These are the things that get people hurt when they are not done properly.

Follow the Rules and Stay Safe!
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Please Be Advised:

1. THIS DOCUMENT IS PART OF THE CONTRACT SIGNED BY ALL CLAYCO SUBCONTRACTORS AND THEIR TIERED SUBCONTRACTORS WHEN PERFORMING WORK ON A CLAYCO PROJECT.

2. THE LATEST PUBLISHED VERSION OF THIS DOCUMENT IS CONSIDERED TO BE THE AUTHORITY OF RULES.

3. THE ITEMS OUTLINED IN THIS DOCUMENT ARE THE BASIC RULES GOVERNING SAFE WORK ON ALL CLAYCO JOBS.

4. THESE RULES MAY BE OVERRULED BY SITE-SPECIFIC RULES DETERMINED BY STATE, LOCAL, OWNER AND OTHER AUTHORITIES.

5. ANY VARIANCE FROM THESE RULES OR OTHER SITE OR OWNER RULES MUST BE SUBMITTED AND APPROVED BY CLAYCO BEFORE THEY ARE PUT INTO PRACTICE.

6. REFER TO CLAYCO’S WRITTEN PROGRAMS FOR FULL DETAILS.

7. THESE RULES ARE SUBJECT TO CHANGE WITHOUT NOTICE OR UPDATE TO CONTRACT.
Clayco’s Personal Assistance Service

Clayco offers our **Personal Assistance Service (PAS)** to all workers on Clayco jobs – including subcontractor employees! This free and confidential service can provide you with help in a number of areas including:

- Marital/relationship/family
- Stress management
- Substance abuse
- Anger/trauma/grief support
- Legal/financial
- Work/career

Take advantage of this free and confidential service when you need it! There is no shame in asking for help!

**CALL 1-800-356-0845**

*Let them know you are working on a Clayco project and your company name.*
Emergency Information

Clayco Safety Reporting Hotline 314-592-5643
Poison Control 800-222-1222

Please ensure you fully understand location specific emergency procedures. The basics to initiate an emergency at any location are as follows:

FOR AN EMERGENCY:
1. Dial 9-1-1 or designated emergency number:_________________
2. Give a brief description of the emergency
3. Give the location of the emergency
WRITE IN THIS SITE ADDRESS:_________________________________
_________________________________________________________________
4. Give your name and the phone number you are calling from.

LOCAL UTILITIES:

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>EMERGENCY PHONE #</th>
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<td>GAS</td>
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BE SURE TO KNOW:
Location of weather shelters:_____________________________________
Evacuation routes:_______________________________________________
How emergencies are communicated (alarms, sirens, etc):________________

pg. 4
Putting People Above All Else

work safe, live safe-24/7. safety. quality. focus. ethics.
Your personal safety and overall well-being is extremely important to us. The most important goal for any Clayco project is that you go home injury free every day so you are able to enjoy quality time with your family and friends. This code booklet outlines important safety requirements and expectations with the ultimate objective of creating a safe and healthy work environment for you and your co-workers to work in. Keep in mind, safety is everybody’s responsibility and it always starts with you! In order to help support the incident free safety culture we strive to achieve on every project and office, we need your active safety participation.

1. **PLAN YOUR WORK.** Participate in the daily PreTask Safety Analysis (PTSA) huddles with your crew. You must understand the potential hazards and precautions that must be taken for the tasks you are being asked to perform. Speak up if something is not clear to you or you have a concern. Do not perform any tasks that you feel you are not qualified and competent to perform. Make sure you fully understand the safe work plan for the day.

2. **USE STOP WORK AUTHORITY.** We all know even the best made plans may need to change. When this happens, **STOP THE WORK**, get with your supervisor and revise the plan. Remember to use your Stop Work Authority! If you see something unsafe, Stop The Work.

3. **EMERGENCY PROCEDURES.** Make sure you understand what to do and where to go in the event of a site emergency. Know the alarms and where the “muster” points are. Know how to initiate an emergency call.
4. PERSONAL PROTECTIVE EQUIPMENT (PPE). Clayco requires a minimum level of PPE that covers most situations. Sometimes, your work may require more protection. Use the best PPE for the work you are doing. Always try to eliminate the risk by engineering/design.

5. STAY ALERT AT ALL TIMES. Be highly aware of your surroundings at all times. A lot is moving on a construction site. Keep your “eyes on path” when walking. Safely look overhead when you see cranes or other overhead activity to prevent being under a load. Never cross DANGER tape unless given approval. Keep all of your body parts out the “line of fire” at all times to avoid being “struck or caught by” something. If you are able, correct hazards you see before they hurt you or others. If you cannot correct the hazard yourself, stop the work and report the hazard to your supervisor.

6. REPORT ALL INCIDENTS IMMEDIATELY. If something happens to you or a co-worker, get it reported ASAP so the situation can be properly managed as soon as possible. Report even minor injuries or near misses. This helps us learn about them so we can work to prevent them from happening again.

7. TOOLS AND EQUIPMENT. Have you been properly trained to use the tool or equipment you are being asked to use? If not, do not use it and talk to a supervisor. Make sure all safety devices are in place and in use during operations (e.g. guards, handles, safety triggers).
8. **100% FALL PROTECTION AT 6’ AND HIGHER.** Elevated work is considered high risk. Have you been trained in fall prevention? Do you know how to use fall protection if required? If not, seek the training needed. Tips: Are all holes covered securely? Are leading edges on roofs and other areas properly barricaded/protected? If leading edges cannot be hard barricaded, personal fall protection is required. Personal fall protection is also required at all times in all boom and scissor lifts (4’ lanyard or personal retractable).

9. **PROTECT YOUR BODY FROM STRESS.** There is physical and mental stress that can get put on our bodies and minds. Always participate in stretch and flex each day. Never lift over 50lbs alone. If the object is heavy/awkward, get help. Mechanical means, wheeled carts, dollies and other devices make material handling tasks must safer. Keep work close to the middle of the body. Avoid repetitive motion tasks such as working over-head or below the knee for long periods of time. Rotate jobs when possible. If you are feeling unusually fatigued, depressed, on edge, or are dealing with personal issues, please consider talking to someone about getting help.

10. **PREPARE FOR CHANGING JOB SITE CONDITIONS.** Watch out for your fellow workers – especially during hot/cold weather. Always use the “buddy system” when working. If co-workers appear to be struggling, take a break and get help. If you are struggling, don’t be afraid to ask for help. Dress appropriately, take breaks when needed and make sure you drink plenty of water. Always keep a close eye on the weather and possible impacts to you and your co-workers. Keep various types of gear and clothing accessible in case it is needed. Walking working conditions can change rapidly on a construction site. Slow down if needed to stay safe.
Statement of Work Place Conduct

Clayco has a long-standing commitment to the Golden Rule, otherwise known as the ethic of reciprocity, which means we believe that people should aim to treat each other as they would like to be treated themselves – with tolerance, consideration and compassion. This means all personnel representing Clayco, our subcontractors, our owners, our vendors and the general public are expected to be treated professionally through actions and language with dignity and respect at all times.

Threatening, intimidating, coercive, retaliatory or any other type of disruptive behavior will not be tolerated at Clayco projects or offices. This includes, but is not limited to sexual, racial, gender identity or any other types of harassment. Discrimination or harassment based on race, creed, color, sex, national origin, age, physical handicap or any other protected group is cause for discipline, up to and including immediate dismissal or subcontract termination. Discrimination and harassment can take many forms, but consists of unwelcomed verbal, physical or visual conduct based on any characteristic protected by federal, state or local law.

Physical fighting/assault and verbal assault, including “horseplay” between Clayco employees, subcontractor employees and/or any other persons will not be tolerated. This, too, will be cause for discipline, up to and including immediate dismissal or subcontract termination.
If you experience or witness any of this behavior, or are hindered from participating in the reporting process, please report it immediately to Clayco management. If necessary, you can call the Clayco Safety Reporting Hotline – 314.592.5643. Using this hotline, you can report issues directly to the Safety Department.

The following items are also critically important to the functionality of Clayco projects. Failure to attend to these items may result in disciplinary action up to, and including dismissal from site:

- Following the safe work rules outlined in this book and site-specific rules outlined in the site orientation
- Reporting all injuries and incidents to Clayco immediately
- Reporting all incidents of discrimination and harassment to Clayco immediately
- Avoiding the influence of drugs or alcohol on the job
- Attendance and punctuality every day
- Performing work of the highest quality and ability
- Appropriate use of technology and social media
- Appropriate use of company time and property

Subcontractors should also review Clayco’s Code of Business Ethics and Conduct and other Subcontract obligations identified in the applicable Subcontract and at www.claycorp.com/subcontractors.

If you ever have a question about any of these issues, please contact the Clayco project management team or the Clayco Safety Department using the hotline listed above.
Thank you for choosing to work with Clayco. The most important objective is to ensure you return home safely without injury every day.

The Clayco “Safe” Philosophy:

1. Nothing is more important than your safety.

2. Prevention of injuries and incidents is possible if everyone chooses to work safely.

3. Safety is an individual choice and responsibility.

4. Safety is a way of life 24/7.

5. Working safely is a condition of employment.

The rules and instructions contained in this booklet are for the protection and benefit of all employees on every Clayco jobsite. Violation of any safety rules will be sufficient grounds for immediate removal from project depending upon seriousness and/or repetition of the violation.

The rules contained in this booklet are the minimums for all Clayco projects. Local, State, Federal and/or Owner requirements may be more restrictive.
We need and expect your active participation in Safety to create a safe worksite culture by doing the following, at a minimum:

1. **Strictly adhere to and enforce all “Rules To Live By”**.

2. Participate in daily Pre-Task Safety meetings.

3. Report all injuries, property damage and “close calls” immediately.

4. Identify and correct any safety hazards – “You see it, You own it!”.

**OSHA VOLUNTARY PROTECTION PROGRAM (VPP)**

Clayco is an OSHA VPP Star company and as part of our Safety Philosophy, we follow the Four Elements of the VPP Program:

- Management Leadership and Employee Involvement
- Worksite Analysis
- Hazard Prevention and Control
- Safety and Health Training

The VPP requires Clayco to set and achieve the highest standards of safety excellence possible.
02 Discipline Policy

All violations of Clayco safety rules and procedures are subject to disciplinary action. However, the following “RULES TO LIVE BY” will be enforced with Zero Tolerance. Violations of these rules WILL result in documented reprimands. These rules apply when an employee is performing his/her task.

“RULES TO LIVE BY”

EYE PROTECTION
All personnel on site are to wear ANSI Z87 safety glasses at all times on Clayco jobs (including prescription eye-wear). Use of grinders, saws, and any work involving flying particles shall require the use of a face shield in addition to goggles and/or foam-lined glasses.

HEAD PROTECTION
Hardhats are required at all times (including welding), except when in break areas or equipment cabs.

HAND PROTECTION
Gloves are required to be worn at all times with the exception of tasks that physically cannot be performed while wearing gloves. MINIMUM RATING ANSI CUT LEVEL A5 & PUNCTURE LEVEL 2- IMPACT PROTECTION FOR: STEEL WORK ACTIVITIES AND TASKS WHERE THERE IS A RISK OF HANDS BEING “STRIked BY” OR “CAUGHT BETWEEN”.

FALL PROTECTION
100% Fall Protection is required on unguarded areas 6’ or higher (Including ALL work in scissor and boom lifts).
DAILY PRE-TASK SAFETY ANALYSIS
Completing and signing the daily PTSA outlining the steps of the task, the hazards, and the controls is required by all crew members, prior to beginning work.

SAFE WORK PERMITTING, PLANNING AND INSPECTIONS
Complete and obtain Clayco approval for Hot Work, Confined Space, Roof Work, Safe Burn & Ground Disturbance Permits. Complete and verify a lift plan for crane and hoisted loads. Complete Equipment & Aerial Lift Inspections prior to operation.

