

EXHIBIT Z**ENVIRONMENTAL, HEALTH AND SAFETY SPECIFICATIONS**

The Contractor shall perform Work in a safe manner, and comply at all times with all federal, state, county, and municipal laws and regulations which in any manner affect the Agreement and its performance. Such laws and regulations include, but are not limited to, all laws and regulations with respect to inspection of the Work, inspection of construction equipment, and licensing members of crews with respect to observance of all applicable occupational safety and health standards promulgated pursuant to the federal "Occupational Safety and Health Act of 1970". The Contractor shall have, and exercise full legal responsibility for compliance to safety requirements and regulations by itself, its agents, its employees, and subcontractors with respect to its portion of the Work on the project. By making references to particular laws and regulations above and to these specifications set out below, Owners does not intend to restrict or limit in any way the laws and regulations which apply to the Contractor's performance under the Agreement. The Contractor shall be solely responsible for providing for the safety and health of its agents, employees, and subcontractors. The Contractor expressly binds itself to indemnify and save harmless any person or entity of Persons Indemnified against all claims, demands, suits, or actions of every kind and nature presented or brought for any claim or liability arising from or based upon the violation of any such law, regulation, on the part of the Contractor, or its subcontractor or agents, servants, or employees of the Contractor of its requirements or measures as may be prescribed by the State Board of Health, or any other lawful constituted health or authorities having jurisdiction over the project. In the event the specifications set forth below address the same issues as set forth in the applicable standards, rules, and regulations referred to above, then the most stringent requirements shall apply.

Observation, monitoring, or notification of Contractor of noncompliance on the part of the Contractor, its agents, employees, or subcontractors of any of the specifications set forth herein or of any of the terms or provisions of the rules and regulations, laws, or ordinances referenced above shall not constitute an assumption on the part of Owners to perform any of the obligations of Contractor hereunder. Owners reserve the right, but not the duty, to point out such items of noncompliance to Contractor. In the event the Contractor fails or refuses to take proper corrective action in a manner acceptable to Owners, Owners have the right to stop Work until such time as Contractor is in compliance or Owners may terminate the Agreement. No lost time due to any such Work stoppage shall constitute a claim for extension of Agreement Time or cost or damages by the Contractor.

The safety of all persons employed by Contractor and its subcontractors on Owners' premises, or any other person who enters upon Owners' premises for reasons related to this Agreement, shall be the sole responsibility of Contractor. Contractor shall take all reasonable measures and precautions at all times to prevent injuries to or the death of any of its employees, its subcontractors or any other person who enters upon Owners' premises. It is understood that if the employees of Owners shall perform any acts for the purpose of discharging the responsibility undertaken by the Contractor under these specifications or under the safety requirements and regulations referenced above, whether requested to perform such acts by the Contractor or not, such employees of Owners while performing such acts shall be considered the agents and servants of the Contractor subject to the exclusive control of the Contractor.

1. Contractor EH&S Program – Before starting Work, Contractor shall submit its written project specific EH&S Program for Owners' review and concurrence. The Contractor's Program shall be implemented by the Contractor and shall apply to Contractor's employees, agents and subcontractors.
2. EH&S Training – EH&S training shall be conducted as described in 29 CFR 1926.21. In addition, EH&S training shall be delivered to appropriate employees in accordance with the specific training requirements contained in 29 CFR 1926 and applicable sections of 29 CFR 1910. The Contractor shall provide EH&S

training for its employees at its own expense, and such training shall be documented and records provided to Owners upon request. EH&S training shall include, but not be limited to:

