Project Safety Plan Guideline

FOR

Safety Plan
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DEFINITIONS

Contract: A written agreement between the Owner and Trade Contractor, between Trade Contractor and a Subcontractor, between the Owner and Other Contractor(s), or between Other Contractor(s) and its (their) Subcontractor(s).

Employer: Any contractor, supplier, or vendor performing work under Contract at the project site.

Project: The premises owned by the Owner as described in the contract between the Owner and Trade Contractor and/or areas and ways contiguous thereto, including any work sites set up by the **Owner** for use by a contractor exclusively for the storage of material or equipment, or for on-site fabrication of materials to be used on the job site, including temporary locations.

Owner: An entity that has a contract between themselves and Trade Contractors or, between themselves and the Contractor.

Contractor: Any company performing work under Contract at the project site.

PROJECT INTRODUCTION

Included in the project is site work.

ADMINISTRATION

MANAGEMENT POLICY STATEMENT

The ***Safety Plan*** embodies the policies and procedures for prevention of injury, property damage, fire damage and occupational illness. **No single feature of our work is of greater importance.** There is never an acceptable reason for compromising safety. This document, the contractor selection process, and site field activities are all designed to support and reinforce this goal.

It is a policy to provide a safe place to work at all times and to conduct all operations in a manner as to provide protection for all individuals who might come into contact with these operations. The Owner's employees, Contractor and Subcontractor employees, and all others employed on this site, as well as anyone who comes on the site for any reason during construction, are expected to conduct their work in a safe manner and are required to comply with established safety programs. By contract, every Contractor on this site is obligated to perform all work in a safe manner. By contract, every Contractor on this site is obligated to conform to the requirements of the Federal Occupational Safety and Health Act of 1970 (OSHA) and all additions and revisions thereto, OSHA Global Harmonization law, IDOL, as well as other applicable Federal, State and Local requirements and the Project Safety Plan.

All supervisory employees must accept their responsibility for the prevention of accidents and for conducting all operations under their direction in a safe and efficient manner. The results of our safety efforts will affect our overall success in constructing the Project. **Our goal is accident-free work** with the traditional defect-free quality. We know this is the most efficient method and that all individuals working on this Project will subscribe to the Project Safety Plan.

With the cooperation, dedication and assistance of everyone, this will be a successful and safe project.

MANAGEMENT STATEMENT - STATEMENT OF FINAL AUTHORITY

All persons who come into the work area, for any reason during construction, will be required to comply with the established safety regulations that govern the project.

Contractors are committed by contract to observe and comply with all applicable safety regulations and procedures. Each Contractor will participate in the Project Safety Program, hereafter referred to as the "Program".

If the Safety Coordinator finds Contractor areas of work or individuals being, or acting in noncompliance with the Occupational Safety and Health Act of 1970 (OSHA), as amended, or any other applicable regulations, the Safety Coordinator shall have the authority to order immediate correction and cessation of the non-compliant occurrence. **Non-compliance with Project Safety Regulations will be grounds for Contractor dismissal and/or employee(s) being forbidden entry onto the project**. All costs of correction shall be borne by the Contractor deemed responsible. Nothing contained herein, however, shall serve to relieve the Contractor of his liabilities and/or obligations under the "Occupational Safety and Health Act of 1970" and all additions and revisions thereto, OSHA Global Harmonization law, IDOL, as well as all other applicable Federal, State and Local requirements.

RESPONSIBILITIES- General Trades Safety Coordinator

- Audit activities of the Trade Contractor's safety program so that it conforms to the Safety Program.
- Provide weekly, written site inspections of the job site, notify the Trade Contractors of any unsafe practices and conditions for which they are responsible and will counsel them on the appropriate corrective actions when necessary. Site inspections shall be reviewed and discussed with the construction team.
- Identify the location where SDS sheets provided from the Trade Contractors/ subcontractors can be found for the project.
- Maintain required records and accident prevention materials at the job site so that an adequate history is maintained for the project.
- Review injury and first aid records during the project to identify injury trends to take positive action to reduce or eliminate such injuries from continuing to occur on the project.
- The General Trades Safety Coordinator will examine and familiarize himself/herself with the job site and adjacent areas from the standpoint of access and facilities regarding safety. The job site should be explored with regard to installing and operating the construction plan, and evaluating any difficulties that might be encountered in complete execution of the work safely. Make frequent inspections of the job site so as to initiate corrective measures to eliminate unsafe practices and conditions.
- The General Trades Safety Coordinator shall immediately investigate all accidents or near miss accidents and take corrective actions to help prevent reoccurrence.

See specific Responsibilities in the following sections

RESPONSIBILITIES – GENERAL TRADES SAFETY COORDINATOR

- The Safety Coordinator directs and administers the Safety Program on this Project. All reports, surveys, accident reports and other information relating to safety are to be submitted to the Safety Coordinator.
- The Safety Coordinator establishes a safety organization to assure the involvement of all personnel in the safety effort and to provide for their participation. The Safety

Coordinator evaluates individual subcontractor's safety performance for compliance with all applicable Federal, State, local laws and the Owner's safety requirements.

RESPONSIBILITIES –GENERAL TRADES PROJECT SUPERINTENDENT/COORDINATOR

Responsible For:

- The active control of the Project Safety Plan.
- Planning and requiring all work to be done in compliance with the Project Safety Plan.
- Weekly inspections relating to safety shall be made and documented.

RESPONSIBILITIES – CONTRACTORS

- Contractors with a staff and crew of 20 or more on site shall appoint a full time safety representative. Contractors with a staff and crew on site of less than 20 shall anticipate that the safety aspects of this position will encompass 20 hours or more of the work week and may occasionally require full time attention. For this reason, serious consideration shall be given to the ability of a superintendent or foreman to simultaneously meet the responsibilities of both positions.
- Each safety coordinator will meet the following criteria:
- A minimum of an OSHA 30-hour construction hazard recognition certification; be certified as a competent person in the type of work being performed; First Aid and CPR certified; experienced in the construction industry in the type of work being performed.
- Each Safety coordinator has the right and authority to stop any and all hazardous work being performed by their employer whenever imminent danger to life and health exists.
- Conduct regular and frequent inspections for their Contractors work areas
- Take immediate action to eliminate unsafe acts and/or conditions.
- Ensure that prior to the start of any work activity, every foreman has reviewed each task assignment with every affected employee to assure a comprehensive understanding of the safety requirements and precautions to be taken while performing this work.
- Ensure that appropriate personal protective equipment is provided and its use enforced.
- Each safety coordinator shall participate in accident and incident investigation involving their work and employees and those of their subcontractors.
- Each safety coordinator shall attend safety meetings as scheduled by Safety Coordinator.
- Contractor shall instruct each employee on project site in the recognition and avoidance of unsafe acts and/or conditions applicable to its work environment to control or eliminate injury or illness.
- Contractor is responsible for providing and requiring the use of appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions. All records shall be maintained at a location accessible to Safety Coordinator.

- Contractor is responsible for notifying Safety Coordinator of any hazardous chemicals or substances that are brought or cause to have been brought on project site. Contractor shall provide Safety Coordinator with a copy of Contractor's Hazardous Communication Program, Chemical information list, and Safety Data Sheet(s) (SDS) for the chemical(s) or substance(s) intended for use on the site. The Safety Coordinator will provide a centrally located place for this information. Contractor is responsible for maintaining a copy of Contractor's Hazard Communication Program, Chemical Information List, and Safety Data Sheet(s) on site for Contractor's own reference and employee training. The proper storage, use and disposal of wastes of any hazardous chemicals or substances are the responsibility of Contractor.
- Contractor is responsible for conforming to OSHA and NFPA standards of fire protection and prevention practices. Contractor shall also comply with all fire and safety rules and regulations established on the project.
- If Contractor fails to correct safety violations, the Safety Coordinator will issue the Contractor written notification, outlining safety violations. Failure of the contractor to abate may result in the removal of the Contractor from the project site or other appropriate measures.
- Compliance with Federal, State, Local Laws and regulations is the contractual obligation of Contractors working on this project. Conflicts between current laws or contractual requirements shall be resolved by adhering to the more stringent requirement. Any project site safety regulations, which exceeds the minimum standards established by OSHA, shall be incorporated in Contractor's safety program.
- The Contractor shall ensure that its supervisors are aware of their responsibilities, which include:
- Become familiar with the requirements of all accident prevention standards and safety rules pertaining to their job.
- Be responsible for carrying out the procedures required by the project safety plan.
- Ensure that each employee under their supervision has received the initial project safety orientation provided by the Safety Coordinator.
- Explain to all employees applicable safe practice rules and regulations under their direct supervision.
- Supervise the instruction and training of new employees either personally or through delegated experienced persons until the new employee satisfactorily demonstrates their ability to perform the work in a safe and efficient manner.
- Be responsible for continuous housekeeping in their area and for the use and maintenance of all personal protective devices, equipment, and safeguards.
- Notify their direct supervisor and/or the contractor’s safety representative concerning work areas where they believe protective devices are required.
- NOTE: Such safety devices will include, but not limited to, the following: machine guards, operational shields, exhaust vent hoods and systems, welding shields, approved personal protective equipment, automatic stops and controls, barricades, railings, etc.
- Report to their own direct supervisor all cases of employees who, in their opinion, are not qualified for the work to which they have been assigned or who engages in unsafe practices.
- Attend and participate in all supervisors’ safety meetings.
- Conduct or arrange for weekly "toolbox" safety meetings for all employees under their supervision as required. Minutes of Tool Box Talks are to be maintained and a copy of

each Talk is to be given to the Safety Coordinator before end-of -shift the day given.

- Each Contractor shall complete a Safety Task Assignment Process form each day for all work crews, discuss with each work crew on a daily basis or when non-routine tasks occur and provide a copy to the Safety Coordinator at the end of the work day with their daily report.
- Report immediately, all accidents in which personal injury, property damage or a near-hit occurs.
- Should an accident occur involving a Contractor's employee, the Principal/Owner of the Contractor shall attend a "Principals" meeting at the project location to review the incident. The Safety Coordinator and JJC Project Manager will conduct this meeting.
- Assist in accident investigation and submit a report promptly on required forms. Lessons learned from such investigations shall be incorporated into all future daily activities and plans of the contractor.
- In the event a contractor utilizes employees whose primary language is not English, the contractor shall provide for appropriate interpretation to assure complete comprehension.
- Periodically analyze work methods in detail for the purpose of job simplification and for the establishment of safe work methods.
- Site safety inspections are to be an ongoing process and documented at least weekly. Contractors should document inspections on the Site Audit Checklist or approved Contractor's form and submit to The Safety Coordinator.
- Ensure that all hazards created in an area as a result of work activities are addressed before the crew leaves the area, including breaks or lunch.

- **In an effort to create an incident and injury free culture on the project, the JJC Project Manager may hold periodic Principals Meetings to discuss project safety with contractor principals. Project walkthroughs and worker feedback interviews will be part of these meetings. Contractor principal / owner attendance at these meetings is mandatory.**

RESPONSIBILITIES - EMPLOYEES

- No employee shall be required or knowingly permitted to work in an unsafe environment except for the purpose of making safety corrections and then only after proper precautions have been taken for their protection.
- Each employee is responsible for learning and abiding by those rules and regulations which are applicable to the assigned tasks and for reporting observed or anticipated hazards to their immediate Supervisor. If the hazard is not immediately corrected, the affected employee will report the hazard to Safety Coordinator
- **All employees shall observe the following rules of conduct:**
- **Courtesy**: Employees shall observe standards of behavior and conduct their work in a manner to avoid offending any Owner employees or visitors. **Each individual on this Project must be given the courtesy that would be extended to one's family or best friend.**
- **Personal Protective Equipment**: all persons on the site will wear hard hats, eye protection, gloves and work boots with substantial soles. All other personal protective equipment, including respirators or eye protection, as appropriate to assigned tasks, shall be utilized in the proper manner at all times while there is exposure to the hazards.

- **Clothing**: Clothing suitable for the weather and your work shall be worn. Torn or loose clothing, cuffs or neckwear, which may be a hazard, are not allowed. Shirts must be worn and have short sleeves. Pants must have legs (no shorts allowed). Clothing shall be maintained in a clean, neat and repaired fashion
- **Vehicles**: Employees shall park their vehicles in designated areas. Operation of vehicles on the project site shall conform to all local traffic laws. The maximum speed limit on the project site is 10 miles per hour.
- **Smoking**: **Smoking is permitted only in designated areas**
- **Intoxicants**: Consumption of alcoholic beverages or controlled substances is not allowed on the project. All workers who are taking physician-prescribed or over-the-counter medication must be fit for work. **All employees are specifically directed to the "Drug Policy" which is a part of this Project Safety Plan.**
- **Accidents**: All employees must immediately advise their Supervisor of any injury on the project or any non-injury accident, which involves damage to property or equipment.
- **Personal Conduct**: Practical jokes, horseplay, scuffling, wrestling or fighting is prohibited.
- **Good Housekeeping**: Good housekeeping on the project is mandatory and every employee must do their part daily to minimize dust and to clean up their work area to keep the project clean for safety and efficiency. **Controls shall be observed which keep dirt from being tracked into areas outside the workspace.** Clean up methods shall follow prescribed techniques to minimize the distribution of dust into the air.
- **Authorized Access**: Employees shall confine their activities to the areas designated as the work site. **The employee's Supervisor shall obtain permission from the appropriate Owner representative prior to entry into any areas outside the work site.**
- **Fire Protection**: Employees shall adhere to all fire protection regulations, and shall conduct their work in a manner to preserve the fire safety integrity of the building.
- **Music.** No televisions, radios, CD players or cassette tape players are allowed.

GENERAL REQUIREMENTS

ACCIDENT INVESTIGATION

- For all injuries or near-hits, the JJC Project Manager and the Safety Coordinator are to be notified immediately. Copies of ALL accident reports must be filed with the JJC Project Manager and the Safety Coordinator immediately.
- It will be each Contractor's responsibility to complete the First Report of Injury for his employees and to transmit copies of these reports immediately to JJC Project Manager and the Safety Coordinator. Any accident or incident resulting in a lost-time injury, fatality, damage to property or equipment exceeding U.S. $1,000, a serious "near-hit" or the recognition of a potential hazard to health and environment is to be investigated by a committee comprised of the following, as appointed by the Safety Coordinator: the JJC Project Superintendent, the JJC Project Manager, the Project Safety Coordinator and Contractors Supervisor or anyone familiar with the practices involved in the incident who can contribute to its analysis and make recommendations for action to prevent a reoccurrence. The investigation shall begin promptly after the incident. Results of the investigation and recommendations for preventive action shall be documented within five (5) workdays of the incident. If the Owner agrees, a brief news release shall be posted, for the information of workers, covering fatalities and serious occurrences. The

occurrences are also to be discussed at the regular or special safety meetings. This investigation and report shall be made immediately, but release may await any similar investigation and reports required by governmental regulations. Safety Coordinator shall also review first aid injuries to establish trends and practices that deviate from work standards and shall report and take corrective actions.

- The Safety Coordinator shall provide for the Owner, in the Monthly Progress Report, a safety report covering safety activities for the preceding month. The report shall include:
  - The accident experience, recordable, lost time, first-aid and near-hit incidents for the month.
  - The relationship of the accident experience to the number of people employed using a recognized national standard for recordable injuries and lost time injuries.
  - A review and summary of the safety activities, problem areas, and contemplated action, including fire hazards and environmental hazards.

ACCIDENT REPORTING PROCEDURES

For all fatalities, cases requiring hospitalization, OSHA Recordable events or possible lost-time injuries, JJC Project Manager and the Safety Coordinator are to be notified immediately. The Trade Contractor will immediately notify the Insurance Carrier's Claim Representative of all accidents and will immediately forward Employer's First Report of Injury Forms, General Liability Loss Notice Forms, subsequent inquiries or correspondence received relative to the matter, including Court Summons or other legal documents, to the Claim Representative with copies to the JJC Project Manager and the Safety Coordinator. Copies of ALL accident reports must be filed with the Safety Coordinator immediately.

CONCRETE (CAST-IN-PLACE)

All equipment and materials used in concrete construction and masonry work shall meet the applicable requirements as prescribed in ANSI-A10.9-most recent version, "Safety Requirements for Concrete Construction and Masonry Work."

CONFINED SPACE ENTRY

- Contractor shall develop an entry procedure to be used when Contractor's employees are required to enter confined areas or spaces. Confined Space entry procedures will conform to OSHA 1910.146 and the owner's requirements.
- A confined space entry permit must be completed and posted at the entrance to the confined area.
- Documentation of appropriate formal training for all involved in the confined space activity (entrants, attendants, supervisor, and rescue personnel) shall be submitted to Safety Coordinator for approval prior to any entry.

CRANE SAFETY AND RIGGING

The Contractor shall conform to the more stringent of Federal, State, local, or client safety policy.

Contractors whose activities require the use of cranes shall be responsible for their proper set up and operation and shall advise the Safety Coordinator prior to the arrival on-site.

The contractor shall supply the Safety Coordinator with documented evidence of their competent person's training, and of their 'qualified persons', as required by 1926.1404, 1926.27, 1926.1428, and where specified in 1926.1400, including the Operators, Riggers, Signal Persons, and 'Assembly/Disassembly Director.

The Assembly/Disassembly Director shall be responsible to ensure that all provisions of safety

as specified in 1926.1404 are met including but not limited to: adequate site and ground bearing conditions, proper blocking and cribbing, knowing load weights and center of gravity, equipment capacity, support of booms and counterweights, rigging of boom and suspension systems, determination of safe wind speeds, etc.

Inspection

Inspections are required pre and post assembly in the configuration that the crane will be used, as well as in severe service and after adjustment or repair, for each piece of equipment.

Contractors shall provide the Safety Coordinator evidence of annual inspection by a third-party inspection agency not under the control or ownership of the crane owner and approved by the Safety Coordinator. All repairs and adjustments noted on the inspection shall be corrected prior to next use. 'Temporary alternative measures' as specified within OSHA regulations will not be accepted.

This applies to power-operated equipment used in construction that can hoist, lower and horizontally move a suspended load, as specified in 1926.1400. Such equipment includes, but is not limited to: articulating cranes (such as knuckle-boom cranes); crawler cranes; floating cranes; cranes on barges; locomotive cranes; mobile cranes (such as wheel-mounted, rough-terrain, all-terrain, commercial truck-mounted, and boom truck cranes); multi-purpose machines when configured to hoist and lower (by means of a winch or hook) and horizontally move a suspended load; industrial cranes (such as carry-deck cranes); dedicated pile drivers; service/ mechanic trucks with a hoisting device; a crane on a monorail; tower cranes (such as fixed jib ("hammerhead boom"), luffing boom and self-erecting); pedestal cranes; portal cranes; overhead and gantry cranes; straddle cranes; side-boom tractors; derricks; and variations of such equipment.

Inspections shall be performed by a qualified person designated by the contractor in accordance with 1926.1412, 1926.1413 and the manufacturer's recommendation and ANSI B30 Standard for the type of crane being inspected and the most current version. This inspection shall be completed prior to each shift starting work, as well as when equipment is modified, repaired or adjusted, post assembly, monthly, annually and in conditions of severe service.

Operation.

This certification will be for each crane and lifting device and associated rigging equipment brought onto the site. At least every 12 months, or if the crane or its associated rigging has sustained any incident which may have resulted in damage, in cases of severe service, or after if any repair or modification the crane and its associated rigging shall be fully re-inspected by a qualified person in accordance with OSHA regulations, with proof of inspection provided to the Safety Coordinator.

No work shall proceed without evidence of a current annual inspection meeting Safety Coordinator requirements. No claims will be accepted for losses sustained by the contractor for delays caused by failure to comply with these requirements. Temporary alternative measures for safety devices or operational aids will not be accepted.

