RIDER "S"
SAFETY ADDENDUM

June 2, 2016

TRADE: WATERMAIN RELOCATION

All work performed by this Subcontractor and its Sub-subcontractors of every tier will be in accordance with all federal, state, and local laws and regulations. This Subcontractor shall employ the most up to date and advance safety methods, means and devices to insure a safe work environment for its workers, its Sub-subcontractor workers, workers of other trades, adjacent structures, and the public whether or not specifically stated in the Contract Document. Notwithstanding anything to the contrary, the Subcontractor will be responsible for maintaining a safe work environment. If there is a conflict between this Rider, any federal, state or local laws and regulations and any other Contract Document, then the more stringent requirement shall govern for the scope of work.

This Subcontractor agrees that compliance with the provision of this Rider will be a condition to processing of payment requisitions.

A. GENERAL REQUIREMENTS APPLICABLE TO ALL TRADES

1. SAFETY PLANS

a. The "Tishman Construction Safety Guidelines" latest edition, are made part of the Contract. The Safety Guidelines are supplementary to all government rules, codes and regulations and do not negate, abrogate, alter, or otherwise change any provisions of these rules, codes and/or regulations. The safety guidelines are intended to supplement and enforce the individual program of each trade contractor and to coordinate the overall safety effort. Nothing contained in the Safety Guidelines shall relieve the Subcontractor of the sole and exclusive responsibility for safety in all phases of their work.

b. The Subcontractor is aware of the requirements of the Site Safety Plan and that there is a Site Superintendent and corporate Safety Representative employed by Tishman for the project and shall fully cooperate with same, and comply with the Site Superintendent's and/or Safety Representative's direction. Subcontractor will also comply with all requirements of the Owner's Safety Plan. The Subcontractor shall closely adhere to the General Contractor's Site Safety Requirements during all phases of its operations. The Subcontractor will conduct Project Safety Meetings with its own personnel on a regularly scheduled basis. The Subcontractor's foreman shall attend all Site Safety meetings. All of Subcontractor's personnel will be required to attend the Site Safety orientation meeting conducted by the Site Safety Manager or Superintendent. All costs associated with the foregoing are included in the Contract Price. In addition to the above, this Subcontractor shall provide its own Safety Program.

c. **Tool Box Safety Meetings (TBSM)**
The Subcontractor will conduct weekly Tool Box Safety Meetings on a regularly scheduled basis and New Employee Safety Orientations as required for its own personnel. The Subcontractor shall provide a written TBSM schedule to the General Contractor, within two (2) weeks of contract award. The General Contractor, at its option, shall be allowed to attend the TBSM. The Subcontractor shall keep copies of meeting minutes and attendance sheets of all TBSM and made available to the General Contractor upon request. All relative Material Safety Data Sheets (MSDS) will be discussed weekly at the TBSM.

d. **Daily Safety "Take 5 " Meetings**
Prior to the start of work a five minutes daily safety meeting will take place. The meeting will reiterate safety and the potential work hazard for the individual work assignment for the day. The competent person/foremen with support from the safety representative shall also perform a risk assessment and shall ensure that work crewmembers are provided with all necessary safety equipment, including adequate PPE. The meeting shall be immediately documented on the Tishman daily safety briefing form and readily available in the work area.

e. **Health and Safety Plan (HASP)**

The Subcontractor shall provide its own site-specific health and safety program (HASP), which is to be administered by this Subcontractor's competent person. The program shall be submitted prior to commencement of on-site work or initial progress payment will be withheld. The program shall address tasks to be completed on the project including describing the controls and safeguards to prevent injury or illness. This Subcontractor site-specific safety program must include a detail fall protection plan and a job hazard analysis for each construction activity. This Subcontractor must also provide documentation verifying fall protection training for its workers. Subcontractor's safety program shall be subject to audit and review by the General Contractor's Site Safety Manager or Superintendent. The Subcontractor shall revise the HASP as many times as projects conditions required at no additional cost.

f. **Accident/Near Miss Reporting**

All contractors must immediately notify TCC safety and/or staff of any accident, incident, and near miss regardless of severity. All contractors must cooperate with any TCC investigations resulting from an incident. All material/equipment involved in the incident must be considered evidence, and is not to be disturbed, removed or tampered with. Materials/equipment taken out of service will not be re-used unless authorized by TCC.

1. Contractor shall immediately notify Construction Manager's project superintendent, site safety manager or project manager immediately following any accidents or near misses at the site. When on duty, the on-site medical service provider must be notified immediately following and injury, regardless of severity. Failure to report or providing a late incident report may result in a $10,000 violation
2. Contractor shall submit a written accident report with photographs and witness statements to Construction Manager by the close of business on the day of the accident regardless of the severity of the injury. Personnel involved in any incident cannot leave the project until a written statement is provided. All related equipment shall be retained on site until released by TCC supervision.
3. Post Accident:
   If the incident requires off-site medical care, the worker must provide a return to work note completed by a certified medical professional. The return to work note must confirm any work restrictions, an approved return to work date and must be presented to the onsite medical service provider prior to resuming work. Failure to do so may result in project disciplinary action.

4. Contractors shall submit a summary of the monthly man hours worked by the end of the first week of the following month. The man hours shall be used measure the safety performance using the OSHA recordable and lost time rate. This data and trends will be reviewed at the safety meeting to preplan and prevent on-site incidents.

g. **Cooperation Clause**

The General Contractor shall comply with and cause subcontractors of all tiers to comply with specific documentation and post-loss investigation including:

1. Documentation, including individual sign off's for participation in orientation, task training, retraining, JHA's, daily safety briefings, tool box talks and all associated sign-in sheets
2. Documentation of mandatory and proper use of ladders, scaffolds, and fall protection equipment, including posting of the location of such equipment on the job site
3. Documenting and maintaining records of any individual's failure to comply with any rule or regulation regarding fall protection
4. In the event of an incident, General Contractor shall Preserve and control any equipment including PPE alleged to have contributed to the incident. Hold all equipment until it has been inspected and released by applicable insurance professional and take statements from the injured parties and all witnesses or assist in securing such statement
5. Take picture not only of the immediate area and the equipment involved in the incident, but also the area surrounding the location of the incident providing context to the site

6. Cooperate and cause the Trade Contractors with OCIP insurance carrier and their representatives in the investigation and defense of any claims or demands arising out of such incidents. Those that fail to cooperate will be subject to the site disciplinary policy including dismissal.
7. A revised JHA noting the corrective action is required for all serious incidents and incidents that may have affect the public. The JHA will reviewed and approved by the safety team and must be reviewed with the trade contractor workers.

h. Tool Tethering

Tools are required to be tethered for all work performed on the building perimeter and interior shafts. All exterior perimeter and shaft work requires an exclusion zone below the operation with the appropriate warning signs and barricade protecting persons at ground level. A detailed JHA is required for this work.

i. **Fall Protection**

The contractor shall furnish a written fall protection plan for their scope of work. It shall be the contractor's goal to achieve 100% fall protection at a height of 6'-0" (guardrails, safety nets, personal fall arrest systems, and a monitoring system) for their workers. ***Exception: The initial installation of the concrete formwork decking (ribs and plywood installation) and Ironworker will use an enhanced Subpart R for fall protection (PFA System, pre-installed fall protection on the columns and beams, Scaffold and Ariel lifts, etc.***

Contractor shall submit a letter on company letterhead to the Construction Manager confirming and certifying that all workers have been trained in regards to Project Fall Management Policies including, but not limited to, OSHA Subpart M, OSHA Subpart R, their project and task specific fall protection plan, proper selection and use of all provide fall protection equipment. An OSHA 10 hour card or the 4-hour scaffold user training card will NOT satisfy this requirement as it is not specific to the project. The names of all individuals being certified must be included with the letter and updated on a regular basis. The letter shall also include the content of the fall protection-training course, the course instructor's name and the date of training.