- A. New Employee Orientation – Training in the EH&S program, policies, procedures and rules in place for the project. This training shall take place prior to Work activity on the project.
 - B. Weekly EH&S “toolbox talks” on an appropriate subject, for all employees.
 - C. Hazardous materials training.
 - D. Special EH&S training for those affected; such training shall include, but not be limited to, confined space entry, respiratory protection, personal protective equipment, fire watch, trenching/excavation, fall protection, lockout/tagout, scaffolding, ladders, ammonia awareness, emergency plans, etc.
 - E. Hazard recognition and avoidance.
3. EH&S Inspections – Contractor shall comply with the provisions of 29 CFR 1926.20. Additionally, the Contractor’s site manager shall conduct a weekly field EH&S inspection of all Contractor and their subcontractor’s Work areas. The Contractor shall generate a written report of the inspection findings. The report, including the resolutions of the findings, shall be submitted to Owners on a weekly basis. The Contractor shall also inspect its Work areas on a continuous basis and correct all noncompliance conditions and actions. Owners will perform EH&S inspections of Work areas for the benefit of Owners employees.
4. Personal Protective Equipment and Clothing – Contractor’s employees shall wear all applicable personal protective equipment as required in 29 CFR 1926. This shall include, but not be limited to:
- A. Safety glasses that meet ANSI Z-87.1 requirements must be worn in all areas of the project. Administrative areas are exempt, unless construction or maintenance Work is being performed. Safety glasses must have rigid side shields. Slip-on, flexible plastic side shields are not allowed. Visitor spectacles, conforming to ANSI Z-87.1, worn over prescription glasses are acceptable. A full-face shield over approved safety glasses is required for all grinding, abrasive cutting operations or any other operation which generates high-speed particles.
 - B. Hard hats that meet ANSI Z-89.1 Class B requirements must be worn in all areas of the project except administrative areas. Hard hat must be worn for welding operations. Cowboy style hard hats are prohibited.
 - C. Hard soled, heavy leather boots or shoes must be worn in all areas of the project, except administrative areas. Foot guards shall be worn while using jack hammers, tampers and similar equipment.
 - D. Hearing protection shall be worn when noise levels exceed 85dBA.
 - E. Leather or cut resistant gloves are required when handling sheet metal, rough or unfinished lumber, metal bands, and other materials likely to cause hand injuries.
 - F. Cut resistant gloves must be worn when handling or using sharp instruments, tools, or equipment, which could cause lacerations if hand contact would occur (i.e. knives, razors, handsaws, etc.).
 - G. Shirts must have at least a 4-inch sleeve. Trousers covering the legs and ankles shall be worn at all times. Perforated or mesh shirts or trousers are prohibited.
 - H. Cotton or FR clothing shall be worn by any employee working on or near exposed, energized electrical parts.
5. Fall Prevention – Contractor shall comply with provisions of 29 CFR 1926.500; 1926.501; 1926.502; 1926.503. Additionally, 100% fall protection shall be utilized whenever employees are exposed to a potential fall hazard of 6 feet or greater. 100 % fall protection may be accomplished through the use of a guardrail system (per 1926.502(b)), approved safety net system, covers or personal fall arrest systems.

Before starting any elevated Work, Contractor shall submit to Owners a project specific, written fall prevention plan. Elevated Work includes, but is not limited to: scaffold erection, steel erection, Work in pipe bridges, roof Work, Q-decking or grating installation and removal, formwork and reinforcing steel and any other Work with potential for a 6 feet or greater fall, except Work performed from ladders. The plan must include:

- A. A list of elevated Work tasks.
- B. The proposed method(s) of fall protection for each task. If a personal fall arrest system is to be used, identify anchor points.
- C. Rescue provisions.
- D. Means of access and egress to elevated Work locations.

- E. Name(s) and qualifications of Contractor's competent person(s).
- F. Description of the Fall Protection Training Program.

Full-body harnesses shall be equipped with dual shock absorbing lanyards. The use of employee owned fall arrest equipment is strictly prohibited.

