



## **UTRGV Contractor Safety Manual**

**Environmental Health, Safety and Risk Management  
Occupational Health and Safety Program  
January 2, 2024**

## **PART 1 – GENERAL**

### **1.1 OVERVIEW**

The UTRGV's objective is an injury and incident-free project, with a focus on project safety that shall not be compromised to achieve any other business objective. The Contractor shall structure an effective and systematic safety management approach that emphasizes continuous safety process improvement.

### **1.2 GENERAL REQUIREMENTS**

The UTRGV recognizes that the Contractor and Subcontractors may have existing safety management programs with established safety policies, processes, procedures, and work practices. The UTRGV will support these where they prove to be as effective and meet the intent and purpose of this Section.

Upon request by the UTRGV, the Contractor and/or Subcontractors (of any tier) shall promptly produce and provide copies of any required documents related to Project safety. Where opportunities for improvement are identified, the Contractor and Subcontractors of any tier shall work collaboratively with the UTRGV in making appropriate revisions to progress toward an injury and incident-free workplace.

### **1.3 PURPOSE**

1.3.1 The Contractor shall bear overall responsibility for all aspects of safety for the Project.

1.3.2 The Contractor shall, always, provide adequate resources, equipment, training, and documentation to:

1.3.2.1 Comply with the requirements of this Section and all applicable Federal, State, and local statutes, standards, and regulations.

1.3.2.2 Provide a safe work environment at the Project.

1.3.2.3 Instill a culture of safe behavior in all supervisors and workers.

1.3.2.4 Ensure a universal understanding that safety and health issues take precedence over all other considerations at the Project.

1.3.3 In any circumstance where this Section differs from, or conflicts with any statutory requirement, the more stringent shall apply.

1.3.4 The UGR reserves the right to have any person removed from the Project for disregarding Project safety requirements. Removal of the Project Superintendent, Project Manager, any Supervisor, PSR, PSA or SSR may result in work stoppage that will remain in effect pending approval of a suitable replacement. The Contractor shall not be allowed any consideration for time or monetary compensation for said stoppage.

- 1.3.5 The UGR reserves the right to deduct from the Contract any safety related expenses that the UTRGV incurs as a result of the Contractor's or any Subcontractor's failure to comply with the requirements of this Section.
- 1.3.6 The UGR will deny requests for time extensions and/or monetary considerations whenever the UTRGV intercedes on behalf of safety compliance as a result of Contractor failure to act as required by Contract.

## **PART 2 – PRODUCT**

### **2.1 PROJECT SAFETY REPRESENTATIVE (PSR)**

- 2.1.1 The Contractor must provide a qualified Project Safety Representative (PSR). The PSR is required from the commencement of construction until at least such time the UTRGV's Designated Representative (UGR) issues notice of Substantial Completion.

#### **2.4.1.1 During scheduled daily work, the PSR must be available at all times**

## 2.5 PERSONAL PROTECTIVE EQUIPMENT (PPE)

- 2.5.1 PPE shall be required for all persons in construction areas. The following items shall be furnished, inspected, and maintained by the employer:
- 2.5.2 **Hard Hats** shall be ANSI stamped (Z89.1-1997, Type I, Class E, G and C). Hard Hats shall be worn 100% of the time in construction areas, with the brim forward (or as allowed by the manufacturer). “Cowboy” style hard hats shall not be allowed (even if ANSI stamped). Hard hats with noticeable wear or damage shall be replaced. Each hard hat shall be examined by the PSR during the Project Safety Orientation to confirm acceptable condition.
- 2.5.3 **Eye Protection (Safety Glasses)** shall be stamped ANSI Z87. If a worker wears prescription glasses (plastic lens only) that are not marked Z87, the employer shall furnish goggles or safety glasses that are designed to fit over another pair of glasses. Eye Protection (Safety Glasses) shall be worn 100% of the time in construction area. Anytime power actuated tools, electric or air operated grinding tools, electric or air operated impact tools, chop saws, masonry saws, chainsaws, or drilling tools are used, double eye and face protection shall be worn. Protection must be designed to prevent any air borne material from penetrating between the protection and the eyes.
- 2.5.4 **High visibility vests or high visibility upper body clothing (equivalent to ANSI Class 2 or greater as applicable)** shall be worn in the construction area. Primary work activities such as traffic control, excavations, rigging from ground level, exterior work at ground level or sub-ground level, earth moving operations may require ANSI Class 3.
- 2.5.5 The Contractor shall purchase and maintain an appropriate inventory of types and sizes to be able to furnish a hard hat, pair of safety glasses and vest for up to ten (10) UTRGV representatives who may visit the Project.
- 2.5.6 **Hearing Conservation and Protection** shall meet or exceed OSHA requirements. Except for suppression of sound energy level, no devices or equipment shall be placed in or over the ears. Portable radios, cell phones or any other electronic devices shall not be used by the general work force for any reason while in the construction area. Use by supervision, project management, and safety persons is allowed for work related and emergency communications only. Any additional persons using these devices must be by written concurrence of the UGR. Music devices with or without earpieces are strictly prohibited by anyone while in the construction area. The Contractor may designate an area inside the limits of the project but outside of the active construction area where use of cell phones is allowed during scheduled breaks and lunch only. Location must be by written concurrence of the UGR.
- 2.5.7 **Hand Protection** that is designed to counter the potential for injury exposure shall be furnished to all workers who must handle materials or equipment with sharp edges, slick surfaces, chemically reactive components or extreme temperatures.
- 2.5.8 **Respiratory Protection** shall meet or exceed OSHA requirements.

2.5.9 **Foot Protection** (work shoes) must have soles with a resistance to punctures, uppers that cover the entire foot and ankle and resist scrapes and cuts. Sandals, open toed shoes, dress loafers, high-heels, and all athletic style shoes (including those with ANSI markings) are prohibited. Additional protection such as metatarsal guards over work shoes (including steel toe boots) shall be provided when work operations create impact exposures.