VERIFY ZERO ENERGY
Employees must verify that all energy sources are at ZERO before working on equipment or systems – including electric, hydraulic, pneumatic, heat, steam, water and other chemicals, among others. Refer to the LOTO section in this document or the written LOTO program for further details.

Policy Details
Implementation - “RULES TO LIVE BY” violation(s) will require disciplinary action to be taken by the Clayco representative who witnesses the violation(s). Disciplinary action must be documented in accordance with the Clayco disciplinary action procedure, and completed documentation must be submitted to the St. Louis Safety Department.

Level of Disciplinary Action - The level of disciplinary action will be administered with the involvement of project team supervision and will be determined by the severity of the infraction and the employee’s disciplinary action history. Options include: written reprimand, time off without pay, 12-month suspension from Clayco projects, or permanent removal from all Clayco projects.
In accordance with Clayco’s disciplinary action policy, the steps in this process may be bypassed up to and including immediate removal from all Clayco projects if the infraction(s) is serious/IDLH as determined by Clayco management.

If it is determined permanent removal from Clayco project(s) is necessary, this must be reviewed and approved by the project executive and vice president of risk management.

**EXAMPLES INCLUDE:**

“NON-NEGOTIABLES”

- Violation of 100% Fall Protection 6’ or higher
- Operating equipment without proper licensing or certification.
- Performing work without completion of necessary permits for that work (ground disturbance, hot work, confined space, etc).
- Working on live electrical/mechanical systems without authorization and LOTO verification.
- Crossing through DANGER tape or into a Controlled Access Zone without authorization of the controlling supervisor.
- Throwing material/debris from upper elevations to lower elevations.
- Not reporting injuries/property damage to Clayco project supervisors immediately.

**RECORD RETENTION**

Written reprimands will remain on file for a period of 12 months from the time of the violation. Any additional reprimand written during the 12-month period will be considered a second offense, and likewise with a third offense. After 12 months, reprimands will be “removed” from file and additional reprimands will be viewed as a first offense.
03 Safety Routine

It is important to get into a routine of preparing the crew for a safe work day. There are important items to complete to make this happen. Work with your Clayco Safety representative or Superintendent for exact times, locations or other questions you may have.

1. SAFETY ORIENTATION Any new workers that come on site must complete the Clayco Safety Orientation before they start work – even if they have worked on other Clayco jobs in the past.

2. COORDINATION MEETING Clayco projects start off the morning with a Coordination Meeting with all foremen to talk about activities happening on site that day/week. It is important that all subcontractors participate in this meeting.

3. DAILY PRE-TASK SAFETY ANALYSIS (PTSA) Every crew shall complete a PTSA every morning. The idea is for the whole crew to gather and discuss their tasks for the day as well as how they will be conducted safely. Update the PTSA as needed.

4. STRETCH & FLEX Everyone is required to participate in the project’s daily Stretch & Flex session with the goal of helping to prevent sprains and strains. We also encourage workers to stretch as a crew and on their own throughout the day.
5. **SAFE WORK PERMITS** Permits are to be completed and approved by Clayco Superintendent for any work involving Ground Disturbance, Roof Work, Hot Work, Controlled Burning or Confined Spaces.

6. **TOOLBOX TALKS** All subcontractors must attend the weekly Clayco Toolbox Talk. Each subcontractor is also to conduct its own Toolbox Talk each week.

7. **WEEKLY SAFETY AUDIT** Each subcontractor is to conduct a weekly Safety Audit to identify hazards including corrective actions taken.

8. **PROJECT SAFETY LEADERSHIP COMMITTEE** Each subcontractor is to send a representative to the Clayco Safety Leadership Committee Meetings onsite where they will discuss key safety items, trends, conduct safety walks, correct hazards, create project recognition and organize safety initiatives.
04 Subcontractor Responsibilities

It is the responsibility of all subcontractors on Clayco jobs to adhere to the following required programs, at a minimum. Some items are outlined further in this document; others are to be reviewed with your onsite management team.

1. Subcontractors are to provide protective safety equipment/devices that creates a safe work environment for their workers and the scopes of work. This includes, but is not limited to appropriate PPE, fall protection devices, hydration supplies, controlled access zone materials, proper tools, cords, traffic control devices, among others.

2. **Full Time Safety** – Subcontractors with **25 or more people (including direct employees and all tiered subs)**, at any given time, must have a full time, experienced and qualified Safety representative meeting at least one of the following criteria:
   a. A bachelor’s degree in Safety + 1 year of experience
   b. Safety Certifications (STSC, CHST, CSP) + 3 years of experience
   c. 5 years of relevant safety experience + OSHA 30
   The qualifications of this person are to be reviewed and approved by Clayco. The individuals must be on site 100% of the time with their full responsibility being Safety.
   If the subcontractor is having job site Safety performance issues, it may be decided additional full time Safety support is required.

3. **Translators** – For crews that have non-English speakers, the subcontractor must provide translator(s) who are proficient/fluent in both English and the language of the workers (speaking and writing).
a. One translator is required for up to 15 workers. Additional translators will be required for crews larger than 15 workers or if the workers are divided into smaller groups working separately from each other.

b. The translator(s) must be onsite 100% of the time whenever these workers are present. Translators must always be within close proximity to the workers available to assist in communication (e.g. emergencies, hazards).

4. The Foreman of each crew must have an OSHA 30 hour construction certification.

5. All injuries, property damage, theft or other incidents as well as near misses (Great Catch) are to be reported to Clayco immediately.

6. **Prequalification** – All subcontractors with contract amounts of $50,000 or greater must complete a prequalification process through First Verify. In some cases, a letter of exception must be completed. Both processes must be completed before starting work onsite. See the Clayco Project Manager for further details.

7. **Site Specific Safety Plans** – Each subcontractor and their tiered subs must complete an SSSP and have it approved by the project management team before starting work. This document is to be completed before and reviewed during the preconstruction meeting.

8. **Subcontractor Insurance** – All required insurance paperwork is to be submitted to and approved by Clayco by each subcontractor and their tiered subs before they start work onsite.
9. **Site Orientation** – All employees must complete the site orientation before they start work in the field, regardless of the length of time they are to spend onsite. Report to the Clayco office the first day starting on the job with OSHA 10 or 30 cards and any other pertinent training certifications.

10. **First Day, First Hour Meeting** – After going through the standard orientation, all foremen must attend an additional training on our expectations for completing documentation and other programs.

11. **Stretch & Flex** – All subcontractors are required to participate in our Stretch & Flex program each morning and are encouraged to get their employees stretching at multiple times throughout the day to increase flexibility and reduce risk of injury.

12. **Pre-Task Safety Analysis** – Each crew is required to gather daily, before starting work to complete and review their PTSA. Once completed, the PTSA is to be signed by all on the crew and posted on the job site. Any changes to the process, must be updated on the PTSA.

13. **Permits, Inspections** – All permits and inspections are to be completed and reviewed daily, before work starts.

14. **Audits** - Each subcontractor’s onsite supervisor is to complete an audit of their work area on a weekly basis and submit to the Clayco office. Subcontractor management may be asked to conduct additional audits individually or with the Clayco project team as deemed necessary.

15. **Other Site-Specific Requirements** – All subcontractors are required to abide by any other site-specific rules laid out by the project team and/or the owner of the project.
05 General Safe Work Expectations

1. Always follow all work site rules, signs, markings and instructions. Make sure you fully understand them. If you don’t know - **ASK!**

2. Annually, all subcontractors working on site must complete a Clayco safety orientation. **All visitors who have not been through orientation must be escorted at all times and sign in/out on the visitors log, and wear proper PPE at all times.**

3. All injuries, property damage, theft or other incidents as well as near misses (Great Catch) are to be reported to Clayco immediately.

4. All personnel are prohibited from being under the influence of drugs or alcohol while on Clayco jobsites or Clayco-controlled premises.

5. Insubordination, including refusal to follow reasonable orders of any supervisor during work time is cause for disciplinary action, including removal from the project.

6. Deliberate destruction, defacing, marking on, abusing or theft of owner/company property is prohibited and will not be tolerated.

7. Restricting or attempting to restrict production is prohibited.

8. Sleeping during working hours, leaving the premises during working hours without permission, and conducting personal business on company time is prohibited.

9. Fighting, assaulting and physically or verbally abusing any employee is cause for immediate dismissal.

10. Falsification of any records, misrepresentation or withholding of facts to secure the job is cause for dismissal.
11. Never misuse or remove from the premises, without proper authorization, any employee lists, blueprints, company records or confidential information.

12. If any employee is served a Notice to Appear/Answer as a result of legal notice arising out of a petition or claim filed through the course of employment on a Clayco project, the employee shall contact the Clayco Risk Management Department within 24 hours of service of such notice.

13. Unsatisfactory attendance, including unreported absence(s), tardiness, leaving early, leaving the work place prior to the start of breaks or lunch time and returning to the work place late from breaks or lunch time will result in disciplinary action.

14. Failure to report an absence is prohibited and failure to report an absence for three consecutive workdays will be considered a voluntary resignation of employment.

15. Failure to perform work in a skillful manner, faulty work, inattentiveness to work or carelessness is cause for disciplinary action.

16. **ALWAYS** report any threatening, intimidation, coercive or other disruptive behavior, such as fighting and horseplay. This includes but is not limited to sexual, racial or other harassment of any person by any means. Discriminating against or harassing another employee because of his or her race, creed, color, sex, national origin, age or physical handicap is cause for dismissal and immediate removal from the job site.

17. Radios and headphones used to play music are not allowed on the construction site. Two-way radios, like walkie-talkies, are allowed. Blue-tooth earpieces should be treated the same as use of any phone – stop work/remove yourself from the line of fire while on the call.
18. Pictures and videos taken on Clayco project sites are to be used for work purposes only. All personnel are to abide by any site/owner rules regarding prohibiting pictures in certain areas or on the entire site, as they are communicated by the owner (especially in regards to high-security areas).

19. All site personnel must attend the Clayco safety toolbox meeting each week. In addition, the subcontractor is required to hold their own weekly safety toolbox meeting and documentation relevant to the meetings must be presented to the project superintendent weekly, with the agenda, names and signatures of all employees in attendance. There may be special site wide safety meetings held, like a post-incident stand down, which attendance will also be mandatory.

20. **Smoking is only permitted in designated smoking areas.** There is to be no smoking near flammable or combustible materials or combustible material(s) storage areas.

21. Urination or defecation outside of designated areas is prohibited.

22. **Each subcontractor is responsible to maintain housekeeping at all times throughout the entire work shift.** Subs that do not maintain housekeeping will be stopped to clean up or back-charged for work needed to clean up their areas.
   
   a. Staged/stored materials are to be organized and maintained in assigned locations.
   
   b. All trash is to be placed in proper receptacles. Littering and discarding trash to the ground or floor is strictly prohibited.
1. Hoppers and bins for transporting trash must be manufactured metal trash containers. “Homemade” wooden boxes are not to be used to hoist and transport trash/debris.

c. Discard and/or store oily rags and similar combustible materials in metal containers designated for that purpose.

23. Always properly secure machinery guards, guardrails, mid-rails and other protective devices at all times.

24. Throwing or dropping materials from an upper elevation (not in a Clayco designated trash chute) will be grounds for immediate and permanent dismissal from the project.

25. When lifting heavy materials, use the recommended lifting technique - bend your knees, grasp the load firmly and then raise the load keeping your back as straight as possible. GET HELP FOR HEAVY LOADS or use proper equipment to assist.

26. Never possess firearms, explosives or other weapons while on the job site.

27. Any variance for performing a work activity in a manner different than prescribed in Clayco’s Safety Program and/or different law or statute shall be documented, approved by Clayco and communicated on a site by site basis. The Subcontractor Site Specific Safety Plan & daily PTSA must reflect any variances.

