



# SAFETY and HEALTH

## Manual

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# Statement of Policy

Hurst Construction, LLC is committed to always providing a safe workplace with policies that promote a high standard of employee health and safety, while delivering the highest quality of service. With this commitment, it is our company's intent to maintain both a Safety Program and Substance Abuse Program. Our employees will conduct themselves and their work in a safe manner consistent with good construction practices.

Responsibility for a safe work environment is that of the entire company. Safety hazards will be monitored by on site superintendents, carpenters, apprentice-carpenters, laborers, and office personnel.

With these basic objectives in mind, the following will be our program to maintain a high standard of safety.

Each jobsite is provided a safety package which enables superintendents to maintain our safety program with regards to accident prevention, practicing work habits consistent with our trade, and monitoring the condition of tools and equipment.

To further support our safety efforts, we adhere to OSHA requirements, and our Substance Abuse Program assures our customers that we are providing a drug free work force.

Hurst Construction, LLC

Todd Hurst

Owner

# Administration

## **Duties of the Superintendent**

The responsibilities of the Hurst Construction, LLC Superintendent includes but are not limited to the administration and implementation of the safety program for any Hurst Construction, LLC Project.

## **Duties of Carpenters & Laborer's**

Assist the Superintendent in the discharge of safety duties.

## **Duties of All Employee's**

Comply with all safety regulations applicable to his/her own conduct.

Comply with all safety orders and instructions issued by his/her supervisor. Report all injuries, accidents, and recognized safety hazards to his/ her supervisor.

Assist supervisors in implementing the Safety Program.

## **Subcontractors Safety Responsibility**

All Subcontractors shall be held responsible for initiating and maintaining an effective Safety Program at any Hurst Construction, LLC job site.

# Accident Reporting and Recordkeeping

## HAZARD REPORTING

Subcontractors and employee's observing safety hazards or violations of safety rules and regulations that are beyond their ability or authorization to correct or control shall report them promptly to Superintendents for investigation and correction.

## CLAIM AND ACCIDENT REPORTING

All Subcontractors at the project site shall fill out the proper forms if an incident occurs.

All claims and accidents whether they be an employee injury or a general liability incident shall have a Report completed and turned in to Hurst Construction, LLC.

Each contractor shall comply with recording and reporting of accidents and illnesses as required in the OSHA "Record keeping Requirements under the Occupational Safety and Health Act of 1970".

## SAFETY PLANNING AND COORDINATION

Hurst Construction, LLC, shall include safety planning in coordination meetings with Subcontractors at the project site. Such planning shall include a review of the construction methods, tools, equipment, Material Safety Data Sheets (MSDS) of the products to be used, protective equipment and personnel assigned to the task. The purpose of the review shall be to determine any potential unsafe conditions or acts inherent in the work and which safety rules or regulations may be applicable to control the hazards. Subcontractors shall conduct similar safety planning internally with their respective personnel. Supervisors

and foremen shall communicate this safety planning relating to the work to all employees when making work assignments.

### **SUBCONTRACTOR'S "TOOL BOX" SAFETY MEETINGS**

Subcontractor's safety meetings shall be held on a weekly basis (every week). Safety meeting attendance sheets will be copied to Hurst Construction, LLC project staff as a part of the weekly contractor coordination & safety meeting. Second Tier Subcontractors employed by Hurst Construction's Direct Subcontractor at the project site will also hold weekly "Tool Box" safety meetings with their respective work crews. Subcontractors are required to schedule and conduct regular safety meetings with their personnel. It is essential to the overall coordination of job safety that contractors conduct such meetings to disseminate to their personnel information and instructions as outlined in the Hurst Construction, LLC safety and health manual. Subcontractors shall make written reports of their safety meetings showing date, attendance, and topics reviewed. Reports shall be retained by the Subcontractors / Second Tier Subcontractors and submitted to Hurst Construction, LLC staff. Where foremen find employees engaged in unsafe acts or working in unsafe conditions, the foremen shall instruct the employees on an individual basis on the nature of the hazard, safety regulations violated, and required immediate corrective action.