**2.5.10 Other OSHA required PPE shall be furnished as appropriate for specific tasks.**

2.5.11 Other clothing:

2.5.11.1 Shirts shall not have noticeable holes and shall be free of profane, inflammatory, sexually explicit or discriminatory messages. Sleeve length shall cover the ball of the shoulder and shirt length shall reach waist of pants. Shirts shall not provide snag points.

2.5.11.2 Pants shall be full length. Holes must not be large enough to provide snag points or offer measurable amounts of exposed skin.

## **2.6 WORKER TRAINING**

- 2.6.1 All workers shall be trained to perform their specific task(s). Formal documentation to support claimed training must be provided. Acceptable documentation for all certifications and training claimed shall contain name of the training organization, name and title of the trainer(s), date of training, material covered with time spent on each topic, and evaluation process used to determine worker understanding of training. Documentation must be provided by the training organization upon request.
- 2.6.2 For every brand and model of crane and motor driven equipment (earth moving, lift platforms, suspended stages, material handling, etc.) brought onto the Project, the using company shall transmit to the PSR a list of employees who are trained and authorized to operate that brand and model of equipment. Copies of training documentation in addition to any required certifications shall be provided. In addition, cranes shall be operated only by persons who possess certification from an organization that carries nationally recognized accreditation. Industrial Trucks (forklifts) shall only be operated by persons who have been certified by their employer. Individuals who possess required credentials shall demonstrate acceptable proficiency to the PSR .
- 2.6.3 For every position that is required to assist with crane and motor driven equipment operations (flaggers, signal persons, riggers, spotters, etc.), the using company shall transmit to the PSR a list of employees who are trained and authorized to perform these functions.

## **2.7 PROJECT SAFETY SIGNS AND POSTERS**

- 2.7.1 The Contractor shall post a pair of safety regulation signs at every point of entry to the Project: one in English and one in Spanish. Font shall be black in color and sized in each language to completely fill the surface of a white-coated four-foot (4') vertical by eight foot (8') horizontal sheet of 3/4-inch plywood and shall contain only the following text:

**ALL VISITORS, DELIVERY PERSONS, AND NEW WORKERS MUST REPORT TO THE PROJECT OFFICE BEFORE ENTERING ANY CONSTRUCTION AREA.**

**ALL PERSONS ENTERING ANY CONSTRUCTION AREA MUST WEAR STURDY WORK SHOES, PROPER CLOTHING, A HARD HAT AND SAFETY GLASSES AT ALL TIMES – NO EXCEPTIONS ARE ALLOWED DURING WORK HOURS.**

**POSSESSION OF WEAPONS, ALCOHOLIC BEVERAGES, CONTROLLED SUBSTANCES, OR DRUG PARAPHERNALIA WILL RESULT IN IMMEDIATE REMOVAL FROM THIS PROPERTY.**

**EXCEPT WHERE DESIGNATED (BY POSTED SIGNS AND AVAILABLE RECEPTACLES), USE OF ANY TOBACCO PRODUCT IS PROHIBITED ON THIS PROJECT**

**THE MAXIMUM SPEED LIMIT FOR ALL VEHICLES ON THE PROJECT SITE IS NINE (9) MPH – LOWER SPEED MAY BE REQUIRED BY POSTED SIGNS IN SOME AREAS.**

**ONLY AUTHORIZED VEHICLES ARE ALLOWED ENTRY INTO CONSTRUCTION AREAS.**

- 2.7.2 The Contractor shall post a notice sign at the project office in English and Spanish. Font shall be black in color on a white coated board and size of letters shall be at least three inches (3") in height, and shall contain at least the following text:

**VISITORS, DELIVERY PERSONS AND NEW WORKERS MUST CHECK-IN HERE FIRST.**

**COPIES OF SAFETY DATA SHEETS (SDS) FOR MATERIALS THAT WILL BE USED OR STORED ON SITE MUST BE DELIVERED BY ALL SUBCONTRACTORS TO THIS LOCATION AND SHALL BE AVAILABLE TO ANY REQUESTOR.**



- 3.1.1 **Safety Hazards.** This element shall include a narrative that recognizes existing site conditions, foreseeable changes to existing conditions, local climate, UTRGV and public interface, environmental impact and remediation issues, skill and experience levels of available work force, utility interruptions, water supply sources, power supply sources, UTRGV facility provisions, sanitation requirements, parking, material storage areas, and proximity to students and public walkways and roadways. It shall contain a completed copy of the Anticipated Project Hazards Checklist (EXHIBIT A). It shall also be expanded throughout the duration of Work to include Subcontractor plans for elimination or minimization of risk. All portions of this element shall be consistent with existing procedures for the campus Environmental Health and Safety (EHS), Fire Protection, or Police departments, and the local municipal Fire and Rescue.
- 1.1.1.1 Hazard Communication (“HazCom”). Insert the elements required by OSHA. The PSR shall maintain a Hazardous Materials Inventory List with individual SDS for each, and every, hazardous substance brought onto the Project site. In addition to the product label of contents, all containers with at least five (5) gallons of fluid capacity or twenty (20) pounds of chemical content shall include either HMIS or NFPA hazards warning labels (except drinking water and fire extinguishers). All products with HMIS/NFPA number ratings greater than zero, or one in any of the three categories (health, flammability, or reactivity), shall be considered as hazardous.
- 2.1.1.2 Environmental (Sensory) Hazards. Insert actions to measure worker exposures and to control hazards that may exist beyond OSHA permissible exposure limits (i.e. dust, fumes, noise, chemicals, respirable silica, and extreme temperatures). Also, include control and remediation plans for incidents that result in a spill or discharge of a potentially hazardous or toxic substance (liquid or gas). If lasers will be used, include plan to control worker exposure.
- 3.1.1.3 Roadway and Traffic Hazards. Insert actions to be taken at times when public roadways or sidewalks are affected by construction activities. Signs, devices, and procedures shall be identified where public passage is to be closed or altered. Procedures and training for flaggers shall be required and shall be in compliance with all applicable Texas Department of Transportation (TxDOT) regulations for road safety; specifically, the Texas Manual on Uniform Traffic Control Devices (TMUTCD) shall be referenced.