28. It is discouraged to have employees working alone and/or isolated. Workers must either be on a buddy system with another worker or regular checks should be made on the worker by the supervisor – especially when the worker is exposed to extreme temperatures or other hazards.

29. **ALWAYS** participate in a Daily Pre-Task Safety Analysis for all tasks.
30. **ALWAYS** wear required Personal Protection Equipment (PPE) and inspect it before each use. Replace any PPE with excess damage/wear.

31. Jewelry that could act as a conductor must be removed when working around electrical equipment. Wearing jewelry while working around moving machinery is not allowed.

32. **NEVER** wear loose clothing that could get caught in machinery/equipment. Keep hair pulled tight to prevent getting caught in machinery/tools.

33. **NEVER** work on electrical circuits unless authorized by the electrical contractor and/or qualified to do so.

34. All employees who operate powered industrial vehicles **must** have a valid driver’s license and have an appropriate training card on file for that piece of equipment.

35. **NEVER** block electrical panels/rooms, safety showers, eyewash stations, fire hoses, sprinkler heads or fire extinguishers.

36. **NEVER** fight fires unless trained to operate fire-extinguishing devices. Don’t place yourself in danger putting out the fire. Get yourself and others out and let the fire department extinguish the fire.

37. **ALWAYS** hold the handrails when going up/down stairs. **Do not** skip stairs when traveling up/down. *Keep your eyes on the path!*

38. **ALWAYS** treat any blood or bodily fluid as potentially contaminated (universal precautions) and do not come into contact with it unless trained and protected to handle such materials.

39. Utilize the Chill Zone or Warm Zone to get workers out of the elements. Know the locations of storm shelters and evacuation routes to use when alarms sound.
06 Weather Considerations

All supervisors are to monitor the weather and be prepared to respond appropriately to changing conditions.

1. Lightning
   a. 30 MILES AWAY FROM SITE
      1. When lightning is within 30 miles of site:
         • Clayco supervision will notify subcontractors who will secure material and prepare to shutdown outdoor work.
   b. 10 MILES AWAY FROM SITE
      1. When lightning is within 10 miles of the site:
         • All outdoor work is to stop and workers are to move to the designated shelter location.
         • Workers on metal decks not covered in concrete are to stop and move to the designated shelter area.
      c. Work will be stopped for 30 minutes after the last visible lightning strike or when the lightning is at least 10 miles past the site.

2. Cold Weather
   a. In colder months, a Warm Zone will be provided and is to be utilized for workers to warm up from cold weather as needed throughout the day.
   b. Verify plans are in place to keep walks safe.
3. **Hot Weather**
   a. In warmer months, a Chill Zone will be provided and is to be utilized for workers to have ample access to shade and water.

4. **Winds**
   a. Wind speeds must be constantly monitored whenever materials are being hoisted.
   b. Always secure materials to roof decks when high winds are anticipated.
   c. Secure signage, gates and fence materials when high winds are anticipated.

5. **Changing Weather Conditions**
   a. Plans are to be established to address potential changing conditions such as snow, ice, mud, rain, etc.
These requirements apply to all personnel onsite, including visitors, technicians and delivery drivers who are outside the cab of their vehicles. Additional site-specific requirements may apply.

1. Personal Protection Equipment (PPE) is required 100% of the time on Clayco jobsites. This includes:
   a. ANSI Z87 safety glasses with side shields
   b. Gloves - MINIMUM Cut 5 & PUNCTURE 2, Impact for steel work
   c. Hearing Protection (in noisy environments)
   d. Hard Hat
   e. Sturdy Work Boots
   f. High visibility outerwear (shirt – 4” sleeves, jacket or vest)
   g. Long pants
   h. A shirt with sleeves (4” minimum)

2. Workers are required to inspect their PPE before each use and get worn or damaged items repaired or replaced.

3. Workers within 10 feet of an activity must wear the same PPE as the people participating in that activity (welding, cutting, etc).

4. Specific Requirements:

   a. **Foot Protection**
      1. Sturdy work boots with appropriate traction and protection for conditions are required - however, safety-toed footwear is strongly recommended.
2. For some tasks (jackhammering, compacting, concrete placement, unloading material, etc) additional foot protection is required – metatarsal protection or safety-toes on boots.

3. Open-toed and soft shoes, such as tennis-type shoes, are inappropriate footwear for a job site and their use is prohibited.

b. **Eye Protection**
   1. All safety glasses must be ANSI Z87-rated, including prescription glasses.
   2. If prescription glasses are not ANSI Z87-rated, they must be covered with goggles or over-the-glass style glasses.
   3. Foam-lined glasses/goggles and face shields are required while performing work tasks such as chipping concrete, grinding, handling chemicals, using a hose to place concrete, use of powder-actuated tools, using demo or chop saw, grinders, etc.

c. **Head Protection**
   1. Hard hats are to be worn at all times on the jobsite
   2. Must have a Type 1 or 2 rating (Impact)
   3. Must have a Class E or G rating (Electrical Protection)
   4. Hard hat types and styles NOT PERMITTED FOR USE:
      - Metal hard hats
      - Cowboy hat-style hard hats
      - Bump caps
      - Other styles not meeting the requirements listed above
5. Hard hats are to be worn during all hot work – hard hat is to be compatible with face shields and welding hoods – bump caps are not considered adequate protection and are NOT allowed.

6. Operators of equipment in a *cab with a solid roof* are not required to wear the hard hat while in the cab. All other roof types or open cabs require the use of a hard hat.

7. Items are not to be stored under the hard hat (keys, wallet, cigarettes, etc) between the head and the hard hat.

8. Baseball caps are not to be worn under the hard hat.
   - Soft, weather-related head coverings may be permitted – knit cap/beanies, balaclava/ski masks, hard hat liners, sweat bands, and do-rags/skull caps

**d. Hand and Arm Protection**

1. Proper gloves are to be worn 100% of the time (except in designated break areas and restrooms).
   - Exceptions for glove use (when working with small parts, writing, other tasks where extreme manual dexterity is essential, etc) must be approved by Clayco management.

2. Gloves are to have a **MINIMUM ANSI RATING OF CUT LEVEL A5 & PUNCTURE LEVEL 2** and Impact protection for steel work and other activities where hands are at risk of being “struck by” or caught between

3. Gloves must be selected based on the task(s) being performed to ensure adequate cut, abrasion, puncture and chemical resistance.
4. Cut-resistant sleeves (minimum ANSI Cut Level A5) are to be worn when handling/working with sharp materials that could cut the arm(s).

e. Hearing Protection
   1. Hearing protection in the form of ear plugs or earmuffs are to be worn in noisy environments at or above 85 dBA.

f. High-Visibility Outerwear
   1. All personnel are to wear an orange or yellow high-vis shirt, jacket or vest while onsite.
   2. Workers performing traffic control in daylight conditions must wear Class II outerwear (vest or shirt) with reflective tape.
      • Traffic control at night requires the addition of Class II pants and hard hat cover.

g. Respiratory Protection
   1. If it is determined that a respirator is required for the work being performed, the subcontractor must provide documentation that the worker has been medically qualified, fit-tested and trained.
   2. All respiratory protection devices must be stored, maintained and disposed of properly.

h. Water Safety
   1. Wear a life jacket and have safety rings with a rope for rescue purposes when working above water. OSHA also requires a safety boat with operator to be present when workers are exposed to water hazards.
PERSONAL PROTECTION EQUIPMENT (PPE) VISUAL GUIDE

MANDATORY PPE - MUST BE WORN AT ALL TIMES

- Hard Hat
- Foam-lined Safety Glasses
- ANSI Cut Level A3 Gloves
- High-visibility Clothing
- Long Work Pants
- Hardy Work Boots

Activities that create G ick Dust:
- Cutting Flooring or Bricks
- Cutting or sanding others like 4x4's

Choose the best method to control dust:
- 1. Water Mist
- 2. Ducting
- 3. Dust Collector

Warnings:
- Never spray water or paint near flammable materials.
- Always use a water sprayer with a safety nozzle.
- Use a dust collector to control dust generation.
Know Your Noise

Decibel levels dB(A)

Critical Exposure Levels

- Healthy normal hearing threshold
- Whisper
- Normal conversation
- Handheld drill
- Sander
- Welder
- Jack Hammer
- Chain saw
- Riveter
- Toilet flushing
- Light Rain
- Whisper
- Normal conversation
- Handheld drill
- Sander
- Welder
- Jack Hammer
- Chain saw
- Riveter
- Toilet flushing
- Light Rain
- Healthy normal hearing threshold

- Shotgun blast
- Shot gun blast
- Live rock band
- Welder
- Sander
- Handheld drill
- Jack Hammer
- Chain saw
- Riveter
- Toilet flushing
- Light Rain
- Healthy normal hearing threshold

Decibel levels dB(A)
1. Daily, each crew is required to complete a written daily pre-task safety analysis (PTSA).

2. The plan is to identify job steps, hazards and controls for those hazards required to complete the job incident and injury-free.

3. There must be a meeting of the crew at the start of every shift to discuss the PTSA, not just a simple “sign off” by the crew.

4. Each person working on that crew must sign the PTSA.

5. The PTSA is to be completed before work starts for the day.

6. The completed and signed PTSA is to be posted on the PTSA Board or other area designated by the project management team.

7. If conditions change during the shift, the crew is to stop and update the PTSA before continuing their work.

8. If a worker arrives after the PTSA meeting, he or she is required to review the PTSA with their supervisor and sign it prior to beginning work.

9. At the end of each day, the PTSA is to be signed off or closed by the crew’s foreman and submitted to the project management team. The foreman is to confirm that nobody was injured on site that day.
Hierarchy of Controls

The best way to manage a hazard is to **ELIMINATE** it!

The last line of defense to manage a hazard is PPE!
09 Ergonomics

1. **Stretch and Flex**
   a. To help prevent soft-tissue injuries, crews are required to participate in a daily “warm up” before starting work and, if desired, after lunch break or other times throughout the day.
   b. If you have a medical condition or physical impairment that would put you at risk to perform any or all of the specific movements or if you experience pain with any of the movements, please do not perform those movements.

2. **Manual Material Handling**
   a. Limit the amount of weight each worker is to handle to 50 pounds.
   b. Encourage mechanical means to help reduce stress on workers performing lifting and carrying activities. This includes, but is not limited to use of carts, dollies, cranes, hoists and fork trucks.
   c. If mechanical means are not available, use a team-lift approach where multiple workers lift, no more than 50 pounds each.