Safety devices, including but not limited to: crane level indicator, boom and jib stops, foot pedal locks, check valves on hydraulic outrigger and stabilizer jacks, and horns, must be in proper working order before equipment operations can begin- temporary alternative measures are not permitted to be used.

Operational Aids, including but not limited to: boom hoist limiting device, boom angle indicator, load radius indicator, luffing jib limiting device, anti two-blocking device, load weighing device (such as a load moment indicator), and outrigger stabilizer position monitor must be in proper working order- temporary alternative measures are not permitted to be used.

Special Procedures

- A lift procedure shall be developed by the Contractor's qualified person, and overseen by the Contractors qualified and competent Assembly/disassembly director for the following and submitted to the Safety Coordinator prior to the lift taking place:
- Critical Lift (defined as when lifting a load where the weights are at or over 75% of the rated capacity of the crane and rigging as determined by the manufacturer);
- Multi-Crane Lift;
- 100 Tons or greater Lift;
- Any application that deviates from the manufacturers recommendations;
- When special or unique hazards are under or adjacent to the load at any time during the lift;
- When Safety Coordinator determines such a procedure is necessary.
- The Lift Procedure will include a Hazard Analysis developed by the Contractor and submitted to the Safety Coordinator along with Pre-Lift meetings, which shall be held at 30 days prior to the lift, the day prior to the lift and immediately prior to the lift with the actual workforce doing the lift. All concerned parties must be present for the meetings with minutes of the meeting recorded by the Safety Coordinator.
- The Lift Procedure will include documentation of calculations which incorporates weight deductions of all rigging equipment, a load chart for the crane(s) that will be used, a site plan and layout sheet which will include the path of travel of the load, swing radius protection and any other necessary factors.
- The Contractor's Crane Lift Plan Form, Crane Critical Lift checklist or equivalent, shall be used.

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Record Keeping

- All records pertaining to crane inspections shall be kept with the crane or in the trade contractor's site field office in accordance with applicable OSHA regulations.
- If during any safety inspection, the operator or supervisor cannot produce the required crane inspection sheets, the crane shall be shut down as soon as possible and shall be inspected.
- Where crane operators are required to be licensed by the State where the project is being built they shall have a current license and provide a copy to the Safety Coordinator when requested. Duplicates of Certification records shall be maintained on project site by Contractor and made available to the Safety Coordinator upon request. The contractor shall provide evidence of competency of the operator to the Safety Coordinator.

Rigging

- Only qualified riggers shall perform rigging operations.
- A Competent Person appointed by the Contractor shall inspect all rigging equipment. Inspection shall be done and documented prior to each shift starting work, monthly and annually in accordance with 1926.1413. If there are any deficiencies in equipment, it

shall be removed from service and corrected or replaced per manufacturer's criteria.

- All rigging equipment that is defective or damaged shall be immediately removed for the project site.
- Chain slings are not permitted to be used for any lifting operation unless specifically designed for a unique application.
- Wire rope slings shall bear a legible manufacturers capacity tag.
- Tag lines shall be used on all loads.
- All hooks used for overhead lifting shall be equipped with safety latches or alternate lifting methods such as clamps will be used. Shake-out/sorting hooks may only be used for unloading materials from trucks and will not be used for overhead lifting.

Signals

- The contractor shall appoint a qualified and trained signal person that meets the definition of 1926.1428 c and 1926.1430
- When hand signals are used, only the standard method for signals shall be used 1926.1400 App A.
- Operator and signal person shall meet prior to hoisting lifts to confirm understanding of signals.

Operator Qualifications

- The crane operator(s) shall be proficient in the operation of the crane(s) and licensed in the State/City where the operation is being performed, or certified by an accredited crane operator testing organization, such as the National Commission for the Certification of Crane Operators (NCCO), or by an audited employer program developed by an accredited crane operator testing organization and audited by a third party qualified auditor.

Power line Safety

- Crane and rigging operations are not permitted within 20 ft. of power lines unless the power lines are de-energized and confirmed by a qualified utility company representative.
- Where encroachment is required within 20 ft. from power lines in accordance with 1926.1408, Table A
  - A planning meeting shall be conducted with the assembly/Disassembly director, operator, crew and other workers in the area to review steps to prevent encroachment
  - Tag lines must be non-conductive
  - Dedicated spotters shall be used
  - Proximity alarms or range control warning device shall be used

Tower Cranes- please refer to Appendix C for Tower Crane erection and Dismantling procedures

DEMOBILIZATION

The Project Superintendent and each contractor shall organize and schedule the orderly removal of their project site offices and trailer facilities, the termination of temporary utility services, the transfer of telephone services to their offices, and the forwarding of mail. The site

shall be left in the conditions specified by the contract documents. The Project Superintendent shall inspect the site with the Owner to verify that all permanent security and safety devices are in place and performing their intended function.

DEMOLITION

Structural Demolition

- An engineering survey shall be completed before the start of demolition.
- All structural shoring shall have stamped drawing and calculations by a registered Professional Engineer.
- Areas being demolished must be secured by means of barricades to prevent unauthorized personnel from entering the area.
- Subcontractors must submit, prior to the start of construction, a detailed demolition plan to include, means and methods, related drawings, and other relevant safety plans.

DISCIPLINE - ENFORCEMENT

- All contractors and suppliers shall participate in the project safety plan. Should an Imminent dangerous condition be discovered, all work in the area of danger will be stopped until corrections are effected.
- Should the Safety Coordinator find contractor areas of work or individuals being or acting in non-compliance with OSHA or the Project Safety Plan, the Safety Coordinator shall have the authority to order immediate correction of the non-compliant occurrence.
- All costs of correction shall be borne by the Trade contractor deemed responsible.
- If more than one contractor is deemed responsible, the Safety Coordinator's division of responsibility shall be final.
- Nothing contained herein, however, shall serve to relieve the contractor of their liabilities and/or obligations under OSHA as well as other applicable Federal, State and local requirements as well as the Project Safety Plan.
- Repeated violations or lack of cooperation with regard to the Project Safety Plan by employees of a contractor will indicate non-compliance with provisions included in the contract and may be reason for the employee being barred from the project site and/or for termination of the contractor's contract.
- At orientation, new employees are given their first warning: These are the rules; if you fail to follow them you will receive a citation.
- **1st Citation**: Notice is sent to employer. Employee must come in and see the Safety Coordinator to review violation so we can be sure the employee knows how serious this citation is and what corrective action must be taken. A fine for the Contractor will be imposed.
- **2nd Citation**: The individual will be removed from the property. A fine on the Contractor will be imposed.
- This constitutes three (3) warnings. At this point, this person will be banned from further access to the site.
- **"Immediate removal from the property" Citations** will result when:
- Any employee, supervisor or manager exposes themselves or other employees to

imminent loss of life.

- Any employee, supervisor or manager openly exhibits disregard, defiance or disrespect for the safety plan.
- Any employee, supervisor or manager knowingly falsifies any investigative document or testimony involved in an investigation.
- Violent physical encounters (fighting) occur. All individuals involved in the incident are subject to removal.
- Threats are made against any safety personnel performing their duties.
- Theft or destruction of property occurs.
- Any employee, supervisor or manager consumes, possesses, distributes or is under the influence of alcohol/drugs.
- Other Citations: Violations of safety, traffic, housekeeping or material storage rules

Dispute Resolution

The Safety Coordinator whose decision is final and not subject to arbitration shall resolve all disputes involving the Project Safety Plan.

DISCIPLINE – FINES

Fines (Refer to Appendix A Table of Fines)

- The fines are not to be collected from the individual violator.
- Safety Coordinator will collect them from the principal of the respective company at the monthly Safety Meeting. This will be by separate check.
- These funds will be used to fund a reward/incentive program for those who work and are safe individuals or groups. Any money remaining at the completion of the project will be donated on behalf of all workers and companies employed on the project to a local charity.

SUBSTANCE ABUSE POLICY – MINIMUM

Purpose

The owner and the Safety Coordinator have a commitment to protect people and property and to provide a safe working environment. The purpose of this policy is to establish a drug-free work environment for each worker.

Policy

The owner and the Safety Coordinator prohibit the use, possession, distribution, or sale on the project premises, facilities, or work places of any of the following: alcoholic beverages, intoxicants drugs and related drug paraphernalia.

Workers must not report for duty or perform work while under the influence of any drug, alcoholic beverage, or intoxicant. Workers on the project premises will be subject to search as provided herein. Applicants and workers will be required to consent to drug testing as provided herein.

This policy will apply where state law or regulation and/ or collective bargaining agreements allow.

Definitions

When used herein, the following terms will have the meanings given below:

Alcohol - Ethyl (Ethanol). References to use or possession of alcohol include the use of any beverage, mixture, or preparation containing alcohol.

Drug - Any substance (other than alcohol) including prescription drugs which may impair mental or motor function; including, but not limited to, any psychoactive substance, controlled substance, marijuana, or designer or simulated drugs. This definition does not apply to prescription drugs, which have been disclosed to the Company and the Controlling Employer by the worker and are approved for use within prescription limits.

Employee - Any individual, salaried or hourly, who actually performs work for a Controlling Employer on the project premises.

Controlling Employer - Any individual or firm that provides workers to perform work on the project premises and is responsible for their hiring, advancement, payment, discipline, and termination, including the Owner, the Architect, all contractors, all sub-tier contractors, all vendors, all suppliers, all material dealers, any Other Contractors, and any others coming on the project premises.

Applicant - Any individual who is referred or makes application for employment on the project premises.

Project Premises - All parts of any office, work site, or other work location, including parking lots under the control of the owner.

Testing Facilities - A laboratory where a specimen can be tested for drugs and alcohol within threshold limits according to standards established by the U. S. Department of Transportation and is certified by the U. S. Department of Health and Human Services (HHS) under the National Laboratory Certification Program (NLCP) or in the case of a foreign laboratory is approved for participation by the U.S. department of Transportation with respect to Part 40.

Contraband - Considered including but not limited to the following: drugs, alcohol, and drug paraphernalia.

Drug Paraphernalia - Any article for the use, storage, or sale of drugs.

Accident - Any event resulting in injury to a person or property to which the Company believes a worker contributed as a direct or indirect cause.

Incident - Any event, which the Company determines, has all the attributes of an accident, except that no harm was caused to personnel or property.

Tobacco Products - Any article containing tobacco, including but not limited to cigars, cigarettes, pipe tobacco, snuff, and chewing tobacco.

Worker(s) – Any individual, salaried or hourly, of any employer who will be performing work on the project premises.

Drug Detection Thresholds will be in accordance with U.S. D.O.T.

All confirmatory drug testing shall be done in NLCP-certified facility

Prescription Drugs

Any worker using a prescription drug, which may impair mental or motor function, shall, as soon as possible, notify their employer who is to notify the Safety Coordinator and/or the Controlling Employer. For the safety of all workers, the Company may direct the Controlling Employer to not permit the worker on the project premises until released as fit for duty by the prescribing physician. The Company reserves the right to obtain a confirming medical opinion before allowing the worker to return to duty.

Worker Pre-Assignment Testing (per applicable State laws and Project Labor Agreements (PLA's))

All workers, salaried or hourly, who are hired, transferred or temporarily assigned to the project premises shall be required to consent to drug testing in accordance with applicable State laws prior to assuming project responsibilities Controlling Employers shall certify to Safety Coordinator in writing on company letterhead signed by an Officer of the company that their current workers have passed a drug test ***immediately prior*** to assignment to working on the project premises

Post Accident Testing (per applicable State laws and PLA's)

After an accident or incident, the Company will ask the Controlling Employer to test all those involved.

Reasonable Suspicion Testing (per applicable State laws and PLA's)

The Company will also ask the Controlling Employer to test workers when a reasonable suspicion exists that the worker has been using drugs or alcohol. The maximum level of alcohol blood content shall not exceed 0.08 g/100 ml blood or equivalent.

Random Testing (per applicable State laws and PLA's)

Urine and/or blood drug screening analysis of workers and others on the project premises may be conducted on a random basis at periodic, unannounced intervals during the construction of the project, in accordance with State laws and applicable PLA's. A minimum of 12% of active employees on site will be selected, at random, for drug screening, or as required per Regional Substance Abuse Program Consortium or PLA's. Controlling Employers must certify negative test results to the Company; otherwise worker shall not be permitted to return to the project premises

Discipline and Rehabilitation

Unless a Project specific Substance Abuse Policy by the Company or Owner is in effect, each Controlling Employer shall certify that they have a Substance Abuse Policy which incorporates as a minimum the following requirements:

A) When an applicant submits to pre-assignment testing and passes the required test, s/he will be eligible for further employment consideration.

B) If the applicant fails the required test, s/he may reapply for employment consideration after a period of no less than sixty (60) calendar days have elapsed. The Company may waive this sixty-day waiting period if the applicant completes an acceptable drug/alcohol rehabilitation program and presents acceptable proof of completion of the program to the Company Project management personnel. An applicant who fails the second test will not be considered for employment at the project premises for a period of no less than one year.

C) All workers who refuse to submit to a drug and alcohol test, or who fail to pass a drug and alcohol test will be removed from the project premises by the Controlling Employer and will be referred to their personnel management for disciplinary action.

D) A worker on the project premises, facility, or work place in possession of contraband is subject to disciplinary action, up to and including barring from the site by the Company and immediate termination by the Controlling Employer. Contractors and/or workers who are in possession of contraband are subject to removal and denial of future access to the project premises.

Financial Obligation of the Controlling Employer

The Controlling Employer will bear the cost of time, transportation, and testing for workers who

are being given drug and alcohol tests.

Confidentiality

The Company will take steps to maintain the confidentiality of information generated by the implementation and enforcement of this policy and these procedures. Disclosure will be made only in appropriate circumstances. The Controlling Employer shall be responsible for maintaining the confidentiality of all information generated by the implementation and enforcement of this policy and these procedures for their own workers. The Company shall have the right to audit compliance with this policy and these procedures by the Controlling Employer, which shall include access to this confidential information.

Training

Supervisors and management personnel will be trained to recognize appropriate symptoms and to administer the policy in a consistent, confidential, and intelligent manner.

Contractors and Suppliers

The Company and all Controlling employers will include the provisions of this policy and these procedures, in their contracts with contractors, suppliers, consultants, agents, and others involved in providing goods or services on the project premises, and will require that they do the same with respect to their lower-tier contractors, suppliers, etc.

Posting and Distribution

Significant sections of this policy and these procedures will be given to each applicant and worker upon request.

A warning notice will be posted in a conspicuous location on the project premises. This Substance Abuse Policy will be included in each pre-bid and pre-construction meeting as well as an integral part of the project Safety plan and contract documents.

The Company may revise and amend this policy and these procedures as required.

Procedures for Examination Post-Accident Screening When Required By Safety Coordinator

A Controlling contractor supervisor is to accompany injured employee or those employees involved in the accident or incident involving a Controlling contractor worker to the clinic or medical facility. Controlling Employers shall certify any worker(s) involved in an accident or incident tested negative for drugs and alcohol prior to allowing them to return to the project premises.

If the injured worker refuses to give a specimen of body fluid, the Controlling contractor supervisor is to notify the Company. The worker is to be advised, again, that the refusal to submit to drug screening is a violation of the Project Safety Plan's drug, alcohol and other prohibited articles safety policy and that refusal will result in removal from the site.

Results of all drug screenings and analyses must remain strictly confidential.

Workers must report all injuries immediately to their supervisor, whether the injury requires medical treatment or first aid only. Late reporting may result in denial of a claim.

Random Testing Policy

Drug screening analysis of workers and others on the project premises may be conducted on a random basis at periodic, unannounced intervals during the construction of the project, in accordance with State laws and applicable PLA's. Controlling employers shall advise their employee immediately prior to selection for Random testing and shall ensure workers submit to drug screening as soon as possible, and no longer than 1 hour from being notified. Controlling Employers must certify negative test results to the Company; otherwise worker shall not be

permitted to return to the project premises

ELECTRIC - TEMPORARY

- General:
  - All electrical work, installation and wire capacities shall be in accordance with the pertinent provisions of the National Electrical Code (most current version), ANSI and OSHA Standards.
- GFCI and AEGP:
  - All 120 volt, single phase, 15 & 20 amp temporary power circuits (with the exception of temporary lighting) shall have ground fault circuit interrupters installed. In addition all tools, cords and power sets shall have an assured equipment inspection program maintained on quarterly basis.
  - The color codes used for identifying inspected & tested equipment on this project are:

▪ January, February, March	▪ White
▪ April, May, June	▪ Green
▪ July, August, September	▪ Red
▪ October, November December	▪ Orange

  - (NOTE: The cycle of colors is repeated for the next year)
  - Portable tools will have the appropriate color code affixed to the male (plug) end following inspection. Extension cords, including portable GFCI pigtail sets, will have the appropriate color code affixed to both ends (plug & receptacle). The previous quarter's color code will be removed to avoid confusion.
  - When using permanent power, once established in new construction or in renovation work, Ground Fault Circuit Interrupters must be used in conjunction with the AEGC inspections.
- Extension Cords:
  - Extension cords used with portable tools must be a minimum12 gauge wire. Damaged electrical cords shall not be used.
  - All extension cords will be suspended seven feet (7') above finish floor or work platform. Extension cords will not be fastened with staples, hung from nails, or suspended by non-insulated wire.
  - Receptacles shall not be connected to the same ungrounded conductor of multiwire circuits which supply temporary lighting.
- Temporary Lighting:
  - Temp lighting circuits must be a UL approved assembly.

- . Open wiring, is NOT acceptable for temporary lighting circuits. 'Open wiring' refers to the individual conductors being physically separated (as in the McGill "String-O-Lights.)
- Lighting on barricades, fences, or sidewalk coverings shall be encased in metal raceway.
- Bulbs for Temporary lighting must have guards to prevent accidental contact
- Temporary lights must be suspended by the lamp fixture, and by nonconductive twine or cord or other material.
- All wiring used for temporary lighting shall be run using SJTW cord type, minimum 14/2 Gauge conductor.
- Splices in conductors, when required, shall have wire nuts and conductors protected by 5 tightly wrapped half lap wraps of 3M Scotch™ Super 33+ Vinyl Electric Tape or equal for a thickness of 35 mils. Otherwise, splices shall be made within a secured junction box.
- Portable electric lighting used in moist or other hazardous locations such as drums, tanks, vessels, bins, bunkers, etc., shall be operated at a maximum of 12 volts (non-explosive).
- All shop lighting and portable task lighting shall have a cover and guard installed when in use or available for use.

- Wiring Ground:
  - All temporary wiring shall be effectively grounded in accordance with the National Electrical Code (Articles 305 and 310).
  - All non-current carrying parts of electrical equipment must be grounded or have an approved double-insulated setup. Grounded circuits must have enough capability to carry all currents likely to be imposed on it.
  - All electrical equipment and wiring in hazardous locations must conform to the National Electrical Code standards. The frames of all cutting, welding (arc, heli-arc, gas-plasma-arc) machines shall be grounded.
- Protection of energized parts:
  - All temporary power panels shall have metal covers installed at all times, unless they are housed in a room where the door is closed and locked from unqualified persons. All open or exposed breaker spaces shall be adequately covered, and labeled.
  - Fish tapes or lines made of metal or any other conductive medium are prohibited. Nonconductive tapes and lines will be used in their place.
- Defective Electrical Tools and Equipment
  - All electrical tools and extension cords found to be defective (Examples: missing or broken ground pins, exposed internal conductors) will immediately be rendered in-operative by cutting off the plug end or by immediately removing from the project.
- Energized Electric Work/LOTO:
  - Electrical work (e.g. tie-ins, panel maintenance) shall be conducted only on de-energized (locked out and tagged out) systems. All circuit disconnects must be locked in the open position or otherwise appropriately identified with affixed tags stating "DANGER - DO NOT ENERGIZE" or other equivalent wording prior to working on the system or equipment. Employees are not permitted to work on

any energized circuits unless conditions mandate and written approval is obtained from the Project Safety Coordinator. The pre-task planning for all work on energized systems must be submitted for review. Additionally, work practices must conform to all applicable owner, state and federal requirements including the NEC and the most recent version of NFPA 70E.

