



MiNT HEALTH AND SAFETY MANUAL

Subcontractor Specific



Why Shield?

Shield (hoplon or aspis) – The hoplite’s most important piece of equipment. A Spartan could lose his helmet or breastplate with impunity but would be disgraced if he threw away his shield because, “You wear the armor for your own protection but you carry your shield for the protection of the entire line.”



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L1 Visitor Release of Liability-Waiver Form
L2 Pre-Task Plan form (PTP)
L3 Job Hazard Analysis (JSA)
L4 Rigging & Electrical Color-Code
L5 Baker Scaffold Quick Reference Sheet
L6 Excavation Permit
L7 Site Specific Steel Erection Plan and Checklist
L8 Lift Planning Worksheet – Lattice Crane
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INTRODUCTION

MiNT is committed to protect our people, our assets and the environment, through reduction of loss, damages and injuries to our employees and equipment.

Our policy is to safeguard our employees, as they are our most valuable resource. Safety Culture is supported at the highest management level.

At MiNT, we believe Safety is everyone's responsibility and is not something conducted separately. It is integrated into the design, and execution of every task.



EXPECTATIONS

Subcontractors shall establish Policies, Standards, and Procedures to ensure the safety & health of workers and others exposed to Subcontractor's activities.

At a minimum, Subcontractor's Policies, Standards, Procedures and Performance shall meet and be in strict compliance with:

- All local, state, and federal governmental regulations (i.e. legal obligations)
- Contractual obligations including the requirements set forth in the contractual agreement between MiNT and Owner
- This Safety & Health Manual and those documents incorporated by reference within it
- Project established requirements
- The manufacturer's recommendations for all tools, materials, and equipment used by MiNT and/or Subcontractor

If there is a conflict as to which requirement is to be adhered to between local, state, and/or federal governmental regulations, contractual obligations, this S&H Manual and those documents incorporated by reference within it, Project requirements, and/or manufacturer recommendations, the most stringent components of each shall apply while always maintaining compliance with legal obligations. In many cases this will result in Subcontractor having to comply with legal obligations as well as additional items required in this S&H Manual. This is intentionally the design, and in part, the intent of this S&H Manual.

Management/supervision shall plan safety into each work task. Although the ultimate success of our Safety and Health Program depends on the full commitment and cooperation of each individual employee, management/supervision is responsible to ensure that applicable rules and procedures are established and enforced and that effective training programs are employed.

Safety, occupational health, and environmental protection must never be sacrificed for production. These elements are integral parts of quality control, cost reduction and job efficiency. Each supervisor must be personally concerned with the performance demonstrated by employees under his/her supervision as their performance relates to these elements.



SCOPE

The requirements set forth in this manual shall apply to all work managed by MiNT Construction, LLC.

The requirements in this manual have been placed in their respective sections only to facilitate the cross-referencing of the requirements with specific OSHA regulations.

However, unless otherwise stipulated in this manual, all requirements in this manual shall apply to all scopes of work irrespective of the requirement's heading or location it has been placed within the manual.



ACRONYMS & DEFINITIONS

For the sole purpose of this manual, the following definitions shall apply:

ADA	Americans with Disabilities Act
ANSI	American National Standards Institute
AWG	American Wire Gauge
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
GFCI	Ground Fault Circuit Interrupter
MiNT	MiNT Construction Company, Inc. and all affiliated companies respective to the contract documents.
JHA	Job Hazard Analysis
LOTO	Lock-Out Tag-Out
MSA	Master Subcontract Agreement
MUTCD	Manual on Uniform Traffic Control Devices
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
Owner	The entity MiNT Construction Company, Inc. has established a Prime Contract with
ROPS	Roll Over Protective Structure
PEL	Permissible Exposure Limit
PPE	Personal Protective Equipment
PPM	Parts Per Million
Project	Those areas indicated in the contract documents where construction work is performed for MiNT. This includes, but is not necessarily limited to, accessible areas of the Project, staging areas, fenced construction areas, jobsite trailers, warehouses, company provided parking areas, vehicles and equipment on the Project, driveways, lockers, toolboxes or other related storage areas used by employers and/or employees.
SDS	Safety Data Sheet (formerly MSDS)
QR	Qualified Rigger
QSP	Qualified Signal Person
Subcontractor	The entity that MiNT is contracted with to provide work on the Project and their respective lower-tiered Subcontractors
Supervisor	An employee designated by his/her employer to supervise activities relating to work on the Project and who meets MiNT’s requirements to be a Supervisor on a MiNT Project
SWPPP	Storm Water Pollution Prevention Plan



Section I



GENERAL REQUIREMENTS



GENERAL REQUIREMENTS

THE WILLIAMS-STEIGER OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

Section 5. Duties

- (a) Each employer
 - (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
 - (2) shall comply with occupational safety and health standards promulgated under this Act.
- (b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

“THE GENERAL DUTY CLAUSE”

Section 5(a)(1) of the William-Steiger Occupational Safety and Health act of 1970 has become known as “The General Duty Clause”. It is a catch-all clause for citations if OSHA identifies unsafe conditions for which no specific clause exists.

In practice, OSHA court precedent and the review commission have established that if the following elements are present, a “general duty clause” citation may be issued.

1. The employer failed to keep the workplace free of a hazard to which employees of that employer were exposed.
2. The hazard was recognized (Examples might include: through safety personnel, employee(s), organization(s), trade organization(s) or industry customs).
3. The hazard was causing or was likely to cause death or serious physical harm.
4. There was a feasible and useful method to correct the hazard.



GENERAL PROJECT REQUIREMENTS

1. Supervision:
 - a. Subcontractor shall have a competent, English proficient supervisor on site at all times while work is being performed under the Subcontractor's contracted scope of work.
 - b. Each supervisor shall implement and enforce the safety & health requirements.
 - c. Subcontractor's designated on-site safety representative shall have authority within the employer's organization to stop, correct and/ or change work activities performed by employee's and sub tier employees.
 - d. Prior to beginning work, Subcontractor shall identify in writing, to MiNT, the name of its onsite safety representative, competent person(s) (as defined and where required by OSHA) and the individual who oversees safety-related issues from their home office.

2. Meetings:
 - a. Subcontractor shall participate in preconstruction meetings. Subcontractor's Project Manager, site Superintendent, foremen and designated safety representative shall attend this meeting.
 - b. MiNT will conduct a weekly Subcontractor coordination meeting. Subcontractor's site Superintendent shall attend this meeting.
 - c. MiNT may conduct additional meetings to address safety-related issues as necessary. Subcontractor's Project Manager, site Superintendent, foremen, designated safety representative and employees shall attend these meetings as directed by MiNT.

3. Documentation:
 - a. MiNT shall have the right to but not the duty to review any and all of Subcontractor's documentation required by OSHA regulations and/or this manual. This right does not extend to an employee's confidential medical records. This review shall not constitute approval in any form.

4. Required Age:
 - a. No person under the age of **eighteen (18)** shall be allowed on the Project, which includes access through Project gates, irrespective of the minor staying in a vehicle without the explicit authorization from MiNT's Superintendent **and** MiNT's Project Manager.
 - b. No person under the age of **eighteen (18)** shall be allowed to work on the Project.
 - c. Unless hired directly by MiNT Construction and still within the federal law guidelines.

5. Tobacco:
 - a. Use of tobacco products, including e-cigarettes, are prohibited on the project except in areas designated by MiNT.

6. Animals:
 - a. No animals shall be allowed on the Project including pets, irrespective of the



animal staying in the cab of a vehicle, in an office, in a lock-up or similar work/break area.

7. Audio Devices:

- a. Radios, CD players, AirPods/headphones and similar audio devices are prohibited.

8. Communication Devices:

- a. The use of cellular/mobile telephones on the Project while in a safety sensitive position (e.g., operating equipment, exposed to a fall hazard, climbing ladders, walking around mobile equipment, etc.) is prohibited.
- b. MiNT's onsite project management team may, at their discretion, institute additional restrictions on the use of electronic devices including cellular/mobile telephones.

9. Unsafe Conditions/Acts:

- a. Employees are to report unsafe acts/conditions to their supervisor immediately. If the employee feels as though his/her safety concern is not being addressed they are encouraged and expected to report their concern to the MiNT Superintendent and/or the MiNT Project Manager.
- b. Employees shall not work under unsafe conditions.
- c. Employees shall not conduct unsafe acts.
- d. Horseplay shall not be tolerated.
- e. Fighting shall not be tolerated (this includes physically touching any other person with the intent to do harm, threaten, or intimidate).

10. Disciplinary Action:

- a. Subcontractors shall establish and enforce an effective disciplinary program to address their employees whom Subcontractor observes not in compliance or found to have been not in compliance with the requirements stipulated in this manual.
- b. In addition, any person MiNT observes not in compliance or found to have been not in compliance with the requirements stipulated in this manual is subject to being removed from the Project at the sole discretion and for a duration stipulated by MiNT's Project Management.



VISITORS

1. All prospective visitors to the project shall report to the MiNT Project Office and “check-in” with the MiNT’s Superintendent prior to being allowed access to the Project.
2. Prior to any MiNT visitor being granted access to the Project, MiNT’s Superintendent or authorized MiNT supervisor will:
 - a. Ensure the visitor(s) has proper authorization from a member of the MiNT management team prior to allowing the visitor(s) on the Project site.
 - i. Ensure the visitor(s) sign a **Visitor Release of Liability-Waiver Form**.
 - ii. Question the visitor on their planned use of cameras and/or recording devices;
 - iii. Advise the visitor on time limits of the visit and of restricted areas; and
 - b. Ensure the visitor(s) is escorted by a supervisor
 - c. Question the escort on the specific area(s) that will be visited.
 - d. Ensure the visitor is wearing the Project’s required PPE
 - e. Question the visitor(s) on where they parked their personal or company vehicle(s) to ensure it is in the proper location.



GENERAL LIABILITY

1. As the general public does not have the knowledge and awareness of construction-related hazards, all work in and/or adjacent to the public right-of-way shall be conducted with added precaution. In addition, since there are no specific regulations addressing what added controls need to be implemented to prevent injury to the general public, each exposure shall be evaluated on a case-by-case basis. **Subcontractors and employees shall plan for added control measures anytime the general public might be exposed to construction-related hazards.** However, MiNT reserves the right to require Subcontractor to increase its general liability control measures if MiNT determines that existing and/or planned control measures are inadequate. Such increased measures shall be at Subcontractor's cost unless otherwise agreed to by MiNT.
2. Appropriate control measures shall be implemented to address/abate all attractive nuisances. For the purpose of this manual, an attractive nuisance is a hazardous condition that meets the following criteria:
 - a. The place where the condition exists is one upon which the Subcontractor knows **or has reason to know** that the general public is likely to trespass, and;
 - b. The condition is one of which the Subcontractor knows **or has reason to know** and realizes **or should realize** will involve an unreasonable risk of injury, death or serious bodily harm to the general public;
 - c. The general public, because of their lack of knowledge and understanding to construction related hazards, may not discover the condition or realize the risk involved in inter-meddling with it or in coming within the area made dangerous by it;
 - d. The utility to the Subcontractor of maintaining the condition and the burden of eliminating the danger are slight as compared with the risk to the general public involved, and;
 - e. The Subcontractor fails to exercise reasonable care to eliminate the danger or otherwise to protect the general public.
3. Subcontractor shall not perform any work in, modify, or close any public sidewalk or road without a City permit and State permit (if it us under the authority of the State) and without the explicit authorization of MiNT's Project Manager and MiNT's Superintendent.
4. A MiNT S&H representative shall be consulted prior to any work in the public right-of-way.



SECURITY

1. Subcontractor is responsible for the security of their property (which includes but is not limited to their tools, their employees' tools, their trailers, their conexes, their building materials, and similar) while on the Project.
2. MiNT will evaluate the general security needs for the Project. When feasible and practical MiNT will erect a fence-line around the main Project boundaries. Regular access/egress gates will be established and open during construction hours.
3. If a Subcontractor requests to open a gate or portion of the fence-line in addition to the regular Project access/egress gates **and** MiNT authorizes the request, the requesting Subcontractor shall "man" the gate with a trained, competent and qualified employee at the requesting Subcontractor's cost. If for any reason MiNT determines that the employee manning the gate is not properly trained, competent and/or qualified to conduct his/her duties as a gate guard, Subcontractor shall immediately relieve the employee of his/her duties and have the position re-assigned.
4. MiNT has the authority to prohibit any unauthorized personnel from accessing the Project.
5. Subcontractor, on behalf of its employees, grants to MiNT the right to periodically conduct random searches of vehicles on site, lunch boxes, toolboxes, etc. for controlled or prohibited substances and/or stolen tools, materials, etc. MiNT has the right but not the duty to perform such searches.
6. Subcontractor and employees shall not remove non-personal tools and/or equipment from the Project without permission from their supervisor and MiNT.
7. Subcontractor and employees shall not give away and/or remove building materials from the Project without explicit written permission from MiNT's Superintendent.



Section II



SPECIFIC SAFETY REQUIREMENTS



SPECIFIC SAFETY REQUIREMENTS

In addition to the regulations set forth in OSHA 29 CFR 1926 (construction regulations), and other local, State, and Federal regulations, the following requirements shall apply:

Subpart A – General

1. Subcontractor's request to OSHA (including State Plan States) for and/or the award of variances from OSHA safety regulations shall not override Subcontractor's obligation to comply with Subcontractor's contract documents, which includes the requirements set forth in this manual.
2. Subcontractor shall immediately inform MiNT's Project Manager and Superintendent of all OSHA and/or other regulatory agency inspections and/or notices of complaint.

Subpart B – General Interpretations

1. Subcontractors shall ensure that the requirements set forth in this manual are included in their contract documents, purchase orders and/or service agreements, with any/all lower tiered Subcontractors.
2. Subcontractor shall be responsible for compliance with all safety regulations and requirements associated with their respective scope of work irrespective of Subcontractor portions of its scope of work to lower-tiered Subcontractors.
3. Subcontractor shall immediately abate all recognized and/or identified hazards in their work environment.
4. If Subcontractor believes that the action needed to abate a hazard is not their responsibility, Subcontractor shall either correct the hazard or remove any exposed employees from exposure to the hazard and immediately notify MiNT's Superintendent.

