THE BASICS

Our goal is for every worker to go home safe every day. This book outlines the things you need to do to make sure that happens, but there are some simple ideas you can do every day to keep you and your co-workers safe.

1. **PLAN YOUR WORK.** Be a part of the daily PTSA – think about the hazards involved in your work and what you must do to avoid those hazards.

2. **STICK TO THE PLAN. STOP AND CHANGE THE PLAN WHEN SOMETHING CHANGES.** When you have created a plan, make sure and follow it, but even the best plans run into problems. When this happens, **STOP THE WORK**, get with your supervisor and make a new plan. Remember to use your Stop Work Authority!

3. **KNOW THE EMERGENCY PROCEDURES.** Make sure you understand what to do and where to go when fires, storms or other emergencies happen.

4. **USE THE RIGHT PPE.** Concrete Strategies 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.

5. **STAY FOCUSED.** Be aware of your surroundings. Stay focused on your work and what is happening around you. Stay out of the line of fire to avoid being hit. Correct hazards you see before they hurt you or others.

6. **REPORT INJURIES AND INCIDENTS IMMEDIATELY.** If something happens, get it reported so it can be treated or corrected as soon as possible.

7. **USE THE RIGHT TOOL FOR THE JOB.** Always follow the manufacturer’s instructions. Follow weight capacities, use proper accessories and keep guards on and in use during operation.

8. **PRACTICE 100% FALL PROTECTION.** Properly cover holes and barricade leading edges to protect yourself and others. When leading edges can’t be barricaded, or you work at heights of 6’ or more, make sure anyone in the area is using personal fall protection devices.

9. **PROTECT YOUR BODY FROM STRESS.** Use mechanical means of lifting and moving materials whenever possible. Keep work close to the middle of the body – avoid working over the head or below the knee. Participate in Stretch & Flex and do stretching on your own whenever you can.

10. **PREPARE FOR THE WEATHER.** Watch out for your fellow workers – especially during hot/cold weather. If they are struggling, get them 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.
Welcome to the Concrete Strategies Team! Our companies most valuable resource is our employees. Making sure that each and every one of our employees returns home from work SAFELY is our top priority!

At Concrete Strategies, we support and ask that you use “Stop Work Authority” any time you identify an unsafe behavior or condition of a task. Doing work SAFELY and with the proper tools and training takes precedence over production, quality, schedule, and cost.

SAFETY is a team effort! Please keep an eye out on your coworkers.

Last but not least, please commit to Concrete Strategies that you will:

✓ Make safety your 1st priority
✓ Arrive to work on time
✓ Be fit for duty
✓ Focus on the task at hand
✓ Eliminate any work place distractions

Thank You again for joining the Concrete Strategies Team and we look forward to mutual successes together!

Sincerely,

Pat Moriarity,

President, Concrete Strategies Inc.
EMERGENCY INFORMATION

CSI Safety Reporting Hotline.............................314-592-5643
3E SDS.................................................................800-451-8346
Poison Control.....................................................800-222-1222
CHEMTREC.............................................................800-424-9300
CSI Safety Department Director..........................314-452-2283

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.
   SITE ADDRESS: _____________________________________
4. Give your name and the phone number you are calling from.

BE SURE TO KNOW:

Location of weather shelters ________________________________

Evacuation routes ________________________________________

How emergencies are communicated (alarms, sirens, etc.)
_______________________________________________________

WHEN STORMS ARISE:
1. Monitor the weather. When lightning is within 30 miles of site, CSI supervision will begin to prepare to shut down site.

2. When lightning is within 10 miles of the site, all outdoor work is to stop and workers are to move into shelter at:
   _____________________________

3. 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.
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Concrete Strategies 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 Concrete Strategies, 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 Concrete Strategies 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 Concrete Strategies 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 Concrete Strategies management. If necessary, you can call the Concrete Strategies Safety Reporting Hotline – 314.592.5643. Using this hotline, you can report issues, in good faith, directly to the Safety Department.
The following items are also critically important to the functionality of Concrete Strategies 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 Concrete Strategies immediately
- Reporting all incidents of discrimination and harassment to Concrete Strategies 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

If you ever have a question about any of these issues, please contact the Concrete Strategies project management team or the Concrete Strategies Safety Department using the hotline listed above.

2) INTRODUCTION

Thank you for choosing to work with Concrete Strategies. One of our most important objectives is to ensure you return home safely without injury each and every day.

The Concrete Strategies “Safe” Philosophy:

1. Nothing is more important than safety.
2. All accidents and injuries are preventable.
3. Safety is an individual responsibility.
4. Safety is a way of life 24/7.
5. Every task performed with a concern for safety.
6. The “Rules To Live By” are ZERO TOLERANCE.

The rules and instructions contained in this booklet are for the protection and benefit of all employees on every Concrete Strategies 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 Concrete Strategies projects. Local, State, Federal and/or Owner requirements may be more restrictive.

We expect your active participation in Safety 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 Analysis meetings
3. Report all injuries, property damage and “close calls” immediately
4. Identify and correct any safety hazards – “You see it, You own it!”

These Concrete Strategies Work Rules are to be followed by all personnel working on site and are subject to change. The most-recent version of these Rules will be followed as the governing set of Safety regulations on site. Items not listed in this book will be deferred to OSHA regulations, unless covered in other documentation or site meetings.