### **3.1.2 Fire Prevention and Control**

- 1.1.2.1 Insert arrangements and equipment necessary to provide adequate protection during all phases of construction. All portions of this element shall be developed to be consistent with existing procedures of the campus Environmental Health and Safety (EHS), Fire Protection, or Police departments, and the local municipal Fire and Rescue.
- 2.1.2.2 Burning, Welding, Flame Operations. Insert the process for issuance of a “Hot Work” permit (EXHIBIT B). Daily permit forms shall be issued by the PSR , even if the campus Environmental Health and Safety (EHS) or Fire Protection departments desire to be involved and issues a campus permit. The permit form shall be completed by the SSR and returned to the PSR for field verification of noted conditions and written acceptance prior to start of operation. All permits shall expire at the end of the shift. Permits shall identify the fire watcher(s) and require pre-operation and post operation inspections.

3.1.3 Emergency Response. Describe each type and level of emergency that may reasonably be expected to occur on the Project. Insert response or rescue plan for each kind of potential emergency. This element shall address first aid, off-site medical care, property damage, rescue, project alarm signals, wind, flood, lightning strikes, and evacuation, threat of violence, protests or deliberately disruptive events. NOTE: A designated Campus Spokesperson shall be the only person authorized to communicate with the media. This element shall include a drawing or sketch of the site (maintained for “as built” conditions) to indicate gates, emergency vehicle roadways, lay down areas, crane set up positions, exterior hoists, etc. All portions of this element shall be developed to be in accord and cooperation with existing procedures for the campus Environmental Health and Safety (EHS), Fire Protection, or Police departments, and the local municipal Fire and Rescue.

1.1.3.1 Incident Notification. Insert the list of personnel with mobile phone, email, position and company information who may be contacted. The UGR and others as directed shall be included in the incident notification process. Depending on potential severity of the incident, notification may be in written and/or verbal form as directed. Incident notification flow shall be as indicated in EXHIBIT K. Indicate specific positions within the campus staff that may be contacted and/or involved in the notification and control process, i.e. site control and utility management. Campus Public Relations (PR) officer shall be the only person authorized to release live or pre-recorded video or written statements to the media. The Contractor shall cooperate with campus PR officer and coordinate media arrangements as directed.

2.1.3.2 Site Security. Insert actions and control measures to prevent intrusion during work and non-work hours. Describe intended controls for perimeter security, gate security, pedestrian crosswalks, protection at public paths through and alongside construction areas, warning signage, etc. Identify special work that may not be performed during regular hours and will require special precautions. Include descriptive detail for some method of gathering names and probable locations of workers who have not been cleared for safe departure during any type of emergency. Identify the position(s) of all who will possess this information and be prepared to convey critical details quickly to any outside emergency response command that might arrive at the Project.

**3.1.4 Project Trenching, Tunneling and Excavation. Insert soil boring reports, soil classification analysis, site sketch and any other information that may support, explain or clarify the intent of this element. In addition to requirements in the UGC, this element must be stamped and sealed by a Registered Professional Engineer recognized in the State of Texas in the field of Civil or Soils Engineering.**

## 3.2 SAFETY INSPECTIONS

### **3.2.1 Safety Inspections – UTRGV**

#### **1.2.1.1 Contractor is subject to routine safety inspections by UTRGV personnel.**

### **3.2.2 Incident Notification, Investigation and Reporting Procedure**

1.2.2.1 During the orientation, the PSR shall instruct all workers to immediately report every incident to their supervisor, even if there is no obvious injury or property damage. Supervisors shall immediately notify the PSR, who shall immediately notify the UGR of any incident. All Near Miss incidents, First Aid injuries, High Risk Safety Inspection Observations, and other such incidents as directed by the UTRGV shall be entered into SafetyNet by the PSR. All incidents shall be investigated. The PSR shall lead the efforts and follow a structured incident investigation program. The Contractor and involved subcontractors shall tailor the magnitude and depth of the investigation effort to correspond to the potential, rather than the actual outcome of the incident. Investigation team members shall include safety personnel, project management, line management, affected workers, and consultants as the circumstances dictate. The UGR reserves the right to participate in any incident investigation. The PSR shall develop a Root Cause(s) Analysis report (Exhibit J) that summarizes the incident, identifies the underlying contributing factor(s), determines which process element(s) failed to control the incident, determines which process element(s) will be implemented or improved, and the time needed to take sustainable corrective action(s). PSR shall conduct and submit incident investigation report that supports the Root Cause(s) Analysis in the manner and time as directed by the UGR. The UTRGV reserves the right to determine the acceptability of the findings. The PSR shall prepare and submit reports that will allow the UTRGV and Subcontractors to understand findings and any planned changes to the PSMP based on those findings.

#### **2.2.2.2 Incident Responsibilities for Workers and Supervisors**

3.2.2.2.1 The PSR shall cover the information in the Worker Responsibilities (EXHIBIT G) document during the orientation and keep copies to hand out to any worker who appears to have sustained an occupational injury.

3.2.2.2.2 The PSR shall cover the information in the Supervisor Responsibilities (EXHIBIT H) document during the orientation and keep copies to hand out to any supervisor who informs PSR that a worker injury has occurred.

3.2.3 The Contractor shall provide additional reports as requested by the UGR. This may include work force histograms, training documents, safety trending reports, etc.

3.2.4 The PSR shall notify the UGR when a worker is removed from the project for a serious infraction, including any of the following reasons: refusal to take a post incident drug/alcohol screen or a positive result if taken, possession of a prohibited

weapon on the project, criminal activity, use of equipment that jeopardizes the safety of any projectworker, or fighting on the project. Within forty-eight (48) hours of removal, the PSR shall provide the UGR a brief report of finding(s) that resulted in the worker removal. Report must include the project name and location, the name of the removed worker, the legal name of the worker's employer, the date and time of the incident leading to the removal, and a brief summary of the facts justifying the removal.

