SITE SPECIFIC SAFETY PLAN

Layton

CONSTRUCTING WITH INTEGRITY

www.LaytonConstruction.com | (801) 568-9090 | EOE/AA
Revised: 7/2012

Acknowledgement of Receipt & Compliance Agreement

Layton Construction Co., Inc.

I have received and read the Layton Site Specific Safety Plan (SSSP) Manual.

I acknowledge that the contents of the SSSP describe Layton's construction practices and safety standards for construction on all Layton projects. The SSSP manual does not contain all OSHA standards, but I agree to comply with Layton's SSSP, Federal OSHA standards, and state and local standards where the project is located. If there is any inconsistency in the foregoing standards, I will comply with the most stringent standard on the applicable subject.

Project Name: _____

Project Location: _____

Company Name: _____

Printed Name of Signee: _____

Signature: _____ Date: _____

Layton
CONSTRUCTING WITH INTEGRITY

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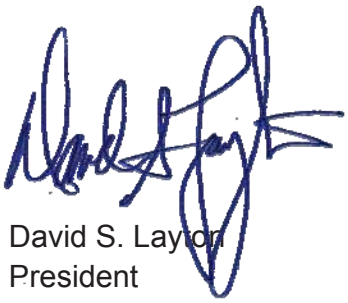
ENVIRONMENTAL, HEALTH AND SAFETY COMMITMENT

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.



David S. Layton
President

SITE SPECIFIC SAFETY PLAN

The purpose of Layton Construction's Site Specific Safety Plan (SSSP) is to assist project management, supervision, subcontractors and workers in understanding Layton Construction's Injury Free Environment philosophy and the health and safety expectations and requirements for its projects.

The Layton Construction Project Team is responsible for the implementation and execution of this Site Specific Safety Plan.

LAYTON INJURY FREE ENVIRONMENT (LIFE)

Layton Construction is committed to an Injury Free Environment. LIFE 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.

Layton Injury Free Environment holds three basic premises:

- All incidents and injuries are preventable; no level of incident or injury is acceptable or tolerated.
- Injury Free operations are possible in construction; a prevailing mindset and conviction exists to do the right thing and 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 workers choose to be responsible and accountable for their own safety and the safety of their co-workers.

RESPONSIBILITY AND ACCOUNTABILITY

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

Project Management includes Project Executive, Project Director, Project Manager, Project Superintendent, Project Engineer, and EHS Director. **** Front-line Supervision** includes General Superintendents, Superintendents, Field Engineers, General Foremen and Foremen.

Project Manager / Superintendent Responsibilities

Project Management is authorized to stop any construction activity or task that, in his/her judgment constitutes an immediate or potential situation of imminent danger.

- Review all of the Environmental Health and Safety documents.
- Attend weekly safety meeting or appoint skilled representative to attend.
- Be responsible for maintaining a complete compilation of safety laws and regulations and for carrying out the provisions of the Layton Safety, Drug and Hazard Communication Policies, the Occupational Safety and Health Construction Standards and all other state and local safety requirements. The superintendent is authorized to require compliance with all policies and regulations and to require removal from the job site of any personnel that fail to comply.
- Be a key element of providing an injury free and a drug free workplace through site-specific regulation enforcement, leadership and observations.
- Instruct Layton and subcontractor supervision of safety requirements and make sure they pass those instructions on to their crews.
- Coordinate and attend the Weekly Project Meeting involving subcontractor supervision and Layton supervision on the project. At these meetings: project safety shall be reviewed, including unsafe conditions and corrections necessary to make the job a safer place; near misses, a review of injuries, and how to avoid recurrences. Minutes documenting attendance and topics of discussion will be

recorded on the Safety Meeting Report. The safety portion of this meeting is to be included in the next subcontractor weekly Tool Box Meeting.

- Review on a monthly basis with the SBU V.P. a copy of their project's accumulated history of accident/injury reports produced by the Safety Department. Along with the Project Manager, evaluate the nature, type and cause of each accident/injury in order to judge the effectiveness of the safety procedures taken and to identify specific problem areas that will require attention.
- LCC and Subcontractor Superintendents are responsible for weekly safety inspections of the job site to discover and eliminate safety and health hazards. It is the Superintendent's responsibility to order immediate action to correct any hazardous situation as it arises. Records of such corrections shall be recorded on the Supervisor's weekly Safety Inspection Report filed in the ESH history binder.
- If a Subcontractor repeatedly violates safety standards or the response for compliance is not accomplished within a reasonable period of time (documentation must be current), a stop work action may be invoked by the Superintendent until such violations are corrected. Chronic violators shall be removed and recommended to Operations Management as undesirable subcontractors.
- Employers' superintendents are responsible to maintain on the job site a supply of all personal protective equipment, first aid supplies, fire extinguishers, etc., for use by their employees.
- Report any injury to the Director of Safety and Health. Complete the Supervisor's Incident Report and have injured employee fill out the Employee's Incident Report. Have any witnesses to the incident fill out a Witness Incident Report. Each accident that is defined as a Doctor's case must be reported on the Supervisor's Incident Report during the same shift or no later than the start of next shift.
- A serious injury may need to be reported by the employer to OSHA within 8 hours of occurrence. Contact the injured employee's safety department to assist with the notification. Also the injured and or person causing injury, will be required to submit a test to determine the presence of controlled substances.
- Post safety signs at entrance gates stating: **PPE REQUIRED – VISITORS MUST CHECK IN WITH SUPERINTENDENT.** Post safety signs and slogan strategically around project so that all employees entering or leaving may be reminded of our safety attitude. Safety posters can be obtained from the purchasing agents or warehouse.
- Insist on good housekeeping by all employees. All crafts should participate in the end of shift daily clean up.
- When any OSHA compliance officer visits the project, be cooperative, courteous, and notify the Safety Manager to accompany him, if possible. Make the officer aware of Company safety organization procedures and programs. Keep a record of the compliance officer's name, comments made, photos taken, subcontractors contact, corrections made, and any other pertinent items dealing with his visit. Send a copy of this report to the Director of Safety.
- Employers provide fresh drinking water and wash facilities for their employees on the project.
- Maintain adequate toilet facilities for the number of employees on the project and schedule weekly cleaning and stocking.
- Ensure that all of the subcontractor supervisors receive a copy of this Layton SSSP. Have the Layton Superintendent sign the acknowledgement page of the SSSP and turn them in to the project manager for filing in the contract file.
- Protect the general public, both vehicular and pedestrian, from injury or accident by providing warning and protective device (i.e. signs, flags, lights, barricades, etc.). In the event of an accident involving the public that results in bodily injury or property damage, the superintendent must make a detailed written report on the day of the accident and submit it to the project manager.
- Safeguard the job site from theft and vandalism. Layton and its subcontractors, on open job sites, are easy prey to vandals. A plan must be implemented to protect the job site from theft, vandalism, fire, and attractive nuisance. A job site security system should include at least the following:
- Oversee careful scheduling of material.

- Coordinate an organized receiving area.
- Coordinate area enclosed by security fence, well lighted and visible.
- Coordinate controlled parking area for employee vehicles if accommodations are available within the project footprint.
- The Superintendent shall survey nearby structures prior to start of operations, to determine if there is a potential for claims from neighboring structures or landowners from vibration, noise, dust, etc., and document findings in the superintendent's daily log.
- Good on-site management includes the formulation of plans for protection of personnel, materials, and equipment. In areas and seasons that have historically produced violent weather (i.e., high wind, flood, fire, and earthquakes) the superintendent shall acquaint himself with the potential of a natural disaster and take every precaution to avoid a human or financial loss. Preventative measures, as well as planned reactions to a disaster, are important. A simple but effective plan should be formulated for each.
- See that a Ground-fault Circuit Interrupter test is completed for all outlets and extension cords at least monthly. Repair or discard any circuits or extension cords that prove to be faulty.
- Be in compliance with the Hazard Communication Standard by having upon request the following items:
    - Copy of Layton Written Hazard Communication Program.
    - A list of hazardous chemicals on the job site.
- Copies of Material Safety Data Sheets for any hazardous materials to which your job site is exposed.
    - Documentation of training for each employee on the project.

Environmental Safety and Health (ESH) Managers

The Layton Safety Department and subcontractor safety personnel will generally oversee application of the Environmental Health & Safety Program. Both will perform the following:

- Inspect the projects to which they are assigned and ensure compliance with Layton's safety policy and all other related regulations and requirements, assist the superintendents, conduct industrial hygiene surveys as needed, look for ways to help improve the quality of safety by working with project manager, superintendents, owners, insurance companies, and others as required.
- Stop any construction activity, which constitutes an immediate threat of imminent danger, until such condition has been corrected.
- Conduct follow-up inspections on accidents.
- Ensure weekly safety meetings are conducted and documented.
- Support job site pre-mobilization meetings when needed to review the safety requirements of each subcontractor associated with the project.
- Work with the owner in providing an injury free workplace through site-specific regulation enforcement.
- Assists management and subcontractors in providing the necessary training to accomplish the goals of the project.
- Make certain that each project has all required posters, signs, and other safety related materials to assist on keeping the project safe.
- Work closely with all insurance groups to make certain that Layton Construction is in compliance with the requirements of their policies.
- Meet regularly with project management to review activities in progress and to discuss ways that Layton Construction can improve its safety program as well as current performance.
- Furnish each project with current publications of Layton safety manual, hazard communication program, the OSHA Standards for the Construction Industry, and all state and local requirements.

Foremen/Front Line Supervisor Responsibilities

Because of his/her experience and knowledge of operating procedures, and a close relationship with the employees, the foreman is the key person in the safety program.

- Know and enforce all safety rules and regulations (i.e. Layton Safety and Drug Policies, the Occupational Safety and Health Construction Standards and local safety requirements).
- Instruct their employees in safe working practices.
- Insure that all work is performed in a safe manner and that no unsafe conditions or equipment exists.
- See that all personal protective equipment is available and used.
- Correct, log and report all unsafe conditions, practices or near misses to superintendent. This information will be discussed in the Job site Safety Meeting, the weekly Foreman's Tool Box Meeting and noted on PTP/Daily.
- Be responsible for holding a weekly Tool Box Meeting, teaching or demonstrating safe practices. Discuss unsafe conditions found, corrections made, near misses, safety/training lessons, any injuries and how to avoid recurrence. Fill out the Safety Meeting Report, logging attendance and turn it into the Layton Project Superintendent.
- Secure prompt medical attention for any injured Employee. **"TREAT THE PATIENT AND THEN TREAT THE PAPER WORK"**
- Report any injury resulting by completing the Supervisor's Incident/Injury report and delivering it to the superintendent. Each accident that is defined as recordable must be reported on the Supervisor's Incident/Injury Report within one working day.
- Notify Director of Safety and Health, Chris Bardin (801-563-3666) of any injury.

Supervising for Safety

All Project Managers, Superintendents, Foremen, Safety Managers and employees will be required to monitor the safe practices of employees as work progresses. When one of these individuals sees an employee committing an unsafe act, one must immediately correct the situation. In addition to the training requirements of the project, training will be conducted on an as needed basis, such as personal or site training. If there is a question as to whether or not a condition is safe, contact the Layton Superintendent and/or Safety Department for guidance.

LaPSZ (Layton Personal Safety Zone)

The 30-foot lapsz (Layton Personal Safety Zone) is the visible, 30-foot area surrounding an individual, 15 feet in all directions around the individual. It is the obligation and duty of that individual to watch for people, equipment, traffic or other potential hazards that may be within their 30-foot lapsz, and encourage safe work practices from all workers in the 30-foot area. The 30-foot lapsz is founded on the teamwork concept of "having each other's back" and helping all workers become successful each day. "Being our brother's keeper" is a lost concept that is paramount in the success of the 30-foot lapsz.All employees—including co-workers, subcontractor employees, vendors, owners, etc.—are responsible to watch for and stop unsafe actions or situations within their 30-foot zone of responsibility, as well as watch for and proactively verbalize safe actions and situations. If a hazard is noted in their 30-foot lapsz, the worker should take immediate corrective action, which might also include a report of the concern and actions taken to correct the situation to their supervisor. 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 immediate work environment.

Hazard Recogition

The key to the 30-foot LaPSZ program is hazard recognition. Each worker needs to be aware of the activity and people in their line of sight area, and to draw upon their safety training and work experience to notice and take action when there is a potential hazard that could result in an injury or property damage. Hazards recognized and acted upon by a worker can also be submitted on an Employee Observation Red Card, part of our safety recognition program.

If a worker recognizes a hazard, he should be respectful when pointing out the deficiency. A worker should **remind** the person of the hazard, safety policy or standard; **request** their cooperation and compliance; and if necessary, **report** the situation to their supervisor if unresolved.

Accountability
Layton Construction has invested a great deal of time and resources to encourage employee safety — both at work and at home. We have made great progress in many areas, but have not yet made the breakthrough where each and every person on our projects makes it their personal responsibility to maintain a safe work area for all individuals in their immediate work area*. Now is the time to take that personal responsibility to be safe and to be held accountable for our actions or inactions*.

Accountability for all workers on LCC projects includes the following safety expectations and consequences:

- Workers are empowered and expected to correct hazards and safety violations in their 30' work environment.
- If an incident occurs within a worker's 30-foot area of responsibility the worker will be asked to participate in the incident review.
- There are no exceptions; employees at all levels are expected to participate in the 30 foot LaPSZ.
- Workers who do not follow the Layton Construction safety policies, procedures and best practices will be disciplined, up to removal from the project.

Every individual is entitled to work in a safe environment. Each employer and employee is asked to adopt the 30-foot Layton Personal Safety Zone (LaPSZ) and do everything in their power to protect themselves and others.

THINK IT THROUGH

Developing the Pre-Task Plan process as an Instinctual safety effort
The **Stop** and **Think It Through** process is meant to promote the safety pre-task planning efforts for new tasks or any change that occurs during any given work day.

The morning Pre-Task Planning starts the day with a written out line of what the crew is directed to accomplish that day and what it will take to complete the job tasks safety.

This written PTP process will not change and will continue to be completed by the supervisor of the crew with input from the individuals on the crew.

As the day progresses and new tasks or changes are identified outside of the morning task planning effort, the task planning process will be thought through and discussed with crafts involved without the formal written PTP/JHA. Depending on the complexity of the new task, the safety planning of the new task can be mentally thought through by individuals and verbally discussed amongst the crafts before proceeding with the job task.

Each individual should have the PTP process and outline locked into his or her mind from completing the written process each morning. That mental image will be thought through and communicated for each new task or change outside of the morning written PTP. If the new task or change is a major effort, the PTP process must be written out and signed by all crafts involved. All other tasks can be thought through following the PTP process and discussed amongst all crafts involved.

Accountability
Supervision on the project is responsible to spot check the process. They are to stop workers on occasion and asked them to review the task plan they are working through to complete the task safely. The supervisors will evaluate the plan and provide input as necessary. The supervisor will have the opportunity to do on the spot training when necessary, provide leadership, recognize the employee or employees for their efforts and continually monitor the site safety efforts. The workers should be able to

talk through the steps of the task, determined hazards, and decide what will be done to eliminate or protect themselves and others from the hazards.

Some clients and project will require that this process be written out for each task or change. In this case, the employee will produce the written PTP/JHA. The supervisor will evaluate the process from the written plan rather than the verbal explanation.

Thinking Through every task employees need to accomplish will help ensure success in all aspects of the job: safety, quality, costs, schedule and personal accomplishment.

Stopping and taking a few minutes to think through a task or change will help our people and projects remain successful.

PROJECT SAFETY LEADERSHIP TEAM

Layton Construction shall establish accountability through a Project Safety Leadership Team (PSLT) at the onset of each project. The PSLT can be an extension of the subcontractor coordination meeting attendees.

The PSLT will be made up of project management, field supervision, craft labor and safety representatives from Layton Construction and all major subcontractors. The PSLT will meet regularly to discuss project safety concerns, incident trends, compliance issues, and upcoming project work or activities that may require additional safety planning and/or coordination. At a minimum, these meetings will be held monthly. Layton Construction project management will prepare meeting minutes.

SAFETY REGULATIONS

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

NOTIFICATION OF UNSAFE OR HAZARDOUS CONDITIONS

Each worker on the 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 will take immediate action to correct or remove any hazard brought to their attention.

Red Card Program

Red Cards are available on each project. They are meant to promote employee observation, hazard recognition and suggestions to resolve hazards. It provides opportunities for employees to identify and correct a hazard and submit his actions as a leading indicator and proactive hazard awareness. It is also the employees' opportunity to suggest improvements to their work environment. The cards can also be used as a positive reinforcement of good safety behaviors.

Red card hazards should be reported immediately and corrected as soon as possible. These cards are to be filled out to let others know what happened, and what is being done to correct it. See Appendix Q for an example of the red card.

DISCIPLINARY PROGRAM

At-risk behavior on the project that could contribute to an incident or injury will not be tolerated. Each worker has an individual responsibility to work safely, and each front-line supervisor is responsible to correct at-risk behavior of workers under their direction with that being said, every person on this site has obligation to stop a fellow worker from getting hurt. If you see something that does not look right, it probably isn't. Please stop and ask them, or report it to your supervisor.

For minor offenses with minor consequences, the Employee will be expected to agree to improve behavior. Offenses 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 responsible effort to correct deficiencies. Some examples of major offenses are those related to fall protection, confined space, red-barricaded space, electrical or lock out/tag out violations, or disregard of specific instructions that result in a property or injury incident.

Discipline is intended to preserve good conditions for other Employees and encourage each Employee to be responsible and conscientious. Disciplinary action may include verbal warnings, written warnings, and days without pay and/or discharge.

*All new employees will receive a verbal warning for safety violations during orientation.

DAILY WORK SITE SAFETY INSPECTION

Layton Construction and subcontractors will perform daily work site safety inspections of their work and the work of subcontractors under their direction. One inspection will be documented weekly on the Weekly Safety Tour Report form (Appendix W) to be submitted to the Layton Superintendent.

SUBSTANCE ABUSE POLICY

Layton Construction is committed to providing a safe, drug-free work place for all employees. This policy applies to all Layton Construction, subcontractor at any tier, vendor and other third party employees, including management, working on or visiting the project.

To ensure safe and productive working conditions and consistent with business necessity, Layton Construction prohibits the use, possession, or distribution on its premises, in its work places, or during working time, of any of the following: alcoholic beverages, intoxicants, narcotics, illegal or unauthorized drugs or drug paraphernalia. Employees shall 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.

Drug Testing. Consistent with the intent of this policy, Layton Construction reserves the right to require drug testing of any worker as a condition of employment and thereafter may require randomly selected workers to take drug tests to ensure continuing compliance with Layton Construction's drug policy. The Layton Construction Company also reserves the right to drug test based on reasonable suspicion.

Additionally, any worker on the project involved in an accident resulting in an industrial injury/illness or an incident which could have resulted in serious injury, death, or equipment damage, are immediately subject to a mandatory drug test.

Substances Tested. Specifically, our drug testing facilities test for the following substances: Marijuana, Cocaine, Opiates, Barbiturates, Amphetamines, Benzodiazepines, Phencyclidine, Methadone, Propoxyphene, and Alcohol (if post-accident or reasonable suspicion).

Testing Methods and Collection Procedures. The drug testing facility will give the individual being tested a container in which to put the sample. The individual should take the container into a room where there is no running water. The drug testing facility personnel will instruct the individual not to flush the toilet. Once the sample is taken, the individual will return it to drug testing facility personnel, who will dip a quick test indicator into the sample. If the sample is negative, the individual will be asked to dispose of the sample. If the sample is non-negative, drug testing facility personnel will seal and label the sample for further analysis.

Searches. Additionally, Layton Construction reserves the right to search any company property, facilities or equipment, employee vehicles or other personal property if 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 such a search may result in suspension and possible termination.

Prescription Drugs. Legally prescribed drugs may be permitted on company premises or work locations provided these drugs are contained in the original prescription container and are prescribed by an authorized medical doctor for the current use of the person possessing the drug. It is the responsibility of each employee who is taking prescribed medication to inform his physician of his job duties and to inform his supervisor of any such medication that would restrict him in performing his duties in a safe and efficient manner.

Confidentiality. All information, interview, reports, statements, memorandums, or test results received by Layton Construction and any of its supervisors will be kept as confidential as possible. Employees may request a written copy of the drug test results, and may, upon request, explain a positive test result in a confidential setting by contacting Human Resources. Further, 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 is subject to disciplinary action, including refusal to hire, immediate termination, immediate removal from a work site, and future prohibition from the premises.

Reapplication after Termination for Drug Policy Violation. Former employees, terminated for a first 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 renovation program at the individual's own expense 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 Renovation program, and he/she passes a pre-employment drug test. Also, 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, an employee will be terminated and will not be eligible for rehire.

CRISIS MANAGEMENT PLAN

BEFORE THE CRISIS

Pre-MOB Crisis Management Information (identified for each project)

- Identify Crisis Management Team Members
- Emergency Services contact information
- Utilities contact information
- Subcontractor emergency contact information
- Identify Emergency Room facilities/Clinics
- Applicable Government agencies (OSHA, EPA, HazMat, Health Dept, etc.)
- Identify staff with foreign language capabilities (Spanish, etc.)

EMERGENCY PROCEDURES

Each project and job site will have local emergency contact information posted. This information will include the telephone number of the local hospital, police and fire departments. Information will be conspicuously posted at the job site, in all office and change trailers, and adjacent to telephones. The Project Superintendent is responsible in ensure this information is obtained and posted at the designated locations prior to the start of project operations.

It is our goal to prevent a crisis by following the Environmental Health and Safety Program. However, in the event of a crisis such as a fatality, major accident, fire, damage to major equipment, and damage caused by natural disasters, the following procedures must be completed.

EMERGENCY EVACUATION

For the purpose of this evacuation plan an emergency is defined as follows: Where any hazard or potential dangerous situation threatens the safety, health or general well-being of Layton employees, its subcontractors or visitors. If, in the opinion of a responsible person or persons from Layton Construction, or its subcontractors, the threat is or may be real, that area shall be evacuated. Examples are: gas leak, hazardous chemical spill, fire, smoke, bomb threat, explosion, earthquake, etc.

1. In any emergency or hazardous situation, the first VALUE/PRIORITY will be the safety and welfare of all personnel.
2. Give an alarm and alert all personnel in the affected area.
3. Notify a member of the LCC Team who in turn will alert management. Inform them of what type of emergency exists.
4. Remove all personnel to their assigned re-group area. Each supervisor is responsible to account for his/her workers. Remember: DO NOT leave your regroup area unless you have been told to do so by your supervisor, and he/she has accounted for your safety. Otherwise we will think you are still in the affected area and someone will have to re-enter the area to attempt a rescue.
5. Each Layton supervisor and each subcontractor supervisor will be responsible for training his/her workers on the Layton Evacuation Plan and to conduct practice evacuation either physically or on paper during their safety meetings.
6. To sound an alarm it may consist of yelling to workers in the affected area, sounding an equipment horn in a continuous blast, and the Layton Management Team as soon as possible. If the emergency involves a bomb threat, the use of radios shall be restricted.
7. The following is a list of names of Layton employees authorized to order a FULL OR PARTIAL EVACUATION and their 24-Hour cell phone numbers.

1. Project Manager: _____ # _____

2. Project Superintendent: _____ # _____

3. Project Safety Manager: _____ # _____

Managers and supervisors may evacuate their employees from work areas. However, if the situation permits enough time, they should contact one of the persons listed above and verify that an evacuation is necessary.

ASSEMBLY AREAS:

Assembly areas must be located a minimum of 300 feet from the building. A distance of 500 feet is preferable. **NOTE:** Two assembly areas must be available in case the first is obstructed by a hazard.

A. _____

_____

B. _____

_____

1. **THE PROPER WAY TO ANNOUNCE AN EMERGENCY EVACUATION:**

We have an emergency situation. Please remain calm and go to the nearest exit and proceed to your assigned assembly area.

- Do not run. Do not stop to pick up personal items. Go directly to your assigned assembly area. Do not leave the assembly area unless you have been told to do so by your supervisor or a member of the emergency response team.

  REMEMBER: REMAIN CALM. IF YOUR VOICE TRANSMITS FEAR OR ANXIETY, IT WILL BE SENSED AND COULD FRIGHTEN PEOPLE.

2. **EMERGENCY EVACUATION ASSEMBLY ASSIGNMENT AREAS.**

- The assembly area must be a minimum of 300 feet from the building. A distance of 500 feet is preferable.
- **Employees must be instructed** that in the event of an emergency evacuation, to go directly to the assigned assembly area immediately. Do not stop to visit or check on friends. Do not go back into the work area to retrieve personal items. Once at the assembly area, **DO NOT LEAVE THE ASSIGNED RE-GROUP AREA.**
- The supervisor or his/her designee must account for employee safety. **DO NOT LEAVE** the assembly area unless your supervisor instructs you to do so. If you are not accounted for, someone will have to go back to look for you and could be seriously injured.

3. **DUTY ASSIGNMENTS DURING AN EMERGENCY EVACUATION**

- LAYTON SUPERINTENDENT WILL BE IN CHARGE DURING AN EMERGENCY EVACUATION

- When an evacuation occurs, the Layton Superintendent is in charge and will remain so until he/she relinquishes that responsibility to a higher authority. He/She may assign one responsible person with communication to each assembly area. The main duty of these people will be to maintain calm, provide crowd control and a line of communication.
- Layton Superintendent shall notify the necessary emergency response agencies to establish communications with each agency such as Fire Department, Police Department, Ambulance, Hospital, etc.
- First Aid will be provided by those trained to respond until the emergency response group arrives on site and assumes control of the site.

- SUPERVISION
  - The supervisor is responsible for training the employees on his/her crew; this includes Layton Construction and all subcontractors. He/She will be responsible for getting their people out and to their re-group areas. He/She must account for the Safety and location of his/her employees.
  - The supervisor must be notified if all persons are not accounted for. If someone is missing, a rescue team may be required to re-enter the area to attempt a rescue.
  - The supervisor must not let his/her people leave their assembly area until the," all-clear" signal has been given by Field supervision. The supervisor may send his/her employee's home once they have been accounted for and their manager has instructed them to do so. If a supervisor sends his/her people home he/she must make certain that they leave the area, and do not return. He/she must notify the supervision immediately of this fact and provide a list of the names of those that were released.
  - The supervisor must coordinate any rescue attempt with Layton Safety Department or professional rescue teams before attempting any type of rescue.

- MANAGERS
  - All management responding from off-site must report to the Layton Superintendent or the Layton Management Team on site upon their arrival at the job site. Layton Superintendent or the Layton Management Team must be aware that they are on the property.
  - All managers will coordinate with Layton Management Team on site and take direction from them in all rescue efforts.

- EMERGENCIES THAT INVOLVE MEDICAL RESCUE
  - Layton Safety shall be notified immediately of the type of emergency, the location, and the type of injury, if possible. A call shall be placed to 911 and the rescue shall be turned over to the professionals.
  - Each rescue shall be planned and executed on an incident-by-incident basis. All rescue attempts shall be conducted under the direction and supervision of the responding EMS teams.
  - In the event a rescue cannot be affected safely and in the best interest of the victim, and the response team, a call shall be placed to 911 and the rescue shall be turned over to the professionals.

- IN THE EVENT OF A FATALITY OR SERIOUS INJURY:
  - Shut down all equipment and machinery and stop all operations in the immediate area.
  - The supervisor shall reassign workers to other areas unless specific individuals are required to assist in the emergency situation or the investigation process.
  - It is essential that the area be secured to preserve the accident scene and all evidence.

- All tools, equipment, materials or other evidence that pertain to the cause of the accident shall not be removed or destroyed until authorized by Project supervision or Layton Safety.
- Layton Safety and project management shall be notified.
- Employers will notify OSHA of fatalities and/or serious injuries as state or federal standards dictate.

EMERGENCY PROCEDURES FOR NOTIFYING UTILITES

If overhead lines are contacted, remain in the vehicle. Don't attempt a rescue, NOTIFY LAYTON SAFETY AND PROJECT MANAGEMENT.

Electric Utility Company: FOR DOWNED POWER LINES call:
To report power outages call: _____

Gas Utility Company: FOR BREAKS, LEAKS, AND ODORS call: _____

IN THE EVENT OF ANY PROPERY DAMAGE OR GENERAL LIABLITY CLAIMS, PLEASE CONTACT LAYTON SAFETY AND HE\SHE WILL CONTACT THE INSURANCE COMPANIES.

Emergency Notification Procedure
Persons notifying emergency response agencies, hospitals, or physicians of an emergency will observe the following protocol:

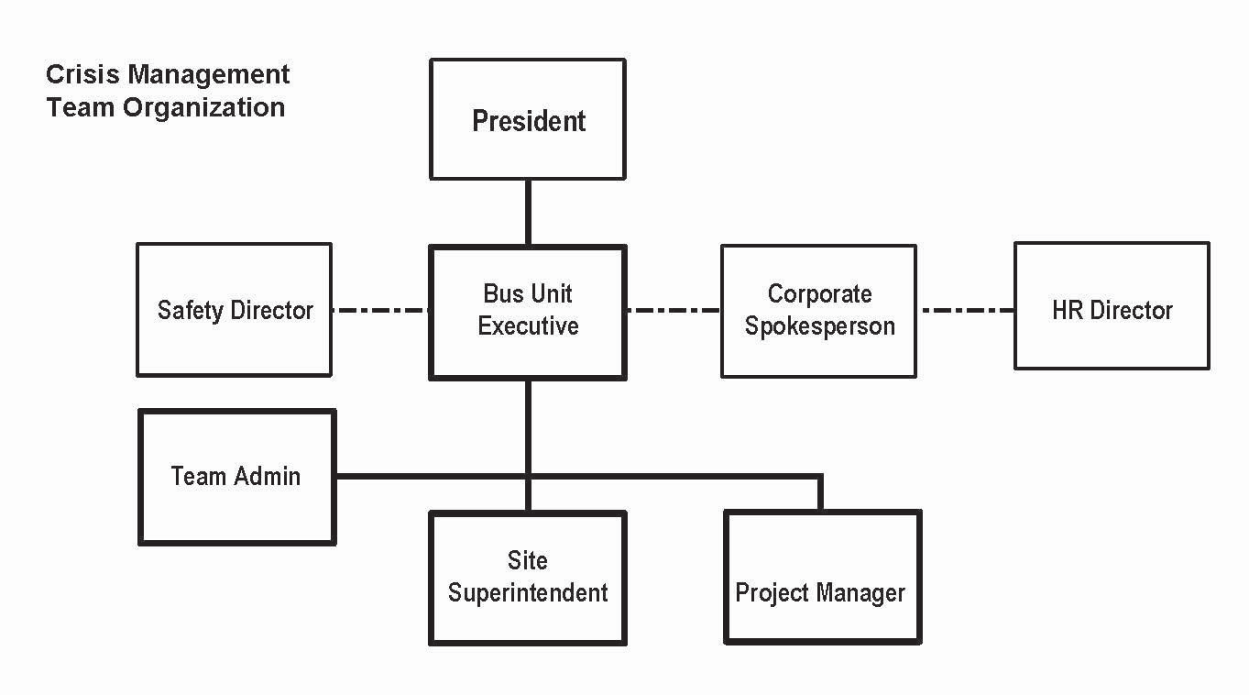
1. Call 911 or facility emergency number
   Give the following information:
   a. Name of person reporting the emergency.
   b. Nature and severity of the injury or illness.
   c. Locations and phone extension from which they are calling.
   d. Number of people involved.
2. Give location and address of emergency, caller may need to provide detailed information on how to locate job site, and or emergency scene, if necessary assign someone to lead rescuers to the scene.
3. Do not hang up until instructed to do so.