3) SUBCONTRACTOR RESPONSIBILITIES

It is the responsibility of all subcontractors on Concrete Strategies 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) 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 Concrete Strategies Project Manager for further details.

2) Site Specific Safety Plans – Each subcontractor 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.

3) Subcontractor Insurance – All required insurance paperwork is to be submitted to and approved by Concrete Strategies before the subcontractor starts work onsite.
4) **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 Concrete Strategies office the first day starting on the job with OSHA 10 or 30 cards and any other pertinent training certifications.

5) **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.

6) **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.

7) **Pre-Task Safety Analysis** – Each crew is 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.

8) **Permits, Inspections & Audits** – All permits and inspections are to be completed daily, before work starts. Each subcontractor is to complete an audit on a weekly basis and submit to the Concrete Strategies office.

9) **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.

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### DISCIPLINARY POLICY

All violations of Concrete Strategies 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 Written Warning, Time off without Pay, or Termination.

**“RULES TO LIVE BY”**

**Eye Protection**

ANSI Z87, foam-lined eye protection shall be worn at all times (including prescription eyewear). All grinding, saw cutting, and work involving flying particles shall require the use of double eye protection.

**Head Protection**

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

**Hand Protection**
ANSI Cut Level A3 Gloves (minimum) are required to be worn at all times with the exception of tasks that physically cannot be performed while wearing gloves. (i.e. threading small screws, etc.)

**Fall Protection**
100% Fall Protection is required on unguarded areas 6’ or higher (Including ALL work in scissor and boom lifts).

**Pre Task Safety Analysis**
Completing and signing the daily PTSA outlining the steps of the task, the hazards, and the controls.

**Safe Work Permitting and Inspections**
Complete and obtain Concrete Strategies approval for Hot Work, Confined Space, Roof Work & Excavation Permits. Complete Equipment & Aerial Lift Inspections prior to operation.

**Respiratory Protection**
Shall be in worn when the task exposes the worker to harmful particulates – Fit & Pulmonary Function Testing is required annually.

**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.

**Policy Details**

**Implementation** - “RULES TO LIVE BY” violations will require disciplinary action to be taken by the Concrete Strategies representative who witnesses the violations. Disciplinary action must be documented in accordance with the Concrete Strategies disciplinary action procedure, and completed documentation must be submitted to the St. Louis Safety Department.

**Level of Disciplinary Action** - The level of disciplinary action administered will be determined by the severity of the infraction and the employee’s disciplinary action history. Options include: an oral reprimand (1st offense), written (2nd offense), time off without pay (3rd offense). In accordance with Concrete Strategies’ disciplinary action policy, the three-step process may be bypassed if the infraction is perceived as severe by the Concrete Strategies representative, resulting in immediate termination.

**Disciplinary Action** – Record Retention - Written reprimands will remain on file for a period of 12 months from the time of the violation. An additional reprimand written during the 12-month period will be considered a
second offense. After 12 months, reprimands will be “removed” from file and additional reprimands will be viewed as a first offense.

In accordance with Concrete Strategies disciplinary action policy, the three-step process may be bypassed if the infraction is perceived as severe by the CSI representative, resulting in IMMEDIATE TERMINATION.

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 LOTO certification
- Crossing through DANGER tape without authorization
- Throwing material/debris from upper elevations to lower elevations
- Not reporting injuries/property damage to Concrete Strategies project supervisors

5) GENERAL SAFE WORK EXPECTATIONS

1. Annually, all subcontractors working on site must complete a brief Concrete Strategies safety orientation or be escorted at all times.

2. Subcontractors with 30 or more employees (including all tiered subcontractors), at any given time, must have a full-time, experienced and qualified safety representative assigned to the job. If the workforce increases to 60 or more, or there are significant safety issues, the need for additional safety supervision must be evaluated.

3. At least 50% of each crew shall have OSHA 10-hour training.

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

5. All site personnel must attend a minimum of one safety toolbox meeting per week. Documentation relevant to the meetings must be presented to the project superintendent weekly, with the agenda, names and signatures of all employees in attendance.

6. 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.

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

8. Each subcontractor is responsible to maintain housekeeping at all times throughout the entire work shift. Staged/stored materials are to be
organized and maintained in assigned locations. All trash is to be placed in proper receptacles. Littering and discarding trash to the ground or floor is strictly prohibited. Discard and/or store oily rags and similar combustible materials in metal containers designated for that purpose.

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

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

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

12. 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.

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

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

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

16. Restricting or attempting to restrict production is prohibited.

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

18. Radios and headphones are not allowed on the construction site. Two-way radios, like walkie-talkies, are allowed.

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

20. Falsification of any records, misrepresentation or withholding of facts to secure the job is cause for dismissal.

21. Never misuse or remove from the premises any employee lists, blueprints, company records or confidential information without proper authorization.

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

23. 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.

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

25. Failure to perform work in a workman like manner, faulty work, inattentiveness to work or carelessness is cause for disciplinary action.

26. **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.

27. The possession, and/or use of cameras, video recording equipment and/or audio or visual recording or projection equipment or devices is strictly forbidden on Concrete Strategies projects without the express written consent of at least one Corporate Partner and the VP of Risk Management.