ELEVATED WORK (OTHER THAN FALL PROTECTION)

Ladders

- Manufactured ladders on the project shall comply with the regulations of ANSI-A14.1-1968 (or most recent version), Safety Code for Portable Wood Ladders or ANSI-A14.2-1972 (or most recent version), as required by OSHA. All ladders shall be used in the manner and for the purposes for which they were designed and constructed.
- The side rails or extension shall extend 36 inches above the landing. When this is not possible, grab rails shall be installed. All ladders in use shall be tied, blocked, stabilized by a second worker or otherwise secured to prevent accidental displacement.
- When working on/from a ladder at elevations greater than six (6') feet or more above the work surface, all ladders (including stepladders) must be tied, blocked, stabilized by a second worker or otherwise secured against accidental displacement. Where adequate anchorages are available, workers shall tie off using a Personal Fall Arrest System or utilize a different means of gaining access (i.e., scissor lift, scaffold, etc.).
- Portable metal ladders shall not be used.

Scaffolding

- All employees erecting, using and dismantling scaffolds shall be trained in the hazards present and the safe procedures to be followed to eliminate exposure to those hazards and shall be provided with fall protection when 6-feet or more above the next lower level.

Concrete and Masonry

- All equipment and materials used in concrete construction and masonry work shall meet the applicable requirements as prescribed in ANSI-A10.9-1970 (or most recent version)"Safety Requirements for Concrete Construction and Masonry Work."

Stairways

- Upon delivery to the project site all office trailers and material storage trailers shall be provided with stairway access to all doorways and shall have landings with railings which allow for at least 20 inches of clearance in front of any door swing.
- Stairway placement shall follow placement of the upper floor deck, as soon as practical.

Hoists and Elevators

- Temporary personnel elevators and material hoists shall be constructed, installed and maintained in compliance with the manufacturer's instructions and the provisions of applicable statutes and regulations of governing authorities.
- No elevators or hoists are to be used for the movement of materials and personnel until the devices have been certified and licensed by a third party inspector qualified to approve the equipment.
- No person shall be allowed to ride on a material hoist except for the purposes of inspections and maintenance.

ELEVATED WORK - FALL PROTECTION

- A Fall Protection Plan must be developed by the contractor for all work with a fall exposure greater than 6-feet with a copy provided to Safety Coordinator prior to start of work.
- "Controlled Access Zones", "Safety Monitoring", and "warning Lines" are not permitted.
- Personal Fall Arrest systems shall be worn and used by all workers when working six (6') feet or more above the ground/floor or whenever working in a precarious position, unless other adequate fall protection such as guardrails or safety nets are provided.
- All lanyards are to be as short as possible, but in no event longer than six (6') feet. Shock absorbing lanyards must be used unless a Self-Retracting Lanyard is in use. Wire rope lanyards are prohibited unless approved by Safety Coordinator.
- Personal Fall Arrest System shall also be worn and attached to the manufacturer's approved anchorage when working in aerial lifts and to vertical drop lines when working from suspended scaffolding.
- Only one individual shall use a vertical safety lines at a time.
- When wire rope is used as a guardrail providing fall protection, *please refer to pages 59-60* 'Perimeter protection' for design and installation details within this Safety plan.
- When wire rope is used a horizontal lifeline, it shall be designed by a registered Professional engineer and installed and maintained by a competent person. It shall be designed, installed and maintained to meet, at a minimum, the requirements of OSHA as contained in 29 CFR 1926.502.
- To eliminate the potential of a fall when working on a flat roof or deck, a warning barrier meeting the following requirements may be used 15 feet from the fall hazard. If a worker is between the warning barrier and the fall hazard, a positive means of fall protection must be used. Warning tape is not allowed as a warning barrier.
- Warning barriers shall consist of ropes, wires, or chains, and supporting stanchions erected as follows:
- The rope, wire, or chain shall be flagged at not more than 6-foot (1.8 m) intervals with high-visibility material;
- The rope, wire, or chain shall be rigged and supported in such a way that its lowest point (including sag) is no less than 34 inches (.9 m) from the walking/working surface and its highest point is no more than 39 inches (1.0 m) from the walking/working surface;
- After being erected, with the rope, wire, or chain attached, stanchions shall be capable of resisting, without tipping over, a force of at least 16 pounds (71 N) applied horizontally against the stanchion, 30 inches (.8 m) above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof, or platform edge;
- The rope, wire, or chain shall have a minimum tensile strength of 500 pounds (2.22 kN), and after being attached to the stanchions, shall be capable of supporting, without breaking, the loads applied to the stanchions as prescribed in paragraph (f)(2)(iii) of this section; and
- The line shall be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.

Steel Erection - Refer to Section entitled "Steel Erection".

Precast/Prestressed Concrete - Refer to Section entitled "Precast/Prestressed Concrete.

ELEVATOR SAFETY

Contractors shall comply with all applicable provisions of OSHA, ANSI, and Safety Coordinator Safety requirements, as well as the National Elevator Industry Inc., Field Employees Safety handbook

EMERGENCY PROCEDURES - MEDICAL – BLOOD-BORNE PATHOGENS

The Occupational Safety and Health Act (OSHA) 1910.1030, requires that each employee exposed to blood and other infectious materials be advised of the potential Blood-borne pathogen hazards and how to guard against those hazards. Each contractor, and each sub-contractor, whose employees are occupationally exposed to blood and other potentially infectious materials (including all body fluids in situations where it is difficult or impossible to differentiate between body fluids, etc.) must develop a list of all such tasks on the project; instruct the employees in the potential risks involved; develop a labeling system for all infectious materials; train all potentially exposed personnel in the hazards and the proper controls for all listed tasks; provide safety materials and equipment; and offer appropriate medical treatment and advice for any exposure. These steps are outlined in detail in the following material. Employee training for this requirement will be documented and acknowledged by signatures following each session using the documentation statement included in this Blood-borne Pathogen Safety Program.

Exposure Control Plan

- Every contractor will be responsible for development and maintenance of a list of tasks within the project operations, which involve occupational exposure to blood and other infectious materials. Each contractor will be further responsible for training their employees, obtaining medical services for their employees, and maintaining medical records for their employees assigned to all such hazardous tasks. One copy of the list identifying the hazardous tasks and of each employee assigned to perform those tasks will be forwarded to the Safety Coordinator.
- Employees will be allowed access to this Blood-borne Pathogen Safety Program and to information regarding those specific tasks in their work areas identified as involving exposure to blood and other infectious materials. All questions relating to the contractor's program should be directed to the contractor's superintendent or safety officer. All questions relating to the Project Safety Plan are to be directed to the Safety Coordinator.

Employee Information and Training

- All new and present employees will be given information regarding the requirements of this Blood-borne Pathogens Safety Program; the hazardous tasks present in their work place; and the potential health risks of these tasks. This requirement must be met through orientation sessions for all employees prior to assignment to the specifically identified hazardous tasks, and through annual refresher courses for all employees currently performing those tasks. The information and training shall include the following elements:
- The risks and symptoms of exposure to Blood-borne pathogens shall be identified.
- How to determine the presence of blood or other infectious materials in the work place.
- Methods to be used to reduce or prevent the exposure to blood and other infectious materials, such as control procedures, work practices, or personal protective equipment.

- Procedures to follow in the event of an exposure to blood or other infectious materials.
- Identification of the log maintained in the project office in which is listed all tasks involving occupational exposure to blood and other infectious materials on the site.
- How to review tasks to minimize the potential hazards of infection.
- When a task involves the handling of blood and other infectious materials, how those materials are to be contained, labeled and properly disposed.
- The necessity for proper housekeeping and personal hygiene techniques including hand washing shall be emphasized.
- Employees must have the opportunity to ask questions and obtain answers from the trainer who must be knowledgeable in the subject matter.

Container Labeling and Disposal

- The Contractor and the Safety Coordinator, will verify that all containers used to store or transport blood and other infectious materials generated at the site are clearly labeled with warning labels which include the orange or orange-red biohazard symbol, and indicate the contents, the hazards involved, and the name and address of the project.
- Red bags or containers may be used instead of labeling, but employees specifically trained in this program shall control the management of these receptacles.
- The Contractor and the Safety Coordinator will ensure that all secondary containers of the blood and other infectious materials have clear warning labels with the same information as the original container.
- Each contractor's superintendent, or safety representative if one is assigned, shall perform the above responsibilities for all their materials generated.
- All containers of blood and other infectious materials shall be controlled until delivered to an authorized disposal facility for incineration or decontamination by legally approved means.
- Arrangements may be made with a local hospital to receive and dispose of limited quantities of these regulated wastes in cases of first-aid treatment.
- Each contractor shall be responsible for proper disposal of all regulated wastes generated by their work.

Hazardous Non-Routine Tasks and Nearby Work

- In the event an employee is assigned to perform a non-routine task, or is assigned to work in an area where a hazardous task non-routine to their work, is being performed, the employee will be given the additional information and training related to the hazards, which may be encountered in the non-routine task.
- This information and training will be provided as described elsewhere in this program by the first-line foreman, contractor safety representative or a trainer who must be knowledgeable in this subject.
- The information will include the specific hazards of the task, the controls and protective measures required, the types of personal protective equipment required, how to use the equipment, the nature of other work being performed in or near the non-routine task, and what emergency procedures are involved with the task.

Universal Precautions

- To ensure that employees who work on tasks presenting an exposure to blood and other infectious materials are afforded the greatest protection available, the following policy has been established:
- Prior to starting work on any task involving blood and other infectious materials, all

employees will review safety precautions, which should be taken. Universal precautions shall be observed which means treating all blood and other potentially infectious materials as if infectious. Particular attention shall be given to contaminated sharp objects which may penetrate the skin including, but not limited to, needles, broken glass, and exposed ends of wires. Work practices and engineering controls shall be followed diligently including the provision and use of the following:

- Gloves, latex.
- Masks and eye protection.
- Resuscitation bags and mouthpieces.
- Gowns, aprons or specialized clothing where required by established engineering practices.
- Hand-washing facilities, and other decontamination where required by established engineering practices.
- Trained personnel following approved procedures shall conduct decontamination of the above personal protective items.
- Disposable items shall be discarded into red bags or properly labeled containers and delivered for disposal as required elsewhere in this program.
- Items, which are reusable and any work areas, which were contaminated by blood and other infectious materials, shall be cleaned and disinfected with a solution containing a strong concentration of chlorine bleach.

Audit and Review

- It will be the responsibility of the Safety Coordinator to review the entire Blood-borne Pathogen Safety Program at least annually, and revise and update the material contained herein to reflect all changes in the management, disposal, storage, and handling of blood and other infectious materials generated at the project site.
- It will be the further responsibility of the Safety Coordinator, to periodically audit procedures in use on tasks identified as exposing employees to blood and other infectious materials in order that they meet the requirements as set forth in the OSHA 1910.1030 standards.
- Each contractor's superintendent or safety representative shall perform the above responsibilities for all of their tasks and procedures.

Hepatitis B Vaccination

- Hepatitis B vaccinations shall be made available to all employees who have occupational exposure to blood within ten (10) working days of assignment, at no cost, at a reasonable time and place, under the supervision of a licensed physician or health care professional and according to the latest recommendations of the U.S. Public Health Service (USPHS).
- Prescreening may not be required as a condition of receiving the vaccine. Employees must sign a declination form if they choose not to be vaccinated, but may later opt to receive the vaccine at no cost to the employee. Should booster doses later be recommended by the USPHS, employees must be offered them.

Post-Exposure Evaluation and Follow-Up

- OSHA standard 1910.OSHA standard 1910.1030 specifies detailed procedures to be made available to all employees who have had an exposure incident. An accredited laboratory at no cost to the employee must conduct these procedures and any laboratory tests. Follow-up procedures must include a confidential medical evaluation documenting

the circumstances of exposure, identifying and testing the source individual if feasible, testing the exposed employee's blood with the employee's consent, post-exposure prophylaxis, counseling and evaluation of reported illnesses.

- Health care professionals must be provided specific information to facilitate the evaluation and their written opinion on the need for hepatitis B vaccination following the exposure. Information such as the employee's ability to receive the hepatitis B vaccine must be supplied to the employer.
- All diagnoses must remain confidential.

Record keeping

- Medical records shall be maintained on each employee, with occupational exposure to blood and other infectious materials, for the duration of employment plus thirty (30) years. Medical records must be made available to the subject employee, anyone with written consent of the employee, OSHA and NIOSH. Medical records are not available to the employer. Disposal of medical records must be in accord with OSHA's standard covering access to records. These employee medical records must be confidential and must include the following information:
- Employee's name and social security number.
- Hepatitis B vaccination status, including dates.
- Results of any examinations, medical testing and follow-up procedures.
- Copy of the health care professional's written opinion.
- Copy of the information provided to the health care professional.
- Training records shall be maintained for a period of three years and must include the dates, contents of the training program or summary, trainer's name and qualifications, names and job titles of all persons attending the sessions.

EMERGENCY PROCEDURES - MEDICAL SERVICES

Contractor's Responsibilities

- Prior to commencement of work, provisions must be made for prompt medical attention in case of serious injury. Each contractor shall have a minimum of one First Aid/CPR trained individual on the project and inform Safety Coordinator of their name.
- Ensure that adequate first aid supplies shall be easily accessible when required.
- Provide proper equipment for prompt transportation of the injured person to a physician or hospital, or a communication system for contacting necessary ambulance service.
- Telephone numbers and addresses of the physicians, hospital and ambulance shall be conspicuously posted.
- Contractor shall complete and provide to Safety Coordinator an "Employer's First Report of Injury" within 24 hours of any/all incidents involving work activities associated with the project. Contractors are advised to maintain their own OSHA 300 Log as an OSHA requirement.
- Contractor shall ensure that each of its lower-tier contractors meet these medical requirements.
- If the injured employee is released by the doctor for light or restricted work duty, the Contractor shall make available restricted duty work for the injured employee.
- Each occupational illness or injury shall be reported immediately by Contractor's employee to Contractor's first aid attendant and the Safety Coordinator.
- Contractor's first aid attendant or other competent person shall treat the injured

employee as often as necessary to ensure complete recovery, or until a decision is made to seek medical treatment.

- Contractor must provide for the prompt transportation of the injured person to a hospital or other emergency facility.
- A representative of the Contractor shall drive the injured employee to the medical facility and remain at the facility until the employee is ready to return. Contractor's representative shall carry necessary forms; i.e., authorization slips, return to work notices to the medical facility
- If it is necessary for the Contractor's first aid attendant to accompany the injured employee, provisions must be made by Contractor to have another employee, properly trained and certified in first aid, available to render same during the absence of the regular first aid attendant.
- If the employee is able to return to the project site the same day, he/she must return with a statement from the doctor stating same and containing such information as date, employee's name, and date of return to regular or restricted duty, date he/she is to return to doctor, diagnosis, signature and address of doctor. If the injured employee is unable to return to the project site the same day, the employee who transported him/her should bring this information back to the project site and report it to Safety Coordinator.
- If it is necessary to call the outside medical facility, this call should be made by Safety Coordinator while the injured employee is being transported.
- Medical cases requiring ambulance services would be such cases as severe head injuries, amputations, heart attacks, severe bleeding, stopped breathing, etc. Should ambulance service be necessary, the following procedures should be taken immediately:
- Contact Contractor first aid attendant or nearest employee properly trained and certified in first aid.
- While first aid is being administered, contact the Safety Coordinator immediately.

EMERGENCY PROCEDURES - ALARMS, FIRE, BOMB, WEATHER, ENVIRONMENTAL, PUBLIC DEMONSTRATION

- In order that necessary emergency services may be supplied promptly, each contractor and sub-contractor shall post in a conspicuous place a list of emergency telephone numbers along with the type of information to be transmitted for each emergency situation.
- All accidents are to be handled by the ranking person present, with whoever is available to assist. The ranking person shall direct someone to notify first-aid personnel, and to call for emergency services as necessary. The Project Superintendent is to be notified as soon as this can be done without delaying assistance to the injured. He will then take appropriate action.
- In accidents resulting in injury to personnel, individuals qualified to administer first-aid will assist the injured, will stabilize their condition, and will arrange for transportation to a hospital if further treatment is required.
- Except when necessary to avoid further injury, or to prevent additional damage to the work, equipment will not be moved, or the position of items, parts, pieces, controls, etc. will not be changed until photographs have been made and notes taken by the Project Superintendent or the person designated to make the investigation and report. As soon as the Project Superintendent can release the area from this constraint, contractors concerned will clean up and make repairs to return to a normal situation.

- Where a specific procedure has not been established, reasonable judgment should be used in determining what course to follow.

Alarms

- The JJC Project Manager and the Safety Coordinator shall be notified of all emergencies and notify the appropriate emergency service of the incident and initiate appropriate action.
- Fire alarms within the area of new construction will consist of three short blasts on an air horn or other suitable alarm located at the means of egress, stairway, ladder, or building entry. Telephone notification of the fire department will be initiated immediately after sounding the air horn alarm. Telephones are available in the project site office. Radio contact with the project site office and the Safety Coordinator shall be used to inform all concerned regarding the fire.
- A continuous long blast on the air horn may be used to summon first aid assistance in the event of an accident.

Fire

The following procedures are established in the event of a fire. "RACE"

R **R**escue... anyone in immediate danger.

A **A**larm... activate pull station; go to phone and dial 911.

C **C**ontain... close doors and windows, isolate the fire.

E **E**xtinguish... use correct extinguisher.

Accident Involving Serious Injury or Death

- The following procedures are established in the event of an accident involving serious injury or death to employees or members of the general public.
- Individuals qualified to administer first-aid will assist the injured, will stabilize their condition, and will arrange for transportation to the hospital emergency room if further treatment is required.
- The JJC Project Manager and the Safety Coordinator is to be notified immediately. Immediate notification (within 8 hours) of the local OSHA office is required in the event of a fatality or serious injuries, which may lead to a fatality.
- All non-essential personnel shall be removed and/or kept back from the area.
- Rescue personnel shall be provided assistance as requested.
- No comments shall be made. All inquiries shall be referred to the Safety Coordinator.
- No on-site photographs are to be taken without the specific approval of the Safety Coordinator and the Project Superintendent.
- The Safety Coordinator shall make a full investigation and file an Accident/Injury Report within twenty-four (24) hours of the occurrence.
- Within the immediate area of the accident scene, nothing is to be disturbed nor removed after proper evacuation of the injured personnel. Except when necessary to avoid further injury, equipment will not be moved, or the position of items, parts, pieces, controls, etc. will not be changed until photographs have been made and notes taken by the Project Superintendent or other person designated to make the investigation and report.
- As soon as the Safety Coordinator can release the area from the above constraint, contractors concerned will clean up and make repairs to return to a normal situation.
- **Property Damage Accidents**
- The following procedures are established in the event of accident involving property

damage.

- The Safety Coordinator is to be notified as soon as this can be done without delaying efforts to prevent further damage. He will then take appropriate action and direct other personnel to assist as necessary.
- Efforts shall be taken to protect against further damage where possible.
- All non-essential personnel shall be removed and/or kept back from the area.
- No comments shall be made. All inquiries shall be referred Safety Coordinator.
- No on-site photographs are to be taken without the specific approval of Safety Coordinator
- The Safety Coordinator shall make a full investigation and file an Accident/Injury Report within twenty-four (24) hours of the occurrence.
- Within the immediate area of the accident scene, nothing is to be disturbed nor removed after proper evacuation of the injured personnel. Except when necessary to avoid further injury, equipment will not be moved, or the position of items, parts, pieces, controls, etc. will not be changed until photographs have been made and notes taken by the Safety Coordinator.
- As soon as the Safety Coordinator can release the area from the above constraint, contractors concerned will clean up and make repairs to return to a normal situation.