First Aid Requirements
Only designated, trained and qualified employees are to administer First Aid to others as a job function. However, this program also applies to employees who voluntarily administer care and/or are involved in emergency situations.

Supervisors and foremen shall be trained and qualified in First Aid and Cardio Pulmonary Resuscitation.

No employee is required to render First Aid or clean up any body fluid unless properly trained and qualified to do so.

CRISIS MANAGEMENT



Emergency Response Procedure

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

- The appropriate supervisor or responding personnel shall 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
  - Corporate Director of ESH
  - Vice President of Operations of the SBU
  - Director of Corporate Marketing/Company Spokesperson

- Layton Construction management (Safety Director and SBU V.P.) must be called as soon as possible.
- The Safety Manager shall establish and train site personnel in emergency response procedures.
- The Safety Manager shall maintain as necessary, emergency response supplies and equipment to meet emergency response needs.

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 Material Safety Data Sheet.

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 Chris Bardin, Director of Safety and Health, and Project Safety Manager
- Notify the SBU Vice-President
- Initiate site control. Is site shutdown necessary?
- Account for all employees
- Do not move potential evidence
- Direct all outside inquires to Leader
- Notify the business unit executive
- Post workers 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.

1. Review site for hazards. Isolate hazardous area.
2. Secure the site from further hazards, i.e., turn off utilities, remove hazardous substances not involved, stop flows of product or water, etc.
3. Attend to the injured, render first aid, call 911, etc.
4. Call 911 or facility emergency number
   Give the following information:
   a. Name of person reporting the emergency.
   b. Nature and severity of the injury or illness.
   c. Locations and phone extension from which they are calling.
   d. Number of people involved.
   e. Directions to the site of the emergency.
5. Secure and isolate incident site, do not move anything that does not have to be removed to help the injured or make the area safe. Make note of those items that had to be moved. For major incidents site emergency shut down is required.
6. Take a role call. Account for each site employee, vendor, owner's rep., and trade contractor employees.
7. Keep those needed for help. Release those who are not needed and require them to leave the site.
8. Establish first aid and evacuation area if required, where ambulance, or air evacuation have access.
9. Control site access.
10. Start investigation and reporting procedures.

First hour response: Business Unit Executive

- Contact site superintendent
- Determine what happened, when/where it happened and who is involved
- Verify current status of site (shutdown?)
- Notify Alan Rindlisbacher, spokesperson
- Notify David Layton
- Advise project assistant and receptionists where to route calls
- Identify potential spin-off crises
- Notify Gerald Biesinger, HR Director

Emergency Preparedness Training

- **Employees** – shall be trained on the subjects below as appropriate:
- Emergency Notification and Reporting Procedures
- Site Emergency and Evacuation Procedures
- Points of Assembly
- A site map shall be posted for all contractor and subcontractor employees, showing the Points of Assembly locations.

CRISIS COMMUNICATION PLAN

Never assume that the crisis will just "go away." Manage the circumstances and take ownership of the problem. Do not expect that the problem will take care of itself.

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

1. Designate a single company spokesperson (typically the Director of Corporate marketing (801) 568-9090, unless delegated to someone on the job site due to a remote location or other circumstances). Refer media calls immediately to the company spokesperson.

   Designated Spokesperson: _____

2. Determine a central gathering point for the media representatives to maintain scene safety and coordination (at a distance from the scene, jobsite management trailers and employee jobsites gates).

   Gathering point:_____

3. The company spokesperson and project management team will develop a statement of known information that can be provided as soon as possible.

   Company Spokesperson: _____

4. Provide regular updated information as it becomes available.

5. Create a log of persons from the media, including their organization, phone numbers, and email addresses for effective continued communication. See Appendix M for Media Log form.

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 project bulletin boards.

The plan shall be reviewed periodically by Layton Construction to ensure continued accuracy and applicability. Daily Pre -Task Plans shall also address emergency egress on a daily basis from each work area.

THIS PLAN SHALL BE REVIEWED BY ALL WORKERS AND POSTED WITH A SITE PLAN IN PROMINENT LOCATIONS ACCESSIBLE TO ALL WORKERS.

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 worker harm.

It is each worker'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 for one emergency may differ from another emergency.

BUILDING EVACUATION

Exit signs shall be conspicuously posted along evacuation routes.

A signal or alarm shall be designated to initiate evacuation.

Personnel should de-energize tools and equipment and observe their work area for fellow workers in need of assistance.

Observe stairs for safe passage before accessing

Report any hazardous conditions that are known to exist within the building to your supervisor

A plan view drawing will be developed for each project's evacuation plan. This drawing will clearly identify the following:

- Building footprint
- Primary and secondary assembly areas
- 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. Workers should know the following information:

Emergency Phone Number: 911

Project Address: _____

City:_____

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

Please remember: DO NOT MOVE AN INJURED WORKER BEFORE MEDICAL ASSISTANCE ARRIVES UNLESS FURTHER INJURY IS POSSIBLE.

FIRE

In case of a fire, workers will evacuate their work area immediately and report to the pre-determined assembly area.

IN CASE OF FIRE OR MEDICAL EMERGENCY:

Emergency Phone Number:	**911**
Alarm or Notification:	Site specific: _____
Evacuation Route:	Out the ground floor exit areas to upwind Assembly Points
Primary Assembly Point A:	Is located at _____
Secondary Assembly Point B:	Is located at _____
Utility Shutdown: Gas if applicable	Responsible Person: _____
Electricity if applicable	Responsible Person: _____

SEVERE WEATHER

Should weather conditions such as severe thunderstorms or tornadoes develop around or near the project, workers will follow the direction of their immediate supervisor. Work in areas where severe weather events are possible will have a contingency plan in place.

IN CASE OF A 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 worker is exempt from evacuation even if the evacuation is a drill.

Workers are required to report immediately to their designated assembly point and be accounted for. Failure to report may cause another to risk danger in an effort to search for you. Do not leave the project without prior authorization from front-line supervision.

Layton Construction employee will call the identified Remediation Company to respond to chemical spills that require outside attention. An agreement must be made with the Remediation Company prior to identifying them as the remediation contact.

EMERGENCY EVACUATION ASSEMBLY AREA - SITE MAP

Site Logistics Plan – Emergency Evacuation Assembly Area

Glue project plan here. Indicate evacuation paths and Assembly Areas.

EMERGENCY NUMBERS

FIRE / FIRST AID / POLICE: 911

LAYTON CONSTRUCTION SITE SUPERINTENDENT: Name ..... Phone

LAYTON CONSTRUCTION PROJECT MANAGER: Name ..... Phone

ENVIRONMENTAL COMPLIANCE

Purpose

To identify and comply with all applicable regulatory requirements. Layton Construction is committed to protecting the environment on all projects and the health of all the project's employees.

Responsibility

It is the responsibility of Layton Construction, subcontractors, vendors, or other third party individuals to identify and analyze EHS regulations. The LCC EHS Manager will coordinate the Environmental Health and Safety concerns. Outside legal representation may assist with regulatory interpretations as needed. It will be the responsibility of all contractors involved with Layton projects to comply with the regulations.

Procedure

Any regulation that applies to the operation is identified. This may include international, federal, state, regional and local regulations. At each level of government, there are several different regulations.

Types of regulatory requirements which will are identified are of all government levels and in all segments of the environment. This includes legislation that covers the protection of air, water, land and natural resources. The complete list of requirements are found in documents

Air Pollution

- Dust control. All Contractors will be responsible for dust control as it applies to their scope of work.
- When necessary to protect employees from the excess amount of dust created from the construction activities, respirator protection will be enforced.
- In the event the Contractors plan to use sprays, chemicals or other items that have the potential of contaminating the air, they will coordinate all activities of this nature with the LCC EHS Manager before proceeding.

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.

Hazardous Materials

- There will be no on site bulk liquid fuel storage.
- Equipment refueling shall utilize off site fueling resources in lieu of storage of bulk fuels on site.
- In the event of a spill of one quart or more of petroleum type product and/or hazardous substance, the LCC Manager will coordinate containment with the applicable Contractor. Once the spill is contained, LCC Manager 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 LCC 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 shall remain until remedial activities are complete.

Water

- In order to prevent the contamination of water, the Contractor, if necessary, will berm and line all areas where there is the potential of water contamination.
- Before site work construction begins, the Contractor will properly construct the work site to properly allow for drainage of runoff water into collecting areas or existing drainage system.
- The Contractor will contain all run-off water until disposal can be arranged by the LCC Safety Managers.

AIR POLLUTION CONTROL

Purpose

The following defines the content and requirements for a site-specific Air Pollution Control Plan (APCP) for each construction project. The purpose of the written APCP is to set forth instructions and establish requirements to prevent or minimize air pollution associated with onsite construction or build-out activities. These requirements have been established to help comply with federal, state, and local laws as well as regulations, standards and requirements including Layton's performance standards and policies. Where local or state regulations require more stringent or different controls, each project must incorporate those requirements into the APCP.

Applicability

- The APCP applies to all contractors and their subcontractors. The Project Environmental Manager is responsible for preparing the written APCP and for establishing systems with the site subcontractors to ensure communication and conformance to the requirements of the APCP.
- 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 (e.g., nuisance).
- The following are examples of construction-related activities that potentially generate air pollution:
    - Site preparation and civil engineering work (e.g., grubbing, clearing, scraping, excavating, piling and filling) that can 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. In some jurisdictions, specifically in the U.S., a dust control permit must be obtained prior to commencement of work and in other cases, a building permit will not be issued unless a dust control plan has been prepared and submitted. Whether required by the local jurisdiction or not, the Project Environmental Manager shall either prepare a dust control plan or obtain a copy of the plan from the earthwork subcontractor prior to beginning construction. The dust control plan must be included in the site-specific APCP.

The dust control plan must include, at a minimum:

- Criteria and frequency for applying water to potentially dusty areas of the site subject to vehicular traffic (e.g., access roads, internal site roads, areas disturbed by heavy earth moving equipment, etc.).
- A log that specifies the location, the time(s) of day, number of times per day and amount of water to be applied per day to each location. The log is to be filled out by the driver of the watering truck and remain onsite at all times for inspection.

- Provisions for determining when additional dust control is necessary (e.g., windy days, increased traffic, newly exposed soil, etc.).
- Areas that require the placement of aggregate to keep dust down (e.g., heavily traveled roads, equipment staging areas, etc.).
- Copies of permits required by local agencies for on site water storage. (Some water storage arrangements (e.g., surface impoundments) require significant permitting lead time or are disallowed by local agencies.)
    - NOTE: NEVER use dust suppression chemicals (including oil) without prior approval of site EHS personnel.

Application of Chemicals to the Soils

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 (e.g., employees, residents, local creeks, lakes, estuaries, wetlands or protected flora or fauna, etc.)

Key elements to consider before purchasing or applying chemicals to the soil/ground are:

- Are workers trained and licensed to apply the chemicals? Certain chemicals can only be applied by trained and licensed/permitted individuals. The Project Environmental Manager must obtain a copy of the required permits for each individual that will be applying any chemicals to the soil/ground.
- Are all licenses and permits must be available for review. This information must be immediately available to site EHS.
- Are there any adverse conditions that can cause chemicals to leave the construction site and threaten sensitive receptors? For example, chemicals should never be applied while it is windy or raining. Chemicals should never be stockpiled and exposed to rain water or wind.
- Chemicals should only be applied as specified by the manufacturer or as described in the site-specific APCP.

Construction Material Surface Preparation and Coating

The construction of roads, buildings and other structures often requires the surfaces 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 (e.g., epoxy coatings, paint, hot tar roofing and asphalt paving materials, etc.) can generate fumes, vapors and strong odors.

Key elements associated with these activities include:

- Owner pre-approval for all material/chemical to be used for bead and sand blasting, for coating or painting, and for any solvents associated with these activities prior to any of these materials arriving on the project site.
- Dust or particulate suppression control for all bead/sand blasting and spray painting activities to prevent material from traveling beyond the immediate work area. Sheeting material should be used to separate the work area from the rest of the site.
- Surface preparation and coating activities performed outdoors should not be performed during windy conditions unless performed within enclosed, protected areas. Precautions must be taken to ensure that dust, particulate and other air-borne pollutants never impact sensitive receptors (e.g., employees, residents, local creeks, lakes, estuaries, wetlands or protected flora or fauna, etc.).
- Waste produced by surface preparation and coating activities must be taken to the site hazardous waste accumulation area.

Demolition

The demolition of buildings, tanks, piping systems, etc., can often result in the release of air pollutants. Depending on the age of the building, the materials of construction could contain asbestos or lead-based paint. Ductwork or pipes may contain residual chemicals of concern (e.g., arsenic, adhesives/coatings, solvent or petroleum vapors, etc.). Tanks may contain materials that can release vapors or pose a potential hazardous situation when being removed. A Demolition Checklist will be filled out before the demolition (use Demolition Operation Checklist)

Key elements associated with all demolition activities include the following:

- State / 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 shall be used for any asbestos removal activity. All permits and licenses must be available for review.
- Sand/Bead blasting of metal (interior / exterior) 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 be taken to prevent the release of these materials or contact with any sensitive receptors (e.g., employees, residents, local creeks, lakes, estuaries, wetlands or protected flora or fauna, etc.). Prior to removal of any surface coating material, the Project Manager and qualified subcontractors must determine if the materials contain lead or other potentially harmful substance.
- Prior to removal, dismantling, or disassembly of tanks, pipes, pumps or valves, they must be checked to verify that they contain no liquids, sludges or residues. These residues must be removed in accordance with government, owner, and contractor requirements prior to demolition.
- All waste must be profiled and managed for disposal under site EHS direction.

HAZARD COMMUNICATION PROGRAM

All workers on the project are entitled to know the properties and potential safety and health hazards of chemicals or substances that they may come in contact with on the project.

Each project will develop a written project specific Hazard Communication Plan. This plan will be posted in a location where workers can easily access and review the plan. (Included in the yellow MSDS Binder.)

Each subcontractor will submit to Layton Construction a Master Chemical and Substance Inventory List and a copy of the Material Safety Data Sheet (MSDS) of all known hazardous chemicals that are in their work area. Prime subcontractors will be responsible for obtaining all sub-tier subcontractors Master Chemical and Substance Inventory Lists/MSDS and forwarding to Layton Construction.

The Master Chemical and Substance Inventory List (Appendix L) or equal will be maintained, even if they do not have or will not use any hazardous chemicals or substances. *This is an OSHA requirement.*

Subcontractors will maintain a project specific MSDS on location for each hazardous chemical or substance listed on the Master Chemical and Substance Inventory List. Prime subcontractors will be responsible to ensure all sub-tier subcontractors have their project specific MSDS sheets at the project.

It will be the responsibility of each worker's supervision or project manager to assure Material Safety Data Sheets are received prior to, or at the time of delivery of, a hazardous chemical.

Project management and front-line supervision will ensure all hazardous chemicals are properly labeled in accordance with the MSDS. Containers that hazardous chemicals have been transferred into for use during a single work shift will be labeled as to contents.

Every worker on the project shall receive instruction from their employer on their Hazard Communication Program, the location of the Master Hazardous Chemical and Substance Inventory list, the location of the Material Safety Data Sheets, labeling requirements and specific safety or health instructions about the hazardous chemical or substance.

Recommended minimum Hazard Communication Training will consist of:

1. The contents of the program

2. Prior to use of or the potential exposure to any hazardous chemical or substance, workers are to be instructed in:

- Physical and health hazards
- Procedures to protect against the hazards
- Engineering and administrative controls
- Personal protective equipment
- Emergency procedures in case of exposure or accidental spill

3. Labeling requirements

4. Whenever a new chemical or substance is introduced into the workplace, workers will be briefed of its hazards

The client, vendors and subcontractors that may have business in or near a work area will be notified that hazardous chemicals are being used and the hazards they may encounter.

If a worker believes they have encountered a hazardous chemical or substance unfamiliar to them, they will immediately notify their supervisor. Project management or supervision will attempt to identify the hazardous chemical or substance and initiate all precautions to handle and dispose of this material, if required, and to properly protect workers.

HEALTH CARE FACILITY POLICY AND PROCEDURES

CONSTRUCTION SAFETY POLICY AND PROCEDURE

When planning demolition, construction, or renovation work, Layton Construction in conjunction with the hospital, will conduct a proactive risk assessment using risk criteria to identify hazards that could potentially compromise patient care in occupied areas of the hospital. The risk criteria will address the impact demolition, renovation, or new construction activities have on air quality requirements, infection control, utility requirements, noise, vibration, and emergency procedures. As required, the organization selects and implements proper controls to reduce risk and minimize the impact of these activities. The organization uses the latest Guidelines for design and construction of hospitals and healthcare facilities, and applicable State Codes and Regulations. It will be Layton Construction and their subcontractor's responsibility to see that this policy is enforced.

PROCEDURE

There will be a written statement of hospital policy given to the Layton Companies. It will be signed and returned before the job begins. This will be kept on record in the Engineering Department and/or the infection control nurse.

Construction safety policy and procedure shall be as follows:

Layton Construction will ensure that existing exits under construction remain free and unobstructed. Layton Construction will notify the hospital of LIFE safety changes so that training can be provided for its staff when an alternative means of egress is to be used. Signs will be installed to indicate work areas. A memo will be sent to all departments indicating construction boundary, parking and means of egress by Layton Construction. Layton Construction in conjunction with the hospital, will provide means of egress to and from hospital. If alternative exits are needed, they will be provided and clearly marked. There will be sufficient lighting provided by contractor for exiting both building and parking lots. A safety fence will be installed to prevent unauthorized personnel from entering the site.

Construction parking will be determined at the time of construction to determine the most appropriate area. No exit or emergency lane will be blocked permanently. If at any time it becomes necessary to block a lane, on a limited basis, it will be the responsibility of the project superintendent to be sure that the area being closed will be staffed for safety reasons. A loading-/unloading area will be designated on site. Delivery vehicles after unloading will then park where designated. Emergency lanes and entrances will remain open for Emergency vehicles.

When working on the fire detection system, temporary smoke detectors may be installed to provide an audible warning-system. During the time period the main system is inoperable, this will also be wired into an alarm to notify a manned station. During construction, a battery-operated smoke detector may be used. The detectors will be placed 20 feet apart in the construction area. If the temporary system is left up over a month, it must be included in the monthly inspection and testing cycle. This will be documented and the records turned in to safety. Whenever the extinguishing system is worked on, it will not be left off over night. The system will not be shut down more than a working shift. If it becomes necessary to leave a section off, a fire watch must be set up until the system is fully restored. The general contractor and subcontractor, along with the help of the hospital's engineering department, will provide this.

Layton Construction will provide smoke tight partitions and ensure they are built of non-combustible or limited combustible material. The project superintendent will ensure that the temporary construction partitions are made to prevent the acceleration of smoke/fire from construction area to the rest of the hospital. Sheetrock is acceptable for partition walls, but a painted non-flammable sheet ply is preferred as there is less dust. Flammable plastic sheets are NOT acceptable. A fire retardant plastic will be used. It is the project superintendent's responsibility to make sure dust barriers are installed and maintain the

partitions. All partitions will be approved by the facility director and infection control nurse before constructed.

During the construction period additional fire extinguishers will be kept on the job site and are to be used when doing any welding, torch cutting, brazing, or any other type of work involving a flame. In addition to the additional fire extinguisher there will be additional personnel to stand as a fire watch during the hot work being conducted. Welding bottles will be securely fastened to prevent any tipping. At no time will fuel cans be stored inside the Hospital during construction projects.

Smoking is prohibited in the hospital. Those wishing to smoke will do so in pre-designated areas or their own vehicles. There are no exceptions; a minimum of 25 ft from any main entrance, or the distance declared by the owner or state, must be maintained. In many cases owners/facilities do not allow ANY smoking on the hospital campus. All owners/facilities/state policies will supercede Layton's policies and all workers will comply with the stated policy.

There will also be sufficient barricades around trenches, holes, foundations and hazardous areas. A temporary fence will be installed to prevent unauthorized personnel from entering construction project. Work areas in construction areas will be kept free of debris build up. This will minimize flammable and combustible material build up and fire hazards. The project superintendent will ensure through a daily inspection that the job site is being kept clean. Construction supplies will not be allowed to be stored in hallways or stairwells. A fenced in storage yard also will be used for storing equipment and material. Job toolboxes may be stored on the job site but need to be locked when sub contractors are not on site.

Interim LIFE Safety Measures will be taught during the subcontractors' pre-mobilization meeting or monthly safety meetings. These education classes will provide awareness to any deficiencies in the LIFE Safety Code, what steps are being conducted to correct the problem, how it affects them as an individual, as well as a group, and the time frame in which the problem is being solved.

CONSTRUCTION SAFETY AGREEMENT

The following guidelines will be followed:

All necessary safety equipment (according to Layton and industry standards) will be utilized.

Dusty conditions may necessitate watering by contractor.

Existing windows will be protected from damage.

The project superintendent will be responsible to insure that all subcontractors receive a copy of the policy and follow it.

Layton Construction will ensure that safe practices and infection control measures are followed and will correct any issues immediately.

All safety and infection control issues will be documented and reviewed with the noncompliant persons or companies.

Mandatory monthly construction safety meetings will be held by Layton Construction for all personnel on site.

Infection control during construction shall be accomplished by following the guidelines listed: See Infection Control Policy and Procedures.

Layton Construction is responsible for obtaining the infection Control Permit prior to commencing construction.

Construction projects will be governed by the above guidelines; however the hospital reserves the right to add to the policy at any time, to maintain safety on the job.

Contractor Signature	Date	Hospital Representative Signature	Date

INFECTION CONTROL POLICIES AND PROCEDURES NEEDED DURING CONSTRUCTION, DEMOLITION, OR RECONSTRUCTION

In order to provide a safe environment for hospital employees, patients, and visitors Infection Control guidelines will be implemented during construction, demolition, or reconstruction.

PROCEDURE

Obtain an Infection Control Permit. An Infection Control Permit is required for class III or higher procedures and any activity in a group 4 Infection Control Group. Refer to Infection Control Matrix. Permit is to be displayed at entrance to work area during entire construction period and returned at completion of work.

Maintain manpower and equipment, including dust mops, wet mops, brooms, buckets, and clean wiping rags for cleaning fine dust from floors in adjacent occupied area.

Contain work areas outside of construction barriers, including spaces above ceilings, with full height polystyrene sheet plastic tightly taped.

Cleanup dust tracked outside of construction area.

Temporary construction barriers and closures above ceilings shall be dust tight.

Removal of debris shall be in tightly covered containers.

Adhesive mats or carpets at barricade entrances and in the anteroom shall be kept clean and changed as necessary to prevent the accumulation of dust.

Any dust tracked outside of barrier shall be removed immediately. Cleaning outside barrier by HEPA filtered vacuum or damp mop.

Any ceiling access panels opened for investigation beyond sealed areas shall be replaced immediately when unattended.

Block off all existing ventilation ducts within the construction area. Method of capping ducts shall be dust-tight and withstand airflow.

When openings are made into existing ceilings, use control cube or provide polystyrene enclosure around ladder sealing off opening, fitted tight to ceiling and floor. Provide thorough cleaning of existing surfaces which become exposed to dust.

Removal of construction barriers and ceiling protection shall be done carefully, outside of normal work hours. Vacuum and clean dust from all surfaces after removal of the barrier.

Infection Control will have the option of doing environmental monitoring as needed during construction, demolition, or reconstruction.

There will be a pest-control means set up. Any signs of mice, insects, birds, squirrels, or other vermin will necessitate immediate disposal of vermin, and additional preventive control.

Trash and debris will be removed daily. Trash hauled out will be covered and will follow designated route. Only the elevator designated will be used for construction.

CONSTRUCTION BARRIERS NEEDED DURING CONSTRUCTION, DEMOLITION, OR RECONSTRUCTION

Barriers will be used during any hospital construction, demolition, or reconstruction that is not contained within a single room.

Barrier products and materials shall include but not be limited to the following:

- Sheet plastic: Fire retardant polystyrene.
- Barrier doors: Solid core wood door in metal frame.
- HEPA-equipped air filtration machines.
- Exhaust hoses: Heavy-duty, flexible steel reinforced ventilation power hose.
- Walk-off mats.
- Closed door with masking tape applied over the frame and door is acceptable for projects that can be contained.

Construction, demolition, or reconstruction not capable of containment within a single room must have the following barriers erected:

- Airtight flame resistant plastic barrier that extends from floor to ceiling. Seams must be sealed with duct tape to prevent dust and debris from escaping. Dust Barrier walls shall be taped at ceiling and floor for the entire length of the barrier.
- Drywall barriers or painted non-flammable sheet ply erected with joints covered or sealed to prevent dust and debris from escaping.
- Seal all penetrations in existing barrier to make airtight. All doors not being used for construction access shall be tape shut on both sides and a restricted access sign shall be installed. To prevent bugs and rodents from entering construction area, at no time will an outside door be held open for an extended period.
- Barriers at penetration of ceiling envelopes, chases, and ceiling spaces to stop movement of air and debris.
- Anteroom or double-entrance openings that allow workers to remove protective clothing or vacuum off existing clothing.
- Overlapping flap minimum two feet wide at polyethylene enclosures for personnel access.
- All return air grills and/or ducts shall be taped and sealed with plastic or capped with tin. Supply air shall be sealed and capped as needed to keep the area from becoming positively pressured to an adjacent area.

Negative air machines shall be used to maintain a negative work area to prevent areas outside of the construction barrier from being contaminated by dust. The discharge is to be ducted to a window, exhaust duct, or other outside penetration. At no time will discharge be hooked to a return air duct. Exhaust ducts should only be used as a last resort and should be approved by the facility director before any negative air tie in connection is made. To determine the required number of machines, an air change calculator can be used at: **http://www.abatement.com/php/input_asbestos.htm**.

Note: Typical negative air machine is rated for 2000 cfm, to calculate the number of air machines that you will need figure out the cfm discharge for the space.

Example: Total supply cfm (after returns are sealed) to space is 4600 you need to have three negative air machines.

Negative air machine will be run at all times during construction activities and shall be inspected by a designated person. Filters will be changed as needed or recommended by the manufacturer to help maintain negative pressure.

DEFINITIONS OF CONSTRUCTION ACTIVITY TYPES

The construction activity types will be defined by the amount of dust generated, the duration of the activity and the amount of shared heating and cooling systems. Construction Activities will be defined as Type A, Type B, Type C, or Type D according to the following guidelines:

TYPE A: Inspections and non-invasive activities. Includes, but is not limited to, removal of ceiling tiles for visual inspection, painting (but not sanding) wall covering, electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.

TYPE B: Small scale, short duration activities that create minimal dust. Includes, but is not limited to, installation of telephone and computer cabling, cutting of walls or ceiling where dust migration can be controlled.

TYPE C: Any work, which generated a moderate to high level of dust or required demolition or removal of any, fixed building components or assemblies. Includes, but is not limited to, sanding of wall for painting or wall covering, removal of floor coverings, ceiling tiles and casework, new wall construction, minor ductwork or electrical work above ceilings, major cabling activities, and any activity which cannot be completed within a single work shift.

TYPE D: Major demolition and construction projects. Includes, but is not limited to, activities that require consecutive work shifts, heavy demolition or removal of a complete ceiling system, and new construction.

INFECTION CONTROL PERMIT

Infection Control Construction Permit					
					Permit No:
Location of Construction:					Project Start date:
Project Coordinator					Estimated Duration
Contractor Performing Work					Permit Expiration Date:
Supervisor:					Telephone:
YES	NO	CONSTRUCTION ACTIVITY	YES	NO	INFECTION CONTROL RISK GROUP
		TYPE A. Inspection, non-invasive activity			Group 1. Least Risk
		TYPE B: Small scale, short duration, Moderate to high levels			Group 2. Medium Risk
		TYPE C: Activity generates moderate to high Levels of dust, requires greater 1 work Shift for completion			Group 3. Medium/High Risk
		TYPE D: Major duration and construction activities requiring consecutive work shifts			Group 4. Highest Risk
CLASS I		1. Execute work by methods to minimize rising dust from construction operations. 2. Immediately replace any ceiling tile displaced for visual inspection 3. Minor Demolition for remodeling			
CLASS II		1. Provides active means to prevent air-borne dust from dispersing into atmosphere. 2. Water mist work surface to control dust while cutting. 3. Seal unused doors with duct tape. 4. Block off and seal air vents. 5. Wipe surfaces with disinfectant. 6. Contain construction waste before transport in tightly covered containers. 7. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area. 8. Place dust mat at entrance and exit of work area. 9. Remove or isolate HVAC system in areas where work is being preformed.			

CLASS III Date_____ Initial_____	1. Obtain infection control permit before construction begins. 2. Remove or isolate HVAC system in area where work is being done to prevent contamination of the duct system. 3. Complete all critical barriers or implement control cube method before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Do not remove barriers from work area until complete project is thoroughly cleaned by Env. Services Department. 6. Vacuum work area with HEPA filter vacuums 7. Wet mop with disinfectant. 8. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 9. Contain construction waste before transport in tightly covered containers 10. Cover transport receptacles or carts. Tape covering.
CLASS IV Date_____ Initial_____	1. Obtain infection control permit before construction begins. 2. Remove or isolate HVAC system in area where work is being done to prevent contamination of duct system. 4. Complete all critical barriers or implement control cube method before construction begins. 5. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Seal holes, pipes, conduits, and punctures appropriately. 6. Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or they can wear cloth or paper coveralls that are removed each time they leave the work site. 7. All personnel entering work site are required to wear shoe covers 8. Do not remove barriers from work area until completed project is thoroughly cleaned by an Environmental Service. 9. Vacuum work area with HEPA filter vacuums 10. Wet mop with disinfectant. 11. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 12. Contain construction waste before transport in tightly covered containers 13. Cover transport receptacles or carts. Tape covering.
Additional Requirements:	

Date_____ Initials_____ 12 hour uninterrupted exchange required	Date_____ Exceptions/Additions to this Initials _____ permit are noted by attached memoranda
Permit Requested by:	Permit Authorized by:
Date:	Date:

INTERIM LIFE SAFETY POLICY

These procedures are to be followed when it is necessary to work, repair or replace any Interim Life Safety devices, steps or measures.

In the event the fire system must be repaired, updated, or replaced, the following measures will be followed to ensure the safety of all.

The superintendent will notify the hospital staff of any fire protection deficiencies and correct any Interim Life Safety Code violations within an appropriate period of time. During the break in the coverage provided by the fire system, the steps outlined below will be followed to provide maximum coverage for safety of all:

Buildings or areas under construction must maintain escape routes for construction workers, patients, and hospital staff at all times, and the means of exiting construction areas are inspected daily by the on site superintendent.