No trade or worker removes perimeter cable or netting without 48 hrs. prior notice to, and approval from, TCC. Anchor pts., fall restraint/protection, tool and material tethering, and a controlled access zone at breached area and below the operation must be shown to be in place prior to approval. Control/Exclusion access zone below the operation cannot be the primary or sole means of falling object protection. (JHA required). Installer must be trained; qualified and authorized, name(s) of installer must be submitted to TCC. Subcontractor shall maintain inspection log book of number, time and location of all engineered anchor points and person signed off prior to use.

Contractors must submit a shaft work request form 48 hrs. prior to, and receive approval from TCC superintendent. Before commencing any shaft work any work in shafts**.**

j. Global Harmonized System / Program (HAZCOM)

The Subcontractor is required by OSHA regulations to institute a hazard communication program, which is to be administered by this Subcontractor's competent person. Under the hazard communication program, the Contractor must inform both the General Contractor and all other Contractors on the site, of all hazardous materials being used by the Subcontractor. The Subcontractor shall provide the General Contractor with copies of Safety Data Sheets (SDS), which will warn other Subcontractors of the presence of any hazardous materials. The program shall be submitted prior to commencement of on-site work or initial progress payment will be withheld. The Subcontractor must insure that any hazardous materials are appropriately labeled and properly stored. Subcontractor shall maintain a job site inventory of hazardous materials.

k. **Fire Safety Plan**

This Subcontractor shall provide its own site-specific fire safety and evacuation plan in accordance with NFPA (National Fire Protection Association), latest edition that is to be administered by this Subcontractor's competent person. The program shall be submitted prior to commencement of on-site work or initial progress payment will be withheld. The plan shall include fire prevention measure specific to its work that include, but shall not be limited to, handling and storage of flammable materials, an evacuation plan**,** including a plan for accounting for all of the Subcontractor's workers post-evacuation, emergency action plan, list of work that requires a welding certificate or license, designation of fire safety coordinator and deputy fire safety coordinator, and monthly fire drills. Fire Safety will be made part of Tool Box Safety Meetings. The Subcontractors Fire Safety Plan must be incompliance with the General Contractor's Emergency Evacuation Plan.

1. All flame-producing tools and devices shall have an adequate fire protection, a fire watch, and a Hot Work Permit and meet the requirements of the NFPA, OSHA, and ANSI Fire Codes. All Subcontractors shall conduct a pre hot work inspection in accordance with NFPA, OSHA, and ANSI and secured a Hot Work permit for all torch operations from the Site Safety Manager/Superintendent prior to all torch use. The Subcontractor shall maintain a log of said documentation at the torch use location and provide a copy to the Site Safety Manager or Superintendent

2. The fire watch shall ensure the area of concern, is inspected prior, during and at the conclusion of the operation for any fire and/or smoldering material. Fire Watch must have fire protection readily available during all torch operations and inspected the immediate and surrounding areas a minimum 60 minutes after final operation.

3. Welding blankets must be used to protect adjacent equipment material and equipment. Special care should be taken when welding/cutting around pipe risers and in/next shaft ways to prevent slag from falling to the area below.

4. All welding platforms shall be enclosed with fire rated welding blankets to control welding slag

5. Fire extinguishers should be inspected regularly/prior to use and kept clean and accessible. Hoses, horns, and dispensing components should be checked for blockage. All fire extinguishers must be checked every 30 days and noted on the extinguishers inspection tag.

6. A fuel storage permit must be secured as per local jurisdiction requirements and in accordance with NFPA, OSHA, and ANSI standards.

l. **Emergency Action Plan**

This Subcontractor shall provide its own site specific emergency action plan that includes telephone numbers and cell numbers of the Subcontractor's Ownership, project manager, superintendent, key foreman and workers, subcontractors, site safety managers, and any other personnel deem essential by the General Contractor. The plan will outline procedures to be followed in an emergency by this Subcontractor's personnel. The program shall be submitted prior to commencement of on-site work or initial progress payment will be withheld.

m. **Protection of the Public and Property**:

The subcontractor shall not perform work in or near public areas without first obtaining required permits from designated public authorities, and unless permitted, in advance, by the CM. The contractor shall institute all necessary procedures and actions to eliminate any and all conditions/hazards which may have potential to cause injury to the public and property. The contractor shall implement, at a minimum, the following precautions when working or operating equipment in or near areas being used or occupied by the public.

1. Comply with DOT regulations.

2. The subcontractor shall install necessary barriers/barricades to restrict access to work areas.
3. Maintain adequate and visible overhead protection on sidewalk, entrances to building, building roofs, and vehicular roadways.
4. Signage: Adequate warnings, signs and instructional safety signs must be conspicuously posted and maintained in all public areas.
5. The subcontractor shall also ensure that certified, trained and equipped flaggers are in place to protect the public, as well as to, control to movements of motorized equipment entering and exiting the construction site, as well as in areas where the public might be endangered.
6. The Subcontractor shall be responsible for compliance with local, federal noise and dust regulations and shall submit a noise and dust mitigation plan to the CM.

n. **Limited Ladder:**
A limited ladder permit will be use for all TCC projects. The contractor's competent person must assess the use of other alternatives and safe means such as a scissor/aerial lift, scaffold and work platforms to safely complete the task at hand. If it's determined such equipment cannot be utilized, is infeasible and/or will cause a greater hazard a Ladder permit will be required/issued. 100% fall protection is required when working off a portable ladder.

2. SUBCONTRACTOR'S PERSONNEL

a. This Subcontractor shall designate a competent person from its employ to execute all aspects of the Subcontractor's Safety plan and to act as a Subcontractor Safety Manager anytime the Subcontractor is performing work. The competent person must be designated in writing on a company letterhead. All competent persons and foremen must have knowledge and authority to ensure safety compliance of workers under their supervision. The foreman and competent person failure to inspect work areas under their supervision and address negative safety practices which are observed and/or directed by management, can be held accountable and could lead to dismissal. When the contractor's workforce is greater than 50 persons on-site, the contractors designated safety representative shall be full-time on-site with no other duties other than safety. (This position is separate from the concrete safety manager). All foremen will attend a quarterly safety meeting to review safety look ahead, performance and concerns. The Subcontractor competent person shall have satisfactory completed a minimum of 30 hour OSHA safety course from an approved program. No work shall occur unless the Subcontractor's competent person is on site. The Subcontractor competent person shall fully cooperate and comply with the Site Safety Manager or Superintendent and provide a daily report to the Site Safety Manager.

b. The contractor shall identify the company's Safety Director/Manager on a company letterhead. The letter must include Safety Director name, phone number and email address

c.
This Subcontractor shall participate in the use of our LifeGuard safety observation system. Access to the system shall be provided to each designated subcontractor's project manager. It will be the responsibility of the noted to close all safety observations under their areas of responsibility. Observations will be addressed in a timely matter and in association with the determined risk. There will be no cost to the subcontractor for using this safety observation system however training can and will be provided as need or requested.

b. All new hire construction workers must complete a one-hour on-site project orientation prior to being allowed to work. The topics covered in the site specific safety orientation shall be the 1st warning for safety infractions. Monetary violations can be issued for non-compliance. The Subcontractor shall provide written documentation as part of the requisition process. The Subcontractor agrees that it is the sole responsibility of this Subcontractor to provide competent and trained individuals. Any person that fails to comply with the provisions of this Safety Rider shall be immediately removed from the project at no cost to the General Contractor.