- 6. Mobile Equipment and Vehicles – Mobile equipment and vehicles shall be operated, maintained and stored in accordance with the requirements of 29 CFR 1926 and manufacturer's recommendations. Additionally:
 - A. Each employee must have a valid state driver's license to operate any mobile equipment or vehicle on the project.
 - B. Daily pre-use inspections shall be performed on each vehicle and item of mobile equipment. The inspection shall be documented and available for review.
 - C. Each vehicle and item of mobile equipment arriving on site for use on the project shall be inspected before use. Operator training is required for all mobile equipment and shall be documented and available for review.
 - D. Seat belts, when provided by the manufacturer, shall be used by vehicle and mobile equipment operators and any other occupants. Passengers are not allowed on mobile equipment (dozers, backhoes, cranes, fork trucks, graders, etc) unless a space was specifically designed by the manufacturer and seat belts provided.
 - E. All mobile equipment and any vehicle with an obstructed view to the rear shall have an operable back-up alarm..
 - F. All telescopic boom material handlers (forktrucks) shall have low mounted booms that afford 360 degree visibility from the operator's cab when the boom is in a travel position or when picking/setting a load at or near ground level. The equipment shall be designed so that a person cannot enter the area between the front and rear tires.
- 7. Cranes – Contractor shall comply with all provisions of 29 CFR 1926.550 and applicable ANSI/ASME standards. Additionally:
 - A. An anti-two block device is required on all cranes.
 - B. The Contractor shall provide a copy of the results of the current OSHA required annual crane inspection.
 - C. The Contractor shall submit details of its proposed Work platform and rigging method for Owners' review and concurrence before conducting any Work from a platform suspended from a crane. Included in the details must be a clear justification for using a crane-suspended Work platform rather than another method. Contractor shall comply with all provisions of 29 CFR 1926.550(g).
 - D. The Contractor shall develop a rigging plan for all critical lifts and submit the plan, approved by the Contractor's Site Manager, to Owners no later than 15 calendar days before the lift is conducted. A lift is considered critical when any of the following conditions exist:
 - 1. Lift involving more than one crane to handle a common load
 - 2. Any lift greater than 25 tons

The rigging plan shall include at least the following information:

- A. Manufacture, model, and capacity of the crane(s)
 - B. Capacity charts of the crane(s)
 - C. Working radius of the crane(s)
 - D. Boom length and angle of the crane(s)
 - E. Weight of the load, including rigging, load block, headache ball, cable, etc
 - F. How the weight of the lift was determined
 - G. Size and capacity of all rigging hardware (slings, shackles, etc)
 - H. Plot plan showing crane location with pick, swing, and set points
 - I. Plan approval signatures
- E. Prior to the operation of any crane, Contractor shall submit to Owners methods used to assure the crane operator is qualified in accordance with the applicable ANSI/ASME standards and is qualified to operate the specific crane to be operated in compliance with manufacture's specifications and limitations, and with any applicable regulation.
 - F. All loads being landed or received by personnel shall be controlled by the use of tag lines. Keep hands off suspended loads.