Ensuring free and unobstructed access to emergency services and for fire, police and other emergency forces.

Ensuring that fire alarm, detection, and suppression systems are in good working order. A temporary but equivalent system must be provided when any fire system is impaired. Temporary systems must be inspected and tested monthly.

Ensuring the temporary construction partitions are smoke tight and built of noncombustible or limited combustible materials that will not contribute to the development or spread of fire.

Providing additional fire fighting equipment in the construction areas and training to workers on fire prevention.

Prohibiting smoking throughout the hospital's buildings and in and near construction areas.

Developing and enforcing storage, housekeeping, and debris-removal practices that reduce the building's flammable and combustible fire load to the lowest feasible level.

All construction personnel will participate in fire drills per the hospitals requirements.

Increasing hazard surveillance of buildings, grounds, and equipment, with special attention to excavations, construction areas, construction storage, and field offices.

Training workers to compensate for impaired structural or compartmentalization features of fire safety.

RISK ASSESSMENT: INTERIM LIFE SAFETY HAZARD ANALYSIS WORKSHEET

Rate Potential for Compromise on scale of 5 to 1: 5 being the highest possibility of occurrence or the weakest resources: 1 being the least likely to occur or the strongest resources.

- **List Type of Construction Activity:** (New Construction/Renovation/Demolition)

POTENTIAL COMPRISE TO:	Potential for Compromise	List Patient Care Areas Impacted	List Non-patient Care Areas Impacted	List Public Areas Impacted	List Control Activities Needed
Air Requirements					1.
					2.
					3.
					4.
Infection Control					1.
					2.
					3.
					4.
Utility Failure (Check affected utility)					
____ Communications/Phone					1.
____ Electrical					2.
____ Generators					3.
____ Temperature					4.
____ HVAC					5.
____ Medical / Natural Gas					6.
____ Medical Vacuum					7.
____ Sewer					8.
____ Water					9.
____ Other _____					10.
Usual Noise Levels					1.

					2.
					3.
					4.
POTENTIAL COMPRISE TO:	Potential for Compromise	List Patient Care Areas Impacted	List Non-patient Care Areas Impacted	List Public Areas Impacted	List Control Activities Needed
Vibration Levels					1.
					2.
					3.
					4.
Emergency Procedures (Check affected procedure)					
____ Fire Safety					1.
____ Emergency (Disaster) Management					2.
____ Security					3.
____ Other _____					4.
					5.
					6.
					7.
					8.
					9.
					10.

DAILY ILSM MONITORING FORM

1. PROJECT NAME				WEEK OF _____				
		M	T	W	T	F	S	S
A	**EXITS/ENTRANCES**	*Y/N*	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
1	Exits clear, unobstructed, and functional							
2	Exit signs showing means of egress							
3	Sufficient lighting for exiting							
4	Access to emergency department and emergency Vehicles kept clear.							
5	Construction parking utilized							
B	**FIRE EQUIPMENT/SAFETY**	*Y/N*	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
1	Fire alarm shut down or impaired.							
2	Fire suppression system shut down or impaired							
3	Additional extinguishers on construction site							
4	Extinguishers being used when cutting, welding, etc.							
5	No evidence of smoking within 25' of building							
6	Additional fire training classes needed							
7	Additional fire drills needed							
8	Temporary smoke detectors tested regularly placed 20' apart							
9	Fire/Smoke partitions constructed properly							
C	**GENERAL SAFETY**	*Y/N*	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
1	All areas clean and free of debris							
2	Electrical power safety secured							
3	Construction material stored in designated area							
4	Hand/safety rails in place							
5	Construction area fenced off.							
6	Sufficient barricades around trenches, holes, etc.							
7	Hazard surveillance conducted							
8	Education provided on additional safety measures for workers							
D	**INFECTION CONTROL**	*Y/N*	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
1	Is the barrier for integrity and airflow from clean (hospital) to dirty (construction) maintained?							
2	Is the established route for debris/material followed? Is trash cart covered?							
3	Are floors in clinical areas/support areas hallways showing signs of dirt.							
4	Is clean linen covered?							
5	Are doors to project kept shut? Is there signage?							
6	There is a filtering system in place to prevent airborne particle material from migrating to patient care areas.							
7	Have water leakage problems been handled properly							
8	Are measure s being used to prevent pests from entering the hospital throughout construction							

If any problems have been noted please comment below:

Signature_____ Date_____

24HR / 72HR NOTICES

This procedure is written to specify the approval process for any work being performed in health care facilities that may possibly impact the health care facilities operations such as patient care, health care staff, utilities, and infections control.

Responsibilities

The Layton Construction superintendent will be responsible for coordinating all work activities that may impact the health care facility's operations with each subcontractor supervisor and the facility's owner/operator. A 24-hour notice and pre-planning form will be completed for any minor work activity that may affect patient care or health care staff areas. A 72-hour notice and pre-planning form will be completed for any major systems shut downs.

The employer assigning the job is responsible for ensuring that the employees performing the work have adequate equipment and safety/task training to perform the work without impact to the facility.

The Layton Construction superintendent and subcontractor supervisor will be responsible for reviewing the health care facility pre-task planning and 24- or 72-hour notification forms with the facility owner/operator or any other affected parties before work begins.

The Layton Construction superintendent will be responsible for walking the affected areas to ensure subcontractor work is complete.

Instructions

When a subcontractor working with Layton Construction has identified a task triggering requirements for the 24- or 72-hour notification and pre-task planning, the subcontractor is responsible for contacting the site superintendent in order to receive a 24- or 72-hour notice and pre-planning form.

Designated personnel in Layton Construction will evaluate the request and provide the 24- or 72-hour notice and pre-planning forms to the subcontractor after reviewing the mandatory requirements with the requesting subcontractor.

It is the responsibility of the Layton Construction superintendent to coordinate all work with the affected parties within the health care facility. At no time shall a subcontractor coordinate such work.

It's the responsibility of the subcontractor/employee performing the work to comply with all guidelines on the 24- or 72-hour notice and pre-planning forms. Failure to comply may result in immediate termination from the project. The subcontractor shall be held responsible for all damages resulting from failure to comply with these guidelines.

A copy of the 24- or 72-hour notice and pre-planning forms shall be posted in the affected work area. Once the work is complete the forms posted in the affected area will be returned to the site superintendent and be kept on file.

In the event a subcontractor has a tiered subcontractor performing work, it is that subcontractor's responsibility to have a competent person on site for supervision of the tiered subcontractor's work.

Quality control measures must be met by each subcontractor to ensure utility work is completed or protected to prevent accidental discharge.

Any floor penetration created by a subcontractor must be covered and sealed immediately.

1. Any activity that requires penetrating a floor will be a two employee activity. One employee will make the penetration, and the other employee will contain any debris from the floor below. No floor penetrating activities will begin until all health care staff, patients, and equipment have been removed.
2. When the work activities from a 24- or 72-hour notice have been completed, a new 24- or 72-hour notice must be done before any new work activities can begin.
3. No work activities may begin without documented approval by all affected parties on the 24- or 72-hour notice form.

4. All work shall comply with the hospital's specific infection control permit, policies and procedures. (Refer to barriers for further information.)

HEAT ILLNESS PREVENTION

The elements reflected within this Heat Illness Prevention guide consist of the following:

- Provision of Water
- Access to Shade
- Written Procedures
- Training

This program is to insure the welfare and safety of all Workers on the Layton Construction project, and to the control of risk of occurrence of heat-related injury or illness.

PROVISION OF WATER

Water is a key preventive measure to minimize the risk of heat-related illnesses.

Employees shall have access to potable drinking water. Where the supply of water is not plumbed or otherwise continuously supplied, water shall be provided in sufficient quantity for drinking for the entire shift. The frequent drinking of water shall be encouraged.

To ensure access to sufficient quantities of potable drinking water, the following steps will be taken:

All subcontractors will have water supplied at the locations where their crews are working, with adequate amounts of water on hand at all times. If coolers are used, they will be cleaned and filled on a daily basis.

To encourage frequent drinking of potable water, the following steps will be taken:

All supervisors will remind their workers to drink water. The workers will be reminded daily and at the weekly tool box safety meetings.

ACCESS TO SHADE

Access to rest and shade or other cooling measures are important preventive steps to minimize the risk of heat related illnesses.

Employees suffering from heat illness or believing a preventative recovery period is needed shall 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. Such access to shade shall be permitted at all times. Cooling measures other than shade (e.g., use of misting machines) may be provided in lieu of shade if the employer can demonstrate that these measures are at least as effective as shade in allowing employees to cool.

To ensure access to shade at all times, the following steps will be taken:

Employees have access to office, construction trailer, or other buildings with air conditioning.

Whenever possible, employers will provide areas for employees to take their breaks, which are:

- Readily accessible
- In the shade and open to the air, and ventilated or cooled
- Near sufficient supplies of drinking water.

To ensure that employees have access to a preventative recovery period, the following steps will be taken:

Toolbox safety meetings will be held to instruct employees in the requirement for breaks in areas of shade and near location of drinking water, and location of recovery shaded areas.

WRITTEN PROCEDURES

Written procedures help reduce the risk of heat related illnesses, and ensure that emergency assistance is provided without delay.

The following employer's procedures shall be in writing and shall be made available upon request. These include:

- Procedures for complying with the requirements of this standard,
- Procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary,
- Procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider;
- Procedures for ensuring that, in the event of emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders.

To reduce the risk of heat-related illness and respond to possible symptoms of HI, the following steps will be taken:

- All employees of all contractors will be required to 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 illness and the requirements for preventing and treatment of heat injury and illness.
- All contractors are required to supply cool, fresh, clean drinking water for every worker on site under their direct supervision and cups to drink from and a method for discarding used cups.
- Toolbox safety meetings will be required by all subcontractors to address heat conditions and requirements for preventing and treating, as well as symptom recognition by all employees and supervisors to address any heat injury or illness as fast as possible.
- All employees will be instructed as to the location and postings of all emergency locations and phone numbers to call for assistance.

To ensure that emergency medical services are provided without delay, the following steps will be taken:

Our procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary, are:

The person first recognizing the injury or illness will immediately call 911 and spotters will be positioned to direct Emergency Responders on to the site and to the location of injured person. The injured person will be taken to a cool, shaded area and evaluated and proper treatment will be administered until Emergency Response arrives.

TRAINING

Training is critical to help reduce the risk of heat-related illnesses and to assist with obtaining emergency assistance without delay.

Employee training: Training in the following topics shall be provided to all supervisory and non-supervisory employees:

- The environmental and personal risk factors for heat illness;
- The employer's procedures for complying with the requirements of this standard;
- The importance of frequent consumption of small quantities of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties;
- The importance of acclimatization;
- The different types of heat illness and the common signs and symptoms of heat illness;

- The importance to employees of immediately reporting to the employer, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves, or in co-workers;
- The employer's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary;
- The employer's procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider.

Supervisor training: Prior to assignment to supervision of employees working in the heat, training on the following topics shall be provided:

- The information required to be provided.
- The procedures the supervisor is to follow to implement the applicable provisions in this section.
- The procedures the supervisor is to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.

To ensure employees are trained, the following steps will be taken:

Every employee on site will be required to attend a new hire orientation where heat and illness training and requirements will be included.

All supervisors will hold toolbox meetings and insure that all their crew understands the requirements for water supply, heat illness and injury recognition, and emergency response.

To ensure supervisors are provided training, the following steps will be taken:

All supervisors will attend periodic training, in addition to the required site safety orientation, that will include heat-related illness and injury prevention methods.

INJURY MANAGEMENT PLAN

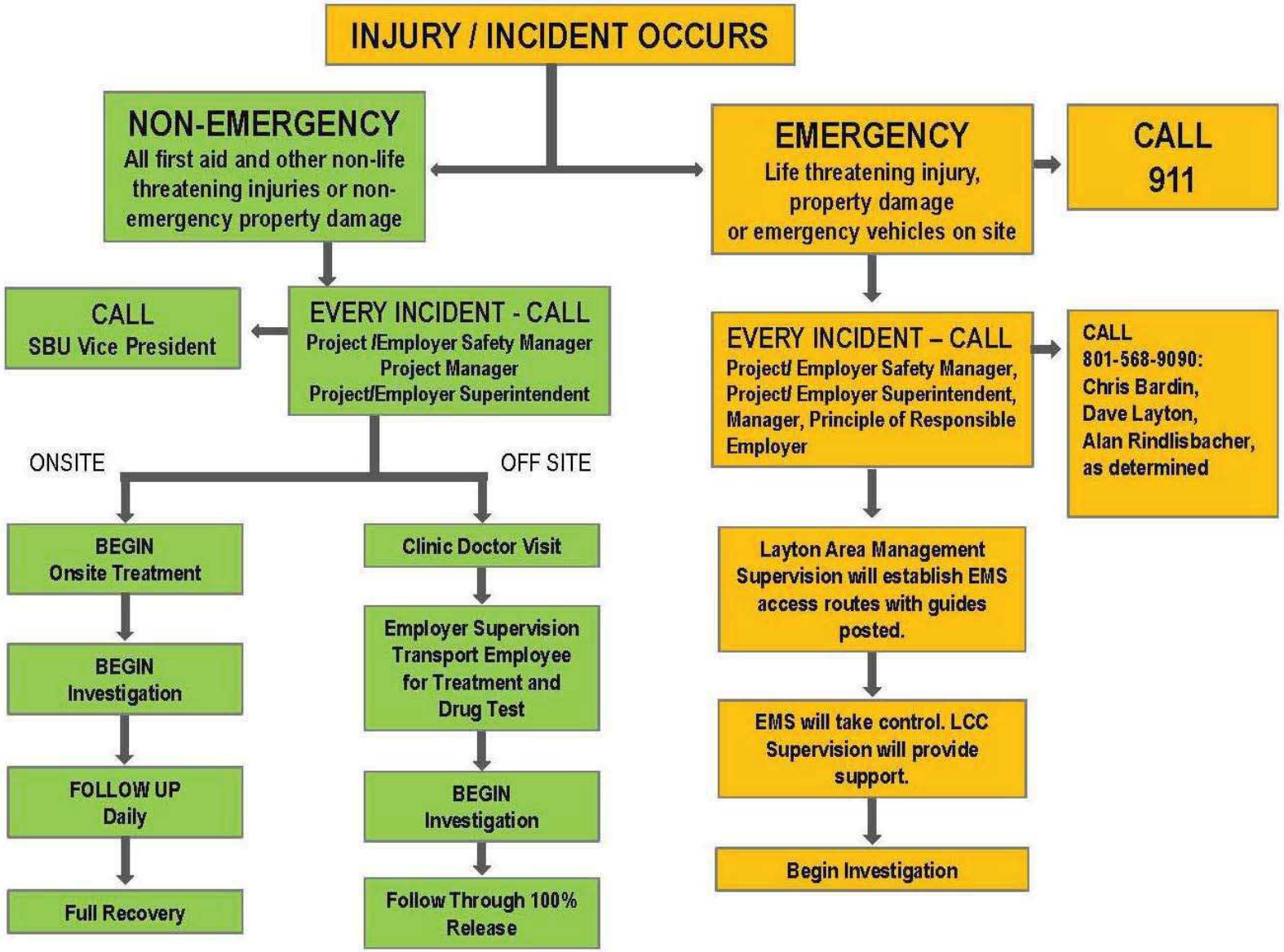
In order to control and manage any incident on a Layton Construction project the following measures will be followed:

- Layton Construction Supervision shall take control of the administrative management of the incident. If a subcontractor is injured, Layton Construction reserves the right to appoint a supervisor from the subcontractor to help keep track of the injured person until a full release to work can be obtained. Training will be completed with the supervisor of the subcontractor to insure the best care be given to the employee.
- Each project will have LCC and subcontractor persons on-site during all work activities that are trained in first aid and Cardiovascular Pulmonary Resuscitation (CPR).
- All injuries will be reported to LCC and subcontractor management immediately. Written reports will be submitted to LCC management during the same shift.
- Subcontractors will submit a copy of a First Report of Injury form (from the Doctor) to LCC Management.
- In the event of an injury or property damage accident / incident, the applicable Contractor Representative shall contact the Layton Construction Superintendent to obtain an Incident Packet that will contain all of the applicable forms and literature, including:
  - Employee Injury Report
  - Supervisors Investigation Report
  - Root Cause Analysis Form
  - Property Damage Report
- All injuries, including first aid, will be reviewed by Layton supervision to determine how to prevent a repeat injury.
- Layton Construction's supervisor and the subcontractor supervisor shall establish a close working relationship with the injured person to ensure that all needs of the injured employee are met, as well as the needs of the injury managment program.
- All employees working on Layton Construction projects will follow the Return to Work Policy in this manual. Each subcontractor shall be responsible for ensuring their employees comply with this manual.
- Light duty is a mandatory requirement on each project to help in the quick recovery of the employee. Subcontractors will establish or follow the LCC Light Duty program.
- All means necessary will be provided to the injured employee to ensure a rapid recovery and return to work processes. As a part of this plan, the injured employee will be provided the opportunity to return to work as soon as possible on light duty and transition to full duty upon medical full release from care.
- Layton Construction, along with the subcontractor supervision, will work closely with all medical doctors, and specialists in order to ensure close co-operation from all parties in returning the injured employee back to full and normal duties as soon as possible.
- Layton Construction shall monitor all medical and other costs involved in the injury to minimize and control the cost providing necessary medical treatment.

INCIDENT AND NEAR MISS REPORTING AND INVESTIGATION

As soon as an injured person has been removed from the scene, have someone immediately secure the scene without disturbing physical evidence and take names and phone numbers of all witnesses. If necessary, administer first aid until help arrives. Strategically place employees to direct the emergency response team to the incident. For emergencies requiring evacuation, each project will develop a site-specific plan.

INJURY / INCIDENT FLOW CHART



- 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, Foremen, the Project Safety Manager, and all others as deemed necessary.

"THOSE WHO DO NOT LEARN FROM THE PAST ARE CONDEMNED TO REPEAT IT"

Every incident and near miss will be reported immediately to Layton Construction and documented using the appropriate incident report forms (see Appendix A). The Layton Construction Project Team will notify the Layton Construction Environmental Safety and Health (ESH) Department of any incident or near miss and will thoroughly investigate to determine the probable root cause(s). Preventive action will be required to eliminate future occurrences.

- **An incident** is defined as any unplanned or undesired event that results in or has the potential to result in a work-related injury/illness, property damage, or disruption of business.
- **A near miss** 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.

Layton Construction and/or subcontractor front-line supervision will be involved in the investigation of incidents and near misses. The Incident Notification and Investigation form must be completed and submitted to the Layton Construction Environmental Safety and Health Department within 24 hours of the occurrence.

Incident Investigation

- Identification of the area(s) in which the accident occurred, including the project name and address.
- Date and time of the incident.
- Identification of the injured person or persons involved in the incident. This should include name(s) and occupation titles(s) and type of equipment involved.
- Details, including the most complete description of the incident available, with specific reference to the part of the body injured or affected, will be completed and phoned in to Intel Safety within one hour of the incident.
- If there is an incidence, but no injury occurred, give a complete description as to what happened, where it happened, why, and corrective action taken to prevent it from happening again. Also, describe damage to tools, equipment trailers, vehicles, and anything else involved in incident.

Description:

This section of the report should answer a series of questions designed to obtain the following information:

- Location of the incident on the jobsite.
- Activity of the injured at the time of the incident. This item should identify the specific activity being performed at the time of the accident and the materials, tools, or equipment that he/she was handling or using at the time.
- Avoid general statements such as describing the activity in terms of his/her job title, or a broad activity designation.
- What happened? This comprehensive description of how the injury/incident occurred should include a specific statement as to how and why the person came into contact with the injury-producing object or substance, and a full account of any events, circumstances, or personal actions that led to or contributed to the occurrence. All details relating to the event, even though seemingly insignificant, should be included in the report.

Cause

- Identification of the object or substance that directly inflicted or produced the injury.

- What environmental factors contributed to the occurrence of the accident/ incident? Include identification of any conditions or circumstances associated with the premises where the accident occurred, or with the tools, equipment, or materials involved, which in any way contributed to the occurrence of the accident.
- What error of judgment or procedure, or what improper action by the injured or by another person, contributed to the occurrence of the accident?
- What failures, on the part of supervision, the injured person or his/her co-workers contributed to the occurrence of the accident?

Other things to consider:

- When possible, discuss the accident with the injured employee.
- Discuss the accident with other employees who may have seen the accident.
- Carefully consider the following points:
    - What was the injured employee doing prior to the time of the accident? Was this in pursuit of his/her regular duties?
    - Was the employee properly instructed and trained how to perform his/her duties? Did he/she do the work in accordance with instruction?
    - Did any other employee or Contractor contribute to this accident?
    - Was the equipment or machinery, which the injured employee was using, in good condition? Was it properly guarded? Was it suited for the purpose for which it was being used?
    - Was ample and sufficiently lighted workspace provided?
    - Were proper housekeeping conditions maintained?
    - How is the same type of work done by other employees?
    - Is there a safer way in which this work could be done?
    - Was the injured in good health when reporting for work on the day of the accident?

Root Cause Analysis

A Basic Root Cause Analysis (RCA) 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. They include:

- **Management**: Do we have: policy enforcement, hazard recognition, accountability, supervisor training, production priority, corrective action, proper resources, craft safety training, hiring practices, maintenance, adequate staffing.
- **Employee:** Was the employee: following procedure, training, previous injury, mental ability, physical capacity, equipment use, short cuts, ppe worn, safety attitude.
- **Equipment**: Do we have: proper tool selection, tool availability, maintenance, tool guarding, visual warnings.
- **Environmen**t: What About: site layout, chemicals, temperature, weather, noise, radiation, terrain, vibration, ergonomics, lighting, biological influences, ventilation, lighting.

Evidence

- It is in the best interest of all parties that all physical evidence not be disturbed or tampered with, regardless of the circumstances involved, unless doing so is necessary for safety reasons.
- All efforts must be made to secure the area of the accident as soon as possible after the occurrence to prevent any alteration of the scene prior to the investigation.
- If any equipment, tools and/or materials are involved with the accident, they shall, after marking location, be removed from service and placed in safekeeping. If this proves to be impractical, the area in which the accident occurred shall be cordoned off and security personnel shall be posted to keep all unauthorized personnel out of the area.
- The secured area shall only be reopened upon approval from the LCC Safety Manager.

Drawings, Photographs and Diagrams

Drawings, photographs and diagrams should be marked up and/or sketches prepared to indicate the location of the accident. 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 accident investigation.

Witnesses

- All personnel associated with the operation and other eyewitnesses to the accident shall be interviewed and written statements taken. Use the Witness Incident Statement form in Appendix A.
- The information obtained during these interviews must be limited to direct knowledge of what was observed. Opinions and hearsay information do not represent factual findings.
- Each individual interviewed should be requested to sign a statement of his/her recorded sequence of events that led up to and included the accident.
- The following information should be obtained from each individual interviewed:
    - Name of Contractor, employee name, address and occupation or trade.
    - Date, time and place of interview.
    - Where the person being interviewed was at the time of the accident.
    - A complete narrative of what the witness knows of the accident. What operational activity or other events were taking place prior to and at the time of the accident.
    - What materials (e.g., lumber, concrete, steel), equipment (e.g., tools, cranes, scaffolding) or conditions (e.g., weather, working environment, and labor disputes) were involved. This would also include all possible contributing factors, personal and physical, whether they are directly or indirectly related to the accident.
    - What facts may have caused the accident? Answers must be as objective as possible. Include all unsafe conditions and/or unsafe acts.
    - Was there a pre-existing known and/or reported unsafe condition or actions associated with the accident? If so, when was it reported, to whom and was there any action taken at that time.
    - Upon conclusion of the interview, review the statement with the witness and have the witness attempt to clear up potential inconsistencies. The statement should then be dated, signed and witnessed by a third party.

Accident Report Format

- A preliminary report will be completed within 8 hours of the accident.
- The final investigative report shall be completed as soon as possible, but no later than 72 hours post incident. An accurate, detailed narrative description of the operation being performed at the time of the incident is of extreme importance. It is important to remember that a minor miscalculation of movement may have been the generating force that triggered the sequence of events, which resulted in the accident.
- Investigative reports should reveal the following:
    - What happened?
    - When did it happen?
    - Where did it happen?
    - Why did it happen?
    - To whom did it happen?
    - What activities were occurring in the area at the time of the incident?
    - The time the incident occurred.
    - Include drawings, photographs, and diagrams.
    - Include witness statements.

- What were the weather conditions at the time of the incident? Was the weather a contributing factor and if so how?
- Were all persons involved in the incident drug tested, and if not, why not?
- Corrective action required: Identify those factors (relating to people, premises, or equipment) that should be considered for correction or additional attention, to prevent a recurrence or the incident.
- Placement of responsibility for corrective action: Describe any immediate action taken after the accident to correct the circumstances leading up to, or to prevent a recurrence of the accident. List any actions that need further attention. State or recommend the person or organization to which responsibility for further corrective action should be assigned. If practical, set a target date for completion of that corrective action.

Summary

- At the conclusion of a major accident investigation, a meeting will be held at the work site of the incident to ensure the root causes have been determined and proper corrective action has been initiated:
  - A Root Cause Analysis process will be initiated for all injury and property damage incidents and will be included in the incident investigation packet. (See Above) (Sample Root Cause Analysis in Attachments)
- The following personnel will attend this meeting:
  - The injured party, witnesses to the incident and the injured's company management (including safety, supervisor and project manager); and Layton Management (safety, superintendent and project manager).

POST INCIDENT REVIEW MEETING

Upon completion of the incident investigation or observation of a major non-conformance, Layton Construction will require a post incident review meeting. At this meeting, the Layton Construction project team and Layton Construction senior project management, supervision, and involved subcontractor(s) will discuss the non-conformance, root causes, and corrective action plans.

LAYTON SAFETY PLANNING

LAYTON CONSTRUCTION PROJECT MANAGEMENT PLAN

The project's Project Manager, Superintendent and Area ESH Manager shall meet following project award to discuss the development of the Layton Construction Project Management Plan (PMP) and shall ensure the following is included:

- LIFE Plan (including LIFE Orientation)
- Additions to this Site Specific Safety Plan.
- Employee and Foreman ESH and Project Orientation Plans
- Safety Staffing
- Identification and management of Hazardous Materials
- Crisis Management
- Emergency action plan (medical treatment provider, confined space rescue needs, etc.)
- ESH Training needs (OSHA 10/30, 1st aid/AED/CPR, task specific or specialty training, etc)
- Recognition program
- Security/site control
- Sanitation provisions
- Unique logistics that will impact safety
- Subcontractor and tiered subcontractor prequalification
- BIM Pre-construction

SUBCONTRACTOR PROJECT SPECIFIC SAFETY PLAN

Prior to mobilization, each subcontractor's project management and front-line supervision will develop and submit, a written detailed project specific safety plan that will describe how they and their sub-tier subcontractors intend to implement and conform to the project safety plan. The safety plan will:

- Identify each component of the work that the subcontractor is responsible for completing.
- Identify hazards associated with the work and the proper equipment and tools to perform the work.
- Plan adequate and sufficient controls to protect their work crews.

The Layton Construction project team will review the subcontractor project specific safety plans, and finalize at Pre-MOB meeting.

Additional work components that may come up later in the project will be analyzed once they are known.

If the project specific safety plan needs revision due to scope of work changes, unanticipated or new hazards, other condition changes, etc., then all work pertaining to that work component will stop until a new project specific safety plan is completed.

CREW DAILY PRE-TASK PLAN

A Daily Pre-Task Safety Plan will be completed daily by each crew performing work on the project. (Appendix E)

Each front-line supervisor will analyze task(s) to be performed by their crew and identify the work sequences, hazards, training, controls and emergency action plans necessary to protect workers from the identified hazards.

- The work will be broken down into individual steps (i.e. all the steps the work crew will have to take in order to complete that task); the known hazards associated with the work; and the hazard controls

(tools, safety equipment, safety rules, safe work practices, etc.). This is a time for workers to provide input into the safety plan.

- Front-line supervisors will review the plan with their respective work crew so that each worker is aware of what work activities will occur during the shift, what hazards to be aware of and how to properly control or eliminate those hazards. All workers will sign the plan stating that they understand the work activities, hazards and controls. This is also an acknowledgement that each worker agrees to work according to the plan.
- The completed pre-task plan will be located near the work activity for review.

Those tasks with similar work can use prior pre-task plans, but the plan must still be dated and reviewed with crewmembers at the beginning of the shift. If the scope of work changes or a new hazard appears during the work, the front-line supervisor will stop their crewmembers and revise the pre-task plan.

Failure to complete the pre-task plans is a safety deviation. Please see disciplinary program on page 12.

ORIENTATION, TRAINING AND MEETINGS

To promote and ensure a Layton Injury Free Environment, health and safety training is a requirement for all Layton Construction and subcontractor workers assigned to the project.

Foreman/Front Line Supervisor Orientation

All foremen are required to mobilize to the site prior to their crew so they can receive specific training and review of the permits, forms, and procedures required by this plan as well as project specific information necessary to adequately coordinate their work and prepare their crews.

Employee New Hire Orientation

Every worker shall attend an environmental, health and safety orientation prior to starting any work on the project. On site orientation will be held (to be determined), and will provide general health and safety information and project specific work rules and procedures. Upon completion of training, each person will receive a sticker for his or her hardhat.

Daily and Weekly Safety Meetings

All workers assigned to the project will participate in safety meetings conducted by Layton Construction or their employer. Layton Construction reserves the right to remove subcontractor management/supervision personnel who do not regularly attend and/or conduct weekly safety meetings on the project.

Safety meetings should communicate any incidents that occurred on the project, safety concerns, new work activities, new and continuing potential hazards and the like.

Health and Safety Training

In addition to the site specific health and safety orientation, OSHA requires that workers receive specific task training. To help comply with OSHA minimum worker training requirements and assist in achieving an Injury Free workplace, a training matrix has been included in this SSSP to assist in the identification of applicable training requirements. This is for reference only and shall not be considered all inclusive.

Layton Construction may evaluate orientations and training periodically to verify they are being properly conducted and that the contents adequately cover the standards, policies, rules, and procedures contained in the SSSP or OSHA standards.

Project management or supervision will communicate the health and safety policies, rules, and procedures to all vendors and third party individuals having business on the project. Appendix R or equivalent shall be used to document safety training on the project.