c. Prior to the start of each pre-scheduled major construction activity, this Subcontractor's Safety Manager will conduct pre-task meetings for this Subcontractor's Personnel to review all work that is schedule to be performed and discuss safe practices to be utilized. A sign-in sheet and list of items discuss must be kept by the Subcontractor and made available to the General Contractor upon

request. Failure to comply with this requirement will result in the Subcontractor being directed to stop work until the daily pre-task meeting has been conducted. A full time Fire Safety Manager shall be employed where local jurisdiction dictates to administer the contractor's safety program and local jurisdiction requirements.

d. The Trade Contractor shall utilize means and methods during the execution of its work that shall not result in the creation of hazardous conditions which pose a threat of injury to others or a risk of damage to property, including the property of owner, Contractor and other subcontractors. The Trade Contractor shall continuously review and inspect its means and methods to ensure such hazardous conditions are avoided. The Trade Contractor will advise TCC immediately of any unsafe conditions resulting from other Trade Contractor's work.

e. The Owner and General Contractor have adopted a zero tolerance policy (Policy) with regard to the use of alcohol and illegal drugs, and sexual harassment on the Project. It is the responsibility of this Subcontractor to institute a Drug & Alcohol and Sexual Harassment Program for it's on site employees, a copy of which is to be provided to the General Contractor. Drug and Alcohol (including beer) use on the site or during off-site meal and coffee breaks, will not be tolerated. Any on site employee who is found to be under the influence of or ingesting Drugs or Alcohol (including beer) either on site or off-site during meal and coffee breaks must be immediately removed from the site. Any worker found sexually harassing any other worker or staff will be removed from the site. Where required by code, smoking is strictly prohibited as per local fire code.

ZERO TOLERANCE / Disciplinary actions:

Grounds for Removal/SUSPENSION: Any individual of a contractor or Subcontractor found to be violating, TCC safety rules, policies or procedures as defined in the Construction Safety Manual, is subject to immediate removal from the job site. Disciplinary policies must be included in the Contractor's Safety plan to address violations.

(1) Continued Violations/repeated offenders. Any foreman who has been documented as having repeatedly violated the safety regulations, can be suspended or removed or for a failure to properly supervise workers under his/her control.

(2) Drugs and Alcohol. No employee shall possess, use, or be under the influence of drugs or alcohol while on the construction project.

(3) Discrimination and Harassment of any kind are prohibited in the workplace., including sexual harassment, by any employee and by third parties, such as subcontractors, vendors, or visitors.

Discrimination or harassment may include unwelcome or unsolicited speech or conduct based upon race, sex, pregnancy, age, ancestry, military or veteran status, color, religion, religious creed, disability, marital status, medical condition, genetic information, national origin, gender, gender identity, gender expression, sexual orientation or any other characteristic protected by federal, state, or local law.

(4) Egregious violation of any safety policy will result in a $10,000 violations and possible removal from the project

(4) Fall protection. Egregious disregard for TCC fall protection safety rules, Violators will be removed from the job site.

TCC will remove any employee or direct contractors to remove any piece of equipment deemed to be unsafe from the construction site. TCC will also remove direct contractors to replace the Contractor's Safety representative, foreman and or other contract personnel for nonperformance of his or her safety duties. Records will maintained of observations and findings generated from TCC safety and stakeholders walk through. Additionally, TCC safety team and project senior management will conduct monthly management review of current disciplinary log, monetary fines, Incidents and infractions: Continued violations by individual contractor, TCC Senior project management team will discussion and meeting with the principles of respective companies that found to repeated violators of the projects safety policy.

• First offense will be categorize relative to the non-egregious nature of the offense as warnings and violations (i.e., rigging, fall, slip & trip, PPE, failure to wear PPE, etc.): respective contractor will required to retrain the particular worker and foreman.

• 2nd finding of any type results in fine to contractor.

• Egregious acts (fall protection, smoking, and fall object) are treated with maximum force termination).

f. Weapons of any kind, whether or not permitted by law, are not allowed on the project site. Any on site employee found with weapons must be immediately removed from the site.

g. All of the Subcontractor's workers, and Sub-subcontractor's workers of every tier, shall be issued and required to wear ANSI approved and Subcontractor's HASP required safety devices that are to include, but are not limited to:

1. Hard Hats. All personnel will be required to comply with the General Contractor's hardhat sticker program evidencing such participation in the site safety orientation meeting and commitment to the General Contractor's safety program. Failure to wear a hardhat with the safety sticker shall because for removal of employee from the project site.
2. Body Harnesses with fall arrestor systems when a 6'-0" change in elevation exists. This includes all persons working on suspended scaffolds, rolling scaffolds, fixed scaffold systems, hydraulic lifts, or any work situation that presents a fall hazard.
3. Eye Protection
4. Hearing Protection in any work situation that presents a sound hazard.
5 Safety shoes
6. Long pants and sleeved shirts.
7. Reflective safety vest when work occurs with heavy equipment, such as but not limited to, demolition, excavation, foundations, structural work, rigging and hoist, and any other operations that may warrant the need for this safety device.
8. No cell phones, portable media devices, radios, or other devices that limit hearing and attention shall be used while working on site.

3. SUBCONTRACTOR'S EQUIPMENT (OTHER THAN CRANES AND HOISTS)

All equipment provided by this Subcontractor shall be new or like new condition. It is this Subcontractor's responsibility to develop and implement a written preventative maintenance, safety, and reconditioning program for all its equipment whether it is rented or owned. All diesel burning equipment shall comply with U.S. EPA tier III emission standards. Prior to any equipment with engines larger than 100 hp being delivered to the project, this Subcontractor shall furnish written certification from a 3rd party inspection agency paid for by this Subcontractor to confirm this Subcontractor's equipment is operating in accordance with parameters established by the manufacturer of the equipment. Certification from a 3rd party inspection agency is not required for hand tools or equipment with engines less than 100 hp.

a. The Subcontractor shall ensure that operators of heavy equipment, including cranes, loaders, hoisting devices, forklifts are qualified, trained, and licensed when applicable, and authorized to use and operate that specific piece of equipment. All motorized, powered, and electrical tools and equipment must be inspected prior to use. Operators of these equipment's must be trained and authorized to use that that specific piece of equipment. Fork Lifts must be operated and used as per manufacturer's recommendations. Forklifts shall not be used as hoisting devices.
b. No work shall be conducted when in close proximity (potential to come within 15 feet) and/or under or above equipment (regardless of distance). Equipment may include, but not be limited to, cranes, hoists, aerial lifts, heavy equipment, energized equipment, etc. When work in those areas must be conducted, Tishman must be given 24-hour notification and specific written procedures must be in place including a JHA. Procedures shall include spotters, warning systems and a lock out/tag out program to ensure all equipment is de-energized accordingly, prior to work, as required.

4. SUBCONTRACTOR'S CRANES AND HOISTING EQUIPMENT

a. If the work of this Subcontractor requires cranes or hoisting equipment, this Subcontractor shall provide state of the art, new or like new condition, equipment that meets or exceeds current regulatory standards and that is capable of providing the intended services on the project. It is this Subcontractor's responsibility to develop and implement a reconditioning and preventative maintenance program for all its equipment whether or not rented or owned. Records of maintenance and inspection shall be kept by this Subcontractor and copies shall be made available to the General Contractor. All diesel burning equipment shall comply with U.S. EPA tier III emission standards.