Severe Weather

- The following procedures are intended to prepare the project site in the event of severe weather conditions. Since severe weather may be reasonably anticipated to occur during the duration of the project, yet without significant advance warning, all work activities and project site conditions must be planned with a concern for emergency preparations.
- Each contractor, at the time of mobilization, shall deliver to Safety Coordinator a complete list of the contractor's supervisors with the complete after hours telephone numbers. The list shall be kept current and shall be updated accordingly.
- Each contractor shall insure that his field trailers and his sub-tier contractors' field trailers are anchored in at least three locations.
- Upon notification of a Severe Weather Watch by the U. S. Weather Bureau, the following actions are to be initiated.
- Each contractor having on-site generators which are fuel-powered are requested to notify the Safety Coordinator of the numbers and wattage. Generators may be needed to provide temporary power for rescue or clean-up activities.
- All materials shall be secured to prevent them from becoming air borne during high winds. Particular attention needs to be given to picking up scrap materials and hauling or covering trash containers.
- Crawler and mobile cranes shall have booms lowered at the end of the shift. Cranes not capable of lowering booms shall be permitted to weathervane or free swing. Check to assure that swinging booms will not contact other objects such as power lines, structures, etc.
- Sufficient flashlights, batteries, and bulbs shall be provided to assigned emergency response personnel. A supply of fresh batteries shall be maintained at the project for use in an emergency response.

Other Major Catastrophe

Examples of other major catastrophes include:

- Major fire.
- Collapse of large portions of structures or large sections of scaffolds.
- Heavy damage by wind or floods.
- The owner's security or local authorities will be provided with an emergency call list to summon the Safety Coordinator's and the contractor's personnel to the site in the event of a major catastrophe outside working hours, on Saturdays or Sundays, etc. The JJC Project Superintendent or his best-qualified alternate will cooperate fully with the directives of the hospital staff or local emergency authorities in the event of a major catastrophe. He will take any or all of the following actions as appropriate.
- Initiate fire fighting, tie down building, etc.
- Call for assistance from outside: fire trucks, ambulances, electricians, life flight helicopters, Civil Defense Support, police.
- Stop work.
- Call for site evacuation, to clear site access roads.
- Issue instructions to supervisors and to others as necessary.
- Set up security control at the disaster area.
- Set up communications center in site trailers: radio/telephone.
- Call in operators for heavy equipment such as front loaders, cranes, etc.
- Other actions considered necessary in the particular situation.

Bomb Threat

- When a bomb threat is received or if a suspicious article is found, Safety Coordinator will take the following actions.
- Work shall be stopped immediately and the project and office shall be evacuated of all personnel. A count will be made to assure that all are present.
- Local police, fire or bomb disposal authorities shall be notified. A search of the premises will be made as directed by appropriate authorities.
- If a suspicious article is found, DO NOT TOUCH IT, notify the appropriate authorities.
- Do not allow anyone except authorized personnel to re-enter the area.
- If necessary to stop or detour traffic away from the affected area, local police or flagmen shall be utilized.
- No comments shall be made. All inquiries shall be referred to Safety Coordinator.
- No on-site photographs are to be taken without the specific approval of Safety Coordinator
- The Safety Coordinator shall make a full investigation and file a report within twenty-four (24) hours of the occurrence.
- If repeated threats occur within a short period of time, Safety Coordinator, will evaluate the situation and take appropriate action. This action may include shutting down the project site for that day.

Environmental Spill

- In the event of a spill of environmentally damaging materials, immediate response is required to prevent or minimize the impact this event will have upon the environment and the public welfare. All personnel shall continue to observe standard precautions for handling the materials as detailed in the manufacturer's product Safety Data Sheet (SDS), including the use of personal protective equipment. Where conditions warrant,

the contractor shall have emergency spill containment supplies available for immediate use. The following general procedures apply to the immediate response which must be initiated:

- Immediately, all personnel in the immediate area of the release shall be alerted to the hazardous material and the nature of the immediate danger to themselves and the environment. As soon as possible, the Safety Coordinator shall be notified and requested to initiate emergency containment and clean up procedures.
- The Local Fire Department shall be notified to mobilize their hazardous materials response units and shall be given the necessary information regarding the materials, which were released.
- If safe to do so, every effort shall be made to contain the materials within berms, by absorbent materials, or through other appropriate means, until proper handling and disposal personnel may be mobilized at the site. Particular attention needs to be taken to avoid contamination of surface water, storm sewers, sanitary sewers, ground, plants and animals.
- All non-essential personnel shall be removed and kept back from the area.
- No comments shall be made. All inquiries shall be referred to the Safety Coordinator.
- No on-site photographs are to be taken without the specific approval of the Safety Coordinator and the Project Superintendent.
- The Safety Coordinator shall make a full investigation and file an Accident/Injury Report within twenty-four (24) hours of the occurrence.
- Within the immediate area of the accident scene, nothing is to be disturbed nor removed after proper evacuation of the injured personnel. Except when necessary to avoid further injury, equipment will not be moved, or the position of items, parts, pieces, controls, etc. will not be changed until photographs have been made and notes taken by the Project Superintendent or other person designated to make the investigation and report.
- Purchasing shall be notified to initiate the response of available environmental remediation contractors who are under standby contract.
- As soon as the environmental remediation contractor has cleared the site, the Project Superintendent will release the area for contractors concerned to clean up and make necessary repairs to return to a normal situation.

Public Demonstrations

- When a public demonstration is expected or occurs, the Safety Coordinator will take the following actions.
- Work on the project site shall continue where not encumbered by the public demonstration; however work in the immediate area shall be stopped and all project employees shall be evacuated. A count will be made to assure that all are present.
- Local police shall be notified, and all employees shall cooperate fully with the law enforcement authorities.
- Do not allow anyone except authorized personnel to enter the project site. All visitor passes are revoked and all visitors shall be escorted from the project site.
- If necessary to stop or detour traffic away from the affected area, local police or flagmen shall be utilized.
- No comments shall be made. All inquiries shall be referred to the Safety Coordinator.
- No on-site photographs are to be taken without the specific approval of Safety Coordinator.

- The Safety Coordinator shall make a full investigation and file a report within twenty-four (24) hours of the occurrence.
- If repeated public demonstrations occur within a short period of time, Safety Coordinator will evaluate the situation and take appropriate action. This action may include shutting down the project site for that day or obtaining a judicial restraining order.

ENVIRONMENTAL - ASBESTOS

Occupational Safety and Health Administration (OSHA) regulations have been promulgated to protect workers from exposure to airborne asbestos fibers. Under the Asbestos Control and Licensing Act, a contractor must be licensed by the Department of Labor and the State in which the work is being performed in order to remove asbestos.

Notification - Before starting asbestos removal work, the United States Environmental Protection Agency (USEPA) and the Local Department of Environmental Management must be notified in writing by the contractor and appropriate permits must be on file. Safety Coordinator and/or its agent will verify this information by way of contract requirements.

Training - Employees of the contractor must be appropriately trained and licensed prior to the removal of any asbestos contaminated material. Any contractor's employees who may be exposed to Asbestos must be trained in the recognition of hazards and appropriate controls.

Posting - The asbestos material removal area shall be cordoned-off to discourage entry. Appropriately worded caution signs must be posted at all approaches to the area at such interval to allow individuals to take any necessary protective steps before entering the removal area.

Asbestos Handling - The encapsulation, removal and/or disposal of ACM shall be performed by a Contractor licensed to do such work in which the work is being performed and in accordance with all applicable Federal, State and Local Regulations per approved abatement plans.

Work Practices - Asbestos containing materials shall be worked in a wet state sufficient to prevent the emission of airborne fibers in excess of the permissible exposure limits. Work areas are to be adequately protected, through appropriate type enclosures, so as to ensure that no asbestos contaminated material will be permitted to leave the controlled area.

Personal Protective Equipment - In instances where re-usable clothing is used, the following precautions must be followed:

Contaminated clothes must be appropriately bagged and labeled. Notification and transportation to authorized laundries and haulers.

All employees working in asbestos removal areas shall wear appropriate personal protective equipment.

Cleanup - There shall be no dry sweeping of asbestos material. Use floor coverings to prevent debris from falling to lower floors and to speed up house-keeping.

Labeling and Waste Disposal - Appropriately worded labels must be affixed to all materials, waste, debris, etc., containing asbestos friable materials. Asbestos waste and/or asbestos contaminated material must be collected and discarded in sealed, labeled, impervious containers by contractor.

The following label content is acceptable to both the EPA and OSHA:

CAUTION

CONTAINS ASBESTOS FIBERS

AVOID CREATING DUST

BREATHING ASBESTOS DUST MAY

CAUSE SERIOUS BODILY HARM

The Safety Coordinator shall be provided with copies of all air monitoring reports and certified disposal receipts prior to final payment.

ENVIRONMENTAL – LEAD

Lead Painted Components

- Lead based paint can possibly be identified on numerous surfaces throughout these facilities. In keeping with the requirements of the Occupational Safety & Health Administration's (OSHA's) Lead Exposure in the Construction Industry Standard (29 CFR 1926.62), every painted surface shall be considered a potential lead hazard.
- A potential source of lead emission is the disturbing of painted surfaces of structures and components within these facilities. Typical activities that would significantly disturb a painted surface include the following:
- Removal of all or part of the paint by hand or power tools
- Removal of all or part of the paint by blast cleaning
- Removal of all or part of the paint by other means such as the use of chemical strippers or a heat gun
- Structural work to the surface such as welding, burning, cutting, or drilling
- Manual demolition of buildings, portions of buildings, or the building components.
- The primary consideration when specifying work methods shall be the requirement to protect workers from exposure to lead above the Permissible Exposure Limit (PEL). Further considerations when specifying work methods shall be the effort to reduce the release of lead into the air, water and soil, and to reduce to a minimum the generation of debris.
- At all times when activities which disturb paint are in process, the Site competent person for lead shall have unrestricted access to the work area for inspection, and shall have the authority to stop work when the control measures being utilized are not as specified in this section or the OSHA Standard, if the control measures are not adequately controlling exposures or if other hazards are identified which require work to be stopped.
- All air monitoring conducted by the Site competent person for lead or other qualified representative shall be performed in accordance with the OSHA Standard.
- Detailed and accurate records of all monitoring and other relevant data used in conducting employee exposure assessments shall be kept and maintained in accordance with the OSHA Standard.
- Signs shall be posted in each work area where work on painted surfaces disturbs the paint in such a way so as to expose personnel to lead contaminated dust, debris, or lead fumes. At minimum they shall read:

WARNING

LEAD WORK AREA

POISON

NO SMOKING OR EATING

- All worker protection requirements will, at minimum, meet the current OSHA Standard. These requirements include but are not limited to:
- Signage, Barriers & Access

- Exposure Monitoring
- Respiratory Protection
- Medical Surveillance & Records
- Education & Training
- Decontamination & Clearance
- All work involving lead removal or re-coating shall be conducted in a manner that minimizes the release of lead and lead containing materials into the air, water, and soil.
- All lead containing hazardous wastes that are generated shall be contained, collected, segregated, labeled and held at a location
- Designated or approved by the Owner or Safety Coordinator Building Co. pending the appropriate disposition.
- Contractor shall provide for proper disposal of waste, including EPA identification number, notification, certification, manifest, etc.
- All waste containers must be leak proof and capable of being securely covered.
- All waste containers shall be clearly labeled with weather resistant labels using indelible ink to identify the type of waste they contain.

ENVIRONMENTAL - ON-SITE HAZARDS

Material that is designated as a hazardous substance requires special attention by the Contractor and workers to minimize the exposure. A plan addressing the proper handling, storage and disposal of hazardous material must be developed. Safety Coordinator and the Owner, must be immediately notified of any hazardous material leak or spill. Any Contractor-caused oil spills must be reported immediately to the Safety Coordinator.

ENVIRONMENTAL - SILICA

- Contractors shall submit their silica protection program for review by Safety Coordinator prior to the pre-construction conference. As a minimum the contractor's silica protection program shall comply with OSHA regulations and shall address the following items:
- Statement of the contractor's commitment to prevent silicosis and to comply with OSHA's standards.
- Description of air monitoring to determine the silica levels generated by tasks to provide a basis for:
- Selecting engineering controls,
- Selecting respiratory protection,
- Selecting work practices to reduce dust, and
- Determining if a medical surveillance program is necessary.
- Description of engineering controls which are proposed for the project to eliminate or reduce the amount of silica in the air and the build-up of dust on equipment and surfaces.
- Description of less hazardous materials than crystalline silica which are proposed for abrasive blasting and automatic blast cleaning machines or tools to be utilized.
- Description of high-efficiency particulate air filter vacuums to be used by employees and work practices to vacuum, hose down, or wet clean work areas and equipment.
- Description of warning signs and other barriers proposed to identify work areas where respirable silica may be present and to limit access to only authorized employees.

- Description of personal protective equipment and clothing to be provided to employees and changing facilities if necessitated by the level of silica dust exposure.
- Certification of training provided to employees about health effects of silica exposure, engineering controls and work practices that reduce dust, the importance of maintenance and good housekeeping, as well as the proper type and fitting of respirators; and include a statement that the employee is or is not enrolled in a medical surveillance program.

ENVIRONMENTAL - POWERED EQUIPMENT INSIDE ENCLOSED STRUCTURES

If internal combustion engines are used on powered equipment in enclosed areas, the contractor is responsible for monitoring the quality of breathing air for harmful contaminants and adequate oxygen and is responsible for providing adequate ventilation.

EXCAVATION

- The contractor must designate a competent person trained in soil classification and the recognition of trenching and excavation hazards. This person must be on-site when excavating or trenching is being done.
- Appropriate documentation to meet the OSHA trenching and excavation standards is to be maintained on site.
- Where protective systems as defined in 29 CFR 1926.650-652 are designed by a licensed Professional Engineer, who is not a regular Safety Coordinator employee, the resulting design documents must be reviewed by Safety Coordinator prior to the commencement of the work to assure that the documents set forth the accurate and complete assumptions (as set forth in the current, applicable contract specifications) upon which the design is based.
- Prior to opening any excavation or trench an excavation permit from Safety Coordinator is required. Contractor shall notify necessary personnel to determine whether under-ground installations; i.e. sewer, telephone, fuel, electric lines, etc., may be encountered and where they are located. Excavation permits shall be required on a daily basis while the excavation is open.
- Trenches 4 feet and over in depth or presenting a hazard to the worker shall be shored or walls cut back to protect employees from cave-in.
- All trenches and excavations shall be properly barricaded to prevent persons from walking into them.
- When an excavation will remain open longer than one work shift, a barrier sufficient to protect people from falling into the excavation or erected at a minimum of 6-feet from the excavation in order to warn of the fall hazard must be erected and maintained for the time duration that the excavation remains open.
- Excavation contractors will provide a spill kit for use on site in the event of a hazardous material spill.
- Drilled caissons will have fall protection provided both during and upon completion of the drilling by use of personal fall protection, guardrails or use of casing extending a minimum of 42 inches above the ground.

EYE AND FACE PROTECTION

- Appropriate eye protection meeting the requirements of ANSI Z87 (most recent version) with side shields are required to be worn in a manner to protect the eyes while in construction areas at all times.

- In addition, approved eye and face protection is required as follows:
- Goggles, welding hoods and shields, or face shields will be required to be properly worn at all times when in the area of operations, such as when welding, burning, grinding, chipping, chemical handling, corrosive liquids or molten materials, drilling, sawing, driving nails, power actuated tools, concrete pouring, tampers and gasoline fueled hand operated equipment (i.e. chain saws). This section will also apply to those employees of Contractors who are assisting any worker as an apprentice or helper.
- Prescription glasses must meet the requirements of ANSI Z87 (most recent version), or be covered with over-the-glass safety glasses or face shield.

FIRE PROTECTION

- Contractor shall be responsible for fire protection in its work and operational areas, including offices, tool rooms, and storage areas twenty four (24) hours per day, seven days per week through the duration of this Contract.
- The contractor, as required by OSHA and the local fire protection code, must provide appropriate fire suppression equipment.
- The contractor for all Hot Work Operations will provide a fire watch and at least one fire extinguisher of appropriate size & type.
- A minimum 20 pound multi-purpose ABC extinguishers are allowed on the project.
- Only safety containers approved by UL and the local Fire Marshall, and properly labeled as to their contents, are to be used for handling and/or storage of flammable liquids in quantities more than one gallon.
- All tarpaulins and plastic used for temporary covers shall be of fire resistant manufacture.

STANDPIPES

- Fire Protection Standpipes shall be installed in accordance with NFPA 241, International Fire code-1413, International Building Code-3311, and OSHA, including but limited to:
- At least one standpipe shall be installed in buildings four or more stories in height, and shall be installed where the progress of the building is not more than 40 ft. in height above the lowest level of fire department access.
- During construction, the standpipe installation shall be installed so that it is never more than one floor below the floor having secured decking or flooring.
- Standpipes shall be provided with fire department hose connections at accessible locations to usable stairs.
- Standpipes shall be installed and maintained so that they are always ready for use.
- For building under demolition, standpipes shall not be demolished more than one floor below the floor being demolished, and shall be maintained in an operable condition for use by the fire department.

HAND PROTECTION

General requirements. Employers shall select and require employees to use appropriate hand protection when employees' hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; and harmful temperature extremes.

Selection. Employers shall base the selection of the appropriate hand protection on an

evaluation of the performance characteristics of the hand protection relative to the task(s) to be performed, conditions present, duration of use, and the hazards and potential hazards identified.

Refer to Appendix B Hand Protection Reference for additional information

HAZARD COMMUNICATION PROGRAM

- The Occupational Safety and Health Act (OSHA) requires that each employee potentially exposed to hazardous chemicals be advised of the potential hazards and how to guard against those hazards. Each contractor whose employees are potentially exposed to hazardous chemicals must develop a list of all such chemicals used on the project; gather Safety Data Sheets (SDSs) for those materials; develop a labeling system for all materials; and train all potentially exposed personnel in the hazards and their controls for all listed compounds.
- These steps are outlined in detail in the following material.
- Employee training for this requirement will be documented and acknowledged by signatures following each session.

Safety Data Sheets (SDSs)

- Every contractor will be responsible for development and maintenance of a list of hazardous chemicals utilized within the project operations and will be further responsible for obtaining and maintaining SDSs for all such hazardous chemicals.
- Employees will be allowed access to this information and the specific SDSs for chemicals utilized in their work areas.
- All questions relating to the program should be directed to the contractor's superintendent or safety representative.
- A copy of each SDS will be delivered to the Safety Coordinator prior to work starting involving that substance.

Employee Information and Training

- All new and present employees will be given information regarding the requirements of the Chemical Hazard Communication Program; the hazardous chemicals present in their work place; and the physical and health risks of these chemicals. This requirement may be met through orientation sessions for new employees, and refreshers for all during toolbox talks. The information and training will also include the following elements:
- The symptoms of overexposure to the chemicals.
- How to determine the hazardous presence or release of a chemical in the work place.
- Methods to reduce or prevent the exposure to hazardous chemicals, such as control procedures, work practices, or personal protective equipment.
- Procedures to follow in the event of an exposure to hazardous chemicals. The location of the log containing the SDSs, which apply to their work place and the location of the written Chemical Hazard Communication Program.
- How to review SDSs to obtain the hazard information for the chemical, and how to read the labels, which are required on the chemical containers. When a new hazardous chemical is obtained for use, each employee who could be exposed will be given the information and training as described above, and a copy of the SDSs for the chemical will be obtained and distributed to those who actually use the chemical in the work place. The SDSs will be available to all employees during each work shift.
- Proper disposal procedures of waste materials shall be enforced. Labeling of waste containers and disposal of all hazardous materials by a licensed disposal facility is

required.