TOPIC	WHO NEEDS TRAINING	WHAT TRAINING IS NEEDED
Project Specific Safety Orientation	All project management, supervision, and workers entering the project	Safety rules and procedures contained in the SSSP's site-specific emergency action plan, each worker's responsibilities, disciplinary program, and warm up and stretching exercises
LIFE Orientation	All workers entering the project	LIFE Orientation, included in site orientation.
Hazard Communication	All workers entering the project	Hazard Communication Basic Training (Refer to Hazard Communication Program in this SSSP)
Hazardous Chemical or Substance	Workers exposed to a hazardous chemical or substance	Specific Hazard Communication Training (Refer to Hazard Communication Program in this SSSP)
Respiratory Protection	Workers required to wear respiratory protection, including common dust masks	OSHA 29 CFR 1910.134 & 139 or 1926.103
Fall Protection	Any worker who might be exposed to a fall hazard	• The nature of fall hazards • Procedures for erecting, disassembling, maintaining and inspecting fall protection systems • Use and operation of: guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones and other protection when used • Procedures for handling equipment and erection of overhead protection • Fall protection standards
PPE	Workers using PPE	Refer to section on PPE or regulatory standards
Forklifts	Operators of powered industrial trucks	• Types of trucks operated • Hazards of the workplace • Hands-on performance evaluation
Confined Spaces	Any worker Attending to, Supervising, entering or working within a confined space	• Hazards of the space • Duties of entrants • Air monitoring
Permit-Required Confined Spaces	Any worker Attending to, Supervising, entering or working within a confined space	• Hazards of the space • Duties of entrants, attendants, supervisors • Measures used to eliminate or control hazards • Air monitoring requirements • Emergency procedures/rescue equipment • Communications • Permitting procedure • PPE

TOPIC	WHO NEEDS TRAINING	WHAT TRAINING IS NEEDED
Permit-Required Confined Spaces	Any worker Attending to, Supervising, entering or working within a confined space	• Hazards of the space • Duties of entrants, attendants, supervisors • Measures used to eliminate or control hazards • Air monitoring requirements • Emergency procedures/rescue equipment • Communications • Permitting procedure • PPE
Excavations/ Trenches	Workers entering or working within an excavation/trench	• 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	Workers affected by hazardous energy sources	• Nature of known hazardous energy sources • Project-specific Lockout/Tagout procedures
Gas Welding, Arc Welding & Cutting	Workers conducting gas welding and/or cutting	• The safe use of fuel gas • What to do with unattended machines and electrode holders • Operations around water • Shielding arc welding
Hot Work with Combustibles, Flammables, ?	Workers conducting hot work activities such as cutting, welding, brazing or grinding.	• Hazards of the area • Permits • Duties of Fire Watch • How to use a fire extinguisher
Scaffolding	Workers working from scaffolding	• The nature of any known hazards • Proper erection, maintenance and disassembly of fall protection systems • Electrical hazards in area • Falling object protection • Material/equipment handling from scaffold • Maximum load-carrying capacity • Scaffold tagging system • Access and egress
Crane Baskets	Workers working from crane baskets	• Safe work rules • 100% fall protection • Lift plans contents • Emergency procedures
MEWP (Mobile Elevated Work Platform) Tracking	Worker in scissor lifts and articulating booms	• Safe work rules • 100% fall protection • Emergency procedures

PROJECT SPECIFIC SAFE WORK REQUIREMENTS

The project specific safe work requirements are the minimum requirements for the project. The purpose of these requirements is to ensure an Injury Free Environments and compliance of regulatory standards and regulations, and Layton Construction safety policies and procedures.

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 against exposure of concrete to the bare skin and the possibility of concrete burn and contact dermatitis.

Workers engaged in vertical rebar assembly shall comply with the project six-foot fall protection rules. 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.

Pre-fabricated forms and form making material will be stacked neatly at all times. 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.

No employee is permitted to ride a concrete bucket.

Ensure that reinforcing steel and forms for walls, piers, columns, stairs and similar vertical structures are adequately supported to prevent overturning and 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.

When using bull floats, inspect the area to ensure there is no energized equipment or power lines 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 shall be equipped with dead-man controls that automatically shut down the equipment when the operator's hands are removed from the controls.

Finishers shall wear kneepads and impervious gloves when hand-finishing concrete.

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.

CONFINED SPACE

Workers may be required to work in an area that is defined as a confined space. A confined space is any space large enough and so configured that a person can bodily enter and perform work; has limited openings for entry and exit; and was not designed for continuous human occupancy. This may also be referred to as a Non Permit Required Confined Space. A Permit required space meets this criterion *and* has a potentially uncontrollable hazard.

Permit required confined spaces may include, but are not limited to:

- Storage tanks
- Excavations and trenches
- Ventilation and exhaust ducts
- Sewers
- Manholes
- Underground vaults and utility tunnels
- Pipelines
- Pits and tubs
- Open top spaces more than four feet in depth

All spaces shall be considered Permit Required unless the contractor can prove otherwise. No contractor will allow a worker to enter or work in any space that meets the definition of a confined space without developing a detailed Confined Space Entry Permit (Appendix C or equivalent) and written entry plan. Refer to OSHA 29 CFR 1910.146 for further direction. This Permit shall be filled out for all entries and will provide the documentation necessary to reclassify the space as Non Permit Required where possible. The Confined Space Entry Plan will be submitted to Layton Construction for review and issuance of a Confined Space Entry Permit.

Prior to working in any confined space, a competent person will determine what hazards exist. Any operating system or equipment will be locked out and tagged to prevent accidental operation. Contact the operating facility representative prior to any confined space entry work.

Permit required confined spaces will have the atmosphere tested and a permit completed and authorized prior to any worker entering the space. The atmosphere will be tested for oxygen deficiency, toxic gases or vapors, and combustible or flammable gases or vapors according to the hazard analysis and/or information provided by the client.

Prior to any worker entering a confined space, he/she will be trained in the following and records submitted to Layton Construction prior to commencement of the work:

- Contents of the Confined Space Entry Plan
- Known hazards in the confined space
- Emergency procedures in case of an emergency
- Correct use of personal protective equipment when required
- Hot Work Permit if required
- Atmosphere testing requirements
- Lockout/ Tagout procedures
- Fall protection if required

CRANES: TOWER CRANE SAFETY

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.

Crane operators will perform daily tower crane safety inspections and the crane rental company will perform other maintenance and inspections in accordance to manufacturer recommendation.

A qualified third party will inspect all structural components in accordance with manufacturer's recommendations.

Hoisting ropes must be shortened by the removal of ten feet at the dead end after every three months of use unless otherwise specified by the manufacturer.

No load will be swung over any public street that is occupied by the general public unless authorized by local authorities.

Prior to a load being swung over other workers, the front-line supervisor using the crane will provide a lookout that shall sound an alarm as the load is moved across the work area. The lookout shall wear a fluorescent orange vest or other similar high-visibility garment.

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

SCOPE OF APPLICABLE EQUIPMENT

This standard applies to power-operated equipment used on Layton Construction projects that can hoist, lower, and horizontally move a suspended load. The list below is intended to offer a framework of the variety of cranes seen on projects across the United States and to provide guidance of the applied scope of this standard.

Telescopic Crane – This crane has a boom that consists of number of different fitted tubes that reside inside each other. A hydraulic mechanism is what extends or retracts the tubes to increase or decrease the length of the main boom.

Tower Crane – This crane is fixed to the ground and gives a great combination of height and lifting capacity. It's commonly used in construction to build sky scrapers and other tall buildings. To save space and to provide stability, the vertical part of the crane is typically braced directly onto the completed building, which is normally the concrete lift shaft located in the center.

Truck Mounted Crane – A crane that is mounted on a rubber tire truck that drives around for maximum portability. When in operation Outriggers extend horizontally then vertically to both level and stabilize the crane for hoisting operations.

Rough Terrain Crane – A crane that is mounted on an undercarriage contains four rubber tires and is designed for pick-up and carry operations. Outriggers extend first horizontally and then vertically to both level and stabilize the crane for hoisting operations.

Lattice Boom Crane – A crane that can be mounted on an undercarriage with tires or tracks. The lattice boom section consists of the boom butt and boom tip. The length of which is increased by adding boom extensions. Boom sections are made of lightweight, thin wall, high strength alloy tubular or angle steel and are designed to take compression loads. Lattice boom manufacturers have set a zero tolerance on rust, bent lacing or cords, cracked welds, and other problems.

Pile Driver Crane – A crane used in combination with a machine for delivering repeated blows to the top of a pile for driving it into the ground; consists of a frame called "leads," which supports and guides a hammer weight, together with a mechanism for raising and dropping the hammer or for driving the hammer by air or steam.

Barge Crane/ Floating Crane – A specialized crane that can be permanently attached to a ship, or driven up and secured on a floating barge. It's used to lift heavy loads in marine type environments.

Crawler Crane – An undercarriage mounted crane that also has a set of tracks that provide extra stability and mobility.

Aerial Crane – A specially designed and fitted lifting helicopter capable of lifting large loads.

Loader Crane – A loader crane is fitted to a trailer or flat body truck chassis and used to unload/load goods onto the trailer/truck or onto a jobsite. It contains many different jointed sections that can be folded into a smaller space when the crane is not being use.

2. 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 shall be accomplished and incorporated into the foundation design of the engineered system.

3. Foundation Considerations

For mobile cranes, outrigger size and 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 on site. Refer to Appendix D for guidelines in determining outrigger configuration.

Tower crane foundations must be a designed system, certified by a professional engineer, taking all loads and soil conditions into consideration.

4. 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 requires FAA Form 7460-1 to be submitted at least 30 days before the following:

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 copies of the FAA Form 7460-1 be sent to the local/regional FAA Director. In addition to the FAA, other local statutes may require additional notification.

5. 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.

Minimum Clearance Distances

Voltage (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 1000	• 45
• Over 1000	• (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)

6. Inspection and Oversight Requirements

Prior to any crane arriving on a Layton Construction project the previous monthly and annual inspection shall be reviewed by Layton Construction site management. Verification that all noted defects have been corrected shall be included with the inspection form if applicable.

In addition, erection of tower cranes shall be directed by a third party inspector. Upon completion of erection a new annual inspection shall be accomplished by the third party inspector and all defects corrected and documented prior to any lift.

POST ERECTION PROCEDURES AND REQUIREMENTS

1. Inspection Requirements (annual, monthly, daily)

On-going comprehensive inspections are a critical component that ensures the on-going safe operation of all cranes.

Daily Inspections will be accomplished for all cranes on Layton Construction projects. It is mandatory that checklists are used to document that this requirement has been met. However, the only documentation required by this standard are any deficiencies identified during the daily inspection. Daily inspections may be accomplished by a Qualified Operator.

Monthly Inspections will be accomplished for all cranes on Layton Construction projects used on the project for greater than 30 calendar days, regardless of operating days during that period. The monthly inspection forms are required to be completed and maintained in the cab of the equipment. Monthly forms will be retained for a minimum of 3 months, and some local agencies may require them to be retained longer.

Annual Inspections will be accomplished for all cranes on Layton Construction projects used on that project for greater than 365 calendar days, regardless of operating days during that period. The annual inspection is required to be completed and the forms maintained in the cab of the equipment. Annual inspections must be accomplished by either a Vendor or Manufacturer, or a Third Party Inspector.

2. Operator, Rigger, and Signalman Qualifications

The intent of this standard is to require all crane operators on Layton Construction projects to be a certified crane operator (CCO), and posses all of the 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 shall be verified through a questioning process by Layton Construction site management.

This certification however does not ensure that an operator is capable of safely operating a particular piece of equipment. The following guidelines will be followed to ensure operators are fully qualified to safely operate the applicable equipment for the project:

NCCCO Certified

Review and inspect NCCCO Certification Card for types 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, personal training will be given to the operator that may include the following:

Site specific requirements

Review of specific sections of Layton Construction Safety Manual such as safe material handling practices.

Equipment maintenance and periodic equipment check requirements.

Riggers and signalman shall be certified and/or qualified.

These guidelines do not overrule any local, state or federal requirements. In the event of conflict, the more stringent standard shall prevail.

3. Critical and Major Lift Planning

Critical Lift Determination

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 shall ensure that a person-in-charge (PIC) is assigned. (The PIC need not be in the Layton Construction organization).

Critical Lift Procedures

The PIC shall ensure that a step-by-step procedure is prepared for critical lifts. Although individual procedures are prepared for the one-time critical lifts, general procedures may be employed to accomplish routine recurrent crucial lifts. For example, a general procedure may be used to lift an item or series of similar items that are frequently lifted or repeatedly handled in the same manner.

- 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 shall 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 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 and site Safety Manager, author of the Lift Plan, and Manager of the lift operation.

Revisions of Critical Lift Procedures

Any revisions to the procedure shall be reviewed and approved though the same cycle as the original procedure.

Pre-lift Meeting

Before the critical lift is performed, a pre-lift meeting with all participating personnel shall be held. During the meeting, the critical lift procedures shall be reviewed and questions shall be resolved. The pre-lift meeting shall be documented.

NOTE: Practice lifts are recommended. (If used, requirements for the practice lift should be documented in the procedure).

4. 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 sequence
- 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

5. Lift and Pre-task Planning

Prior to any lifts a lift plan should be in place. 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 particular day to ensure that no deviations from the lift plan exist.

6. Safety Plan and Job Hazard Analysis

All incidents involving crane operations (*i.e., unsafe observation, near miss, etc.*) must be reported immediately to Layton Construction site staff, including the site safety manager. Layton Construction will collaborate with other contractors if appropriate and develop a corrective action in response to the cause of the incident prior to resuming crane operations.

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 EHS personnel.

CRANE MANAGEMENT SYSTEMS

Documentation Control

Every crane operating on a Layton Construction project must have the following documentation in the cab of the crane available for review.

- The last annual inspection
- The last monthly inspection
- Exception reports, if any
- Manufacturer's operating manual
- Manufacturer's lift charts

DEMOLITION

Prior to start of any demolition work, the contractor 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, sequencing, etc. No work will commence until a written engineering survey has been completed and submitted to Layton Construction.

Debris and material shall 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 shall materials be dropped more than 20 feet without using a chute.

Debris chutes shall have a substantial gate at all elevated openings.

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

See Appendix O for Pre-demolition guidelines.

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 Layton Construction for review prior to performance of work. As the General Contractor, we are obligated to insure our electrical subcontractors follow the NFPA 70E standards regulating electrical safety. This standard must be followed when any “live work” is completed on a Layton project. All electrical subcontractors working on Layton projects must know and follow these standards. (See Energized Work and the Arc Flash Permit, Appendix G.)

Electrical equipment and tools used on the project shall be inspected by a competent person to prevent any worker from receiving an accidental electrical shock. This rule will apply to all cord sets, portable electrical equipment, tools and appliances not part of any permanent building or structural electrical systems.

All temporary cords will be three wire types S, ST, SO, or STO with a 16 or heavier wire gauge.

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. Generator is to be grounded if required by manufacturer.

Each worker, after plugging in his/her tool and /or extension cord, shall periodically inspect, test and reset the GFCI device being used to ensure it is working properly. If the GFCI device is not functioning properly he/she will repeat the process until a properly working GFCI device is found. He/She will report the defective GFCI device to his/her supervisor.

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 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.

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 for signs of internal damage
- Tape for monthly inspection procedure

General Electrical Rules

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 by 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 be OSHA approved and UL listed.

UL approved covers are required on all panels, load centers, pull boxes, etc… prior to energizing. Necessary steps will be taken to prevent unauthorized or unqualified workers access to energized electrical parts or equipment.

EQUIPMENT AND VEHICLES

- 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 pre-shift.
- Forklifts will be equipped with rollover devices.
- Equipment that is equipped with a windshield will be free of cracks or other visible damage.
- All equipment will be equipped with rollover protective structures (ROPS).
- Seatbelts are required to be worn at all times when provided in moving equipment.
- Only company and/or delivery vehicles used for the sole purpose of conducting work tasks on-site are permitted in construction areas. Equipment used on-site must have an audible backup alarm. The driver and all passengers of any vehicle will wear seat belts.
- No equipment or vehicle will be used to transport personnel unless it is specifically designed to do so. This includes beds of pick up trucks.
- Equipment operators are responsible to check their equipment daily to verify it is working properly.
- As a minimum, each operator will check:
    - Brakes
    - Lights
    - Backup alarm and Horn
    - Hydraulic systems
    - Steering mechanism
    - Operating controls
    - Mirrors
    - Fire extinguisher
    - Limit switches
    - Leaks

Equipment operators will possess the required training, certification and licenses as required by law for the equipment that they are required to operate.

EXCAVATION AND TRENCHING

Prior to any disruption of ground, excavation or trenching on the project, the following will be performed:

- Layton Construction shall request locations for existing underground private utilities from the owner.
- Contractors shall notify public utility locating authorities.
- The contractor 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 or shoring requirements.
- An excavation permit (Appendix H or equivalent) is completed and approved by a Layton Construction representative prior to excavation.

During excavation or trenching operations on the project, the following requirements will be followed:

- All trenches and excavations will be barricaded and signage posted at the work area.
- Fall protection shall be provided for excavations six 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.
- Supporting systems (e.g., shoring, piling, trench boxes, etc.) will be utilized for all trenches and excavations where sloping or benching could not be performed.
- Spoil piles and all other material will be placed a minimum of two feet from the edges of all trenches or excavations.
- When underground utilities are suspected, they will be located first by hand digging.
- Adequate access must be maintained at all times during trenching or excavating activities. Access points will be placed such that no worker travels more than 25 feet in any direction.
- The competent person will inspect excavations and trenches at the beginning of each day before work begins and when conditions change.
- Excavations in Type C soil will not be benched.
- Excavations and trenches four feet or greater in depth will be evaluated for atmospheric hazards to determine whether permit required confined space requirements apply.
- A registered professional engineer must design all excavation over 20-feet in depth.

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.

In the event any deviation of this fall protection procedure is required, the Safety Manager and SBU V.P. will be required to approve.

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.

Acceptable fall protection systems include the following:

- Guardrail systems
- Safety Netting
- Positioning Device Systems
- Protection from Falling Objects

- Covers for Floor, Roof and Wall Openings
- 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 shall be available for review by Layton Construction.

On the project, **100% FALL PROTECTION MEANS PROTECTED FROM FALLS 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 requirements, double lanyard with shock absorbing device or retractable lifeline, locking snap hook and anchorage points meeting OSHA regulations.

Workers will not tie off to a perimeter cable or wire rope handrail unless engineered for such use.

When wire rope is used to construct guardrail systems, at least 1/4” diameter cable shall be used with cable clamps as required by wire rope manufacturers. Wire rope shall be flagged with high visibility tape or ribbon every six feet.

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.

The use of personal fall arrest systems requires the submission of a Rescue Plan for each condition.

Lanyards will not be tied back to themselves unless the lanyard is specifically manufactured to tie back to itself.

If any component of a guardrail system must be removed, a Layton Construction Guardrail Removal Permit must be issued (Appendix J). 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 openings 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

Temporary fire protection measures such as fire extinguishers, temporary hose lines, and temporary standpipes are required during construction.

The Project Team shall develop a Fire Protection Plan in accordance with OSHA 29 CFR 1926 Subpart F.

Fire extinguishers will be:

- Conspicuously located
- Inspected monthly
- Protected from freezing
- Placed within the immediate area of any welding/cutting operation or flammable liquid storage area

- Placed within five feet whenever gasoline operated equipment is used

If a fire extinguisher is discharged for any purpose, it should be reported to Layton 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 maintained at all times. Clear access to buildings and other structures will be maintained at all times.

Fire Prevention

Temporary buildings located within another building or structure shall 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 dumPSLTers.

Storage of compressed gases 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.

Only approved high flash point solvents are to be used for cleaning purposes.

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

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.

- When stored outside then they cannot be within 20 feet of any structure or must be in a properly constructed storage locker whenever possible (no more than a total of 25 gallons flammable and combustible liquids can be stored outside of an approved locker).
- Stored in approved portable containers marked as to contents and ownership.
- Posted with “NO SMOKING” signs.
- Outside storage areas kept free of weeds and other combustible material.

Storage of flammables will be in an enclosure away from open flame, heat, direct sun or other sources of ignition.

All storage tanks/drums will be placed in a berm or other secondary containment. Berms will be lined with minimum 6-mil plastic sheeting that is fuel resistant. PVC linings are not allowed.

Layton Construction will designate vehicle refueling locations.

Fuel and flammable liquid tanks, drums, or barrels will have the proper DOT placard and be labeled as to content.

All fuel storage tanks and compressed gas cylinders will be protected from vehicle traffic.

All fuel dispensing points shall be located away from storm drains and wetlands. The following is required:

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

HAND AND POWER TOOLS

All hand and power tools will be kept in good condition with regular maintenance. Hand and power tools are to be operated according to manufacturers' instructions and guidelines and the personal protective equipment appropriate for the hand or power tool will be worn.

Hand Tools

- Impact tools such as chisels, wedges, etc. are not to have mushroomed heads
- 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
- Electric tools must have a three-wire cord unless it is double insulated

Portable Abrasive Wheel Tools

- Guards will not be removed
- 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.
- 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 shall be disconnected from the air supply when unattended.

Powder Actuated Tools

- Workers will be trained to operate a powder actuated tool and required to carry their training card at all times.
- Fired cartridges shall be placed in a container or bucket and properly disposed.
- 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.
- Misfire 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 obtain a Hot Work Permit (Appendix K) from Layton Construction.

A Hot Work Permit is valid only for the date and shift that is stated on the permit.

The following precautionary measures will be taken when a Hot Work Permit is required:

- Grating, openings, etc. will be completely covered in such a way to prevent sparks and slag from falling to a level below.
- Fire extinguisher in the immediate area of work.
- No flammable or combustible material stored within 35 feet in any direction.
- Combustible/flammable materials that cannot be moved must be covered with fire blankets or other suitable material.
- Worker(s) designated for continuous fire watch will be identified, trained, equipped, and remain for a minimum of one hour after hot work has ended.
- Follow confined space entry procedures, if required.

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
- How to use the fire extinguisher correctly

General Requirements

A hot work permit shall be issued before any hot work is performed. The following activities are examples of hot work that could require hot work permits, however, there may be more that are applicable at specific locations:

- Any open flame
- Welding, flame cutting, brazing
- Grinding or cutting / producing sparks
- Portable heaters; electric, fuel, or gas.
- Other

A fire watch shall be maintained for at least one hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires.

- Emergency notification information and procedures, as well as, a ready means of communication shall be provided to the fire watch prior to hot work operations.

General Procedures

When practical, material involved in hot work should be moved to a safe location. If material can't be moved, combustible materials should be removed from the area or otherwise protected from all hot work.

No flammable or combustible material should 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, shall be used to confine heat and sparks and prevent them from contacting combustible material.

No welding, cutting or heating shall be done where the application of flammable liquids or heavy dust concentrations may create a hazard.

Fire Watch shall be assigned with an extinguisher rated at 20A 60B:C or greater and shall be immediately available in the work area (Within 25' of the hot work) and remain for 1 hour after the work is complete.

When the above fire prevention measures are not sufficient, additional personnel shall be assigned as a Fire Watch and be provided with fire extinguishing equipment.

Hot Work Permits

Authorization and a hot work permit must be obtained from the Layton supervisor or designated person overseeing the work, before beginning any hot work. (See Appendix K for Hot Work Permit.) Any person may authorize the stoppage of work if there is reason to believe an unsafe condition exists

The area must be surveyed for cracks and/or other openings in the floor that may allow sparks to drop to combustible materials below and covered as necessary to prevent sparks from falling below.

The permit must be reviewed and signed by the person performing the work and the supervisor. The person performing the work shall retain one copy of the completed hot work permit.

The person giving approval that the hot work may begin must ensure that the area is periodically surveyed to ensure the conditions remain suitable for hot work.

Expired hot work permits shall be kept on file at the job site office for at least one month beyond their expiration date.

Each permit will be dated and will carry an expiration time.

Combustible gas indicators shall be calibrated and bump tested prior to performing tests. If the meter is to be used multiple times throughout the shift, it only needs to be bump tested at the beginning of the shift. The calibration results must be documented in a log book maintained on the job site.

When a fire watch is necessary, they will have no other tasks during the performance of their duties, and are to remain in the area of operations one hour past the last hot work performed.

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 an authorized person.

Notify supervisor when hot work is complete.

FIRE WATCH

The supervisor in charge is responsible for assigning a fire watch when open flame, welding, flame cutting, brazing and/or other hot work is performed.

The fire watch shall be trained in the proper use of a fire extinguisher. The supervisor shall review with the employee assigned the duties of a fire watch as follows:

- Understanding the location and nature of the hot work.
- Survey of the area to be sure the necessary fire protection equipment is in place and ready for use
- Survey the area for accumulations of combustible or flammable materials, and if possible the remove the materials.
- Remain in the area while work is being performed and remain in constant communication range with personnel doing the hot work.
- Never leave the area for any reason without replacement, and to remain within the area one hour upon 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.
- A fire watch shall be maintained for at least one hour after completion of hot work operations to detect and extinguish possible smoldering fires.
- The fire watch must be in the ready position at all times 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 is authorized and shall stop the work whenever he/she feels the conditions are unsafe. The fire watch is also authorized to stop the work if the work description on the permit is being exceeded, the supervisor must be notified.

- The fire watch shall be equipped with all personal protective equipment needed to perform the work safely.

HOUSEKEEPING

The Layton Construction policy on housekeeping is that all equipment, tools, or materials will be stored, stacked, located, placed, temporarily spotted or set up to prevent an incident or injury which could occur in the work area. The area will give the direct and obvious impression of a clean and orderly work place.

Project management, supervision, workers, vendors and third party persons will maintain all work locations in an orderly and clean manner at all times.

Debris and loose material capable of causing damage to aircraft will not be placed or blown into any area where there is aircraft operation.

Mud and dirt tracked onto public streets or alleyways will be removed continuously during the workday.

The following are the minimum housekeeping requirements for the project:

- Access walkways, roadways, and fire lanes will not be blocked with material, tools, ladders, scaffolds, welding leads, air hoses 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 stating: “TRIP HAZARD”.
- 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 needed and properly stored.
- Trash containers will be placed at appropriate locations.
- 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.

At all locations where drinking water is dispensed, an adequate trash container will be located for disposal of used drinking cups.

LADDERS AND STAIRWAYS

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

- Stairways having four or more risers or rising 30 inches or more shall have a stair rail system 36 inches high on each unprotected side.
- Metal pan stairs shall not be used until the pans are filled to prevent a tripping hazard.
- Ladders, stairs or ramps will be provided where there is a change in elevation of 19 inches or greater.
- Workers will be trained on the safe use of ladders.
- Ladders will extend past the bearing point no less than 36 inches.
- Ladder landings shall remain clear of all obstacles and obstructions to allow easy access on and off the ladder.
- Each contractor is required to inspect ladders daily prior to use. Ladders with broken or bent rungs, steps or side rails will be immediately destroyed and removed from the project.
- When ladders are used to access upper levels, they must be secured to prevent displacement.
- Aluminum ladders are not allowed.
- All ladders will be heavy-duty type with a minimum capacity rating of 250 lbs.

Stepladders

- Stepladders will not be used as straight ladders.

- Stepladders will only be used with the spreaders fully extended and spreader bar locked in place.
- Workers will not stand on the top or top step of a stepladder.
- Workers will not straddle the top of a stepladder or stand on the back of a stepladder unless designed for this use.

Straight/Extension Ladders

- Ladders will be set up so 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 the ladder.
- All straight ladders will have non-skid feet at the base.

Job Made Ladders

- Job-made ladders shall 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 shall be installed.
- Job-made ladders will be constructed in accordance with OSHA and ANSI standards.

LASERS

- Precautions will be taken to ensure all workers that will use a laser are trained in proper use and the hazards associated with lasers. Each worker is to be issued a qualification card, which must be carried by the worker and available upon request by Layton Construction.
- 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 turned off.
- When performing internal alignment, lasers will only be guided by mechanical or electronic means.
- No laser beam will be directed at any worker.
- 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.

LEAD

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. 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.

Copies of sampling results will be made available to Layton Construction. Area sampling of a work area will not to be used for determining worker exposure levels.

If sampling results indicate the exposure limits are above 30 $\mu g/m^3$ but below 50 $\mu g/m^3$, the following are required:

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

If sampling results are above 50 $\mu g/m^3$, 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.

LOCKOUT/TAGOUT

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 those hazards posed by an energized source (pneumatic, steam, hydraulic, chemical, etc.). Refer to Appendix G.

Safety locks and tags 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.

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.

De-Energizing Equipment and Processes

A Layton Construction representative will coordinate with the operating facility representative and/or construction start-up group when any energized equipment or process must be de-energized.

The Layton Construction representative and operating facility representative and/or construction start-up group will identify all circuits and sources of energy that require locking and tagging to make the equipment or process inoperable. The operating facility representative/construction start-up group will notify their 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 following procedures shall be followed:

- The operating facility representative and/or construction start-up group and front-line supervisor(s) will make certain the operating controls to the equipment, machinery or process are in the "off" or "neutral" position.
- Once the operating controls are in the "off" or "neutral" position, the operating facility representative will place a safety lock and tag on the energy isolating device(s) first.
- The front-line supervisor(s) will apply their safety lock to each of the isolating devices that provides power or other energy to the machinery, equipment or process. The front-line supervisor(s) will also apply a visible warning tag. The tag will contain the name of the front-line supervisor(s), company, date and phone number.
- Once the front-line supervisor(s) have placed their safety lock(s) and tag(s) 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(s) to their equipment safety lock(s) 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.

- Prior to any work being performed on the piece of equipment, machinery, or process, the operating facility representative/construction start-up group and front-line supervisor will verify that it is inoperable. The operating facility representative/construction start-up group 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.

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/construction start-up group to notify of completed work operations.
- The front-line supervisor will make a visual inspection of the equipment, machinery, or process to insure 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 immediately notify management and the Layton Construction Environmental Safety and Health Department. **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 he/she is not physically at the project before the safety lock can be removed. All safety lock removal incidents will be investigated following the incident investigation process and disciplinary action will occur.
- The management representative will notify the operating facility representative/construction start-up group that the equipment, machinery or process is clear to be energized.

De-Energizing Fluid Processes

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.

A management representative will coordinate with operating facility representative/construction start-up group when any fluid process requires de-energizing.

The management representative and operating facility representative/construction start-up group will identify all valves or gates and where blanks are required to be installed to isolate the work area. The operating facility representative/construction start-up group will notify their personnel that may be affected by the de-energizing.

The front-line supervisor overseeing the work will sign out sufficient safety locks and tags to completely isolate the system.

The operating facility representative/construction start-up group and front-line supervisor will verify that each valve or gate is in the “off,” “neutral” or closed position.

Once the valve or gate is in the “off,” “neutral” or closed position, the operating facility representative will place a safety lock on the valve or gate first. Then the front-line supervisor will apply a safety lock to each valve or gate. The front-line supervisor will also apply a visible warning tag. The tag will contain the name of the front-line supervisor, company, date and phone number.

Once the front-line supervisor has placed their safety lock(s) and tag(s) 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(s) to their equipment safety lock(s) 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 being operated.

Hydraulic and pneumatic equipment or machinery will be blocked to prevent movement.

Re-Energizing Fluid Processes

When the required work is completed and the system can be returned to service, the front-line supervisor will contact the operating facility representative/construction start-up group to notify of completed work operations.

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 all workers, equipment, tools and materials are removed from the area, the valves and gates are in the "off," "neutral" or "closed" 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.

The management representative will notify the operating facility representative/construction start-up group that the system is ready to be energized.

MAINTENANCE AND PROTECTION OF TRAFFIC

There will be no temporary blocking or occupying of any street or alleyway without prior approval of Layton Construction and local authorities.

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 a minimum, the written Traffic Control Plan will contain:

- Time the street(s) will be required to be closed.
- Detail drawing showing temporary signage, tapers, etc.
- Detail plan illustrating detour routes for traffic impacted by the closed streets.