1. Mobile cranes provided by this Subcontractor will be less than 20 years old unless they have been certified by a corporate officer or chief engineer from the manufacture**r** as being reconditioned to like new condition.
2. Tower cranes, including tower sections and booms, provided by this Subcontractor will be less than 10 years old unless they have been certified by a corporate officer or chief engineer from the manufacture**r** as being reconditioned to like new condition. In no case shall tower cranes, tower sections, and booms be over 20 years old.
3. Other hoisting equipment provided by this Subcontractor such as derricks, trolley beams, and any roped hoisting device whether mechanically or hand operated that is capable of lifting greater than 3 tons will be less than 20 years old unless they have been certified by a corporate officer or chief engineer from the manufacture**r** as being reconditioned to like new condition.
4. Personnel and Material Hoist, including mast and rack sections, back structures, scaffolding and all other structural components provide by this Subcontractor will be less than 5 years old unless they have been certified by a corporate officer or chief engineer from the manufacture**r** as being reconditioned to like new condition. In no case shall mast and rack sections, back structures, scaffolding and all other structural components be over 10 years old.

b. **Written Program**

This Subcontractor shall prepare and submit a written crane and hoisting equipment safety program which is to include suitable testing of critical components to the General Contractor and a written rigging program a minimum of two weeks prior to the mobile crane and a minimum of four weeks prior to tower crane or other hoisting equipment arriving on site. The program shall also include a schedule of daily, weekly, monthly and other periodic inspections to be performed in accordance with the manufacturer's specifications and ASME B30.5 for mobile cranes or ASME B30.3 for tower crane.

c. **Drawings**

The Subcontractor shall retain the services of a Professional Engineer licensed to practice in the State where the project site is located to design the installation of the crane and hoisting equipment. Signed and sealed drawings from the licensed engineer to be furnished to the General Contractor. As required by state or local law, drawings and calculations shall be approved by the local jurisdiction.

d. **Equipment Foundations**

The Subcontractor shall provide an inspection of the existing foundation by the Professional Engineer hired to design the equipment. The Engineer shall inspect the existing foundations design and certify in writing that the foundation is sufficient for the tower crane being used for this project. A copy of this certification shall be submitted to the General Contractor.

e. **Surveys**

The Contractor shall retain a surveyor to monitor hoist tower, hoist back structures, scaffolding alignments, crane tower and crane tie backs as follows:

1. Initial survey of existing foundation
2. Baseline survey after initial installation.
3. Bi-weekly (Twice a Month) inspections.
4. After each jump or modification.

All surveys shall be forwarded to the Subcontractor's Engineer of Record for review and approval. The General Contractor shall receive surveys for information only. All surveys shall be distributed within (2) two workdays after readings are taken.

f. **Operators**

All operators shall be licensed or certified to operate cranes as required by the federal, state or local jurisdiction. If there is no federal, state or local licensing requirement, the operator shall be certified by the National Commission for the Certification of Crane Operators (NCCCO).

g. **Pre-task Meetings for Tower Cranes**

Safety coordination meeting within 24 hours prior to tower crane erecting, jumping and dismantling to include Tishman supervisory and safety personnel, contractor's field and supervisory and Crane Safety Coordinator, Subcontractor's Crane Engineer, Subcontractor's Licensed Master Rigger or Tower Crane Rigger or where no such requirement exists the equivalent competent person, Subcontractor's crane operator and oilier, and all involved with same determined to be involved with crane operations. A sign-in sheet and meeting minutes shall submitted to the General Contractor.

h. **Inspections**

1. **Prior to delivery to site:**
   a. This Subcontractor shall provide to the General Contractor from the crane and hoisting equipment owner a letter certifying that the crane and hoisting equipment has been periodically inspected in accordance with ANSI 10.4 for personnel hoists, ANSI 10.5 for material hoists, ASME B30.3 for tower cranes or ASME B30.5 for mobile cranes and that the crane and hoisting equipment is fully functioning in accordance with the manufacturer's operators and maintenance manuals and the above national standards, OSHA standards and all local jurisdictional requirements. The Subcontractor shall also provide a record of any maintenance performed on the crane as a result of the inspection.
   b. The Subcontractor shall provide access to the crane and hoisting equipment prior to delivery to site for a 3rd party inspector hired by the General Contractor or Owner.

2. **Prior to operation:**

   This Subcontractor shall retain the services of a crane inspector licensed to practice in the State where the project site is located or the crane manufacturer's designated representative to perform an inspection prior to the operation of the crane and hoisting equipment and provide written certification that all equipment has been installed in accordance with the signed and sealed drawings.

3. This Subcontractor shall designate a competent individual under its direct employ as the Crane Safety or Hoist Coordinator responsible to both document that all the required safety and maintenance checks have been made and that safety rules are followed in the erection, operation, and dismantling of cranes and hoisting equipment. Records and logs of all required safety and maintenance checks will be maintained on site by this Contractor's Crane Safety or Hoist Coordinator.

4. **Daily/Weekly Crane Inspections**
   a. The Subcontractor's crane operator or oiler shall conduct a daily inspection and weekly inspection in accordance with the manufacturer's specifications and ASME B30.3 – Tower Cranes or ASME B30.5 – Mobile Cranes prior to the operation of the crane.
   b. Inspections shall be recorded in a daily log. The operator or oiler shall print their name and sign the log with each entry. Copies of the log shall be maintained by this Subcontractor's Crane Safety Coordinator and is to be submitted to the General Contractor on a weekly basis.

      <u>Certified Crane Inspector</u>

      The Subcontractor shall retain the services of a crane inspector certified by the crane manufacturer or approved training program to perform the following inspections and provide written certification that all lifting equipment has been installed and maintained as required.

      a. At initial installation, the crane inspector shall perform the following:

i. Visual inspection of welds and bolts. Additional visual inspection of the cathead or turntable assembly to look for unusual wear, cracks, fissures, bolt fatigue.
ii. Testing of torque on bolts
iii. Visual inspection of all boom, jib and mast sections for damage
iv. Installation in accordance with design documents and manufacturer's recommendations.
v. Initial inspection in accordance with manufacturer's recommendations
vi. Wire rope inspection in accordance with OSHA and manufacturer's recommendations
vii. Verify all controls, safety devices and operator's aids are functioning properly.

b. Bi-monthly inspection performed by the crane inspector shall include:
i. Visual inspection of welds and bolts. Additional visual inspection of the cathead or turntable assembly to look for unusual wear, cracks, fissures, bolt fatigue.
ii. Testing of torque on bolts
iii. Visual inspection of all boom, jib and mast sections for damage
iv. Monthly inspection items in accordance with manufacturer's recommendations
v. Wire rope inspection in accordance with OSHA and manufacturer's recommendations
vi. Verify all controls, safety devices and operator's aids are functioning properly.

c. After each equipment jump, either up or down, the crane inspector shall inspect the following:
i. Visual inspection of welds and bolts. Additional visual inspection of the cathead or turntable assembly to look for unusual wear, cracks, fissures, bolt fatigue.
ii. Testing of torque on bolts
iii. Visual inspection of all boom, jib and mast sections for damage
iv. Monthly inspection items in accordance with manufacturer's recommendations
v. Wire rope inspection in accordance with OSHA and manufacturer's recommendations
vi. Verify all controls, safety devices and operator's aids are functioning properly.

d. After modifications or repairs to the equipment, the crane inspector shall inspect the following:
i. Modifications or repairs are in accordance with the manufacturer's specifications
ii. All controls, safety devices and operator's aide are functioning properly.

5. The General Contractor may, at its sole discretion, retain and pay for crane inspection and hoisting inspection agencies. This Subcontractor shall cooperate fully with the personnel of such inspection agencies and this Subcontractor shall provide at no additional cost to the General Contractor, manpower, drawings, facilities, scaffolds, properly calibrated torque wrenches, etc., to reasonably assist the inspection agency personnel in their execution of their inspection of this Subcontractor's equipment on-site or off-site.