3. **Working Postures**
   a. Whenever possible, work should be done in the “power zone” between shoulders and hips. Keeping work in this area helps to reduce stress on the worker and helps to minimize the likelihood of injury.
   b. Controls that help reduce this stress include:
      1. Raise or lower work into the power zone
      2. Raise or lower the worker into the power zone
3. Use tools that extend the reach of the worker
4. Use items to support worker (knee pads, padded seats, etc)
5. Repeat short stretches throughout the work day
6. Alternate workers throughout the duration of the task

Ergonomic Hierarchy of Controls

<table>
<thead>
<tr>
<th>HOC level</th>
<th>Manual material handling</th>
<th>Work below knee</th>
<th>Arms overhead</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engineering</strong></td>
<td>Use mechanical assist</td>
<td>Preassemble at shop/in field</td>
<td>Mechanical assist: scissor lift, hoist</td>
</tr>
<tr>
<td><strong>Work Practices</strong></td>
<td>Position material close</td>
<td>Raise height of work</td>
<td>Assemble at ground level</td>
</tr>
<tr>
<td><strong>Administrative</strong></td>
<td>Assign more workers</td>
<td>Rotate workers</td>
<td>Rotate workers</td>
</tr>
<tr>
<td><strong>PPE</strong></td>
<td>Stretch after task</td>
<td>Knee pads, stretch after task</td>
<td>Stretch before, and after task</td>
</tr>
</tbody>
</table>
### Common Weights of Construction Materials

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DETAIL/DESCRIPTION</th>
<th>MEASUREMENTS</th>
<th>WEIGHT (POUNDS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Door</td>
<td>Exterior Steel</td>
<td>36&quot; x 80&quot;</td>
<td>50</td>
</tr>
<tr>
<td>Window</td>
<td>Single Hung</td>
<td>48&quot; x 48&quot;</td>
<td>56</td>
</tr>
<tr>
<td>Duct</td>
<td>26 guage, Round - 12&quot; dia</td>
<td>5' length</td>
<td>13</td>
</tr>
<tr>
<td>Duct</td>
<td>26 gauge, rectangle - 8&quot; x 20&quot;</td>
<td>5' length</td>
<td>20</td>
</tr>
<tr>
<td>Wire</td>
<td>Size 12, bare wire, Solid</td>
<td>1000 feet</td>
<td>20</td>
</tr>
<tr>
<td>Wire</td>
<td>Size 6, bare wire, Solid</td>
<td>1000 feet</td>
<td>80</td>
</tr>
<tr>
<td>Wire</td>
<td>Size 2, bare wire, Solid</td>
<td>1000 feet</td>
<td>200</td>
</tr>
<tr>
<td>Flooring</td>
<td>3/8&quot; ceramic tile</td>
<td>25 sqft</td>
<td>117</td>
</tr>
<tr>
<td>Flooring</td>
<td>3/8&quot; marble tile</td>
<td>25 sqft</td>
<td>150</td>
</tr>
<tr>
<td>Flooring</td>
<td>Solid Wood</td>
<td>23.5 sqft</td>
<td>73</td>
</tr>
<tr>
<td>Lumber</td>
<td>3/4&quot; Particle Board</td>
<td>4' x 8'</td>
<td>85</td>
</tr>
<tr>
<td>Lumber</td>
<td>3/4&quot; Hardwood Plywood</td>
<td>4' x 8'</td>
<td>79</td>
</tr>
<tr>
<td>Lumber</td>
<td>3/4&quot; Softwood Plywood</td>
<td>4' x 8'</td>
<td>61</td>
</tr>
<tr>
<td>Lumber</td>
<td>3/4&quot; MDF Sheet</td>
<td>4' x 8'</td>
<td>97</td>
</tr>
<tr>
<td>Lumber</td>
<td>2&quot; x 4&quot; Framing Stud</td>
<td>8'</td>
<td>14</td>
</tr>
<tr>
<td>Lumber</td>
<td>2&quot; x 4&quot; Framing Stud</td>
<td>10'</td>
<td>18</td>
</tr>
<tr>
<td>Lumber</td>
<td>4&quot; x 4&quot; Framing Stud</td>
<td>8'</td>
<td>29</td>
</tr>
<tr>
<td>Lumber</td>
<td>4&quot; x 4&quot; Framing Stud</td>
<td>10'</td>
<td>37</td>
</tr>
<tr>
<td>Masonry</td>
<td>Common Clay Brick</td>
<td>8&quot; x 4&quot; x 2&quot;</td>
<td>3.5</td>
</tr>
<tr>
<td>Masonry</td>
<td>Standard Concrete Block</td>
<td>8&quot; x 8&quot; x 16&quot;</td>
<td>38</td>
</tr>
<tr>
<td>Paint</td>
<td>Standard Plastic Bucket</td>
<td>5 gal</td>
<td>57</td>
</tr>
<tr>
<td>Pipe</td>
<td>Black Steel &amp; Galvanized Pipe</td>
<td>3/4&quot; x 10'</td>
<td>11.5</td>
</tr>
<tr>
<td>Pipe</td>
<td>Copper Pipe</td>
<td>3/4&quot; x 10'</td>
<td>3.5</td>
</tr>
<tr>
<td>Pipe</td>
<td>CPVC Pipe</td>
<td>3/4&quot; x 10'</td>
<td>1.5</td>
</tr>
<tr>
<td>Steel</td>
<td>24&quot; I Beam</td>
<td>1 foot</td>
<td>80</td>
</tr>
<tr>
<td>Steel</td>
<td>12&quot; I Beam</td>
<td>1 foot</td>
<td>32</td>
</tr>
<tr>
<td>Steel</td>
<td>6&quot; I Beam</td>
<td>1 foot</td>
<td>13</td>
</tr>
<tr>
<td>Steel</td>
<td>#18 Rebar</td>
<td>1 foot</td>
<td>14</td>
</tr>
<tr>
<td>Steel</td>
<td># 9 Rebar</td>
<td>1 foot</td>
<td>3.5</td>
</tr>
</tbody>
</table>

### Weight of Drywall

<table>
<thead>
<tr>
<th>THICKNESS</th>
<th>LBS/SQFT</th>
<th>4x8</th>
<th>4x10</th>
<th>4x12</th>
<th>4x16</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot;</td>
<td>1.2</td>
<td>38</td>
<td>48</td>
<td>58</td>
<td>77</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>1.4</td>
<td>45</td>
<td>56</td>
<td>67</td>
<td>90</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>1.6</td>
<td>51</td>
<td>64</td>
<td>77</td>
<td>102</td>
</tr>
</tbody>
</table>

### Weight of Glass

<table>
<thead>
<tr>
<th>THICKNESS</th>
<th>LBS/SQFT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8&quot;</td>
<td>1.64</td>
</tr>
<tr>
<td>3/16&quot;</td>
<td>2.45</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>3.27</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>4.91</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>6.54</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>9.84</td>
</tr>
<tr>
<td>1&quot;</td>
<td>13.11</td>
</tr>
</tbody>
</table>
1. Company-specific chemical inventory lists and Safety Data Sheets (SDS) for each item must be given to the site Superintendent/Safety in paper and electronic versions (email/PDF) and must be maintained on-site.

2. All containers must be properly labeled. Labels must include the identity of the contents and handling warnings or precautions. Each container is also to be labeled with the name of the company that owns it.

3. If anyone finds a container unlabeled or improperly labeled, affix a proper label and notify your supervisor immediately.

4. All chemicals must be properly stored per OSHA guidelines. See the Fire Safety Section (Sect. 25) for further storage details.

5. **TRAINING** – Anyone using chemicals on a project or in the office environment must be trained in proper handling, storage and safety precautions that must be taken.
11 Controlled Access Zone

1. A Controlled Access Zone (CAZ) is to be used to keep workers and bystanders from entering an area where one or more significant hazards are present.

2. Crossing through danger tape without approval is considered a serious violation. You must receive “permission to enter” from the foreman controlling the area.

3. The perimeter of a CAZ is to be marked with RED “Danger” tape/flagging or a hard barricade.
   a. Note: Only red flagging is to be used to mark off a controlled access zone.
      • no other colors, mixing of multiple colors, or multi-colored flagging/tape is permitted for barricading a Controlled Access Zone.
   b. Flagging is to be a reinforced type – with twine/rope or heavy-duty plastic tape with higher breaking strength.

4. Signs or tags must be attached to the tape every 50’, identifying the hazard and controlling foreman and their contact information.

5. When the need for a CAZ is complete, the flagging and signs are to be taken down and removed by subcontractor crew who installed and maintained it.

6. Danger tape may be used to identify temporary wiring and potential associated hazards (i.e. HIGH VOLTS, trip hazards).
12 Guarding and Barricades

1. All protruding reinforcing steel (rebar), onto and into which people could fall, shall be guarded to eliminate the hazard of impalement with:
   a. flat-topped rebar caps that contain a metal shank or
   b. forks that support 2”x 4” boards that cover the hazardous bars.

2. All holes, gaps and voids **2 inches or more in its least dimension** in a floor, roof or other walking/working surface (including diamond-block-outs) shall be guarded either by hard barricade or cover that meets the following requirements:
   a. **COMPLETELY** covered with ¾” plywood or steel plate - hold twice the intended load – no gaps around cover
   b. Cover is secured against displacement
   c. Cover has “HOLE” spray-painted/written on it

3. Always use barriers to protect workers – red/yellow flagging, wooden guard rails, concrete barricades, etc.

4. Tool tethers, toe boards, mesh, controlled access zones and other methods must be used and maintained to prevent items from dropping to lower levels, per the Clayco Dropped Objects Prevention Program.
13 Elevated Work (100% Fall Protection is Required 6’ & Higher)

1. **100% fall protection is required for all personnel when performing elevated work six feet or higher.** Elevated work platforms/walking surfaces must have proper fixed guardrails in place or trained workers using proper personal fall protection.

2. Access to all elevated work areas 6’ and higher are to be evaluated to ensure 100% fall prevention.
   a. Ladders Last – Ladders are to be considered the last means of access and used only when other options are not feasible for the situation.
   b. Multiple points of access are to be available for larger areas and areas where large numbers of workers are present (e.g. rooftops).
   c. Stair towers are to be used for safe roof access – especially when there will be a large number of workers accessing the roof routinely.
   d. Powered personnel hoists (skip/buck hoists) are to be strongly considered for multi-story buildings that are 60 feet or more in height.
   e. Requirements of all local, state or owner regulations must be met when addressing access to and from elevated work areas.

3. Any subcontractor that will have employees exposed to a fall hazard of 6’ or more at any point in their work will be required to submit a fall protection plan as part of their Site-Specific Safety Plan. This plan is to include methods for rescue and recovery.
4. Any metal rigging equipment (shackle, wire rope, etc) that is to be used as part of a fall protection system must be American-made, just as with all other metal rigging equipment.

5. When working at height, all tools and materials are to be tethered as to prevent dropping to lower levels. For further details, see the Dropped Object Prevention section.

6. All guard rail systems must have three components – a top rail, a mid-rail and a toeboard.
   a. Top rail is to be 42” (+/- 3”) from the walking surface and must withstand 200 lbs of force in an outward or downward direction.
      1. If cable is used, the cable must:
         • be at least 3/8” wire rope
         • be flagged at intervals no more than 6 feet apart
         • be tight with no more than 2” of deflection in any direction
         • be secured by no less than 3 cable clamps at each end
   b. Mid-rail is to be set at half the distance between the top rail and the walking surface and is to withstand 150 pounds of force in an outward or downward direction.
   c. Toe board is to be placed along the walking surface and is to be at least 3 ½” inches in height.
Personal Fall Protection

All workers using any personal fall protection equipment and systems must be trained in the proper use of that specific equipment.

Fall prevention and protection procedures shall be strictly adhered to and enforced to the extent that any employee found NOT: trained, using approved and inspected safety harnesses, lanyards or any other fall protection equipment and/or devices as required shall be subject to disciplinary action up to and including immediate dismissal from Clayco project(s).

Personal fall arrest equipment, anchorages and lifelines must meet the following minimum standards:

1. 100% personal fall arrest equipment (full body harness) must be properly used when working on unguarded elevations 6 feet and higher above ground level or working surface.

2. D-ring extensions shall not be used with a 6’ lanyard.

3. ALWAYS contact project supervision/competent person to verify acceptable anchorage points unless already labeled “anchorage point” or similar wording.

4. All fall arrest equipment must be inspected prior to each use and inspected per the manufacturer’s requirements with documentation available upon request.

5. For general fall protection purposes, a full body harnesses equipped with rear (back) D-rings must be used.

   a. In cases of ladder-climbing devices or other equipment where the manufacturer requires it, harnesses with front or shoulder-mounted D-Rings may be required.
6. Trauma straps are required on all harnesses to be used to prevent suspension trauma after a fall while a worker is awaiting rescue.

7. *Shock absorbing* lanyards or retractable devices are required. Y- Lanyards may be required to maintain 100% Fall Protection.