All workers and supervision 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 shall 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. All scaffolds used in masonry tasks shall 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 Guardrail Removal Permit (Appendix J) must be submitted prior to any guardrail removal.

MOLD PREVENTION AND ACTION PLAN

All subcontractors need to be pro-active in preventing mold growth in new construction. Addressing mold prevention during construction and including it in the building process reduces potential problems down the road.

Necessary steps will be taken to prevent the formation of mold from occurring in the work and storage areas. Mold will occur when there is water and a source of nutrient (i.e., wall board, wood and/or other building material). Work will be planned to:

Prevent moisture accumulation

- Double check points where moisture may enter:
- Doors, windows
- Flashings and caulking
- Waterproof membranes (proper lapping at joints and corners
- Roofing systems and penetrations

Properly store material

Dry location

Off the ground

Loosen tarps or sheets to allow air flow

Have drying equipment readily available

Fans

Dehumidifiers

Wet-Dry vacuum

If mold is observed, notify Layton Construction such that an evaluation of the exposure can be made and a response plan initiated.

INTRODUCTION TO RESPONSE PLANS

There are two distinct situations where a response plan is required. The situations are:

1. During Construction

2. Post Construction

Given the unique conditions existing in each situation, we have produced two distinct response plans. The response plan during construction is much more general beyond the point of cleaning up the excess moisture and documentation. In this plan, we have stayed away from specific recommendations for every conceivable scenario and suggested “guiding principles.”

In the post construction situation, our response plan is more specific and driven by the degree of water/mold intrusion. We have utilized a flow chart with references to documents and links that cite specific government guidelines.

Pre-Event Preparation

By definition, water intrusion events need to be addressed as quickly as possible to minimize damage and possible mold growth. Below is a list of suggested equipment that may be purchased in order to prepare for potential water intrusions. Preparation may also include the identification of potential resources, i.e., water cleanup/restoration specialists, certified industrial hygienists, mold remediation specialists, etc., that may be called upon to assist in all aspects of a response plan. These resources may be able to assist in all phases of the plan from the initial water intrusion to the final report.

Suggested List of Owned Equipment

- Moisture Meter
- Dehumidifiers
- Floor blowers/dryers
- Wet/Dry Vacuum

Notification Procedures

Notification to one or more of the following parties should be seriously considered:

- Insurer
- Attorney
- All parties affected by the water intrusion

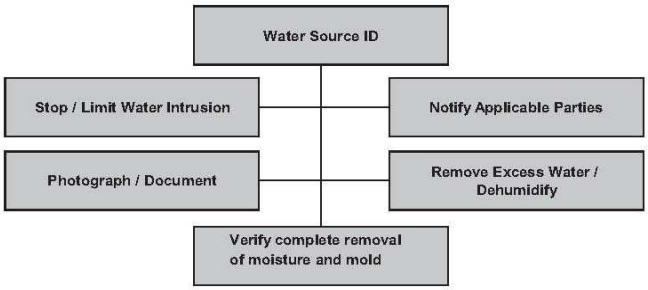


Figure 1: Water Intrusion Response Plan Flow Chart – During Construction

DURING CONSTRUCTION

This flow chart shows suggested steps for responding to a water intrusion event that takes place "during construction."

Guiding Principles

If large-scale water intrusion occurs, it may be beneficial to hire an outside Restoration Contractor to assist in the drying and cleanup if the General Contractor does not have the necessary resources. Emphasis should be to dry salvageable materials and remove other materials immediately after water intrusion, prior to any potential mold growth. Refer to Appendix V, Water Damage Tablefor reference (attached). After drying, cleanup, and repair of leak, affected areas should be periodically checked for moisture or mold to ensure problem does not reappear.

POST CONSTRUCTION

The response plan for a finished structure (post construction) has three governing parameters, listed below:

- How long since the water intrusion occurred?
- Has visible mold growth occurred?
- Size of the water damage or mold growth.

The attached flow chart addresses these issues. While the flow chart is a basic blue print for managing a response plan, judgment will be required for some decisions, such as whether to obtain a Hygienist or Remediation Contractor for relatively minor damage.

See Appendix V for Water Intrusion Response Plan Flow Chart – Post Construction

CHECKLIST FOR MOLD REMEDIATION, MOLD REMEDIATION IN COMMERCIAL BUILDINGS:

Investigate and evaluate moisture and mold problems:

☐ Assess size of moldy area (square feet).

☐ Consider the possibility of hidden mold.

☐ Clean up small mold problems and fix moisture problems before they become large problems.

☐ Select remediation manager for medium or large size mold problem.

☐ Investigate areas associated with occupant complaints.

☐ Identify source(s) or cause of water or moisture problem(s).

☐ Note type of water-damaged materials (wallboard, carpet, etc.).

☐ Check inside air ducts and air handling unit.

☐ Throughout process, consult qualified professional if necessary or desired.

Communicate with Building Occupants at All Stages of Process, as Appropriate Designated contact person for questions and comments about medium or large-scale remediation as needed.

Plan Remediation

☐ Adapt or modify remediation guidelines to fit your situation; use professional judgment.

☐ Plan to dry wet, non-moldy materials within 48 hours to prevent mold growth (see Appendix V, Water Damage Table).

☐ Select cleanup methods for moldy items (see Appendix V for Flowchart).

☐ Select Personal Protection Equipment – protect remediators (see Appendix V, Water Damage Table).

☐ Select Containment Equipment – protect building occupants (see Appendix V, Water Damage Table).

☐ Select remediation personnel who have the experience and training needed to implement the remediation plan and use Personal Protection Equipment and containment as appropriate.

Remediate Moisture and Mold Problems

☐ Fix moisture problem, implement repair plan and/or maintenance plan.

☐ Dry wet, non-moldy materials within 48 hours to prevent mold growth.

☐ Clean and dry moldy materials (see Appendix V, Water Damage Table).

☐ Discard moldy porous items that can't be cleaned (see Appendix V, Water Damage Table).

***** For details, see main text of the Mold Action Plan. Please note that this checklist was designed to highlight key parts of commercial building remediation and does not list all potential steps or problems.

MONTHLY INSPECTION PROCEDURES

Monthly Inspection involves items that are to be inspected monthly by a designated competent person.

Definition of a Competent Person:

A 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:

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

General Guidelines:

- The name of the competent person will 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 tool box safety meetings.

SAFETY COLOR CODE OF THE MONTH

MONTH	COLOR	MONTH	COLOR
JANUARY AND JULY	YELLOW	APRIL AND OCTOBER	GREEN
FEBURUARY AND AUGUST	WHITE	MAY AND NOVEMBER	RED
MARCH AND SEPTEMBER	BROWN	JUNE AND DECEMBER	BLUE

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All Layton Construction, subcontractors, vendors, and third party individuals will at a minimum wear the following personal protective equipment without exception while on the project (except in office, lunch areas and enclosed cabs).

Head Protection

Hard hats will be worn at all times on the project; in addition the following rules apply:

- Hard hats will be worn in accordance with manufacturer requirements.
- Company name and person's name must be displayed on hardhat so person speaking to them can see this information.
- Meets ANSI Z89.1 requirements

Eye and Face Protection

Eye and Face Protection Safety glasses that meet ANSI Z87 criteria are to be worn at all times. Workers with prescription glasses must meet ANSI Z87 requirements or will be required to wear over the glasses (OTG) safety eyewear.

In addition, 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 and safety glasses with side shields
• 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 shields

Foot Protection

Sturdy, above the ankle work boots that are in good condition must be worn (heal and sole will not show excessive wear). Tennis shoes, sandals, or other street-type shoes are not allowed, even if they have steel toes. Some Clients may require steel-toed boots. Employees will be required to have these boots if working on such a Client's project.

High Visibility Attire

Every worker, visitor, and vendor will wear high-visibility attire at all times. ANSI reflectivity requirements must be complied with when working in traffic and/or at night. High visibility attire will remain in effect until site superintendent and safety manager approve no use due to lower hazards.

Only welders are excluded from this requirement while performing welding operations.

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. Trousers that are worn low on the hips or thigh are not allowed. The length of the trouser will be such as to not present a tripping hazard. Shorts are not permitted.

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.

Whenever respiratory protection is deemed required or requested by a worker on the project, the requirements outlined in OSHA 29 CFR 1926.103 will be followed, which include:

- Have affected workers complete a Medical Questionnaire for Respirator Use.
- Submit questionnaires to a Physician or 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.

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 (Appendix U) or equivalent shall be used.

Hand Protection

Hand and finger protection shall be specifically addressed in the development of project specific safety plans and daily task plans. The appropriate protection shall be identified. Each employer’s competent person shall assist in recommending the correct glove for the task. Workers are encouraged to wear gloves at all times to prevent hand and finger injuries.

Hearing Protection

Duration per day, hours	Sound Level dBA Slow Response
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼ 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

Approved hearing protection will be worn as specified in posted areas and while working with or around high-noise level (about 85 dBA) producing machines, tools, or equipment. A good rule to follow is: When

you must raise your voice to be heard, you need hearing protection. Exposure to impulsive or impact noise will not exceed 140dB noise level.

Additional Protections
Layton Construction may require workers to wear additional personal protective equipment to reduce the likelihood of a work related injury or illness.

PILE DRIVING

No pile driving work will occur until verification that no underground utilities exists in those areas where piles will be driven or existing underground utility locations have been verified by hand or vacuum excavation

Fall protection will be required when personnel climb leads over six feet.

Hose connections will be secured by at least ¼ inch diameter chain or equivalent wire rope to prevent whipping.

Stirrups will be provided on sheet piling to aid in guiding the pile in place.

For pile other than sheet piles, a driving head or bonnet is required to bell the head.

Stop blocks are required for the leads to prevent the hammer from striking the head block.

A designated signalman will be assigned to give direction to the winch-men.

Equipment will meet the OSHA Construction standards on cranes and derricks.

Pits or excavations that piles are being driven into shall be properly braced, sheet-piled or sloped and barricades shall be provided.

When pile tops are cut, operations will stop for a distance not less than the longest pile that is to be cut.

When driving jacked piles, the pits will be provided with ladders and curbs to prevent material from falling into the pit.

PRECAST CONCRETE

A competent person is required who will 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, the following will occur:

- Inspect all rigging and hardware
- Ensure load is stable before releasing binders
- Ensure precast member is properly rigged

Placement of Precast Concrete Members
Precast members are not to be moved over other workers.

Worker(s) involved in the setting or connecting of precast members will strictly adhere to the 100% fall protection policy with no exception.

No worker(s) will use their hands to reach under a precast member to adjust a shim or bearing pad.

PRESUMED ASBESTOS CONTAINING MATERIAL (PACM)

If presumed asbestos-containing material (PACM) is found during performance of the work, the following procedure will be followed:

- Workers observing PACM shall immediately stop work
- Warn other workers nearby of the disturbed or damaged material
- Contact your immediate supervisor
- Barricade the immediate area around the disturbed or damaged material
- Do not enter the barricaded area until the area is deemed safe by Layton Construction or subcontractor

Layton Construction Project Team will investigate and develop an action plan that may include testing PACM and/or abating suspected material.

ONLY A LICENSED CONTRACTOR WILL REPAIR AND CLEANUP DISTURBED OR DAMAGED MATERIAL.

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 LCC upon request.

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 shall have a manufacturer's tag or otherwise professionally engineered noting its safe working load. 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 by the qualified rigger and documented in writing. Inspection reports will be made available to Layton Construction for inspection.

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. The competent person will sign and attach one of the following color-coded scaffold tags to each scaffold:

- Green Tag: Scaffolding complete and ready for use.
- Red Tag: Scaffolding incomplete and not for use.
- Yellow Tag: Scaffolding usable but personal fall protection required.

Scaffolding will be inspected daily by the competent person prior to use and sign the tag at the time of inspection. The Daily Scaffold Safety Inspection Report (see Appendix F) will be used to document these inspections. Each trade using the scaffold must designate a competent person. Each trade's competent person must inspect the scaffold daily prior to any person from that trade using the scaffold.

Workers required to work from scaffolding will receive training on the following:

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.

Any other pertinent requirements about the scaffold.

Records must be maintained of scaffolding training and be available for review by Layton Construction.

Prior to erection, all scaffolding components shall be inspected for defects and any damaged components will not be used.

Scaffolding will be erected on a firm foundation/footing. Scaffold poles, legs, posts, frames 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 9½ inches.

Scaffold planks shall extend past the horizontal support a minimum of six inches and not more than 12 inches unless cleated or restrained by hooks.

Scaffold plank will not be overlapped unless:

- Overlap occurs at a horizontal support
- The minimum planking overlap is 12 inches

Scaffold plank will be only scaffolding-grade planking.

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.

Aerial Lifts

The gates of aerial lifts will be properly engaged whenever the lift is in use.

Travel in aerial lifts is prohibited while platform is elevated

Aerial lifts shall not be used as material hoists unless the load is contained within the basket and meets the lift's rated capacity. The lift shall not be modified for hoisting material unless the manufacturer approves it in writing. (Please see *Fall Prevention and Protection* on page 46)

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.

Mobile Scaffolds

Wheels on mobile scaffolding will be locked in place when workers are working from it (self propelling is prohibited).

Scissor lifts shall be used in accordance with 1926.452 (w).

SILICA

Workers that perform any of the following work tasks must be protected from exposure to silica dust unless historical data or real time monitoring indicates it isn't necessary:

Chipping, hammering, or mixing of refractory

Abrasive blasting using silica sand as a blasting medium

Abrasive blasting of concrete regardless of the type of medium

Sawing, hammering, drilling, grinding, or chipping of concrete or masonry products

Chipping, hammering, or mixing of concrete grout

Demolition of concrete or masonry structures

Dry sweeping or compressed air blowing of concrete, masonry, rock or sand dust

Workers performing any of the above tasks who could be exposed to silica dust shall receive training regarding health hazards associated with silica.

Acceptable engineering controls will be used when exposure to silica is likely. Examples of acceptable engineering controls are:

- Substitute blasting medium for less hazardous material with less than 1% silica
- Maintain an effective dust control program
- Use internal blast-cleaning machines
- Wet saw
- Use water through the drill stem

When acceptable engineering controls cannot be used, workers will wear respiratory protection, protective coveralls and gloves. Respirators equipped with a NIOSH approval for the exposure level. Respirators must have at least a N95, R95, or P95 filter, per NIOSH recommendations

Note: ***The common dust mask is not permitted for silica protection.***

Workers will also comply with these hygiene requirements when exposed to silica:

- No eating, drinking or using tobacco products in areas where silica dust is present.
- Always wash hands and face before eating, drinking or using tobacco products after working around silica dust.

Front-line supervisors should consult their safety representative or the Layton Construction Environmental Safety and Health Department for further information or assistance.

STEEL ERECTION

No steel erection will begin without a written Notice to Commence Steel Erection (Appendix N) 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 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 maintained at the project and available for review by Layton Construction Environmental Health and Safety.

All steel deliveries will be coordinated with the Layton Construction Project Team to ensure maintenance of traffic around the project is maintained. No deliveries shall 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 that no load will be swung over the public, other workers or occupied structures. Exceptions must be reviewed and approved Layton Construction.

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. This list includes, but is not limited to the following:

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

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

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

When using "Caution" or "Danger" tape barricading:

- Install at least 15feet from excavations, trenches, holes, leading edges and floor or wall openings.
- Install a standard "Caution" or "Danger" sign that identifies the hazard at regular intervals around the barricaded area and the name and contact information that erected the barricade
- Do not impede stairs, walkways, driveways or aisles without notifying Layton Construction and identifying alternative passageways
- The barricade tag or signage will be approved by the site superintendent prior to posting on a barricade.

When using rigid barricading:

- Support and maintain construction fencing to prevent tipping or sagging.
- Install pins in concrete barriers whenever there is a danger of vehicles or heavy equipment striking them
- Provide adequate access to the work area

When work is complete and the hazard is eliminated, remove the barricading immediately.

Workers who enter a “Danger” or “Radiation” barricaded work area without authorization will be subject to disciplinary action up to and including termination.

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 sparking 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 compressed air, 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 shall 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 shall 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 shall 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

A suitable cylinder cart, chain or other secure non-flammable fastening shall be used to keep cylinders from being knocked over while in use.

Cylinders of oxygen shall not be stored next to cylinder of acetylene or other fuel gas. They shall be separated by 20 feet or by a non-combustible barrier, with a 1/2 hour fire rating.

Oxygen cylinders, cylinder valves, couplings, regulators, hose and apparatus shall 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 shall have their valves closed. Valve protection caps shall always be in place except when cylinders are in use or connected for use.

When moving cylinders by a crane or derrick, a cradle, boat or suitable platform shall be used. Slings, hooks or electric magnets shall not be used. Valve protection caps shall always be in place.

Compressed gas cylinders, empty or full, shall be secured in an upright position at all times. Empty cylinders should be marked EMPTY or MT for identification.

Regulators and hoses shall be frequently inspected for leaks, worn places and loose connections. Regulators shall also be checked for operable gauges.

Approved flash arresters shall be provided in both oxygen and acetylene hoses at the regulator connection.

QUALITY OF LIFE REQUIREMENTS

SMOKING POLICY

Layton Construction encourages a Smoke-Free Workplace. There will be **NO smoking or chewing tobacco except in designated areas.**

WARM UP AND STRETCHING EXERCISES

Layton Construction believes the most reoccurring and disabling injuries that plagues the construction worker are soft tissue injuries. Warm up and stretching before work has proven to reduce the severity of soft tissue injuries. Warm up and stretching exercises can reduce the chance of heart attack and increase the life expectancy of our workers. Layton Construction believes these benefits of reducing injuries and improving the life of every worker on the project is significant.

Workers associated with the project should participate in warm up and stretching exercises at the beginning of each workday within their crew or subcontractor company.

SANITATION

Toilet Facilities

Adequate chemical toilets are available on the jobsite for the use of workers.

Chemical toilets shall be serviced often enough to prevent overflowing, creation of an unsanitary condition, a health hazard or nuisance, and shall be maintained in good repair to prevent leakage of the contents to the surrounding ground or onto the floor or other portions of the structure.

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 type receptacle will be provided to collect used cups. Contractors are responsible for cleaning up around the water container area.

The dipping of cups into the container, storing soda cans and bottles, drinking directly from the spout, placing of hands or material into drinking water is prohibited.

SUBCONTRACTOR REQUIREMENTS

DESIGNATED SUBCONTRACTOR SAFETY REPRESENTATIVE

Each subcontractor will designate a safety representative prior to mobilization. This on site safety representative will be a competent worker who has completed at least 10 hours of OSHA awareness training and who may have other on site duties. .

Subcontractors that plan to have 75 or more workers (including tiered subcontractors) will provide a full time on-site safety professional upon mobilization. This person shall have no other responsibilities.

Subcontractors will submit the resume(s) of their proposed safety professional or representative to be reviewed by Layton Construction. Layton Construction will determine if the proposed safety professional or representative has the training and experience required for the project. This person(s) will have the authority and responsibility to ensure the proper implementation of this SSSP.

Subcontractor safety professionals and representatives will have the full authority to implement safety corrections and recommendations. Subcontractor safety professionals and representatives will have authority to stop any work they deem unsafe.

Subcontractor full time on-site safety professionals shall have the following minimum qualifications:

Five year's construction experience, one year of which includes on-site 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 designated safety professional and/or representative will be:

- Investigate any incident or near miss 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 their work activities and make available to Layton Construction for review to ensure compliance with safe work practices and this Safety & Health Management Program.
- Take direction from Layton Construction related to timely abatement and control of hazards.

SUBCONTRACTOR SAFETY ORIENTATION

In addition to the Layton Construction project orientation, each subcontractor employer will conduct an additional safety review for their employees to ensure they understand the Layton project safety requirements, as well as their company's requirements.

WEEKLY MANHOUR REPORT

At the end of each week, subcontractors must submit total man hours worked, including hours for tiered subcontractors.

SUBCONTRACTOR SAFETY SUBMITTALS

Prior to beginning work, each subcontractor shall submit to Layton Construction the following:

- Subcontractor written project specific safety plan.

- Name(s) of designated safety representatives or professional and qualifications.
- Name(s) and training verification of designated competent persons as required by the scope of work for trenching, scaffolding, rigging, etc.
- A list of activities the contractor has identified that will be made available in the event light duty has been directed by a physician.
- Name(s) and training verification of trained and qualified equipment operators as required by the scope of work for cranes, forklifts, aerial lifts, etc.
- Name(s) and training verification of employees trained in first aid and CPR.
- Current annual crane inspections, by a third party crane inspection firm for all cranes brought onto the project.
- Project specific Master Chemical and Substance Inventory Sheet and Material Safety Data Sheets for all hazardous chemicals and materials to be used or stored on the project.
- Training verification of OSHA or project required training as necessary. Verification shall include training rosters. Examples of OSHA or project required training may be:

Fall Protection	Confined Space	Respiratory Protection	Excavations and Trenches
Scaffolding	Crane Signals	Hazard Communications	Ladders

On-Going Submittals

Each subcontractor will be required to submit various on going safety documents to Layton Construction as required by the scope of work. These submittals will include the following:

- Incident Notification and Investigation Reports (Within 24-hours of any incident or near miss).
- Weekly “Tool Box” safety meeting minutes.
- Daily Pre Task Safety Plan (Appendix E).

Maintain While Working on the Project

Throughout the course of the project, each subcontractor will maintain the following records or documents on site and make available for inspection by Layton Construction. Layton Construction permits or forms, or their approved equivalent shall be used:

- Subcontractor Work Site Safety Inspection
- Scaffold, Trench, Crane, and Forklift Work Area Inspections

Permits or Safety Plans as Required

Subcontractors will submit to Layton Construction work permits or plans for review by Layton Construction prior to start of work as required. Work permits or plans that are required include:

- Confined Space Entry
- Hot Work
- Excavation and Trenching
- Crane Lift Permit
- Fall Protection Plan
- Lockout/Tagout Checklist
- Red Barricading Area/Access
- Heat Illness Prevention Plan
- Other work plans as deemed necessary

FORMS APPENDIX

APPENDIX A:	LAYTON INCIDENT REPORT FORMS (3)
APPENDIX B:	BARRICADE TAG
APPENDIX C:	CONFINED SPACE ENTRY PERMIT
APPENDIX D:	CRANES AND CRIBBING
APPENDIX E:	DAILY PRE-TASK SAFETY PLAN
APPENDIX F:	DAILY SCAFFOLD INSPECTION REPORT
APPENDIX G:	ELECTRICAL LIVE WORK / ARC FLASH PROGRAM
	ENERGIZED WORK / ARC FLASH PERMIT
APPENDIX H:	EXCAVATION PERMIT
APPENDIX I:	GENERAL SAFE WORK PRACTICES POSTER
APPENDIX J:	GUARD RAIL REMOVAL PERMIT
APPENDIX K:	HOT WORK PERMIT
APPENDIX L:	MASTER CHEMICAL & SUBSTANCE INVENTORY LIST
APPENDIX M:	MEDIA LOG FORM
APPENDIX N:	NOTICE TO COMMENCE STEEL ERECTION
APPENDIX O:	PRE-DEMOLITION SURVEY
APPENDIX P:	PRE-MOBILIZATION SAFETY MEETING AGENDA
APPENDIX Q:	RED EMPLOYEE OBSERVATION CARD
APPENDIX R:	SAFETY MEETING REPORT FORM
APPENDIX S:	SCAFFOLD TAGS
APPENDIX T:	SUBCONTRACTOR WEEKLY INCIDENT SUMMARY REPORT
APPENDIX U:	VOLUNTARY USE OF A DISPOSABLE RESPIRATOR
APPENDIX V:	WATER INTRUSION RESPONSE PLAN FLOW CHART/GUIDELINES
APPENDIX W:	WEEKLY SAFETY TOUR REPORT
APPENDIX X:	WORK SITE SAFETY INSPECTION FORM

APPENDI X A

Layton Construction Co. Employee's Incident Report

PRINT - ALL FIELDS REQUIRED FOR INSURANCE CLAIM Claim Is: LAYTON [ ] SUBCONTRACTOR [ ]

If Subcontractor, Name of Company:

Employee's Name: First: Middle: Last: Age:

Street Address: Birth Date:

City, State, Zip: Soc. Sec. #:

Phone Numbers: Home: Cell: Date Hired:

Marital Status (circle): Single Married Divorced Number of dependents # Of Hours Worked Last Week

Occupation/Job Title: # Of Hours Worked Previous Week

Years at Position/of Experience Position is Full Time [ ] Part Time [ ] # Of Hours Worked Previous Week

State You Were Hired In: Hourly Wage: $ # Of Hours Worked Previous Week

Foreman's Name: General Foreman's Name:

Superintendent' Name: PTP Compelted: Yes No JHA Completed: Yes No

Date and Time of Incident: Time Shift Started: Stretch & Flex Performed: Yes No

Date Incident Reported: Date / Time You Sought Medical Attention:

Body part injured:	Names of Witnesses:
Where on Project Injury Occurred:	
Task Being Performed:	

Describe How Incident Occurred. What Happened?

What Could Have Been Done To Prevent Incidents of This Type?

Signature of Employee: _____

APPENDI X A

Layton Construction Co. Supervisor's Incident Report

PRINT - ALL FIELDS REQUIRED FOR INSURANCE CLAIM Claim Is: LAYTON [ ] SUBCONTRACTOR [ ]

If Subcontractor, Name of Company:

Employee's Name: First : Middle : Last:

Craft: Years of Experience: # Of Hours Worked Last Week

Date/Time of Report: Date/Time of Incident: # Of Hours Worked Previous Week

Foreman's Name: # Of Hours Worked Previous Week

General Foreman's Name: # Of Hours Worked Previous Week

Superintendent's Name:

Project Name & Number:

Nature of Incident:

Location of Incident on Project:

Date and Time Employee Sought Medical Attention: Treated in Clinic [ ] Emergency Room [ ]

Medical Status: FA [ ] Recordable [ ] W/ Restrictions [ ] LTA [ ] Date Restrictions / Lost Time Began:

Was Safety Equipment Provided? Yes No Was It Being Used? Yes No

Task Being Performed:

Is the Injury Questionable? State Reasons:

Description of Incident:

Cause of Incident:

Proposed Corrective Action:

Case Status:

Signature of Supervisor _____

APPENDI X A

Layton Construction Co. Witness Incident Statement

PLEASE PRINT - ALL FIELDS REQUIRED Witness Is: LAYTON [ ] SUBCONTRACTOR [ ]

If Subcontractor, Name of Company:

Name of Employee Involved in Incident: First : Last:

Date/Time of Incident: Date/Time of Your Report:

Your Name: Phone Number:

Your Address: City, State, Zip:

Project Name: Project City, State:

DESCRIPTION OF INCIDENT (WHO, WHAT, WHERE,WHEN, WHY)

Who Was Involved:

What Happened?

Where on Project Did It Happen?

When (Date and Time)?

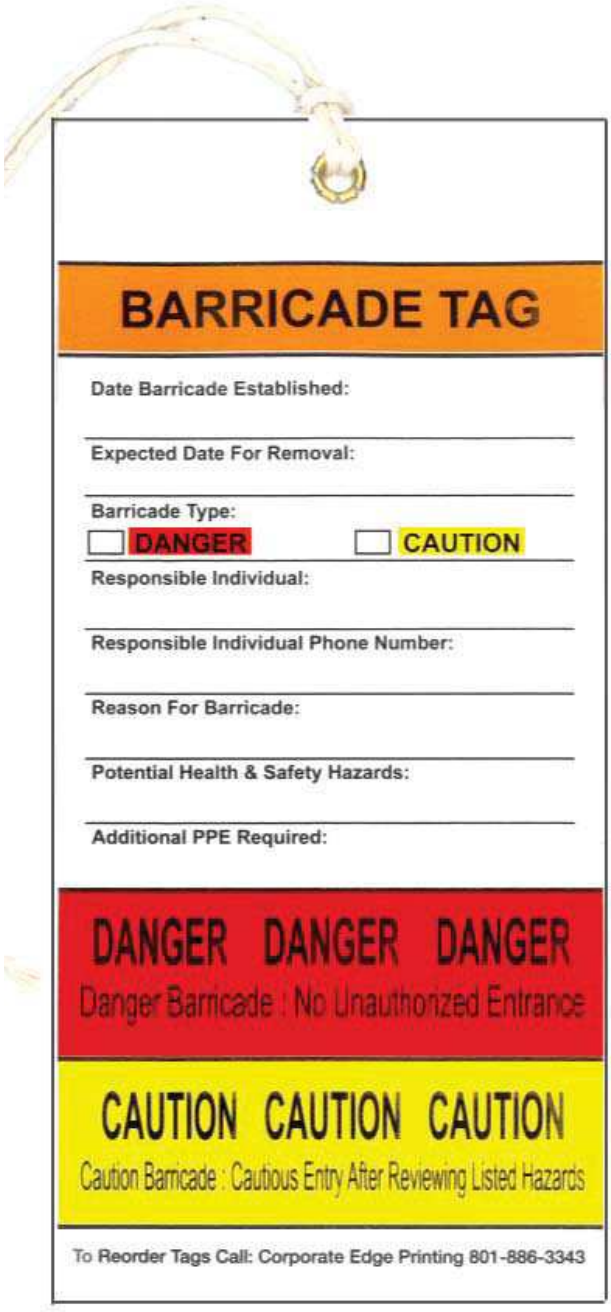
Why? What or Who Caused It?

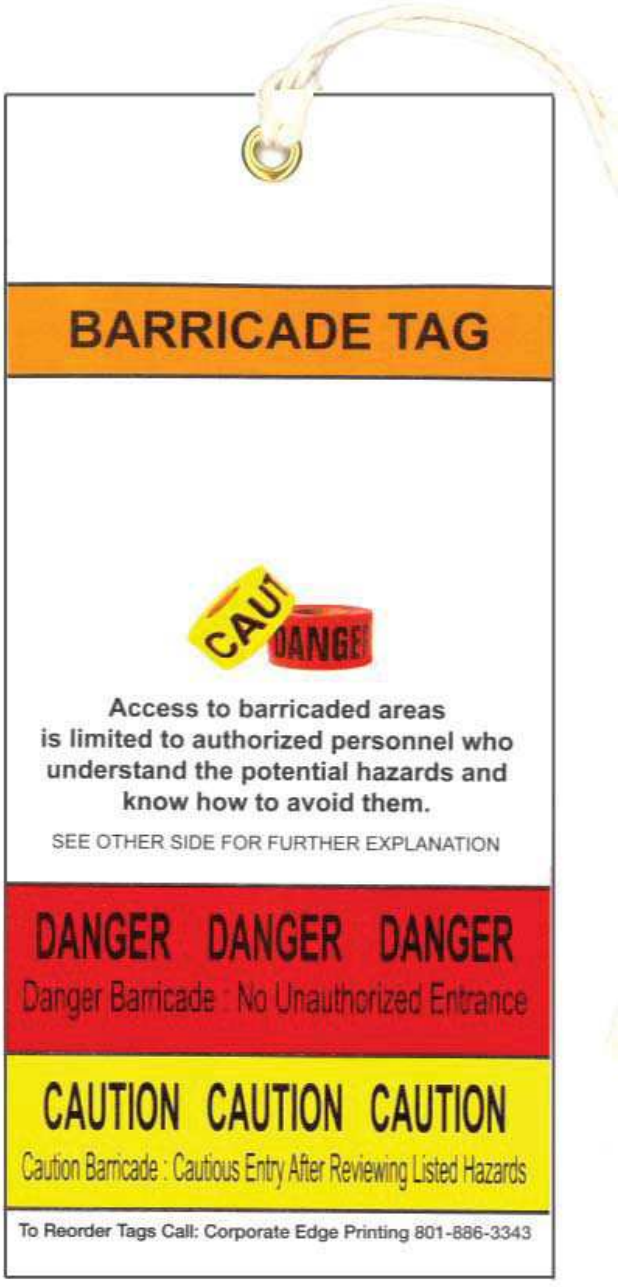
Signature of Witness

Witness of Statement:

APPENDIX B

BARRICADE TAG





APPENDI X C

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/Tagout (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)	☐	☐

Attendant(s) Name(s):	Entrant(s) Name(s):

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.