### **SAFETY COMPLAINTS**

So as to ensure maximum participation of all employees in the safety effort at the project and to minimize the possibility of OSHA complaint inspections, each subcontractor shall implement the safety complaint procedure.

Hurst Construction, LLC and/or The Subcontractor are responsible for accident reporting and recordkeeping for their employees. A copy of all accident and/or incident reports must be turned into Hurst Construction, LLC within 48 hours of accident/incident.

The following reports and records are required:

#### **1. SUBCONTRACTORS ACCIDENTAL INJURY AND ILLNESS REPORT**

Any accidental, work related injury or illness occurring to an employee who requires the services of a physician, nurse, medical clinic, or hospital shall be reported by phone to Hurst Construction, LLC. Then proper personnel will prepare all required and necessary written reports.

#### **2. OSHA FORM NO. 301 – Injury and Illness Incident Report**

OSHA requires each reportable injury or illness to be recorded on their Form No. 301.

#### **3. OSHA FORM NO. 300 - LOG OF OCCUPATIONAL INJURY AND ILLNESSES**

Each reportable occupational injury or illness must be recorded on the Log within six (6) workdays after learning of its occurrence. The Log shall be prepared in the Corporate Office according to instructions on the reverse side of the form. Do not post the log but retain it. A separate Log must be kept for each calendar year. At the end of the year, this form is to be posted as an Annual Summary

#### **4. OSHA REPORT FOR FATALITIES AND DISASTERS**

Any accident resulting in a fatality or hospitalization of three (3) or more employees must be reported immediately to Todd Hurst. Make this report by phone. Notify any Hurst Construction, LLC office personal at once.

A list of addresses and phone numbers of OSHA Area Offices appear on OSHA's Website [www.osha.gov](http://www.osha.gov) for Record keeping Requirements.

## 5. PUBLIC LIABILITY REPORTS

All accidents resulting in injury to members of the public, or damage to public or private property, or vehicles, shall be reported by phone at once to Hurst Construction, LLC.

Subcontractor/ Hurst Construction, LLC employees will prepare all required and necessary written reports and provide copies to Hurst Construction, LLC office personnel.



## **GENERAL REQUIREMENTS FOR ALL EMPLOYEES AND SUBCONTRACTORS**

- 1. Failure to comply with Occupational Safety and Health Administration standards, state safety regulations, all other federal laws and standards, and Hurst Construction, LLC rules may be cause for dismissal.**
- 2. Possession or use of any alcohol, mind-altering drugs, or other controlled substance will be cause for immediate dismissal. Gambling, fighting, horseplay, or carrying firearms or other weapons on the job or in areas under company control will be cause for dismissal.**
- 3. Hard hats will be worn at all times, while in the construction area; unless deemed unnecessary by Hurst Construction, LLC Superintendent, due to progress of project. We do not allow painted hard hats nor is alteration of the hat or suspension permitted. Metal hard hats are not permitted.**
- 4. Proper eye protection (safety glasses) will be worn when cutting, welding and grinding or where operations present potential eye or face injury.**
- 5. Proper respiratory equipment will be worn when required.**
- 6. Employees must report all injuries and illnesses, damage to machinery or equipment, near-miss incidents, suspected or identified hazards and unsafe conditions in the work place to a Hurst Construction, LLC supervisor immediately.**
- 7. If there is an on-the-job injury requiring medical attention, you will be sent to a physician. Failure to follow this procedure will be cause for dismissal.**
- 8. You are to report for work rested and physically fit to do your job.**
- 9. Wear approved safe footwear that is in good condition for your job. Rubber soles are preferred with a nonskid, puncture-resistant sole.**

10. Always wear clothing that is suitable for both the weather and your work. Torn or loose clothing and shirt tails worn outside trousers may become entangled or pulled into moving parts of machinery, tools, and equipment and are not permissible. Employees must be fully dressed in the workplace always.

11. Use gloves, aprons, or other suitable skin protection when handling rough materials, chemicals, and hot or cold objects. Replace when worn or damaged.