8. Only double-locking-type snap-hooks may be used.

9. Only manufacturer-designed lanyards shall be used to anchor at “foot level”.

10. Standard lanyards **shall not** be used in conjunction with retractable devices.

11. Lanyard attachment points to anchorage points and lifeline **must** be above the D-ring unless deemed infeasible by the qualified person overseeing the fall protection activities.

12. Anchors/lifelines **must** be positioned as to prevent swing/fall collisions with other obstructions.

13. Anchor points **must** be capable of supporting at least 5,000 pounds per person and be located overhead, whenever possible.

14. Anchor points **must** be rigged in such a way that an employee will not free fall more than 6 feet, nor contact any lower level.

15. Handrails are not permitted as anchor points.

16. Horizontal lifelines **shall** be designed, installed and used only under the supervision of a qualified person.

17. Lifelines and lanyards **must** be protected against being cut or frayed. Beam wraps, steel cable chokers or padding **must** be used when connecting lanyards and lifelines around sharp beams or structural shapes.
18. 6’ Lanyards should **only** be used when there is an 18’ and greater fall exposure. For shorter clearances, retractable lanyards must be used.

![Diagram](image)

19. Retractable lifeline devices **must** limit free fall distance to **2 feet or less**.

20. Never leave retractable device cables extended since this can affect ability for the cable to retract properly. For those that are difficult to reach, attach a rope to pull down the hook in order to eliminate damage to the cable from weather, dirt, weld splatter, etc.

21. Retractable lifelines must be rated for LEADING EDGE or SHARP EDGE use if they are exposed to those conditions.
Preventing Slips, Trips, Falls

1. Every employee/worker, including subcontractor employees, is expected to ensure that walking and working surfaces are safe and free of obstruction.
   a. All construction waste is picked up and does not create a slip, trip, fall hazard (e.g. rolling stock, wood, plastic).
   b. Maintain safe access/egress points from buildings at all times. Clearly mark/flag areas where we expect people to walk.
   c. Maintain safe walking working surfaces during inclement weather conditions (water, ice, snow, mud).
   d. Any change in elevation of 19 inches or more requires the use of ladder, stair, ramp or similar device to travel from one surface to the other.
   e. Extreme housekeeping is required by everyone to help prevent slips and falls. You see it, pick it up and properly discard the debris.

Floor, Wall Openings and Roof Work

1. Every floor or wall opening from which there is a drop of 6 feet or greater must be “hard” barricaded, guarded or properly covered.

2. Toe boards/debris netting must be used where needed to prevent materials or tools from falling to lower elevations. Toe boards must be constructed of sturdy material and at least 3.5” in height.

3. Upright support post spacing must not exceed eight feet.

4. The guardrail system must be capable of withstand less than 2” of deflection with a force of 200 pounds in any outward or downward direction.
5. ANY work (including observation or inspection) to be done on the roof will require the use of a “Roof Work Permit” that is to be completed by the subcontractor working on the roof and approved by Clayco supervision, prior to beginning work.

6. Material stored on the roof must be secured to the roof deck. All material is to be properly secured at the end of each day, and in the presence of impending high winds and storms.

7. ROOF WARNING LINES – Must be used in the following manner:
   a. Only when “ROOFING” is being installed – at least 6’ back from the edge
   b. When mechanical equipment is used in “ROOFING” – at least 10’ back from the edge
   c. When “ROOFING” work is done, all other activities require that the warning line is at least 15’ back from the edge
   d. Use stanchions 34”-39” high and support at least 16lbs of force

8. All steel cable guardrail systems must be 3/8” cable or greater with each end secured by 3 Crosby clamps. Flag the cable for visibility every approximately every 8-10’.

9. ALWAYS guard floor openings with a hard barricade or fully cover floors, gratings and other structures where holes are created.

10. All hole covers must be mechanically secured so as to prevent accidental displacement. Hole covers must be clearly labeled “HOLE”.
11. Floor opening/hole covers **must** be capable of supporting at least twice the intended load of employees, equipment or materials that may be imposed on that cover.

12. **ALL** trenches exposed to the outside public and in high traffic areas should be hard barricaded to prevent equipment and people from falling in. This may be done by the use of jersey barriers and/or a guardrail system that is capable of supporting 200lbs of force. Trenches inside the project perimeter that will be left open and unattended must have snow fence barricades in place (not tape).

**Ladders Last**

*Ladders should be used as a last resort* for access and – especially – for routine access/elevated work. Consider the use of scaffold, hoist, scissors lift or other means that provide safer platforms for activity.

1. Ladders shall be inspected before each use for structural defects and shall be removed from service if any deficiencies are found. Ladders are to be removed from service if they do not have legible tags from the manufacturer. Ladders shall be free of oil, grease, and other slipping hazards.

2. Ladders shall be used only for the purpose for which they were designed; do not use A-frame stepladders as a straight ladder or use extension ladder sections separately. Extension ladders shall only be used for access/egress purposes.

3. The top two steps of any ladder are off-limits and are not to be stood on. If these steps are needed for adequate reach, a taller ladder or other device must be used.
4. Ladders to be used at a **minimum are type 1A ladders**, with a weight limit of 300 pounds. The designated limit of the ladder is not to be exceeded at any time.

5. Three-points of contact **must** be maintained when ascending or descending. Tools and materials are to be carried in a backpack, raised or lowered in a canvas bag, by means of wheel and rope, or by other mechanical means that keep the hands free for climbing.

6. Based on job site risk assessment the following situations will be evaluated for the need for fall protection:
   a. If near a leading edge at 6’ or higher, tie off will be required.
   b. If the work surface is uneven, slippery, or poses any risk.
   c. Working in a stairwell or at a window opening, 100% fall protection will be required.

7. Ladders are to be used for worker access on and off delivery trailers.

8. **In offices and other inside areas with no anchor point available**, A-frame step ladders eight feet or less in height **may not require** tie-off or fall protection (e.g. to change light bulbs in office). However, a spotter is to be used to hold the ladder.
9. Straight (extension) ladders **must** be secured and used at an angle of 4:1. The top of the ladder must extend at least three feet above the top landing. Fall protection is required once the work area is reached, if area is not otherwise protected.

10. Extension ladders must be equipped with gates or L-shaped barriers to prevent openings that workers could accidentally walk/fall through.

11. Metal ladders are not to be used on Clayco jobsites - except for small 2/3-step ladders and certain small work platforms.

12. If an extension ladder cannot feasibly be tied-off, then it must be held at the base by a second person during ladder use. This includes setting up and taking down the ladder when it is being tied or untied.

Take measures to provide support surfaces for all ladders that are as level, clean and solid as possible.

**Scaffolding**

1. Anyone in the act of building or dismantling scaffold must utilize fall protection when their feet are six feet or higher off the ground.

2. All scaffolding **must** be inspected, erected, moved, dismantled or altered by or under the direct supervision of a competent person. (OSHA 1926.451, Subpart L)

3. Employers are to provide proof of scaffold user training for their employees/workers.

4. All scaffolds shall display a scaffold tag to indicate condition of scaffold.
5. A competent person **must** inspect scaffolds every day before use. If used for more than one shift, the scaffold must be inspected before each shift. Scaffold tag colors are indicated as follows:

   a. **RED-DANGER-DO NOT USE SCAFFOLD.** To be used on incomplete or erection in progress scaffolds.

   b. **YELLOW-CAUTION.** Scaffold is safe to use, but personal fall arrest equipment is required. Scaffold deficiency must be identified on tag or sign. Example: handrail being partially omitted because of piping obstruction.

   c. **GREEN- SCAFFOLD IS SAFE FOR USE.** Personal fall arrest equipment is not required if scaffold working surface is fully planked, hand railed, mid-railed and toe boarded.

6. Toe boards are required for scaffolds of any height where there is possibility of overhead hazards and always at 10’ or higher.

7. Mobile scaffold must have the wheels locked when the scaffold is in use. “Surfing” the scaffold where the user moves the scaffold while on the scaffold is not permitted without a written and approved variance.

**Work Platforms**

1. Any “benches” to be used as platforms for elevated work must meet all the following requirements at a minimum:

   a. Working capacity is 300 pounds or more

   b. Holds an ANSI rating

   c. Has a positive locking mechanism for all four legs

   d. Uses a knob or latch to keep hinges locked
Stilts

1. There shall be NO use of stilts on any Clayco project.

Aerial Lifts

1. **ALWAYS** complete a documented lift inspection before each use.

2. Employees using aerial lifts **must** be trained in their use and have a copy on file in the office.

3. All lifts must be equipped with crush protection for occupants of the basket. This may take the form of a “crash bar” over the control panel, “kill switch” or other similar device that acts to stop movement of the lift in the event the worker becomes trapped.

4. All workers in the basket must use 100% tie-off when operating any boom lifts, scissor lifts, man-baskets, snorkels, cherry pickers, etc. at any height. The gate or chain must be closed while the lift is in operation.
   a. Fall protection lanyards must be connected to the manufacturer’s designated anchorage point in the basket.
   b. Utilize the manufacturer’s guidelines for appropriate fall protection/fall restraint methods.
   c. Standard lanyards must not be more than four feet in length. Six-foot lanyards are not allowed to be used in any aerial lift.
   d. Retractables used in lifts must not extend greater than 10’.
5. **NEVER** work off handrails, etc., to raise your work position. Manufacturer’s approval is required for special circumstances.

6. Whenever an aerial lift is being moved:
   a. The lift must be lowered to create a minimum of 10’ clearance between the joists and the operator’s head to prevent contact with nearby objects.
   b. The worker moving the lift must be in the basket with proper fall protection and not walking alongside the lift as it is moved. Exceptions may be made for certain situations, but must be coordinated with the Clayco onsite project team, prior to beginning operation.

7. Materials or tools that are hoisted/lifted on any aerial lift must be properly secured per the manufacturer’s guidelines. Weight limits and other manufacturer guidelines on any lift must be followed.
14 Dropped Object Prevention

Every effort must be taken to prevent items to drop onto workers at lower levels by the following means, at a minimum:

1. Nets & Mesh
   a. Debris nets used to prevent items from dropping to lower levels must be installed properly, per manufacturer direction.
   b. Material that falls into netting must be cleared on a regular basis.
   c. Mesh connected to guard rails and cables must be properly secured to prevent damage from wind or other impact.
   d. Mesh connected to scaffold must have engineering to show forces created by wind and that the scaffold system can withstand these extra forces.
   e. The basket of aerial lifts are to be outfitted with appropriate nylon mesh or metal grid to prevent objects from falling out of the basket to a lower level.

2. Drop Zone
   a. At the edge of elevated floors, a zone is to be established ten feet back from the edge using paint, tape or other means.
   b. All material staged or stored in the Drop Zone must not be stacked higher than the guard rail at the edge.
   c. All tools used in the Drop Zone are to be tethered either to the worker or to another stable location to prevent dropping the object to lower levels.
   d. Materials that can be tethered shall be tethered to a suitable structural anchor point.

