chipping tools	Use tools with water delivery system that supplies a continuous stream or spray of water at the point of impact. • When used outdoors • When used indoors or in an enclosed area OR Use tool equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • When used outdoors • When used indoors or in an enclosed area	None APF 10 None APF 10	None APF 10 None APF 10
(xi) Handheld grinders for mortar removal (i.e. tuckpointing)	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	APF 10	APF 10
(xii) Handheld grinders for uses other than mortar removal	For tasks performed outdoors only: Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. Operate and maintain	None	None

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours / shift	> 4 hours / shift
	tool in accordance with manufacturer's instructions to minimize dust emissions. OR Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. • When used outdoors • When used in an enclosed area	None	APF 10
(xiii) Walk-behind milling machines and floor grinders	Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. OR Use machine equipped with dust collection system recommended by the manufacturer. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.	None None	None None
(xiv) Small drivable milling machines (less than half-lane)	Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None	None
(xv) Large drivable milling machines (half-lane and larger)	For cuts of any depth on asphalt only: Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions. For cuts of four inches in depth or less on any substrate: • Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. • Operate and maintain machine to minimize dust emissions. OR Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None None None	None None None
(xvi) Crushing machines	Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (i.e., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points). Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.	None	None
(xvii) Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (i.e., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	Operate equipment from within an enclosed cab. When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions	None None	None None

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours / shift	> 4 hours / shift
(xviii) Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: Demolishing, abrading, or fracturing silica-containing materials	Apply water and/or dust suppressants as necessary to minimize dust emissions. OR When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	None None	None None

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UTILITY PROTECTION PERMIT

PROJECT NAME: _____ PROJECT #: _____

RESPONSIBLE SUBCONTRACTOR: _____

To be completed prior to any demo, rework, excavation, trenching, core drilling, or saw cutting work. Locator Services and AS BUILTS MUST BE VERIFIED AND CURRENT. ***PRE-TASK PLAN MUST BE COMPLETED, REVIEWED, AND APPROVED BY LAYTON CONSTRUCTION SUPERINTENDENT PRIOR TO START OF WORK.***

Project:		Date:	
Scope of work:		Location:	
Competent Person:			

Utilities Identified (Power, Gas, Fibre Optic, Water, Etc.):	Size, kV, Material Type:	Location:

Utilities	YES	NO	N/A
Utility location verifed by as builts, grid lines, drawings, and private locator. Attach verification.			
Locator Service Number: Locator Effective Date: Locator Expiration Date:			
Locations of utilities marked and markings sustainable for duration of work. Describe.			
Utilities are protected, supported and hard barriers are installed as needed. (Explain)			
All utilities will be potholed at a minimum every 200 feet horizontally for exterior work, "openfield", or more often if locating services or as builts identify need. Interior potholing every 25'.			
Hand digging or soft excavation (pressurized water or compressed air) will be used to expose utilities (daylighting) for locations prior to excavation or penetration, and when any excavation or surface penetration are within 24" of utilities. Explain process to be used, and location.			
Selective or soft demo will be used to discover in-wall, above-ceiling, and in or below concrete slab utilities. Explain process to be used and location.			
Map of existing utilities current and posted in affected area.			
Barriers installed to prevent unauthorized personnel to access area.			
Detailed Pre-Task Plan completed, reviewed by crews and Layton Superintendent.			
On existing facilities, contingency plans in case of utility disruption have been developed and shared with owner, Layton Construction team, and integrated into the site emergency response plan. (Attach plan)			

Subcontractor Supervisor
Competent Person(s):
Owner's Representative

Layton Project Superintentent:

Signature: Date:

Employees working in area: (Print Names)		

2023 | Layton Construction Company LLC

NOTICE OF NON-COMPLIANCE

PROJECT NAME: _____ PROJECT #: _____

Subcontractor Name: _____ Date: _____

Subcontractor is out of compliance with

- ☐ Violation of Federal or State Standards
- ☐ Violation of Layton Companies / Owner Requirements
- ☐ Violation of Contractors' Safety Rules / Policy

Date: _____ Time: _____

Location of Violation: _____

_____

Actions / Conditions Observed: _____

_____

_____

_____

_____

Violations must be corrected by Date: _____ Time: _____

_____ Date: _____ Time: _____

Signature of person issuing notice

Contractor must list corrective actions taken to bring his/her area into compliance: _____

_____

_____

_____

Were corrective actions made IMMEDIATELY or DELAYED ☐ Yes ☐ No

If DELAYED, explain the reason for the delay in making corrections: _____

_____

Print Name of person making corrections: _____ Date / Time: _____

_____ Date: _____ Time: _____

Signature of Subcontractor Safety Representative

100% Glove Policy

Hand Injury Statistics

In 2021 hand and finger injuries encompassed 23% of all incidents on Layton projects, of those incidents lacerations were the cause of 52% of those incidents. While gloves cannot prevent all hand and finger incidents, wearing cut resistant gloves can affect the seriousness of hand and finger lacerations. The majority of hand and fingers incidents the injured party was not wearing gloves, or wearing gloves without the proper cut resistance.

Most important is that ALL Layton employees when on a construction site lead by example and are fully compliant with our PPE requirements. Gloves with a minimum cut level 3, are an important part of that PPE standard.

The intent of this policy is to reduce both frequency and severity of hand injuries at Layton Construction projects. Over the last five years we have seen an increase in hand injuries, especially lacerations, such that enforcing this additional personal protective equipment (PPE) will significantly reduce both the frequency and severity of these injuries.

Requirements

All Layton employees, visitors, and subcontractor employees will be required to wear gloves 100% of the time, except as noted in the exceptions section of this policy. At a minimum, gloves will be a cut level 3, unless the task specifically requires a higher cut level. Fingerless gloves are expressly forbidden from use. The gloves selected will be consistent with the task:

General and Moderate Duty Use

This will be the typically accepted glove for general use for all workers not exposed to more specific hazards. All typical low-cut hazard operations will be covered under this guideline. The acceptable glove options will be a glove with an ANSI cut 3 rating or greater. If using the touchscreen sensitive gloves, they must still carry an ANSI cut 3 rating or greater. Including but not limited to carpenters, painters, masons, ironworkers, rebar tying, concrete work, drywall hanging, general plumbing, electrical work, flooring etc. Again, provided the task specific hazard assessment does not call for greater protection.

High Cut Hazard Use

This will be the general requirement for those exposed to a high cut hazard. If the hazard assessment calls for a high cut hazard protection or a trade typically exposed to high cut hazards in the normal daily work practices the acceptable glove option for this level will be a glove with an ANSI cut 4 rating or greater. Including but not limited to ALL knife work, sheet metal fabrication work, sheet metal cutting operations, some glass installation etc.

Exceptions

As there will be some exceptions that must be considered these should be covered in each day's hazard assessment in the PTP. This would be for specific task outlined in the PTP, and alternate means of hazard mitigation shall be identified and employed. Subcontractors are expected to provide their employees with appropriate gloves and replace them when worn out.