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:

APPENDIX D

CRANES AND CRIBBING

Cribbing or mats under outrigger pads should be of sufficient size and properly placed to ensure adequate soil bearing as required by the manufacturer and the following guidelines:

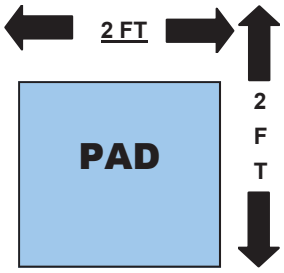
Outriggers—Blocking

RULE OF THUMB

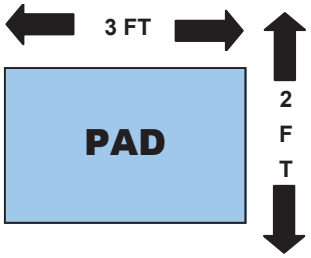
$$\text{AREA} = \frac{\text{CRANE CAPACITY}}{5}$$

EXAMPLES

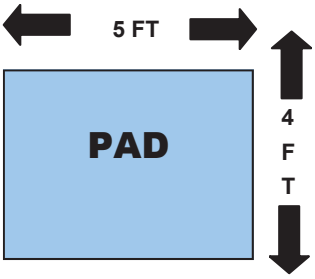
$$\text{4 SQ. FT} = \frac{\text{20 TON}}{5}$$



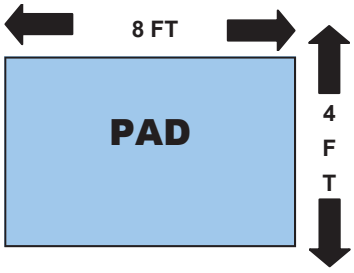
$$\text{6 SQ. FT} = \frac{\text{30 TON}}{5}$$



$$\text{20 SQ. FT} = \frac{\text{100 TON}}{5}$$



$$\text{32 SQ. FT} = \frac{\text{160 TON}}{5}$$



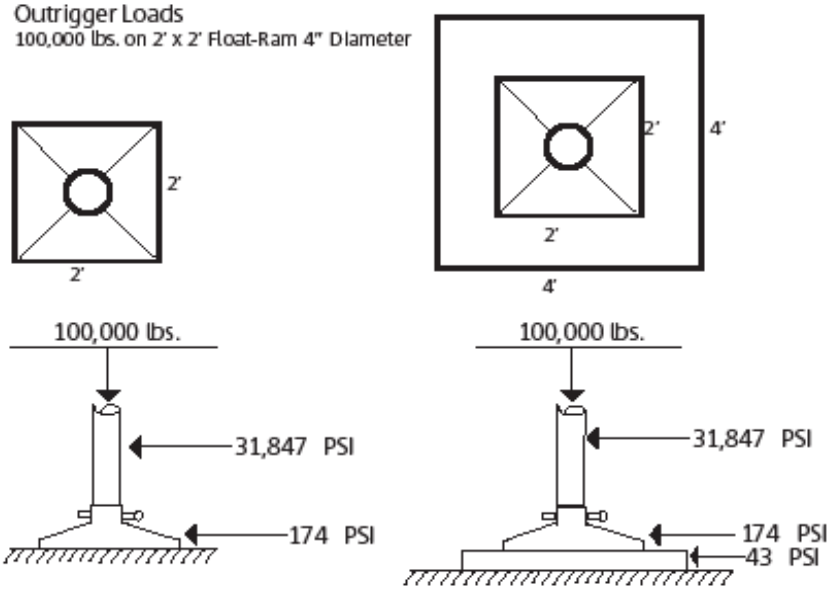
Actual cribbing sizes should be determined by a qualified person or as per the manufacturer instructions

APPENDIX D

SOIL BEARING CHART

Soil Bearing Chart - Appendix H
Mobile Cranes

Outrigger Loads
100,000 lbs. on 2' x 2' Float-Ram 4" Diameter



Soil Bearing Capacities

Soils		Approximate Bearing Capacities
Hardpan-Cemented Sand & Gravel		135 PSI
Gravel-Sand & Gravel -	Compact	110 PSI
	Firm	81 PSI
	Loose	54 PSI
Sand-Coarse to Medium -	Compact	81 PSI
	Firm	60 PSI
	Loose	40 PSI
Sand-Fine, Silty, or with trace of Clay -	Compact	54 PSI
	Firm	40 PSI
	Loose	27 PSI
Silt	Compact	40 PSI
	Firm	33 PSI
	Loose	27 PSI
Clay	Compact	54 PSI
	Firm	33 PSI
	Loose	13 PSI

APPENDIX E

DAILY PRE-TASK SAFETY PLAN

DAILY PRE-TASK PLAN (This does not replace the JHA) Date_____

Company Name: **Area of work:**

Prior to the start of a task, or when required by changing circumstances or conditions, the following should be addressed.

- ☐ 1- Work area has been walked by supervisor to identify safety concerns. (i.e. housekeeping, fall protection, ladders, work surfaces, access, scaffolds).
- ☐ 2- Work has been coordinated with other crafts in the area.
- ☐ 3- Are tools, materials, and equipment available and in safe and good condition?
- ☐ 4- Has all necessary training for this task been completed and all new employees familiarized with work area?
- ☐ 5- Sufficient personnel have been assigned to complete this task safely.

JHA Complete ✓	TASK	HAZARDS	STEPS TO DO IT SAFELY/TOOLS & EQUIP.

Near misses reported? Y/N _____ (attach report)

What permits are required to perform these tasks:

Items/Concerns

Quality: Previous Day's Items -

Present Items/Concerns:

Attendees:

Print Name	*Signature*	*Print Name*	*Signature*

Printed Name of Supervisor Signature of Supervisor

G:/Forms/Daily Pre-Task Safety Plan

APPENDIX F

DAILY SCAFFOLD INSPECTION REPORT

Inspection by: _____ **Date:** _____

(Must Be a Competent Person)

Company Name: _____ **Time:** _____

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

Scaffold Location: _____

INSPECTION CRITERIA	Yes	No	N/A	Action Taken
1. Are 2"x10" mud sills and base plates used?	☐	☐	☐	
2. If CMU piers are used for footings are they poured solid?	☐	☐	☐	
3. Are all components free of damage?	☐	☐	☐	
4. Are scaffold frames plumb and level?	☐	☐	☐	
5. Are scaffold frames pinned together to prevent displacement?	☐	☐	☐	
6. Are cross braces used at all locations?	☐	☐	☐	
7. Are frames and braces compatible?	☐	☐	☐	
8. Are all working levels fully planked (Max. 1" gap between planks)?	☐	☐	☐	
9. Are all platforms at least 18" wide?	☐	☐	☐	
10. Is the work platform not more than 14" from the wall?	☐	☐	☐	
11. Do all planks overlap their end supports 6"-12"?	☐	☐	☐	
12. Are scaffold planks free of damage, splits, etc.?	☐	☐	☐	
13. Are scaffolds secured to the structure once the scaffold is 4 times as high as it is wide, including guardrails?	☐	☐	☐	
14. Are scaffold ties repeated every 26' vertically after the first set of ties?	☐	☐	☐	
15. Where scaffold ties are required are they installed at both ends of the scaffold, and at 30' max intervals between ends?	☐	☐	☐	
16. Is a safe means of access provided to all scaffold platforms more than 2' high? (Extension ladders, attachable ladders, stairs or integral ladder access frames must be used.)	☐	☐	☐	
17. Does the ladder extend 3' above the platform?	☐	☐	☐	
18. Are ladders secured to prevent displacement?	☐	☐	☐	
19. Are ladders installed as scaffold is erected to provide access for erectors?	☐	☐	☐	
20. Are scaffolds at safe distances from power lines?	☐	☐	☐	
21. Are tag lines used when hoisting loads onto scaffolds with cranes?	☐	☐	☐	
22. Are guardrails installed on all platforms over 6' high?	☐	☐	☐	
23. Is the top rail between 38"–45" high and capable of supporting 200 lbs?	☐	☐	☐	
24. Are midrails capable of supporting 150 lbs.?	☐	☐	☐	
25. Where cross bracing is used as a midrail is the crossing point of the brace between 20" –30" above the work platform?	☐	☐	☐	
26. Where cross bracing is used as a top rail is the crossing point of the brace between 38" –48" above the work platform? (cross bracing cannot serve as both top rail and midrail)	☐	☐	☐	
27. Are platforms kept clear of unnecessary material and debris?	☐	☐	☐	
28. Are all material platforms equipped w/ toe boards?	☐	☐	☐	
29. Are all areas below and around scaffolds barricaded to prevent workers from walking under scaffolds?	☐	☐	☐	
30. Are canopies erected when workers must pass under scaffolds?	☐	☐	☐	
31. Are all scaffolds that are incomplete tagged "Danger Do Not Use"?	☐	☐	☐	
32. Are all damaged components removed from service and tagged "Danger Do Not Use"?	☐	☐	☐	
33. Are there legible scaffold tags at each access point?	☐	☐	☐	
34. Is the tag proper for the scaffold condition? (red, yellow, or green)	☐	☐	☐	

SIGNATURES

Competent Person's Signature _____ Date: _____

APPENDIX G

ELECTRICAL LIVE WORK / ARC FLASH PROGRAM

The Safety Manager is responsible for:

- Providing oversight and technical support;
- Securing the resources necessary to implement this Program;
- Ensuring that routine safety checks of work operations are performed;
- Conducting an annual review of this program;
- Conducting periodic hazard analysis of work areas;
- Updates (as needed) to ensure the effectiveness of the Program;
- Ensuring that proper reporting and record keeping is executed.

Supervisor/foremen are responsible for:

- Compliance with this Program at project sites under their supervision;
- Performing routine safety checks of work operations;
- Correcting any unsafe practices or conditions immediately;
- Ensuring all employees under their supervision understand the procedures in this program;
- Ensuring that safety practices are followed at all times;
- Ensuring that all designated employees are trained in the appropriate use of this program;
- Notifying the Safety Manager of potential hazards requiring assessments, or improvements to the program.

Employees are responsible for:

- Understanding the procedures and complying with all aspects of this Program;
- Complying with safe operating procedures when working with electrical equipment;
- Cooperating in all safety and health matters;
- Reporting incidents related to arc flash/shock to your supervisor/foreman/leadman immediately;
- Attending appropriate safety training;
- Wearing all required personal protective equipment (PPE) when working with electrical equipment;
- Reporting hazardous conditions or other health and safety concerns immediately to your supervisor/foreman/project manager.

Qualified Person

A “qualified person” shall, at a minimum, be trained in and familiar with the following:

- Be familiar with the proper use of the special precautionary techniques of personal protective equipment, including arc-flash, insulating and shielding equipment, and insulated tools and test equipment;
- The skills and techniques necessary to distinguish exposed energized parts from other parts of electrical equipment;
- The skills and techniques necessary to select properly rated test equipment, tools and be able to determine the nominal voltage of exposed live parts;
- The clearance distance specified in 1910.333 (c) and the corresponding voltage to which the qualified person will be exposed;
- Understand the Arc Flash Protection Boundary specified in NFPA 70E 130.2;
- Understand the approach Boundaries for operating at 50 volts or more as specified in NFPA 70E;

  - Limited Approach
  - Restricted Approach
  - Prohibited Approach
- Understand all electrical hazards and be capable of deciding if his/her action might result in a release of energy;
- Determine whether personal protective equipment (PPE) is necessary, what type of PPE is necessary, and how the PPE is rated;
- Understand the protective characteristics of each PPE item;
- Understand the process necessary to determine the degree and extent of electrical hazards along with the job planning necessary to perform the task safely.

A person can be considered qualified with respect to certain equipment and methods but unqualified for others.

Unqualified Person

An "unqualified person" shall be trained in the inherent hazards of electricity and any related work practices that are necessary for their safety. They will be instructed to respect safe approach boundaries and to remain at least 50 feet away from live electrical equipment at all times.

The training for qualified and unqualified persons will be coordinated by the safety department.

Selection and Use of Work Practices

General

Safety-related work practices shall be employed to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts, when work is performed near or on equipment or circuits which are or may be energized. The specific safety-related work practices shall be consistent with the nature and extent of the associated electrical hazards**.**

De-energized Parts

Live parts to which an employee may be exposed ***shall be de-energized*** before the employee works on or near them, unless the employer can demonstrate that de-energizing introduces additional or increased hazards or is infeasible due to equipment design or operational limitations.

The following are <u>the only examples</u> in which work on electrical equipment by a qualified person may be acceptable;

- Examples of increased or additional hazards include interruption of life support equipment, deactivation of emergency alarm systems, shutdown of hazardous location ventilation equipment, or removal of illumination for an area.
- Examples of work that may be performed on or near energized circuit parts because of infeasibility due to equipment design or operational limitations include testing of electric circuits that can only be performed with the circuit energized and work on circuits that form an integral part of a continuous industrial process in a chemical plant that would otherwise need to be completely shut down in order to permit work on one circuit or piece of equipment.
- Live parts that operate at less than 50 volts to ground need not be de-energized if there will be no increased exposure to electrical burns or to explosion due to electric arcs.

Refer to the company's Lockout/Tagout Program for procedures to de-energize live parts and establish an electrically safe working condition.

APPENDIX G

Energized Parts

Every effort shall be made to ensure live parts are de-energized before beginning work.

No work above a Category 2* shall be performed on live equipment without first being assessed in accordance with the companies Policy and Procedures.

Refer to the NFPA Table 130.7(C)(9)(a) for those tasks if the exposed live parts are not de-energized (i.e., for reasons of increased or additional hazards or infeasibility), other safety-related work practices shall be used to protect employees who may be exposed to the electrical hazards involved.

Such work practices shall protect employees against contact with energized circuit parts directly with any part of their body or indirectly through some other conductive object.

The work practices that are used shall be suitable for the conditions under which the work is to be performed and for the voltage level of the exposed electric conductors or circuit parts.

Working On or Near Exposed Energized Parts

This section applies to work performed on exposed live parts (involving either direct contact or by means of tools or materials) or near enough to them for employees to be exposed to any hazard they present.

Work on Energized Equipment

Only qualified persons shall be permitted to work on electric circuit parts or equipment that have not been put into an electrically safe work condition. Such persons shall be capable of working safely on energized circuits and shall be familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools.

Work Permits

If live parts are not placed in an electrically safe work condition (Lockout/Tagout), work to be performed shall be considered **energized electrical work** and shall be performed **by a qualified perosn with a written permit only** and must be approved of by Project Management.

Elements of a Work Permit

Description of equipment, justification of energized work, description of safe work practices, results of shock hazard analysis, determination of shock hazard protection boundary, arc flash analysis results, arc flash protection boundary, necessary personal protective equipment, means to restrict access of unqualified persons, evidence of job briefing and discussion of job specific hazards, energized work approval.

Work Permit Exemptions

Work related to testing, troubleshooting, voltage measuring and circuit identification may be completed without a permit, provided appropriate safe work practices and personal protective equipment are provided and used.

Job Briefings

Before starting each job or project, the supervisor in charge shall conduct a job briefing with the employees involved. The briefing shall cover such subjects as hazards associated with the job/project, work procedures involved, special precautions, energy source controls, and personal protective equipment requirements.

Repetitive or Similar Tasks

If the work or operations to be performed during the shift is repetitive and similar, at least one job briefing shall be conducted before the start of the first job of the day or shift. Additional briefings shall be held if changes that might affect the safety of the employees occur.

Routine Work

A brief discussion shall be satisfactory if the work involved is routine and if the employee, by virtue of training and experience, can reasonably be expected to recognize and avoid the hazards involved. A more extensive discussion shall be conducted if the work is complicated or particularly hazardous.

APPENDIX G

Approach Boundaries to Live Parts

Observing a safe approach distance from exposed energized parts is an effective means of maintaining electrical safety. As the distance between an individual and the live parts increases, the potential for an electrical injury decreases.

Shock Hazard Analysis

A shock hazard analysis shall be conducted to determine the voltage to which employees will be exposed, boundary requirements, and the personal protective equipment necessary in order to minimize the possibility of electric shock to employees.

Shock Protection Boundaries

Limited, Restricted, and Prohibited Approach Boundaries are applicable to the situation in which approaching employees are exposed to live parts. Safe approach distances to live parts can be determined by referring to NFPA 70E Table 130.2(C) (Approach Boundaries to Live Parts for Shock Protection).

Approach to Exposed Live Parts Operating at 50 Volts or More

Qualified persons shall not approach or take any conductive object closer to exposed live parts operating at 50 volts or more than the Restricted Approach Boundary set forth in NFPA 70E 130.2 unless on the following conditions apply;

- The qualified person is insulated or guarded from live parts, and no un-insulated part of the qualified person's body crosses the Prohibited Approach Boundary set forth in "Approach Boundaries."
- The live part operating at 50 volts or more is insulated from the qualified person and any other conductive object at a different potential.

Approach by Unqualified Persons

An unqualified person shall not be permitted to enter spaces that are to be accessible to qualified employees only, unless the electric conductors and equipment involved are in an electrically safe work condition.

Entering the Arc-Flash Protection Boundary

Within the Arc Flash Protection Boundary without the proper PPE, an employee is subject to a 3rd degree or non-healable burns, outside this boundary he/she could receive a 2nd degree or healable burns.

For systems that are 600 volts or less, the Flash Protection Boundary shall be a minimum of 4 feet. The formula in NFPA 70E 130.3(A)(1) can be used to determine the exact Flash Protection Boundary for systems under 600. For systems that are above 600 volts, the Flash Protection Boundary shall be determined through engineering analysis.

Entering the Limited Approach Boundary

Where there is a need for unqualified person(s) to cross the Limited Approach Boundary, a qualified person shall advise the unqualified person of the possible hazards and continuously escort the unqualified person(s) while inside the Limited Approach Boundary.

Proper PPE must be used within this boundary.

Under no circumstances shall the escorted unqualified person(s) be permitted to cross the Restricted Approach Boundary.

Entering Prohibited Approach Boundary

Crossing the Prohibited Approach Boundary is considered the same as making contact with energized parts. Qualified persons may only cross this boundary when all of the following precautions have been taken:

- The qualified person has specific training to work on energized parts.
- The qualified person has obtained an approved Energized Electrical Work Permit.

- The qualified person uses personal protective equipment (PPE) appropriate for working on energized parts which are rated for the voltage and energy level involved.
- The qualified person uses voltage rated insulated tool appropriate for working on energized parts which are rated for the voltage and energy level involved.

Flash Hazard Analysis

A flash hazard analysis shall be done in order to protect employees from the possibility of being injured by an arch flash. This analysis shall determine the Flash Protection Boundary and the personal protective equipment that employees within the Flash Protection Boundary shall use.

Other Precautions for Personnel Activities

Alertness

Employees shall be instructed to be alert at all times when they are working near live parts operating at 50 volts or more in work situations where unexpected electrical hazards might exist. Employees shall not knowingly be permitted to work in areas containing live parts operating at 50 volts or more or other electrical hazards while their alertness is recognizably impaired due to illness, fatigue, or other reasons. Employees shall not be instructed to reach blindly into areas that might contain exposed live parts where an electrical hazard exists.

Illumination

Employees shall not enter spaces containing live parts unless illumination is provided that allows work to be performed safely.

Conductive Articles Being Worn

Conductive articles of jewelry and clothing (such as watchbands, bracelets, rings, key chains, necklaces, body piercings, cloth with conductive thread, metal headgear, or metal frame glasses) shall not be worn where they present an electrical contact hazard with exposed live parts.

Conductive Materials, Tools, and Equipment Being Handled

Conductive materials, tools, and equipment that are in contact with any part of an employee's body shall be handled in a manner that prevents accidental contact with live parts. Such materials and equipment include, but are not limited to, long conductive objects such as ducts, pipes, tubes, conductive hose and rope, metal-lined rules and scales, steel tapes, pulling lines, metal scaffold parts, structural members, and chains.

Confined or Enclosed Work Spaces

When an employee works in a confined space or enclosed space (such as a manhole or vault) that contains exposed live parts, the employee shall use protective shields, barriers, or insulating materials as necessary to avoid contact with these parts. Doors, hinged panels, and the like shall be secured to prevent them from swinging into employees. Refer to companies Confines Space Policies for additional concerns and procedures.

Personal Protective Equipment

Employees working in areas where there are potential electrical hazards shall be provided with and use, electrical protective equipment that is appropriate for the specific parts of the body to be protected and for the work to be performed. Protective equipment shall be maintained in a safe, reliable condition and shall be visually inspected before each use. Refer to the companies Personal Protective Equipment Program for more information on inspecting and testing PPE.

Types of Personal Protective Equipment

The following types of personal protective equipment may be necessary depending on the risk of exposure to electrical hazards. The exact personal protective equipment to be worn shall be determined by referring to NFPA 70E Table 130.7(C)(9)(a).

ENERGIZED ELECTRICAL WORK ASSSESSMENT

Layton
CONSTRUCTING WITH INTEGRITY

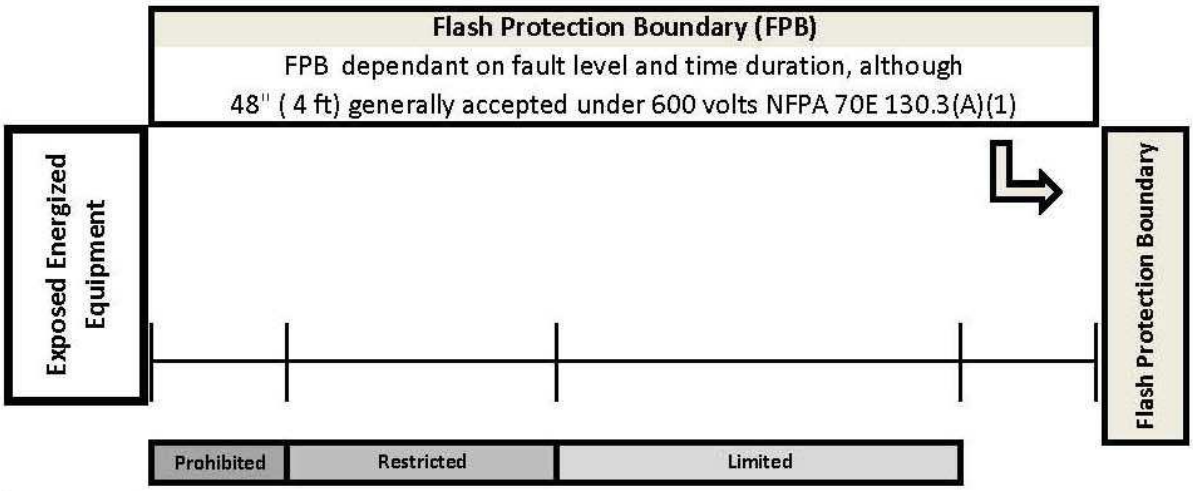
Work Request (To be completed by the **person requesting the work.**)			
Work site location:		Project number:	
Planned **start** date/time:		Planned **end** date/time:	
Description of the work to be performed:			
Equipment requested to be shut down: (specify how long)			
	☐Until work is complete	☐Temporarily, while barriers are being placed	
Requested by:	Signature:	Title:	Date:

Hazard Analysis (To be completed by the **electrically qualified persons doing the work.**)		
Shock Analysis/Approach Boundaries: Limited approach boundary- Restricted approach boundary- Prohibited approach boundary-	(from Table 130.2(C)) _____ft _____in _____ft _____in ☐Work will be conducted within this boundary. _____ft _____in ☐Work will be conducted within this boundary.	
Results of the flash hazard analysis -	☐The flash protection boundary is **4 ft 0 in** for systems that are 600 volts or less based on the product of clearing times of 6 cycles (0.1 second) and the available bolted fault current of 50 kA or any combination not exceeding 300 kA cycles (500 ampere seconds). ☐Calculation results: _____ft _____in	
Hazard/risk category for the task: ATPV rating (in cal/cm^2) for FR clothing:	☐0 ☐1 ☐2 ☐3 ☐4 (from Table 130.7(C)(9)(A) & (11)) ☐N/A (Cat 0) ☐4 (Cat 1) ☐8 (Cat 2) ☐25 (Cat 3) ☐40 (Cat 4)	
☐Voltage-rated tools ☐Voltage-rated gloves ☐Safety glasses ☐Hearing protection ☐Leather gloves ☐Leather work shoes ☐Hard hat ☐Hard hat FR liner (ATPV)	☐Short-sleeve shirt (nat fiber) ☐Long-sleeve shirt (nat fiber) ☐Long pants (natural fiber) ☐Long-sleeve FR shirt (ATPV) ☐Long FR pants (ATPV) ☐FR coveralls (ATPV) ☐FR jacket/rainwear (ATPV)	☐Multi-layer FR flash suit jacket (ATPV) ☐Multi-layer FR flash suit pants (ATPV) ☐Arc-rated face shield (ATPV) ☐Flash suit hood (ATPV) (from Table 130.7(C)(10)
Means employed to restrict the access of unqualified persons from the work area:	☐Signs/tags ☐Barricades ☐Attendants	
Has a documented job briefing with detailed procedures been conducted?	☐Yes, see attached ☐No	
Do you agree that the work described above can be done safely?	Electrically Qualified Person(s)	Date
Justification for the live work request:	☐Shut down creates an increased/additional hazard (specify): _____ ☐Shut down is infeasible due to design or operational limitations (specify): _____	
The next available date for shutdown is:		
Request for energized electrical work:	Electrical qualified person:	Date:

Proposed Energized Electrical Work Review (To be completed by **Project Management**.)		
Proposed energized electrical work has been reviewed by:	Superintendent:	Date:
	Safety Manager:	Date:
	Project Manager:	Date:

APPENDI X G

Approach Boundaries for Shock & Flash Protection



Prohibited	**Prohibited Shock Boundary:**	Qualified Persons Only. Considered energized work
Restricted	**Restricted Shock Boundary:**	Qualified Persons Only.
Limited	**Limited Shock Boundary:**	Qualified and Unqualified Persons if the Unqualified Person is accompanied by a Qualified Person

NFPA 70E Table 130.2(C) Approach Boundaries to Energized Electrical Conductors or Circuit Parts for Shock Protection (All dimensions are distance from energized electrical conductors or circuit parts to employee)

[1]	[2]	[3]	[4]	[5]
Nominal System Voltage Range	**Limited Approach Boundary**		**Restricted Approach Boundary**	**Prohibited Approach Boundary**
Phase to Phase	**Exposed Movable Conductors**	**Exposed Fixed Circuit Parts**	**Includes Inadvertent Movement Adder**	**Considered Energized Work**
0 to 49 volts	Not Specified	Not Specified	Not Specified	Not Specified
50 to 300 volts	3.05m (10' 0")	1.07 m (3' 6")	Avoid Contact	Avoid Contact
301 to 750 volts	3.05m (10' 0")	1.07 m (3' 6")	304.8 mm (1' 0")	25.4 mm (0' 1")
751 V to 15 kV	3.05m (10' 0")	1.53 m (5' 0")	660.4 mm (2' 2")	177.8 mm (0' 7")
15.1 to 36 kV	3.05m (10' 0")	183 m (6' 0")	787.4 mm (2' 7")	254.0 mm (0' 10")
36.1 to 46 kV	3.05m (10' 0")	2.44 m (8' 0")	838.2 mm (2' 9")	431.8 mm (1' 5")
46.1 to 72.5 kV	3.05m (10' 0")	2.44 m (8' 0")	991.0 mm (3' 3")	661.0 mm (2' 2")
72.6 to 121 kV	3.25m (10' 8")	2.44 m (8' 0")	1.016 m (3' 4")	838.0 mm (2' 9")
138 to 145 kV	3.36m (11' 0")	3.05 m (10' 0")	1.168 m (3' 10")	1.016 m (3' 4")
161 to 169 kV	3.56m (11' 8")	3.56 m (11' 8")	1.295 m (4' 3")	1.143 m (3' 9")
230 to 242 kV	3.97m (13' 0")	3.97 m (13' 0")	1.727 m (5' 8")	1.575 m (5' 2")
345 to 362 kV	4.68m (15' 4")	4.86 m (15' 4")	2.794 m (9' 2")	2.642 m (8' 8")
500 to 550 kV	5.80m (19' 0")	5.80 m (19' 0")	3.607 m (11' 10")	3.454 m (11' 4")
765 to 800 kV	7.24m (23' 9")	7.24 m (23' 9")	4.852 m (15' 11")	4.699 m (15' 5")

APPENDIX G

Protective Clothing

Employees will wear long sleeve shirts, pants or overalls made of Flame Resistant (FR) material. The protective material will have an Arc Thermal Protective Value (ATPV) of or more 8 cal/cm^2. The ATPV will be displayed outside the clothing or on a tag inside. Refer to NFPA 70E Table 130.7(C)(10) "Arc Flash Minimum Clothing Requirements."

Head, Face, Neck, and Chin Protection

Employees shall wear nonconductive class E hard hat with an 8 cal/cm^2 FR face shield whenever there is a danger of head and face injury from electric shock or burns due to contact with live parts or from flying objects resulting from electrical explosion. The head protection shall comply with ANSI Z89.1, Requirements for Protective Headwear for Industrial Workers.

A Balaclava to protect the Face, neck, and chin shall be provided wherever category 2* clothing is required or there is a danger of injury from exposure to arcs, flashes or from flying objects resulting from electrical explosion & have an ATPV (Arc Thermal Protective Value) of 8 cal/cm^2.

Double Layered Switching Hood

On rare occasions a Double Layered switching hood may be required in place of the Class E hard hat and 8 calorie arc-rated face shield. Any time work must be completed in an area where an arc flash could occur from either side or behind a technician, he or she must wear a Double Layered Switching Hood. Safety glasses and ear plugs must be worn underneath the hood.

Eye Protection

Employees shall wear eye protection whenever there is danger of injury from electric arcs, flashes, or from flying objects resulting from electrical explosion. Eye protection shall comply with ANSI Z87.1, Practice for Occupational and Educational Eye and Face Protection, in addition use non-metal frames.

Hearing Protection

Employees will wear ear canal inserts (ear plugs). Face shields will protect the canal inserts, where as the exterior muffler type would interfere with the shield and be exposed to the flame.