28. Any variance for performing a work activity in a manner different than prescribed in Concrete Strategies’ Safety Program and/or different law or statute shall be documented, approved and communicated on a site by site basis, in the Subcontractor Site Specific Safety Plan & daily PTSA.

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

30. **ALWAYS** participate in a Daily Pre-Task Safety Analysis for all tasks.

31. **ALWAYS** wear required Personal Protection Equipment (PPE)

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

33. **All** grinding, saw cutting, and work involving flying particles shall require the use of double eye protection (*example*: foam-lined safety glasses and a face shield).
34. ALWAYS 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.

35. 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.

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

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

38. All employees who operate powered industrial vehicles must have a valid driver’s license and have completed proper training to operate such equipment on site. A copy of the operator’s training card must be filed in the office.

39. NEVER block safety showers, eyewash stations, fire hoses, sprinkler heads or fire extinguishers.

40. 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.

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

42. 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.

43. You are expected to report all near misses or close calls to a Concrete Strategies supervisor. This is important to prevent a future “Hit”.

44. You may be asked to participate in a behavior based safety observation process. Observations are to be anonymous and focused on behaviors, not work conditions.

45. 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.

46. For crews that have non-English speakers, the subcontractor is to provide a translator who will be onsite whenever these workers are present and available to assist in communication. One translator is required for 1-25 workers. Additional translators may be required beyond 25 workers.
47. Any employee who drives a company vehicle on a public roadway must have a driver file and approved to drive by Safety.

6) **DAILY PRE-TASK SAFETY ANALYSIS**

- Daily, each crew is to complete a written daily pre-task safety analysis (PTSA).
- The plan is to identify job steps, hazards and safety precautions required to complete the job injury-free.
- Each person working on that crew must sign the PTSA.
- It is highly recommended to rotate the responsibility for completing the PTSA to members of the crew other than the Foreman.
- There must be a meeting to discuss the PTSA not a simple “sign off” by the crew.

7) **DAILY STRETCH AND FLEX**

- Crews are expected to participate in a brief daily “warm up” before starting work and, if desired, after lunch break.
- Companies may perform a stretch and flex session on their own, or if Concrete Strategies is facilitating one be part of that session.
8) HAZARD COMMUNICATION PLAN

- Company specific chemical inventory lists must be given to Superintendent/Safety and to be maintained on file.
- Each chemical used on a jobsite must have a Safety Data Sheet (SDS) readily available. This can be done by calling the 3E Hotline – 800-451-8346 or 760-602-8703 or supplying the SDS from the subcontractor/manufacturer records.
- All containers must be labeled and include the identity of chemical AND handling warnings or precautions.
- All containers must be closed and sealed when not in use.
- If anyone finds a container unlabeled or improperly labeled, please affix a proper label and notify your supervisor immediately.
- All chemicals must be properly stored in approved containers. Flammable materials must be stored in accordance with OSHA requirements for storage of flammable materials. This includes requirements for fire protection, storage location and signage. NO PLASTIC GAS CANS WILL BE ALLOWED ON SITE.

9) CONTROLLED ACCESS ZONES

1) ALWAYS utilize Caution/Danger tape whenever unique hazards are present. Signs must be attached to the tape identifying the hazard and controlling Foreman and his/her contact information.
a. **Yellow Caution** tape identifies areas to be aware of minor hazards.

b. **Red Danger** tape identifies areas of major hazard that require permission from the controlling Foreman to enter (example: fall hazards 6 feet or greater).

Note: Flagging is to be either RED or YELLOW – no other colors or multi-colored flagging/tape is permitted for barricading.

2) Crossing through danger tape is considered a serious violation unless you ask and receive “permission to enter” from Foreman controlling the area.

3) Danger tape may be used to identify temporary wiring and potential associated hazards (i.e. trip hazards).

4) Utilize hard barricades when tighter control of the area is needed.

### 10) 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
   b) plastic 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 by 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 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 Concrete Strategies Dropped Objects Prevention Program.

### 11) FALL PROTECTION

a. 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.

b. 100% fall protection is required for all personnel when performing elevated work **six feet** or higher. Elevated work platforms/walking surfaces **must** have proper guardrail systems or workers must be outfitted with personal fall protection.

c. All guard rail systems must have three components – a top rail, a mid-rail and a toe board.

   i. 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:
         a. be at least 3/8” wire rope
         b. be flagged at intervals no more than 6’ apart
         c. be tight with no more than 2” of deflection in any direction
         d. be secured by no less than 3 cable clamps at each end.

   ii. 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.

   iii. Toe board is to be placed along the walking surface and is to be at least 3 ½” in height.

A. 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) 100% tie-off **is** required when operating boom lifts, man-baskets, snorkels, cherry pickers, scissors lifts, etc. at any height.
4) Retractables used in lifts must not extend greater than 10’. Length of standard lanyard must not be more than 4’ – **six-foot lanyards are not allowed for use in any aerial lift.**
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, 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. **Floor, Wall Openings and Roof Work**

1) Every floor or wall opening from which there is a drop of 6’ 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 withstanding 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 Concrete Strategies supervision.

6) Warning lines are only to 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 16 lbs. of force

7) All steel cable guardrail systems must be 3/8” cable or greater with each end secured by 3 Crosby clamps.

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

9) All hole covers must be mechanically secured so as to prevent accidental displacement. Hole covers must be clearly labeled “HOLE”.

10) 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.