Subpart C – General Safety and Health Provisions

1. Safety Inspections:
 - a. Subcontractor's designated Project Superintendent, general foreman, foremen, and lead personnel shall conduct daily safety observations of Subcontractor's work area, materials and equipment.
 - b. Subcontractor's designated Project Superintendent shall conduct a weekly **documented** safety observation of their work area, materials, and equipment. This inspection shall be inclusive of all of Subcontractor's work including all work scopes that Subcontractor has subcontracted to lower-tiered Subcontractors. MiNT has the right to review but not the duty to collect this documentation. These observations shall be documented in a manner acceptable to MiNT.



2. Work Activity Planning - Written:
 - a. Prior to start of each work shift, Subcontractor's individual crew Foreman shall plan for and review the necessary safety measures for that work shift with their employees. This work plan shall include an inspection of their work area to identify and correct unsafe conditions prior to the start of work. Documentation of this process shall be kept on file at the jobsite. MiNT's Pre-Construction Checklist (PCC) shall be utilized for this purpose. Subcontractors can utilize their own forms for this purpose if their form/process provides for an equal process.
 - b. For each general work activity related to Subcontractor's scope of work and when work activities are unusual or pose a higher degree of risk or when requested by MiNT, Subcontractor shall complete and submit to MiNT a written hazard assessment prior to the beginning of such activity. This assessment is commonly referred to as a Job Safety Analysis (JSA). The JSA shall be specific to the Project. The JSA shall detail the controls that will be implemented and enforced to achieve compliance with all applicable requirements. Modifications to the Subcontractor's initial JSA will be required as conditions and/or means/methods change. MiNT shall have the right to review, but not the duty to approve, the JSA. Subcontractor shall implement the controls identified in the JSA.
 - c. While conducting the PCC and JSA process the Hierarchy of Controls must be considered to ensure that the most feasibly effective controls are implement.

3. Safety Education:
 - a. Project Orientation:
 - i. All employees requiring access to the Project shall attend a site-specific safety orientation conducted by MiNT prior to accessing the Project.
 - ii. This orientation is not a training course.
 - iii. All employees attending the orientation shall be properly trained and authorized **by their employer** to conduct their respective duties.
 - iv. Orientations will be conducted at MiNT's Project office.
 - v. If Subcontractor wants individuals who do not speak and/or understand English to access the Project, Subcontractor shall schedule a separate non-English orientation with MiNT's Superintendent to accommodate these individuals. Subcontractor shall give a 48-hour notice to MiNT for the separate non-English orientation. It is the responsibility of Subcontractor to provide an interpreter for these orientations.

 - b. Toolbox Safety Meetings:
 - i. Subcontractor, shall conduct weekly "Toolbox Safety Meetings" with their respective employees. The meeting topic, items discussed and signature of all employees in attendance shall be documented. A copy of this documentation shall be submitted to the MiNT Superintendent on a weekly basis.



- c. Other Conditions, Equipment & Material:
 - i. As the need arises, and/or as direct by MiNT, Subcontractor shall conduct additional safety education with its employees when unusually hazardous conditions are present or are likely to become present, the use of specialized equipment is necessary and/or when the use of hazardous materials will be required.

- 4. Reporting and Investigating of Injuries and Incidents:
 - a. Subcontractor shall immediately inform the MiNT Superintendent of all work-related injuries/illnesses to Subcontractor's employees (including lower-tier Subcontractor's employees) and of all safety-related incidents including "near incidents/near misses/close-calls".
 - b. Subcontractor shall submit to MiNT's Superintendent, within 24-hours of the injury or incident, written investigation reports pertaining to the incident/injury. Reports shall be completed by the employee(s) involved in the incident/injury and supervisor(s) of the employee(s) involved in the incident/injury. Additionally, if any witnesses have information pertaining to the incident/injury, the witnesses also shall complete a report.
 - c. Subcontractor shall immediately report all known actual and/or potential losses to the MiNT Superintendent and MiNT Project Manager.
 - d. MiNT shall have the right but not the duty to suspend operations and personnel from the site until satisfied that all information pertaining to safety related incidents is examined and investigated either by MiNT and/or by Subcontractor.
 - e. Subcontractor shall participate and cooperate in any injury or incident investigation it is involved in and shall complete and submit to MiNT any report forms requested by MiNT within legal compliance.
 - f. Subcontractor shall be required to attend any investigative, follow up and /or disciplinary review meetings as a result of injury or incidents.

- 5. Housekeeping:
 - a. It shall be the responsibility of the Subcontractor to keep the premises clear and clean of their debris daily and to provide equipment and labor necessary to remove all debris and surplus material from the site. If, in the opinion of MiNT, this requirement is not being met, MiNT may provide labor and/or equipment necessary to perform the required clean-up. All associated costs shall be deducted from the Subcontractor's contract.
 - b. Subcontractor shall provide an adequate number of trash receptacles to facilitate the collection of debris generated from their respective scope of work. Once full, the trash receptacle(s) shall be emptied immediately.
 - c. Stairways and walkways shall be kept clear of debris, materials, tools and other obstructions.
 - d. Loose material that has the potential to be picked up and carried by the wind shall be adequately secured to prevent displacement of the material by the wind.
 - e. Dumpsters shall be placed in locations free from ignition sources.



6. Emergency Action Plan:
 - a. Subcontractor shall comply with the MiNT's Emergency Action Plan(Subpart C).
 - b. This plan will be periodically evaluated and revised as necessary.
 - c. Subcontractors will be advised of changes to the plan during weekly coordination meetings and monthly safety meetings. Subcontractor shall comply with the revisions.
 - i. Communication:
 1. Emergency Telephone Numbers – A list of emergency telephone numbers shall be posted in Subcontractors project office locations.
 2. Mobile Telephone – Subcontractor shall provide all of its on-site supervisors with a mobile telephone to allow for general and emergency communication.
 3. Interpreters - Subcontractor shall provide an interpreter for all required orientations, trainings and meetings for those employees who do not understand and/or speak English. In addition, Subcontractor shall always provide for an interpreter to be on-site when its employees who do not understand and/or speak English are on site.
 - d. Subcontractor shall ensure that training on the requirements of the Emergency Action Plan is conducted with all personnel under Subcontractors control on at least a quarterly basis.

Subpart D – Occupational Health and Environmental Controls

1. First Aid:
 - a. Where the eye(s) of any person may be exposed to any injurious chemical, Subcontractor shall provide and ensure that a suitable eye wash station is immediately available in the immediate work area for emergency use. Eye wash stations shall be of enough size to adequately flush the chemical from the eye(s).
2. Sanitation:
 - a. Toilets – Unless otherwise stipulated in contract documents, each subcontractor is required to provide toilet facilities for their employees on the project.
 - i. Employees found relieving themselves in areas other than the Project established toilet facilities shall be immediately and permanently removed from all of MiNT Projects.
 - ii. Hand Cleansing or sanitizing agents shall be provided for each toilet unit.
 - b. Food and Drink - Food and drink shall only be permitted and allowed to be consumed in areas designated by MiNT.
 - c. Smoking and Tobacco - Smoking and use of tobacco products shall only be permitted in areas designated by MiNT and in compliance with legal obligations.
 - d. Potable Water - Unless otherwise stipulated in contract documents, each subcontractor is required to provide potable water for their employees on the project.



- i. When reusable water containers are utilized for potable water, they are to be cleaned at least every two days with a sanitizing agent to prevent the spread of disease.
3. Illumination: (see Subpart K of this document).
4. Hazardous Substances and Hazard Communication
 - a. Subcontractor shall develop and implement an effective written hazard communication program specific to their scope of work.
 - b. Subcontractor shall submit to MiNT's Superintendent a Safety Data Sheet (SDS) and estimated quantities for each product that the Subcontractor will be using on the Project. This information shall be provided prior to the product's arrival on the Project and shall be in both electronic and paper form.
 - c. All chemical containers including small daily use and one time use containers must be labeled.
 - d. Under no circumstance shall food or beverage containers be utilized to hold chemicals of any nature.
 - e. All chemical containers shall be covered with a lid when not in use.
 - f. Unless otherwise stipulated in the contract documents each subcontractor is responsible for the waste they generate from the use of hazardous chemicals and/or hazardous materials as well as the associated costs.
 - g. All waste generated from the use of hazardous chemicals and/or hazardous materials shall be disposed of in accordance with manufacturer's recommendations as well as all local, state and federal regulations. Hazardous waste shall not be disposed of in drains, manholes, vaults or tanks.
 - h. Unless otherwise stipulated in the contract documents, each subcontractor is responsible to remove all unused hazardous chemicals and/or hazardous materials from the project immediately after the scope of work they were used for is completed.
 - i. Each employer shall train its employees who are assigned duties which may cause exposure to hazardous substances or who may be exposed to hazardous substances on the appropriate safety & health requirements for working with and/or around the hazardous substances.
5. Mold:
 - a. Subcontractor shall immediately report any water damage, leaks, or water intrusion to the MiNT Superintendent.
 - b. Subcontractor shall immediately report the presence of mold that Subcontractor observes on any portion of the project to the MiNT Superintendent.
 - c. Unless otherwise directed by MiNT, Subcontractor shall not remove or disturb visible mold contaminated materials. If such direction is given, it shall be conducted in compliance with industry standard safety requirements and under the guidance of a Certified Industrial Hygienist.
 - d. Subcontractor shall be responsible for any mold remediation that is necessary as the result of subcontractor's actions or inactions.



Subpart E – Personal Protective Equipment (PPE)

1. All MiNT employees shall adhere to the rules and guidelines of the MiNT Personal Protective Equipment Plan – Appendix E.
2. Subcontractors shall maintain on site an adequate supply of safety equipment and a PPE inventory appropriate for their respective scope of work.
3. Minimum work attire and Personal Protective Equipment for Subcontractors:
 - a. The following work attire and personal protective equipment is required to be worn 100% of the time while conducting work on the Project:
 - i. **Hard hat meeting ANSI Z89.1 2009.** The employee’s name and that of his/her employer shall be visibly displayed on the front part of the hard hat. Bump caps and cowboy style hard hats are prohibited.
 - ii. **Eye protection meeting ANSI Z87.1 with “side-shield” protection.** In addition, if prescription glasses are required to be worn by an employee, the prescription glasses shall meet the ANSI Z87.1 requirements with side-shields or the employee shall utilize the appropriate ANSI Z87.1 eye protection over the prescription glasses.
 - iii. **Over the ankle work boots with puncture resistant soles.** Sport shoes (including ANSI approved) are prohibited.
 - iv. **Shirt.** Shirts, at a minimum, shall fully cover the employee’s torso to the waist and have sleeves that cover the upper arms.
 - v. **Pants.** Pants at a minimum shall fully cover the employee from the employee’s waist to the employee’s ankles. Sweat-pants do not meet the intent of this requirement and are prohibited.
 - vi. **High visibility shirt, vest, or jacket.**
 1. For daytime work, the employee’s most outer shirt, vest, or jacket shall be a bright and vibrant color (e.g. orange, fluorescent yellow, fluorescent green, or similar). This is required to be worn anywhere on the project site inside or outside.
 2. For nighttime work, areas with limited lighting, and work around equipment, the employee’s most outer shirt, vest, or jacket shall be a bright and vibrant color (e.g. orange, fluorescent yellow, fluorescent green, or similar) **and** shall also be retro-reflective or fitted with retro-reflective striping. The retro-reflective material shall be visible at a minimum distance of 1,000 feet.
 3. Anytime employees are exposed to public vehicular traffic, the requirements for High-Visibility Safety Apparel listed in the Manual on Uniform Traffic Control Devices (MUTCD) shall apply to ALL workers with the exposure, NOT just the flaggers.
 4. If “hot work” is being conducted, the employee’s high visibility shirt, vest, or jacket shall also be constructed from flame-resistant materials.

4. Hard hats shall be replaced as per the manufacturers recommendation.
5. Face-shields shall be worn at all times while operating a grinder and/or chop-saw, irrespective of what type of blade or disk is being utilized with the tool or what type of material the tool is being utilized to cut/grind.
6. Face-shields shall be worn at all times concrete chipping tools pose a hazard to the face.
7. At all times that hand operated/controlled/held power tools that generate substantial vibration are being utilized, vibration-dampening gloves shall be worn by the operator of such tool.
8. Safety-toed boots and metatarsal protection is required to be worn when operating any walk-behind or jumping-type compactor.
9. Where respiratory protection is necessary, the use of respirators shall be a last resort. Alternate controls shall first be evaluated and where feasible, effectively implemented.
10. Subcontractors who have to utilize respiratory protection shall develop and implement an effective written respiratory protection program specific to their scope of work.
11. Filtering face piece type respirators, commonly referred to as dust masks, shall not be utilized for respiratory protection above the Occupational Exposure Limits (OEL's) of any substance.
12. Where filtering face pieces are being used below the Occupational Exposure Limits (OEL's), their required use, regardless of the filtering face piece's construction, shall constitute the use of a respirator. Thus, employers shall ensure that all personnel required to utilize a filtering face piece is medically qualified, trained, and fit-tested prior to utilizing the filtering face piece.
13. When the voluntary use of a respirator is being conducted, each employer shall secure written documentation from their employees voluntarily utilizing a respirator acknowledging their receipt of OSHA's "Information for Employees Using Respirators When Not Required Under the Standard".
14. Loose fitting earrings, necklaces, and/or bracelets shall not be worn. Workers who have the potential to have their hand(s) and/or finger(s) caught in/on material, equipment, tools, or similar shall not wear any form of bracelets and/or rings while exposed to such hazards.

Subpart F – Fire Protection and Prevention

1. Subcontractor shall comply with the fire protection and prevention requirements stipulated throughout this manual. The fire protection and prevention requirements will be evaluated periodically and may be revised to meet the specific needs of the Project. Subcontractor will be advised of any changes during weekly coordination meetings. Subcontractor shall comply with the revisions.
2. The fire hydrants located on and around the Project shall remain in service.
3. Subcontractor shall not take out of service an existing fire hydrant unless Subcontractor has the explicit written permission from MiNT. In addition, Subcontractor shall give verbal notification to, and obtain authorization from the City and/or State Fire Marshal's office, the City Fire Department, and the City Public Utilities office prior to taking any fire hydrant out of service.