Body Protection

Employees shall wear flame-resistant (FR) clothing with an ATPV of at least 8 cal/cm^2 if there is possible exposure to an arc flash above the threshold incident-energy level for a second degree burn.

Hand and Arm Protection

Employees shall wear class 00 rubber insulating voltage rated gloves where there is danger of hand and arm injury from electric shock due to contact with live parts or where there is a possible exposure to shock or arc flash burn. Gloves shall comply with ASTM D120-2, Standard Specification for Rubber Insulating Gloves. Leather or FR glove protectors shall be worn over the rubber gloves as required for ach flash protection.

Foot and Leg Protection

Where insulated footwear is used as protection against step and touch potential, dielectric overshoes may be required. Insulated soles shall not be used as primary electrical protection. Heavy-duty leather work shoes provide some arc protection to the feet and may be used in all tasks in hazard/risk category 2 and higher.

Selection of Personal Protective Equipment

Employees working within the Flash Protection Boundary shall wear protective clothing and other personal protective equipment identified by the flash hazard analysis and the incident energy exposure of the employee. The specific protection to be worn within the Flash Protection Boundary can be determined by one of the following two methods:

- Complete a detailed flash hazard analysis by a qualified engineer that determines the incident exposure energy of each employee. Appropriate protective clothing can then be selected based on the calculated exposure level; or
- Determine the hazard level of the task by referring to NFPA 70E Table 130.7(C)(9)(a), *"Hazard/Risk Category Classifications"* or see EXHIBIT #3 of this document.

After the hazard level of the task has been determined, the required PPE can then be ascertained from NFPA 70E Table 130.7(C) (10).

Flame-Resistant (FR) Apparel and Under Layers

FR clothing shall consist of materials, such as flame-retardant treated cotton, meta-aramid, para-aramid, and poly-benzimidazole (PBI) fibers. These materials can ignite but will not continue to burn after the ignition source is removed.

FR clothing made from flammable synthetic materials that melt at temperatures below 315^{o} Celsius such as acetate, nylon, polyester, polypropylene, and spandex, either alone or in blends, shall NOT be used. Clothing made from non-melting flammable natural materials, such as cotton, wool, rayon, or silk may be used as under layers beneath FR apparel and for category 0 environments. FR apparel shall be visually inspected before each use. FR apparel that is contaminated or damaged shall not be used. Follow all manufacturers' instructions for care and maintenance of FR apparel shall be followed.

Insulated Tools and Equipment

Only insulated tools and equipment shall be used within the Limited Approach Boundary of exposed energized parts. Insulated tools shall be rated for the voltages on which they are used and shall be designed and constructed for the environment to which they are exposed and the manner in which they are used. Fuse or fuse holder handling equipment, insulated for the circuit voltage, shall be used to remove or install a fuse if the fuse terminals are energized. Ropes and hand lines used near exposed live parts operating at 50 volts or more or where an electrical hazard exists, shall be nonconductive. Portable ladders shall have nonconductive side rails and shall meet the requirements of ANSI standards for ladders.

Rubber Insulating Equipment

Rubber insulating equipment includes protective devices such as gloves, sleeves, blankets, and matting. Rubber insulating equipment shall comply with the following American Society for Testing and Materials (ASTM) standards:

- Specification for Rubber Insulating Gloves (D120-87);
- Specification for Rubber Insulating Matting (ASTM D178-93 or D178-88);
- Specification for Rubber Insulating Blankets (ASTM D1048-93 or D1048-88a);
- Specification for Rubber Insulating Covers (ASTM D1049-93 or D1049-88);
- Specification for Rubber Insulating Line Hose (ASTM D1050-90); and
- Specification for Rubber Insulating Sleeves (ASTM D1051-87).

All electrical protective equipment shall be subjected to periodic electrical tests conducted in accordance with appropriate voltages identified by ASTM standards to reliably indicate whether the insulating equipment can withstand the voltage involved. Insulating equipment failing to pass inspections or electrical tests shall NOT be used by employees.

Rubber insulating equipment test intervals shall occur as follows:

- Rubber and plastic insulating line hoses shall be tested upon indication that the insulating valve is suspect (industry recommendations is 24 months).
- Rubber and plastic insulating covers shall be tested upon indication that the insulating valve is suspect (industry recommendations is 24 months).

APPENDIX G

Arc Flash Minimum Clothing Requirements		NFPA 70E Table 130.7(C)(10)	
Hazard Risk Category (HRC)	FR Protective Clothing	Minimum Cal/cm^2 or ATPV rating	FR Protective Equipment (PPE)
0	Protective Clothing, Nonmelting (according to ASTM F 1506-00) or untreated Natural Fiber	N/A	Shirt (long sleeve), pants (long), safety glasses or goggles, hearing protection (ear canal inserts) leather gloves (AN) (Note 2)
1	FR Clothing, Minimum Arc- Rating of 4 (Note 1) & Untreated Natural Fiber Under Clothing	4	Arc-rated long sleeve shirt (Note 3), pants (note 3), coveralls (note 4), face shield (Note 7), jacket or rain gear (AN), hard hat, safety glasses or goggles (SR), hearing protection (ear canal inserts) leather gloves (AN) (Note 2), leather work shoes (AN)
2	FR Clothing, Minimum Arc- Rating of 8 (Note 1) & Untreated Natural Fiber Under Clothing	8	Arc-rated long sleeve shirt (Note 5), pants (note 5), coveralls (note 6), face shield (Note 7), jacket or rain gear (AN), hard hat, safety glasses or goggles (SR), hearing protection (ear canal inserts) leather gloves (AN) (Note 2), leather work shoes (AN)
2*	FR Clothing, Minimum Arc- Rating of 8 (Note 1) & Untreated Natural Fiber Under Clothing	8	Arc-rated long sleeve shirt (Note 5), pants (note 5), coveralls (note 6), face shield (Note 10), jacket or rain gear (AN), hard hat, safety glasses or goggles (SR), hearing protection (ear canal inserts) leather gloves (AN) (Note 2), leather work shoes (AN)
3	FR Clothing, Minimum Arc- Rating of 25 (Note 1) & Untreated Natural Fiber Under Clothing	25	Arc-rated long sleeve shirt (AR) (Note 8), pants (AR) (note 8), coveralls (AR) (note 8), arc flash suit jacket, pants, hood (AR) (Note 8) or jacket, parka, or rain gear (AN) hard hat, FR hard hat liner (AR), safety glasses or goggles (SR), hearing protection (ear canal inserts) leather gloves (Note 2), leather work shoes (AN)
4	FR Clothing, Minimum Arc- Rating of 40 (Note 1) & Untreated Natural Fiber Under Clothing	40	Arc-rated long sleeve shirt (AR) (Note 8), pants (AR) (note 9), coveralls (AR) (note 9), arc flash suit jacket, pants, hood (AR) (Note 9) or jacket, parka, or rain gear (AN) hard hat, FR hard hat liner (AR), safety glasses or goggles (SR), hearing protection (ear canal inserts) leather gloves (Note 2), leather work shoes (AN)

AN = As Needed (Optional)
AR = As Required
SR = Selection Required

Notes: (NFPA 70E Standards Table 130.7(C)(10) page 36)

1. See Table 130.7(C)(11). Arc rating for garment or system of garments is expressed in cal/cm^2.
2. If rubber insulating gloves with leather protectors are required by Table 130.7(C)(9), additional leather or arc-rated gloves are not required. The combination of rubber insulating gloves with leather protectors satisfies the arc flash protection requirement.
3. The FR shirt and pants used for Hazard / Risk Category 1 shall have a minimum arc rating of 4.
4. Alternate is to use FR coveralls (minimum arc rating of 4) instead of FR shirt and FR pants.
5. The FR shirt and pants used for Hazard / Risk Category 2 shall have a minimum arc rating of 8.
6. Alternate is to use FR coveralls (minimum arc rating of 8) instead of FR shirt and FR pants.
7. A face shield with a minimum arc rating of 4 for Hazard/ Risk Category 1 or a minimum arc rating of 8 for Hazard / Risk Category 2, with rap-around guarding to protect not only the face, but also the forehead, ears and neck (or alternatively, an arc-rated arc flash suit hood), is required.
8. An alternate is to use a total FR clothing system and hood, which shall have a minimum arc rating of 25 for Hazard / Risk Category 3.
9. The total clothing system consisting of FR shirt and pants and/or FR coveralls and/or arc flash coat and pants and hood shall have a minimum arc rating of 40 for Hazard /Risk Category 4.
10. Alternate is to use a face shield with a minimum arc rating of 8 and a balaclava (sock hood) with a minimum arc rating of 8 and witch covers the face, head and neck except the eye and nose areas.

General Notes (applied to the entire table): (NFPA 70E Standards Table 130.7(C)(9) page 34)

(a) Rubber Insulating gloves are gloves rated for the maximum line-to-line voltage upon which work will be done.
(b) Insulated and insulating tools are tools rated and tested for the maximum line-to-line voltage upon which work will be done, and are manufactured and tested in accordance with ASTM F 1505, *Standard Specification for Insulated and Insulating Hand Tools*.
(c) **Y** = Yes (required), **N** = No (not required)
(d) For systems less than 1000 volts, the fault currents and up stream protective device clearing times are based on an 18 inch working distance.
(e) For systems rated 1 kV and greater, the Hazard/Risk Categories are based on a 36 inch working distance.
(f) For equipment protected by upstream current limiting fuses with arcing fault current in their current limiting range (1/2 cycle fault clearing time or less), the hazard/risk category required may be reduced by one number.

Specific Notes (as referenced in the table):

Note 1 Maximum of 25kA short circuit current available, 0.03 second (2cycle) fault clearing time
Note 2 Maximum of 65kA short circuit current available, 0.03 second (2cycle) fault clearing time
Note 3 Maximum of 42kA short circuit current available, 0.33 second (20cycle) fault clearing time
Note 4 Maximum of 35kA short circuit current available, less than 0.5 second (30cycle) fault clearing time

- Insulated hot sticks shall be tested upon indication that the insulating valve is suspect or every 24 months thereafter.
- Insulated hand tools shall be tested upon indication that the insulating valve is suspect
- Rubber insulating blankets shall be tested before issue and every 12 months thereafter.
- Rubber insulating gloves shall be tested before issue and every 6 months thereafter.
- Rubber insulating sleeves shall be tested before first issue and every 12 months thereafter.

Note: If the insulating equipment has been electrically tested but not issued for service, it shall not be placed into service unless it has been electrically tested within the previous twelve months, the date of the equipment being put into service must be documented.

All departments using insulating equipment shall make the appropriate arrangements for testing of such equipment.

Signage and Barricades

Safety signs, safety symbols, or accident prevention tags shall be used where necessary to warn employees about electrical hazards.

Barricades shall be used in conjunction with safety signs where it is necessary to prevent or limit employee access to work areas containing live parts. Conductive barriers shall not be used where it might cause an electrical hazard. Barriers shall be placed no closer than the Limited Approach Boundary given in EXHIBIT #7 of this document.

If signs and barriers do not provide sufficient warning and protection from electrical hazards, an attendant shall be stationed to warn and protect employees. The primary duty of the attendant shall be to keep unqualified person out of the work area where an electrical hazard exists. The attendant shall remain in the area as long as there is a potential exposure to electrical hazards.

APPENDIX G

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 _____ (Signature) _____ (Print Name) Date: _____

Safety Manager _____ (Signature) _____ (Print Name) **Date:** _____

APPENDIX H

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: _____

APPENDI X I

GENERAL SAFE WORK PRACTICES POSTER

Clean and safe working conditions are absolutely essential for achieving an Injury Free Environment, as well as for the promotion of construction efficiency and progress. Each worker on the project is valued not only for what they do, but for who they are. Everyone must maintain a strong personal desire to think and act safely, in an effort to create an Injury Free Environment. The following general safe work rules are a partial list of the general rules that apply to each worker on the project. There will be no tolerance for any worker who carelessly or callously disregards these rules or other applicable health and safety rules.

1. **It is the responsibility of each worker to perform his/her assigned duties so as to provide:**

a. **– Safety for themselves and their fellow worker**

b. **– Protection of the general public, all other workers and the environment.**

c. **– Protection of equipment, materials and tools**

2. **Report all unsafe acts and conditions to supervision.**
3. **Report work related injuries or illnesses immediately to supervision.**
4. **Work only in conditions that appear to be safe.**
5. **Use proper fall protection when working six (6') feet or greater above the surface.**
6. **Wear the minimum personal protective equipment (hardhat, safety glasses, shirt, trousers, and work boots).**
7. **Use tools and equipment properly. Remove damaged or defective tools and equipment from service.**
8. **Lock out and tag equipment, machinery, and/or systems prior to working on them.**
9. **Maintain clean and orderly work areas.**
10. **Operate tools and equipment with proper guards and safety devices in place.**
11. **Request instruction from supervision when unsure as to the safe performance or procedures.**
12. **Obtain authorization and training prior to entering a confined space.**
13. **Operate equipment, machinery or any specialty tool (e.g. powder-actuated tools) only with proper training and authorization.**
14. **Wear eye and face protection when cutting, welding, grinding, chipping, or performing other tasks where the danger of flying debris exists.**
15. **Use safe lifting techniques when required to lift material or other loads.**
16. **Wear respiratory protection when the task or work area requires it.**
17. **Ride vehicles only in the cab with proper restraining devices.**
18. **No worker will be under the influence of drugs/alcohol or engage in any horseplay, fighting or gambling of any form.**
19. **Observe and comply with covered, barricaded, taped, or flagged areas. Do not remove, cross, or enter without proper authorization and protection.**
20. **No worker will intentionally discharge or remove fire-fighting equipment.**
21. **Radios (walkmans, MP3, IPODS or any other device with ear piece) and other audio distractions are not allowed in any work area. Blue tooth ear piece can be worn during phone conversation only.**
22. **Personal mobile phones are not to be used unless on breaks or lunch. They are to be turned off at other times.**

APPENDI X J

GUARD RAIL REMOVAL PERMIT

WORK WILL NOT BE PERFORMED UNTIL FORM IS APPROVED BY LAYTON CONSTRUCTION REPRESENTATIVE

Contact Information:

Contractor: _____ Date _____

Foreman's Name: _____ Foreman Phone #: _____

Write out specific **Location** N, S, E, W, NW, SW, etc.) Include grind (if known), **Level** (Level 1, Level 2, Suite A, Concourse 1 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:	**yes**	**no**
• Does your company have a fall protection Program?	☐	☐
• Have workers performing work been trained in Fall Protection?	☐	☐
• Has Fall Protection Plan been put in place?	☐	☐
• Will workers be tied off if within 15 feet of down cable?	☐	☐

- Describe how workers will be tied off: _____
- Describe how the other trades will be protected from the fall hazard.

If NO is answered to any of the above questions then the Layton Construction EHS Department must be contacted for review prior to guardrail removal.

_____

APPENDIX K

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

* NAME OF FIRE WATCH: _____

SITE WORK CHECKLIST

- ☐ COMBUSTIBLES PROTECTED*
- ☐ COMBUSTIBLES RELOCATED
- ☐ LOCKOUT / TAGOUT
- ☐ MSDS 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.

APPENDI X L

MASTER CHEMICAL AND SUBSTANCE INVENTORY LIST

SUBCONTRACTOR: **DATE OF UPDATE:**

DATE	BRAND NAME	MANUFACTURER	CHEMICAL NAME

APPENDIX M

MEDIA LOG

PLEASE PRINT ALL INFORMATION CLEARLY

Media Person & Organization Name	Phone Numbers (Office/ Cell)	E-mail address

APPENDI X N

NOTICE TO COMMENCE STEEL ERECTION

PROJECT NAME:

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

APPENDI X O

PRE-DEMOLITION SURVEY

Please Print Clearly

Project Name: _____ **Project No:** _____

Location: _____ **Survey Date:** _____

_____ **Name:** _____

Major Cross Streets: _____ **Title:** _____

Structure Information

Structure Type: _____

_____

Basement: Yes No **Type:** Block Concrete Other: _____

Building Height: _____ **No: of Stories:** _____

Shoring Required: Yes No

If Yes complete the following:

Type of Shoring **Describe:** _____

Location of Shoring **Describe:** _____

Adjacent Properties: Yes No **Describe:** _____

If Yes complete the following:

Protection Required: Yes No **Describe:** _____

Underground Tanks Yes No **Describe:** _____

Location of Tanks **Describe:** _____

Previous Use: **Describe:** _____

Tanks Drained Yes No **Date:** _____

Tanks Purged: Yes No **Date:** _____

Tested: Yes No **Performed By:** _____

Public Prot. Required: Yes No **Describe:** _____

If Yes complete the following:

APPENDI X O

PRE-DEMOLITION SURVEY - CONTINUED

Signage:	Yes	No	**Describe:**	
Barricades:	Yes	No	**Describe:**	
Fencing:	Yes	No	**Describe:**	

Demo Methods:

Disconnects

Reference No:

Utility Disconnect			**Disconnect Date**	**Utility Contact Name & Phone**
Electric	Yes	No		
Gas	Yes	No		
Water	Yes	No		
Sewer	Yes	No		
Phone	Yes	No		
Security	Yes	No		
PC Network	Yes	No		

Location of Energized Power / Communication Lines / Gas:

[ ] Original –Superintendent

Signature

[ ] Copy-General Superintendent

[ ] Copy-Main Office Safety File via Safety Director

APPENDIX P

PRE-MOBILIZATION SAFETY MEETING AGENDA
for the Layton Construction Co. and its Subsidiaries

Total Project Involvement is required of all parties on all Layton projects.

Layton Injury Free Environment (LIFE) Y / NA

Layton Construction is committed to an Injury Free Environment. LIFE 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.

Layton Injury Free Environment holds three basic premises:

- All incidents and injuries are preventable; no level of incident or injury is acceptable or tolerated.
- Injury Free operations are possible in construction; a prevailing mindset and conviction exists to do the right thing and 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 workers choose to be responsible and accountable for their own safety and the safety of their co-workers.

Think It Through Y / NA

Developing the Pre-Task Plan process as an Instinctual safety effort.
The morning **Pre-Task Planning** starts the day with a written out line of what the crew is directed to accomplish that day and what it will take to complete the job tasks safety.

This written PTP process will not change and will continue to be completed by the supervisor of the crew with input from the individuals on the crew.

As the day progresses and new tasks or changes are identified outside of the morning task planning effort, the task planning process will be thought through and discussed with crafts involved without the formal written PTP/JHA. Depending on the complexity of the new task, the safety planning of the new task can be mentally thought through by individuals and verbally discussed amongst the crafts before proceeding with the job task.

The **Stop** and **Think It Through** process is meant to promote the safety pre-task planning efforts for new tasks or any change that occurs during any given work day.

Individuals should have the PTP process and outline locked into their mind from completing the written process each morning. That mental image will be thought through and communicated for each new task or change outside of the morning written PTP. If the new task or change is a major effort, the PTP process must be written out and signed by all crafts involved. All other tasks can be thought through following the PTP process and discussed amongst all crafts involved.

Pre-Task Planning Y / NA

- All subcontractors will be required to conduct and document a pre-task plan before each work shift. This plan will outline safety hazards, tools, materials, and equipment needed associated with each task to be completed that day. Pre-task forms can be obtained from the Layton Companies site superintendent.

APPENDI X P

LaPSZ (Layton Personal Safety Zone) Y / NA

- The 30-foot LaPSZ (Layton Personal Safety Zone) is the visible, 30-foot area surrounding an individual.
- It is the obligation and duty of that individual to watch for people, equipment, traffic or other potential hazards that may be within their 30-foot LaPS, and encourage safe work practices from all workers in the 30-foot area
- All employees—including co-workers, subcontractor employees, vendors, owners, etc.—are responsible to watch for and stop unsafe actions or situations within their 30-foot zone of responsibility, as well as watch for and proactively verbalize safe actions and situations.
- If a hazard is noted in their 30-foot LaPSZ zone, the worker should take immediate corrective action, which might also include a report of the concern and actions taken to correct the situation to their supervisor.
- 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 immediate work environment.
- The key to the 30-foot LaPSZ program is hazard recognition. Each worker needs to be aware of the activity and people in their line of sight area, and to draw upon their safety training and work experience to notice and take action when there is a potential hazard that could result in an injury or property damage.
- Hazards recognized and acted upon by a worker can also be submitted on an Employee Observation Red Card, part of our safety recognition program.
- If a worker recognizes a hazard, he should be respectful when pointing out the deficiency. A worker should **remind** the person of the safety policy or standard, **request** their cooperation and compliance, and if necessary, **report** the situation to their supervisor if unresolved.
- Accountability for all workers on LCC projects includes the following safety expectations and consequences:
    - Workers are empowered and expected to correct safety violations in their 30’ work environment.
    - If an incident occurs within a worker’s 30-foot area of responsibility the worker will be asked to participate in the incident review.
    - There are no exceptions; employees at all levels are expected to participate in the 30 foot LaPSZ.
    - Workers who do not follow the Layton Construction safety policies, procedures and best practices will be disciplined, up to removal from the project.

Personal Protective Equipment OSHA 1926 subpart E Y / NA

- Hard hats (ANZI-Z-89) are required at all times on the project.
- Eye protection with side shields (ANSI-Z-87) shall be properly worn at all times on the project.
- The minimum eye protection is clear safety glasses for inside and low light work.
- Safety glasses with side shields and a face shield are required when grinding or using chop saws for cutting bricks, blocks, or metal studs.
- Eye protection with #3-6 shaded protection must be worn when using a torch.
- When exposed to a fall of six or more feet and with no guard rail protection system in place, a full body harness with two shock absorbing lanyards is required.
- When handling a hazardous substance, wear the proper protection as required by the Material Safety Data Sheet (MSDS).

- Wear the proper respiratory protection when exposed to any toxic vapors, fumes, or dust.
- When a worker is exposed to dust containing silica, he/she should wear a respirator with a filter cartridge rating of 100 (HEPA). This type of exposure is created when grinding or cutting concrete, masonry brick, blocks, etc. This is regardless of who is creating the inhalation hazard.
- Each subcontractor that creates an inhalation hazard shall let other contractors know of the hazard, so they may protect their workers in the area or remove them.

Clothing Requirements **Y / NA**

- A minimum of "T" shirt length sleeve
- Full length trousers without large holes. Sweat pants are not allowed.
- Leather over the ankle work boots. Tennis shoes are not permitted.
- High visibility clothing meeting the DOT minimum standard (vest, high visibility T-shirt).

Housekeeping Policy OSHA 1926.25 **Y / NA**

- Daily clean up is required.
- All nails protruding out of boards must be bent over or removed.
- Each subcontractor must provide the manpower necessary to clean up their work area every day.
- This includes needed clean up of areas during work in progress to avoid trip and fall hazards. Subcontractors are responsible to haul trash away out of the building to the assigned dumPSLTer or off-site daily.

Fall Protection OSHA 1926 subpart M **Y / NA**

- When working at elevations of 6 feet or greater and a guardrail system is not in place, the use of one hundred percent fall protection is required.
- A safety monitor must be used if it is not possible to be protected while working on a flat roof or roof with a pitch no greater that 4 – 12. If the width of the roof is greater than 50 feet, then a safety monitor/ warning line should be used. The warning line must have a breaking strength of no less than 500 lbs and the stanchions must weigh at least 16 lbs and must be placed a minimum of 15 feet back from the edge.
- The safety monitor system may only be used when no other means of fall protection is feasible.
- A written plan on the use of the monitor system must be provided to the Layton safety manager or the Layton site superintendent for their approval before work in an area may begin.

Fall Protection (Structural Steel Erection) Layton Safety Handbook **Y / NA**

- All steel erectors working above 6 feet must use 100% fall protection at all times. This is a Layton Construction Co. policy that all subcontractors will be required to follow.
- All other rules in OSHA subpart R shall also to be followed.
- Subcontractor must show that fall protection training has been provided within the last 12 months.

Edge / Hole Protection **Y / NA**

- Handrails must be installed near all exposed edges where there is a fall of 6 feet or more.

- Roof openings and other such openings where a fall hazard is present, the hole must be covered, secured and marked to indicate that such a hazard exists.

Scaffolding Regulations OSHA 1926 subpart L **Y / NA**

- Fall protection is required when scaffolds are at elevations of six feet and higher.
- Cross braces can be used as part of the guard rail system.
- If the cross brace is to be used as toprail, the area where the braces cross must be between 38” and 45” from the working surface. The midrail must be placed halfway in between.
- If the cross brace is to be used as a midrail, the area where the braces cross must be between 20” and 30”, and a toprail installed between 38” and 45” from the working surface.
- If you choose not to use the cross braces as part of the guardrail system, then install the standard guardrail.
- The standard guardrail must have a toprail at 42” and a midrail at 21”.
- The working surface of a scaffold must not have an opening / gap of more than one inch between planks.
- All planking that overLaPSZ must overlap at least twelve inches and be secured with nails or some other means, if not resting on a support.
- The scaffold must not be more than fourteen inches away from the structure of building.
- A scaffold must be secured to the building or structure according to the manufacturer’s recommendations or on a 4:1 height to base ratio.
- Ladders must also be installed on scaffolds when the rungs of the scaffold exceed 16 ¾ inches.
- All workers must be trained in accident prevention when using, erecting and dismantling the scaffold.
- This training must be documented and submitted to the project Superintendent before allowing work to proceed on scaffolding.
- Subcontractor must provide an updated list with all workers who have been trained. This list will be maintained in the Layton office trailer.
- Subcontractors must show that all scaffold users and erectors have been trained in the last six months.
- Daily inspections must be completed and proper tagging displayed at all access points.

Electrical Safety OSHA 1926 subpart K **Y / NA**

- All electrical cords must be inspected daily by user for hazards.
- Cords that are unsafe must be removed from the job site.
- An unsafe electrical cord includes one or more of the following conditions: ground pin missing, plug ends pulling away from the insulation, and tears in the outer insulation exposing inner wires.
- Repairs must be made using material having the same integrity as the cords insulation, such as shrink tube or vulcanizing tape.
- Each cord and electrical tool must be inspected prior to use by the user and monthly by a competent person and marked with the proper colored tape corresponding to the monthly inspection color code (Layton Safety Handbook page 24).
- Any person using an extension cord is responsible to make sure that the cords are protected from being run over by equipment and tools. Cords must be bridged, buried, elevated or controled out of the work area and walkways.

- Live work must be approved by a Layton Supervisor. A permit is required, and the person performing the work must be trained and competent to perform live electrical work.

Hot Work **Y / NA**

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 obtain a Hot Work Permit from the Layton superintendent.

A Hot Work Permit is valid only for the dates and shifts stated on the permit.

The following precautionary measures will be taken when a Hot Work Permit is required:

- Grating, openings, etc. will be completely covered in such a way to prevent sparks and slag from falling to a level below.
- Fire extinguisher in the immediate area of work.
- No flammable or combustible material stored within 35 feet in any direction.
- Combustible/flammable materials that cannot be moved must be covered with fire blankets or other suitable material.
- Worker(s) designated for continuous fire watch will be identified, trained, equipped, and remain for a minimum of one hour after hot work has ended.
- Workers will be trained prior to performing any hot work in the following, as a minimum.
- A review of the work to be performed
- Emergency procedure in case of fire
- Precautions to be taken
- How to use the fire extinguisher correctly

Excavation Safety OSHA 1926 subpart P **Y / NA**

- Excavations 5’ or more in depth must be made safe, according to the guidelines of a soil engineer or the Code of Federal Regulations, CFR 29-1926-650.
- When excavations are 20’ or greater in depth, the personal protective systems used must be designed by a registered professional engineer.
- All excavations/trenches exceeding 4’ in depth must have a means of access or egress within 25’ of any worker.
- When vehicles are traveling parallel to or near an excavation, the excavation must have a berm, stoplog, or warning line provided.
- The barricade berm or stoplog must be two feet away from the edge of the excavation.
- All spoils need to be at least 24” away from the edge of the trench.
- Subcontractors must show that excavation training has taken place within the last 12 months.

Ladder Safety OSHA 1926 Subpart X **Y / NA**

- Stepladders must be used in a fully open position.
- Extension ladders must be placed at a 4 to 1 ratio and secured.

- Ladders used to access landings must extend 36 inches above the landing and be secured at the landing level.
- Workers must never stand or sit above the third rung from the top on an extension ladder and above the second step from the top on a stepladder.
- Workers need to keep their work above and in front of them, do not work off to the sides. Remember the belt buckle rule; belt buckles must stay between the vertical sides of the ladder.
- Materials and tools must be handed up or hoisted to the worker on a ladder. Never climb the ladder carrying tools and / or materials.
- Ladders must be inspected prior to each use by the user.
- Ladders must be inspected monthly by a competent person and marked with the proper colored tape corresponding to the monthly inspection color code (Layton Safety Handbook, page 24).

Personnel Hoists (Mobile Elevated Work Platform – MEWP) Y / NA
OSHA 1926 subpart L 1926.453

- When working in a "MEWP," a personal fall arrest system must be available.
- These lifts are considered a mobile scaffold, and therefore individuals may not stand on any of the handrails of the basket to gain more height.
- Subcontractors must provide a copy of current MEWP training for all workers using the lifts.
- Subcontractors must show that scaffold user training has been completed within the last 6 months.

Mobile Equipment Safety Y / NA

- All heavy machinery must have: a backup alarm, a fire extinguisher inside or outside the cab of the machine, seat belts and roll over protection.
- The operators of equipment must be qualified.
- Operator's certification shall be made available upon request.
- The operator must wear a seat belt when the machine is equipped with roll over protection.
- A daily inspection log must be kept on the machine and machine must be inspected each day before operation. Layton reserves the right to inspect these logs at any time.

Cranes and Machinery Y / NA

- Operators of all heavy equipment (i.e., crane, forklift, backhoe, etc.) must be trained or certified.
- All machinery shall be shut down with motor off prior to cleaning, fueling, lubricating or repairs.
- Cranes, rigging and equipment shall be inspected before each day's use by the operator. Any defects shall be corrected before use. An inspection log shall be kept on the machine, recording safety checks and proper fluid levels.
- Rated load capacities, hand signals, and special hazard warnings shall be conspicuously posted on all equipment.
- Accessible areas within swing radius of all types of cranes will be barricaded to prevent workers from being struck or crushed.
- Only the operator will be allowed on the crane within the barricaded areas, except when there is a need to talk to the crane operator.
- The only time an individual will be allowed to talk to the operator is when he/she is able to do so safely.

- Except where electrical distribution and transmission lines have been de-energized, no part of the crane or its load, concrete pump or its hose, or any other piece of equipment shall be operated within 15 feet of a line rated below 50kV. Follow the crane standards for distances on lines greater than 50kV.
- Only one signal person using proper hand signals shall direct equipment.
- Crane operators shall not swing loads above areas where others are working, and shall stop use of crane during high winds or lightning storms (30 mph maximum windspeed or manufacturer's recommendation if less than 30 mph).
- Riding the hook, ball, load or equipment buckets is absolutely prohibited.

Vehicle Safety **Y / NA**

- Traveling at speeds in excess of ten miles per hour on this job site is not permitted.
- All passengers, including the driver, must wear seat belts when traveling occurs on this job site.
- No workers are allowed to ride as passengers in the back of a pickup bed on Layton sites unless seatbelts are built in to the pickup bed per manufacturer's requirements.

