

# COMMERCIAL CONSTRUCTION SAFETY MANUAL

Project Name – **Fill**  
General Contractor – **Fill**  
Site Location – **Fill**

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## Declaration

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This manual is for the exclusive use of Kent Companies' employees. The information contained in this manual is applicable to the employees of Kent Companies and to the employees of Kent Companies' subcontractors working on the same job site.

Any questions or requests for additional information about the policies in this manual should be addressed to either Site Leadership or Kent Companies' Safety Manager.

## Safety Policy

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In the interest of providing a safe and healthy job environment, Kent Companies, Inc., endorses the safety policies listed below. It is the firm hope that all employees of Kent Companies will make every effort to adhere to these policies and thereby make our job sites a safe and healthy place to work.

1. All Kent Companies employees are required to abide by all applicable local, state (MIOSHA, NC DOL, SC OSHA), and federal (OSHA) safety laws.
2. The wearing of approved protective headgear (hard hats) is required at all times, while on Kent Companies job sites.
3. Kent Companies employees are required to wear sturdy leather work boots (steel toe boots are recommended). Under no circumstances will Kent Companies employees be permitted to wear sandals, canvas shoes, or sneakers.

4. Kent employees must wear a shirt and long pants at all times. Shirts will have a minimum four (4) inch sleeve. (No cut offs or tee tops)
5. When required Kent Companies shall provide their employees specialized safety equipment, such as safety harnesses and retractables, face shields, hearing protection, etc. It shall be the responsibility of each employee to use this equipment in the recommended manner as job conditions merit.
6. Under no circumstances shall a Kent Companies employee work alone on a jobsite.
7. Kent Companies employees are to use only those toilet facilities provided by the general contractor or the construction manager and/or toilet facilities designated by the owner.
8. Kent Companies employees shall maintain all tools and equipment in a safe and operable condition. Employees should report any unsafe tools or equipment to his supervisor and immediately remove those defective tools from service.
9. Alcoholic beverages, illegal drugs or paraphernalia shall not be permitted or consumed on the job site nor shall any employee report for work under the influence of such substances. (See Kent Companies Alcohol & Substance Abuse Policy)
10. Job sites shall be kept in a clean and orderly manner and clear of debris. All combustible trash, refuse, etc. must be removed from the building after each day and placed in dumpsters outside the building.
11. No heavy-duty equipment or lifts shall be left unattended while running or with a suspended load.
12. Kent employees or other unauthorized persons shall not use any tools or equipment belonging to another trade, except when given permission by a designated person employed by the other trade. The user agrees to hold the other trade harmless for injury or any injury or damage caused to any Kent employee or property as a result of such usage while in their possession.
13. Electrical arc welding and flame cutting equipment must be approved by the general contractor or construction manager before they may be used within a building. When welding or flame cutting is permitted, Kent Companies shall provide a standby watchman with a fire extinguisher, when required.
14. Kent employees shall confine themselves to their own work area.
15. Smoking is only permitted in designated smoking areas.
16. Radios and/or music are not permitted on Kent Companies jobsites. Headphones or earpieces (corded or wireless) are not permitted unless being used for one-touch phone purposes while driving a Kent Companies vehicle.
17. Kent employees shall immediately report unsafe conditions to their foreman or superintendent.
18. Foremen are required to complete a Kent Companies Accident Investigation Report for ALL accidents no matter how minor. The completed form must be forwarded or faxed to the Grand Rapids office the day of the accident.
19. Kent Companies Safety Manager, Superintendents and Foremen are authorized to enforce the Kent Companies Safety Policy and all applicable local, state, and federal safety laws. Employees who fail to abide by the above policy or laws will be removed from the job site.

## **LISTED AND REQUIRED RESPONSIBILITIES**

### **1. MANAGEMENT WILL:**

- a. Provide means to accomplish policy as stated above.
- b. Enforce this policy and discipline any employee willfully disregarding it.
- c. Require all employees to abide by this policy.
- d. Cooperate with prime contractors and owners to help them maintain their job site safety conditions.
- e. Conduct safety inspections and file reports.
- f. Investigate or cause to have investigated any and all accidents and file full reports on each.
- g. Establish procedure for treatment of injuries.
- h. Establish and provide safety training for personnel.

### **2. GENERAL SUPERINTENDENT WILL:**

- a. Be completely responsible for on-site safety.