APPENDIX A-2

PUBLIC DISCLOSURE

- G. All cranes shall receive a documented daily inspection and a more detailed monthly inspection (periodic) by a qualified individual. Inspection records shall be maintained and available for review.
 - H. Hand Signals – Hand signals to crane operators shall be in accordance with the applicable ANSI standard for the type of crane in use. Employees giving and receiving hand signals shall be trained and qualified in Hand Signals.
 - I. All rigging shall be performed by qualified personnel under the direction of a Competent Person.
8. Scaffolds – The Contractor shall erect, use, maintain, and dismantle scaffolds in accordance with 29 CFR 1926 Subpart L. Additionally:
- A. All scaffolds shall be constructed as physically complete as possible. This includes handrails and midrails on all sides at all elevations used as a Work location, complete Work decks, toe boards on all sides and ladder access.
 - B. Scaffolds and scaffold components shall be inspected for visible defects by a competent person before each Work shift. This inspection shall be documented on the scaffold tag.
 - C. Contractor shall utilize a scaffold tag system meeting the following criteria:
 - 1. A green scaffold tag designates a complete scaffold.
 - 2. A yellow scaffold tag designates a scaffold that is not complete, but may be used with special precautions. e.g., 100% tie off. Yellow tags shall identify the scaffold deficiency and applicable precautions/requirements.
 - 3. A red tag designates a scaffold is in the process of being erected, changed, dismantled or otherwise unfit for occupancy and shall not be used under any circumstances.
 - 4. A competent person shall affix the appropriate tag to each scaffold access ladder. All tags shall identify the responsible Contractor and shall be dated and signed by the erecting supervisor and competent person.
9. Ladders – Contractor shall comply with the provisions of 29 CFR 1926.1053. Additionally:
- A. Contractor shall denote ownership of ladders by identifying each ladder with Contractor's name.
 - B. Stepladders shall not exceed 12 feet in height...
 - C. Contractor shall implement a pre-use and a formal monthly ladder inspection program.
 - D. Straight and extension ladders shall be secured to prevent displacement.
 - E. Employees shall not carry tools or materials while ascending or descending ladders.
 - F. All manufactured ladders shall be extra-heavy-duty Type 1A.
 - G. Metal ladders are prohibited when doing electrical Work or around open electrical circuits. Additional prohibitions of metal ladders may exist for local conditions.
10. Electrical – Contractor shall comply with all aspects of 29 CFR 1926 Subpart K. Additionally :
- A. Contractor shall provide ground fault circuit interrupter (GFCI) protection for all cord sets, receptacles, and electrical tools and equipment connected by cord and plug which are used or available for use by employees. Contractor shall inspect each GFCI device monthly. Inspection shall be documented and records provided to Owners upon request.
 - B. Contractor shall not perform any "hot" Work above 50 volts. "Hot" Work is defined as any Work that involves intentional contact using hands or tools (except for approved test equipment) with exposed energized circuits.
 - C. Contractor shall not connect electrical conductors to the permanent power source until all field installation Work associated with the equipment, device or apparatus is complete.
 - D. Contractor shall not energize any permanent electrical equipment, device or apparatus without prior approval of Owners.
11. Excavation and Trenching-Contractor shall comply with all aspects of 29 CFR 1926.650; 1926.651; and 1926.652 with applicable appendices.
- A. Contractor shall provide Owners the name of the Competent Person who will perform documented inspections of excavations and trenches prior to employee entries.
 - B. Contractor will provide Owners with the methodology used to determine soil classification.
 - C. Contractor shall determine the need and perform any atmospheric testing required prior to entry of employees.