### 3.3 CONSTRUCTION OPERATIONS

The following requirements are either in addition to or in the absence of Federal and State regulations. Where conflicts exist, the most stringent directives shall apply.

#### 3.3.1 Cranes

- 1.3.1.1 Tower cranes (including affiliated transformers and power supply equipment) shall be surrounded by at least a sixteen-foot (16') high, 5/8-inch plywood enclosure with a lock-controlled entrance.
- 2.3.1.2 Operators of cranes shall be trained in the specific make and model of crane and possess certification from a nationally accredited certifying organization.
- 3.3.1.3 Every crane and piece of hoisting equipment shall be equipped with an anti-two blocking sensor above each lifting block.
- 4.3.1.4 Unless the crane is equipped with sensors that inform the operator of the weight of the load on the hook and the current wind speed, these measurements shall be determined by other means before commencement of each lift.
- 5.3.1.5 When outriggers are used on cranes, they shall be fully extended. Float pads shall be placed onto leveled and properly designed and sized slabs or cribbing. Where steel plate is used for cribbing, welded or bolted cleats shall be attached to upper surface to prevent float pads from moving horizontally.

For cranes of up to and including 35-ton capacities, wooden cribbing shall be a minimum of four inches (4") in thickness. For cranes over 35-ton capacities and up to 150-ton capacities, cribbing shall be a minimum of eight inches (8") in thickness. For all cranes up to 150-ton capacity, the minimum size of the surface ("footprint") of the cribbing assembly shall be determined by the following formula: the capacity of the crane (in tons) divided by 5 equals the minimum square footage required. Properly sized circular crib pads are acceptable. Side dimensions for rectangular crib pads shall be equal to each other or differ by no more than one foot. For cranes larger than 150-ton capacities, a qualified person shall design the cribbing. "Sandwich" units of cribbing are allowed if the plywood on bottom and on top is at least one inch in thickness.

- 6.3.1.6 For "Pick and Move" operations, the pick shall be made directly in front of the crane with the boom as near vertical as possible. Move at walking speed with a "spotter" in front of the load and another behind the crane. Guy wire cables that secure the load to the body (to prevent lateral force loading of the boom) of the crane shall be required if the grade slope is more than three (3) degrees or the terrain is uneven. Only rubber-tired cranes shall be allowed to perform this operation without a "critical lift" plan and the load must be under fifty percent (50%) of the "on rubber" chart limit.

- 7.3.1.7 Critical Lifts shall include, but not be limited to: (1) Tandem Lifts, (2) Lifts greater than seventy-five (75%) percent of Load Chart, (3) Crane Suspended Personnel Hoists, (4) Non-Conventional Outrigger placements and (5) “Blind” picks and/or placements. Any of these events shall require submittal of custom designed plans by qualified persons. The PSR is responsible for review and acceptance prior to planned lifts.
- 8.3.1.8 Multiple lift operations (“Christmas Treeing”) shall not be permitted.
- 9.3.1.9 All crane operators on rigs rated for more than five (5) tons of capacity shall submit to a physical examination prior to conducting any work on the Project and, if still on the Project, at least every twelve (12) months thereafter. The physician’s written declaration of fitness shall be submitted to and maintained by the PSR in the Project files.
- 10.3.1.10 Only the designated rigger and/or signal persons shall issue lift instructions to the operator. The only exception shall be an emergency stop signal, which may be delivered by anyone on the Project who knows how to alert the operator.
- 11.3.1.11 All loads lifted more than six feet (6’) above ground elevation shall have a tag line attached that is long enough to allow control of load spin without placing any part of the body directly below the load. When “shake out” hooks are used, the load must never be elevated above five feet (5’) over the surrounding surface and workers must stay at least five feet (5’) horizontally away from the suspended load.
- 12.3.1.12 For any load that may be elevated, and the travel path may impact any worker, a means for worker notification must be in place. The crane operator may perform this notification by horn if the load can always be seen. If the crane operator may lose sight of the load at any time, notification must be made by a designated individual who can maintain sight of the load. Notification must be accomplished by some means that attracts the attention of all workers and ensures that the workers are not directly below the load being moved.
- 13.3.1.13 Any erection or dismantle of a tower crane will only be done while activities are monitored by a crane consultant provided by the UTRGV. Prior to any operation, the tower crane erection/dismantle contractor shall provide a detailed plan for the work. Details of the plan must include at a minimum, all elements in Exhibit L, and the plan must be provided to the UGR as required. The UGR reserves the right to determine acceptability of the information provided. Submission of this plan in no way relieves the Contractor from ensuring all documentation is provided, reviewed for accuracy based on the planned task(s), ensuring that the work is pre-planned and communicated to all affected workers, all workers are properly trained to perform their tasks, and that all work is done according to the agreed to plan. The PSR is responsible for the review and acceptance for the Contractor.

### **3.3.2 Demolition**

- 1.3.2.1 Always maintain clearly marked and well-illuminated egress paths.
- 2.3.2.2 Maintain barricades and signage that isolates impacted areas to prevent entry by other trades and members of the public.
- 3.3.2.3 Removal of materials and trash from elevated locations must be controlled. Materials, scraps or waste shall never be allowed to free-fall from a height greater than ten feet (10'). Items that may be caught by wind and carried horizontally shall never be allowed to drop freely from any distance. If items are allowed to be dropped freely (unless as indicated previously), a person shall be stationed at the landing elevation at a safe distance to warn others away from the operation, and the landing area shall be surrounded by fence type barricade placed at least six feet (6') outside of the expected landing area. Wall openings that may be located vertically between the material drop point and the expected landing area shall be securely covered and marked from inside. Anything that is to move downward at a distance greater than ten feet (10') or is capable of sailing horizontally shall be contained within a chute or controlled by hoist.
- 4.3.2.4 Unless the Contract documents clearly call for it, the use of explosives for demolition is prohibited.