Minimum inspections shall include but not be limited to:
1. Unassembled inspection prior to delivery to the site
2. Assembled Inspection
3. Quarterly inspection (every 3 months) until the equipment is removed from site

Inspections by the General Contractor's crane inspection and hoisting inspection agencies in no way relieve this Subcontractor of its responsibility to perform its

Contract Work and provide properly operating and maintained equipment. The General Contractor's inspection reports shall not be used by the Subcontractor to satisfy any federal, state or locally mandated inspections. The General Contractor will provide copies of any inspections performed to this Subcontractor who will suspend operation of equipment deemed unsafe by the General Contractor's inspection agencies until repairs are made and certified by this Subcontractor. Any equipment that cannot be repaired within one week shall be removed from the project. All cost for the repair, removal, and replacement of this Subcontractor's equipment for any reason are included in the Contract Price.

i. **Use of Personnel and Material Hoists**

1. Any alterations, including the removal of braces and ties, to the hoist, runback structure or common platform shall not allowed unless performed by the Hoisting Contractor under the direction of the General Contractor. The Hoisting Contractor shall only modify the hoist, runback structure or common platform if the modification has been approved in writing by the licensed engineer responsible for the original design.
2. The Subcontractor shall not overload the hoist, runback structure or common platform. Equipment, material and debris shall not be left unattended on the runback structure or common platform.
3. Door interlocks shall not be disabled.
4. Cars shall not be operated with open doors.

5. OTHER CONTRACTOR'S EQUIPMENT

a. **Types of Equipment:**

This section shall apply this Subcontractor's Equipment used on site. Types of equipment include but are not limited to:

1. Curtain wall crabs
2. Monorail systems
3. Suspended scaffolds
4. Supported scaffolds
5. Work platforms
6. Trolley beams

b. **Peer Review:**

The General Contractor may, at its sole discretion, retain and pay for peer review and inspection agencies for equipment used by the Subcontractor. This Subcontractor shall fully cooperate with the personnel of such peer review agencies and this Subcontractor shall provide at no additional cost to the General Contractor signed and sealed copies of all equipment drawings, signed and sealed copy of all calculations, manufacturer's specifications and operators manual (if applicable) and any other design documents requested by the peer review agency. This Subcontractor shall provide responses at no additional charge to any comments from the peer review agency until the General Contractor is satisfied. If a deficiency in design is found as a result of the peer review, this Subcontractor shall provide at no additional charge any required modifications or replacements to the equipment. The peer review shall be completed and the General Contractor satisfied prior to any delivery or set-up of the equipment on the site. Peer review by the General Contractor's agencies in no way relieves this Subcontractor of its responsibility to perform its Contract Work and provide properly operating and maintained equipment.

c. **Inspection:**

This Subcontractor shall cooperate fully with the personnel of such inspection agencies and this Subcontractor shall provide at no additional cost to the General Contractor, manpower, drawings, facilities, scaffolds, properly calibrated torque wrenches, etc., to reasonably assist the inspection agency personnel in their execution of their inspection of this Subcontractor's equipment on-site or off-site. Inspections, at a minimum, shall occur after assembly of the equipment on the site and every month until the equipment is removed from the site. An inspection by the General Contractor's inspection agencies in no way relieves this Subcontractor of its responsibility to perform its Contract Work and provide properly operating and maintained equipment. The General Contractor's inspection reports shall not be used by the Subcontractor to satisfy any federal, state or locally mandated inspections. The General Contractor will provide copies of any inspections performed to this

Subcontractor who will suspend operation of equipment deemed unsafe by the General Contractor's inspection agencies until repairs are made and certified by this Subcontractor. Any equipment that cannot be repaired within one week shall be removed from the project. All cost for the repair, removal, and replacement of this Subcontractor's equipment for any reason are included in the Contract Price.

6. RIGGING

a. This Subcontractor shall employ a Licensed Master Rigger or where no such licensure exists in the project's jurisdiction, the equivalent competent person to develop a written Rigging "Method of Procedure" (MOP) for the lifting and hoisting of all its material and equipment. All Rigging MOP's shall be in accordance with local, state, and federal regulations and ASME B30.9. Rigging MOP's are to be submitted to the General Contractor a minimum of four weeks prior to the rigging of any material or equipment. Any modification or adjustment to the Subcontractor's rigging MOP required by the General Contractor or any governmental agency are included in the Contract Price. The Rigging MOP will include the following items:

1. Name and documentation of training and certification of Licensed Master Rigger, designated foreman or where no such licensure exists, the equivalent competent person who will be present to supervise the pick(s)
2. A separate storage area for all rigging where this Subcontractor's workers can sign out the rigging daily or as needed. This Subcontractor is responsible for the proper storage of rigging, inspect rigging before and after each use, and identify the user and its location.
3. All parties involved with the rigging operation must be trained on the safe operation/use of rigging in accordance to the applicable codes and standards
4. A rigging foreman shall be present for all rigging operation at its point of operation
5. Provide the inspection criteria for the rigging (guidelines).
6. Lift plan for all picks which shall include but is not limited to plan drawings indicating control access zones for workers and public and details of the rigging showing make, model, and size of slings and hardware and allowable capacities.
7. Designate pick areas. Pick areas to be marked by paint, cones, stakes or other means to physically mark pick location on the ground.
8. Complete a Job Hazard Analysis that corresponds to the Rigging MOP.
9. All crane pick zones must be designated by a hard barricade and manned by a monitor& flag person during crane picks.

b. The Licensed Master Rigger or where no such licensure exists in the project's jurisdiction, the equivalent competent person employed by this Subcontractor shall supervise on-site all critical picks. Critical picks are rigging operations involving loads that:

1. Are at or above 95% of the manufacturer's or regulatory agency approved, whichever is more sever, load chart or rigging equipment.
2. Require multiple cranes or derricks (tandem picks).
3. Are asymmetrical and are not supplied with standard lifting ears.
4. Are fragile or of thin shell construction and are not supplied with standard lifting ears.
5. Have a wind sail area exceeding 500 square feet.
6. May present a problem because of clearance, drift, or other interference.
7. Require out of the ordinary rigging equipment, methods or setup.
8. Require rigging practices not given in ASME B30.9.

c. Rigging components will be in new or like new conditions in compliance with the Subcontractor's Rigging MOP and the following restrictions:

1. Rigging components must be from Unites States, Canada, or European Union sources. No other sources will be allowed.
2. Steel components greater in age than 2 years will not be used.
3. Hoisting cables shall be at least ½ inch diameter plow steel grade
4. Synthetic Slings must be new. Synthetic Slings greater than 6 months old will not be used.
5. Slings in contact with edges, corners, or protrusions should be protected with a softener.
6. Nylon slings shall not to be used in crane erection, jumping, or dismantling.
7. Shall meet all the inspection, removal and repair requirements of ASME B30.9.

d. **Inspections**

In accordance with OSHA 29 CFR 1910.184 and ASME B30.9, this Subcontractor's Rigging MOP will include the inspection of all rigging equipment, tools, materials, or accessories used for the purpose of hoisting, lifting, or handling materials or machinery prior to the use of such equipment and during use, as necessary, to ensure that it is safe. Any defective item(s) found are to be removed from service and the project site. This Subcontractor will perform the following inspection under the supervision of this Contractor's Licensed Master Rigger or where no such requirement exists, the equivalent competent person:

1. All rigging (wire ropes, synthetic webbing and ropes, nylon web slings) must be inspected prior to use ON EACH SHIFT AND AS NECESSARY. Rigging shall not be loaded in excess of its recommended safe workload. The rigger and/or the competent person shall perform a detailed physical rigging inspection prior to its use and when scheduled as per the applicable standards.
2. Wire Ropes shall be inspected for damaged lines (kinked, crushed, birdcage or knotted), broken wires, heat damage, deformation, excess wear, cracks, and corrosions.
3. Synthetic Slings shall be inspected for damaged, heat damage, deformation, excess wear, broken or cut fibers, distortion of hardware, discoloration or rotting, cracks, and corrosions.
4. All slings shall be marked or coded in accordance with ASME B30.9 – Slings to show:
    i. Name or trademark of the manufacturer.
    ii. Rated capacities for the type of hitch.
    iii. Type of material.
5. Hooks to be inspected for cracks and twisting, wear or deformation, size of hook throat, properly operating safety latches in accordance with ASME 30.10 - Hooks.

e. The Subcontractor shall provide storage for all rigging where they will not be subjected to mechanical, chemical or ultraviolet damage or extreme temperatures in accordance with ASME B30.9. All costs for storage of slings shall be included in the Contract Price.

f. The Subcontractor shall include all costs required to provide all necessary protection, flagman, etc., to control vehicular and pedestrian traffic during all its delivery and hoisting operations.

g. In accordance with the OSHA standards and local governing agencies, any items hoisted or lowered outside an occupied building, including but not limited to hanging scaffolds, crane picks, and derrick picks, shall be supervised by a licensed rigger and the rigging crew/scaffold operators shall be trained in accordance with the code.

7. SCAFFOLD

a. **Suspended Scaffolds**

1. Chains shall not be used to suspend scaffolds.
2. All of the Subcontractor's workers using the suspended scaffold shall be trained in the rigging, proper use of the equipment, and fall hazards. All workers shall be trained in accordance with all OSHA and local jurisdiction requirements.
3. The Subcontractor shall retain a Professional Engineer licensed to practice in the State the where the project site is located to design the installation of the suspended scaffold. Signed and sealed drawings from the licensed engineer shall be furnished to the General Contractor.
4. A Licensed Master or Special Rigger or where no such requirements exists, the equivalent competent person shall certify the installation is in accordance with the signed and sealed drawings. The written certification shall be furnished to the General Contractor.
5. A Competent Person designated by the Licensed Master or Special Rigger or where no such requirements exists, the equivalent competent person shall inspect all suspended scaffolds, rigging and anchorage daily prior to use. A log of such inspections shall be maintained and a copy shall be submitted to the General Contractor weekly.

b. **Supported Scaffolds**

1. All of the Subcontractor's workers erecting, modifying or dismantling a supported scaffold shall be trained. All workers shall be trained in accordance with all OSHA and local jurisdiction requirements.
2. All of the Subcontractor's workers using a supported scaffold shall be trained. All workers shall be trained in accordance with all OSHA and local jurisdiction requirements including electrical hazards, fall and falling object hazards, material handling on scaffolds, and the maximum loading of scaffolds.
3. The Subcontractor shall retain a Professional Engineer licensed to practice in the State the where the project site is located to design the installation of the supported scaffold. Signed and sealed drawings from the licensed engineer shall be furnished to the General Contractor.
4. A Competent Person shall certify the installation is in accordance with the signed and sealed drawings prior to use of the scaffold. The written certification shall be furnished to the General Contractor.
5. A Competent Person designated by the Subcontractor shall inspect all supported and anchorage daily prior to use. A log of such inspections shall be maintained and a copy shall be submitted to the General Contractor weekly.

8. HOUSEKEEPING

a. This Subcontractor will develop a written project specific housekeeping program for its work to be submitted to the General Contractor a minimum of 4 weeks prior to mobilization on site. The Subcontractor's housekeeping program will include the following items:

1. At the direction of the General Contractor, this Subcontractor's debris will be center piled or placed in containers provided by the Subcontractor. The transportation of debris off the work floors will be by the Subcontractor.
2. Procedures for stockpiling and removing oversized debris that is defined as any item that cannot be lifted by an individual. This Subcontractor's oversized debris will be transported down to the ground and legally disposed of off-site by this Subcontractor as part of the Contract Price
3. Storage of material will not be allowed within 15'-0" from either an open perimeter of the building or interior floor opening. (Storage is permitted after installation of wall systems)
4. In no case will material be allowed to cantilever over the perimeter edge of the building.

b. Equipment, debris and other material shall not be stored on top of the sidewalk shed unless approved by the General Contractor. In no case shall equipment, debris or other material be stacked higher than the top of the parapet or in a manner that exceeds designed storage capacity of the shed as dictated by the Building Code.

c. Materials shall be stored and/or stacked in a way to prevent tipping or secured appropriately. Materials shall not be left in access/egress routes.

d. The Subcontractor shall not store any equipment, debris or other material on the common platform or runback structure.

9. WIND PLAN

When the work of this Subcontractor occurs in an area of the project subject to wind, this Subcontractor will develop a wind plan to insure material does not become airborne. The plan shall include procedures for stabilizing the Subcontractor's materials during times of inclement weather such as thunderstorms. The Subcontractor shall designate a competent person to monitor weather reports and communications from the local and national (NOAA *National Oceanic and Atmospheric Administration*) weather service when high wind conditions are forecasted. The wind plan will be submitted to the General Contractor 4 weeks prior to mobilization on site and be made part of this Subcontractor's overall site-specific safety plan

10. SAFETY FINES

a. Failure to comply with the safety requirements of the project may result, at the discretion of the General Contractor, in the following amounts being deducted from the Contract Price for each specific non-compliance with a provision of the Safety Program:

Non-Serious – Initial, isolated, or rare instances of violations, which do not result in danger to the employee, property, or others, should be corrected through non-disciplinary discussion and instruction. Safety violations of less serious nature will be handled as follows:

1. First Offense: Warning – no monetary deduct. The safety orientation will constitute the warning
2. Second Offense: $500
3. Third Offense: $1,000.00 and request for removal for the day
4. Further Offenses: $2,000.00 for each additional offense and the Employee/Contractor discharged from the project

Serious – One that could result in serious injury or loss or loss of life or serious loss of property shall be subject to:

1. First Offense: Employee and contractor given suspension and fine
2. Second Offense: Employee/Contractor discharged from the project

Deductions shall be non-cumulative for violation of multiple provisions of the site safety program and fines issued by government agencies. There will be zero tolerance for drug or alcohol use, sexual harassment, smoking (where prohibited) and fighting on site. Violation of either offense will result in immediate dismissal.

b. The Subcontractor agrees requisition payments are conditional on this Subcontractor preparing and implementing the safety plans required for this project.

c. Any damages to the Owner or General Contractor due to the failure of this Subcontractor or its workers to comply with project safety programs will be deducted from the Contract Price.

d. The General Contractor reserves the rights to stop all work if the Subcontractor is found to be working in an unsafe manner and/or in violation of OSHA or local jurisdictional laws. All costs related to the work stoppage will be borne by this Subcontractor.

11. On-Site Risk Analysis

a. **Pre-Plan Meeting**

A principle of the Subcontractor and the Subcontractor's Project Manager shall attend a Pre-Plan Meeting to be scheduled by the General Contractor. The Pre-Plan Meeting shall be held 30-14 days prior to the commencement of work to discuss the scope of work, associated hazards, required permits and training, and hazard abatement. A schedule of anticipated dates for high hazard tasks should be noted and target dates for Job Hazard Analysis and Pre-Task Meeting should be identified by the Subcontractor.

b. **Job Hazard Analysis (Job Safety Analysis)**

A written Job Hazard Analysis (JHA) shall be prepared by the Subcontractor and submitted to the General Contractor two weeks prior to the commencement of any/each high hazard task. High hazard tasks include but are not limited to crane installation/jump/disassembly, hoist installation/jump/disassembly, critical pick with crane, major utility tie-in, any work on the exterior of the building that could impact the public. The Job Hazard Analysis shall identify each step of the task, identify all hazards associated with the step, and determine how to control the hazards.