Container Labeling

- All chemical containers at the site must be clearly labeled as to the contents, the hazards involved, and the name and address of the manufacturer. Adhere to the OSHA Global Harmonization law.
- All secondary containers of hazardous chemicals are to be clearly labeled with the same information as the original container.
- Each contractor's superintendent or safety representative shall perform the above responsibilities for all their materials.

Hazardous Non-Routine Tasks and Nearby Work

- In the event an employee is assigned to perform, or is assigned to work in an area where a hazardous task, non-routine to their work, the employee will be given the additional information and training related to the hazardous chemicals which may be encountered in the non-routine task.
- The first-line foreman, contractor superintendent, or contractor safety representative will provide this information and training. The information will include the specific chemical hazards of the task, the controls and protective measures required, the types of personal protective equipment required, how to use the equipment, the nature of other work being performed in or near the non-routine task, and what emergency procedures are involved with the task.

Demolition

To the best of the Owner's knowledge, there is no asbestos, lead, polychlorinated biphenyl (PCB), or hazardous materials anywhere in the designated work areas. AIA-A201 Subparagraph 10.1.2 applies: Contractor shall stop the Work if material reasonably believed to be asbestos, lead, polychlorinated biphenyl (PCB), or hazardous materials is encountered in the Work area.

Chemicals in Unlabeled Pipes, Vessels and Containers

- To ensure that employees who work on unlabeled pipes, vessels or containers have been informed as to the hazardous materials contained within, the following policy has been established: Prior to starting work on unlabeled pipes, vessels or containers, employees are to contact their foreman for the following information:
- Type of chemical in the pipe, vessel or container.
- Potential hazards.
- Safety precautions which should be taken.

Audit and Review

- It will be the responsibility of each contractor's superintendent and safety representative to review the entire Hazard Communication Program, and to revise and update the material contained herein to reflect all changes in the purchase, use, storage, and handling of hazardous chemicals at the project site.
- It will be the further responsibility of the superintendent and safety representative to periodically audit that procedures in the use of the hazardous chemicals meet the requirements as set forth in the SDS's.

HAZARD ANALYSIS

- Prior to beginning work, each contractor shall prepare a hazard analysis that defines the activities to be performed and identifies the sequence of the work, the specific hazards,

and the methods to be used to eliminate or minimize each hazard. The hazard analysis shall be submitted prior to, and will be reviewed during the pre-construction meeting by Safety Coordinator, and the contractor's supervisors and safety representative. The hazard analysis shall be written in a form acceptable to the Safety Coordinator.

- Hazard Analysis shall be done when the scope of the work or conditions change.
- Each Contractor Foreman will inform their work crew of the Hazard Analysis for their work activity each day prior to start of work or when conditions change.
- Each contractor shall submit for review by the Safety Coordinator a site specific safety program which addresses all the elements of this safety plan as they will be implemented by the contractor, its contractors, vendors and suppliers. The hazard analysis will be included as an appendix to the contractor's site-specific safety program.

HOUSEKEEPING

- On a daily basis, all debris and scrap material shall be removed from the work area.
- Debris and other loose materials shall not be allowed to accumulate in stairwells.
- Containers shall be provided for the collection and separation of waste, trash, oily and used rags and other refuse. Metal (dumpster type) containers must be used and emptied promptly.
- Garbage and other waste shall be disposed of at frequent or more regular intervals in a manner approved by the Safety Coordinator.
- Contractor shall notify the Safety Coordinator of any hazardous waste it will generate during performance of the Work. Contractor has the direct responsibility of maintaining proper storage of these wastes while on site and will verify to the Safety Coordinator in writing that the wastes have been disposed of in a legal manner. A copy of the haulers manifest must be provided to the Safety Coordinator.
- Contractor shall not pour, bury, burn, nor in any way dispose of a chemical on the work project site.
- Contractor shall clear all combustible debris to a solid waste disposal project site properly licensed under the laws of the State having jurisdiction. NO OPEN BURNING OF DEBRIS, OR RUBBISH WILL BE PERMITTED ANYWHERE ON THE PROJECT SITE.
- Materials and supplies shall be stored in locations, which will not block access-ways, and arranged to permit easy cleaning of the area. In areas where equipment might drip oil or cause other damage to the floor surface, a protective cover of heavy gauge, flame resistant, oil proof sheeting shall be provided between the equipment and the floor surface sheeting so that no oil or grease contacts the concrete. This requirement is applicable to both finished and unfinished floors.
- All hoses, cables, extension cords, and similar materials shall be located, arranged and grouped so that they will not block any access-way and will permit easy cleaning and maintenance.

INCENTIVES AND AWARDS

Safety awareness and recognition campaigns during construction will include the posting of banners, posters and signs emphasizing safety awareness, the proper use of safety equipment and safe work practices.

INFECTION CONTROL

INFECTION CONTROL MEASURES FOR USE DURING MAINTENANCE, CONSTRUCTION, AND RENOVATION AT (Insert Project Name)

GENERAL INFORMATION

- The level of risk in any given area is determined by the Owner in conjunction with Industrial Hygiene professionals, and may be modified with changes in patient population. The Owner will complete an Infection Control Risk Assessment (ICRA) before work begins.
- All contractors will be required to comply with infection control measures.
- The infection control measures to be taken for any given project will be determined on the basis of the guidelines of the ICRA.
- Prior to the start of work the Owner will confirm to Safety Coordinator that areas under construction are free of any hazardous materials or medical wastes.

The Safety Coordinator Responsibilities

- The Safety Coordinator and responsible contractors will review blueprints and be involved in pre-construction planning meetings for patient care areas at hospital and outpatient facilities. This involvement is to provide input into project planning to identify infection control issues in the planned space and, to help implement and monitor measures to control infection risk generated by construction.
- the Safety Coordinator will assist the Owner and Architect in pre-construction planning
- Safety Coordinator will monitor the implementation of infection control measures and document any nonconforming conditions.
- The Safety Coordinator will implement a work permit system whereby the Safety Coordinator will walk the site with contractor personnel to determine that all appropriate controls are in place according to the ICRA.
- The Safety Coordinator will coordinate with the Owner, to identify conditions that may change, which may alter the Infection Control Risk Assessment.
- The Safety Coordinator will monitor the project's infection control measures, including the infection control measures of the contractors.
- The Safety Coordinator will Contact the Owner's Infection Control Representative upon completion of each phase of the project for final assessment, before occupancy.
- The Safety Coordinator will notify the Owner of any known breaches of the infection control requirements and implement corrective actions with the Trade Contractors.
- The Safety Coordinator will report all sewage spills to the Owner and coordinate the clean-up.

Contractor Responsibilities

- All project employees will comply with the infection control measures, including blood borne pathogen training.
- All project employees will be required to attend a project orientation, which includes

infection control requirements, prior to start of work.

- All workers exposed to sewage or bodily fluids must report the exposure immediately to their supervisor. Their employer should offer any workers, who may have been exposed to sewage as a part of their job, vaccination. Employers must offer vaccine at no additional cost to the worker.
- Construction workers with communicable infections or exposure to communicable infections, such as chickenpox or tuberculosis, must have the permission of their occupational health provider to work.
- Each Contractor will identify a person responsible for monitoring their employees' compliance with the ICRA. The person must be present onsite during all working hours of their personnel.

Guidelines for Orientation to Infection Control

- Review of color coded floor plan of areas to be worked showing moderate and high risk areas as developed by the Owner's ICRA.
- Review Project-specific ICRA including Classes of Work and associated precautions.
- Facility access restrictions and security measures.
- Worker circulation routes.
- Working around the building exterior
- General work practices on controlling dust, odor, vibration and noise.
- Required use of Personal Protective Equipment (provided by employer) – only in containment and patient areas.
- Cautions relating to existing MEP equipment.
- Access into enclosed spaces (above ceilings, into chases, behind walls and as otherwise determined by Safety Coordinator.
- Barrier requirements and monitoring.
- Exiting a containment area, both in emergency and routine cases.
- Reporting an emergency.
- Removal of equipment, tools or trash/debris from a containment area.
- Cleaning requirements, techniques and frequency.

Attendance is to be documented with a dated, signed sheet showing the attendees employer and the full name of the attendee both printed and with signature. This is to be stored with the Safety Coordinator safety file.

INSPECTION AND AUDITING

Purpose and Scope

To establish a basic inspection/audit program for the elimination of unsafe practices by employees and to establish a hazard free work environment for all employees on the project.

Objectives

To reaffirm the Trade Contractor's basic responsibility for the actions of the employees as originally assigned under the General Provision of the Occupational Safety and Health Act of 1970 (revised). The exercise of these responsibilities by all project trade contractors will be the

effective deterrent to accidents arising from unsafe practices and physical conditions, that will materially enhance the construction efficiency of this project.

Procedures

Control will be achieved only when each trade contractor fulfills their contractual and statutory responsibilities and applies all practical steps to maintain safe and healthful work practices and conditions.

Project Controls

Continued monitoring/audit of the performance of the Contractor and their supervision under this section will be made by Safety Coordinator. Contractors will be notified of any unsafe practices observed. The Contractor's safety supervisor, the Project Safety representative and the General Trades Safety Coordinator's field staff shall utilize the "Construction Safety Survey".

Supervisory Control

Contractor

Each Contractor will be responsible for conducting continuous daily surveys of their operations to insure they are aware of the probable sources of potential injury or loss due to unsafe acts of procedures.

Planning

Contractors must extensively plan the procedures to be followed for each operation using Hazard Analysis procedures and submit such plans to the Project Safety Coordinator.

Personnel chosen to perform any such planned operation shall be thoroughly briefed in all aspects of the procedure, including emergency actions to be taken in the event of a mishap.

Inspections

In addition to inspections conducted by the Project Safety Coordinator, Insurance Representatives, and each Contractor, construction activities are subject to periodic inspection by OSHA Compliance Officers.

Each Contractor is required to notify* the Safety Coordinator *in writing prior to starting work if they, by their Company policy, they will require a warrant for OSHA to inspect their work.* the Safety Coordinator *does not require a warrant.

Contractors shall forward copies of any and all inspection reports and/or citations received by the Contractor from OSHA to the Safety Coordinator. All information will remain confidential.

In the event a OSHA Compliance Officer visits the site, he/she will be directed to the Safety Coordinator office. The appropriate Contractors will then be notified so that an Opening Conference may be conducted. The Safety Coordinator will organize an inspection party, consisting of both employer and employee representatives.

Notification of Hazards

Each Contractor shall notify the Safety Coordinator verbally or in writing of the existence of any hazardous conditions, property, or equipment at the work site, which are not under the Contractor's control. However, it is the Contractor's responsibility to take all necessary precautions against injury until corrected by the responsible party.

Equipment and Facilities

All Contractors operating equipment and facilities used shall be, inspected, and maintained as directed by this manual; as dictated by the applicable Federal and State safety and health regulations. In the event of conflict, the more stringent requirement will take precedence.

INTERIM LIFE SAFETY MATTERS FOR OCCUPIED FACILITIES

Specific Measures

- Whenever construction affects the facility's ability to accommodate occupants (either because of disruption of services, interruption of normal operations, or when hazards are present), it will become necessary to implement interim life safety measures, as follows:
- Ensure that all exits are clear. This includes areas directly affected as well as all other exits.
- Ensure that there is free access to emergency services, that vehicles, material, etc. are not blocking the access route.
- Disabling of fire protection systems. A small disaster could escalate if the fire protection system is not functional. Care should be given to provide an alternate system while the primary system is off-line. This includes scheduled maintenance, upgrade, repairs, or adding of coverage resulting in disabling system, and disabling system to allow maintenance or repairs to be completed on other systems (e.g. hot work).
- Fire alarm, detection, and suppression systems must not be impaired. A temporary (but equivalent) system shall be used if the system is impaired. These temporary systems must be tested monthly.
- Temporary construction partitions shall be smoke tight and noncombustible. Adequate signage shall discourage casual observers from opening or entering the partitions.
- Additional (double) fire-fighting equipment must be provided, as well as personnel trained in its use.
- Smoking is prohibited on campus, in and adjacent to all construction areas. Strict enforcement must occur.
- Construction site shall be kept clean and orderly. This includes material piles, debris, platforms, and break areas.
- Hazard surveillance of sites shall be increased and documented. Attention is to be given to evacuation routes, construction areas, storage, office/lunch areas, and fuel storage.
- Whenever the safeties of adjacent areas are compromised because of construction, staff shall be informed. Alternate exit routes shall be identified.
- Facility-wide education programs are conducted explaining interim life safety matters and current life safety deficiencies.
- The construction site must be restricted from all but authorized staff. Adequate signage shall be provided.
- Alternate access must be provided for public and emergency traffic whenever disruption occurs.
- Policy and procedures must ensure that roads and pathways are clear of mud, debris, materials, etc.
- Proper notification must be made to local authorities (fire, police, other) whenever life safety is diminished.
- Governing body shall be kept apprised of status of life safety during project.
- Construction workers must be made aware of egress routes.
- Construction workers' egress routes must be inspected daily to ensure no obstacles.
- Effective storage, housekeeping, and debris-removal policies and procedures must be in place to reduce collection of combustibles in construction areas.
- Whenever fire zones are altered, the owner's staff will be informed in regard to new or different life safety measures regarding their changed compartmentation and fire safety.

LINE BREAK

- Policy - Any entry into an operating Process System under installation, testing, or operating conditions is subject to the procedures for “line breaking”.
- All employees are to be informed of the inherent dangers of working on operating process systems.
- Entries can be made only with approval of the Owner and the Safety Coordinator.
- Added hazard potential exists when cooling occurs, vacuums, which may be holding liquids in pockets often break without warning and liquid is released to run to the lowest point. Plugs (particularly solidified process materials) can move and release materials after the first connection has been broken.
- The Owner and the Safety Coordinator must agree on the location of first breaks
- All systems must be considered as having the potential to discharge contained energy/material from open ends of lines or broken flanges at any time even after the line has been drained and vented.
- Cautions
- No Contractor may enter an operating piping system or equipment until the requirements of this procedure are met. Systems activated for testing purposes fall under this procedure.
- Under no circumstances will any line/system be violated other than via the lock and tag procedure.

LOCKOUT/TAGOUT PROCEDURES

- The contractor must adhere and strictly follow either the Project Lockout and Tagout requirements, the owner’s requirements or the contractors own requirements, whichever is the most stringent.
- Electrical work (e.g. tie-ins, panel maintenance) shall be conducted only on de-energized (locked out and tagged out) systems. All circuit disconnects must be locked in the open position or otherwise appropriately identified with affixed tags stating "DANGER - DO NOT ENERGIZE" or other equivalent wording prior to working on the system or equipment. Employees are not permitted to work on any energized circuits unless conditions mandate and written approval is obtained from the Project Safety Coordinator. The pre-task planning for all work on energized systems must be submitted for review. Additionally, work practices must conform to all applicable owner, state and federal requirements including the NEC and the most recent version of NFPA 70E.

Lockout Devices

- Only individually keyed padlocks shall be used. Padlocks are to be painted per the craft color code for easier detection and craft identification.
- A lockout device of the standard scissor type that will allow the placing of more than one padlock is required, when more than one individual is working on a circuit or mechanical process.
- A piece of chain or cable may be necessary to complete a lockout on some valves or controls and shall be used wherever needed.

Danger Tags

'Danger Tags' are not 'Danger Signs', and shall not be used where a sign is needed.

Two standardized Danger Tags shall be used on this project. They are described as follows:

"DANGER - DO NOT USE": This tag must be attached to each padlock on a lockout.

"UNSAFE - DO NOT USE": This tag does not require an attachment to a padlock, but may be used if needed. This tag shall be used to identify tools, equipment, vehicles, etc.

Procedure

If device, valve, switch, or piece of equipment is locked out, a "Danger Tag" shall be attached.

No device, valve, switch or piece of equipment shall be operated with a "Danger Tag" and/or lockout attached regardless of circumstances! ! !

- Systems consisting of electrical components will be checked, locked and tagged first by electrical craft employee working on the circuit. The electrical craft will be the first lock on, and the last lock off.
- Where placing of lock is not feasible, the circuit conductor will be disconnected from the breaker and tagged out.
- The panel cover must be of the type that will cover all breakers when closed and must be equipped with a hasp in order to secure a lock to prevent the panel door from being opened.
- If panel cover is of a type that cannot be locked closed, a cover must be secured over the panel cover and be locked closed and tagged while any work is being performed on any of those circuits.
- If the above cannot be accomplished, each circuit will be tagged out as prescribed and an electrician will stand by the panel board to prevent breakers from being tampered with. This physical presence will continue daily until the work is complete.
- All "Danger Tags" must be dated and signed. Also on tag, must be the intended work and equipment for which tag has been placed.
- If employees of more than one craft or crew are to work on a system, circuit, machinery, or component, the supervisor from that craft shall place his individual lock and tag; and verify that the system, circuit, machinery or component being tagged, is indeed the system that is to be worked on.
- Only the person that placed the lock and tag shall remove it without special authorization from the Safety Coordinator, General Trades Safety Coordinator or Craft Superintendent.
- Padlocks, Lockout Devices and "Danger Tags" shall be made available as specified above.
- Padlocks shall be color coded for craft identification and shall only be used by that craft for lockout purposes, i.e. valves, switches, electrical components, etc.
- Padlocks shall be issued from the contractor responsible where a sign in/out log will be maintained. Locks and tags shall be issued to the foremen or supervisor responsible for the craft performing the work. The contractor of each craft discipline will be responsible for assuring all padlocks are personally identified, that will be used for lock and tag purposes. The Contractor Superintendent(s) will be responsible for ordering their own craft's padlock. A master key will also be provided.
- Any employee(s) or person(s) found to have removed another's lock and/or tag will be subject to disciplinary action up to and including dismissal from the project.

Special Situations

- When due to the nature of work, a supervisor who has employees assigned to work on systems that are between construction and client turnover that is to be locked and

tagged out in order to perform work, the below shall be applied:

- Prior to the electrical foreman de-energizing the system, the foreman will ascertain whether system or device has been turned over and accepted by the client; If system is signed off, the client shall assume responsibility for de-energizing system and becoming the tagging authority.
- Contractor Electrical foreman/craft journeyman places lock and tag and tries to engage the equipment.
- The electrical journeyman or lead man will meter the tagged equipment to verify that it is de-energized.

Operating Facilities and Equipment

All systems covered under this section whether electrical, mechanical or others are considered those systems where no future construction activity is warranted.

Electrically Operated Systems

- Client representative or designee de-energizes system demonstrating accuracy to construction electrical supervisor, then locks and tags.
- Construction electrical foreman/journeyman ascertains that fuses, breakers or throws have been removed, when applicable; tags, locks and tries system.
- Electrical foreman/journeyman, meters the side of the system to be worked on to verify it is de-energized and safe.
- Upon completion of work, the journeyman removes their lock/tag and advises the construction electrical supervisor.
- Client representative or designee clears system, removes lock and tag and re-energizes if necessary.

Other Systems

- Plant engineer or designee de-energizes system and makes system safe.
- Client mechanics or designee(s) makes first break in flanges, places blanks, blinds or valves, and demonstrates that the system is empty and decontaminated.
- Construction (Client) Coordinator or designee verifies that the system is de-energized and tagged.
- Construction Craft supervisor locks, tags and tries system, surrenders the key to the journeyman who will then perform the assigned task.
- Upon completion of work, the journeyman will return the key to the assigned supervisor and tag and lock are removed.
- Construction (Client) Coordinator or designee assures that system is clear, and then removes lock and tag.
- Client mechanics or designee(s) re-energize system.
- **Construction**
- All systems under this section whether electrical, mechanical or others, are considered those systems that are still in the construction phase.
- Equipment or circuits that are de-energized shall be maintained inoperative at their main power source and shall have locks and tags attached to prevent accidental turn on.
- A staff member shall be designated from the electrical department (Superintendent or General Foreman), to assume the responsibility, for the removal of locks and tags, and activation of power from the main switchgear through end line component.