4. Subcontractor shall not utilize a fire hydrant as a source of “construction water” without the explicit written permission from MiNT’s Superintendent and the City Public Utilities office. In addition, Subcontractor shall give verbal notification to, and obtain authorization from, MiNT’s Superintendent, the City/State Fire Marshal’s office and the City Fire Department prior to the commencement of such work.
5. The fire hydrants and the adjacent occupied buildings’ Fire Department Connections (FDCs) shall not be blocked, damaged or covered for any reason.
6. MiNT or its contracted representative shall stage “general location” fire extinguishers in strategic locations throughout the Project as required by federal, state, and local regulations.
7. Subcontractor shall not consider the “general location” fire extinguishers placed by MiNT to meet the requirement for Subcontractor to provide its own fire extinguisher during “hot work” (e.g., welding, torch use, etc.) or “fire sensitive work” (e.g., the use of flammable liquids, etc.).
8. Subcontractor shall not damage, remove, relocate, block, or otherwise render these “general location” fire extinguishers inactive.
9. Subcontractor is required to inspect its fire extinguishers on a daily basis prior to the beginning of work. If any extinguisher is found to be damaged or inactive in any way it shall be taken out of the field, properly “tagged” as “OUT OF SERVICE” and either repaired, recharged, or discharged.
10. MiNT will inspect the MiNT supplied “general location” fire extinguishers on a monthly basis.
11. At a minimum, a three-foot clearance shall be maintained around all fire extinguishers so as to facilitate quick and safe access to the extinguishers.
12. Subcontractor shall not render inactive any portion of a fire alarm system and/or fire water sprinkler system unless Subcontractor has the explicit written permission from MiNT’s Superintendent.
13. Fire lanes shall not be blocked for any length of time.
14. Plastic containers shall not be utilized for any flammable or combustible liquid including diesel fuel.
15. All flammable and combustible liquids shall be kept covered when not in immediate use.
16. Subcontractor shall provide a minimum of a ten-pound ABC type fire extinguisher within 25-feet of the use and/or storage of flammable and/or combustible liquids or other fire sensitive materials or work.
17. Flammable and combustible liquids in containers larger than 5 gallons shall be stored in/on a spill containment system that provides for 110% containment.
18. Liquefied Petroleum Gas (LPG) containers shall be kept upright at all times.
19. LPG containers shall not be stored indoors at any time.
20. LPG containers shall be considered “in storage/stored” if not in immediate use.
21. LPG containers shall not be taken in to nor stored in conexas, hooches, gang-boxes, tented areas and similar confined areas for any amount of time.
22. Subcontractor shall install the proper signage in LPG storage areas warning personnel of the potential flammability of the area.
23. Where plastic is used for weather protection or temporary barriers/enclosures, and it is anticipated that the plastic will be in close proximity to or be exposed to fire hazard



sources, such as welding, cutting, grinding, temporary heaters, etc., fire retardant plastic shall be used.

24. **Temporary Heaters:**

- a. Prior to the installation of temporary heater, a JSA must be completed for the use of the heater and the use of its fuel source delivery system.
- b. Only trained, competent, and authorized employees shall install, adjust, turn off/on, move, and/or maintain a heater and/or its fuel source delivery system.
- c. A detailed inspection of the heater and fuel source deliver system by a competent person shall be conducted prior to placing them into service.
- d. A general daily inspection by a competent person shall be conducted of the heater and the fuel source delivery system while it is in operation.
- e. LOTO shall be implemented anytime maintenance or repairs are being performed on the heaters and/or the fuel source delivery system.
- f. When heaters being used on the project, subcontractor shall instruct their employees:
 - i. That only trained, competent, and authorized employees area allowed to install, adjust, turn off/on, move, and/or maintain a heater and/or its fuel source delivery system.
 - ii. What to do if they smell gas
 - iii. How to handle heater and fuel gas related emergencies
- g. Heaters, hoses, manifolds, and valves shall be protected from damage.
- h. Hoses being placed directly on the ground shall not be ran over by equipment or have material placed on top of them.
- i. Hoses shall never come in contact with sharp edges such as metal studs or be pinched in doorways or windows.
- j. When a mainline fuel source is used to deliver fuel into the building shut-off valves shall be installed at each of these locations:
 - i. At the main, where gas originates from the meter or tank
 - ii. At each floor of the building
 - iii. At each “T” in the gas line
 - iv. At the end of each hose assembly, just prior to the heater connection
- k. The shut-off valve location at each floor of the building shall be demarcated with a sign for quick identification in the event of an emergency.
- l. Only specific compatible components shall be used for construction of the fuel source deliver system.
- m. Prior to placing the fuel source deliver system into service, each connection shall be tested to ensure leaks are not present.
- n. Manufacturer’s clearances for heaters shall be maintained.
- o. Heaters shall only be moved by their designated components, NEVER by the fuel source piping.
- p. Heaters shall not be in operation while being moved.
- q. Safety features on the heaters shall NEVER be overridden.



Subpart G – Signs, Signals, and Barricades

1. Barricade tape, when used, shall be placed around all sides of the hazard area.
2. **“Caution” (yellow)** tape shall only be utilized to warn personnel of potential hazards that are not immediately dangerous to life or health. Personnel will be allowed to cross caution tape only after they have identified the hazard/condition, are wearing the required personal protective equipment to protect them from the hazard and the hazard is not immediately dangerous to life or health.
3. **“Danger” (red)** tape shall be utilized to warn personnel of hazards that are immediately dangerous to life or health. Danger tape shall be placed at an appropriate distance so as to prevent personnel from being exposed to the hazard being barricaded. Personnel shall not cross Danger tape until they have identified the hazard(s), have been trained on the proper procedure(s) to control exposure to the hazard(s), are wearing the required personal protective equipment to protect them from the hazards, and have permission to enter the area from the individual(s) who placed the danger tape.
4. **“Special”** barricade tape shall be utilized on an as needed basis and be of sufficient type to adequately inform workers of the hazards associated with the work (e.g. RADIATION, ASBESTOS, LEAD, etc.)
5. Barricade tape of any type shall NOT be utilized as a means of fall protection/prevention.
6. When Danger tape is utilized, it shall be placed with two strips of tape (one at 42” and the other at 21” above the ground, floor, platform, etc.) demarcating the hazard area.
7. When any barricade tape is utilized it shall have an information tag/sign placed on it identifying who placed the barricade tape, why the barricade tape is in place (i.e. the hazards), and when the barricade tape was initially placed. The tag/sign shall face away from the exposure.
8. Barricading of work areas shall provide for the complete safety of the general public and all construction personnel. Sequencing and barricading shall be performed in such a manner as to create a minimum amount of interference with the normal flow of pedestrian and construction foot, vehicle and equipment traffic.
9. **Under no circumstance shall barricade tape and signage alone be placed to prevent the general public from entering a hazardous area. Hard/physical barricades and signage shall also be utilized in such areas.**
10. Signs, signals, and barricades shall be maintained in an appropriate manner when the hazard(s) is/are present.
11. Signs, signals, and barricades shall be immediately removed from the work area and properly stored or discarded when the hazard(s) is/are no longer present. In no case, shall signs, signals, and/or barricades be left lying on the ground.
12. Prior to barricading access/egress routes (e.g. stairwells) Subcontractor shall secure the approval from the Okland Supervisor overseeing the specific area being barricaded and coordinate alternate access/egress routes with all affected Subcontractors.



Subpart H – Materials Handling, Storage, Use, and Disposal

1. Cranes, Hoisting, and Rigging:
 - a. All crane, hoisting, and/or rigging operations shall be in compliance with **Subpart AA** of this document.
 - i. Operations that do not involve a crane **must still** comply with the **Rigging** and **Critical Lift** sections of **Subpart AA** of this document.
2. Proper lifting techniques:
 - a. Employees shall plan their path prior to lifting items that need to be carried to another location to ensure that the path is clear and safe.
 - b. Employees shall not lift any item that exceeds his/her weight lifting limitations (i.e. employees shall not lift items that are beyond their capability).
 - c. Employees shall squat down so the item being lifted is lifted with the employee's legs and arms rather than their back.
 - d. Employees shall keep the item being lifted close to their torso.
 - e. Employees shall keep their back as straight as possible while the item is being held.
 - f. Employees shall not twist at the waist while carrying a load. Employees shall turn their legs along with their torso.
 - g. Employees shall set loads down by squatting down while continuing to keep the load close to their torso.
 - h. To the extent practical, employees shall utilize equipment, tools and machinery to assist with lifting and moving loads.
3. No material shall be dropped greater than a distance of 20 feet without the use of chutes. The chute discharge shall be into a dumpster receptacle or similar. The area around the dumpster shall be barricaded with hard barricades. Signage shall be placed instructing personnel not to get on or near the trash chute and/or dumpster. Barricades shall be placed a sufficient distance away from the dumpster to prevent personnel from being struck by material that may ricochet out of the dumpster.
4. Where any material is dropped less than a distance of 20 feet to an open area below, the area below shall be completely barricaded on all accessible sides. If soft barricades are utilized, a sufficient number of spotters shall be positioned around the area below so as to ensure personnel do not walk under or near falling material.
5. Where any material is dropped less than 20 feet into a dumpster receptacle or similar, the area around the dumpster shall be barricaded with hard barricades. Signage shall be placed instructing personnel not to get on or near the dumpster. Barricades shall be placed a sufficient distance away from the dumpster to prevent personnel from being struck by material that may ricochet out of the dumpster.
6. Where debris is pushed or lifted over an edge of a structure, the equipment used to push or lift such debris shall not be exposed to an unguarded edge where it may drive or slide over the edge of the structure. Material used to prevent the equipment from driving or sliding over the edge must be sufficiently anchored to stop the movement of the equipment.



Subpart I – Tools; Hand and Power

1. All manufacturer-provided guards and safety devices on hand and power tools shall be in place and operating properly at all times.
2. The misuse of tools such as the use of a screwdriver as a chisel, a wrench as a hammer, overloading a wrench by using a pipe extension (**cheater bar**) on the handle, or similar action is prohibited.
3. Tools in need of repair shall be tagged out-of-service and be immediately removed from the work area.
4. Employees shall utilize proper material supports while cutting material. Supporting material with a foot or leg while cutting is prohibited.
5. The depth of the blade of all saws shall be appropriately adjusted for the thickness of the lumber being cut so the blade does not extend beyond the lumber more than necessary.
6. Whip-check devices shall be installed at all air hose connections from the air compressor to the tool/machine. Whip-check devices shall be utilized in addition to the pin connections in the hose couplings. Whip-check devices shall be spread to the furthest extent possible.
7. Pneumatic and/or hydraulic hoses shall not be dropped from heights nor shall they be run over with equipment or tools.
8. Pneumatic tools shall not be lowered by the hoses.
9. Employees who utilize powder or gas actuated tools shall be trained and certified in the safe operation of the specific tool being utilized and shall follow the requirements stipulated in the training.
10. Employees shall have certification cards on their person at all times while operating powder or gas actuated tools.
11. Hearing protection shall be worn while utilizing a powder & gas actuated tools.
12. Prior to the use of powder or gas actuated tools, employees shall install signage warning other personnel of the use of powder actuated tools in the area.
13. Unfired powder charges/loads shall be immediately placed in a storage container and removed daily from the project. Unfired powder charges/loads shall not be thrown on the ground or left on any other surface and shall not be thrown into project trash receptacles or dumpsters.
14. Subcontractor is responsible for the proper offsite disposal of gas actuated tool fuel cells. These fuel cells (full, partially used, or empty) shall not be thrown into project trash receptacles or dumpsters.

Subpart J – Welding and Cutting

1. Compressed gas cylinders shall only be hoisted in an upright and secured position, with the gauges removed, cylinder caps installed and in an approved lifting device. Approved lifting devices shall only include those devices that are specifically and commercially manufactured for that purpose or those that are constructed per the design of a registered professional engineer and are specifically designed for hoisting compressed gas cylinders.
2. Compressed gas cylinders shall be kept secured and upright at all times.
3. Compressed gas cylinders shall not be stored indoors at any time.
4. Compressed gas cylinders shall be considered “in storage/stored” when not used for



greater than a 24-hour period of time.

5. Compressed gas cylinders shall not be taken in to nor stored in conexes, hooches, gangboxes and similar confined areas for any amount of time.
6. Gauges and hoses shall be removed from compressed gas cylinders at the end of each shift.
7. Valve protection caps shall be installed on compressed gas cylinders when not in use.
8. Western couplers must be used to connect hose to torch and hose to hose. Screw type hose clamps are not acceptable.
9. Flash arrestors and back-flow prevention devices are required to be utilized with all oxygen and/or fuel gas operations.
10. Compressed gas cylinders shall be kept within sight and immediately accessible to the individual utilizing them or the fire watch.
11. Only strikers shall be used to ignite a torch, weed burner, and similar fuel gas tools. The use of lighters, matches, etc. for this purpose is prohibited.
12. Hoses shall not be repaired with tape.
13. **Hot Work Permits:**
 - a. Hot work is defined as: a process which, because of its design or function, can cause ignition of a product/material or gaseous/vaporous atmosphere due to direct or indirect contact. Examples of hot work include, but are not limited to, welding, torch cutting, burning, soldering, grinding, use of a chop-saw, use of a demo-saw, etc.
 - b. The supervisor overseeing the hot work operation shall obtain a daily written Hot Work Permit from the MiNT Superintendent prior to the execution of any hot work.
 - c. **Prior to requesting the Hot Work Permit the requesting supervisor shall inspected the work area and developed a fire prevention plan for the hot work activity.**
 - d. To the extent practical, hot work operations shall be conducted in areas which pose the least potential exposure for a fire.
 - e. MiNT's S&H department shall be notified prior to conducting any hot work on coated metals and prior to any inert gas metal-welding being performed on stainless steel.
 - f. The Hot Work Permit process is as follows:
 - i. Subcontractor's supervisor completes the permit and signs the Fire Safety Supervisor line.
 - ii. The person performing the hot work signs the second line
 - iii. The fire watch signs the third line
 - iv. The top copy is given to the MiNT Superintendent and posted in the MiNT job trailer.
 - v. The actual permit is attached to the equipment where the hot work is to be performed.
 - vi. At the end of the shift, the permit is returned to MiNT's project office
 - vii. Permits are matched up with the top copies and stapled together. These remain in project files for at least 90 days.
 - g. Additional hot work permits and/or requirements may be added in cases where hot work is performed within or near occupied structures. In these cases, MiNT's



Superintendent shall coordinate the securing of such permits from the respective building owner/manager and conveying to Subcontractor the additional requirements.