Weekly Safety Meetings Layton Safety Handbook **Y / NA**

- A weekly safety meeting discussing hazards and safety concerns must be held by each subcontractor and their workers on the site.
- The subcontractor is required weekly to submit to the Project Superintendent, the weekly safety meeting minutes including topic discussed and attending worker's signatures.
- Topics must relate to current site specific issues.

Accident Reporting – Our goal is zero injuries, zero harm. **Y / NA**

- All accidents that occur on this job site must be reported to the Layton Project Superintendent.
- The Superintendent will fill out an incident report.
- Subcontractors will provide a copy of their company accident reports to the Layton safety manager or site superintendent no later than the next work day.
- Subcontractor shall minimize all accidents by using proper health and safety practices under the OSHA acts paragraph 5(a) General Duty clause.
- All accidents requiring a Doctors visit are required to complete a Post Accident Drug Screen at the employer's expense.
- Each trade must furnish their own first aid kits adequate for the job.
- Each Trade must have a supervisor with current basic first aid and CPR training.

Material Safety Data Sheet Policy (Right to Know Law) OSHA 1910.1200 **Y / NA**

- All hazardous chemicals brought onto the job site must have an accompanying Material Safety Data Sheet.
- Material Safety Data Sheets must be given to the project Superintendent to file in a Material Safety Data Sheet book.
- The MSDS book may be used by all individuals who need to inquire about a hazardous substance they are exposed to.

- All containers containing a hazardous substance must be labeled according to the information on the Material Safety Data Sheet.
- Subcontractors are required to have their written HAZCOM program on site and must show that HAZCOM training has been completed within the last 12 months.

Drug, Alcohol and Firearm Policy **Y / NA**

The use of drugs, alcohol and firearms on the job site is considered to be an intolerable offense. If the employee(s) of the subcontractor are found to be on drugs, under the influence of alcohol or have firearms in their position they will be removed from the job site.

Discrimination or Harassment **Y / NA**

Layton Construction is committed to maintaining a workplace free of unlawful discrimination and harassment. Any form of discrimination or harassment which violates federal, state or local laws, including discrimination or harassment related to an individual's race, color, religion, gender, national origin, age, disability, or veteran status is a violation of this policy.

In keeping with this commitment, Layton Construction will not tolerate any form of harassment of our workers or other persons performing services for our company. For purposes of this policy, the term "harassment" includes unwelcome verbal, physical and/or visual conduct based on a protected group status that:

- Affects tangible job benefits;
- Interferes unreasonably with an individual's work performance; or,
- Creates an intimidating, hostile or offensive working environment.

Workplace Violence Layton Safety Handbook **Y / NA**

The safety and security of our employes, customers, and the general public are of vital importance. Therefore, Layton Construction has a "zero tolerance for vilence" policy.

- Workers displaying or threatening any violence will be removed from the project.
- We define "violence" to include physically harming another, shoving, pushing, harassment, intimidation, coercion, brandishing weapons, and threats or talk of violence.
- It is everyone's business to prevent violence in the workplace. Workers can help by reporting anything in the workplace that could indicate a co-worker is in trouble. Often, workers are in a better position than management to know what is happening around them.

Solicitation and Distribution of Literature Layton Safety Handbook **Y / NA**

To avoid disruption of company operations and to ensure safe working conditions, the following rules apply to solicitations and distribution of non-company literature on company property and at company work sites:

- Workers may not solicit other workers for membership, contributions, funds, or other purposes during workers work time or at any other time, if the solicitation interferes with other workers who are scheduled to work.
- Workers may not distribute non-company literature during work time for any purpose.

- Workers may not distribute non-company literature (other than company information) at any time for any purpose in work areas.
- Only workers, suppliers and purveyors of goods and services, who are pre-authorized by the company, are allowed on company property and work sites.
- Persons who are not employed by the Layton Construction Co. may not solicit or distribute non-company literature on company property at any time for any purpose.
- Work time includes the time both the worker doing the soliciting and/or distributing, and the worker to whom the soliciting and/or distributing is directed. Work time does not include break periods and meal periods.
- Management may authorize the posting of literature to solicit funds for recognized and established charities that benefit the general community.
- Workers who violate this policy will be subject to discipline, up to and including removal from site or termination.

Disciplinary Action Policy **Y / NA**

- For minor offenses with minor consequences, a subcontractor or individual will be expected to agree to improve behavior.
- Discipline is intended to preserve a good working condition for other subcontractors or individuals and to encourage each to be a responsible and conscientious worker. Violations will be kept on file.
- Removal from the project could result from major offenses, those with serious or costly consequences, or for repeated minor offenses for which the subcontractor or individual shows a lack of responsible effort to correct deficiencies.

Employee Parking **Y / NA**

Employee parking will be located in the _____

_____

Restrooms **Y / NA**

Restrooms will be located at the_____

_____

Any person caught drawing any form of graffiti in the restrooms will be subject to disciplinary action.

Infection Control **Y / NA**

All efforts will be made to maintain a dust free and clean work environment. Any work done in occupied space will be done in accordance the Layton Company's infection control procedures. Also, absolutely no food or drink will be allowed inside the building foot print, water only.

Emergency Evacuation Plan **Y / NA**

Review site specific Emergency Evacuation Plan. Tell workers where the site gathering areas are. Describe the notification process — will it be verbal or horns?

APPENDIX P

Barricade Tape Y / NA

Yellow caution tape means use caution when crossing. Red Danger Tape means “Keep Out.” Any unauthorized person crossing red danger tape will be removed from the project. All barricade tape will include a tag that identifies the contractor’s name, contact person and phone number. Barricade tape will not be installed until a barricade permit is filled out and reviewed by the Layton Company’s site superintendent.

Smoking Y / NA

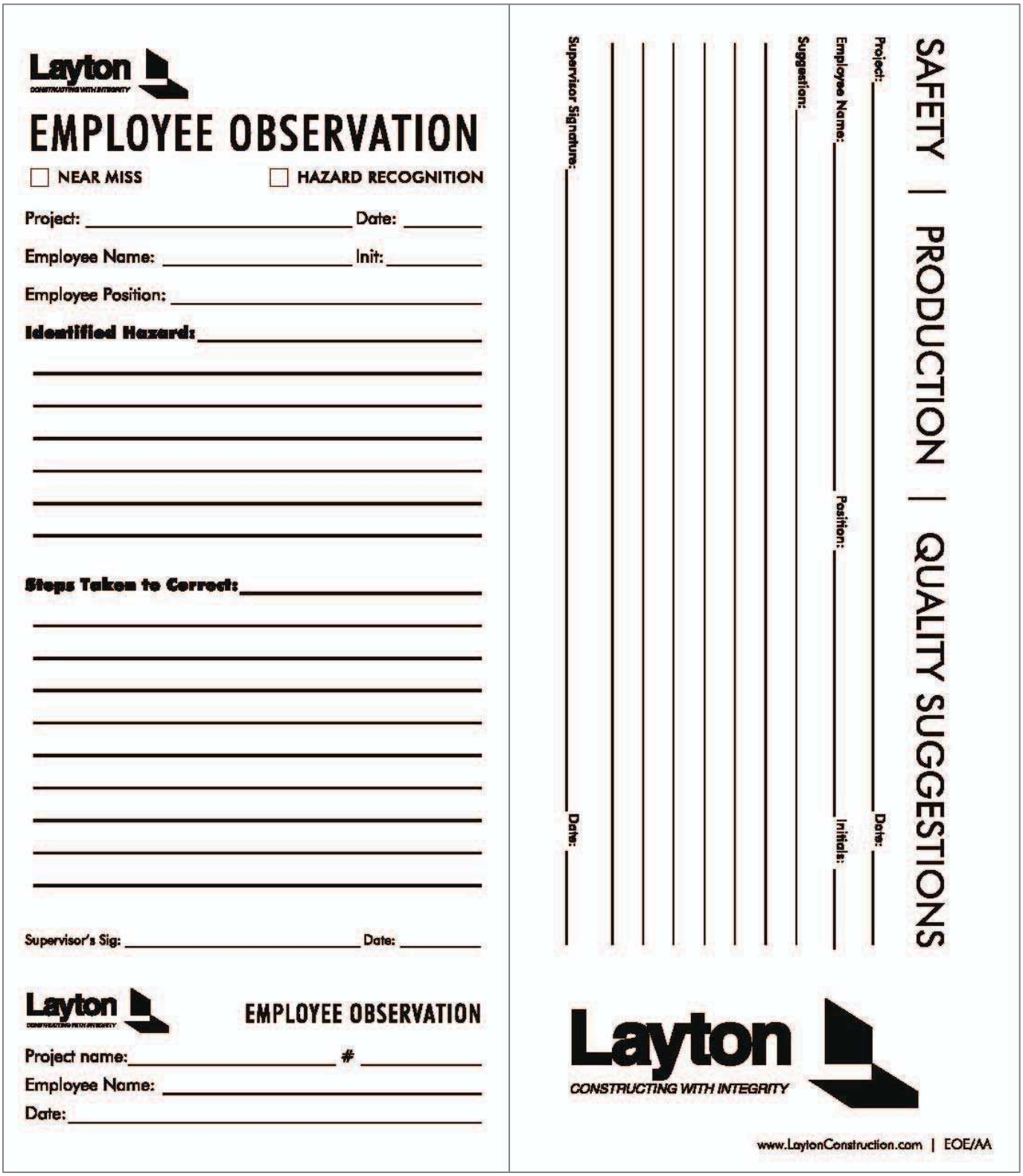
Review the project’s site-specific smoking policy. Only the cigarette form of tobacco may be used when smoking is allowed in designated smoking areas. Some projects may prohibit smoking.

APPENDIX Q

RED EMPLOYEE OBSERVATION CARD

Front of Card

Back of Card



APPENDIX R

SAFETY MEETING REPORT FORM

PROJECT: **Marshall's Distribution Center** _____ DATE: _____

SUPERINTENDENT/FOREMAN: _____ NUMBER PRESENT: _____

TOPIC OF SAFETY TRAINING LESSON AND DESCRIPTION (BE SPECIFIC):

_____

_____

_____

_____

_____

_____

DISCUSS UNSAFE CONDITIONS, NEAR MISSES AND CORRECTIONS MADE

_____

_____

_____

NAMES AND SIGNATURES OF EMPLOYEES ATTENDING:

Print Name	Signature	Print Name	Signature

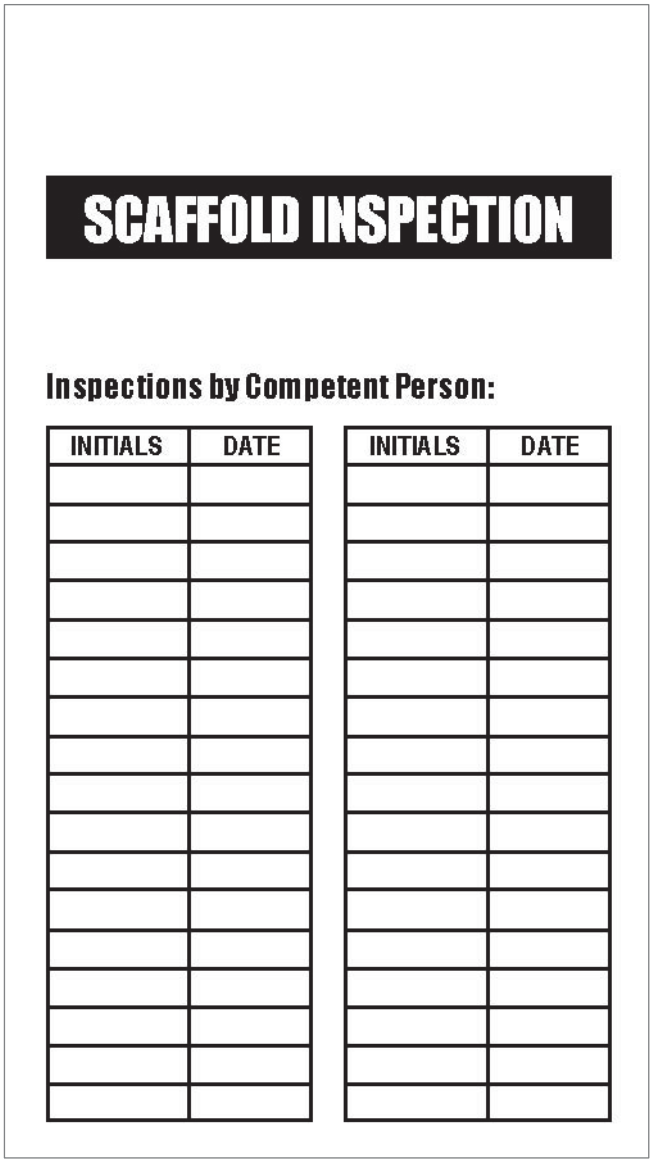
COMPLETE ALL SECTIONS AND SUBMIT TO THE SUPERINTENDENT, PROJECT MANAGER, SAFETY MANAGER, AND PROJECT SAFETY FILE.

APPENDIX S

SCAFFOLD TAGS: RED

FRONT

BACK



APPENDIX S

SCAFFOLD TAGS: 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:

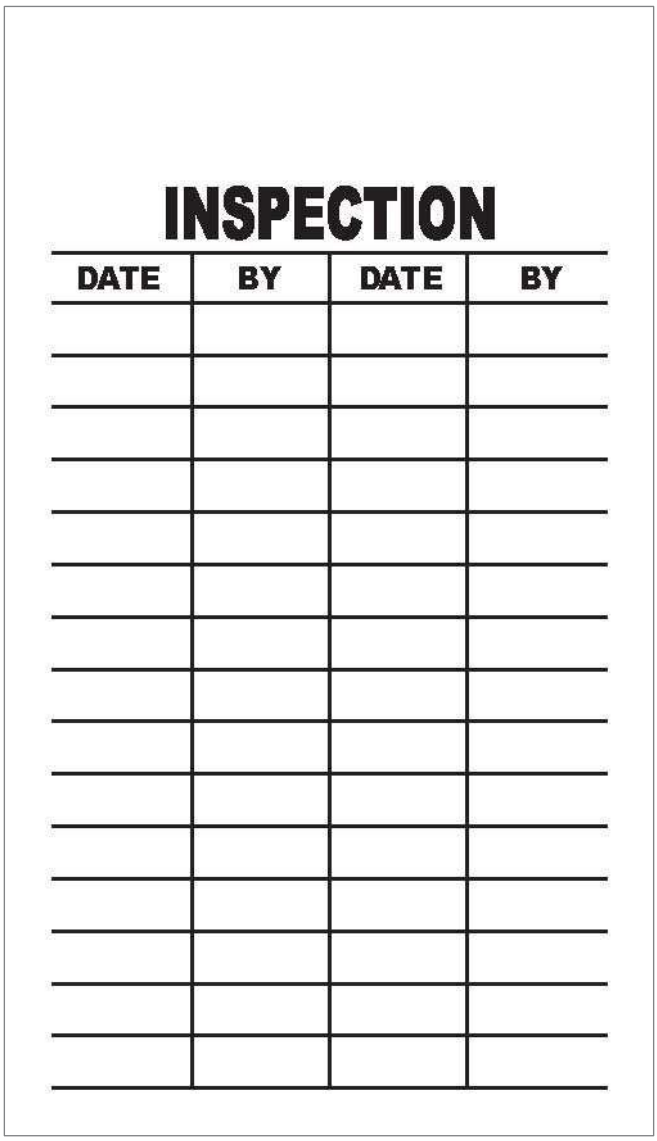
- Have completed the scaffold safety training course conducted by a qualified person.
- Completed a PTP, follow all safe work practices, and use proper PPE associated with the scaffolding.

APPENDIX S

SCAFFOLD TAGS: GREEN

FRONT

BACK



APPENDI X T

SUBCONTRACTOR WEEKLY INCIDENT SUMMARY REPORT

Project Name:

Subcontractor Name: _____

Sub-Tier Subcontractor To: _____

Reporting Period: **Month:** _____ **Year:** _____

This form must be submitted to Layton Construction every Monday. It is to be submitted even if no accidents occurred.

NOTE: Subcontractors that fail to submit this report may not receive payment.

DIRECTIONS: *Report all injuries, no matter how minor as indicated below!* When reporting number of OSHA recordable medical cases that had lost work days, enter number of calendar days away from work (do not count first day of injury, but the weekends must be counted). Carry over days from a previously reported lost time case where the worker is still off work in this reporting period. Report the number of OSHA recordable medical cases that had restricted or light duty work and the total number of calendar days or restricted or light duty (do not count the first day of injury, but the weekend must be counted). Carry over days from a previously reported restricted or light duty case where the worker is still on restricted or light duty. Report number of first aid only cases for period as well.

	Man-hours Worked	First Aid Injuries	Medical Treatment Only	Lost Time Injuries	Days Lost	Restricted Work Injuries	Days of Restricted Work
Week							
YTD							

Person Making Report: _____ Phone Number: _____

APPENDI X U

VOLUNTARY USE OF A DISPOSABLE RESPIRATOR

I, _____ am requesting to use a disposable paper filter respirator, also known as a Dust Mask for my personal comfort.

I will be performing the following work task: (Example Sweeping Floor, etc.)

_____

_____

I clearly described the task I am to perform to my supervisor or safety coordinator and upon evaluating the task they determined I should not be exposed to a hazardous chemical or substance.

I have been supplied the following Dust Mask:
Brand: Model:

I understand that the disposable dust mask is for personal comfort and not intended to protect me from a hazardous chemical or substance. I further understand the voluntary use is limited to the task described above.

Please read the following:

Appendix D to Sec. 1910.134 (Mandatory) Information for Employees Using Respirators When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirators use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substances does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern, NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

I HAVE READ THE ABOVE SECTION FROM THE OSHA STANDARD FOR RESPIRATORY PROTECTION AND UNDERSTAND ITS CONTENT. I FURTHER UNDERSTAND THAT I AM RESPONSIBLE FOR THE CARE, MAINTENANCE/UPKEEP, AND PROPER STORAGE OF THIS RESPIRATOR. INSTRUCTIONS ON THE PROPER WEAR WERE MADE AVAILABLE TO ME.

_____

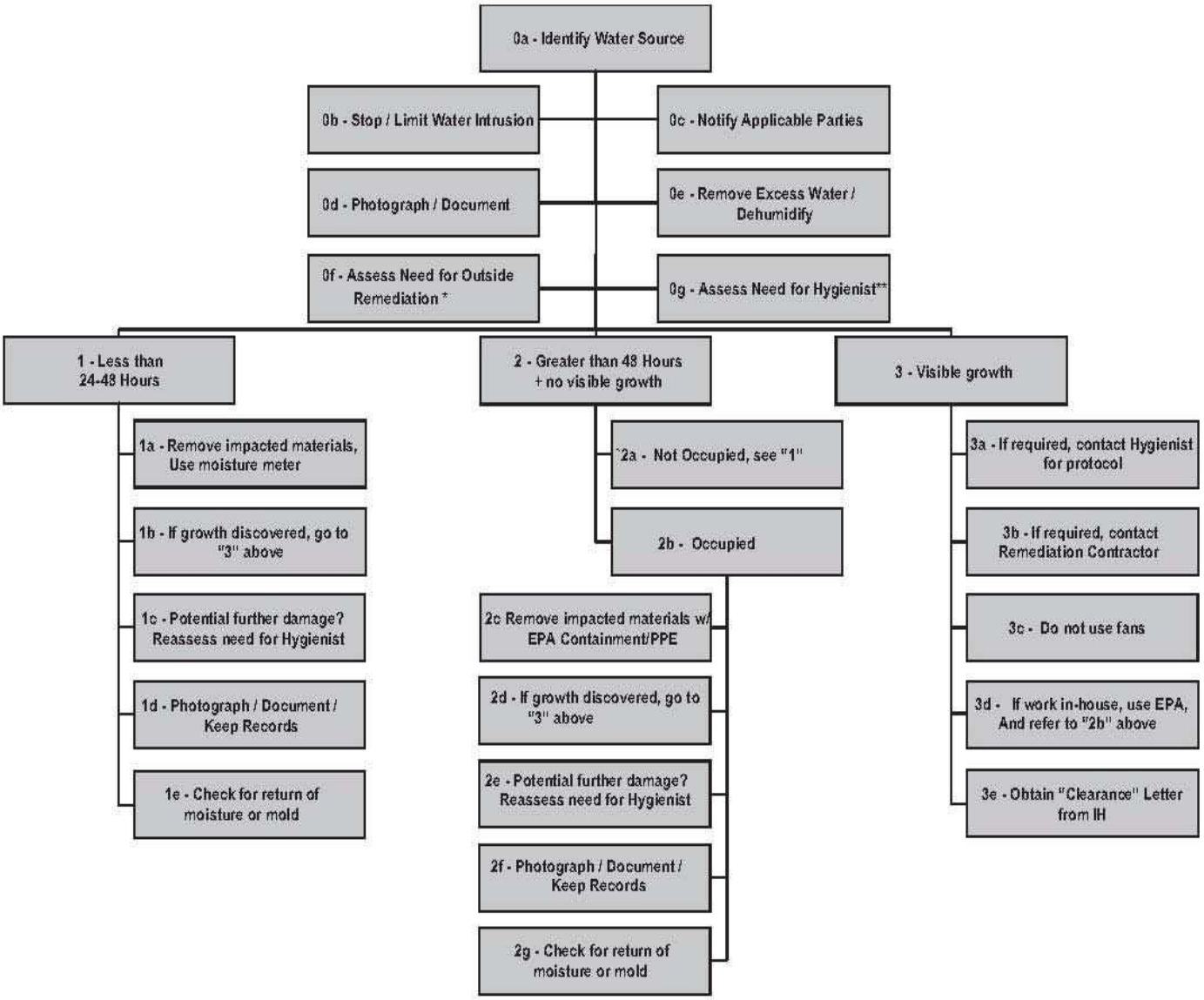
Signature: Date:

APPENDIX V

WATER INTRUSION RESPONSE PLAN FLOW CHART – POST CONSTRUCTION

* Requirement for Remediation Contractor varies by case and by General Contractor's capabilities. For early water damage, outside specialists may be necessary for larger events, where G.C. may not have resources to completely dry the building materials quickly.

** Requirement varies by size and occupancy. Protocols recommend hygienists at areas greater than 30 S.F., but in occupied buildings should be considered at 10 S.F. or smaller, depending on sensitivity of locations and occupants.



APPENDIX V

WATER DAMAGE RESPONSE GUIDELINES, MOLD REMEDIATION IN COMMERCIAL BUILDINGS:

TABLE 1: WATER DAMAGE - CLEAN UP AND MOLD PREVENTION	
Guidelines for Response to Clean Water Damage Within 24-48 Hours to Prevent Mold Growth*	
Water-Damaged Materials[1]	**Actions**
Books and papers	For non-valuable items, discard books and papers.
	Photocopy valuable/important items; discard originals.
	Freeze (in frost-free freezer or meat locker) or freeze-dry.
Carpet and backing – dry within 24-48 hours[2]	Remove water with water extraction vacuum.
	Reduce ambient humidity levels with dehumidifier.
	Accelerate drying process with fans.
Ceiling titles	Discard and replace.
Cellulose insulation	Discard and replace.
Concrete or cinder block surfaces	Remove water with water extraction vacuum.
	Accelerate drying process dehumidifiers, fans, and/or heaters.
Fiberglass insulation	Discard and replace.
Hard surface, porous flooring[2]	Vacuum or damp wipe with water and mild detergent and allow to dry; scrub if necessary.
(Linoleum, ceramic tile, vinyl)	Check to make sure underflooring is dry; dry underflooring if necessary.
Non-porous, hard surfaces (Plastics, metals)	Vacuum or damp wipe with water and mild detergent and allow to dry; scrub if necessary.
Upholstered furniture	Remove water with water extraction vacuum.
	Accelerate drying process dehumidifiers, fans, and/or heaters.
	May be difficult to completely dry within 48 hours. If the piece is valuable, you may wish to consult a restoration/water damage professional who specializes in furniture.
Wallboard (Drywall and gypsum board)	May be dried in place if there is no obvious swelling and the seams are intact. If not, remove, discard, and replace.
	Ventilate the wall cavity, if possible.
Window drapes	Follow laundering or cleaning instructions recommended by the manufacturer.
Wood surfaces	Remove moisture immediately and use dehumidifiers, gentle heat, and fans for drying. (Use caution when applying heat to hardwood floors.)
	Treated or finished wood surfaces may be cleaned with mild detergent and clean water and allowed to dry.
	Wet paneling should be pried away from wall for drying.

* If mold growth has occurred or materials have been wet for more than 48 hours, consult Table 1 guidelines. Even if materials are dried within 48 hours, mold growth may have occurred. Items may be tested by professionals if there is doubt. Note that mold growth will not always occur after 48 hours; this is only a guideline.

These guidelines are for damage caused by clean water. If you know or suspect that the water source is contaminated with sewage, or chemical or biological pollutants, then Personal Protective Equipment and containment are required by OSHA. An experienced professional should be consulted if you and/or your remediators do not have expertise remediating in contaminated water situations. Do not use fans before determining that the water is clean or sanitary.

1 If a particular item(s) has high monetary or sentimental value, you may wish to consult a restoration/water damage specialist.

2 The subfloor under the carpet or other flooring material must also be cleaned and dried. See the appropriate section of this table for recommended actions depending on the composition of the subfloor.

APPENDIX V

SAMPLE RECORD DOCUMENT

Contractor Abatement/ Mitigation Record
Post Flood or Water Intrusion Event Constractors:

Date	Location*	Describe How The Area Was Selected Pre-Abatement				Describe the Nature and Extent of Abatement							Describe How The Area Was Cleared Post-Abatement				Assigned/Responsible Subcontractors						Date Release To Owner
							Describe Equipment Used										#1		#2		#3		
																	Date(s)						
		Date	Visual	Instrument	% Moisture	Drywall Removed (SF)	Wet/Dry Vacuum (Hrs)		Dehumidify		HVAC or HEPA		Date	Air Samples	Visual	% Moisture	Assigned	Cleared	Assigned	Cleared	Assigned	Cleared	
							Mach. ID	(Hrs)	Mach. ID	(Hrs)	Mach. ID	(Hrs)											

PROJECT NAME: _____ SUPERINTENDENT: _____

PROJECT ADDRESS: _____ PROJECT MANAGER: _____

_____ SAFETY COORDINATOR: _____

DATE: _____ JOB#: _____ Page ____ of ____

SUPERVISOR'S WEEKLY SAFETY TOUR REPORT

LOCATION	JOB SITE CONDITIONS OBSERVED / CORRECTIVE ACTION TAKEN IF NECESSARY	DATE CORRECTED	CORRECTED BY

_____ _____

Superintendent Signature Date

APPENDI X X

WORK SITE SAFETY INSPECTION FORM

SUPERVISOR'S NAME: _____ **COMPANY:**

SPECIFIC AREA(S) INSPECTED: _____

INSTRUCTIONS: Performed by superintendent/foreman of work area responsible for. Work Site Safety Inspections will be maintained at project location and available for inspection by Layton Construction.

Pre-Work							
Y	N	NA		Y	N	NA	
☐	☐	☐	Pre-task safety plan communicated, understood and signed by each worker?	☐	☐	☐	All required permits obtained
☐	☐	☐	Pre-task safety plan posted in conspicuous place at work site?	☐	☐	☐	Clear access to work areas
☐	☐	☐	Workers physically ready for work?	☐	☐	☐	All training completed for work to be performed?
☐	☐	☐	MSDS Sheets obtained and available?	☐	☐	☐	

Personal Protective Equipment											
Y	N	NA		Y	N	NA		Y	N	NA	
☐	☐	☐	Hardhat bills forward	☐	☐	☐	Safety glasses with side shields	☐	☐	☐	Leatherwork Boot
☐	☐	☐	Face shields	☐	☐	☐	Burning goggles	☐	☐	☐	Welding hood and gloves
☐	☐	☐	Gloves	☐	☐	☐	Hearing Protection	☐	☐	☐	Reflective Vests

Fall Protection (100% Fall Protection Required at six feet or greater)											
Y	N	NA		Y	N	NA		Y	N	NA	
☐	☐	☐	Guardrail system checked	☐	☐	☐	Harness and lanyards checked	☐	☐	☐	Horizontal lifeline checked
☐	☐	☐	Floor Openings covered	☐	☐	☐	Roof Opening guarded	☐	☐	☐	Wall openings guarded
☐	☐	☐	Blue fencing up	☐	☐	☐	Netting checked	☐	☐	☐	

Ladders and Scaffolding											
Y	N	NA		Y	N	NA		Y	N	NA	
☐	☐	☐	Ladder tied off	☐	☐	☐	Ladder extended three feet	☐	☐	☐	Stepladders in open position
☐	☐	☐	Scaffold inspected and tagged	☐	☐	☐	Sections properly pinned	☐	☐	☐	Components not damaged
☐	☐	☐	Ladder access	☐	☐	☐	Handrail in place	☐	☐	☐	Planking secured

Housekeeping											
Y	N	NA		Y	N	NA		Y	N	NA	
☐	☐	☐	Material stacked orderly	☐	☐	☐	Trash cans in work area	☐	☐	☐	Debris removed
☐	☐	☐	Cords and hoses off floor	☐	☐	☐	Access maintained	☐	☐	☐	

Hoisting and Rigging Equipment											
Y	N	NA		Y	N	NA		Y	N	NA	
☐	☐	☐	Daily crane inspection	☐	☐	☐	One-eye per hook	☐	☐	☐	Sling/chokers stored
☐	☐	☐	Qualified rigger named	☐	☐	☐	Safety latch on hook checked	☐	☐	☐	Cranes flagged off
☐	☐	☐	Slings/chokers inspected	☐	☐	☐	Knowledge of crane signals	☐	☐	☐	Lift zone designated

Mobile Equipment											
Y	N	NA		Y	N	NA		Y	N	NA	
☐	☐	☐	Seatbelts used	☐	☐	☐	Workers trained	☐	☐	☐	Equipment inspected

APPENDI X X

☐	☐	☐	Backup alarms working	☐	☐	☐	Spotters used when needed	☐	☐	☐	
											Excavations
Y	N	NA		Y	N	NA		Y	N	NA	
☐	☐	☐	Competent person named	☐	☐	☐	Shore/shield/slope/bench proper	☐	☐	☐	Excavation checked daily
☐	☐	☐	Proper access/egress	☐	☐	☐	Spoil pile 2' from edge	☐	☐	☐	Workers trained
											Temporary Barricades
Y	N	NA		Y	N	NA		Y	N	NA	
☐	☐	☐	Proper tape used (Red-Danger, Yellow-Caution)	☐	☐	☐	All sides of work area barricaded	☐	☐	☐	Barricade removed or disposed of properly
											Electrical
Y	N	NA		Y	N	NA		Y	N	NA	
☐	☐	☐	Cords checked for damage	☐	☐	☐	Current inspection color on cords	☐	☐	☐	GFCI working
Comments											
INSPECTION PERFORMED BY:								TITLE:			DATE