3. Toe Boards
   a. Scaffold, stair landings and elevated decks are required to have appropriate toe boards around their perimeter as part of a complete guardrail system to prevent objects from going over the edge to a lower level.
1. “Ground Disturbance” includes the following activities that move dirt, pavement, sod or rock – any activity that penetrates the ground at any depth:
   a. Digging/Excavating/Trenching
   b. Drilling/Boring
   c. Grading
   d. Driving stakes or form pins
2. The ground disturbance crew and work must be supervised by a competent person identified by the subcontractor with appropriate training to supervise the activity to be performed.
3. A Site Utility Map is to be posted in the Clayco Field Office marked with existing utilities and is to be updated daily by the Clayco superintendent or their designee as new lines are installed.
   a. Lines are to be marked using the utility’s color from the standard color code.
   b. Site Utility Map is to be reviewed with the sub by the Superintendent as part of the permit review process.
4. Any subcontractor performing ground disturbance must have their own utility locating completed prior to digging.
5. Live utilities must be exposed safely by hand or hydro-excavated for 100% positive identification when ground disturbance activities are to take place within 15 feet of any live utility. Machine digging within 5’ of live utilities is strictly prohibited.
6. PVC Utility Markers are to be placed during backfill of all existing utility locates and during backfill as new lines are installed
   a. Minimum 3” diameter PVC pipe to be used
   b. At the bottom, placed alongside line
   c. Place pipe on either side of duct bank or pipe greater than two feet wide – connect two verticals with a cross bar at top
   d. At the top, extend at least four feet above ground surface
   e. Are to be marked with tape the color of the utility, per the standard color code and information about the line below (depth, type, orientation, etc)
   f. Frequency of location points is to be established with the project’s Regional Safety Manager and Field Operations Manager, but will be no more than 75 feet apart.

7. Permits are to be completed by the subcontractor performing the work and reviewed by Clayco Superintendent or their designee:
   a. Permit shall be completed and approved before work starts.
   b. Permit shall be reviewed with crew and operators before work starts.
   c. Permits shall be readily available on the project premises throughout the Ground Disturbance activity.
   d. Permit is valid for one week with a renewed permit required for that week starting each Monday unless conditions change.
8. **Hot Zone** – the area within 15 feet of either side of a buried utility is considered the Hot Zone.

a. **Approvals:** Permits for work in this area require review by Clayco Regional Safety Manager and Field Operations Manager and submitted to Director of Operations.

9. All soils are to be treated as Type C, unless adequate reason and evidence can be shown to treat it as Type A or B through documented testing.

10. Benching is not permitted in Type C soils.

11. The soil can NOT be classified as Type A if it subject to vibration from heavy traffic, pile driving, or similar effects; or if the soil has been previously disturbed.

12. When an excavation reaches **four feet or deeper**, protective measures must be put in place – trench box, sloping, shoring, benching, etc. **Air monitoring must also be performed beginning at four feet or more in depth.**

13. The permit must be at the site of activity in the permit stand and made available for review upon request.


15. Fall protection must be provided for all excavations deeper than six feet.

16. At a minimum, snow fence protection is required for barricading/marking excavations and/or trenches at the end of each shift or when the excavation/trench will remain “open” for a length of time without supervision.

17. Excavations that are 20’ or deeper must have engineer approval for the protective method to be used (sloping, shoring, trench box, combination, etc).
18. When excavation conditions or methods change (after rain storm, uncover unknown utility), permit is to be reviewed and re-authorized by the competent person before work continues.

19. During backfill, utility marking tape is to be placed two feet above the line. Tracer wire or RFID tags are to be used to mark the lines, appropriate to requirements on the project.
<table>
<thead>
<tr>
<th>Type A</th>
<th>Type B</th>
<th>Type C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4 : 1</td>
<td>1 : 1</td>
<td>1 1/2 : 1</td>
</tr>
<tr>
<td>53 degrees</td>
<td>45 degrees</td>
<td>34 degrees</td>
</tr>
</tbody>
</table>

Sloping in A Soil: For every foot of depth, dig out 9".
Sloping in B Soil: For every foot of depth, dig out 12".
Sloping in C Soil: For every foot of depth, dig out 18".

Benching in A Soil: The deepest rise is no more than 5', the rest are no more than 4'.
Benching in B Soil: The max for each rise and run is 4 feet.

NO BENCHING IN TYPE C SOIL

TRENCHES DEEPER THAN 20 FEET REQUIRE ENGINEERING FOR PROPER PROTECTION
The Lockout/Tagout Program has been established to provide a systematic method for preventing injury to personnel during maintenance, servicing and cleaning activities, safely shutting down and locking out machinery/equipment to prevent the release of potentially hazardous energy sources, including electric, water/air pressure, mechanical, heat/cold, and any other type of energy.

1. **NEVER** work on equipment unless you are authorized to do so and **verify** it has been fully isolated, brought to **zero** energy and locked out at all sources (live, dead, live testing).

2. A LOTO Log is to be maintained for all locked-out systems.

3. Subcontractors must submit their LOTO/Energy Isolation plan to Clayco before work begins.

4. All workers involved in LOTO situation, must be trained for their role in LOTO. Subcontractors must present documentation of initial training for workers and retraining when LOTO procedures and programs change.

5. For machines or equipment with multiple energy sources (or single energy source not easily identified), a written control procedure must be submitted and followed.

6. **LOTO/Isolation Devices**
   a. Devices (including locks) must be unique/not used for other purposes (toolbox, lockers, etc).
   b. Locks must use a key, not any form of combination.
   c. Each lock must have a unique key (one key can not open multiple locks).
   d. Each individual involved in the work must have their own lock and tag.
e. Keys must be maintained by the person applied the lock so that others may not open the lock at an inappropriate time.

f. Tags **must always** accompany locks and identify the name and contact information of the person who applied the tag, the date of application and the reason for the lock out.

g. Tags can only be utilized as the primary method of isolation when an energy-isolating device does not accept a lock. Additional means of barricading area must be utilized.

7. Always ensure accuracy of all lockouts for equipment/systems by visually verifying application and comparison to one-line diagrams before starting work.

**Group Lockouts**

_The following steps must be followed for group lockouts:_

1. Lockbox coordinator reviews the equipment, and systems being locked out, with affected personnel.

2. Lockbox coordinator isolates all energy sources for the affected machinery/equipment and places all keys in the lockbox.

3. Each employee working on the equipment **must** affix a personal lock/tag to the lockbox or multi-lock device.

4. When an individual completes the work, they remove their lock/tag from the lockbox.

5. The last lock/tag removed from the lockbox will be the coordinators. The coordinator **must** thoroughly check the machinery/equipment prior to re-energizing the system.
1. Each project must identify possible confined spaces/permit required Spaces. These spaces are to be documented on a site plan or in a log. Each permit required space is to be labeled as a confined space using the proper OSHA sign language. Subcontractors must also do this whenever they have such spaces in their immediate work areas not already identified.

**What is a Confined Space?** It is a space that has **all** of the following characteristics:

a. Limited means for entry or exit.
b. Adequate size and configuration for a person to enter.
c. Is not designed for continuous occupancy.

**What makes it a Permit Required Confined Space?** A space that meets all requirements for a confined space, **AND it has one or more** of the following characteristics:

a. Contains or has the potential to contain a hazardous atmosphere.
b. Contains a material that has the potential for engulfing an entrant.
c. Has converging walls, a floor that slopes downward or a configuration that could trap or asphyxiate an entrant.
d. Contains other recognized serious safety or health hazards (i.e. an electrical hazard that can’t be locked out, moving machinery, etc).
2. If permit required spaces are identified, anyone entering these spaces must be properly trained (Authorized employees only).

3. Employee training certificates must show they have covered confined space entry training.

4. **NEVER ENTER** a permit-required confined space unless a properly completed Confined Space Entry Permit with description of rescue methods has been issued.

5. The completed entry permit **must** be present *at the entry site*, with a copy at the Clayco site office.

6. **ALWAYS** be sure a confined space is attended or barricaded at ALL times, to prevent unauthorized entry.

7. Air monitoring **must** be *continuous and documented*. If the monitor alarms, **LEAVE THE SPACE IMMEDIATELY!!**

8. **NEVER** attempt an internal rescue without proper equipment and training.

9. If you don’t know, **ASK!!!** (A four-foot-deep trench *may* be a confined space.)
1. Equipment/machinery must not be operated unless all guards are in place.

2. Machine guarding around moving parts that are seven feet or lower off the ground must not have any gaps greater than $\frac{1}{2}$ inch in any of the protective guards or mesh.

3. Guards are not to be modified or altered without approval of the manufacturer.

4. For grinders, the guard and handle must be in place during use.

5. **NEVER** put your hands or other body parts near the point of operation on unguarded operating machinery.

6. One or more methods of machine guarding *shall* be provided to protect you from hazards such as pinch points, rotating parts, flying chips and sparks.

7. Inspect all machine guarding for proper fit, attachment and any defects. Machine is not to be used if guarding is not proper or is need of repair.
1. Anyone operating mobile, motorized equipment/vehicles must possess a valid driver’s license, plus present proof of safety and practical use training for that equipment.

2. Operators involved in incidents while operating equipment must be successfully retrained on that equipment through a third party (safety and practical demonstration of skills) before operating again. In some cases, an operator involved in an incident may be removed and not be allowed to return to a Clayco project.

3. Anyone who rides in a vehicle equipped with a seat belt must wear it at all times.

4. Materials that overhang the sides or ends of a truck 3’ or more shall be “flagged” appropriately.

5. Cell phones/radios shall not be used while driving. **Stop or pull over**, when it is safe, then use your cell or radio.

6. Texting while driving is prohibited.

7. Jumping on or off equipment or vehicles, either moving or stationary, is prohibited.

8. While riding or driving any motorized industrial vehicle, such as golf carts, gators, etc., basic PPE must be worn. The industrial vehicle must always be driven in a safe manner abiding by all site traffic rules.

9. Only designated vehicles shall be used for the transportation of personnel. Mobile cranes, forklifts, etc. shall not qualify as personnel transportation vehicles. Golf carts, UTVs and “Gators” are limited to transporting the number of individuals who can be properly seated and should be equipped with a highly visible flag and/or strobe to increase vehicle’s visibility. **Employees are not to ride in the back of a truck.**
10. Follow jobsite speed limit (**10 mph**) unless posted or otherwise notified.

11. No personal vehicles are allowed on the building pad or inside the building.

12. All bi-directional machines, such as rollers, compactors, front-end loaders, bulldozers and similar equipment, shall be equipped with an operating horn & back-up alarm, distinguishable from the surrounding noise level. The horn shall be maintained in an operative condition.

13. A ground spotter shall be used when operating in a blind spot and/or highly congested areas. If the alarm devices are not working, a ground spotter may be used temporarily.

14. When parking is allowed on the construction site, it is a privilege. Clayco assumes no responsibility for lost, stolen or damaged vehicles.

15. When parking on unleveled surfaces, be sure to put vehicle in “PARK” and fully apply the parking brake. After exiting the vehicle, place at least one wheel chock under the downhill side of a rear wheel.

16. All mobile, motorized equipment is to be outfitted with a fire extinguisher within easy access of the operator.

17. When lifting materials with a fork truck (standard or boom), material shall not be hung directly on the fork (called “Free Rigging”). If items are to be suspended under the forks, they must be connected to a hook on the mast (if provided by the manufacturer) or from an approved lifting attachment.
1. Evaluate the use of heaters, hot work and equipment powered by combustion engines (generators, lifts, fork trucks, etc) in enclosed spaces.

2. Provide adequate ventilation (fans, wall/roof openings or other means).

3. Use CO monitors to measure exposure to workers.
   a. During ALL interior concrete pours, even with ventilation available
   b. In areas of long-term exposure (break areas with heaters or building interiors where combustion engines are operating, for example), station CO meters in the area – document their readings regularly
   c. Most four-gas and hand-held CO meters are set to alarm when CO levels reach 35 ppm.
      1. Exceeding 35 ppm does not require immediate work-stoppage or evacuation - Employ more ventilation, removal of unnecessary equipment, etc to reduce levels of CO build-up in the area
      2. Area evacuation may only be necessary if levels reach 100 ppm or more for a period of five minutes or more. Area will remain cleared until levels are back down at or below 35ppm

Refer to the Clayco Carbon Monoxide Protection Program for further details.
Assembly/Disassembly Responsibilities:

1. All assembly/disassembly (A/D) work must be directed by an A/D Director. The A/D Director must meet the criteria for both a “Competent Person” and a “Qualified Person”, which are defined terms; or must be a “Competent Person” assisted by a “Qualified Person”.