11) **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 200 lbs. of force. Trenches inside the project perimeter that will be left open and unattended must have snow fence barricades in place (not tape).
C. Preventing Slips, Trips, Falls
1) Ensure construction waste is picked up and does not create a slip, trip, fall hazard (e.g. rolling stock, wood, plastic).
2) Any change in elevation of 19” or more requires the use of ladder, stair, ramp or similar device to travel from one surface to the other.
3) Maintain safe access/egress points from buildings. Clearly mark/flag areas where we expect people to walk.
4) Maintain safe walking workings surfaces during inclement weather conditions (water, ice, snow, mud).

D. Personal Fall Protection
This fall protection policy shall be strictly adhered to and enforced to the extent that any employee found NOT using approved safety harnesses, lanyards and all other fall protection equipment and/or devices as required shall be subject to disciplinary action up to and including immediate dismissal.

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.
5) Full body harnesses equipped with rear (back) D-rings must be used.
6) Trauma straps are required on all harnesses to be used to prevent suspension trauma after a fall while a workers 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) Never leave retractable device cables extended since this can affect ability for the cable to retract properly.
10) Retractable lanyards must be fully retracted. 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.

11) Retractable lifeline devices must limit free fall distance to 2 feet or less.

12) Only manufacturer designed lanyards shall be used to tie off at “foot level”.

13) Lanyards shall not be used in conjunction with retractable devices.

14) 6’ Lanyards should only be used when there is a 17.5’ and greater fall exposure. For shorter clearances, retractable lanyards must be used.

15) 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.

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

17) Anchor points must be capable of supporting at least 5,000lbs. per employee and be located overhead.

18) 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.
19) Handrails are not permitted as anchor points.
20) Horizontal lifelines **shall** be designed, installed and used only under the supervision of a qualified person.
21) 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.

**E. Ladders**
1) 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.
2) Ladders shall be maintained free of oil, grease and other slipping hazards and shall be inspected for structural defects prior to use. All ladders **must** be inspected for deficiencies before each use. **NEVER** use defective ladders!
3) 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.
4) In offices and other inside areas with no anchor point available, A-frame step ladders eight feet or less in height **do not require** tie-off or fall protection (e.g. to change light bulbs in office).
5) 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 of not allowing the ladder to be stable.
   c) Working in a stairwell or at a window opening, 100% fall protection will be required.
6) 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.
7) Extension ladders must be equipped with gates or L-shaped barriers to prevent openings that workers could accidentally walk/fall through.
8) Metal ladders are not to be used on Concrete Strategies jobsites - except for small 2/3-step ladders and certain small work platforms.

9) Extension ladders must be held at their base by a second person while the first person climbs the ladder to tie it off. This includes the last trip down after untying a ladder at the top. If a ladder cannot feasibly be tied-off then it **must** be held at the base by a second person during ladder use.

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

11) 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.

**F. Stilts**

There shall be NO use of stilts on any Concrete Strategies project.

**G. 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) **You may not use scaffolding until you have been “user” trained.**

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.
   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 where there is possibility of overhead hazards and always at 10’ or higher.

12) SILICA PROTECTION

All Concrete Strategies workers engaged in activities that create respirable silica dust must protect themselves 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:

1. **WET METHODS** (Best Protection) – use of water at the point of operation that prevents the creation of dust
2. **VACUUM METHODS** – use of HEPA-filtered vacuums at the point of operation that prevents dust from entering the workers breathing zone
3. **RESPIRATORS** (In correlation with or if no other method is feasible) – use of respirators on exposed employees that prevents exposure to the dust. Workers must have documentation of annual physical exam and fit test for the respirator being used. Respirators must be stored away properly when not in use.

Refer to the following sources for more information on protection against respirable silica dust exposure:

- OSHA Regulations – 1926.1153 (includes full Table 1)
- Concrete Strategies Silica Binder
- Subcontractor’s Site Specific Safety Plan (SSSP)

**Note*** the following URL can be used to access Table 1:

13) GROUND DISTURBANCE (EXCAVATIONS)

1) Ground Disturbance permits are required for any activity that moves dirt, pavement, sod, rock, etc., or penetrates the ground at any depth:
   a. Digging/Excavating/Trenching (by hand or machine)
   b. Drilling/boring
   c. Grading
   d. Driving of stakes/pins

2) The permit may be used on a weekly basis, for single operations as long as conditions don’t change.

3) The permit is to be completed and reviewed before any work begins.
a. If work is to be done within fifteen feet of existing utilities, the permit is to be reviewed and approved by Regional Safety Manager and Field Operations Manager.

b. The permit is to be reviewed and approved by the Concrete Strategies Site Superintendent.

c. The permit is to be reviewed with crew before starting work.

4) A Site Utility Map is to be posted marked with existing utilities and is to be updated daily as new lines are installed.
   a. Lines are to be marked using the utility color’s from the standard color code
   b. Site Utility Maps is to be reviewed with the sub by the Superintendent as part of the permit review process.

5) Utilities are to be located prior to starting work. These utilities are to be daylighted when they are within 15’ by means of hydro-excavation (Vacuum Truck) when the project starts (existing lines) and by the subs as they install new lines.

6) PVC Utility Markers are to be placed during backfill of all existing utility locates and ruing 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 Field Operations Manager, but will be no more than 75 feet apart.