### **3.3.3 Electrical Power**

- 1.3.3.1 Ground Fault Circuit Interruption (GFCI) shall be the primary protection from exposure to electrical current for all workers on the Project. Only exit lighting and medium-high (greater than 240) voltage service will not be GFCI protected.
- 2.3.3.2 All strings of temporary lights shall be fully lamped and guarded regardless of height and shall be continuously maintained. PSR shall ensure that illumination levels are periodically monitored and adequate for the expected work activities in those areas.
- 3.3.3.3 All receptacles and switches shall have trim plates installed before they are energized.
- 4.3.3.4 All power distribution panels shall have full covers installed before primary power is brought into the panel. When energized panels are in open areas, covers shall be locked except when an authorized electrician is working in the immediate area. When panels are located inside separate rooms or closets, automatic closers and automatically locking hardware shall be installed on doors as soon as equipment is energized, and only authorized persons shall be provided a key. Doors shall not be modified to stay unlocked or open. Warning signs shall be placed in conspicuous locations. Energized electrical rooms shall not be used for material storage or continuous personal occupancy. Locked electrical room or panel doors will not be considered to meet the requirements of a Lock Out / Tag Out program. The Lock Out / Tag Out program in use must ensure that any affected worker has the ability to confirm



equipment being worked on has been de-energized, made safe, and has individual control of the locking device and tag used to control inadvertent startup of the equipment.

5.3.3.5 The employer shall implement and document an overall safety program that directs activities appropriate for the electrical hazards, voltage, energy level, and circuit conditions anticipated.

6.3.3.6 Extension cords used must be a minimum of 12 gauge.

### **3.3.4 Excavations**

- 1.3.4.1 Any and all trenching operations that are four (4) feet or more in depth or could result in any worker's upper body being positioned below grade level shall adhere to the requirements of the UGC. In addition to UGC requirements, every excavation shall require a preliminary meeting with the UGR to determine historical knowledge of existing utilities. Where applicable, a phone call for utility "locates" shall be completed seventy-two (72) hours in advance. "Potholing" and/or hand digging shall be required within three (3) horizontal feet of "located" centerlines, and in areas where knowledge is lacking.
- 2.3.4.2 The "toe" of spoil piles that are less than four feet (4') in height shall be at least two feet (2') from the edge of any excavation. Spoil piles greater than four feet (4') in height shall add one foot (1') of distance from the excavation for every additional foot in height. Spoils shall be managed to prevent airborne dust.
- 3.3.4.3 Trench and/or excavations should be backfilled at the end of each shift as applicable.
  - 3.3.4.3.1 When a trench or excavation cannot be backfilled in the same day that it is created, a highly visible fence type barricade shall be erected at a minimum distance of six feet (6') from all approachable edges. All portable means of access shall be removed at the end of each workday.
  - 3.3.4.3.2 Earth ramps that are to be used for walking access shall not exceed twenty percent (20%) in grade slope. Steeper slopes shall be gate controlled for equipment only, and alternate access shall be added for pedestrian traffic.

### **3.3.5 Fall protection and prevention**

1.3.5.1 Any walking/working surface that is equal to or greater than six feet (6') above the surrounding area shall present an unacceptable fall exposure unless it has all edges (sides and ends) protected by an attached guardrail system, fall arrest equipment, fall restraint equipment, fall capture netting, or is blocked off by an adjacent wall. An adjacent wall shall be continuous, structurally sound, and at least thirty-nine (39) vertical inches above the walking/working surface, and within eight (8) horizontal inches from the open edge.

2.3.5.2 Any employer that will create a fall exposure equal to or greater than six feet (6') shall submit a detailed plan and set of drawings in advance of the operation to indicate how the exposure shall be addressed. The Contractor shall require the plan to contain either "engineered" or conventional fall protection measures for each and every exposure that involves vertical distances equal to or greater than six feet (6'). Any precautionary measure that would allow greater risk than that afforded by a guardrail system, fall restraint equipment, fall arrest equipment, or fall capture netting shall be prohibited. The use of a "Monitor" is expressly prohibited. The recognized exemptions/exceptions are as follows:

3.3.5.2.1 Allow work from portable step ladders as long as a "three point" contact is maintained, the ladder is properly positioned, secured from movement, the worker's center of gravity remains between the rails and in front of the feet, and the worker's waist does not extend above the top of the ladder. The height of the worker's feet is limited to twelve feet (12') above the supporting work surface for this exemption/exception.

3.3.5.2.2 Allow work from an extension or straight ladder if the ladder is properly positioned, secured from movement, "three point" contact is maintained, the worker's center of gravity remains between the rails and in front of the feet, and the worker's waist does not extend above the top of the ladder. The height of the worker's feet is limited to twelve feet (12') above the supporting work surface for this exemption/exception.

3.3.5.2.3 The use of a warning line system is prohibited unless all other means of fall protection have been demonstrated to be infeasible. If infeasibility is demonstrated to the satisfaction of the PSR and the UGR, work may be performed without fall arrest measures while standing on an elevated walking/working surface only if maintaining a distance of at least fifteen (15) horizontal feet from the edge. The unprotected edge shall be clearly identified by posted signage and a warning line erected continuously at a fifteen-foot (15') setback distance.

3.3.5.2.4 When work is to be performed from a ladder placed near a guardrail system and the ladder can fall toward the leading edge, the safe distance from an unprotected edge shall increase one foot (1') horizontally for each vertical foot that a worker climbs above the surrounding surface. This requirement

shall also apply to a ladder that is being placed beside a protected edge. Any leading edge (“controlled access”) zone work shall require fall protection arrangements prior to entry.