12. Jewelry (bracelets, neck chains, etc.) should not be worn for the same reasons as mentioned in # 10 listed above.

13. Good housekeeping and fire prevention regulations will be maintained always. Keep your work area and the entire workplace as clean as possible. Never bypass a spill or debris without ensuring it is cleaned up. Employees are responsible for the housekeeping and cleanliness of their individual work areas.

14. Refuse piles must be removed from work areas each day.

15. All equipment with moving parts will only be operated with guards in place. Never remove a machine guard or attempt to defeat its purpose.

16. Do not ride equipment loads, hooks, or headache balls. You are to remain seated with arms and legs inside the body of the moving vehicle.

17. Defective power or hand tools will not be used.

18. Only qualified operators will operate equipment, switches, valves, or other machinery.

19. All safe practices will be followed in hoisted or suspended loads.

20. Listen carefully to instructions. If you do not understand them, ask before starting work.

21. Follow instructions on all signs, posters, or hazard bulletins posted or issued on the job.
22. Learn to lift properly. Bend the knees, keep the back erect, and lift with the legs. Get help with heavy loads.
23. Explosives, flammable materials, electrical equipment, heating devices, compressed air, and pressure vessels will be handled according to OSHA, Federal and State laws.
24. Pile and/or remove pile materials carefully.
25. Make sure ladders are in good condition, set firmly and secured in place.
26. Use tools only for their intended purposes.
27. Do not start or move machinery, operate valves, or change electric switches until you have determined that doing so is safe (Lockout/Tag out procedures).
28. Do not repair or adjust machinery while it is in operation. Never oil or clean moving parts. Never attempt to make unauthorized repairs or perform unauthorized service or maintenance on any machinery, equipment, or facilities. All equipment or machinery in need of repair must be tagged, removed from service, and reported to a supervisor immediately.
29. Do not disconnect air hoses at compressors until the line has been bled. Do not use more than 30 psi to blow down or for cleaning. Never turn compressed air on yourself or others.
30. Never work under vehicles or equipment supported by jacks or hoists without protective blocking.
31. Remove nails from lumber or bend them over.

32. Keep loose materials off stairs, walkways, ramps, platforms, etc. Never store anything on a stairwell. Never take more than one step at a time when using stairs and always have one hand free for the handrail.
33. Have safe access to work areas. The safe way is the right way.
34. Do not block walkways, traffic lanes, or fire exits.
35. Avoid short cuts. Use ramps, stairs, walkways, ladders, etc. Always use prescribed passageways.
36. When entering different work areas, familiarize yourself with hazards and required safety precautions.
37. Be sure of your footing. Watch out for stumbling hazards and fall hazards.
38. Be consistently aware of work going on around you and your surroundings. Keep clear of overhead work, suspended loads, traffic areas, etc.
39. Always have sufficient lighting on stairs, in walkways, basements and other work areas.
40. Place barricades and signs to warn of traffic, overhead hazards, pinch points, floor openings, etc. Use a flagman or watchman if necessary.
41. Place fencing or barricades around excavations and floor openings or cover them.
42. Fall Protection must be in place at all times when working 6 feet or more above ground level or a lower level with the exception of Ladders and Steel Erection where an alternative Fall Protection Plan must be devised prior to erection and must be submitted within the Written Steel Erection Plan.
43. Never remove material that is being used for accident prevention or a safety barrier, such as barricade tape, safety cones or pylons, lockout

or tag-out labels unless the potential hazard no longer exists and your supervisor has advised you that it is permissible to do so.

44. Never attempt to catch falling objects.

45. Each employee is directly responsible for proper care of company property, equipment and vehicles in his or her charge either temporarily or permanently.

**Such equipment will be used in a safe and proper manner always.**

46. Employees are required to attend scheduled safety meetings. Employees will be expected to demonstrate that they can perform their job assignments safely and without risk to themselves or others.

47. Employees are required and expected to follow all safety-related rules and regulations while on the premises of this company and when performing duties or acting for this company.