- b. Make available all necessary personal protective equipment, job safety materials, and first aid equipment on the job site.
  - c. Instruct the foreman that safe practices are to be followed and safe conditions maintained throughout the job.
  - d. Require all sub-contractors and encourage other prime contractors to adhere to all safety regulations.
  - e. Review all accidents with foremen, file full reports, and see that corrective action is taken immediately.
  - f. Have available copies of all Federal, State, and Local safety regulations at job site office.
  - g. Be familiar with the current laws pertaining to safety and their basic requirements.
- 3. JOB FOREMAN (JOB SAFETY OFFICER) WILL:**
- a. See that the entire safety program is carried out at the work level.
  - b. See that the employees commit no unsafe practice.
  - c. Make sure that no unsafe conditions exist in their work area.
  - d. Make sure that necessary protective equipment is on hand and used.
  - e. Instruct all employees in safe procedures and job safety requirements – follow up on compliance.
  - f. Conduct “Weekly Tool Box Talks” on safety and invite sub-contractors to attend.
  - g. See that all injuries are cared for properly and reported promptly.
  - h. Investigate all accidents, file complete reports, and correct the causes immediately.
  - i. Be familiar with the current laws pertaining to safety and their basic requirements.
  - j. Inform sub-contractors of safety policy and procedures.
- 4. ALL WORKERS WILL:**
- a. Work according to good safety practices as posted, instructed, and discussed.
  - b. Refrain from any unsafe act that might endanger themselves or fellow workers.
  - c. Use all safety devices provided for their protection.
  - d. Report any unsafe situation or act to the supervisor or safety officer.
  - e. Assume share of responsibility for thoughtless or deliberate acts that cause injury.
  - f. Attend “Tool Box Safety” meetings.
  - g. Attend JHA morning meetings
  - h. Participate in group stretch & flex

All Kent Company’s employees are subject to safety rules while working on all company projects and shall be responsible to the limits of safety laws for their acts of omission and commission.

## **Alcohol and Drug Abuse Policy**

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Kent Companies has a vital interest in maintaining a safe, healthful, and efficient workplace. The use and effect of illegal drugs and alcohol by employees may very seriously jeopardize those goals, especially when employees allow illegal drugs or alcohol to impact their performance while at work. Because of these concerns, it is Kent Companies’ desire to take reasonable steps to ensure that the use of alcohol and/or drugs does not jeopardize the safety of our employees, subcontractors and customers.

### **DEFINITIONS**

For the purposes of this Policy:

1. “Company Premises” includes (but is not necessarily limited to) all property, whether owned, leased, or used by Kent Companies. This Policy also includes certain premises owned, leased, or used by the customers we serve, or by partnering contractors or subcontractors. It also includes modes of transportation (trucks, cars, heavy machinery), whether owned by the employee or owned by Kent Companies, to and from all of those locations if the mode of transportation is used by the employee in the course of his or her employment by Kent Companies.

2. "Job Site" includes any location where Kent Companies is performing any form of work, whether or not the location is property owned by Kent Companies, a customer of Kent Companies, a client of Kent Companies, or a contractor or subcontractor working with Kent Companies.
3. "Prohibited Substances" includes: Illegal drugs (whether unlawful under federal law, state law, or both); controlled substances; hemp products; alcoholic beverages or liquids; prescription drugs; trace amounts or the metabolite of any of the above; any other substance which affects or may affect an employee's ability to competently or safely perform his or her job; or any other substance capable of altering mood, perception, or judgment. The authorized use of prescription medications do not qualify as "Prohibited Substances" under this Policy provided that the medication is prescribed by a qualified licensed practitioner under the practitioner's care and supervision, is used in compliance with a qualified medical practitioner's instructions, and under such terms as are provided in this Policy. Examples of "Prohibited Substances" include amphetamines, cannabinoids, cocaine, opiates, phencyclidines, and both medical and recreational use of marijuana.
4. "Under the influence" of alcohol means having a breath alcohol concentration of 0.02 or higher. "Under the influence" of any Prohibited Substance other than alcohol means having any detectable level of any Prohibited Substance or its metabolite in an employee's system.
5. "Reasonable Suspicion" refers to evidence which provides Kent Companies with an objective basis for believing that the employee has used, possessed, sold, distributed, or been under the influence of alcohol or non-medically prescribed drugs. It may include (but is not limited to): observation of behavior (such as slurred speech, unsteady walking, abrupt mood swings); observation of breath or odor consistent with the use of a Prohibited Substance; observations of physical manifestations frequently associated with some form of use of a Prohibited Substance (such as needle marks, sudden nosebleeds, or frequent illnesses not explained by any medical condition); absenteeism; declining productivity; excessive tardiness; and any other activity suggesting possible use of or involvement with any Prohibited Substance in violation of this Policy.