- D. Contractor shall maintain and make all documents relative to soil classification, protective system selection, inspections, and required training available for Owners to review upon request.
12. Confined Space Entry-Contractor shall comply with 29 CFR 1926.21(b)(6). In addition when conditions are known to exist that apply to the Work in dangerous or potentially dangerous areas the Contractor shall fully comply with 29 CFR 1910.146, "Permit-required Confined Spaces".
13. Housekeeping – Contractor shall maintain a clean Work area. Contractor shall clean up and remove all scrap, trash, debris and waste materials that accumulate from its operations on an on-going basis. If the Contractor's Work area is not maintained properly, Owners reserves the right to clean up the Contractor's Work area, by others, at the Contractor's expense.
14. Occupational Health/Industrial Hygiene Program
- A. Hazard Communication – Contractor shall comply with all aspects of 29 CFR 1910.1200 and all applicable state and local hazard communication requirements. Basic requirements include, but are not limited to:
 - 1. Developing and implementing a written site specific Hazard Communication Program. Contractor shall submit a copy of their site program to Owners.
 - 2. Training its employees in all aspects of handling and working with hazardous materials.
 - 3. The development and maintenance of a list of hazardous materials used by the Contractor.
 - 4. Obtaining and maintaining Material Safety Data Sheets (MSDS) for all hazardous materials on site.
 - 5. Labeling the containers of hazardous materials
 - B. Respiratory Protection – Contractor shall comply with all aspects of 29 CFR 1910.134 including the development of a written site specific Respiratory Protection Program. Contractor shall submit a copy of their site program to Owners. Contractor employee's medical approval, respirator training and fit test records shall be available upon request.
 - C. Bloodborne pathogens – Contractor shall comply with 29 CFR 1910.1030. Contractor shall provide Owners with its required site specific Exposure Control Plan.
 - D. Inorganic Arsenic – Contractor shall comply with all aspects of 29 CFR 1910.1018 and Owners' arsenic Work requirements.
 - E. Lead – Contractor shall comply with all aspects of 29 CFR 1910.1025 and 1926.62, and Owners' lead Work requirements.
 - F. Asbestos – Contractor shall comply with all aspects of 29 CFR 1910.1001 and 1926.1101, and Owners' asbestos Work requirements.
 - G. Contractor shall submit a list of hazardous materials and a Material Safety Data Sheet for each hazardous material to Owners for approval prior to bringing the hazardous material on site.
 - 6. The Contractor shall develop and submit a plan to Owners that details both the personal and environmental monitoring that they will perform for any special hazardous operations such as spray painting, sandblasting, and large chemical applications.
15. Reporting Occupational Injuries, Illnesses and Incidents – Contractor shall immediately report to Owners all injuries, illnesses, and incidents resulting in property damage greater than \$10,000, fires, crane incidents, personnel falls and all environmental spills arising out of or in connection with the performance of the Contractor and their subcontractor's Work. For all events reported, except first aid cases, Contractor shall submit within two working days a written report documenting the facts of the event, including root causes and action(s) taken or planned to prevent recurrence. Additionally, for all occupational injuries and illnesses requiring off-site medical treatment, the Contractor shall submit to Owners the state workers' compensation First Report of Injury. At the end of each month the Contractor shall submit to Owners a report documenting the Contractor and their subcontractor's safety statistics, including Work hours, number of recordable injuries and illnesses and the number of lost workday cases for the month, year-to-date, and project-to-date.
16. Fire Protection – Contractor shall comply with 29 CFR 1926.150 through 29 CFR 1926.155. Additionally, the Contractor shall comply with applicable Owners Hot Work Permit systems. All oxy-fuel burning and welding units shall be equipped with flashback arrestors installed between the regulator and the hose, and between the hose and the torch. Arrestors shall be inspected and maintained per the manufacture's recommendations. The Contractor shall train all users of oxy-fuel burning and welding equipment in safe operating practices. Training shall be documented and available for review. The Contractor shall provide adequate numbers of trained

Firewatches and fire extinguishers in locations to support and protect the scope of Work. Firewatches may perform collateral duties that do not interfere with the fire prevention efforts.