2. The employer must follow manufacturer procedures when using synthetic slings during assembly or disassembly rigging (even when the employer has developed its own A/D procedure as an alternative to the manufacturer’s other procedures).

3. The A/D Director must also address hazards associated with the operation, including 12 specified areas of concern:
   - Site and ground conditions
   - Blocking material
   - Proper location of blocking
   - Verifying assist crane loads
   - Boom & jib pick points
   - Center of gravity
   - Stability upon pin removal
   - Snagging
   - Struck by counterweights
   - Boom hoist brake failure
   - Loss of backward stability
   - Wind speed and weather

Inspection:

Upon completion of assembly, but before use, the equipment must be inspected by a “Qualified Person” to ensure that it is configured in accordance with the manufacturer’s equipment criteria. If these criteria are unavailable, the employer’s “Qualified Person”, with the assistance of a registered professional engineer, if necessary, must develop the appropriate configuration criteria and ensure that these criteria are met.
General Requirements:

1. The swing radius of the crane is to be identified with RED Danger tape during all operation of the crane.

2. A crew member who moves out of the operator’s view to a location where the crew member could be injured by movement of the equipment (or load) MUST inform the operator before going to that location. The operator must not move the equipment until that crew member informed the operator that he/she has relocated to a safe position.

3. Employees must never be under the boom or jib when pins (or similar devices) are being removed, unless it is required by site constraints and procedures and training have been implemented that minimize the risk of unintended movement and the duration of exposure under the boom.

4. Component weights must be readily available for all components to be assembled.

5. Pins may not be removed during disassembly when the pendants are in tension.

6. Booms supported only by cantilevering must not exceed manufacturer limitations or RPE limitations, as applicable.

7. Component selection and equipment configuration that affects the capacity or safe operation of the equipment must be in accordance with manufacturer’s requirements and limits or RPE requirements and limits, as applicable.

8. Only those workers holding a valid National Commission for the Certification of Crane Operators (NCCCO) card or equivalent (dependent on state or local requirements) are allowed to operate cranes of any type on Clayco projects.

9. All operators must have documented employer evaluations for the crane type they are operating.
Critical Lifts

A Critical Lift Plan is to be submitted to Clayco and approved before starting the lift if any of the following conditions apply to the lift:

1. The lift is being made over or in close proximity to live process equipment and the weight is greater than ten tons.
2. The combined weight of the load exceeds 75% of the adjusted rated capacity of the crane.
3. The item to be lifted weighs more than 20 tons.
4. All lifts where more than one piece of equipment (crane, forklift, etc) is used.
5. Any lift deemed special, i.e. glass-lined equipment.
6. A lift, which exceeds 95% of the adjusted rated capacity of the crane, will require the review and approval of a qualified professional engineer.

Outriggers and Stabilizers:

When outriggers or stabilizers are used or are necessary in light of the load to be handled and the operating radius:

1. Outriggers and stabilizers must be fully extended or, if permitted by manufacturer procedures, deployed as specified in the load chart.
2. Outriggers must be set to remove equipment weight from the wheels, except for locomotive cranes.
3. Outrigger floats, if used, must be attached to the outriggers; stabilizer floats, if used, must be attached to the stabilizers.
4. Each outrigger or stabilizer must be visible to the operator or to a signal person during extension and setting.
5. Outriggers and stabilizer blocking must be placed under the float/pad of the jack or, if there is no jack, under the outer bearing surface of the outrigger or stabilizer beam. Blocking must also be sufficient to sustain the loads and maintain stability and must be properly braced.

**Tower Cranes:**

Tower cranes are subject to additional requirements for erecting, climbing, and dismantling including a pre-erection inspection and protection of access points.

**Wind:**

Winds speeds must be continuously monitored. When winds reach 25 mph, crane operations must pause and be evaluated with Clayco prior to work continuing. The crane operator shall reference the manufacturer guide as to when windy conditions will stop work.

**Signal Person:**

1. Is required when the point of operation is not in full view of the operator (1926.1419(a)).

2. The operator’s view is obstructed in the direction the equipment is traveling.

3. Either the operator or the person handling the load determines that a signal person is needed because of site-specific safety concerns.

*Employers must make the documentation of the signal person’s qualifications available at the worksite, either in paper form or electronically. The documentation must specify each type of signaling (e.g. hand signals, radio signals, etc.) for which the signal person is qualified under the requirements of the standard.*
22 Rigging

1. All metal rigging components (shackles, chain, hooks) must be American-made. Wire Rope clips are to be made of drop-forged steel.

2. All rigging must be done by a “Qualified Rigger”, who has a valid training card on-file with the project.

3. All rigging equipment must be inspected prior to each use. Damaged or defective rigging or rigging that is missing tags are to be removed from service. Rigging equipment is to be removed from the lifting area when not in use.

4. Tag lines are to be used to control suspended loads. No one is to be under suspended loads.

5. Synthetic slings must be protected from abrasive, sharp or acute edges, and configurations that might reduce the sling’s rated capacity.

6. All hooks must have gates that properly close to prevent materials from sliding out of the hook.

7. Exceptions:
   a. Chain hooks used to adjust chain length
   b. Shake-out hooks that are used to unload and sort steel members
   c. Use of wire to hold a gate open only for steel-erection activities (referred to as “mousing”)


1. **NEVER** work on electrical circuits unless authorized/qualified.

2. **All extension cords will be of the 3 prong type rated for extra heavy use and be not less than 12-gauge wire.**

3. Workers are to inspect cords prior to use.

4. Each contractor is to conduct a weekly cord round-up where all cords used in their operations are checked for damage unless hung overhead.

5. Damaged cords are to be immediately removed from service.

6. Power strips not rated heavy duty for use in construction are not allowed.

7. Extension cords and temporary lighting shall be hung overhead, when at all possible, to reduce potential tripping hazards. Only non-conductive material shall be used to suspend such cords and must be protected from sharp objects and pinch points, such as windows or doorways.

8. Temporary lights are to be suspended by non-conductive (plastic, wood or coated wire) material. Every effort should be made to prevent damage to and contact with the lamp of the temporary light.

9. Outlets, to which extension cords are plugged, must be of the GFCI protected type, branch circuit protected by a GFCI breaker or protected by a portable GFCI device placed between the outlet and extension cord.

10. Only certified electricians shall work on any electrical device greater than 50 volts.

11. Breaker panel doors are to be kept shut and properly locked and labeled.
12. Live work on electrical systems must be a last resort. If live work on an electrical system is necessary, an Energized Work Permit is required to be completed and approved by Clayco. NFPA 70E must be strictly adhered to during this work.

a. Live parts must be properly guarded from accidental contact.

POWER LINES

1. All work must stay a minimum of 10 feet away from all power lines. Refer to OSHA for exact clearance distances.

<table>
<thead>
<tr>
<th>VOLTAGE (nominal, kV, AC)</th>
<th>MINIMUM CLEARANCE DISTANCE (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 50 kV</td>
<td>10</td>
</tr>
<tr>
<td>50 – 200 kV</td>
<td>15</td>
</tr>
<tr>
<td>200 – 350 kV</td>
<td>20</td>
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<tr>
<td>350 – 500 kV</td>
<td>25</td>
</tr>
<tr>
<td>500 – 750 kV</td>
<td>35</td>
</tr>
<tr>
<td>750 – 1000 kV</td>
<td>45</td>
</tr>
<tr>
<td>Over 1000 kV</td>
<td>(as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution)</td>
</tr>
</tbody>
</table>

See OSHA regulations for further information

2. When work is to be done within 50 feet of power lines, a documented meeting is to be held between the project team, safety management, and the subcontractor to discuss mitigation strategies to keep workers safe.

3. When working within 50 feet of any overhead power lines, no metal poles are to be used (bull floats, paint poles) nor other conductive tools or materials that could contact the lines are to be used in that area.
1. A Hot Work Permit is required when creating an ignition source (cutting, welding, brazing, etc.).

2. Subcontractors are to supply their own 10-pound fire extinguishers for hot work activities. Clayco fire extinguishers staged around the site are to be used as back-up, not as the primary fire extinguisher for hot work.

3. When welding or burning, always use proper goggles or face shield, welding gloves, welding jacket (if necessary).

4. Fireproof screens or shields are to be used to protect other workers and material/equipment from heat, flames, spark and light exposure.

5. Always wind-up welding leads and hoses after use and/or at the end of each day.

6. Fire watch shall be required. (Minimum 30 minutes after burning/welding/cutting operations unless otherwise noted)

7. Hot work permit to be approved by Clayco site management team.
25 Fire Safety

1. NEVER fight fires unless trained to operate fire-extinguishing devices, after calling the fire department or pulling an alarm. Don’t place yourself in danger putting out the fire. Get yourself and others out and let the fire department extinguish fire.

2. Tarps, netting and other materials used for wind protection, dropped object protection, equipment protection or other for similar purposes must be fire resistant. Simple plastic tarps are not acceptable – especially when they are to be used near hot work or any sources of heat, flame, fire or spark.

3. In general work areas, fire extinguishers are to be:
   a. 10-pound, 2A extinguishers and rated for “ABC” use, unless specific hazards exist that require additional protection.
   b. Staged with one extinguisher for every 3,000 square feet of space.
   c. In plain view with travel distance to the nearest extinguisher being no more than 100 feet.
   d. Staged at each stair landing on each floor of the building.
   e. Staged at the top and bottom of each stair tower.

4. All fire protection and emergency equipment will be plainly marked and must be kept free of obstruction for use.
5. Fire extinguishers that have been discharged or that have a broken seal shall be replaced and either taken to the designated location for servicing or reported to your supervisor.

6. Flammable materials must be stored and handled properly, following these guidelines:
   
a. All containers must be labeled with the identity of the contents and handling warnings or precautions. Each container on site must be labeled with the name of the company/sub/tiered sub that is responsible for that container.

b. Flammable liquids shall not be stored in areas used for exits, stairways or other areas used for safe passage of people.

c. Ignition sources must be controlled near flammable storage areas. Signs, such as “NO SMOKING” must be posted. Keep hot work activities away from these storage areas, as well.

d. Inside of a building, flammable liquids must be stored in a proper cabinet labeled “FLAMMABLE – KEEP FIRE AWAY”. No more than 60 gallons of flammable liquid is to be stored in one cabinet.

e. Each indoor storage area must be outfitted with a 20-pound fire extinguisher separated by no more than 10 feet from the area, but not stored directly in the storage area.

f. Outside of a building, flammable storage areas are to be no closer than 20 feet from the building.
g. Outdoor storage tanks and piles are to be protected from impact by vehicles and equipment. This is to be done by means of concrete barriers or location away from such traffic.

1. Fuel storage tanks are also to be outfitted with additional “spill containment” trays/basins under the tank – even if the tank is manufactured with “secondary containment.”

h. Fuel and Liquid propane canisters are not to be stored inside any building. These storage containers are to be suitably ventilated and prevent against tampering (cages, fencing, etc)

i. Each outdoor flammable storage area is to be outfitted with at least one 20-pound fire extinguisher staged no less than 25 feet but not more than 75 feet away.

j. **NO PLASTIC GAS CANS WILL BE ALLOWED ON SITE** – only proper metal safety cans that hold no more than 5 gallons of liquid are permitted to store gasoline, diesel, kerosene, etc.
1. Compressed gas cylinders shall be used and/or stored in a secure and upright position (this includes the small “B-Type” acetylene cylinders).

2. Flashback arrestors are required on all gauges.

3. The valve protection caps shall be in place and secured whenever the cylinders are not in use, at the end of each work shift, when cylinders are empty, in storage or being moved at any time.