7) Hot Zone – the area within 15 feet of either side of a buried utility is considered a Hot Zone. Permits for work in this area are required by Safety Professional.

8) 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.

9) Benching is not permitted in Type C soils

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

12) The crew must be supervised by a competent person identified by the subcontractor.

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

14) When excavation conditions or methods change (after rain storm, uncover unknown utility), permit is to be reviewed and re-authorized by the competent person and approved by the Concrete Strategies site management team before work continues.

15) A copy of the permit must be on site in the permit stand and made available for review upon request.

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) Appropriate protection must be provided for trenches and excavations.

<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 deg</td>
<td>45 deg</td>
<td>34 deg</td>
</tr>
</tbody>
</table>

For every foot of depth, dig out 9”

For every foot of depth, dig out 12”

For every foot of depth, dig out 18”

Sloping in A Soil

Sloping in B Soil

Sloping in C Soil

Benching in A Soil

Benching in B Soil

NO BENCHING IN TYPE C SOIL
The Lockout/Tagout Program has been established to provide a systematic method for preventing injury to personnel during maintenance, servicing and cleaning activities, by safely shutting down and locking out machinery/equipment to prevent the release of potentially hazardous energy sources (i.e. electrical, hydraulic, thermal, chemical, pneumatic, stored, etc.).

- **NEVER** work on equipment unless you **verify** it has been fully isolated, brought to **zero** energy and locked out at all sources.
- For machines or equipment with multiple energy sources (or single energy source not easily identified), a written control procedure must be written and followed.
- One style of locks is to be used for lockout. Lockout/tagout devices must not be used for any other purposes (i.e. lockers, toolboxes). **Concrete Strategies - red banded locks with 2” shackle.**
- Tags **must always** accompany locks and identify the name and contact information of the person who applied the tag. It is recommended to include the date of application.
- Tags can only be utilized as the primary method of isolation when an energy-isolating device does not accept a lock. Other means of barricading area should be utilized.
- Always “walk down” all lockouts for equipment/systems you are working on to ensure the equipment or system is effectively locked out.
- All keys associated with the lockout **must** be maintained by the employee who applied the lock to ensure unauthorized people do not access the keys and unlock the box and/or equipment before it is ready to be put back into service. One key per lock.

**NOTE:** Each individual involved in the work must have a lock and tag on the machinery/equipment except where Group Lockout procedures are utilized.

**Group Lockouts**

The following steps must be followed for group lockouts:

- Lockbox coordinator reviews the equipment, and systems being locked out, with affected personnel.
- Lockbox coordinator isolates all energy sources for the affected machinery/equipment and places all keys in the lockbox.
- Each employee working on the equipment **must** affix a personal lock/tag to the lockbox or multi-lock device.
- When an individual completes the work, they remove their lock/tag from the lockbox.
- The last lock/tag removed from the lockbox will be the coordinator’s. The coordinator **must** thoroughly check the machinery/equipment prior to re-energizing the system.

15) **CONFINED SPACE ENTRY**

1) Each project must identify possible confined spaces/permit required spaces, place them on a log/inventory available on the site and label each space. Each employer must do this (Subs and Concrete Strategies).

- A **Confined Space** is a space that has all of the following characteristics:
  - It has a limited means for entry or exit.
  - It has adequate size and configuration for a person to enter.
  - It is not designed for continuous occupancy.

- A **Permit Required Confined Space** meets all requirements for a confined space, AND it has one or more of the following characteristics:
  - It contains or has the potential to contain a hazardous atmosphere.
  - It contains a material that has the potential for engulfing an entrant.
  - It has converging walls, a floor that slopes downward or a configuration that could trap or asphyxiate an entrant.
  - It 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, all entering these spaces must be properly trained (Authorized employees only).

3) Employee training certificates must show they have covered confined space entry training.
General Confined Space Entry Requirements:

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

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

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

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

e. NEVER attempt an internal rescue.

f. Employees must be properly trained prior to working in a confined space, so if you don’t understand this rule you shouldn’t be working in an enclosed and potentially hazardous work space.

g. If you don’t know ASK!!! (A four-foot-deep trench may be a confined space.)

16) MACHINE GUARDING

- Equipment/machinery should not be operated unless all guards are in place. In rare cases, a guard may need to be bypassed.

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

- 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.

- 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.

17) DRIVER COMPLIANCE

In efforts to ensure CSI employees have the proper license and credentialing set forth by DOT compliance, the following policies have been established.
Policy:

- All CSI employees must acquire the appropriate CDL or State License for the Gross Vehicle Combined Weight in which they will be operating.
- Pump, Dump, Vac, Roll Off, Loop Belt, Mixer, Agitator, Boom, and Hydro-Excavator Truck Operators are permitted to have a Class B CDL if they are strictly operating that type for vehicle. Should they drive any other vehicle with a Gross Weight or Combined Gross Vehicle Weight of 26,001 or more and/or traveling cross state lines, they may be subject to a Class A CDL.
- All CSI employees who may drive a jobsite vehicle but never on a public roadway needs a valid state driver’s license and have a Motor Vehicle Report (MVR) ran. If they are operating a CMV they need a road test.
- All CSI employees who receive a car allowance or utilize their personal vehicle for company business must have a valid state driver’s license.
- At NO time is an employee of CSI allowed to drive a company vehicle without submitting their driver’s license to Safety, subject to the appropriate Driver Qualification Process if needed, and approved to drive by Safety.
- Driver’s License will be scanned and stored in employee’s training file and a Driver Qualification Folder will be created for DOT compliance.
- Driver Qualification Folders consist of: Required Drug Testing, Medical Examination Cards, MVR Check, Road Test, Driver’s License Review, References from previous employers for which they drove for.
- At no time are employees allowed to carry hazmat that would require a hazmat placard. (ex. More than 1,000 lbs. of fuel which equals to 100 Gallons of fuel) To carry hazmat, vehicle must have a placard and the driver must have a hazmat endorsement on their license.
- It is the responsibility of the employee to ensure they are not driving or towing equipment for which they are not properly licensed.
- It is the responsibility of the Superintendent, Foreman, or Manager to ensure all employees driving company vehicles have been approved and cleared through Safety before they drive a CSI vehicle.
- Failure to follow policy and procedure may result in disciplinary action.
18) VEHICLE AND EQUIPMENT SAFETY

1) Only authorized, qualified and supervised personnel are permitted to operate equipment, vehicles, valves, electrical switches and similar machinery.

2) Anyone operating mobile, motorized equipment and vehicles must possess a valid driver’s license.

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.

10) **Employees are not to ride in the back of a truck.**

11) Follow jobsite speed limit (10 mph) unless posted or otherwise notified.

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

13) All bi-directional machines, such as rollers, compactors, front-end loaders, bulldozers and similar equipment, shall be equipped with a horn and back-up alarm, distinguishable from the surrounding noise level, which shall be operated as needed when the machine is moving in either direction. The horn shall be maintained in an operative condition.
14) 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.

15) When parking is allowed on the construction site, it is a privilege. Concrete Strategies assumes no responsibility for lost, stolen or damaged vehicles.

16) 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.

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

18) 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.

19) CRANES

Assembly/Disassembly Responsibilities:

1. All assembly/disassembly 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 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:**

a. 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.

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

c. 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 the A/D Director has implemented procedures that minimize the risk of unintended movement and the duration and extent of exposure under the boom.

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

e. All rigging must be done by a **“Qualified Rigger”**.

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

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

h. 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.

i. 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.

j. All operators MUST have documented employer evaluations for the crane type they are operating.

**Synthetic Slings:**

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).

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

**Outriggers and Stabilizers:**
- When outriggers or stabilizers are used or are necessary in light of the load to be handled and the operating radius:
- Outriggers and stabilizers must be fully extended or, if permitted by manufacturer procedures, deployed as specified in the load chart.
- Outriggers must be set to remove equipment weight from the wheels, except for locomotive cranes.
- Outrigger floats, if used, must be attached to the outriggers; stabilizer floats, if used, must be attached to the stabilizers.
- Each outrigger or stabilizer must be visible to the operator or to a signal person during extension and setting.
- 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.

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

**Signal Person:**
- Is required when the point of operation is not in full view of the operator (1926.1419(a))
- The operator’s view is obstructed in the direction the equipment is traveling
- 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.

## 20) 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.

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

## 21) ELECTRICAL

- **NEVER** work on electrical circuits unless authorized and/or qualified.
- **All extension cords will be of the 3 prong type rated for extra heavy use and be not less than 12-gauge wire.**
- Power strips not rated heavy duty for use in construction are not allowed.
- Extension cords shall be hung overhead, when at all possible, to reduce potential tripping hazards. Workers are to inspect cords prior to use.
- Each contractor is to conduct a weekly cord round-up where all cords used in their operations are checked for damage unless hung overhead.
- Damaged cords are to be immediately removed from service.
- 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.

- Only certified electricians shall work on any electrical device greater than 50 volts.
- Breaker panel doors are to be kept shut and properly labeled.
- 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>
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<tr>
<td>200 – 350 kV</td>
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<tr>
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<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>

- When work is to be done within 50 feet of power lines, a documented conference is to be held between the site Superintendent, Safety Engineer, and the subcontractor to discuss keeping workers safe.
- No metal poles or other conductive tools that could come in contact with power lines are to be used (bull floats, paint poles, etc)

22) **HOT WORK**

- A Hot Work permit is required when creating an ignition source (cutting, welding, brazing, etc.).
- When welding or burning, always use proper goggles or face shield, welding gloves, welding jacket (if necessary) ensure flash shields/barriers are in place, if needed.
- Always wind-up welding leads and hoses after use and/or at the end of each day.
• Fire watch shall be required. (Minimum 30 minutes after burning/welding/cutting operations unless otherwise noted)
• Hot work permit to be approved by Concrete Strategies site management team.
• Do not use Concrete Strategies fire extinguishers for hot work activities. Subcontractors are to supply their own.

### 23) 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. 20-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

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 labelled with the identity of the contents and handling warnings or precautions.
   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 labelled “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.

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 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.

24) **CARBON MONOXIDE (CO) PROTECTION**

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 through fans, wall/roof openings or any 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.

i. 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.*

ii. Area evacuation may only be necessary if levels reach 100 ppm or more for a period of five minutes or more. The area will remain cleared until levels are back down at or below 35ppm.
25) COMPRESSED GAS CYLINDERS

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

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

6) 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.

7) 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.