- 3.3.5.3 Covers placed over pier holes, and roof or floor openings shall be physically secured and clearly marked with warning message "HOLE COVER - DO NOT REMOVE." Any cover that is too small for legible wording shall be bright orange or red.
- 4.3.5.4 Job built ramps and bridges shall be surfaced with an abrasive (non-skid) material. Ramps shall comply with ADA slope requirements.
- 5.3.5.5 Equipment and work operations of any description shall not be permitted to be performed directly above a worker unless adequate overhead protection is provided prior to commencement of the operation.
- 6.3.5.6 Any tiered contractor that utilizes fall protection equipment in the course of their work shall provide for prompt rescue of a worker in the event of a fall or shall ensure that a worker is able to self – rescue. Specific plans for rescue of workers shall be developed prior to initiating work requiring the use of a personal fall arrest system. The fall protection plan along details for self - rescue as needed shall be submitted to the PSR for review prior to work start.

### **3.3.6 Fire Protection**

- 1.3.6.1 All floors that have combustible materials present shall be accessible from ground level by a usable stair system (temporary or permanent). For structures greater than three (3) stories in height, fire sprinkler standpipes shall be completed and charged to within two (2) stories, or thirty (30) vertical feet of all floors containing combustible materials. Siamese connection shall be installed at every level to provide access for fire hoses. All fire extinguishers that are not task-specific (general fire protection) shall be adequate in number and description to comply with OSHA declared limits for egress points, floor area and travel distances. In multistory buildings, at least one fire extinguisher rated no less than 2A shall be located adjacent to each stairway on each floor. They shall be situated in highly visible locations mounted at a height to facilitate ease of inspection and retrieval for use. All fire extinguishers shall be inspected monthly. Inspections tags shall be attached to each extinguisher and initialed by the inspector after each inspection.
- 2.3.6.2 All fire extinguishers that are task specific shall be inspected, tagged, and furnished in advance by the employer that will be conducting the work requiring such firefighting provisions. All work that includes burning, welding, or spark producing of any type shall be defined as “hot work” and shall require the presence of a fire extinguisher, at least one fire watch, and a Hot Work Permit. Fire extinguisher(s) used for “Hot Work” shall be placed within sight of but no more than twenty-five feet (25’) from the perimeter of the task operation and must be of proper size and type for the activity, fully charged, and inspected prior to use. Extinguisher location must always be kept clear and accessible during use. Fire extinguishers in use for general project protection shall not be used for this purpose. Refer to WELDING AND BURNING for additional details.

- 3.3.6.3 No more than twenty-five (25) gallons per floor, of flammable or combustible liquids shall be stored in a room outside of an approved storage cabinet.
- 4.3.6.4 Only UL approved metal fuel containers with flame arrestor and self-closing spout shall be allowed on the project.
- 5.3.6.5 Any liquid storage container larger than twenty - five (25) gallons shall be provided with its own secondary containment. Containment must be properly sized and maintained for effectiveness.

### **3.3.7 Housekeeping**

The PSR shall ensure that the Contractor and all Subcontractors “effectively” clean the Project site continuously throughout each workday. "Effective clean-up" shall daily address all the following housekeeping issues:

- 1.3.7.1 All construction waste, trash, and debris shall be placed in designated receptacles. Glass bottles shall not be permitted on the Project site.
- 2.3.7.2 Stack (or restack) all whole and scrap materials in locations that shall not obstruct a clear pathway nor create a risk for toppling onto a person passing through the area.
- 3.3.7.3 Place all hoses, cords, cables and wires in locations that prevent them from being damaged by equipment, sharp edges or pinch points and from creating tripping hazards.
- 4.3.7.4 Secure and effectively cover all materials on roofs or elevated levels that may be displaced by wind or damaged by driving rain or standing water.
- 5.3.7.5 Restore all signs, barricades, fire extinguishers, guardrails, gates, etc. to proper locations and sound condition.
- 6.3.7.6 Properly store and secure all flammable and combustible liquids and gases.
- 7.3.7.7 Collect and place all cut-off or waste pieces of rolling stock, as they are created, into waste or scrap containers.
- 8.3.7.8 Live rounds that have been ejected from powder-actuated tools shall be immediately placed in designated containers and properly disposed of as recommended by the manufacturer.
- 9.3.7.9 All puncture and impalement exposures shall be covered or eliminated as soon as they are created. As per ANSI specification, effective covers shall be designed to prevent impalement of a 250-pound body being dropped from a fall of four feet (4’).

- 10.3.7.10 All aisles, exits, and other parts of the means of egress shall always be properly maintained and free of stored material and/or waste .

### **3.3.8 Ladders**

- 1.3.8.1 Until such time that two (2) usable stairways are in place, every elevated platform (slab, deck or work surface) shall have at least two (2) remote (considered to be on opposite ends of the work level) ladders for access/egress when the platform is populated by more than three (3) persons. As the population rises above twenty-five (25), additional means of independent access/egress shall be required. A double-cleated ladder may only serve as one (1) independent means of access/egress.
- 2.3.8.2 At the end of each workday, ground access to elevated levels shall be eliminated. This shall be accomplished by removal and storage of all portable and job-built ladders, or installation of a lockable shield that prevents use of the lower rungs.
- 3.3.8.3 Portable aluminum ladders shall be prohibited.
- 4.3.8.4 Extension ladders, straight ladders and job-built ladders shall be secured from movement at the top and the bottom.
- 5.3.8.5 Physical barricade offset that forces at least one change in walking path direction shall be constructed within a six-foot (6') radius around the upper access points for any ladder's step off landing area. If space does not allow this required offset barricade, another type of physical barricade must be provided at the ladder's step off landing area.
- 6.3.8.6 All elevated landings shall include a rope hoist (manual or motorized) near the ladder's upper-most access point.
- 7.3.8.7 Minimum acceptable manufactured step or extension ladder that can be used is an ANSI heavy-duty rating Type IA. All ladders must be inspected daily for condition and set up. All manufacturer installed labels must be maintained in legible condition on all ladders. All ladders must be marked in such a way as to identify the UTRGV.