- h. After the hot work permit has been issued, but prior to beginning the hot work activity, Subcontractor’s supervisor shall review the requirements listed on the hot work permit, as well as the requirements of the Supervisor’s fire prevention plan, with the employee(s) conducting the hot work and the fire watch established.
 - i. Subcontractor shall furnish and assign a trained fire watch equipped with at least a 10A 60B:C or greater rated fire extinguisher.
 - 1. Subcontractor’s supervisor shall instruct the fire watch on the responsibilities of his/her assignment and specifically on what to do in the event of a fire or fire related injury.
 - 2. The fire watch shall continue to monitor the area in which he/she has been assigned to watch for fire for the duration stipulated on the hot work permit following the completion of the hot work activity.
 - 3. A fire watch shall have no other duties other than fire watch.
 - i. Sparks and/or slag shall be contained at the source of the hot work operation by use of catch pans/basins, fire blankets or any combination of these or by other effective means.
 - i. Plywood or similar combustible material shall not be utilized for protection against sparks and/or slag.
 - j. In cases where sparks and/or slag cannot be contained at the source of the hot work operation, Subcontractor shall assign additional fire watch personnel to guard against fire on/in all areas and/or floors in which the sparks and/or slag generated from the hot work activity are being dropped.
- 14. Welding screens shall be utilized when conducting welding operations where other trades and/or the general public may be exposed to the hazards of arc-flash.
- 15. Sufficient mechanical ventilation shall be provided by Subcontractor whenever interior welding or cutting operations are performed to ensure appropriate air exchange.
- 16. When arc welding or cutting operations are conducted on aluminum, stainless steel, and galvanized materials, workers must also utilize respiratory protection (i.e. respirators) until personal exposure monitoring is conducted, and it is determined that respiratory protection is not needed for that specific scope of work.

Subpart K – Electrical

- 1. Cords, Welding Leads & Tools:
 - a. All extension cords must be 12 AWG or thicker and be of a 3-wire type (i.e. it must have a ground).
 - b. Electrical cords, welding leads, and cables shall be covered, elevated or otherwise protected from damage and from creating additional hazards to employees (e.g., they cannot be run in the middle of hallways, walkways, or stairs nor can they be routed in or under water or ice).
 - c. Subcontractor shall conduct periodic “site-wide roll-ups” of all cords for inspection. Subcontractor shall also participate in “site-wide roll-ups” that may be periodically mandated by MiNT. Cords shall be inspected and properly organized when rolled back



out.

- d. Only industrial rated "three-ways" and similar splitters shall be utilized.
- e. Repairs to electrical cords, welding leads and cables with electrical tape is prohibited. Only manufacturer approved repair methods shall be used. Subcontractor shall supply to Okland, if requested, documented proof of the manufacturer's approval of the repair method.
- f. The use of a Ground Fault Circuit Interrupter (GFCI) is required when utilizing extension cords, power tools, and/or electrical machinery that are connected to an electrical receptacle.
- g. The use of makeshift electrical multi-ways (e.g. knock-out boxes not properly mounted) is prohibited.
- h. All electrical equipment and components shall be utilized in the manner and condition of its Underwriter Laboratories (UL) listing.

2. Temporary Lighting:

- a. Subcontractor shall provide all necessary task lighting in their work areas.
- b. All light stringers must be 12 AWG or thicker and be a 3-wire type (i.e. it must have a ground).
- c. If temporary lighting is wired directly into a panel, the respective breaker must be a GFCI type breaker.
- d. All lighting shall be Underwriters Laboratories (UL) listed. The use of "job-made" or "shop-made" lighting is prohibited.
- e. All temporary lighting shall be equipped with a lamp cage to keep other objects from coming into contact with the lamp. The outer lens of a halogen or similar light does not meet the intent of this requirement.
- f. Night and or low light activities must have sufficient lighting to eliminate shadows that can create visual hazards.
- g. Halogen light bulbs containing mercury shall not be utilized in temporary light stringers unless the contractor responsible for maintenance of the temporary lighting has submitted to MiNT a cleanup and remediation process for broken bulbs.

3. Control of Hazardous Energy Sources (Electrical & Other) – **Lock-Out Tag-Out:**

- a. The unexpected energizing or start-up of machines, tools or equipment, or the release of stored energy that could cause injury to employees or damage to equipment (e.g. Electrical, Hydraulic, Pneumatic, Magnetic, Heat, Mechanical, Radiation, Gravitational, Chemical, Stored Energy, such as in springs, batteries, and items under tension, etc.) shall be controlled through an effective Lock-Out Tag-Out (LOTO) program established by Subcontractor consistent with 29 CFR 1910.147 the control of hazardous energy.
 - i. The LOTO program shall require that all electrical wiring be treated as though it is energized until it is determined that the wiring is not yet connected to an electrical source or the electrical source is properly locked-out and tagged.
 - ii. The LOTO program shall require that each employee exposed to a potential hazard from the unexpected energizing or start up of machines, tools or equipment, or the release of stored energy, be protected with their



- own lock and tag.
- iii. The LOTO program shall require, when it can be done safely, an appropriate test of the LOTO to ensure that it has been effectively implemented.

4. Energized Electrical Work

- a. Subcontractor and employees shall exhaust every effort to perform electrical work with electrical systems de-energized.
- b. Energized electrical work includes working on or near any energized electrical system, whether alternating or direct current, including, but not limited to, services entrance sections, distribution switchgear, transformers, distribution panels, UPS systems, and branch circuit wiring where an employee is required to deliberately, or could accidentally, place any part of his body or any type of tool or material in to or around such electrical devices where the voltage has been determined to be in excess of 50 volts. Examples of such work includes, but is not limited to:
 - i. Voltage testing;
 - ii. Circuit testing;
 - iii. Trouble-shooting;
 - iv. Power switching;
 - v. De-energizing and re-energizing procedures;
 - vi. Pushing fish-tapes and/or pushing/pulling wire into an energized enclosure;
 - vii. Work performed on or in energized enclosures; and
 - viii. Excavations near underground energized lines.
- c. Subcontractor and employees shall comply with the energized electrical work safety requirements stipulated in *NFPA 70E, Electrical Safety in the Workplace, 2004 Edition*, when conducting energized electrical work.
- d. Access to energized electrical rooms or other areas where electrical work is taking place shall be limited to those employees who are wearing the required PPE and who are engaged in the energized electrical work.
- e. The electrical subcontractor, in coordination with MiNT’s Superintendent, shall maintain control of all energized electrical rooms and panels.
- f. Physical barriers (e.g. doors) and danger signs shall be used to prevent unauthorized entry to areas where energized electrical systems are in place and/or where any energized electrical work is being performed.
- g. Metal belt buckles, jewelry, key chains, cell phones, pagers, etc. shall be removed when working on any energized system. Hands shall be clean and free of any lotion, sunscreen or similar coating that may reduce the voltage rating of any rated glove liner being worn.

Subpart L – Scaffolds/Aerial Lifts

- 1. Scaffolds (of all types) shall be inspected by a competent person prior to each shift and following any modifications including new assembly. Each inspection shall be documented on a scaffold tag. Inspection tags shall be attached to the scaffold at the base of the access ladder.



- a. If a scaffold is utilized by different contractors, a competent person of **each** contractor shall complete a documented inspection of the scaffold unless other written agreements are made. The contractor having care, custody, and control of the scaffold shall establish a process of reporting and correcting deficiencies with the scaffold and a system for complying with the inspection tag requirement.
 - b. **“Green Tags”** shall signify that the scaffold is complete and can be utilized with ordinary precaution.
 - c. **“Yellow Tags”** shall signify that there are specific hazards associated with the scaffold that requires specific controls to be executed. Access and use shall be addressed through a JHA.
 - d. **“Red Tags”** shall signify that the scaffold is **NOT** safe to access or use.
2. If a scaffold does not have an inspection tag posted, employees shall assume that it is “Red Tagged” and not safe for use.
 3. Each scissor lift and aerial lift must also have a documented inspection conducted by a competent person prior to each shift. The scaffold tagging system is not required to be utilized on these types of equipment unless Subcontractor chooses to use them.
 4. Each “Baker” type scaffold shall have a MiNT **Baker Scaffold Quick Reference Sheet** posted on the scaffold.
 5. Ladders, buckets or any other makeshift object shall not be a component of any scaffold.
 6. Base plates or casters are required on all fabricated frame scaffolds irrespective of the scaffold being on a solid surface, such as concrete.
 7. If mud sills are required, mud sills shall be of adequate dimension to ensure stability of the scaffold and be secured to the scaffold base plate.
 8. Scaffolds shall be fully planked irrespective of the use of a personal fall arrest system.
 9. Scaffold platforms shall be at least 18” wide irrespective of the use of a personal fall arrest system.
 10. All scaffold planking shall be secured from movement/displacement (e.g. wired down, cleated, locked in, etc.)
 11. Job built scaffolds shall be constructed with lumber that is construction grade #1 spruce and plywood decking must be construction grade 3/4” at a minimum.
 12. “Baker” type scaffolds shall NOT be used as a means of support ends to “bridge” scaffold planks/platforms to other “Baker” scaffolds, other scaffolds, other supports, or similar.
 13. Guardrail, mid-rail and toe-board are required on all scaffolds if at all feasible. Workers do not have the option of utilizing a personal fall arrest system in lieu of completing a scaffold if it is reasonably feasible to install guardrails.
 14. Scaffolds equipped with guardrail shall have an access/egress gate that opens onto the platform at each point of access/egress. Climbing over/under/around the guardrail as a means of access/egress is prohibited.
 15. Fall protection when working from and/or climbing any scaffold ladder is required where the fall exposure to the employee is greater than twenty-four-feet (24’).
 16. Cross braces on scaffolding do not constitute guardrail. Guardrail systems shall be horizontally installed. The use of diagonal or vertical members as guardrail top-rail or mid-rail is prohibited.
 17. Guardrail is required on all open sides of fixed/stationary scaffolds when the scaffold’s



- work platform is six (6) feet or more above a lower level. With the exception of OSHA’s variance under 1926.451(b)(3), (b)(3)(i), & (b)(3)(ii) – (outrigger scaffolds & lathing/plastering operations).
18. Guardrail is required on all sides of any scaffold which has a work platform of forty-six inches (46”) or less in its least dimension when the scaffold’s work platform is four-feet (4’) or more above a lower level (e.g. on “Baker” scaffolds).
 19. Guardrail is required on all open sides of mobile scaffolds (i.e. scaffolds equipped with Wheels – locked or unlocked including Baker type scaffolds) when the scaffold’s work platform is four-feet (4’) or more above a lower level.
 20. When freestanding mobile scaffold towers are used in a **stationary** position, the height shall not exceed 3 times the minimum base dimensions.
 21. Employees shall not stand on the guardrail of any scaffold including scissor lifts.
 22. Employees shall lock all wheels on mobile scaffolds prior to accessing the scaffold.
 23. Employees shall ensure that all wheels stay locked while they are working from a mobile scaffold in a stationary position (i.e. a mobile scaffold that is not being moved uninterruptedly).
 24. Employees shall **NOT** “ride” on any mobile scaffold which has a work platform of fortysix-
Inches (46”) or less in its least dimension (e.g. “Baker” scaffolds). On these scaffolds, wheels shall stay locked **at all times** an employee is on the scaffold.
 25. Prior to an employee “riding” on any mobile scaffold with a work platform of **more than** forty-six-inches (46”) in its least dimension, a JHA shall be completed, the JHA shall be submitted to Okland, and the employee’s supervisor shall ensure that all the requirements under OSHA’s 29 CFR 1926.452(w)(6) are met.
 26. Scissor-lifts shall be moved in compliance with the manufacturer’s recommendations.
 25. Subcontractor shall develop a written plan detailing the safe construction, use and
 - a. inspection of a suspension scaffolds if used. A copy of the plan shall be submitted to
 - b. MiNT’s Superintendent prior to the construction of a suspension scaffold.
 26. Stair towers shall include landing platforms at each level in each direction of travel.
 27. Toe-boards shall be installed on each landing platform.
 28. Where up lift can occur, which would displace any scaffold end frame or panel, the
 - c. frames or panels shall be locked together vertically by pins or equivalent means.
 29. All cantilevered scaffolds and/or cantilevered landing platforms shall be designed by a
 - d. registered professional engineer and shall be constructed per that design. Design
 - e. drawings shall be Project and application specific. Documentation of the design shall be
 - f. submitted to the MiNT Superintendent prior to the construction of the scaffold/platform.
 30. All multi-sectional scaffolding must be tied into the building or stable structure, at a
 - g. minimum, every thirty-feet (30’) horizontally and fifteen-feet (15’) vertically.
 31. All scaffolds wrapped or enclosed with fabric, plastic or similar wrap shall be designed
 - h. by a qualified person and shall be constructed per that design. Design drawing shall be
 - i. Project and application specific. Documentation of the design shall be submitted to the



- j. MiNT Superintendent prior to the construction of the scaffold/platform.
- 34. MiNT, at its sole discretion, may require, Subcontractor, at Subcontractors cost, to have their scaffolding or certain components of a scaffolding (e.g. scaffold wrap) designed/engineered by a registered professional engineer due to the size, height, location or other concern. Such designs may include scaffolding and scaffold wrap anchoring methods and requirements.
- 35. MiNT’s S&H department shall be advised prior to the use of any type of suspension scaffold on a project.
- 36. The construction and use of suspension scaffolds shall be per the design of a registered professional engineer. Design drawings shall be Project and application specific. A copy of the design shall be submitted to MiNT’s Superintendent prior to the construction of the suspension scaffold. If the system being proposed is a “manufactured system”, and the installation and use of the scaffold system is within its intended design, the manufacturer’s use/operation/installation manual shall suffice.
- 37. Two-point suspension scaffolds (swing stages) shall not be less than 20-inches or more than 36-inches wide overall.
- 38. A complete guardrail system including toe boards shall be provided on swing stage platforms.