MEETING - PRE-CONSTRUCTION

- The Contractor, before starting work at the project site, shall attend a pre-construction "award" meeting to understand the project conditions and safety requirements.
- A project site tour shall be made to confirm the Contractor's awareness of potential safety hazards.
- The contractor to assure a safe work place shall provide appropriate methods, equipment, devices and material.
- The Contractor shall provide or develop his own project specific safety program and submit it to the Safety Coordinator for review prior to starting work at the project site.
- Such review shall not relieve the Contractor of responsibility for safety, nor shall such reviews be construed as limiting in any manner.
- It is the Contractor's obligation to undertake any action, which may be required to establish and maintain safe working conditions at the project site.

MEETINGS

- A project start safety conference will be held with the superintendent(s), safety coordinator and Foremen of each new Contractor prior to coming on the site.
- The Safety Coordinator will issue the project start package information and he will issue special instructions to the Contractors in support of the Project Safety Plan when needed.
- The Safety Coordinator will conduct regularly scheduled meetings with the Supervisors of new Contractors coming on the site and explain safety goals, contents of this manual and otherwise provide site orientation, safety activities and information. All Supervisors will be required to attend this orientation after coming on the site.
- Contractor meetings will be held as necessary and as directed by the Project Safety Coordinator. All Contractors actually working on the Project will have a representative at the safety meeting to maintain all safety requirements for their trade.
- The Safety Coordinator will conduct safety Meetings on a regularly scheduled basis. Minutes of the meeting will be a topic of all scheduling and progress meetings.
- All Contractors are required to hold weekly 10-15 minutes **"Tool Box" safety meetings** for all employees. Topics related to work assigned, and current safety problems will be discussed. Monthly meetings for supervisory and clerical employees will be held. The Safety Coordinator will monitor these "Tool Box" meetings through personal attendance or by reviewing a copy of the meeting report.
- Prior to starting any major operation, which would involve locking/tagging procedures, a meeting must be set up involving the Safety Coordinator, and every Contractor Superintendent and every Contractor Safety representative affected by the work.
- Specific procedures must be adopted and reviewed by all concerned with the operation prior to commencement of the work.

MASONRY

In addition to the requirements contained in OSHA 29 CFR 1926. 706, the following is required:

- A person, appointed by the Masonry Contractor, who meets the OSHA definition of Qualified Person, will prepare a Hazard Analysis. The Hazard analysis will be reviewed with the Safety Coordinator and the JJC Project Superintendent prior to start of work.

- The Mason's qualified person shall approve all changes in the Hazard Analysis.
- A copy of the Hazard Analysis shall be maintained at the project site showing all approved changes with a copy provided to the Safety Coordinator.
- The implementation of the Hazard Analysis shall be by a person appointed by the Masonry contractor who meets the OSHA definition of Competent.
- The Hazard Analysis shall be reviewed with each person working on the masonry wall each day prior to starting work.
- A safe means of access to the level being worked shall be maintained.
- There shall be protection provided to prevent tools and material from striking any person below the work/storage level.
- A tag line shall be used to control all loads.
- When loads are being hoisted, all personnel are to be prevented from walking under the load.
- No one shall be permitted to ride a load under any circumstances.
- A measuring device to accurately determine wind speed shall be provided by the masonry contractor with observations made available to the Safety Coordinator upon request.

Masonry Wall Bracing

- The masonry contractor shall provide to the Safety Coordinator a design, prepared by a Professional Engineer, meeting the requirements of OSHA 29 CFR 1926.706 (b) and the Standard Practice for Bracing Masonry Walls under Construction as developed by the Council for Masonry Wall Bracing.
- No one shall be permitted within the limited access zone of an unbraced or braced wall subjected to winds of more than 35 mph (20 mph if during the initial period of construction).
- A DANGER sign shall be placed on every unsupported masonry wall that is more than 6 feet in height, braced or unbraced, and 50 feet or less in length. The sign shall be placed at each end of the wall and at intervals of not more than 100 feet along each side of the wall. The sign shall contain the words *DANGER* and *THIS UNSUPPORTED WALL IS UNSTABLE IN WINDY CONDITIONS.*

Fall Protection (See Elevated Work - Fall Protection)

- All employees engaged in masonry work, including overhand laying or any other activity that exposes them to a fall of 6 feet or greater shall be provided with and use fall protection. This protection shall be either a personal fall arrest system consisting of a full-body harness, double, shock-absorbing lanyard, and anchorage or a safety net or a guardrail. "Controlled Access Zones" are not permitted.
- Fall protection requirements shall be rigorously enforced with any observed violation cause for removal from the project.
- Body belts are not permitted as part of a fall restraint system. Only full body harnesses will be used as part of a personal fall arrest system.

Perimeter Protection

A guardrail system will be constructed in accordance with OSHA 29 CFR 1926.500. Or alternative fall protection consisting of safety nets or personal fall arrest equipment provided.

MOTOR VEHICLES AND EQUIPMENT

- All equipment must be inspected daily before use by Contractor's operator. Contractor must also make documented and complete inspections at 30-day intervals with proper documentation maintained at the project site by Contractor and copies shall be made available to the Safety Coordinator upon request.
- Defective equipment shall be repaired or removed from service immediately.
- All Contractors' operators of construction equipment should be properly licensed and certified by a competent person. Copies of the certifications shall be maintained on project site by Contractor and made available to the Project Safety Coordinator upon request.
- Vehicles used to transport employees shall have seats firmly secured and adequate for the number of employees to be carried and all passengers shall be properly seated with seat belt used. Standing/kneeling on the back of moving vehicles is prohibited.
- Locations for storage of all fuels, lubricants, starting fluids, etc., shall be reviewed by the Safety Coordinator prior to use by Contractor for storage and shall conform to the requirements of the NFPA as well as the local Fire Marshal.
- Where required, contractors shall provide equipment diapers to protect from environmental spills.
- Drivers of motor vehicles shall have a valid state drivers license (CDL when applicable) and be instructed to exercise judgment as well as observe posted speed limits.
- All contractors' means of ingress and egress shall be adequately marked and kept clear of stored material, debris and equipment.
- Pedestrians always have right-of-way over motorized traffic.
- Horns shall be sounded at blind corners, when passing, and/or for warning.
- Established hand signals or turn signals are to be used.
- Reckless driving or other non-observance of these instructions will be cause for withdrawal of driving privileges on the project.
- Any ATV's used on the project shall be "four"- wheeled, not three-wheeled.
- All vehicles permitted access to the site must display an appropriate vehicle identification badge from the rear view mirror or other conspicuous location at all times while on the project.
- Seat belts shall be worn by all employees operating motor vehicles and any equipment with rollover protection structures during performance of work.
- Properly trained and equipped flag persons shall be used whenever construction traffic accesses or exits from public highways as well as when construction traffic and deliveries interfere with the planned flow of traffic on public highways.

OSHA REQUIRED TRAINING

- Instruction and training of employees is a requirement of OSHA and will be enforced on this project.
- Training of contractor personnel is the responsibility of the contractor.
- All contractor personnel must attend the Safety Coordinator New Employee Orientation

prior to their starting work on their first day on the project.

OSHA - INSPECTION

- It is the Safety Coordinator's policy to allow OSHA to conduct an inspection of the project. If a contractor wishes to assert their rights under the U.S. Constitution regarding inspection by OSHA, then the contractor must so notify OSHA prior to the start of an inspection.
- The Safety Coordinator will accompany the OSHA inspection party at all times and will make arrangements for the necessary meetings between OSHA, contractors and organized labor representatives (if any). The Safety Coordinator x does not assume liability or responsibility for the presence of any alleged hazards or their correction.
- Contractors will inform the Safety Coordinator of the issuance of any OSHA citations and provide a copy when requested.

POWDER ACTIAUED TOOLS

Powder-actuated tools (also driving tools), when used by the Contractor, shall use *lead-free* Powder loads. Safety Data Sheets shall be submitted to Safety Coordinator for verification. Requests for variances to the *Lead-Free* requirement must be submitted in writing to Safety Coordinator and include a copy of all lead dust provisions and controls that will be implemented in accordance with 29 CFR 1926.62 including but not limited to negative exposure assessments, respiratory protection, dust controls, housekeeping and training. "

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PRECAST/PRESTRESSED CONCRETE

Fall Protection for all employees engaged in work with a fall exposure of 6 feet or greater above a lower level shall be either a guardrail system, a safety net system or personal fall arrest system. The use of "Safety Monitoring" and "Warning Line System" and "Controlled Access Zones" are not permitted. Refer to the Section "Elevated Work Fall Protection" for additional requirements.

A pre-construction meeting between the Safety Coordinator, The JJC Project Superintendent, the Fabricator and the Erector must be held to discuss the following topics:

- Sequence of erection;
- Schedule of delivery by load list;
- Crane capacities;
- Crane lift plan with calculations based on load and crane location;
- Anchor bolt certification;
- Review of the structural plans and details;
- Stabilization plans for the structure during all phases of erection;
- Temporary bracing and guying procedures and equipment for deck members, columns and wall panels.

The Erector is to provide the Safety Coordinator the following:

- Written erection plan prepared by a Company Officer or Professional Engineer indicating complete details of all phases of erection that shall include at least the

following:

- Crane lift plans with load calculation based on the cranes to be used and various setup locations,
- Written stabilization plans for all phases including the use of temporary guying and bracing for columns and wall panels,
- Written documentation of temporary connection details for use until permanent connections are completed including capabilities of workers doing the installation, types of welds or adequacy of bolted connections.
- Listing of competent persons for fall protection, crane operation and erection along with phone numbers for emergency contact.
- Fall protection plan in accordance with the Safety Plan including Leading Edge protection both during installation and after. Sequencing breaks and end of workday protective measures will also be detailed. Interior floor hole protection must be provided per OSHA Subpart M greater than 2 inches in the least dimension.
- Custody of Guardrail cables following completion of precast erection. Erector to present a plan detailing how the cables will be safely removed utilizing Personal Fall Arrest Systems; or safety nets.
- Silica protection of workers during cutting of concrete.
- Hazard Analysis of all operations, presented to all workers prior to each shift on hazards specific to the day's operation.
- Proof of training for all erection crewmembers.
- Delivery locations for trailers including adequate ground preparation and plan for unloading.
- Wind loading considerations including when operations will be suspended due to high winds.
- Any proposed field modifications to the approved Erection Plan shall be approved by a Company Officer or the Professional Engineer of Record, added to the plan, which shall be available at the jobsite. A copy must be submitted to the Safety Coordinator prior to any change.
- Lifting inserts, which are embedded or otherwise attached to precast concrete members, shall be capable of supporting at least four times the maximum intended load applied or transmitted to them, and shall be used in accordance with the manufacturer's recommendations.
- Lifting hardware shall be capable of supporting at least five times the maximum intended load applied or transmitted to the lifting hardware.
- Adjustment of precast members, after initial placement, which requires the lifting of the members in any manner, shall not be made unless wire rope safety tiebacks are used or the members are attached to the crane load line.
- Chains are not permitted to be used as slings. Chain "come-along" are permitted with proof of required inspections and certification.

PROJECT - CODE OF SAFE PRACTICES

Each individual working on this project will be required to attend a safety orientation meeting at the start of their assignment. At the conclusion of the meeting, each will be required to sign a Code of Safe Practices as follows, indicating their agreement to follow that Code while on the Project. This does not relieve the trade contractor of any responsibility to properly orient and train their employees for the specifics of their work.

Project Name:

Employee Name: _____

Company: _____

I agree to abide by the following Code of Safe Practices while on this project:

1. To assist the project in being incident and injury free, I have granted permission to the General Trades Safety Coordinator to discuss all aspects of working safely with me. Likewise, I have the right to discuss safety issues with the General Trades Safety Coordinator, other trades (regardless of trade jurisdiction or craft) and to stop work at any time I feel there is an unsafe condition to myself or to others.
2. I understand there are Above OSHA Requirements in the Project Safety Plan, and I will abide by those requirements.
3. I will work in a safe manner, protecting others, and myself and will report observed hazards to my supervisor. If not addressed, I will further report these hazards to the General Trades Safety Coordinator Superintendent.
4. I will dress appropriately for the project, wearing a long or short-sleeved shirt, long pants, and work boots with ankle protection, and substantial soles.
5. I will use personal protective equipment as required by my trade, and will wear my hard hat and safety glasses at all times.
6. I will abide by the six-foot fall protection rules, including the use of a harness where required.
7. I will park only in designated areas & observe a ten mile per hour speed limit on site.
8. I will only smoke or use tobacco products in designated areas.
9. I will eat only in designated areas and dispose of trash in proper containers.
10. I will not use any intoxicants or other controlled substances on the project.
11. I will report all injuries and accidents involving persons or property.
12. I will not bring any weapons, including knives with blades over 4 inches, onto the site.
13. I will conduct myself in a professional manner and not engage in any violence, horseplay, practical jokes, or other behavior obnoxious to the general public. I will not harass anyone else on site or any member of the public, sexually or otherwise. I will not bring, write or draw any sexually explicit materials on site.
14. I will not use headset-type radios, music players, personal televisions, or other personal entertainment devices on site.
15. I will not use my cell phone in work areas, around heavy equipment, or while engaged in work activities. If I must use a cell phone, I will do so in safe areas, and only to conduct jobsite business, or for a personal emergency.
16. I will comply with the security procedures established throughout the project, for entrance to the site.

Signed _____

PROJECT - SAFETY RULES

- All personnel on this project, including the employees of Contractor, will be required to comply with these rules. Contractor shall ensure and indicate that all its employees have read these rules and understood its contents. The employee must sign a declaration, which shall then be retained by Contractor with the employee's personnel file. In addition, Contractor shall comply with the following:
- Long or short sleeve shirts shall be worn at all times. All shirts shall be tucked in trousers at all times. All shirts shall be hemmed at neck, sleeve and tail. “Muscle Shirts” are prohibited.
- Long pants are required. “Shorts” are prohibited.
- A well-constructed boot/shoe that provides ankle protection with a substantial, flexible sole shall be worn. Exposure to hazard dictates whether or not a protective toe guard will be required. Sandals, tennis shoes, or any other street type shoes (even if equipped with ANSI toe protection), will not be permitted.
- Loose fitting clothes or dangling jewelry shall not be worn around moving machinery, grinding operations, welding, or other hazardous operations.
- Hair, which could come in contact with, or be caught in machinery, shall be protected by a hardhat or hair net, as appropriate.
- Approved hard hats meeting specifications contained in the most current addition of the American National Standards Institute (ANSI), Z89.1 and/or Z89.2 are required. “Cowboy-type” hard hats are not allowed. Baseball caps and other soft headwear is not allowed under the Hard Hat suspension.
- All contractors’ means of ingress and egress shall be adequately marked and kept clear of stored material, debris and equipment.
- No firearms are allowed on the project site.
- Practical jokes, horseplay, scuffling, wrestling and/or fighting are prohibited and may be grounds for immediate dismissal.
- Reflective vests or clothing shall be worn by all personnel exposed to equipment during the site work and excavation phases of the project or when deemed necessary by Safety Coordinator.
- Stilts may only be used where allowed by local regulation and then only where the floor is clean and free of debris and obstructions, there are no uncovered floor holes, where there are no pipe- stub-ups and all guardrails are raised to provide adequate fall protection.
- Drinking and/or possession of intoxicants on The Owner's property are forbidden. The use of narcotics, unless authorized by a physician, and the Safety Coordinator/Superintendent notified, is forbidden. Violation(s) of the above will result in immediate dismissal.

PROTECTION OF THE PUBLIC

Access to the Site

- No work shall be performed in any area occupied by the public unless specifically reviewed and permitted by the Safety Coordinator. In that the project interfaces with the public, precautions to be taken include, but are not limited to:
- Each Contractor shall take such necessary action as is needed to protect and maintain public use of sidewalks, entrances to buildings, lobbies, corridors, aisles, doors, exits and vehicular roadways. The Contractor shall protect the public with appropriate sidewalk sheds, canopies, catch platforms, fences, guardrails, barricades, shields, and adequate visibility as required by laws and regulations of governing authorities. Such protection shall guard against flying materials, falling or moving materials and equipment, hot or poisonous materials, flammable or toxic liquids and gases, open flames, energized electric circuits or other harmful exposures. Guardrails shall be made of rigid materials complying with the requirements for standard guardrails as defined by OSHA and the Project Safety Plan. Temporary sidewalks, ramps or stairs shall be provided with guardrails on both sides whenever permanent sidewalks, ramps or stairs are obstructed by the work. The Safety Coordinator may authorize barricades, secured against accidental displacement, meeting the requirements of local authorities, where fences, sheds, walkways and/or guardrails are impractical. During the period when any barricade, fence, shed, walkway, or guardrail is removed for the purpose of work, a watchman shall be placed at all openings.
- Appropriate warnings, signs and instructional safety signs shall be conspicuously posted where necessary. In addition, a signalman shall control the moving of motorized equipment in areas where the public might be endangered. Warning lights, including lantern, torches, flares and electric lights, meeting the requirements of governing authorities shall be provided and maintained from dusk to sunrise along guardrails, barricades, temporary sidewalks and at every obstruction to the public. These warning signs and lights shall be placed at both ends of such protection or obstruction and not over 20 feet apart alongside of such protection or obstructions.
- With respect to operations being performed on public roadways, all DOT and/or municipality requirements towards public safety will be strictly observed.
- Access to the site is limited to the entrance designated for construction traffic as indicated on the site plans issued with the construction documents. At no time is Contractor personnel or vehicles to obstruct traffic on public streets or Owner entry driveways. All material deliveries shall be scheduled in advance with the Project Superintendent and shall be completed within the time segment allocated for the specific delivery.
- A temporary six-foot high fence, in compliance with laws and regulations of governing authorities, shall be provided and maintained around the perimeter of operations on the project site to control access to the work by employees, to protect the public, and to restrict access by unauthorized individuals.
- The above shall be implemented only where allowed by the governing authority. Where the owner of the property specifically prohibits such protective devices, rules and regulations of the governing authority shall apply.

Authorized Visitors

All visitors to the site are required to register with the Safety Coordinator upon arrival. Each Contractor will be expected to regulate their visitors accordingly. All visitor passes expire upon departure from the site and are to be surrendered to the gate security guard.

Fire hydrants and all designated fire lanes shall remain clear at all times for the use of emergency vehicles.

Employee Identification

Where required, all project site employees will be issued an identification badge and hardhat sticker upon completion of their initial safety orientation and after having passed their alcohol and drug test. All persons without a hardhat identification sticker shall report to the Safety Coordinator's office for verification of employment status, attendance at an orientation session, or issuance of a single day visitor pass. This identification badge will remain the property of the Owner. The identification badge shall be maintained in good condition and on the person to whom it is issued. The identification badge shall be returned to the Safety Coordinator or the Owner when employment on the Project is terminated or when requested by the Safety Coordinator, or other authorized and designated person. All lost or stolen identification cards shall be immediately reported to the Safety Coordinator or the Owner.

Tours

It is of the utmost importance that a high degree of protection be afforded all persons touring the project site.

The following guidelines shall be complied with by personnel who are responsible for the organization, direction and safe conduct of the tours:

All group tours will be cleared through the Owner's representative and the Safety Coordinator, allowing for maximum notice.

All tours will be coordinated by the Safety Coordinator to accommodate the Project schedule, to make necessary preparations, and to assure safety precautions are observed.