Job Hazard Analysis must be performed:

- On all major construction activities and work that may present a risk to the public
- On tasks or procedures which field management or Tishman Safety Manager believe may pose uncontrolled hazards
- On tasks or procedures that have a history of resulting in personal injury or property damage and when new machines and potentially hazardous materials which can result in incident, injury and/or property damage.

- A JHA shall be created for all new operations created by changes in equipment and/or site condition, potentially hazardous materials or processes obviously have no history of accidents, but their accident potential should be fully appreciated. Analysis should not be delayed until an accident or "near miss" occurs. Jobs/tasks that are performed infrequently require additional effort to identify, control and eliminate hazards in order to minimize accident potential.

Pre-job instruction, JHA review addressing the points listed on the Job Hazard Analysis will serve as training for employees who are associated with that specific task. The subcontractor shall review the hazards associated in performing the task and the proper procedure to be used to avoid these hazards. Job Hazard Analysis shall also serve as an accident investigation tool. If an accident occur involving a task for which a Job Hazard Analysis has been performed, the JHA should be reviewed to determine if proper procedures were followed, if workers received adequate training or if the procedures should be revised.

c. **Pre-Task Meeting**
The Subcontractor shall conduct a Pre-Task Meeting. The General Contractor's, Superintendent or Safety Representative, the Subcontractor's Project Manager and all Subcontractor employees involved in the task shall be in attendance. The Job Hazard Analysis for the task shall be reviewed and the Subcontractor shall keep a log of attendees and shall include the signatures of all attendees. The Subcontractor shall submit a copy of the log to the General Contractor.

B. ADDITIONAL REQUIREMENTS FOR DEMOLITION CONTRACTOR

1. This Contractor shall employ a fulltime competent person with a 30-hour OSHA to implement this Contractor's safety program.

2. An engineer report shall be conducted and of the structure to determined the condition of the walls, floors, and ceiling and the possibility of unplanned collapse.

3. The Demolition Contractor will provide at its own cost a daily inspection of all demolition operations by a license professional engineer to insure that they comply with approved demolition methods, that structural stability is maintained, that the fire standpipe and sprinklers on floors not being demolished and remain operational, and that there is an elevator in readiness for emergency use, all of which is in accordance with applicable governmental regulations.

4. This Contractor will develop a written project specific Fire Standpipe Program for its work to be the submitted to the General Contractor 4 weeks prior to mobilization on site. This program will detail measures to be taken to insure the standpipe is one floor below the demolition operations and can be utilized for firefighting.

5. This Contractor shall file for permits with the Building Department for the cutting and capping of standpipes and sprinklers during demolition.

6. This Contractor shall provide a licensed plumber or fire suppression contractor cut and cap the sprinkler and standpipe system during demolition.

7. All work to implement the Fire Standpipe Program is included in the Contract Price.

8. All workers operating torches must have proper certification from local, state and federal jurisdictions. The Contractor shall provide Fire Guards as required and certified by local, state and federal jurisdictions. All costs associated with Fire Guards are included in the Contract Price.

9. Inspection reports will be provided to the General Contractor on a daily basis.

10. The Demolition Contractor shall maintain two, unobstructed means of egress all times.

11. The Demolition Contractor shall maintain all enclosed stairs and fire rating of the stairs except on the uppermost floor being demolished. All work on the uppermost floor shall be completed before the stair and fire enclosure are demolished on the floor below. All handrails and banisters shall be left in place until actual demolition of such floors is in progress. Any fire-rated stair enclosure or fireproof self-closing door removed from the

building prior to demolition, such as during abatement, shall be replaced and fully functional prior to the start of demolition.

12. This Contractor will develop a written Respiratory Protection Program in accordance with local, state and federal regulations to be submitted to the General Contractor a minimum of 4 weeks prior to mobilization on site. All costs associated with the Respiratory Protection program are included in the Contract Price.

13. This Subcontractor will develop a written project specific Dust Control Program in accordance with local, state and federal regulations to be submitted to the General Contractor a minimum of 4 weeks prior to mobilization on site. All costs associated with the Dust Control Program and its maintenance is included in the Contract Price.

C. ADDITIONAL REQUIREMENTS FOR EXCAVATION AND FOUNDATION CONTRACTOR

1. The Excavation Contractor will provide at its own cost a daily inspection of all temporary earth/rock support structures by a license professional engineer to insure that the earth/rock support structures are performing as designed. Duration of this inspection will commence from installation and end with the completion of permanent foundation structures.

2. Inspection reports will be provided to the General Contractor on a weekly basis.

3. Any correction and or modification to the temporary earth/rock support structures required by this Contractor's licensed engineer or government agency would immediately be brought to the General Contractor's attention, all of which are included in the Contract Price.

4. Contractor shall employ a fulltime competent person with a 30-hour OSHA certification who will implement this Contractor's safety program on both the forming and stripping operations. The Concrete Safety Manager must be present onsite at all times when concrete work is performed. The Concrete Safety Manager shall fully cooperate and comply with the Site Safety Manager and report any violations or incidents to the same.

D. ADDITIONAL REQUIREMENTS FOR SUPERSTRUCTURE CONCRETE CONTRACTOR

1. This Contractor shall employ a fulltime competent person with a 30-hour OSHA certification who will implement this Contractor's safety program on both the forming and stripping floors on a concrete project and concrete placing floor on a structural steel project. The competent person must be present onsite at all times when concrete work is performed. The competent person shall fully cooperate and comply with the Site Safety Manager or designated safety representative and report any violations or incidents to the same.

2. In addition to a licensed master rigger required for critical picks, this Contractor will employ a fulltime Safety Coordinator on the ground to implement this Contractor's safety programs and rigging MOP that has satisfactory completed a minimum of 30 hour OSHA safety course from an approved program.

3. This Contractor, as part of the Contract Price, will provide cantilever outrigger platform/s with sides a minimum of 2'-0" higher than material stored for the placement of its equipment and materials required to be moved between work floors, designed by a state approved licensed professional engineer. Signed and sealed drawings from the licensed professional engineer shall locate the column bay(s) where the cantilever platform(s) shall be located and copies shall be furnished to the General Contractor. Work includes the furnishing, installation, relocation, maintenance and removal of cantilever storage platforms in locations acceptable to the General Contractor. All cantilever platforms must be approved by a state approved licensed engineer. The subcontractor will provide a task specific fall protection plan for the use of this platform.

4. Two means of egress from this subcontractor's work area will be maintained by the use of OSHA compliant heavy duty temporary stair provided by this subcontractor.

5. Concrete embedded fall arresting systems must be installed in accordance with shop drawing approved by a licensed engineer. The shop drawing shall include the manufacturer type and name, instructions on proper installation and use, adequacy of the structure to sustain static and equivalent dynamic loads, list of occupational classifications allowed to use this system, and instructions on testing and inspection. The Concrete Subcontractor shall be responsible for inspecting that the installation is in accordance with

the signed and sealed drawings. Regular maintenance will be part of this Subcontractor's site-specific safety plan. Once the system is no longer in use, this Contractor is responsible for proper removal of the embedded fall arresting system.

6. This Subcontractor shall provide 42" vertical netting and guardrails on all floors and vertical netting on the guardrails on the working deck. Vertical netting and guardrails shall be in accordance with local state and federal regulations. All costs associated with installing and maintaining vertical netting and guardrails are included in the Contract Price.