4. Never hoist cylinders by the valve cap.

5. Empty cylinders shall be removed from the work area to the designated storage area, secured and marked accordingly.

6. Non-flammable method of securing is required (i.e. wire, chain).

7. Oxygen and acetylene tanks are to be stored at least 25’ apart. Welding carts used to store these cylinders must be equipped with a 5’ tall barrier with a burn-rating of at least ½ hour, as indicated by the manufacturer.

8. Inside of buildings, cylinders shall be stored in well-protected, well ventilated and dry location. Cylinders should be stored away from elevators, stairs, gangways, or spaces where they will not be knocked over or damaged by passing or falling objects.
27 Tool Use

1. Always inspect all tools and equipment prior to each use. Do not attempt to repair tools or equipment (unless you have been designated as a “qualified person” to do so). Instead, report any defect to your supervisor. USE DEFECT TAGS so others do not use defective items.

2. Always use the proper tools and equipment for the job; do not modify or redesign the tool to fit the job.

3. Never misuse tools or equipment by circumventing safety devices or guarding.

4. Never use makeshift or home-made tools or equipment to perform your job.

5. Report defective equipment to your supervisor immediately.

6. All electrically powered tools (except battery-powered) are to be double-insulated.

7. Electric tools are to be outfitted with a constant-pressure switch/trigger that turns the tool off when the trigger is released.

8. Angle Grinders:
   a. Angle grinders are to be used with the handle and guard in place. Any deviation from this requirement must be identified on the PTSA and is only permitted during specific, identified conditions, and approved by Clayco.
b. Workers are to keep both hands on the grinder when in use as to maintain control of the grinder.

c. Materials being worked by the grinder are to be clamped or otherwise properly secured, instead of holding the material by hand.

d. Inspect cutting/grinding wheels before use for damage. Never use damaged wheels. Make sure that wheels are rated appropriately (RPMs) for the grinder.

9. Manual post drivers are not permitted on Clayco jobs. Any post driving is to be done with a powered (gas or electric) driver.

10. Fixed blade knives are not to be used on Clayco projects. All knives used on Clayco jobs must have a self-retracting blade. This type of knife utilizes a mechanism that exposes the blade when needed and automatically draws the blade back into the guard when the cut is complete. This is to prevent unwanted lacerations.

a. If using a self-retracting blade is not feasible for the task, a Clayco approved variance for use is required. In addition, higher than a cut 5 level hand and arm protection must be evaluated. Leg protection must also be contemplated depending on the tasks.
28 Silica Protection

1. All subcontractors engaged in activities that create respirable silica dust must protect their workers and others from exposure to that silica in a way prescribed by OSHA’s regulations in Table 1. For activities not listed on Table 1, the following methods must be used for protection:
   
a. **WET METHODS** (Best Protection) – use of water at the point of operation that prevents the creation of dust
   
b. **VACUUM METHODS** – use of HEPA-filtered vacuums at the point of operation that prevents the creation of dust
   
c. **RESPIRATORS** (Only if no other method is feasible) – use of respirators on exposed employees that prevents exposure to the dust. Employers are to provide proof of documentation of annual physical exam and fit test for the respirator being used.

2. Workers operating dirt-moving equipment that does not have an enclosed cab must be protected by respirators. Equipment/activities that create large clouds of dust must use additional protection to prevent the dust from impacting other workers and/or the general public.

3. Refer to the following sources for more information on protection against respirable silica dust exposure:
   
a. OSHA Regulations – 1926.1153 (includes full Table 1)
   
b. Clayco’s Silica Binder
   
c. Subcontractor’s Site Specific Safety Plan (SSSP)
Personal injuries, property damage or loss, environmental and high potential “near miss” incidents must be reported to Clayco Safety Department immediately.

The incident investigation process and appropriate corrective actions must be initiated immediately after the event area has been made “safe”. The initial “fact finding” aspects of the report must be submitted to the safety and insurance departments within 24 hours after the incident.

There are 8 main categories of incidents that require reporting:

1. Employee personnel injury/illness incidents (first-aids, medical aid/OSHA recordable and lost time);

2. Property damage and loss;

3. Environmental incidents (chemical leaks and spills);

4. Subcontract employee/injuries/incidents/illnesses;

5. Vehicle accident reporting;

6. Theft/Vandalism/Harassment;

7. Workplace Violence;

8. Near Miss/Great Catch
Clayco Incident Notification Procedure:

1. If an event, as described above, occurs on your job site, the situation is to be stabilized first. Next a brief fact based TEXT MESSAGE is to be sent IMMEDIATELY to the personnel listed on the Incident Reporting checklist (location, date, time, picture, describe).

2. The site safety person/Regional Safety Manager is required to send via text/email to key Clayco management people updates on the status updates on the situation (e.g. condition of injured worker(s), corrective actions, impact to operations, plans for stand-up, etc.).

3. OSHA requires notification of work-related fatalities within eight hours, and work-related in-patient hospitalizations, amputations or loss of an eye within 24 hours. This will be handled by the VP - Risk Management or their designee.

4. 24-Hour Informational Call is to be arranged by the project team and include: Insurance Director, Project Executive, Project Manager, Operations Management, Safety Management and others, as directed, to discuss the facts of the incident.

5. A Root Cause Analysis (RCA) is to be conducted for all OSHA Recordable injuries. An RCA may be required for property damage events or any other high potential events or near misses. Participation will be required by the Project Management Team, Safety Department and Subcontractors involved. The RCA is to be conducted within one week of the incident.

6. To help prevent a future similar event, a SAFETY ALERT will be assembled for all OSHA recordable injuries and other selected high risk incidents as deemed appropriate by the VP-Risk Management or their designee. The Safety Alert must be sent out as soon as possible, following the RCA.
Environmental Reporting:
Environmental activity includes reportable spills/releases to the environment, complaints, inspections and enforcement notification. For any of these types of items, an Incident Report must be completed.

Vehicle Accident Reporting:

When renting cars for work purposes, or if you are driving a Clayco vehicle, be sure to carry your Clayco Insurance Card. Updated copies are distributed each year or can be obtained from Nocona Schulz, VP of Corporate Insurance.

1. Any accident or incident involving a Clayco owned or leased vehicle which results in personal injury and/or property damage must be investigated and a report containing the pertinent information prepared.

2. In the event of an accident a Clayco driver shall
   a. Take necessary precautions to prevent further accidents at the scene.
   b. Take steps necessary to obtain assistance for any injured party.
   c. Provide the required information to the other party and obtain that information for the company report. DO NOT make any statements at the accident scene regarding the incident except to the police or the Clayco provided claims handler.

3. Contact the VP of Corporate Insurance: Nocona Schulz 314.378.9727.


5. Request a copy of any police reports from the incident and submit with the Motor Vehicle Accident Report.
30 Deliveries

1. Deliveries of materials and equipment are to be coordinated with the onsite Clayco Superintendent or their designee.

2. Deliveries are to be received in designated areas with appropriate guarding and flagging to protect passersby.

3. Subcontractors are to provide an escort to meet and guide the delivery driver to the receiving area.

4. Delivery drivers who are out of the cab of their truck must wear the applicable PPE required at minimum for workers on the site.

5. Workers using mechanical equipment (forklift, crane, etc) to load/unload must be properly trained on that equipment and have proof of training on file with the project team.

6. Workers accessing the trailer to unload/load materials
   a. Must use a ladder to access on/off the trailer;
   b. Must utilize fall protection when they are more than six feet off the ground.
This section addresses the basic measures for preventing the transmission of viruses and disease, such as COVID-19, among our workforce. Specific, additional requirements may vary based on applicable federal, state, local and owner requirements. These guidelines are to be considered a minimum level of protection. During a viral outbreak or pandemic event, Clayco and each subcontractor will provide specific direction for their projects and workers.

1. If you are experiencing symptoms, quarantine yourself away from the project site.
   a. If symptoms develop during the work day, leave site and report the symptoms to your supervisor using phone/text
   b. If you have been tested and awaiting results, you are expected to quarantine yourself away from the project site

2. Report all potential exposures and positive cases to the Clayco Project Team Immediately.

3. Avoid close contact with others.
   a. Maintain at least six feet of separation between yourself and others
   b. Avoid shaking hands, hugs and other direct physical contact
   c. Avoid sharing tools with others. If you must, be sure to wipe them down with disinfectant between users
   d. Avoid gatherings of multiple people in one area at one time – especially in regards to break areas, project meetings and site entry/exit areas
1. Stagger start/end times and break times to minimize large groups

2. Conduct Toolbox Talks, Stretch and Flex and other activities in small, spread out groups instead of large mass gatherings

4. Practice extreme hygiene.
   a. Cover the mouth and nose with a tissue or the elbow when coughing and sneezing
   b. Wash hands with soap and water or alcohol-based hand sanitizer after coughing/sneezing, using the restroom or touching common surfaces like handrails, door knobs or handles
   c. Wear face coverings – Surgical masks, bandannas, spray socks and even homemade cloth masks can help prevent spread.

5. Practice extreme cleaning.
   a. Common work surfaces are to be wiped down frequently with a disinfectant wipe or spray.
      1. This includes assembly areas, work tables, aerial lifts, tools and other items used by multiple people
   b. Follow the manufacturer’s directions for use for all cleaning supplies
   c. Use rubber gloves, goggles and any other PPE required by the manufacturer of the cleaner to protect yourself and others
In accordance with the Drug Free Workplace Act of 1988, Clayco must maintain a drug free workplace. Thus, the unlawful manufacture, possession, distribution, transfer, purchase, sale, use, or being under the influence of illegal drugs or alcohol while on Clayco projects or property, or while operating a vehicle or equipment is strictly prohibited.

I acknowledge that a Substance Abuse Policy and Enforcement Program is in effect on this job site and that, as a condition of employment, I must comply with the provisions of this Policy and shall abide by the rules and procedures specified for enforcement. Accordingly, I understand and agree to abide by the following statements:

1. No worker may be under the influence of any illegal drug or alcohol while in the workplace, while on duty, or while operating a vehicle or equipment.

2. No employee may possess or use illegal drugs while on Clayco projects or property, while on duty, or while operating a vehicle or machine.

3. Employees may use physician prescribed medications, provided that the use of such medication does not adversely affect the job performance or the safety of the employee or any other individuals in the workplace. Clayco reserves the right to assess, under applicable state and federal law or third-party contractual or regulatory compliance obligations, whether such substance does not adversely impact the safety of the employee or others.
4. All workers are subject to the drug testing requirements contained within the Substance Abuse Policy and Enforcement Program and recognize that as a condition to my involvement on this project, I will be required to undergo and successfully pass drug testing in accordance with any applicable laws, as follows:
   a. Before or at the time of my hiring or enrollment
   b. on a random basis
   c. for reasonable cause
   d. after an injury or incident

5. While my cooperation is voluntary, I understand that my failure to cooperate fully with the drug testing procedures, my refusal to submit to an alcohol or drug test, a positive test result, or any violation of the Substance Abuse Policy and Enforcement Program shall be sufficient cause for my expulsion from this job site.

This document does not supersede other job site rules but is in addition to them. In the event of a conflict, the more restrictive rule must be complied with.
FOCUS FIVE HAZARDS

- Caught in or between
- Falls
- Struck-by
- Contact with electricity
- Overexertion/ergonomic
We always comply with the “Rules to Live By”.

As an employee or contractor for Clayco, you are responsible and authorized to stop any work that does not comply with these Rules, and there will be no repercussions. That is our commitment to you.

STOP WORK
AUTHORITY

It is YOUR responsibility. YOU have the authority.

YOUR IDEAS AND CONCERNS ARE IMPORTANT.

We always comply with the “Rules to Live By”. As an employee or contractor for Clayco, you are responsible and authorized to stop any work that does not comply with these Rules, and there will be no repercussions. That is our commitment to you.