The Safety Coordinator will review the following items with the person requesting the tour:

Number of visitors.

Individual tour groups in non-hazardous areas should be limited to no more than 10 persons per tour guide (i.e. a tour group of 20 will require at least two tour guides).

Clothing

Tour groups will be required to wear appropriate clothing (i.e. slack and low-heeled shoes).

Children

Children under the age of 12 will not be permitted to accompany tours. An adult must accompany each child age 12 to 15. Only those 18 years of age and older are permitted to work on the project.

Protective equipment

Hard hats, boots, raincoats, eye protection, etc., will be supplied as required.

Release and Hold Harmless Agreement

Each visitor will be required to sign this form prior to the start of the tour. In the case of children, an adult must sign for them, preferably a parent.

Immediately prior to entering the project site, all visitors shall be briefed about the need for careful and orderly conduct, including mention of any special hazards, which may be encountered.

Technical and official visitor tours will be conducted in accordance with the above safety precautions. Since technical tours are often conducted through areas of more hazardous work, it is recommended that the number of people on such tours be proportionate to the degree of hazard involved.

Pressure Testing Safety Requirements

Pressure testing involves hazards, such as the release of hazardous energy, being struck by loose fittings or burst pipe. In addition, if an inert gas, such as nitrogen is used, it can displace oxygen and can create an oxygen-deficient atmosphere, which can be harmful or fatal. If flammable gas is used, it can cause an explosion if there is an ignition source.

The following procedure shall set forth the minimum requirements to ensure that pressure testing is performed safely. Contractors shall also develop a site/task specific Job hazard Analysis (JHA), as well as their own procedures for safely pressure testing pipe, and review with the Safety Coordinator prior to starting this activity.

- Contractor performing pressure testing shall barricade area off and place signage restricting access to only authorized personnel.
- Authorized personnel shall wear appropriate PPE consistent with the contractors JHA. (Examples should include: hard hat, safety glasses, face shield, gloves, etc. in accordance with the SDS for testing medium).
- All mechanical devices, such as valves and blinds used to isolate the system shall have a lock and tag affixed by the contractor to prevent accident pressure release.
- Contractor and authorized personnel shall walk down the system and check the integrity of all connections, caps, seals and fittings within the system to be tested to ensure they are secure.
- Contractor shall install additional supports on piping necessary for increased pressure or weight of testing medium.
- Test equipment and gauges shall be inspected by the contractor and confirmed to be in proper working order before testing is begun.
- Maximum test pressure and duration of the test shall be communicated to the contractor's authorized testing personnel and Safety Coordinator.
- Contractor to develop a Venting procedure for dissipating inert gas safely.
- Contractor shall develop a Drain procedure to drain water or other fluids safely, without polluting drains or creating slippery conditions.
- Contractor shall review the JHA with all authorized personnel prior to the test.
- Testing shall be performed under the supervision of the contractor supervisor.
- Testing shall be conducted in accordance with pipe and testing equipment manufacturer's precautions and specifications.
- Test pressure shall not exceed the maximum allowable test pressure for any vessel, pumps, valves, or other components in the system.
- All repairs or adjustments to the system being tested shall be done only after the system pressure is safely and completely relieved and the test gauges indicate 0 psig pressure.
- Only mechanical devices, such as gate or ball valves shall be used for incremental release of flow in depressurizing systems. The opening or 'breaking' of flanges shall never be used as a means of depressurizing a tested system.
- Upon acceptance of the pressure test, pressure in the system shall be completely relieved so that the test gauges indicate 0 psig, and verified by contractor's supervisor.
- Contractor shall conduct all testing in accordance with applicable laws, codes, and ASME B31, B16 and related standards.

SANITATION

Housekeeping

- The site, work areas, and all premises occupied by contractor's personnel will be maintained in a clean, healthy and sanitary condition.
- Work areas, passageways and stairs, in and around buildings and structures, shall be kept clear of debris. Construction materials shall be stored in an orderly manner. Storage areas and walkways on the site shall be maintained free of dangerous depressions, obstructions, and debris. Construction equipment shall be stored or placed in an orderly manner.
- Good housekeeping on the project is mandatory and every employee must do his part daily to minimize dust and to clean up his work area to keep the project clean for safety and efficiency. Controls shall be observed which keep dirt from being tracked into areas outside the workspace. Immediate cleanup is required when dust, dirt or debris may affect the owner's operations.
- Eating within the construction project shall be confined to areas designated by the Safety Coordinator for such purposes. Employees shall properly dispose of all lunch refuse and drink containers in trash receptacles
- Failure to maintain adequate housekeeping and to perform daily clean-up will result in the following actions:
- Written Notice: Upon receipt, the contractor shall take immediate action to perform housekeeping and clean up.
- If having been given sufficient notice, the contractor fails to clean up; the work will be performed by others, and the errant contractor backcharged for all related costs.
- Daily and final clean up must be performed in accordance with contract documents.

Facilities

The locations of lunch areas and employee toilet facilities will be designated by Safety Coordinator and approved by the Owner.

Refuse and Garbage

Each contractor will provide an adequate number of covered garbage containers. The site will be cleaned and garbage and refuse will be collected at least daily and removed from the building.

Potable Water

Each contractor shall provide potable water at the work site and test it at least weekly if delivery is from other than municipal supplies.

Sanitary facilities shall be provided for personal hygiene.

SIGNS, SIGNALS, BARRICADES AND LIGHTS (MOTOR VEHICLE EXPOSURE)

Signs, signals and barricades shall be visible at all times where a hazard exists and will be in compliance with ANSI D6.1 (most recent version), Uniform Manual of Traffic Control or regulations promulgated by the local authority.

SCAFFOLD

- The Contractor's designated Competent Person shall inspect all scaffolds prior to each work shift with written documentation provided to Safety Coordinator on a daily basis. All scaffolds shall bear a tag, signed and dated by the contractor's competent person, denoting that the scaffold has been inspected and is safe to use prior to any employee utilizing that scaffold that day.
- Any contractor using scaffolding shall provide to Safety Coordinator the name of their

Competent Person along with the content of the Competent Person's training program and proof of Scaffold User Training for all employees who may work on scaffolding.

- Ladder Jack scaffold are not permitted.
- Scaffolds with a width less than 60 inches must have guardrails (top, mid and toe) installed when the work platform is in excess of 48 inches above the floor or lower work area.
- Scaffold cross bracing is not permitted to be used as a substitute for guardrails. Swing gates will be provided at all ladder or stair access points. Where material is being landed on a scaffold, the outrigger extension will not be used to support the material unless it is deemed adequate by the manufacturer and a factor of safety of 4 is provided.
- All non-mobile scaffold frames shall have base plates installed.
- All mobile scaffolds will have wheels locked when in use and stationary.
- Nominal grade lumber is not allowed as scaffold planking.
- All individuals who are in scissor lifts shall wear a full body harness and be tied off by a lanyard to a manufacturer's approved anchorage point within the scissor lift. Standing on guardrails is not allowed. Only approved anchorages shall be used for fall arrest anchorage points.
- A mast climbing elevating work platform that may be adjustable by manual or powered means must meet the requirements of ANSI Standard ANSI/SIA A92.9-1993, American National Standard for Mast- Climbing Work Platforms.

STAIR SCAFFOLDS

- 'System' scaffold stairs shall be erected as early as possible during the building construction to facilitate safe access to all working levels, once the steel erector has released the floor/level to other contractors use. Scaffold stairs shall remain in place until the permanent stairs are constructed and made available for use.
- Stair scaffolds shall be constructed in accordance with manufacturer's instructions by trained and qualified workers under the direction of a competent person.
- Stair scaffolds shall be inspected daily by a competent person, authorized by the Safety Coordinator, at the beginning of each shift. The competent person shall date and initial a Scaffold tag, and place the tag at the entrance to the stair scaffold.
- Stairs used during winter months shall be enclosed to prevent ice and snow from creating slippery conditions. Temporary lighting in accordance with OSHA requirements shall be installed on all enclosed stair scaffolds.

STEEL ERECTION

Erection Plan

- An erection plan will be prepared by the Steel Erector's Qualified Person and reviewed with the Project Safety Coordinator and/or JJC Project Superintendent prior to start of work. Refer to OSHA 1926, Subpart R, Appendix A.
- The erection contractor's qualified person shall approve all changes in the safety erection plan.
- A copy of the erection plan shall be maintained at the project site showing all approved changes with a copy provided to the Project Safety Coordinator.
- The implementation of the erection plan shall be under the supervision of a competent

person.

- A safe means of access to the level being worked shall be maintained. Climbing and sliding on columns or diagonals, is not allowed.
- Containers, such as buckets or bags, shall be provided for storing or carrying bolts or rivets. When bolts, driftpins, or rivet heads are being removed, a means shall be provided to prevent accidental displacement. Tools shall be secured in such a manner to prevent their falling.
- Fall protection provisions, such as lifeline attachments, dynamic fall restraints and other such devices shall be considered during shop drawing preparation, shall be incorporated in fabricated pieces, and shall have safety lines or devices attached prior to erection wherever possible.
- A tag line shall be used to control all loads.
- For the protection of other crafts on the project, signs shall be posted in the erection area by the erection contractor reading, "*Danger Men Working Overhead*" and only ironworkers allowed in this area. This will include shakeout areas, erection areas and the load travel path from the storage area to the erection area.
- When loads are being hoisted, all personnel are to be prevented from walking under the load.
- No one shall be permitted to ride a load under any circumstances.
- Crane personnel platforms will not be used for any purpose without the written approval of Safety Coordinator.
- Material shall not be hoisted to a structure unless it is ready to be put into place and secured.
- Bundles of metal decking or small material shall be so secured as to prevent their falling out from the rigging.

Fall Protection (See Elevated Work - Fall Protection)

- All workers engaged in steel erection activities including connecting, bolting-up, decking, welding or any other activity that exposes them to a fall of 6 feet or greater shall be provided with and use fall protection. This fall protection shall be either a personal fall arrest system consisting of a full-body harness, double, shock-absorbing lanyard, and anchorage or a safety net or a guardrail. Nether “Controlled Decking Zones” nor “Safety-monitor systems” are permitted. Metal deck is not considered a form of fall protection.
- Fall protection requirements shall be rigorously enforced during steel erection with any observed violation cause for removal from the project.
- Body belts are not permitted as part of a fall restraint system. Only full body harnesses will be used as part of a personal fall protection system.

Perimeter Protection

- A guardrail system of a minimum of two (2) 3/8-inch diameter 7 x 19 galvanized new aircraft cable. Top rail of the wire rope cables shall be erected at 43 ½ inches from the finished floor and the midrail of the wire rope cable shall be installed approximately halfway between the finished floor and the top guardrail- approx. 22 inches.
- Wire rope guardrails shall be tensioned to 2,400 pounds of force, initially, and maintained to comply with OSHA fall protection requirements. Wire rope guardrails shall

be installed immediately following the erection of beams and columns. The length of cable shall not exceed 120 feet without being terminated. Cables shall be terminated at all 90 degree turns and shall be 'looped' connections with 3 wire rope clips used at all connections (line splicing is not permitted). All sequence breaks will require a two (2)-cable assembly.

- Steel angle stanchions shall be installed and spacing on perimeter bays shall be as follows:
- In bays with column spacing greater than 30 feet, at least two intermediate stanchions
- In bays with column spacing less than 30 feet, at least one intermediate stanchion.
- Steel stanchions used at corners shall have diagonal supports installed to at least 80% of the height of the stanchion.
- Turnbuckles shall be installed on top and midrail wire rope cables at each perimeter side, and at intervals not to exceed 120 feet, or as directed by Safety Coordinator. Loading bays shall have separate guardrail and turnbuckle assemblies installed.

Interior Protection

- Installation of guardrails at interior floor openings, i.e. stair or mechanical shafts, shall conform to one, or a combination of the following:

  Option 1

  - Install 3/8" galvanized air craft cable through stanchions at 43 ½ inches above finished floor. Terminate cables at 90 degree turns.

  Option 2

  - Bolt 2 ½" x 2 ½"x ¼"steel angles onto stanchions. A mid-stanchion / post is required for spans greater than 8 feet.

  Option 3

  - Secure 2"x 4" construction grade lumber to steel stanchions. A mid-stanchion / post is required every 8'

    - Guardrails shall not be used as a horizontal lifeline as part of a personal fall arrest system unless designed by a Registered Professional Engineer and installed under the supervision of the steel erector's competent person.
    - Top and Midrail cables, as outlined above, shall also be used at all sequence breaks.

Stretch and Flex Program

Purpose

Soft tissue injuries are a major source of disabling injuries to our workforce, and result in significant costs and lost productivity to our industry. Warm up stretches before work begins can reduce the incidence and severity of soft tissue injuries. Therefore, all contractors of every tier shall ensure that all employees participate in stretching exercises at the beginning of each workday.

Program Requirements

All contractors and tradesmen are required to design and implement a Stretch and Flex Program for their employees. The purpose of the program is to gently condition the muscles

and tendons of the workers before they engage in their duties in order to avoid injury.

A Stretch and Flex Program shall be developed by each Contractor and submitted to the Project Safety Coordinator prior to commencing activities on site.

Stretch and Flex activities shall be performed every day work activities are scheduled and they shall be performed before the work activities begin. Everyone is required to participate.

Recommendations

Consult with a licensed Physician/Physical Trainer/Stretching Instructor/Yoga Instructor for the most suitable stretches for your work crew.

Incorporate incentives for active participants.

See Appendix E for an example of a Stretch and Flex Program.

Check with your Company's insurance carrier. They may provide services, suggestions and guidance for your company's program.

THIRD PARTY INSPECTIONS

In addition to visits and safety inspections by its own corporate or insurance representatives, Contractor is advised that authorized third parties may inspect the Project from time to time. Among others so authorized are representatives of the Owner and/or its agent, insurance companies and OSHA. Upon their proper identification and clearance through security, they are entitled to access and courteous consideration. Safety Coordinator must be made aware of their presence upon arrival, and in any case as soon as possible, of the purpose and results of such visits which relate to safety.

TEMPORARY HEAT

- No Kerosene, oil fueled, solid fuel burning, or convection heaters (a.k.a. 'Pot' heaters) are permitted.
- Only gas fired (propane vapor or natural gas), hydronic, steam, electric or infrared heaters are permitted, based on the application and use.
- Gas heaters must conform to the specifications
  a. Direct Fired heaters shall conform to ANSI Z 83.7 or Z 83.4
  b. Indirect Fired heaters shall conform to ANSI Z 83.8
  c. Infrared heaters shall conform to ANSI Z 83.6
  d. All flexible connectors must be UL approved and conform to specifications L -83.
- All heaters shall conform to applicable OSHA, ANSI, UL, NFPA, NEC, and related standards for design, construction, installation, clearance and use, as well as to all local codes. All heaters shall be AGA certified
- Temporary construction heaters proposed shall be approved for use by the AHJ, the Project Safety Coordinator, and shall conform to the approved Heating plan, and shall also conform to manufacturer installation requirements, applicable Codes and Standards, and local fire official's requirements.
- Heater supplier and Contractor shall provide their construction heating plan to the x Safety Coordinator for review and approval. This Plan must include specifications for the heaters, and heater and fuel placement and storage, as well as heater maintenance, service and inspection schedule and competent persons to implement the Plan.
- Whenever heaters are operating during non-working hours, the Contractor may be required by the client, local fire officials, or the Project Safety Coordinator to provide a qualified person to monitor and maintain the heaters. In such cases, the qualified

person shall be trained by qualified person in the safe operation of the heaters.

- All heaters specified shall be an approved appliance meeting or exceeding safety features outlined in appropriate specifications (see above)
- Installation of an appliance meeting the following specifications shall be made by a qualified technician according to safety measures as outlined in ANSI 10.10, NFPA – 58, NFPA – 54, U.L., the operators/manufacturers manual, and local codes
- Installation must be a coordinated effort between the Project Safety Coordinator, the JJC Superintendent, the heating appliance supplier, the fuel supplier and local trades, referring to the heating plan, with instruction.
- Flammable and combustible material shall be kept away from the heater a minimum of 10 feet or more, as indicated by heating unit manufacturer, local fire authority, owner, or unique conditions of the site.
- Each heating appliance is to be inspected by a qualified person, at least at the beginning and end of each working day.
- Contractor shall monitor Carbon monoxide levels when operating heaters indoors and shall ensure levels are below the ACGIH TLV(The American Conference of Governmental Industrial Hygienists Threshold Limit Value of 25 ppm (parts per million or 29 mg/m(3)) as a Time Weighted Average for a normal 8-hour workday and a 40-hour workweek

TOOL BOX TRAINING

- Instruction and training of employees is an OSHA requirement and, as such, will be required on this project. Examples of such required training to be provided by Contractor are:
- Newly employed, promoted and/or transferred personnel shall be verbally instructed in the safety practices required by their work assignments.
- All work assignments must include specific attention to safety. "Follow-up" monitoring is required in order to prevent accidents.
- OSHA requires that employees performing specific non-routine tasks or operating specific equipment be trained in its usage.
- Training of contractor personnel is the responsibility of the contractor.
- Conduct Tool Box safety meetings for all employees at least once a week.
- Maintain an attendance record by having employees sign the reverse side of the Toolbox Safety Meeting Report, or equivalent form.
- Complete the Report and submit it to the Project Safety Coordinator’s Office within 24 hours after each meeting.
- File all toolbox meeting reports and summaries so that they are available for review at any time during project operations or for a period of five years following termination of the project.
- It is the responsibility of Trade Contractor supervision to explain the hazards involved in an assignment to all employees, either individually or in a group before they actually begin an assigned task.
- This task may only require a few words, but in many cases it will require the actual demonstration of how the project can be done safely and the pointing out of the hazards that may be or will be encountered in any task.

WELDING, CUTTING AND BURNING – HOT-WORK

Electric Arc Welding

- A suitable, approved fire extinguisher shall be ready for instant use in any location where welding is done. Screens, shields, or other safeguards should be provided for the protection of men or materials, below or otherwise exposed to sparks, slab, falling objects, or the direct rays of the arc.
- A dedicated fire watch shall be present at all welding operations and remain for at least 1 hour after the hot work has halted.
- The welder shall wear approved eye and head protection. Men assisting the welder shall also wear protective glasses, head protection and protective clothing. Adequate exhaust ventilation shall be maintained at all welding and cutting work areas.
- Electric welding equipment, including cables, shall meet the requirements of the National Electric Code.
- All arc welding and cutting cables shall be of the completely insulated flexible type capable of handling the maximum current requirements of the work.
- Cables in need of repair shall not be used.
- The frames of all arc welding and cutting machines shall be grounded either through a third wire in the cable connecting the circuit connector or through a separate wire which is grounded at the source of the current.
- All ground connections shall be inspected to insure that they are mechanically strong and electrically adequate for the required current.
- Welding practices shall comply with all applicable regulations.

Gas Welding or Cutting

- When gas cylinders are stored, moved, or transported, the valve protection cap shall be in place.
- When cylinders are hoisted, they shall be secured in an approved cage or basket. The valve cap shall never be used for hoisting.
- All cylinders shall be stored, transported, and used in an upright position. If the cylinder is not equipped with a valve wheel, a key shall be kept on the valve stem while in use.
- At the end of each work day or if work is suspended for a substantial period of time, compressed gas cylinder valves must be closed, regulators removed and properly stored.
- Cylinders containing oxygen or acetylene or other fuel gas shall not be taken into confined spaces.
- Cylinders containing oxygen or acetylene or other fuel gas shall be stored in designated areas outside the structure as approved by Safety Coordinator.
- No one shall use a cylinder's contents for purposes other than those intended by the supplier.
- All hose used for carrying acetylene, oxygen or other fuel gas shall be inspected at the beginning of each working shift. Defective hose shall be removed from service.
- Oxygen cylinders and fittings shall be kept away from oil and grease. Oxygen shall not be directed at oily surfaces, greasy clothes or hands.
- Regulators, gauges, backflow check valves, and torches shall be kept in proper working order.