17. Hazardous Waste Control and Disposal – Contractor shall not cause or permit to be released in connection with the Work to be performed, any hazardous wastes or toxic substances and/or any other waste, pollution, noxious gases or substances, or any other substances in violation of applicable laws, rules, and regulations. Contractor is responsible for spill cleanup in accordance with applicable regulations. Contractor shall properly package any hazardous waste or toxic substances which may be generated through the execution of its Work for disposal by Owners. Contractor shall store any hazardous waste generated only in designated, approved storage areas prior to shipment from site.
18. Barricades – Contractor shall furnish, erect, maintain and dismantle barricades required for their Work activity that, at a minimum, achieves the following :
 - A. Warning Barricades (tape and stand) shall be used to alert employees to potential hazards. Each barricade shall be identified regarding the date it was erected, the potential hazard, and the person responsible for the barricaded area. Warning barricades shall be about 42 inches high and shall be removed when no longer needed.
 1. Yellow-black barricade tape shall be used to indicate caution or warning. An employee may enter the barricaded area only after reviewing the identified potential hazard and taking the necessary precautions. Examples include: excavations(six feet back from the edge), counterweight swing area, overhead Work boundaries
 2. Yellow-magenta barricade tape shall be used to restrict access to a Work area where radioactive material is present or where industrial radiography is being conducted.
 3. Red barricade tape shall be used to indicate immediate danger. No one may enter a red barricaded area unless the supervisor responsible for the barricaded area specifically authorizes them. Examples include: overhead rigging operations, pneumatic test areas, attended floor openings (six feet back from the edge)
 - B. Protective (rigid) Barricades shall consist of a guardrail system meeting the requirements of 29 CFR 1926.502(b). Protective barricades are required for, but not limited to: unattended floor and roof openings, unprotected floor edges or platforms, and ladderway floor openings.
19. Hole covers in floors and decks – Contractor shall comply with 29 CFR 1926.502 (i). Additionally, wooden hole covers shall, at a minimum, be constructed of three-quarter-inch plywood provided one dimension of the opening is less than 18 inches; otherwise, 2-inch lumber or doubled ¾ inch plywood is required. Material or equipment shall not be stored on any hole cover. Contractor shall identify hole covers with warning labels as prescribed in 29 CFR 1926.502(i)(4).
20. Owners Location Specific EH&S Requirements – Contractor will be provided with any applicable Owners specific EH&S requirements which must be adhered to during Contractor’s Work activity.
21. Miscellaneous Requirements
 - A. Tool Inspection – All Contractor tools shall be stored, used, and maintained in accordance with 29 CFR 1926 Subpart I. Additionally, all Contractor tools and equipment shall be subject to inspection by Owners at any time while on the project site. Owners retain the right to prohibit or restrict the use of tools and equipment determined to be in unsafe working condition. The use of homemade tools is prohibited unless approved by Owners management. The modification of tools and equipment is prohibited without the express written consent of the manufacturer or by the design of a Registered Professional Engineer. The Contractor shall make provisions to remove defective tools and equipment from service immediately by such means as “Do Not Operate” tags or similar methods determined to be effective.
 - B. Impalement hazards – Reinforcing steel and similar objects projecting above horizontal surfaces shall be capped or otherwise protected to prevent the possibility of impaling personnel. Non-reinforced plastic caps are not approved protection for falls greater than six feet. Use covers of wood or other approved devices.

- C. Environmental, Health and Safety (EH&S) Professional – Contractor shall provide qualified individual(s) to serve as their EH&S resource for the project in accordance with the following criteria, at a minimum:
 - 1. If the Contractor's projected workforce, including subcontractors, is a total of 25 employees or less, Contractor shall designate an appropriately trained and experienced supervisor to assume the duties of the EH&S resource.
 - 2. If the Contractor's projected workforce, including subcontractors, is a total of 25 to 50 employees, an EH&S Professional, whose primary function is EH&S, shall be assigned to the jobsite.
 - 3. If the Contractor's projected workforce, including subcontractors, is a total greater than 50 employees, an EH&S Professional whose sole function is EH&S shall be assigned to the jobsite. If the workforce becomes 150 employees, a second EH&S Professional whose sole function is EH&S shall be assigned to the jobsite. A 200 plus employee workforce may require additional EH&S resources. The number of EH&S Professionals will be mutually agreed to by the Contractor and Owners at the 200 plus level.
 - 4. The EH&S resource/Professional shall be assigned to the jobsite upon Contractor mobilization, not when the reference workforce size is attained.
 - 5. Contractor shall submit the qualifications of the EH&S resource/Professional to Owners for approval prior to assigning the individual to the jobsite.
- D. Use of Explosives – In the event the use of explosives is required under the Agreement, all blasting operations shall be conducted in strict accordance with 29 CFR 1926 Subpart U and any other applicable ordinance or regulation. Only experienced and licensed blasters shall perform blasting. The Contractor shall acquire all licenses and/or permits applicable to the use of explosives. A whistle or siren shall be provided by the Contractor, and shall be sounded immediately before blasting. It shall be the Contractor's responsibility to assure all persons are fully aware of the meaning of the signal and that all personnel and vehicles are cleared from the area where they might be injured or damage might occur as a result of the blasting. No blasting shall be performed without the written consent of Owners' Construction Manager.
- E. The Contractor shall notify Owners immediately of any complaint, contact, or intent to inspect the site by any regulatory agency such as, but not limited to, OSHA, EPA, Public Health, and local law enforcement. Upon request the Contractor shall provide Owners such information as the nature of allegations or complaints, any citations or penalties, and agreed upon resolutions or abatements.