48. Employees must never put themselves or other workers at risk.

49. We will never expect that employees perform duties, tasks, or jobs that put them or others at risk. Employees assigned to perform such tasks must report their concerns to a supervisor immediately.

# **HEALTH HAZARDS & ENVIRONMENTAL CONTROLS**

## **GENERAL REQUIREMENTS**

### **MAINTENANCE OF SAFETY INSTALLATIONS:**

Safety rules and regulations established for the project site require certain safety installations to be provided by the Subcontractors and/or its second tier subcontractors.

Such installations may include, but not be limited to the following:

1. Guardrails
2. Safety Nets, both horizontal and vertical.
3. Overhead protection.
4. Temporary fire protection.
5. Signs and Posters.
6. Temporary lighting.
7. Rubbish Containers.
8. Communication systems, signals and alarms.

Subcontractors and their workers shall respect all such installations and fully cooperate in their maintenance. Where an employer must remove or relocate safety installations to facilitate the work, the employer shall provide an alternate means of protection for its employees during the work.

Where safety installations must be removed or relocated on a large scale, or for extended periods of time, or permanently, or the contractor does not have the means of reinstallation, the contractor shall make advance arrangements for coordination with Hurst Construction, LLC.

## **HOUSEKEEPING**

***Poor housekeeping on construction projects creates unsafe walking and working conditions due to tripping hazards, but is an ever-present fire hazard due to the flammable and combustible nature of most construction debris.***

All Subcontractors shall participate in the housekeeping program established by Hurst Construction, LLC at the start of the project. Responsibilities for clean up and removal of debris will be distributed to all involved in the project.

The following housekeeping rules shall be enforced:

1. Make certain that all subcontractors understand their contractual obligations for clean up and removal of their debris, Hurst Construction, LLC will enforce contractual requirements.
2. Plan ahead and set up schedules for prompt emptying of rubbish containers. Full containers shall be emptied promptly and replaced with empty containers. Allow sufficient time in schedules for rubbish removal.
3. Hoses, extension cords, welding leads, etc., should be placed in such a manner not to create a tripping hazard.
4. Combustible or flammable debris shall be cleaned up and removed on a daily basis. Accumulations of this type of debris are prohibited.
5. Construction debris shall be cleaned up daily.
6. In no case shall construction debris be permitted to become strewn or accumulated in occupied areas outside of construction areas. Debris produced from construction activities in such areas shall be cleaned up and removed as it is produced. The following areas shall be kept clear of debris at all times:

- Walkways

- Aisles
- Stairways
- Ladder ways
- Ramps
- Loading docks
- Entrance lobbies and landings
- Entrances to the project

7. When debris is dropped through holes or openings in a floor without the use of chutes, the area onto which the debris is dropped shall be completely enclosed with barricades not less than 42 inches high and not less than 6 feet back from the projected edge of the opening above. Employees shall not enter the area while debris is being dropped.

8. All debris shall be kept back at least 10 feet from the open sides of floors and at least 6 feet back from the edges of floor openings until cleaned up and removed.

9. Nails may not be left protruding from lumber removed.

10. Oil and grease spills shall be cleaned up at once.

11. Where sweeping of debris from floors may create dusty atmospheres, sweeping compound shall be used or the floors sprinkled with water, whichever is required to reduce dust in the atmosphere to acceptable levels. Workers shall wear the appropriate Personal Protective Equipment (PPE) such as dust masks when required when performing sweeping operations.

12. Where openings to rubbish chutes may permit materials to ricochet or fly out of the openings or where the openings present a falling hazard to employees, the opening shall be equipped with a cover of 3/4-inch plywood or its equivalent or with a 2" X 4" bar across the opening. Covers or bars shall be kept in place when the opening is not in use.



Where the openings are large enough to admit a wheelbarrow, a substantial wheel stop shall be installed on the floor in front of the openings.

13. Where employees may be required to enter into chutes or under the bottom discharge of chutes to clear blockages, make repairs to the chute, arrange debris in containers or switch containers, etc., an adequate warning system shall be provided to prevent others from dumping debris down the chute onto employees below.