26) PERSONAL PROTECTION EQUIPMENT (PPE)

1) Personal Protection Equipment (PPE) is required 100% of the time on Concrete Strategies jobsites. This includes:
   o Hard hat
   o ANSI Z87 approved foam-lined safety glasses with side shields
   o ANSI Cut Level A3 gloves (minimum)
   o High visibility outerwear (shirt, jacket or vest)
   o Long pants
   o Sturdy work boots
   o and, in some cases, Hearing protection

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) Safety/steel toe footwear is strongly recommended. For some tasks (jackhammering, compacting, concrete placement, etc.) additional foot protection is required.

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

6) Foam-lined glasses and face protection (face shields) will be required while performing work tasks such as chipping concrete, grinding, handling chemicals, using demo or chop saw, grinders, etc.

7) If it is determined a respirator is required for the work you are doing, you must first be trained, medically qualified and fit-tested.

8) Head Protection
   i. Hard hats are to be worn at all times on the jobsite
   ii. Must have a Type 1 or 2 rating (Impact)
   iii. Must have a Class E or G rating (Electrical Protection)
   iv. Types and styles NOT PERMITTED FOR USE
      a. Metal hard hats
      b. Cowboy hat-style hard hats
      c. Bump caps
      d. Other styles not meeting the requirements listed above
   v. 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
   vi. Items are not to be stored under the hard hat (keys, wallet, cigarettes, etc) between the head and the hard hat
   vii. Baseball caps are not to be worn under the hard hat.
      a. Soft, weather-related head coverings may be permitted – knit cap/beanies, balaclava/ski masks, hard hat liners, sweat bands, and do-rags/skull caps.

9) Hand Protection
   i. ANSI Cut level A3 rated gloves are required, at a minimum.
   ii. Proper gloves are to be worn 100% of the time. Exceptions for glove use: when working with small parts, writing, other tasks where extreme manual dexterity is essential, etc. This must be coordinated with the Concrete Strategies management team for approval prior to removing gloves.
   iii. Gloves must be selected based on the task(s) being performed to ensure adequate cut, abrasion, puncture, and chemical resistance.
**27) RESPIRATORY PROTECTION**

- Respirators may be required when adequate administrative or engineering controls are not feasible to prevent harmful exposures to toxic chemicals or particulates. NIOSH approved respirators shall be provided by the company and used by the employees after the following conditions have been met:
  - Medical respirator questionnaire assessed by medical professional
  - Pulmonary Function Test (PFT)
  - Respirator physical if determined to be necessary
  - Fit testing
  - Respirator assignment
  - Training in the fitting, care and use of the respirator

**28) HAND PROTECTION**

- Proper gloves are to be worn 100% of the time. Exceptions for glove use: when working with small parts, writing, other tasks where extreme manual dexterity is essential, etc. This must be coordinated with the Concrete Strategies management team for approval prior to removing gloves.
- Gloves must be selected based on the task(s) being performed to ensure adequate cut, abrasion, puncture, and chemical resistance.
- **Cut level 3** rating minimum glove is required.

**29) 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 defects 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) Manual post drivers are not permitted on Concrete Strategies jobs. Any post driving is to be done with a powered (gas or electric) driver.
8) All knives used 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 cover when the cut is complete. If self-retracting blades are not able to be used, cut resistant sleeves and gloves must be worn.

30) INCIDENT REPORTING AND INVESTIGATION

Personal injuries, property damage or loss, environmental and high potential "near miss" incidents must be reported to Concrete Strategies Safety Department immediately. The initial incident investigation and appropriate corrective actions must be initiated immediately. A formal incident investigation must begin within 24 hours after the incident and be completed within 72 hours. Exceptions to meeting the established time guidelines would be based upon the complexity of the investigation.

There are 7 general 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 spills)
4. Subcontract employee/injuries/incidents
5. Vehicle accident reporting
6. Theft/Vandalism
7. Near Miss

Concrete Strategies Incident Notification Procedure:
1. Incidents such as those listed below must be reported immediately.
   a. Multiple injuries/illnesses (in-patient hospitalization)
   b. OSHA recordable injuries
   c. Property damage
   d. Business interruption potential (e.g. utilities hit, power line, etc.)
   e. Incident that could cause a client/owner to be concerned (e.g. theft, harassment)
2. If an event as described above occurs on your job site that results in **harm to people**, contact the following people immediately.
   a. Call MOM – 888.845.0665 and input call back # then send group
text message to falling:
   b. Safety Director: Joe Rock – 314.452.2283
c. Project Safety Manager or Engineer
d. Nocona Schulz – 314.378.9727
e. Appropriate CSI Project Mgmt. Team Members – PM, Superintendent, etc.

3. If an event as described above occurs on your job site that **does not result in harm to people**, contact the following people immediately, via group text message.
   a. Joe Rock – 314.452.2283
   b. Project Safety Manager or Engineer
   c. Nocona Schulz – 314.378.9727
d. Appropriate CSI Mgmt. Team Members – PM, Superintendent, etc.

4. OSHA requires notification of work-related fatalities within eight hours, and work-related in-patient hospitalizations, amputations of loss of an eye within 24 hours.

5. A brief “Incident Notification” email will be sent out by a Safety Department representative within 24 hours of the incident.