- An approved fire extinguisher shall be readily available.
- Flash arrestors are required on the oxygen and acetylene hoses, at the regulators.
- Appropriate personal protective equipment, such as burning glasses, shields, and/or gloves shall be used. Adequate exhaust ventilation shall be maintained at all welding and cutting work areas.
- Work permits shall be obtained daily, prior to any burning or cutting operations on the site.

WORK PERMIT PROCEDURES

General Procedures

- A copy of this section of the Project Safety Plan will be issued to all Contractors, and will serve as notice by the Project Safety Coordinator that a work permit as specified by the Project Safety Coordinator is necessary before starting any hazardous work activity.
- The work permit shall be obtained from the Project Safety Coordinator before starting each day's work. The procedures for initiating a hazardous work permit are listed on the permit application appropriate to the type of work.
- Hazardous work Permits include, but are not limited to the following activities: Hot Work, Confined space entry, Guardrail removal, Line Breaks, after Hours work, Trenching and excavation, Crane use and Barricade installation.
- Additional job-specific hazardous work permits may be required, due to special project conditions, to be incorporated into the project safety plan. These will also be considered as a contract commitment.

Hot Work

- Hot work is defined as a process or procedure, which could result in a fire if not properly controlled. Common types of hot work are welding, burning, cutting, brazing, soldering.
- Hot work will usually be permitted only during normal working hours. Permits will be issued the day before work is to be accomplished, and the work area will be inspected to verify that adequate control has been established.
- A copy of the permit will be available at the point of work. An adequate number of fire extinguishers will be available within 50-feet of the point of work for which a permit is issued.
- The Contractor will take the necessary precautions when welding or burning above walls to assure that protection is maintained on both sides of the wall and that areas below are protected on multilevel buildings.

Confined Space

- When work in confined spaces is scheduled, such as a caisson, boiler, deep excavations, etc., consideration must be given to two major known and recognized hazards:
- The possibility of fire or explosion, flammable gases, fumes, vehicle fumes, vapors, or dusts.
- The possibility of injury to the worker (or loss of consciousness) as a result of inhalation or absorption through the skin of toxic materials or from oxygen deficiency.
- For work in a confined space, the responsibility for recognition and advance notification is the Contractor's. The Project Superintendent and the Project Safety Coordinator will be notified and will evaluate the situation, issuing a work permit in those cases for which

he considers it necessary. The Contractor will be responsible for providing equipment and special instructions for the worker, such as ventilating units, respirators, safety belts and life lines, etc., and for conformance to all applicable OSHA standards.

- It is required that the "buddy system be used and that an observer will tend all workers in a confined space. Rescue procedures should be agreed upon beforehand.

Guard Rail Opening

The Project Superintendent and the Project Safety Coordinator may approve work, which requires the opening of guardrails or the removal of holes covers to be performed, in advance. Particular attention shall be given to the alternate means of fall protection, which will be required to safely perform the work and protect other workers in the vicinity of the fall exposure. Specific plans for providing alternate fall protection shall be described in the request for the work permit.

Off-Hours Work

The Project Superintendent and the Project Safety Coordinator shall approve work, which is required to be performed outside normal working hours established at the site, in advance. Any work occurring within the existing Owner facility shall be at the convenience of the Owner, and shall comply with all conditions imposed by the contract specifications and the work permit issued by the Project Safety Coordinator or other persons identified by the Owner.

OWNER REQUIREMENTS

Refer to the attached Owner Requirements for additional provisions, which must be followed.

APPENDIX A TABLE OF FINES

Violation	First Offense	Second Offense
Assured Grounding Program violation	$200	$400
Clothing not adequate	$50	$100
Confined Space violation	$1000/ Removal	N/A
Electrical Cord defective	$250	$500
Electrical cords not protected on floor or not raised	$250	$500
Equipment violation	$250	$500
Eye Protection Missing	$250	$500
Failure to protect public	$1000	$2000
Fall Protection not present	$1000/ Removal	N/A
Fire Extinguisher missing	$500	$1000
Fire Watch missing	$500	$1000
Footwear not adequate	$100	$200
Gas Cylinders stored incorrectly/not identified	$200	$400
General Duty Violation	$500	$1000
Guard Rail removal	$1000/ Removal	N/A
Hard Hat Missing	$250	$500
Hearing Protection missing	$250	$500
Hot Work Permit missing	$500	$1000
Housekeeping poor	$500	$1000
Ladder defective	$250	$500
Ladder not secured	$500	$1000
Lockout violation	$1000	$2000
Material storage improper	$500	$1000
SDS missing	$100	$200

Open Hole	$1000/ Removal	N/A
Orientation not attended	$200	$400
Power Tool defective	$500	$1000
Scaffold Violation	$500	$1000
Smoking in non-designated area	$500	$1000
Standing on top of Ladder	$500	$1000
Tool Box Meeting not held	$100	$200
Traffic citation	$50	$100
Trench/Excavation Permit missing	$200	$400
Trenching violations	$2000/ Removal	N/A
Uncertified Lifting Device	$500	$1000
Urinating/Defecating in building	$1000/ Removal	N/A
Written Haz Com Program missing	$100	$200
Hand protection violation	$250	$500
Radio and headsets	$250	$500
Infection Control violation	$1000	$2000

APPENDIX B
HAND PROTECTION REFERENCE

PURPOSE

To aid in the prevention of hand and finger injuries when performing construction operations.

OBJECTIVE

- To ensure hand protection is used in situations where there are known hazards present.
- Identify specific areas which historically have caused injuries.
- Establish mandatory guidelines for the use of hand protection.

SCOPE

This procedure identifies specific situations which require the use of hand protection, but is not meant to be all inclusive. Other situations not identified in this document should be identified/reviewed during pre-task planning. Gloves should be worn for hand protection in any situation where exposure to hazards exist.

Procedure

- **Mandatory Hand Protection While Working**

  - **When metal materials with sharp edges are being handled such as:**

- Handling or working around sheet metal siding, roofing, etc.
- Metal unistrut materials and all thread rods
- Handling or working around tie-wire
- Handling metal floor grating
- Handling wire rope during rigging operations
- Handling or working around metal studs
- Handling of metal duct work

  - **Cutting operations involving hand-held, non power-operated cutters:**

- Using hand-held tubing cutters for cutting metal and hard plastic-type piping
- Using hack saws for cutting metal
- Using cross-cut saws for wood cutting

  - **Handling of wood materials:**

- Placing plywood sheeting on floors, scaffolds, etc.
- Unloading and loading wood of any type

- Moving and transfer of wood

- **Concrete operations where hands are exposed:**
- Power and hand troweling operations
- During the cleaning of chutes used for delivery of concrete
- During concrete removal operations

- **During the use of utility knives or exacto knives:**
- Cutting sheet rock
- Trimming wire sheathing or other stripping operations
- Cutting insulation
- Trimming temporary plastic walls
- Cutting/scoring paper, vinyl tiles, etc.

- **Sharpening knives, saws and blades**

- **While pulling wire in or around electrical panels**

- **While performing Energized Electrical Work (EEW) operations**

- **During use of impact-type tools:**
- Using impact hammers to chip concrete
- Using jackhammers on concrete and similar operations
- Using fence post drivers for driving posts and/or stakes
- Using power-actuated power tools

- **During welding operations**

- **While operating a grinder:**
- The grinding helper shall also utilize gloves to prevent impalement by flying debris

- **Working on or near materials affected by extreme temperatures:**
- Mechanics working on or around hot parts
- Workers performing operations around refrigerant or argon lines

- **Handling hazardous materials which require the use of hand protection to avoid skin contact, as indicated on the Safety Data Sheet (SDS) for the material, to include but not limited to:**
- Paints, solvents, adhesives, caustics or corrosives
- Petroleum products such as gasoline, diesel, hydraulic fluids and used motor oil

- Working with glass materials where the edges are exposed and present a hazard

- Personnel involved in the removal and handling of trash

- Protective gloves may be worn for hand protection in the Clean Rooms when hands are exposed to hazards described by this procedure. Clean Room Protocol should be contacted to review glove selection for work performed within the Clean Room

Different exposures require the use of different types of gloves. Evaluate each situation to ensure which is the appropriate type of hand protection. (See chart below)

OPERATION	***GLOVE TYPE***
Energized Electrical Work (EEW)	Electrically insulated-rated rubber gloves with leather protectors
Welding operations	Gauntlet-type leather welding gloves
Grinding Operations	Tight-fitting leather gloves
Exposure to sharp edges & metal burrs (handling ductwork, metal studs)	Cut-resistant gloves (Kevlar® or tight-fitting leather)
Utility knives, hacksaws, & cross-cut saws	Cut-resistant gloves (Kevlar®)
Concrete work	Rubber or leather gloves
Exposure to petroleum products	Chemical-resistant gloves per the SDS requirements & manufacturers requirements (Neoprene, PVC, Nitrile or Rubber) *
Exposure to hazardous materials such as solvents, paints, adhesives, etc.	Chemical-resistant gloves per the SDS requirements & manufacturers requirements (Neoprene, PVC, Nitrile or Rubber) *
Working around machinery	Tight-fitting leather gloves should be utilized when hand protection is necessary around rotating equipment to prevent entanglement of gloves/hands in machinery Kevlar® heat resistant gloves and sleeves. Tight-fitting leather gloves.

OPERATION	*GLOVE TYPE*
Proximity & exposure to excessive heat, or hot piping and equipment.	Tight-fitting leather gloves.
Using saws – portaband, and reciprocating.	Cut-resistant gloves - Kevlar®
Handling wire rope/rigging.	Tight-fitting leather gloves
Handling glass	
Handling wood	

GLOVES *

Neoprene – Protects from acids, caustics, oils, greases and many solvents

PVA – protects from aromatics, ketones and chlorinated solvents (Xylene, Trichloroethylene)

Butyl – protects against common organic acids and caustics, alcohols, esters, acetone and ketones

PVC – protects against chemicals, oil and greases, acids and petroleum hydrocarbons

Nitrile – protects against greases, oils, acids and solvents

APPENDIX C
TOWER CRANE ERECTION AND DISMANTLING PROCEDURE

Background:
Given the numerous and tragic tower crane accidents that have occurred around the country in recent months, Safety Coordinator Building Company has issued this Policy to control the risks associated with the erection, climbing/jumping and dismantling of cranes on our projects.

Applicability:
This Policy applies to all projects and must be included in all current and future Bid packages.

Tower Crane Safety Coordination Meeting

Prior to the planned erecting, dismantling or jumping of tower cranes, a 'Safety Coordination Meeting' shall be conducted with Safety Coordinator Building Company and the following stakeholders as applicable.

The stakeholders that must be present at the meeting shall be:

a. General Contractor Superintendent / Designee

b. Subcontractor providing, leasing or using the crane

c. Independent Third party Crane Inspector

d. Crane Operator and Oiler

e. Lead Tower Rigger (and Rigging Crew, if available)

f. Assembly/Disassembly Director

g. Crane Site Safety Coordinator

h. Site Safety Manager

i. Flagmen/Communications Personnel

j. All Other Personnel Taking Part in the Operation

k. State or local regulatory agency representative, if applicable.

The following topics are to be covered during the Tower Crane Safety Coordination meeting:

Scope and sequence of work

Site and Logistics Plan

Crane mat engineered design drawings

Roles and responsibilities

Required Licenses and certifications

Rigging to be used (including softening material if nylon web slings used)

Inspection scope and frequency of all rigging equipment, materials and tools prior to erection, dismantling and raising/lowering

Rigging diagrams, capacities and specific sequence of rigging operations

Engineering specifications and inspection schedule of all equipment including but not limited to collars, ties, and bolts

Permit validity and qualifications and training of personnel

A Plan for tower cranes during inclement weather, including relevant weather warnings and compliance with manufacturer's manual (including maximum recommended wind speeds for erection/dismantling, and anemometer equipment/location)

All Loads weights of tower crane components and lifting components and capacities (a scale on site to verify the weights is preferred)

Communications systems

Self-rescue devices for the operator and tower riggers

All engineered drawings and certifications

Foundation designs and structural bracing design and installation

Crane Installation inspection (see note)*

Specifications of the assist/erection Crane and rescue crane.

*Inspection & Certification: A third party independent Tower Crane inspector shall inspect all tower crane components upon arrival to the project to ensure they were not damaged during transport. Once fully erected, the third party Tower Crane inspector for the crane must provide Safety Coordinator Building Company with a certified and signed report stating that he or she has inspected the crane installation. This certified report must verify that the crane is installed in accordance with plans filed with Safety Coordinator and the city or state where applicable, and that the third party Tower Crane inspector for the crane has reviewed the appropriate technical testing records, including torque, plumb, and magnetic particle reports for the crane. In addition, once every twelve (12) months, the crane shall be inspected by a qualified 3rd party, independent crane inspector.

The engineer of record for the crane must submit written plans and specifications to Safety Coordinator and the applicable state or federal agency that detail the erection, jumping and dismantling procedure for the crane that is to be erected, jumped or dismantled at the site. These plans must be prepared by the licensed engineer and in conjunction with the licensed rigger and must be received prior to the safety coordination meeting.

During the safety coordination meeting the Plan for the Erection, Dismantling, Raising & Lowering of the Tower Crane ('The Plan') shall be reviewed.

The Plan for Erection, Dismantling, Raising & Lowering of the Tower Crane shall include:

Crane set up procedures, including steps for on-site assembly of the Tower crane and assist crane.

A written job plan which describes the intended operation of the subject crane including specific uses of the crane and the nature and weight of anticipated loads.

A site specific Job Hazards Analysis describing the steps involved in tower crane erection, jumping, dismantling and operation, the related hazards, and the controls to be implemented to mitigate these hazards. (Note-the JHA shall also address protection from fall hazards to the erection crews, and fall rescue.).

The sequence of jumping operation

Climbing schedule, in advance.

Rigging materials to be used

Weights of all crane components

Site Logistics plans including:

Crane swing radius plans, including plans to ensure multiple tower cranes on site will not strike each other.

Site plans showing ground storage space for each component, including truck positioning and off-loading activities as well as assembly area.

A description of the relationship of the crane to the building under construction, including minimum clearances between the tower, counter-weights, jibs, and any other relevant moving parts of the crane to parts of the building, including thrust-outs, cornices, window bays, and any other fixed points.

A description of the maximum permissible radius and load ratings for the configuration and the site location of the tower crane, and the building component weights to be lifted.

Description of the proximity of high voltage overhead powerlines to the operating radius of the tower crane, and tower electrical grounding methods.

Communication plans for ground-men, riggers and other crane operators and others on site.

Identification of each lift with respect to weight, the necessary mobile crane reach and rigging accessories required (refer to Safety Coordinator Crane Lift Plan). A scale on site to verify the weights of each component is recommended.

Counter-weight specifications if they are prepared on site.

Safety, proximity and redundancy systems and limit switches to be installed

Size of banners to be applied as ‘wind sails’, (Note- banners, signs or flags cannot be affixed to any mast or jib section, per manufacturer’s instructions.)

Location and type of wind measuring devices and manufacturers maximum recommended wind speeds for erection, climbing, dismantling, and operation.

Certifications, including:

Operators shall have current applicable state Hoisting license (or where no applicable state Hoisting license is issued) shall hold a current certification by NCCCO as a certified tower crane operator.

Riggers shall be qualified, and may be required to hold a current certification by NCCCO as a certified rigger.

Riggers who rig (connect) loads lifted by a tower crane shall be qualified to ANSI A10.42 , or hold a current certificate by NCCCO as a certified Rigger.

Signalpersons who provides hand or verbal signals to a tower crane operator shall be qualified and trained, or hold a current certificate by NCCCO as a certified Signalperson.

Written statement of each crane operator's experience and qualification to operate the type of tower crane utilized, shall be included with the copy of applicable state issued license or NCCCO certificate.

A certification issued by a state-licensed Crane Certifier and/or independent third party crane inspector for subject tower crane, current to within 1 year of the operation period of the crane on the project.

The manufacturer's erection sequence for counter-jib, jib, counter-weight machine deck, and tower spire and procedures for installation of jib and counter-jib support pendants.

The type and calibration of torque wrenches and/or belt-stretchers and the procedure to be used for all tower sections and slew-ring bolts, including re-torqueing after final assembly.

A procedure for written verification of all slew-ring and tower section bolt torques to be maintained at the worksite or on the crane.

Documentation of compliance with FAA and other state and local permits as applicable.

A plan stamped by a Registered Professional Engineer detailing the tower crane supports, such as foundation, railway, floor support and tie-in collars, as well as soil stability and bearing capacity, reinforced steel design, foundation tower anchor placement and concrete specifications.

Verification by the crane employer that during the time periods of erection, climbing and dismantling of the tower crane, a third party independent Tower Crane inspector will be present on site to assure that such processes and operations are performed in accordance with the manufacturer's recommendations and any applicable state and federal safety regulations.

Verification that the erection, dismantling, raising and lowering of the tower crane will be conducted in compliance with the manufacturer's recommendation for the specific crane.

Verification that, before each climb, the following have been performed:

Inspection of the load bearing members of the climbing and support system

Balancing the crane per the manufacturer's instructions

Inspection of the crane to determine that there are no obstructions to the free movement of the mast (tower).

Verification that no employees, other than those engaged in the erection, climbing or dismantling of the crane, are to be permitted in the area below the crane during erection, climbing and dismantling work. This 'exclusion zone' below the crane shall be that open area below the current activity where employees are exposed to potential hazards within the maximum radius of the crane measured from its base.

In addition, erection, climbing/jumping or dismantling shall be conducted off hours, or weekends-when no other workers, other than those engaged in the erection, climbing and dismantling of the crane, are present.

Further, only those workers actually engaged in erection, climbing or dismantling of the crane shall be allowed on the crane during the erection, climbing or dismantling processes. No other work shall be performed on the crane while these processes are taking place.

Inspections and Testing (including);

An inspection conducted by a state-licensed independent Tower Crane inspector for subject tower crane prior to erection, upon erection and every 3 months, or bi monthly in adverse conditions, and after lighting strikes or significant environmental events, and after tower erection or jump.

Capacity testing of tower crane after erection and climbing. This shall be performed with a known weight to ensure proper calibration, per manufacturer's instructions.

Proof Load testing in accordance with manufacturer's requirements within 12 months preceding the cranes arrival and use on site.

Visual, and functional motion tests or all systems and components by the third party tower Crane inspector in accordance with manufacturer's requirements. In addition, the inspection shall include, but not limited to: non-destructive testing and x-ray welds, visual inspection of boom lattice, turntable, bolts, pins, load blocks, weight ball, slings, hoist lines, limit switches,

counterweights, walking surfaces, braces and collars, etc.

Non-destructive inspection of all welds and magnaflux testing on all suspect welds.

Inspection responsibilities of supervisors, inspection intervals and what is to be inspected, i.e., a written crane inspection program.

A written crane maintenance and preventive maintenance program.

A written testing schedule (in accordance with manufacturers requirements and ASME B30.3) for functional motions, limiting devices and brakes, including, but not limited to: load hoisting and lowering, boom hoisting, lowering and traversing the trolley, swing motion, brakes and clutches, and limit, locking and safety devices.

Safety meeting intervals, who will conduct meetings and what general and specific topics will be discussed.

Safety Log. The General Contractor, or his or her designee, shall keep a log on site and available at all times of all safety coordination meetings held, inspection logs, certifications, engineering plans, work orders, manufacturers specifications, etc.

General – all provisions of 1926.14000 and 1926.1435 shall be complied with, unless stricter requirements are specified herein.