***An example system may consist of the following:***

*A string of green lights installed on the chute with one light at each opening. Lights must be on at all times when chute is safe for use. Lights are to be turned off when the chute is not safe for use. Post a sign at each opening instructing employees not to use the chute unless the green light is on. When employees must enter into or under the chute, turn off the light.*

14. In no case shall the bottom discharge of a chute be left in such a condition as to permit employees to inadvertently walk or enter under the open end. When there is no rubbish container under the chute, the area under the discharge shall be barricaded as described in Item 7 above.

15. Where construction activities take place in occupied areas, outside of regular construction areas, and the work cannot be isolated, only such tools, equipment and materials as may be immediately used shall be permitted. One employee shall serve as flagman to warn occupants of the hazards and direct them away from or around the work.

16. Construction materials and equipment shall not be stored in occupied areas outside of construction areas.

17 Where construction materials, tools, supplies and equipment must be moved through occupied areas, one employee shall serve as flagman to

warn occupants of the hazards and direct them away from or around the move.

## **WORK IN OCCUPIED STRUCTURES**

All Subcontractors construction activities taking place in or close to occupied structures create special safety hazards for the occupants, increasing our exposure to liability claims. All Subcontractors must be aware that occupants are unfamiliar with construction processes and that special controls are required for the safety of the structure and its occupants.

All Subcontractors shall review in advance all construction work in occupied structures which may create safety hazards for the occupants or the structure with the building manager. Safety controls shall be reviewed at the same time. This will allow all parties to safely coordinate their work and permit building management to implement their own safety controls and notify occupants.

Where any Subcontractors do any work in occupied structures which may require any of the controls set forth below, the work shall not proceed without approval of the General Contractor at least 24 hours in advance of the work.

## **ENVIRONMENTAL CONTROLS FOR OCCUPIED STRUCTURES**

1. Where occupants may be exposed to excessive noise and vibration, alternate methods and equipment may be employed. Tools, machinery and other construction equipment with special mufflers and sound silencing accessories are available for use in such circumstances.

Where feasible, the work may be scheduled to off hours so that occupants are not adversely affected by the work.

2. Where occupants may be exposed to welding flashes, laser beams, or other forms of radiation, the work shall be screened.

3. Where occupants may be exposed to contaminated atmospheres due to gases, vapors, fumes, dusts, mists, or odors, the work shall be isolated from occupied areas by temporary closures or the affected areas ventilated by natural or mechanical means as required to reduce the exposure.

*Where occupants of the structure may be exposed to the build-up of flammable or combustible atmospheres, natural or mechanical ventilation shall be employed to reduce the exposure. Sources of ignition in the affected areas shall be eliminated. See section below on Fire Prevention and Protection for other requirements.*

4. The use of equipment powered by internal combustion engines inside of closed structures is prohibited.

5. Where fire or smoke alarms may be set off due to construction activities, the Prime/Trade Contractor shall coordinate the work with the building management to prevent false alarms. Coordination may require the temporary isolation or shutting down of alarm systems.

6. Where smoke, fumes, odors, etc. from construction activities may be dispersed into occupied areas through air intakes, air handling systems, etc., the Superintendent shall coordinate such activities with the building management to control the hazard. Coordination may require the closing of intakes or shutting down air handling systems.

## **CLOSURES AND BARRICADES**

1. Construction areas and activities in occupied structures shall be isolated from occupied areas by the installation of temporary partitions, fences, barricades or other means as required to prevent unauthorized or inadvertent entry by occupants.

2. All temporary closures shall be free of projections which may present tripping hazards to occupants, or upon which they may become snagged, impaled or bumped into.

3. Doors or gates equipped with locking devices shall be installed at all points of entry to construction areas and shall be closed and locked during non-working hours.