Subpart M – Fall Protection

- 1. Irrespective of OSHA regulations governing specific fall protection requirements, a positive means of fall protection (e.g., guardrail system, safety net system, or personal fall arrest system) shall be utilized whenever employees are exposed to a fall which is six (6) feet or more above a lower level. The only three exceptions to this requirement is the fall protection requirements for employees working from mobile ladders which is covered in **Subpart X** of this document, the requirement for fall protection when climbing scaffold ladders which is covered in **Subpart L** of this document and the requirement for fall protection on “Baker” scaffolds which is required at four (4) feet.
- 2. All falls, arrested or not-arrested, shall be immediately reported to the MiNT S&H department so they can support a thorough incident investigation.
- 3. All components subjected to a fall arrest shall be immediately removed from service.
- 4. In addition to the user inspecting their fall protection prior to each use, each personal fall arrest systems shall be inspected on an annual basis by a qualified person other than the user. The annual inspections shall be documented.
- 5. If a horizontal lifeline system is proposed to be utilized as part of a personal fall arrest system, Subcontractor shall submit written documentation to MiNT which demonstrates that the entire personal fall arrest system has been designed by a registered professional engineer and is in compliance with OSHA regulations. If the system being proposed is a manufactured system, the manufacturer’s use/operation/installation manual will suffice.
- 6. The use of a Self-Retracting Lifeline (SRL) shall not expose the user to dangerous swing in the event of a fall.
- 7. **Prior to** a warning line system being utilized, a written plan and sketch of its configuration shall be submitted to MiNT and reviewed by MiNT’s project assigned S&H Representative.
 - a. **Warning Lines shall only be utilized on ROOFS**



- b. Warning Lines when used where **ONLY ROOFERS** are on the roof conducting roofing work, shall be at least **six-feet (6')** from any edge where a fall exposure greater than six-feet (6') exists.
 - c. Warning Lines when used where **OTHER TRADES** (other than roofers) are on the roof shall be at least **fifteen-feet (15')** from any edge where a fall exposure greater than six-feet (6') exists.
 - d. Prior to workers traveling beyond a Warning Line System, 100% tie-off shall be utilized.
 - e. Warning Line Systems should only be utilized when roofing work is taking place. If no roofing work is taking place, a guardrail system or the use of a personal fall arrest system should be utilized.
8. If Subcontractor creates a hole in a walking/working surface, Subcontractor shall ensure that the hole is covered and the cover is maintained. Hole covers shall be properly constructed, marked, and secured from accidental displacement.
 9. Covers must be readily available in the immediate work area prior to creating a hole.
 10. If modifications to a hole cover is required to facilitate building materials being installed, the Subcontractor creating the need for the modification is responsible to properly modify and secure the hole cover from accidental displacement.
 11. The tops of all hole covers shall be labeled "HOLE" or "COVER". If the cover is too small to label it, the cover shall be completely coated in orange (e.g. with orange paint).
 12. Employees working in incomplete elevator cabs shall maintain 100% tie-off at all times the employee is in the elevator cab.
 13. Employees working on top of elevator cabs shall maintain 100% tie-off at all times and the elevator shall be properly locked and tagged out.
 14. Unless otherwise stipulated in the contract documents, the Subcontractor creating a fall hazard is responsible for correcting the fall hazard. However, this does not relieve the exposing Subcontractor from protecting its employees from all potential fall hazards.
 15. Guardrails shall be the primary form of fall protection utilized. If guardrail cannot be installed, the use of a personal fall arrest system shall be implemented.
 16. Guardrail systems shall be horizontally installed. The use of diagonal or vertical members as guardrail is prohibited.
 17. When wood, pipe, or structural steel is utilized to construct the guard rail system it shall be constructed to meet or exceed the guidelines in 1926 Subpart M Appendix B.
 18. If cable is used to construct a guardrail system:
 - a. It shall consist of a 3/8" diameter cable top-rail installed 42" (+/- 3") above the height of the finished concrete floor (not the metal deck), a 3/8" diameter cable mid-rail installed 21" above the height of the finished concrete floor (not the metal deck) and a minimum of a 3-1/2" toe board.
 - b. All cable connections shall be looped (not lapped) and shall be connected with a minimum of **three** wire rope clips (U.S. only) on each loop regardless of the cable size requiring less.
 19. 100% tie-off must be utilized if any part of the worker's head or torso is placed outside the guardrail system.
 20. If modifications to guardrail is required to facilitate building materials being installed, the Subcontractor creating the need for the modification is responsible to properly modify the guardrail and/or install equally effective guardrail further back from the fall exposure.



Subcontractor shall notify MiNT’s Project Superintendent prior to modifying or removing any guardrail. A Personal Fall Arrest System must be utilized during the guardrail removal and installation when a fall exposure is present.

21. Knots of any kind shall not be placed in any type of fall arrest, restraint or prevention system including anywhere along its midpoint or its anchor point.
22. Guardrail or equivalent barriers shall be posted at each excavation and/or trench that is six feet or more in depth. Additional barricading requirements for excavations are listed in [Subpart P](#) of this document.
23. Falling Objects:
 - a. Where the potential exists for an object to fall from a person, building, structure, or equipment due to circumstances which require the object to be located at, near, above, or beyond the installed falling object protection (e.g., toe-boards, screens, mesh, etc.) additional positive control measures shall be implemented to prevent the object from falling to any lower level. The duty and cost of implementing additional controls shall be the responsibility of the Subcontractor creating the hazard. Examples of additional control measures include, but are not limited to, lanyards, debris nets, and catch basins.
 - b. Where overhead work is taking place, such as steel erection, decking, welding, bolting up, etc. and it is not feasible to implement a positive control measure, the entire area below the operation that could be potentially impacted from a falling object(s) shall be completely barricaded and the necessary number of spotters needed to control the area shall be assigned to stand outside the barricaded area to prohibit access to the area while a falling object hazard exists.

Subpart N – Helicopters, Hoists, Elevators, and Conveyors

1. MiNT’s S&H Department shall be advised and involved in all proposed helicopter operations.
2. Personnel & Material Hoists
 - a. The manufacturer’s specifications and limitations applicable to the operation, use and maintenance of personnel and material hoists shall be available on site, complied with, and posted within the operator’s station of the specific hoist. A copy of this information shall be submitted to a MiNT Superintendent prior to erection of the hoist.
 - b. All personnel and/or material hoists shall be operated, inspected and maintained as per the manufacturer’s recommendations. All inspections and maintenance shall be documented. A copy of the inspections and maintenance record shall be kept on file at the operator’s station.
 - c. Construction & operation of personnel hoists shall comply with ANSI A10.4 – the most current.
 - d. Construction & operation of material hoists shall comply with ANSI A10.5 – the most current.



Subpart O – Motor Vehicles, Mechanized Equipment (*Including Forklifts*), and Marine Operations

1. Documented daily inspections shall be conducted on all equipment (e.g. forklifts, skidsteers, earthmoving equipment, etc.) utilized on the project. Copies of inspection forms must be submitted to the MiNT Superintendent.
2. All cab glass shall be safety glass and shall be free from any cracks and/or damage.
3. Operators of motor vehicles shall have a valid State issued drivers license issued to them, in their name and in their possession/on their person while operating a motor vehicle in the course of their work while on or off the Project.
4. Operators of equipment shall have a valid State issued drivers license, in their name and in their possession/on their person while operating equipment on public streets.
5. Seatbelts shall be installed and utilized in all equipment manufactured with a seat and with a Roll Over Protective Structure (ROPS).
6. Employees shall not ride in the beds, buckets, sides, tops, or similar of motor vehicles and/or equipment.
7. Equipment shall not be left unattended (i.e. operator not at the operator’s station) when started unless the operator is within 25 feet of the equipment, can view the equipment, the emergency brake is set, the equipment is placed in neutral, and the equipment is not positioned on a slope/incline.
8. Motor vehicles shall not be left unattended when started (i.e. operator not at the operator’s station).
9. No modifications to motor vehicles or equipment shall be made which affects their safe operation. Motor vehicles or equipment with such modifications shall not be allowed on the Project.
10. All mobile equipment shall be equipped with a functional and audible back-up alarm, (audible above the surrounding noise level).
11. All motor vehicles with an obstructed view to the rear and all forklifts shall be equipped with a functional back-up alarm irrespective of the use of signal personnel.
12. Motor Vehicles and equipment shall not exceed a speed of five (5) miles per hour while being operated on the Project.
13. A berm or equivalent of sufficient height and strength shall be constructed on all sides of runways, ramps, and along the perimeter of excavations to keep motor vehicles and/or equipment from driving off the edge. At no time shall a berm be at a height less than the height of the highest axle for the motor vehicle and/or equipment being driven on the runway, ramp or perimeter of the excavation.
14. Subcontractor shall maintain, on the Project, documentation of the training received for the operators of all equipment.
15. Employees shall neither walk nor stand on, or near, the sides of dump-trucks/trailers while they are being loaded.
16. Subcontractors shall ensure that all combustion engines being operated within a building or a similar structure (e.g. tented area) are equipped with “scrubbers” on their exhaust system. In addition, portable carbon monoxide alarming devices shall be strategically placed within the area the engine is being operated to warn employees of carbon monoxide levels in excess of 35 PPM.
17. Irrespective of the use of “scrubbers,” interior carbon monoxide concentrations shall not exceed 35 PPM in any area of a building or structure that a combustion engine is being



- operated in or adjacent to buildings or structures. In addition, exhaust from combustion engines shall not be in concentrations that result in employees, occupants of adjacent buildings or structures, or the general public becoming ill, irrespective of the carbon monoxide concentration in the specific area.
18. All lighting the manufacturer constructed into the design of the equipment shall be fully functional at all times.
 19. Rigging attachment points that are installed on earthmoving equipment shall not be utilized (e.g., a hook welded onto a bucket of a track-hoe) unless the manufacturer of the equipment specifically designed the equipment in such a manner or the attachment point was installed per the design and specifications of the manufacturer or a registered professional engineer who has provided load charts or equivalent reference data with the design specific to the equipment.
 20. Auger cast piles:
 - a. Subcontractor shall ensure that the manufacturer’s recommended safe operating procedures for the equipment being utilized are adhered to.
 - b. Equipment which has been modified without the explicit written approval of the manufacturer and/or the explicit written approval of a professional registered engineer licensed in the United States, shall not be utilized on the Project.
 - c. Subcontractor shall ensure that a positive means of fall protection is utilized while employees are exposed to any open hole. If a personal fall arrest system is deemed to create a greater hazard during the auguring operation, a portable guardrail system shall be utilized.
 - d. Subcontractor shall immediately place a hole cover over any open hole or maintain a guardrail system around any hole. Each hole cover shall be marked “HOLE”, be secured from accidental displacement and be designed to support twice the anticipated load expected to be applied to it.
 - e. Subcontractor shall provide a barricade system around all test piles. Subcontractor shall minimize employee exposure to test piles. Subcontractor shall ensure that employees spend only the time necessary near the test piles needed to collect the required data. Barricade systems shall be placed far enough away from the test piles to protect employees from the hazards of a pile or jack failure.
 21. All work in public streets and/or sidewalks shall be conducted in compliance with the most current edition of the Manual on Uniform Traffic Control Devices (MUTCD) irrespective of our legal obligation to do so.
 22. All flaggers assigned to control public traffic on public streets shall be certified flaggers and shall have on their person proof of certification while flagging.
 23. Motorized Carts:
 - a. MiNT’s Superintendent must approve the use of any motorized cart on the project.
 - b. Personally owned motorized carts and/or trailers are prohibited on the Project.
 - c. Operators of motorized carts shall:
 - i. Have a valid State issued drivers license.
 - ii. Follow all traffic laws.
 - iii. Not operate motorized carts on any sidewalk.
 - iv. Ensure that no unsecured or unstable loads are being transported in the cart.



- v. Conduct a daily inspection of the cart prior to operation.
 - vi. Ensure all safety devices are operating appropriately on the cart prior to operation.
 - vii. Not operate the cart perpendicular on inclines.
 - viii. Operate the cart in accordance with the manufacturer's recommendations.
 - ix. Give foot traffic and machinery the right-of-way.
 - x. Not travel within three (3) feet of pedestrian foot traffic.
 - xi. Ensure the cart is not loaded beyond its rated capacity.
 - xii. Stop the cart at blind corners and honk the horn before proceeding.
 - xiii. Not operate the cart while distracted (e.g. talking on a mobile telephone, etc.).
 - xiv. Switch the engine off, set the parking brake and remove the key when parking the cart.
- d. All operators of and passengers in motorized carts shall:
- i. Be transported in the seat of the cart only.
 - ii. Be secured to the seat with a seatbelt.
 - iii. Keep their arms, legs, and head within the cart.
- e. All motorized carts shall be equipped with the following:
- i. A seatbelt for the driver and each passenger
 - ii. A cab.
 - iii. A flag mounted on a flexible 8' pole.
 - iv. A functional beacon light mounted on the top of the cab.
 - v. A slow-moving vehicle marker visible from the rear of the cart.
 - vi. A fire extinguisher.
 - vii. A functional back-up alarm.
- f. Tools or material shall not extend beyond the sides of the bed of the motorized cart.
- g. Tools or material that extend two (2) feet beyond the back end of the bed of a motorized cart shall be secured and shall be properly marked with RED flagging.
- h. If trailers are connected to motorized carts the trailer shall also be equipped with a slow-moving vehicle marker posted on the back of the trailer.
- i. A motorized cart shall not be modified in any way that will affect its safe operation.
- j. All motorized carts shall be adequately secured after hours to prevent unauthorized use and theft.