### **3.3.9 Medical Assistance and Screening**

- 1.3.9.1 The PSR shall maintain a First Aid Log for all treatment administered on the Project (including any that might later escalate). Each SSR shall report and record details daily.
- 2.3.9.2 The PSR and SSR shall transport or accompany any injured worker for initial off-site medical treatment.

### **3.3.10 Motorized Equipment Operation**

- 1.3.10.1 Where possible, equipment operator cabs shall be locked during non-working hours. Only equipment operators and direct supervisors shall have access to keys.
- 2.3.10.2 No combustion engine equipment shall be operated in enclosed spaces unless the exhaust is piped to outside air, and “fresh” air is brought into the space to replace the amount being consumed. The PSR shall be responsible for monitoring air quality on the Project when combustible engine equipment is used. This includes generators, welding machines, and compressors as well as mobile equipment.
- 3.3.10.3 For hose and termination fittings on air compressors, “whip checks” shall be used at all connection points. Emergency automatic shut off valves shall be installed on every discharge fitting of all air compressors that can produce air pressure greater than thirty (30) pounds per square inch.
- 4.3.10.4 Any equipment that operates by rotating such that a worker can possibly be exposed to a caught between hazard must have the immediate swing radius barricaded to prevent worker entry.
- 5.3.10.5 Only company vehicles with evidenced company provided insurance are allowed in the construction area while on the project. Parking is only allowed in the Contractor’s designated parking area(s).
- 6.3.10.6 Accessories for all mobile equipment (blades, buckets, forks, etc.) shall be placed in the down position, ignition off, parking brake engaged, secured from unintended use, and keys removed when the equipment is parked, and the operator is no longer on the equipment.
- 7.3.10.7 If a forklift, crane, or other such mobile lift and carry equipment is being used in an area where the public may be present or in a congested project area where the operator’s view may be obstructed, flaggers/spotters will be required as determined by the PSR .

### **3.3.11 Public Protection**

- 1.3.11.1 The project boundary perimeter shall be secured from public intrusion by fencing and locked gates.
- 2.3.11.2 "Attractive nuisance" items such as tower cranes, tall ladders, fire escapes, large excavations, etc. shall require additional and separate security measures.
- 3.3.11.3 No visitor or member of the public shall enter a construction area without an authorized escort.
- 4.3.11.4 All visitors to the project must abide by all applicable project safety requirements. Visitors must read and sign the Visitor's General Waiver and Release (Exhibit C) prior to entry to the construction area(s).
- 5.3.11.5 The Contractor shall be authorized to contact campus police to remove anyone who refuses to abide by Contractor directive to leave the construction area. The UGR shall be notified immediately should this occur.

### **3.3.12 Scaffolding**

- 1.3.12.1 Each ground-supported scaffold shall bear a shift inspection tag (initialed and dated by the competent person for each company that requires use of the scaffold) to indicate the status of the scaffold (green tag means completely safe and red tag means specific precautions required, or not safe/do not use). For suspended scaffold, inspection tags shall also be placed on the outriggers as well as the work platform. The PSR shall purchase and control a universal system to be used by all employers at the Project site. Training with supporting documentation shall be required for all workers on the Project who will climb onto any kind of scaffolding. The PSR shall furnish tags and ensure that all applicable workers understand the procedure. This requirement shall apply to all scaffolds.
- 2.3.12.2 Mudsills and surrounding areas at the base of ground-supported scaffolds shall be maintained in a well-dressed and level condition. Scaffold foot plates (or casters) shall be installed on the legs of all ground level frame sections and shall always be visible for inspection. Diagonal braces shall be included in every scaffold section asis practically possible. Every walking/working level shall be fully planked and kick-off protection shall be included along open sides and ends. Overhead protection shall be constructed where any walk-through passage is allowed. Mudsills shall be at



least 2"x12" in one-foot lengths with foot plate centered and nailed in two corners.

- 3.3.12.3 Brakes on rolling scaffolds shall always be secure except when the scaffold is being moved. Workers shall not be allowed on the platform when a scaffold is being moved. Rolling scaffolds should be
- 4.3.12.4 Properly designed and built stair and landing units shall be placed at access doors for every Project office and storage trailer prior to use. Per ANSI requirements, the landing outside each door of any office trailer shall be no greater than one quarter inch (1/4") below the threshold and the unobstructed (standing) area outside the swing radius shall be no less than twenty-two inches (22"). Fire and Life Safety Code (NFPA) and ADA requirements shall also be satisfied as they apply. Ramps or connecting decks may be installed to satisfy this requirement.
- 5.3.12.5 For incomplete permanent stair sections, at least the bottom four (4) risers and upper entry points for each floor shall be physically blocked with a hard barricade and marked "INCOMPLETE – DO NOT USE." Until a complete section is made acceptable for general use, the barricades and signs for that section shall be maintained. Once permanent stairs are put into service for general use, no less than two (2) stairs must always be maintained as open and accessible from the uppermost floor to ground level. To be considered usable, all treads and landings must be filled to the top of the pan and handrails must be in place. If any previously available stair(s) will be blocked during the workday, all impacted workers must be notified, and the alternate means of access/egress communicated prior to that day's work start.

### **3.3.13 Project Service Water**

- 1.3.13.1 Potable Water: Potable water shall comply with city and community health requirements.
- 2.3.13.2 Non-potable Water: Water storage containers, hose bibs and faucets shall be posted in English and Spanish "DANGER – DO NOT DRINK or WASH."

### **3.3.14 Welding and Burning**

- 1.3.14.1 Splices, taps, welds and/or burning operations that may produce sparks, slag or hot scraps shall require a "Hot Work" Permit (daily or per shift). "Hot Work" Permits shall be issued by the PSR. The SSR shall submit completed permit in advance of the work to the

PSR for field review and written acceptance. One copy of the accepted permit shall be posted by the SSR in the immediate area of the operation. At the conclusion of the work and successful completion of the smolder/re-kindle watch, a copy of the expended permit shall be signed off and returned to and filed by the PSR. If the campus Environmental Health and Safety (EHS) or Fire Protection departments wish to be involved in the process (provision of permit and/or pre-inspection of the permit space), the Contractor shall accommodate these wishes. The PSR will also issue work specific permit daily or per shift. The PSR shall ensure that all Hot Work will be provided with at least a fire watcher(s), fire extinguisher(s), and proper spark, slag, or hot scrap containment measures. If the work produces intense light, permit shall also contain requirement for screens to protect others from flash burns.