# **TOOLS** General Information

1. When power operated tools are designed to accommodate guards, they shall be equipped with such a guard when in use.
2. Belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains or other reciprocating, rotating or moving parts of equipment shall be guarded, if such parts are exposed to contact by employees or otherwise create a hazard.
3. All hand held power operated tools shall be equipped with constant pressure switches that will shut off the power when the pressure is released.
4. The wooden handles of tools shall be kept free of splinters and cracks, and shall be kept tight in the tool. Taping of handles is prohibited.
5. All hoses for compressed air exceeding 1/2 inch inside diameter, shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure.
6. Only employees who have been trained in the safe use of the tool shall be permitted to operate a powder-actuated tool.

## **POWDER ACTUATED TOOLS**

1. Only properly trained, qualified operators shall use powder-actuated tools. A listing of qualified operators shall be maintained on file in the Prime/Trade Contractor or Subcontractor's office. Each qualified operator will carry a valid manufacturer's certification card at all times while working on the Hurst Construction, LLC Site.
2. Powder actuated tools shall be kept in their respective cases when not use.
3. Tools shall be tested before each use to ensure that safety devices are in proper working condition, that the tool is clean, that all moving parts operate freely, and that the barrel is free of obstruction. Any tool not in working order or that develops a defect while in use, shall be immediately removed from service and tagged unsafe. Such tools shall not be issued for use until competent, trained personnel have made proper repairs.
4. Prior to the testing of any powder-actuated tool, employees shall ensure that tool is not loaded.
5. Safety glasses shall be worn by the operator and assistant during powder actuated tool operation. Full-face shields shall be worn if there is danger of flying plaster, wood, metal or concrete.
6. A loaded tool shall never be carried on the work site. Tools shall always be left unloaded until ready for actual use.
7. The tool shall never be pointed at anyone, whether loaded or unloaded, and hands shall be kept clear of the muzzle end.
8. Powder actuated tools shall never be stored or used in explosive atmospheres, in the vicinity of highly flammable materials, or in any area where non-sparking tools are required.
9. The tool shall be held firmly against and perpendicular to the surface to which it is applied.
10. Manufacturer's recommendations should be sought if there is any doubt about the fastening application. Most recommend against driving into very

hard or brittle materials such as cast iron, glazed tile, surface hardened steel, glass block, live rock, face brick, hollow tile and similar materials.

11. To prevent flying hazards, no stud or attachment shall be driven without first ensuring it will not pass completely through the material being driven into.

12. Fasteners driven by standard velocity tools should not be driven directly into masonry materials closer than one-half ( $1/2$ ) inch from the corner edge.

13. Low velocity piston tools using fastener shank diameters of five thirty-seconds ( $5/32$ ) of an inch or less may be driven no closer than two (2) inches from an edge in masonry or one-quarter ( $1/4$ ) inch in steel.

14. Fasteners should not be driven into a spalled area such as where a previous fastener has failed, or into a very rough concrete or through predrilled or prepunched holes.

15. In the event of a misfire, tools shall not be removed from the working surface for 15 seconds. The cartridge shall be removed from the tool before lifting it from the surface.

16. In the event of jamming, miss-fire or obstruction in the bore of the tool, follow the manufacturer's recommendations for clearing. An obstructed bore shall never be cleared by firing another cartridge or stud and cartridge assembly.

17. For the applications requiring the fastening of clips, brackets, tracks, etc., special shields, fixtures or adapters should be used.

18. Only fasteners which are specially designed and manufactured for use in powder actuated tools shall be used.

19. An operator's instructions manual should always be kept in the carrying case for the specific tool being used. This manual should be used for reference when necessary, concerning proper operation, service, etc.

## **CONCRETE**

1. Unless otherwise specified by the contract, the concrete subcontractor is responsible for implementation of all safety requirements set forth in this Manual on all floors and formwork under his control until turned over to and accepted by Hurst Construction, LLC. The superintendent shall place particular emphasis on enforcing compliance with requirements in the following section of the Manual:

- a. Guard Rails
- b. Ladders
- c. Housekeeping
- d. Material Storage
- e. Fire Prevention and Protection
- f. Overhead Protection
- g. Scaffolds
- h. Safety Nets

2. Employees shall not be permitted to work above vertically protruding reinforcing steel unless it has been protected to eliminate the hazard of impalement.