   The “Incident Notification” email must be distributed to the following
groups utilizing the proper distribution lists (PDL):
   - Project Management Team
   - Safety Department
   - Operations Manager

   This email will include only basic facts as known at that time: time of incident, basic incident description, status of situation, location and/or person.

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.

7. A Root Cause Analysis (RCA) should be conducted for all OSHA Recordable injuries and serious incidents. Participation will be required by the Project Management Team, Safety Department and Subcontractor Representation (if applicable).
**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:**
1. Any accident or incident involving a Concrete Strategies 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 Concrete Strategies 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. Call the police. 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 Concrete Strategies provided claims handler.
   d. Take Pictures! You pictures should tell a story. (Pictures of the scene, license plate, location, vehicle damage on all cars – Pictures close up and at a distance.)
3. Contact the Concrete Strategies Corporate Insurance Director and Safety Training and DOT Compliance Manager to relay information known at time of accident.
4. Complete a Concrete Strategies Motor Vehicle Accident Report and distribute within 24 hours.
5. Request a copy of any police reports from the incident and submit with the Motor Vehicle Accident Report

31) **SUBSTANCE ABUSE POLICY**
CSI asserts its legal right and prerogative to test any field employee for drug and or alcohol abuse. Employees may be asked to submit to a medical examination and or submit urine or breath testing for drugs or alcohol. Any information obtained through such examinations may be retained by CSI and is the property of CSI. CSI reserves the right, in its discretion within the limits of federal and state laws to examine and test for the presence of drugs and alcohol in situations such as, but not limited to:
• Pre-Employment
• Random
• Post-Accident/Incident
• Reasonable Suspicion
• DOT Post-Accident Testing

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. I agree not to use, possess, sell or distribute alcoholic beverages, drugs or drug paraphernalia, look-alike drugs, firearms, weapons, explosives, ammunition, or other prohibited items on this job site. I understand that a violation shall result in my expulsion from this job site and may result in the termination of my employment.

I acknowledge and understand that I am subject to the drug testing requirements contained within the Substance Abuse Policy and Enforcement Program and recognize that as a precondition to my hiring, placement and/or continued employment that I will be required to undergo and successfully pass drug tests at the time of my hiring or enrollment, pre-assignment, on a random basis, for reasonable cause and after an accident or incident.

I acknowledge and understand my involvement in an accident or other circumstances may cause the Owner, Contractor or subcontractor to require me to have a urine, blood or saliva drug and/or alcohol test as called for in the Program. 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 efforts to ensure Concrete Strategies employees have the proper license and credentialing set forth by Department of Transportation and Federal Motor Carriers compliance, the following policies and procedures have been established.

- All CSI employees must acquire the appropriate CDL or State Required License for the Gross Vehicle Combined Weight in which they will be operating.
- Pump, Dump, Vac, Roll Off, Loop Belt, Mixer, Agitator, Boom, and Hydro-Excavator Truck Operators must have a Class B CDL if they are strictly operating that type for vehicle. Should they drive any other vehicle with a Gross Weight or Combined Gross Vehicle Weight of 26,001 or more and/or traveling cross state lines, they may be subject to a Class A CDL.
- All CSI employees who may drive a jobsite vehicle but never on a public roadway must possess a valid state driver’s license. If they are operating a CMV on a jobsite they will need a Job Site Vehicle Operator Evaluation on the vehicle(s) they are driving. If they are driving for the Batch plant, they must have an approved Drivers Qualifications File with Safety.
- All CSI employees who receive a car allowance or utilize their personal vehicle for company business must have a valid state driver’s license.
- All employees who drive company vehicles must fill out a Drivers Qualification Packet, have a Motor Vehicle’s Record (MVR) driving background check, and must be approved to drive by the Safety Training and DOT Compliance Manager. At NO time is an employee of Concrete Strategies allowed to drive a company vehicle without this approval process.
- Once a year employees with an active driver file must submit a Certification of Violation (COV) form to Safety for review.
- All employees driving Concrete Strategies must abide by all rules of the road and comply with State and Federal laws. Federal Laws will always take precedent over State Law.
- All employees governed by Hours of Service Regulations must adhere to all rules and regulations.
• All employees must submit all Roadside Inspection Reports to their supervisor or Safety within 24 hours.

• Employees with CDL **MUST** use ‘hand free’ devices while driving.

• While driving any company vehicle, on public road or job site employees should always adhere to the Top 5 Defensive Driving Tips:
  
  o **Look Far Ahead;** Looking as far down the road as possible allows for a better situational awareness, allowing the driver to plan ahead.
  
  o **Getting the Big Picture;** This allows you to predict traffic patterns and know your surrounding whether is it vehicle or people around you.
  
  o **Have an Escape Plan;** This allows you to have enough room around you that you can react quickly to situations that are out of a driver’s control.
  
  o **Maintain Proper Following Distance;** Maintain a safe following distance in order to gain the time you need to react to changing conditions.
  
  o **Reduce Driving Distraction;** Keep your mind on the road, avoid eating and other driving distractions. Get plenty of sleep to ensure you are not fatigued and you are well rested.

• All employees driving company vehicles should drive to protect the traveling public and those around them at all times.

• Any employee who attaches a Concrete Strategies trailer to their personal vehicle must contact safety to be approved and fill out a Vehicle Lease Agreement.

• Employees should never drive fatigued and should never drive a vehicle that does not pass a DOT inspection.