- 2.3.14.2 Oxygen and fuel gas cylinders shall not be stored together, including on bottle carts, but shall be separated by at least twenty (20) feet and properly secured from movement. At the end of any cutting operation and/or any shift, bottles must be removed from carts. Hoses and gauges shall be removed, and caps restored onto cylinders.
- 3.3.14.3 Anti-flashback arrestors shall be installed at the pressure regulator gauges of all Oxy-Acetylene cutting rigs, even if the torch is equipped with a built-in arrestor.
- 4.3.14.4 Fire watcher(s) shall be posted at every operation that produces sparks, flames or enough heat to create an ignition or to fall onto another level. If multiple activities are no more than twenty (20) feet apart and all activities can always be seen, a single fire watch can be utilized. This allowance must be noted on the Hot Work permit. All fire watchers shall be trained in the use of extinguishers, shall keep other people from entering exposure areas, and shall not be assigned other duties until the rekindling possibility ("smolder/re-kindle watch") is over. When sparks, slag, or fire cannot be controlled at the source and may fall to a different level, a separate fire watch shall monitor each level directly below the work (including exterior locations).
- 5.3.14.5 Heater boxes for welding electrodes shall have a manufacturer's label that certifies the purpose of the unit. Job-built heaters shall be prohibited.
- 6.3.14.6 The unused stubs of welding electrodes ("rod butts") shall be collected and placed in proper disposal containers (i.e. metal bucket with sand or water) as soon as each one is expended. Whenever operation is idle, electrode shall be removed from stinger.

7.3.14.7 Welding operations shall not be allowed to present an opportunity for flash burn exposures to the eyes of any workers in the vicinity. All welding operations shall provide appropriate screening measures, erected in advance to contain the high energy light.

**4 Regulated Waste Disposal.**

- 4.1 All regulated waste (RCRA hazardous waste, Class I and II non-hazardous waste, asbestos) generated from the demolition of any UTRGV properties should be disposed of in compliance with any and all applicable local, state, and federal rules and regulations. All manifests and disposal documents should be made available to the EHSRM upon request.

**5 Storm Water Protection.**

- 5.1 The contractor must conduct activities in a manner that will minimize the release of any contaminants to the storm water or sanitary sewers, regardless of if a permit is required. When applicable, the Contractor must comply with permit requirements mandated under the State of Texas Pollutant Discharge Elimination System (TPDES) program or the EPA managed National Pollutant Discharge Elimination System (NPDES). Contractors must comply with current TCEQ regulations regarding UTRGV's MS-4 plan.

## CONTRACTOR SAFETY AUDITS

The EHSRM will conduct routine surveillance of construction activities (attachment III) primarily in those areas that may affect employees, students and visitors. Upon completion of a routine inspection, a copy of the construction safety inspection form will be forwarded to the UTRGV Project Manager. The UTRGV Project Manager shall be the liaison for communicating safety and health concerns to a contractor.

| University of Texas Rio Grande Valley<br>Pre-Construction Expectation Checklist |  |     |    |     |
|---|--|-----|----|-----|
|   | Description  | Yes | No | N/A |
| Initial   | All contractors have completed safety orientation/onboarding   |     |    |     |
|   | All Contractors employees have attended hazard communication training  |     |    |     |
|   | All Construction posting has been installed  |     |    |     |
|   | All barricades are in place  |     |    |     |
| Fire Safety   | All occupants have been informed of construction by ASFC   |     |    |     |
|   | Any potential egress issues have been identified and addressed (blocked exits etc.)  |     |    |     |
|   | Smoke detectors have been covered / Alarms have been deactivated to ensure no false alarms. (Call 956-2073206 or 956-3690762 (Brownsville) |     |    |     |
|   | Sprinkler systems, smoke alarms, or pull stations are not obstructed   |     |    |     |
|   | Fire watch implemented when alarm systems and suppression systems are compromised (> 4hrs)   |     |    |     |
|   | If hot work is conducted, contractor has fire extinguisher and is aware of hot work permit requirements                                    |     |    |     |
| Environmental   | Contractor is aware of location wet sprinkler shut-off   |     |    |     |
|   | Asbestos assessment and abatement has been conducted for project that involves the disturbance.  |     |    |     |
| Occupational Safety   | Storm Water Pollution Prevention Measures in place regardless of size of project (> 1 acre requires permit)                                |     |    |     |
|   | OSHA applicable training has been conducted.   |     |    |     |
|   | Fall protection will be utilized (>4 feet)   |     |    |     |
|   | Dust control measures are in place to address dust from site   |     |    |     |
|   | Fume vapor control measure are in place to address fugitive emissions.   |     |    |     |

**I have read and agree with to comply with the mandates specified in this article.**

\_\_\_\_\_  
**Name**

\_\_\_\_\_  
**Title**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Company**

All vendors conducting operations on The University of Texas Rio Grande Valley campus are required to comply with all applicable local, state, and federal rules and regulations pertaining to occupational health and safety and the environment. Acceptance of this document constitutes formal acceptance of this requirement. All contractors working onsite are subject to inspection by the University of Texas Rio Grande Valley - Department of Environmental Health, Safety & Risk Management. Failure to comply may result in removal from job site.

**For questions related to this document please call:**

Laura De Jesus  
EHS Program Manager  
University of Texas Rio Grande Valley  
Environmental Health, Safety & Risk Management  
EEHSB 1.112  
Edinburg, Texas 78539  
[Laura.dejesus@utrgv.edu](mailto:Laura.dejesus@utrgv.edu)  
(956) 665-2904