3. Employees working more than 6 feet above adjacent working surfaces placing and tying reinforcing steel in walls, tiers, columns, etc. shall be provided with a safety harness and tie off while aloft on the steel.

4. Reinforcing steel for walks, tiers, columns and similar vertical structures shall be guyed and supported to prevent collapse.

5. Handles on bull floats, used where they may contact energized electrical conductors, shall be of nonconductive material, or insulated with a nonconductive sheath.



6. Where employees may work or pass below operations involving the stripping and removal of concrete formwork and shoring, the following precautions shall be observed:

a. All loose debris, material, and equipment shall be removed from formwork before stripping the form.

b. Only those employees involved in the work shall be permitted in areas where formwork and shores are being removed.

c. Areas below operations involving the stripping or removal of forms or shores shall be roped off, barricaded, or guarded by a flagman to prevent employees from entering in under the operations.

## **EXCAVATIONS**

Hurst Construction, LLC requires the following for excavation work:

1. Prior to opening an excavation, effort shall be made to determine whether underground installations; i.e., sewer, telephone, water, fuel, electric, gas lines, etc. will be encountered, and if so, where such underground installations are located. When the excavation approaches the location of such an installation, the exact location shall be determined, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies, authorities and if necessary Local Municipal Agencies shall be contacted and advised of proposed work prior to the start of actual excavation.
2. Any subcontractor involved excavation activities, shall comply with OSHA's excavation law 1926.650, 1926.651, 1926.652 and 1926.653, shall obtain a soils report that will determine the classification of the ground to be excavated. Soil conditions may only be classified as Stable Rock, Soil A, Soil B and Soil C.
3. A copy of the soils report must be kept onsite during excavation operations. A copy of the soils report must be forwarded to the Hurst Construction, LLC Project manager before excavation operations begin.
4. The walls and faces of all excavations in which employees are exposed to danger from moving ground shall be guarded by shoring, sloping to the proper angle of repose, or some other equivalent means.
5. The determination of the angle of repose and design of the supporting systems shall be based on careful evaluation of pertinent factors such as type of soil; possible variation in water content of the material while the excavation is open; anticipated changes in materials from exposure to air, sun, water, or freezing; loading imposed by structures, equipment, overlying material; and vibration from equipment, traffic, or other sources. The soils report shall be used as a guideline for cutting back the excavation sides to the proper angle of repose. Any shoring system being used on excavations 20' deep or less should use the suggested

design systems as offered in the OSHA standard. Any shoring systems that are deeper than 20' or are different than the suggested OSHA designs shall have drawings on them. These drawings must be stamped by a in state P.E. Again copies of the shoring system drawings must be on site during the excavation activities with a copy given to Hurst Construction, LLC.

6. All subcontractors or its second-tier subcontractor firm completing the excavation work shall have a Designated Competent Person on site during excavation operations. The excavation shall be inspected before and during excavation activities, after every rainstorm or other hazard-increasing occurrence.

**NOTE:** Subcontractor's Designated Competent Person shall be familiar with OSHA Excavation Laws and have the authority to stop work in the excavation at any time.

7. All excavations 4' deep or more shall require a means of egress every 25'. This means of egress may be a ladder, stairways or ramp.

8. In excavations which employees may be required to enter, excavated or other material shall be kept back at least 2 feet from the edge of the excavation.

9. Water shall not be allowed to accumulate in an excavation. Diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering an excavation and to provide adequate drainage of the area adjacent to the excavation.

10. Adequate physical barrier protection shall be provided at all remotely located excavations into which persons may fall and not be able to climb out because of steepness of sides. Wells, pits, shafts, etc., shall be barricaded or covered.

11. Walkways and ramps over excavations shall be constructed of 2 inch planking, or equivalent, on strong stringers, with guardrails on both sides.

12. If it is necessary to place or operate excavating machinery or trucks on a level above and near an excavation, the side of the excavation shall be sheet-piled or shored, and braced as necessary to resist the extra pressure of such superimposed loads.