24. Forklifts:

- a. The 29 CFR 1910.178 Powered Industrial Trucks (forklift) standard shall apply to forklift operations on MiNT projects (i.e. not just the training requirements).
- b. Prior to operating a forklift on the Project, forklift operators shall submit a copy of their current forklift operator certification to MiNT's Superintendent.
- c. Forklift operators shall keep on their person a copy of their current forklift operator certification while operating a forklift on the Project.
- d. If forks/tines are installed on earthmoving or any other type of equipment, the equipment shall be considered a forklift. Thus, Subcontractor shall meet the requirements stipulated in this manual and the OSHA regulations governing forklifts/powerd industrial trucks (29 CFR 1910.178).



- e. Forklift operators shall conduct a daily documented inspection of the forklift prior to operating the forklift.
 - i. If deficiencies are found, forklift operators shall document the deficiency on the inspection log and immediately reported it to their supervisor.
 - ii. If the deficiency affects or could potentially affect the safe operation of the forklift, the forklift shall be tagged out of service and shall not be operated until the deficiency is corrected.
- f. Forklifts shall be maintained in accordance with manufacturer's recommendations.
- g. Loads shall not be suspended under the tines of a forklift without a manufactured approved attachment which allows for centering of the suspended load and the operation is conducted in compliance with the manufacturer's load chart.
- h. Forklift operators shall wear a hardhat and safety glasses while in all open cab type forklifts.
- i. Forklift Operation.
 - i. When the operator's view is obstructed, a signalman/spotter shall be utilized.
 - ii. Project and public street speed limits shall be adhered to.
 - iii. Forklifts **shall not** travel on public streets **with or without a load** unless:
 - (1) A Job Safety Analysis is first conducted to assess the risks associated with the operation and the appropriate controls are put into place
 - (2) MiNT's project superintendent is made aware of the operation and given a copy of the completed JSA
 - (3) The operation is conducted with strict compliance to all municipal and State requirements for operating on public streets.
 - iv. If a forklift is utilized to support a personnel platform, the following shall apply:
 - (1) The operation shall be conducted in accordance with the manufacturer's recommendations (both the forklift's and the personnel platform's).
 - (2) If the personnel platform is a manufactured system, the manufacturer's use/operation/installation manual shall be adhered to and shall be within the platform while in use.
 - (3) If the personnel platform is a non-manufactured system, it shall be designed by a registered professional engineer and it shall be constructed and utilized per that design.
 - (4) The Subcontractor utilizing the personnel platform shall develop a written work plan.
 - (5) Fall protection shall be utilized; both a guardrail system and a person fall arrest system.
 - (6) The total lifting capacity shall be reduced by 50%
 - (7) There shall be a certified operator at the controls of the forklift with the truck engine running at all times when platform is occupied by personnel.
- j. Forklift Inspections shall, at a minimum, be conducted at the following intervals:



- i. Daily – Each operator of the unit is responsible for performing a daily inspection that shall include items specified by the manufacturer.
- ii. Monthly – Monthly inspections are required to be documented and filed in the unit’s permanent file. A trained operator or supervisor can perform this inspection.
- iii. Annual – Conducted by an authorized service center and documented with copies in the permanent equipment file.
- iv. Post Incident Inspections – Conducted by an authorized service Representative.

25. Drones:

- a. Subcontractor shall not operate a drone on or around the project site without the explicit authorization of MiNT’s Project Manager and MiNT’s Superintendent.
- b. Subcontractor shall fully understand all legal obligations with operating a drone and maintain compliance with those obligations.
- c. Subcontractor shall develop and submit to MiNT a written JSA for the drone operation prior to the operation taking place.

Subpart P – Excavations

1. The supervisor overseeing the excavating operation shall obtain an **Excavation Permit** from the MiNT Superintendent prior to excavating of any soil.
2. The requirements stipulated on the Excavation Permit shall be complied with.
3. Obtaining an Excavation Permit shall not relieve subcontractor from any responsibility or accountability associated with the excavating activity.
4. Identification of the location of all underground utilities that may be impacted by the excavating activity shall be conducted prior to the excavating of any soil.
5. Blue Stake markings and other underground utility markings shall be refreshed as soon as the markings are showing signs of deterioration. Markings shall be inspected at least every two weeks and after each rain.
6. Each Subcontractor shall provide their own competent person to supervise and train their employees engaged in excavation and/or trenching activities or that are working in excavations and/or trenches.
7. At no time shall an employee work alone in a trench that is deeper than six-feet (6’). A second person, who is **NOT** in the trench, must be present.
8. The competent person or designee must remain at the excavation/trench until employees exit and are accounted for.
9. The competent person or designee shall ensure that proper barricading is in place while the excavation is being dug as well as when the excavation is completed and open.
10. All sloped trenches and/or excavations shall at a minimum be demarcated with barricade tape.
11. All vertical trenches and/or excavations less than six-feet (6’) in depth shall be demarcated with an adequate hazard identification system.
12. All vertical trenches and/or excavations greater than six-feet (6’) in depth shall be demarcated with a standard guardrail system or an equivalent hard barricade. All workers who must conduct work between the guardrail system and the edge of the excavation shall be protected by a Personal Fall Arrest System.



13. All trenches and/or excavations that the public and/or the building occupants could reasonably be exposed to regardless of depth shall be demarcated with a solid hard barricade or a chain-link fence that is so constructed as to prevent the public and/or building occupants from falling into the trench/excavation.
14. Where there is pedestrian foot traffic, all temporary pedestrian bridges, trench plates, walkways, hole covers, and similar that are installed over excavations, roadways, site work, etc. must be free of trip hazards, secured from displacement, and have beveled edges; final construction of such shall meet current ADA requirements.
15. If the sloped or vertical trench or excavation is in close proximity to an access/egress pathway for vehicular/equipment, such as a drive lane, additional controls shall be implemented such as berms, jersey barricades/k-rail, or similar protection.
16. All underground utility lines, temporary and permanent, shall be demarcated with underground warning tape.
17. When underground utilities are suspected, they shall be located first by hand digging or by non-destructive excavating (e.g. hydro excavating).
18. Underground systems or lines shall be protected, supported or removed to protect employees entering excavations.
19. Energized lines or systems shall be protected from physical damage by the excavation, work process and backfill operations.

Subpart Q – Concrete and Masonry Construction

1. Supervisors shall plan for the safe set-up of concrete pump-trucks and other concrete conveyance systems.
2. The manufacturer’s recommendations for the safe set up of their concrete conveyance systems shall be followed.
3. Employees not involved in concrete placement operations shall stay out from underneath concrete placement booms and shall not stand near surface run slick-lines or placement hoses.
4. Workers shall stay back 20-feet when the pump is first initiating and when draining the slurry.
5. Metal plated caps (e.g., rebar caps) or the equivalent shall be utilized to protect employees from all impalement hazards.
6. The practice of wiring a piece of material (e.g., wood 2x4, rebar, pipe, etc.) to the side of the impalement hazard shall not be considered adequate impalement protection.
7. Impalement hazards to which the public and/or the building occupants could reasonably be exposed, shall be capped with metal plated caps and/or the equivalent. In addition, the protective cap or the equivalent shall be secured to the object so it cannot be accidentally knocked off/removed.
8. Only authorized personnel shall erect, alter and/or remove shoring systems.
9. Damaged shoring shall be immediately reported to the MiNT Superintendent.
10. Shoring systems shall be inspected daily and upon any event that may have altered the integrity of the shoring system.
11. All forming and shoring system walking/working surfaces shall be, at a minimum, 12” in



width. All scaffolds shall be, at a minimum, 18” in width.

12. Concrete Pumping Safety.

- a. All manufacturer’s safety recommendations for the placement pumping system shall be complied with.
- b. All components of pump trucks shall maintain a 17-foot clearance from all energized power lines.
- c. If continuation pipes/hoses are connected to the end hose, they must not impose any load on the boom.
- d. End hoses shall not exceed 13-feet unless the manufacturer of the pumping system allows for a longer length.
- e. End hoses, reducers, tremies, and similar conveyance adapters connected to the boom shall be fastened with a secondary safety cable and shall not exceed the weight of the manufacturer supplied end hose.
- f. Pump trucks shall not drive with their placing booms unfolded.
- g. Proper placement of outriggers shall be verified by the pump truck operator prior to the concrete placement operation taking place.
- h. Outriggers shall be placed a safe distance from any excavation/trench so as not to collapse the excavation/trench.
- i. If the pump operator cannot see the discharge end of the placing hose/pipe, a positive means of communication shall be established between the pump operator and a designated spotter positioned at the discharge end of the placing hose/pipe.
- j. Placement booms shall not be unfolded when lightning is present.
- k. Blockages in the pump or delivery pipelines/hoses shall not be removed by applying high pressure to it. If “rocking” the concrete back and forth with the forward/reverse function doesn’t break the blockage loose, the blockage shall be removed manually.
- l. Pressurized sections of pipelines/hoses shall not be opened. Prior to opening any section of pipeline/hose, the operator shall ensure the pressure is removed by first putting the pump in the “reverse” mode for several strokes.
- m. Unless required for the placement of concrete, employees shall not stand directly under placement booms.
- n. Employees shall neither attempt to hold down a hose or pipe nor shall they be in close vicinity to a hose or pipe that is being cleaned with pressurized air.
- o. Employees shall neither attempt to hold down a hose or pipe nor shall they be in close vicinity to a hose or pipe that is being “rocked” to remove a blockage.
- p. Employees shall not sit on, stand on or straddle pipelines/hoses while pressurized.
- q. Employees shall not place any part of their body between the end of the delivery system and a fixed object.
- r. Employees shall not look into a delivery hose or pipe that is connected to a pumping system.
- s. Employees shall neither stand in front of a delivery hose or pipe that is connected to a pumping system nor shall they point/aim the end of a delivery hose or pipe toward another employee.



Subpart R – Steel Erection

1. MiNT’s **Site Specific Steel Erection Plan and Checklist** shall be used as a planning tool prior to steel erection taking place.
2. The fall prevention/protection requirements listed in **Subpart M** of this document shall apply.
3. All rigging shall be conducted per the requirements stipulated in **Subpart H** and in **Subpart CC** of this document.
4. Employees working from steel shall be tied off in a manner that prevents a free-fall of no more than six (6) feet. Thus, the use of “loose” rigging/beam straps wrapped around the steel is prohibited.
5. “Climbing Columns” is prohibited irrespective of the use of a personal fall arrest system.
6. When workers other than those engaged in decking operations are on an incomplete deck, barriers around openings in decking and where leading edge work is taking place, has been stopped, or has been suspended shall be protected with hard barriers and those barriers shall be equivalent to the criteria of a guardrail system.
7. Multiple lift rigging (Christmas Treeing/Treeing) shall be in compliance with **Subpart CC** of this document.

Subpart S – Underground Construction, Caissons, Cofferdams, and Compressed Air

1. Where a check-in/check-out procedure is required per Subpart S of OSHA regulations, Subcontractor shall be responsible to maintain a check-in/check-out log for its employees.
2. Subcontractor is responsible to provide the necessary equipment and is responsible for all costs associated with air monitoring where required.
3. The Subcontractor creating a suspected atmospheric hazard shall have the burden of proof to show that levels of atmospheric hazards are below the OSHA PEL for the suspected hazard. Where mechanical ventilation is required due to the Subcontractor’s activities, the subcontractor shall install a mechanical ventilation system that is sufficient in keeping the atmospheric hazards below the OSHA PEL for all affected workers.

Subpart T – Demolition

1. Subcontractor shall have a registered professional structural engineer evaluate Subcontractor’s planned means and methods in relation to the engineering survey required by OSHA regulations for demolition to ensure that the proposed means and methods are safe. This evaluation shall be conducted prior to the start of demolition. Written documentation of the review shall be kept on file in Subcontractors on site office.
2. Where a registered professional engineer has issued, instructions, directives and or plans pertaining to the demolition operation, Subcontractor shall make arrangements to have the registered professional engineer on site to adequately review and inspect the Subcontractor’s means and methods used to comply with the registered professional engineer’s instructions, directives and/or plans.
3. Subcontractor shall be responsible for exploratory activities needed to evaluate the structural integrity and stability of a structure and or for demolition engineering purposes.
4. Fall hazards created during the course of demolition shall be immediately protected by



- hole covers and/or guardrail systems by the Subcontractor creating the hazard.
5. Subcontractor performing demolition operations shall be responsible for evaluating and controlling employee, worker, and public exposure to dusts, silica, and other hazardous
 6. All costs incurred for evaluating exposures to the environment, workers, the general public, etc. associated with the demolition activity and costs incurred for complying with the associated regulations for the demolition activity, shall be the responsibility of the Subcontractor conducting the demolition activity.
 7. No material shall be dropped greater than a distance of 20 feet without the use of chutes. The chute discharge shall be into a dumpster receptacle or similar. The area around the dumpster shall be barricaded with hard barricades. Signage shall be placed instructing personnel not to get on or near the trash chute and/or dumpster. Barricades shall be placed a sufficient distance away from the dumpster to prevent personnel from being struck by material that may ricochet out of the dumpster.
 8. Where any material is dropped less than a distance of 20 feet to an open area below, the area below shall be completely barricaded on all accessible sides. If soft barricades are utilized, a sufficient number of spotters shall be positioned around the area below so as to ensure personnel do not walk under or near falling material.
 9. Where any material is dropped less than 20 feet into a dumpster receptacle or similar, the area around the dumpster shall be barricaded with hard barricades. Signage shall be placed instructing personnel not to get on or near the dumpster. Barricades shall be placed a sufficient distance away from the dumpster to prevent personnel from being struck by material that may ricochet out of the dumpster.
 10. Where debris is pushed or lifted over an edge of a structure, the equipment used to push or lift such debris shall not be exposed to an unguarded edge where it may drive or slide over the edge of the structure. Material used to prevent the equipment from driving or sliding over the edge must be sufficiently anchored to stop the movement of the equipment.
 11. Equipment used for demolition shall have steel cages installed sufficient to protect the operator from flying debris.
 12. Equipment shall not be placed, operated, and/or driven on elevated structures that cannot sufficiently support the weight of the working equipment. Thus, maximum capacities of elevated structures shall be known prior to equipment being placed, operated, and/or driven on the elevated structures.
 13. Debris and material shall not be permitted to accumulated on or against or fall onto structures unless they are of sufficient strength to hold such loads. emissions generated from the demolition activity.
 14. Subcontractor performing demolition shall be responsible for all costs associated with the protection of the public from demolition hazards it creates.