7. This Subcontractors site-specific safety program must include a detail fall protection plan for all workers on the stripping floor. This Contractor must also provide documentation verifying workers are wearing fall protection on the stripping floor.

8. This contractor shall ensure all tools (were feasible) shall be tethered when working on the building perimeter
9. This contractor shall provide a written temporary heat plan. The plan shall include but will not be limited to:

E. ADDITIONAL REQUIREMENTS FOR STRUCTURAL STEEL CONTRACTOR

1. This Contractor shall employ a fulltime safety person to implement the Contractor's safety program on the erecting deck, bolting floors and metal deck installation floors.

2. Contractor shall ensure that all tools, hardhats and material are tethered, when feasible. Contractor must submit a falling object prevention program, which includes a feasibility analysis, specifically, defining which tools can be tethered. Alternative controls must also be provided, for tools that are deemed infeasible to tether. All workers must be trained to the program.

3. Once the fall height has reached 6-feet or greater, Contractor shall assign full body harnesses and retractable fall arrestor systems and to ensure their employees have the required equipment, anchor points and ability to tie off.

4. In addition to a licensed master rigger required for critical picks, this Contractor will employ a fulltime Safety Coordinator on the ground to implement this Contractor's safety programs and rigging MOP that has satisfactory completed a minimum of 30 hour OSHA safety course from an approved program.

5. Two means of egress from this Contractor's work area will be maintained by the use of OSHA compliant heavy duty temporary stairs provided by this Contractor.

6. The tips of TC bolts shall be collected and not allowed to fall. All equipment and procedures required to prevent the tips of TC bolts from falling are to be included in the Bid Price.

7. All welding/bolting suspended platforms commonly referred to as "floats" shall have a 12" toe board and a 4'-0" curtain to prevent debris from falling shall be included in the Contract Price.

8. Contractor shall ensure the all material and buckets are removed from perimeter of the steel after work has been completed for the day and/or night.

9. Contractor shall ensure their employees tie off as required by OSHA and Subpart R.

10. Contractor shall make their connector team easily identifiable to the Construction Manager and Site Safety Manager.

11. Engineered lifeline systems: Engineering specifications, drawings, manufacture information and test data must be submitted as part of the contractors fall protection program in advance of work. Lifelines must be inspected and maintained daily.

12. All steel contractors must include in their job hazard analysis a steel erection procedure including a sequential step by step means and methods to accomplish their scope of work including bracing, erection, bolting up, decking, etc.

13. All steel contractors must maintain all vertical and horizontal debris netting in their work areas. If horizontal nets are used as a form of fall protection they must adhere to OSHA Appendix G to Subpart R --1926.502

F. ADDITIONAL REQUIREMENTS FOR ELECTRICAL CONTRACTOR

1. This Contractor will develop a written project specific Electrical Safety Program for its work and the work of other Contractor's that attach to either the temporary or permanent light and power system to be the submitted to the General Contractor 4 weeks prior to mobilization on site.

2. This Contractor will employ a full time competent person to implement the Projects Electrical safety programs that has satisfactory completed a minimum of 30 hour OSHA safety course from an approved program.

3. This Contractor shall provide a 24-hour power circuit to the compressor and alarm panel on the fire standpipe alarm system.

4. This Contractor shall develop and implement an Assured Equipment Grounding Conductor Program (OSHA CFR 1926.404) and furnish a daily written report to the General Contractor designated Site Safety Manager or provide a ground fault circuit interrupter power panel/s for all temporary electric in accordance to OSHA 1926.404

5. This contractor shall develop and implement a Lock Out /Tag Out program for all electrical work.

G. ADDITIONAL REQUIREMENTS FOR FIRE STANDPIPE CONTRACTOR

1. This Contractor will develop a written project specific Fire Standpipe Program for its work to be the submitted to the General Contractor 4 weeks prior to mobilization on site. This program will detail measures to be taken to insure the standpipe is no greater than 45'-0" from the highest level of construction and can be utilized for firefighting prior to completion of the system

2. All work to implement the Fire Standpipe Program is included in the Contract Price.

3. This Contractor is responsible to confirm, via a daily inspection of the fire standpipe, that the fire standpipe system is in functioning condition.

4. Inspection reports will be provided to the General Contractor on a daily basis.

5. This Contractor shall paint all exposed portions of the standpipe red during installation.

H. ADDITIONAL REQUIREMENTS FOR HOISTING CONTRACTOR

1. This Contractor shall perform initial erection, monthly and post jump inspections.
   a. Initial erection inspections shall include:
      i. Verification cars are operating within the manufacturer's specifications.
      ii. Mast sections are not damaged, corroded, stable, plumb, and connected in accordance to manufacturer specifications.
      iii. Mast ties are installed in accordance with manufacturer's specifications
      iv. Common platform and runback structure is fully braced in accordance with design drawings.
      v. Guardrails, mesh and toe boards are installed on common platforms and runback structure.
      vi. Verify landing doors for personnel cars cannot be opened from landing.
      vii. Verify spider tie on common platform and runback structure is installed as per engineered drawings
      viii. Inspect joists to verify they are not damaged and they are connected to supports
      ix. Verify tiebacks to structure are installed as per engineered drawings
      x. Testing of torque of bolts and welds for attachment to structure
      xi. Pull-out tests for embedded, epoxy or expansion bolts
      xii. Plumbness of mast and supports for common platform and runback structure.
      xiii. In addition, initial erection inspections for personnel hoist shall include an acceptance inspection and test in accordance with city or state requirements or ANSI B10.4 whichever is more stringent.

c. Monthly inspections shall include:
    i. Verification cars are operating within the manufacturer's specifications.
    ii. Common platform and runback structure is fully braced in accordance with design drawings.
    iii. Guardrails, mesh and toe boards are installed on common platforms and runback structure
    iv. No storage of debris or material on common platforms or runback structure.
    v. Verify spider tie has not been removed or altered and bolted connections are tight.
    vi. Inspect joists at the underside of landing to ensure they are not buckling and they are fastened to supports.
    vii. Inspect legs for buckling
    viii. Verify tiebacks to structure have not been removed or altered.

d. Post-jump inspections shall include:
    i. Verification cars are operating within the manufacturer's specifications.
    ii. Mast sections are not damaged, corroded, stable, plumb, and connected in accordance to manufacturer specifications.
    iii. Mast ties are installed in accordance with manufacturer's specifications
    iv. Common platform and runback structure is fully braced in accordance with design drawings.
    v. Guardrails, mesh and toe boards are installed on common platforms and runback structure.
    vi. Verify landing doors for personnel cars cannot be opened from landing.
    vii. Verify spider tie on common platform and runback structure is installed as per engineered drawings
    viii. Inspect joists to verify they are not damaged and they are connected to supports
    ix. Verify tiebacks to structure are installed as per engineered drawings
    x. Testing of torque of bolts and welds for attachment to structure
    xi. Pull-out tests for embedded, epoxy or expansion bolts
    xii. Plumbness of mast and supports for common platform and runback structure.
    xiii. In addition, post-jump inspections for personnel hoists shall include an acceptance inspection and test in accordance with city or state requirements or ANSI B10.4 whichever is more stringent.

2. This Contractor shall perform bi-weekly (Twice a Month) inspections of the runback structure and common platform and attachments including the ramps to verify compliance with signed and sealed drawings. This inspection review does not relieve the Contractor from any of its responsibility under the terms of the Contract, nor make the General Contractor responsible for hoist and scaffold design or other obligations of Contractor pursuant to this agreement.