13. When mobile equipment is used or allowed adjacent to excavations, substantial stop logs or barricades shall be installed.

14. Sides of trenches more than 4 feet deep shall be shored or sloped back to the angles of repose.

15. Portable trench boxes or sliding trench shields may be used for the protection of employees in lieu of shoring or sloping. They shall be designed and constructed to provide protection equal to or greater than shoring required for the trench.

16. Open excavations in the public way shall be securely covered over with 2" planking, or 3/4 plywood or its equivalent, or guarded on all open sides with a standard guardrail during non-working hours.

17. All pits, shafts, or steep sided excavations shall be covered with 2" planking or 3/4" plywood, or its equivalent or guarded with a standard handrail on all open sides during non-working hours.

## **DEFINITIONS**

1. An **excavation** is any man made cavity or depression in the earth's surface formed by earth removal, and producing unsupported earth conditions by reasons of the excavation.

2. A **trench** is a narrow excavation at least 4 feet deep and not over 15 feet wide.

3. The **angle of repose** is the greatest angle above the horizontal plane at which a material will lie naturally, without sliding.

**NOTES:**

1. Table P-1 in Subpart P of the OSHA Construction Regulations shows the approximate angle of repose for various types of soil conditions.
2. Table P-2 in Subpart P of the OSHA Construction Regulations shows minimum construction requirements for shoring in trenches.
3. For additional requirements for caisson work, see section "Environmental Controls".

**PROTECTION FROM LIVE SYSTEMS**

Prior to any work, that may accidentally interrupt live systems, (mechanical, electrical, sewerage, hydraulic, pneumatic, etc.); the subcontractor shall review and coordinate the work with the representative utility company, authority or Local Municipal Agency and with trades doing the work. Proper safeguards shall be implemented as required to prevent accidental interruption of such systems. Work requiring review and safeguards may include demolition and any blind penetration of floors, walls and ceilings. All live systems whether they are mechanical, electrical, sewerage, hydraulic, pneumatic, etc. shall be properly identified and location verified. In the event these systems may have to be temporarily shut down, the authorized representative from the utility company or Local Municipal Agency shall shut the system and when necessary, reactivate it.

**GENERAL NOTES**

1. For all excavations of trenches, which will exceed a depth of four feet, the Subcontractor's trench safety procedures shall meet the current standards established by OSHA on excavations, trenching, and shoring, all of which are incorporated herein by reference.

2. If details shown are not feasible due to unanticipated conditions, the Subcontractor shall notify the appropriate staff for re-evaluation.
3. These drawings assume all excavated areas remain free of water seepage or intrusion. Excavations shall be inspected after every storm or other hazard increasing occurrence to assure the continued safety of the trench. The Subcontractor shall seek guidance from the Trench Safety Engineer where needed.
4. When installing a support system, shoring will be applied by starting at the top of the trench excavation and working downward. All crossbeams, trench jacks, etc., will be placed in a true horizontal position. Support system removal shall begin at the bottom and proceed upward, performed from outside the trench.
5. Materials used for sheeting, sheet-piling, bracing, shoring, etc., shall be in good serviceable condition. Timbers used shall be sound and free from large or loose knots, shall be designed, and installed so to be effective to the bottom of the excavation.
6. Alternate design for use of steeper slopes of the use of supporting systems, i.e., piling, cribbing, shoring, etc., may be submitted by the Subcontractor for evaluation by the Trench Safety Engineer.
7. Slopes shown shall be the maximum unless changed by the Trench Safety Plan from Subcontractor due to changing soil conditions. Slopes shown are for a short-term period, if excavations are open for more than 24 hours, the Trench Safety Plan from subcontractor shall be revaluated.
8. Type "A" soil is a cohesive soil with an unconfined compressive strength greater than 3,000 psf. Type "B" soil is a cohesive soil with an unconfined compressive strength greater than 1,000 psf. and less than 3,000 psf. Type "C" soil is a cohesive soil with an unconfined compressive strength less than 1,000 psf., that is not flowing or submerged.