Subpart U – Blasting and the Use of Explosives

1. Subcontractors who propose to use explosives on the Project shall develop a site specific written safety plan detailing their proposed use. The plan shall be submitted to Okland’s Superintendent in advance of the explosive Subcontractor’s mobilization on the Project to allow for adequate time for review of the plan by Okland and the Owner. Subcontractor shall be responsible for all direct and indirect costs associated with the use of explosives



on the Project.

Subpart V – Power Transmission and Distribution

1. The safety requirements in NFPA 70E shall be adhered to.

Subpart W – Rollover Protective Structures; Overhead Protection

1. Roll Over Protective Structures (ROPS) shall not be altered or removed from any equipment in which the manufacturer has installed and/or recommended them.

Subpart X – Stairways and Ladders

1. The use of wood A-frame type ladders is prohibited.
2. Portable ladders shall be fiberglass and at a minimum a Type IA (300lbs), heavy-duty industrial ladder and be suitable for its intended use.
3. Ladders shall be inspected prior to use. Ladders found to be damaged shall not be used and shall be tagged (i.e. with a danger tag) and removed from service.
4. Field and/or shop repairs to ladders are prohibited (e.g., adding splints, braces, etc.).
5. Ladders shall not be spliced together.
6. Extension ladders shall be secured at the top of the ladder to prevent displacement during use and when feasible, also at the bottom. If an extension ladder cannot be secured at the top, the base of the ladder shall be stabilized by an additional person to prevent displacement of the ladder while it is being used.
7. Extension ladders shall not be taken apart to form two ladders.
8. Job made ladders shall comply with the most current ANSI 14.4 Job-Made Wooden Ladders standard.
9. Double cleated job made ladders shall not exceed 24 feet in length and single cleat ladders shall not exceed 30 feet in length.
10. Fall protection during ladder use is required when working from and/or climbing any type of ladder where the fall exposure to the employee is greater than 24 feet. In addition, if the ladder is positioned near an edge and the fall exposure is greater than 6' from the employee's feet while on the ladder, the employee shall orientate the ladder in a manner such that the employee does not have the exposure of falling over the edge. If this cannot be done, the employee shall utilize a personal fall arrest system while working from and/or climbing the ladder.
11. Three points of contact shall be maintained while climbing a ladder.
12. Nothing shall be carried in the hands while climbing a ladder.
13. Employees shall not lean out beyond the side rails of the ladder (i.e. their center of mass shall not extend outside the side-rails of the ladder).
14. A-frame ladders must not be used as straight ladders unless designed and manufactured for that purpose.
15. The top two steps of an A-frame ladder shall not be utilized to sit or step on.
16. Straddling the top of an A-frame ladder is prohibited.
17. Employees shall face the ladder at all times.
18. Ladders shall not be placed on scaffolds, in scissor-lifts, or in aerial lifts.



Subpart Y – Toxic and Hazardous Substances

1. Prior to the demolition or renovation of any facility a hazardous materials survey shall be conducted. The Owner is responsible to conducted the hazardous materials survey that will identify areas where hazardous materials are on the Project. This survey shall be kept on file and available for review at the request of any employee. Employees may contact MiNT’s Superintendent to obtain access to the survey.
2. All areas in which the Subcontractor is required to work should be free of asbestos and other hazardous materials. However, in the unlikely event the Subcontractor encounters material reasonably believed to be asbestos, or any other hazardous waste or substance, the Subcontractor shall immediately stop work that may disturb the suspected material. Subcontractor shall immediately report the condition to MiNT’s Superintendent verbally followed by a written report to the MiNT’s Project Manager within 24-hours of the encounter. The work in the affected area shall only resume in the absence of asbestos or reported hazardous material or when it has been rendered harmless according to federal, state and local standards.
3. Unless otherwise stipulated in other portions of the contract documents, asbestos shall not be disturbed. However, if disturbance of asbestos is necessary to execute Subcontractor’s scope of work, the following conditions shall be met:
 - a. All supervisors and employees who are working with asbestos regulated or not regulated by the EPA shall receive training in accordance with OSHA’s asbestos regulations. A copy of the documentation of such training shall be submitted to MiNT’s Superintendent prior to beginning work.
 - b. At no time shall Subcontractor render non-friable asbestos friable or regulated (e.g., via the use of power tools, sanding, etc.)
 - c. At no time shall Subcontractor disturb asbestos that is regulated by the Environmental Protection Agency (EPA) and/or classified as friable as defined by the EPA unless explicitly contracted to do so.
 - d. Friable and/or EPA regulated asbestos shall only be disturbed by Subcontractors and employees licensed and certified by the State that the Project is in. Copies of such licenses and certificates shall be submitted to MiNT’s Superintendent prior to beginning work.
4. Subcontractor shall provide for all required training to conduct asbestos work.
5. Subcontractor shall be responsible for all costs related to the disposal of all asbestos that is rendered friable and/or EPA regulated due to the intentional act, unintentional act or negligence of the Subcontractor or anyone for whom the Subcontractor may be liable.
6. Subcontractor shall submit to MiNT’s Superintendent a copy of the manifest which documents the proper disposal of all regulated asbestos immediately after the asbestos is disposed of.
7. Subcontractor shall be responsible for the costs associated with all controls necessary to safely conduct asbestos work (e.g., administrative & engineering controls) unless otherwise stipulated in the contract documents.

Subpart Z – Confined Spaces in Construction

1. Subcontractors who must enter a confined space shall develop and implement an



- effective written confined space entry procedure specific to their scope of work.
2. Subcontractors shall utilize Okland’s confined space entry permit unless Subcontractor’s permit is equal or better in detail than Okland’s.
 3. Subcontractors shall provide for all necessary equipment needed to safely enter a confined space (e.g. emergency rescue, ventilation, atmospheric testing, etc.)
 4. Subcontractors shall conduct their own atmospheric testing. Okland will NOT conduct this for subcontractors.
 5. Subcontractor shall, at a minimum, assign **one** attendant (i.e. hole watch) **for each** confined space.
 6. Attendants shall have NO other duties other than being an attendant.
 - a. The attendant(s) shall be equipped with an operating telephone to summon rescue and emergency assistance if they are needed.
 - b. The attendant(s) shall be capable of understanding and relaying emergency information in English and the language of those employees entering the confined space.
 7. The supervisors of those entering the confined space, the entering employees and the attendant(s) shall be trained on the emergency action plan by their employer prior to the entry.

Subpart AA – Cranes

1. General Requirement:

- a. Subcontractor shall submit a lift plan to the Okland Superintendent at least 14-days prior to the crane lift taking place and prior to the crane being allowed on site. This is to allow adequate review of the operation by Okland’s Crane Superintendent or his designee. The lift plan shall include:
 - i. MiNT's **Lift Planning Worksheet** filled out completely for each of the crane’s locations and for its heaviest lift at those locations (**Lattice Crane – Hydraulic Crane – Tower Crane**)
 - ii. A copy of the load chart(s) for the exact configuration(s) the crane will be used in
 - iii. A copy of the cranes annual inspection report (i.e. the actual report document **NOT** a photo of the inspection sticker)
 - iv. A copy of the crane operator’s current NCCCO card
 - v. A copy of the crane operator’s current medical certification card
 - vi. A copy of the certifications/qualifications for all riggers and signal personnel (this is typically a card or a certificate)

2. Qualifications:

- a. **Qualified Rigger (QR):** All riggers shall meet the qualifications stipulated by OSHA for a qualified rigger and the qualifications listed in this document.
 - i. QR shall have previously demonstrated to their employer, or their employer’s representative, their skill and competency in using rigging principles.



- ii. The QR’s employer shall field verify the QR’s capabilities to adequately and safely conduct rigging operations.
 - iii. QR shall be certified by their employer, or their employer’s representative, to conduct their assigned rigging tasks.
 - iv. QR shall be capable of calculating the capacities of the rigging being utilized for the configuration and conditions the rigging is placed in.
 - v. QR shall understand spoken and written English.
- b. **Qualified Signal Person (QSP):** All signal personnel shall meet the qualifications stipulated by OSHA for a signal person and the qualifications listed in this document.
- i. QSP shall have previously demonstrated to their employer, or their employer’s representative, their skill and competency in signaling cranes.
 - ii. The QSP’s employer shall field verify the QSP’s capabilities to adequately and safely conduct signaling operations.
 - iii. QSP shall be certified by their employer, or their employer’s representative, to conduct their assigned signaling tasks.
 - iv. QSP shall understand spoken and written English.
- c. **Operator:** All crane operators shall meet the qualifications stipulated by OSHA and the qualifications listed in this document.
- i. Operators of all cranes shall be certified by The National Commission for the Certification of Crane Operators (NCCCO). The certification shall be for the specific type of crane they are operating (e.g. Telescopic Boom Cranes—Swing Cab, Lattice Boom Crawler Cranes, tower crane, etc.). Certification from other organizations may be permitted so long as they are considered to be equivalent to NCCCO certification, meet the requirements of the ASME B 30.5 mobile crane standard, and are accredited by the US National Commission for Certifying Agencies (NCCA).
 - ii. Operators shall meet ASME B30.5 physical requirements while operating crane(s) on the Project.
 - iii. Operators shall have adequately demonstrated to their employer their ability to safely operate the specific type of crane being assigned prior to the operator conducting hoisting operations on the project.
 - iv. Operators shall have a complete understanding of the owner’s/operator’s manual for the specific crane they are operating and ensure a copy of the manual and hard copy load charts are in the crane’s cab.
 - v. Operators shall understand standard hand and voice signals.
 - vi. Operators shall have no physical, visual or mental restrictions or impairments that will affect the safe operation of the assigned crane.
 - vii. Operators shall be able to understand spoken and written English.

3. **Crane Set-up:**

- a. Prior to the start of the erection and dismantle of a crane, Subcontractor and/or Supplier of the crane, including those involved in supporting the erection and dismantle process of another crane, must identify to MiNT a competent and qualified person as the Assembly/Disassembly Director. The



Assembly/Disassembly Director shall meet the criteria of the designation pursuant to OSHA regulations and execute the responsibilities of the position.

- b. Tubular crane booms shall only be handled with nylon slings.
 - c. Boom lacing shall never be used to lift or handle the boom.
 - d. The entire swing radius of the rotating superstructure of a mobile crane shall be barricaded to prevent employees and/or equipment from entering the area.
 - e. Cribbing shall be utilized under all outrigger pads.
 - f. Cribbing shall be of the appropriate size and dimension to adequately support the crane.
 - g. Wire rope spool ends shall not be used for outrigger pads.
 - h. All cranes shall be equipped with a functional anti-two-block device.
 - i. Personnel erecting, climbing, and/or dismantling a tower crane, when exposed to a fall greater than six (6) feet, shall be equipped with and shall utilize an appropriate personal fall arrest system. Lanyards shall be a "dual/Y" type and the end hooks shall be compatible with the anchorage points on the tower crane.
 - j. The Federal Aviation Administration (FAA) requires a permit be issued for a crane any time they will exceed a specific height (e.g. typically 200' but this may vary in different states and/or when in close proximity to any type of airport). Subcontractor shall ensure all FAA required permits are secured prior to crane erection.
- 4. Crane Inspections:**
- a. Operators shall conduct documented inspections of the crane they will be operating prior to its operation as stipulated by OSHA regulations. Documentation of these inspections shall be kept in the crane's cab.
 - b. Tower Cranes shall be inspected by a qualified third party inspector prior to erection but after transportation to the work site. Documentation of this inspection shall be provided to MiNT.
- 5. Operation:**
- a. All crane operations shall be conducted with a certified operator, a qualified rigger, and a qualified signal person. It is acceptable to have the qualified rigger and the qualified signal person be the same person if they are qualified to do both.
 - b. All safety devices and operational aids installed by the manufacturer of the crane shall be operating effectively.
 - c. The crane's operator's manual and hard copy load charts shall be available to the operator in the cab of the crane.
 - d. Loads shall not be flown over or immediately adjacent to the public right-of-way without adequate controls in place as stipulated in the General Liability section of this manual. This may require temporarily closing the affected public right-of-way.
 - e. Loads shall not be flown over any building occupied by the public.
 - f. Operators, QRs and QSPs shall ensure all needed public safety measures are in place prior to the hoisting operation (e.g. closing of streets, closing of pedestrian walkways, barricading of areas, etc.)



- g. Operators, QRs and QSPs shall ensure any required LOTO procedures have been properly executed prior to the hoisting operation (e.g. de-energization and LOTO of power lines).
 - h. Operators, QRs and QSPs shall understand the maximum loading capacity of the floor/slab/scaffold/platform/deck or similar surface prior to setting any load on it. Loads set on such surfaces shall not exceed 90% of the surface's rated capacity (taking into account the weight of existing loads already on the surface).
 - i. Operators shall ensure that the crane is not operated in winds that exceed the manufacturer's recommended wind speed.
 - j. Operators shall immediately suspend all hoisting operations that are in progress that if continued, would be classified as a critical lift (i.e. a critical lift was not previously anticipated). Operators shall then ensure that the critical lift process is implemented.
 - k. Operators shall respond to signals from only one person at a time.
 - l. Operators shall not follow any signal that is not understood.
 - m. Operators shall always follow the stop signal.
 - n. Operators shall not leave the control station while loads are suspended or connected to the crane.
 - o. When conflict is possible between other crane booms, lines, or loads, it is the responsibility of the operators of each crane and their supervisor to establish an effective method of communication and placement of an adequate number of spotters and signal personnel to prevent contact of the crane booms, lines, or loads.
 - p. The QSP shall ensure that only one QSP is giving signals to the crane operator at a time.
 - q. The QSP shall ensure that loads are routed in a manner that presents the least exposure to personnel injury and property damage.
 - r. Mobile cranes with rubber tires shall not be used for hoisting unless outriggers are deployed and all tires are off of the ground (i.e. cannot pick "on rubber").
 - s. When left unattended all cranes shall be secured in a manner that prevents unauthorized startup, operation, or movement of the machine.
 - t. Where a crane is operated from a remote control the operator must be in the position where the entire crane and load are in full view of the operator. Where this not possible, a sufficient number of persons, having radio communication with the operator, must serve as spotter(s) for the obstructed portion(s) of the crane.
 - u. Cranes shall have an accessible fire extinguisher readily available.
 - v. Suspended loads shall not be "anchored" to any object/structure.
 - w. "Shock Loading" & "Side Loading" the crane is prohibited.
 - x. Hoisting of loads that are secured to the surface they are being hoisted from is prohibited (e.g. loads frozen to the ground).
 - y. Increasing the load weight after it has been hoisted is prohibited.
6. **Rigging:**
- a. Operations that do not involve a crane must still comply with this section as stipulated in **Subpart H** of this document.



- b. All riggers shall meet the qualifications stipulated by OSHA for a qualified rigger and the qualifications listed in this document (**Qualified Rigger Qualifications**).
- c. The QR shall determine the approximate weight of each load prior to the hoisting operation.
- d. The QR shall read the identification tags on the rigging prior to use and shall determine what the “weakest link” is in their rigging assembly to ensure the load is within the rigging’s capacities.
- e. The QR shall conduct a **pre-use inspection** of the rigging, attachment points, and any specialty type of rigging equipment, such as pallet-forks, concrete buckets, skips, approved Oxygen Acetylene carts, bins, bags, cages, or similar containers, prior to each use. Damaged components shall not be used and shall be immediately taken out of service, properly tagged, or destroyed.
- f. Subcontractor shall conduct a monthly documented inspection of all of Subcontractor’s rigging and specialty type of rigging equipment. Subcontractor shall utilize a color code or other similar in-field identifiably method to mark their rigging once inspected each month. If a color-code system is selected, Subcontractor can either utilize MiNT’s **Rigging & Electrical Color-Code** system or develop their own.
- g. Loads shall be placed on dunnage or similar blocking to prevent damage to the rigging.
- h. A crane or other mechanical means shall not be used to pull rigging out from under a load.
- i. A crane shall not be used to drag or pull a load or any other object.
- j. Hosting of equipment shall only be executed utilizing the manufacturer’s specified rigging attachment points
- k. The QR shall determine the load’s center of gravity prior to rigging the load.
- l. The load shall be rigged in a manner to ensure that the center of gravity is maintained in alignment with the hoist line.
- m. Personnel shall not ride on a suspended load, hooks, ball/blocks, or rigging.
- n. Loads with plastic or similar weak banding holding dunnage under the load shall not be hoisted by a crane without first removing the dunnage.
- o. All loose material shall be removed from the load prior to it being lifted.
- p. All rigging shall have its capacity identified on the rigging.
- q. The use of job-made rigging is prohibited (e.g. wire rope with wire rope clips, make shift hooks, etc.).
- r. All custom designed hooks; grabs; rigging; “flyable” carts, boxes, bins, containers, spreader bars, and similar shall be:
 - i. Designed by a registered professional engineer.
 - ii. Have a safety factor of at least two times its maximum rated capacity.
 - iii. Have its rated capacity clearly marked/tagged on it for each configuration it can be placed in.
 - iv. Proof tested prior to use to **125%** of its maximum rated load by a third party testing/rigging company.
- s. When rigging equipment is not in use it shall be removed from the work area and properly stored to protect it from damage and exposure to degradation from



- environmental elements (i.e. weather).
- t. Rigging shall be kept free of mud, ice, and chemicals.
 - u. All hooks shall have an operable self-closing throat latch.
 - v. Rope, knots, and non-commercially manufactured splices shall not be utilized in rigging applications.
 - w. Rigging accessories (e.g. shackles, slings, chain, wire-rope clips, etc.) manufactured outside of the United States (e.g. China) shall not be utilized.
 - x. Shackles shall be utilized when nylon straps are placed in a chocked configuration (pin in eye).
 - y. Identification tags on all rigging shall be placed in the up position – meaning, towards the hook.
 - z. All rigging, including crane load blocks and headache balls, with missing or illegible manufacturer’s name, size, trademark and/or rated load capacity identification shall be not be utilized and be immediately taken out of service.
 - aa. Basket hitches shall not be utilized unless there is a positive means to prevent the rigging from sliding.
 - bb. Adequate and appropriate softeners shall be utilized on all sharp edges – (Sharp is relative to the weight of the material being lifted and the type of rigging assembly being utilized).
 - cc. Workers shall keep their hands away from rigging pinch points at all times.
 - dd. Workers shall wear leather or equivalent gloves when handling wire rope
 - ee. **Pallets** shall not be rigged/picked with a crane unless a proper set of crane pallet forks (e.g. Jeffery Forks) are used. Loads must be positively anchored to the forks. Loose items must be positively secured and shrink wrapped (e.g. CMU, stone, brick, etc.)
 - ff. **Flexible Intermediate Bulk Containers (FIBC) and similar rigging containers (e.g. Bulk Bags)** shall not be hoisted **overhead or above 5-feet** by any crane, for any purpose other than to place them in an **immediately adjacent** staging area or in an **immediately adjacent** approved and rated hoisting skip or similar approved and rated metal hoisting container. The secondary hosting skip or similar metal hoisting container can then be utilized as the overhead hoisting apparatus to carry the FIBC or similar rigging container during the overhead hoisting activity. All FIBCs shall be inspected prior to hoisting as stipulated in **Subpart CC – Cranes 6.e. – pre-use inspection** of this document.
 - gg. **Compressed gas cylinders** shall only be hoisted in an upright and secured position, with the gauges removed, cylinder caps installed and in an approved lifting device. Approved lifting devices shall only include those devices that are specifically and commercially manufactured for that purpose or those that are constructed per the design of a registered professional engineer and are specifically designed for hoisting compressed gas cylinders.
 - hh. **Tag line**
 - i. A tag line(s) shall be attached to all loads.
 - ii. The use of more than one tag line is permitted so long as it does not



- interfere with the safety of the operation.
 - iii. Tag-lines shall be the appropriate length to provide adequate control of the load.
 - iv. Tag-lines shall be adequately secured to the load.
 - v. Tag-lines shall be secured in a manner as not to upset the load's center of gravity when the tag-line is pulled on.
 - vi. Tag-lines shall be free of knots and similar obstructions that could cause the tag line to get caught on another object.
 - vii. Tag-lines shall not be utilized to "anchor" the load.
- ii. **Multiple Lift Rigging** (Christmas Treeing/Treeing) shall only be allowed for **steel erection** activities.
- i. Prior to a multiple lift rigging operation, Subcontractor shall complete and submit to the MiNT Superintendent a detailed written lift plan.
 - ii. If, at the planned boom angle and lift height, any load will be able to contact the crane boom or if the headache ball/load line wedge socket will be hoisted closer than five (5) feet from the boom sheaves, the number of loads shall be reduced accordingly.
 - iii. Wind limits shall be established and wind speed shall be monitored.
 - iv. During multiple lift rigging, each piece of steel must be equipped with an individual tag-line.

7. Critical Lifts:

- a. Operations that do not involve a crane must still comply with this section as stipulated in **Subpart H** of this document.
- b. **A critical lift is any one or more of the following:**
 - i. Any lift with a **mobile crane** in excess of **90%** of the crane's rated capacity for the configuration it is in.
 - ii. Any lift with a **tower crane** that is in excess of **95%** of the crane's rated capacity for the configuration it is in.
 - iii. Any lift involving **steel erection** with any crane that is in excess of **75%**
 - iv. Any lift where any component of the **rigging** will be loaded in excess of **90%** of the rigging's rated capacity for the configuration it is in. of the crane's rated capacity for the configuration it is in.
 - v. Any lift that requires the concurrent use of two or more cranes or two or more of any other type of hoisting equipment.
 - vi. Any lift that involves hoisting with a crane and lifting or movement of the load with any other type of equipment or vehicle.
 - vii. Any lift of **100,000-pounds** or more.
 - viii. Any **lifting of personnel** (e.g. hoisting personnel in a man-basket).
 - ix. Using a crane where fully extended outriggers can **NOT** be used.
 - x. Using a crane where the **360°** load chart can **NOT** be used.
 - xi. Crane operations in which any part of the equipment, load line, or load (including rigging and lifting accessories) **could become closer, intentionally or unintendedly**, than the minimum clearance distance to

overhead power lines as listed in OSHA regulation 29 CFR 1926.1408 Table A.

- xii. Lifting a load with **unknown weight** and/or **center of gravity**.
- xiii. A lift that MiNT has determined requires exceptional care in handling. This includes, but is not limited to: the size of the load, the weight of the load, close-tolerance installation, a load that is highly susceptible to damage, a load that is of high monetary value, a load that has a long lead time for replacement, etc.

c. **Critical Lift Procedure:**

- i. Subcontractor shall complete an Okland **Lift Planning Worksheet** that is specific to the Critical Lift operation. (**Lattice Crane – Hydraulic Crane – Tower Crane**).
- ii. Subcontractor shall complete a **Written Critical Lift Plan** for the critical lift operation. The **Written Critical Lift Plan** shall include all pertinent information necessary to adequately evaluate the safety of the lift. This may include, but is not limited to the following:
 - 1. Details of the crane’s specifications and/or other hoisting equipment specifications
 - 2. Details of the load
 - 3. Details of the rigging components being used
 - 4. Details of the necessary ground conditions
 - 5. Weather conditions
 - 6. Operational sequence of the lifts
 - 7. Detailed signaling procedures
 - 8. Duties of personnel involved in the lift
 - 9. Considerations of all obstructions (e.g. buildings, boom clearances, other equipment, power lines, etc.)
 - 10. Drawings and diagrams
 - 11. Job Hazard Analysis
- iii. When planning **multiple crane or crane in combination with other equipment lifts**, no crane shall be loaded to more than 75% of the crane’s capacity at the given radius as posted in the load chart for the specific crane and its configuration, unless the lift is engineered by a qualified registered professional engineer.
- iv. Prior to hoisting personnel Subcontractor shall utilize a checklist to validate compliance with OSHA regulations for hoisting personnel.
- v. The completed Lift Planning Worksheet and the Written Lift Plan shall be submitted to the MiNT Superintendent at least **14-days prior to the lift**. This is to allow adequate review of the operation by MiNT’s Crane Superintendent or his designee.
- vi. MiNT, at its sole discretion, may require, Subcontractor, at Subcontractors cost, to have their Critical Lift Plan or certain portions of the Critical Lift

Plan developed/designed/engineered by a registered professional engineer due to the complexity or high risk of the planned lift.

- vii. Subcontractor shall hold a **pre-operation meeting** at least two days prior to the critical lift with the supervision of all involved individuals so as the Critical Lift Plan can be reviewed and expectations clearly conveyed to each. This pre-meeting will give an opportunity for the plan to be adjusted if necessary before the operation takes place.
- viii. Subcontractor shall hold a **pre-lift meeting** each day prior to the critical lift(s) with all involved individuals so as the Critical Lift Plan can be reviewed and expectations clearly conveyed to each. Subcontractor shall ensure all questions are answered and all information is effectively communicated prior to the lift taking place.
- ix. A copy of the Written Critical Lift Plan shall remain on site, in the immediate work area so as it can be referenced as needed.

8. Landing Platforms:

- a. All landing platforms shall be capable of supporting without failure four times the maximum intended load applied or transmitted to it.
- b. The maximum allowable load for each platform shall be clearly marked on the platform.
- c. All loads being applied or transmitted to the platform shall be equally distributed across the surface of the platform.
- d. All landing platforms shall be designed by a registered professional engineer.

Pollution Liability

1. Storm Water Pollution Prevention:

- a. Subcontractor and employees shall comply with the requirements stipulated in the Project’s Storm Water Pollution Prevention Plan (SWPPP).
- b. All modifications or removal of any SWPPP controls that are already in place shall only be done with prior authorization from MiNT’s project Superintendent.
- c. Subcontractor is responsible for all costs associated with maintaining individual compliance with the project’s SWPPP; this includes costs associated with preventing and/or cleaning up of mud subcontractor, its employees, and/or its tiered subcontractors tracks off of the project site.

2. Fugitive Dust:

- a. Subcontractor and employees shall comply with the requirements stipulated in the Project’s Fugitive Dust Control Plan.

3. Noise:

- a. Subcontractor and employees shall comply with all local noise ordinances and project specific noise restrictions.

4. Mold:

- a. Subcontractor shall immediately report any water damage, leaks, or water intrusion to the Okland Superintendent.
- b. Subcontractor shall immediately report the presence of mold that Subcontractor



- observes on any portion of the project to the Okland Superintendent.
- c. Unless otherwise directed by Okland, Subcontractor shall not remove or disturb visible mold contaminated materials. If such direction is given it shall be conducted in compliance with industry standard safety requirements and under the guidance of Certified Industrial Hygienist.
 - d. Subcontractor shall be responsible for any mold remediation that is necessary as the result of subcontractor's actions or inactions.
5. Hazardous Substances:
- a. Subcontractor shall comply with the hazardous substances requirements stipulated in [Subpart D](#) of this document, Occupational Health and Environmental Controls.

Substance Abuse Screening (i.e. Drug Testing)

1. Subcontractor shall conform to MiNT's [Subcontractor Substance Abuse Program Compliance Requirements](#).



Section III



RESERVATION OF RIGHTS AND SEVERABILITY



RESERVATION OF RIGHTS

MiNT reserves the right to administer the requirements of this manual and the attached programs and policies and to interpret the requirements set forth at its sole discretion. In addition, MiNT reserves the right to change and/or rescind the requirements in whole or in part at its sole discretion.

SEVERABILITY

If any portion of this manual and/or the attached programs and policies or the application of any portion to any person or circumstance is held invalid, the remainder of the manual and/or the attached programs and policies shall remain in effect without the invalid portion or application.

ANNUAL REVIEW

The requirements in this manual will be reviewed for effectiveness of safety and health protection at least annually. The annual review will be conducted in September of each year.

This manual was created on:

September 28, 2020

This manual is due for its next review in:

September 2021

END