## **PROHIBITIONS**

No principal, employee, or sub-contractor of Kent Companies shall:

1. Sell, distribute, be under the influence of, or be in possession of any form of Prohibited Substance while:
  - a. on Kent Companies Company Premises;
  - b. on a Kent Companies Job Site; or
  - c. while driving or operating any Kent Companies vehicle or equipment.
2. Have any detectable level of a Prohibited Substance or its metabolite in his or her system while at work, whether or not the Prohibited Substance was consumed by the employee when he or she was off-duty.
3. Store any Prohibited Substance on Company Premises; or refuse to submit to a reasonable search of an employee's person or property.
4. Fail to adhere to the requirements of any drug or alcohol treatment or counseling program in which any Kent Companies employee may be enrolled.
5. Fail to report to his or her supervisor or to Human Resources and Safety any use of any prescription or "over the counter" drug which has the capacity to alter mood, perception, or judgment or which might alter the employee's behavior or physical or mental ability; or to fail to keep prescribed medications in its original container while at work on Kent Companies' Company Premises or at a Kent Companies Job Site.
6. Refuse to sign a "Consent & Release" form authorizing drug testing and release of results to the Company; fail to promptly submit a urine, breath, or other sample for testing without a valid medical explanation when requested by the Company consistent with the requirements of this Policy and as allowed by law; or switch, dilute, or adulterate any sample submitted for testing.
7. Refuse to sign a statement agreeing to abide by this Policy.

## **IMPLEMENTATION AND ENFORCEMENT**



1. Testing. Employees may be required to submit to substance testing, which might include (but is not necessarily limited to) urinalysis, blood, breath, hair, or similar tests, as provided below:
  - a. All employees will be required to pass a pre-employment substance test prior to becoming a full-time, Kent Companies employee.
  - b. A substance test may be required where any Kent Companies manager, supervisor, foreman, or officer acquires Reasonable Suspicion of any violation of this Policy.
  - c. Any employee involved in an accident, injury or near-miss accident where there is reasonable basis for believing the employee's judgment or lack of judgment may have contributed to the incident will be required to submit for a substance test.
  - d. The Company will maintain a pool of all active Kent Companies employees and once each month or as the Company determines, a percentage of the pool's eligible employee names will randomly be drawn. Those selected employees will be required to submit to testing as directed by the Company.
  - e. Substance testing will be performed as otherwise required by law.
  - f. Substance testing as part of jobsite contact requirements.
2. Investigations. Any Kent Companies employee's personal property is subject to search if Kent Companies acquires Reasonable Suspicion of any violation of this Policy. The Company reserves the right to inspect the contents of any Company property being used by any employee at any time. Searches will be conducted with all due regard for the personal privacy of each employee and the integrity of the searching or testing process.
3. Authorized Use of Prescribed Medications. Employees working while under the care of a qualified medical practitioner who have been prescribed the use of a prescription drug to treat any medical condition will be allowed to work on Kent Companies' job sites if Kent Companies determines that the medication will not inhibit the employee's ability to perform his or her regular assigned duties safely and efficiently, and if the employee's use of such medication is consistent with both the instructions of his qualified medical practitioner and all other requirements provided by this Policy.
4. DOT/CDL and Safety Sensitive Employees. Certain employees are required by applicable federal or state law to submit to certain special requirements by virtue of their maintenance of a commercial driver's license ("CDL"), because they operate heavy equipment (i.e.; trucks, cranes, lifts, loaders, and earth moving equipment) as a condition of their jobs, or because their job is covered by or regulated by the federal Department of Transportation ("DOT"). Further, certain other employees perform specific jobs which have been designated by Kent Companies as "safety sensitive" positions. DOT/CDL-covered employees and Safety Sensitive Employees are expected to comply with the terms of this Policy, but may have additional terms and conditions of employment related to substance use or testing beyond the requirements of this Policy. If there is any conflict between the terms of this Policy and the terms of Kent Companies' DOT/CDL or Safety Sensitive Employee Policy, employees should speak with a supervisor to ensure that they are complying with the correct policy.

#### **CONSEQUENCES FOR VIOLATION OF THIS POLICY**

1. Violations. Any employee who violates any term or condition of this Policy or who tests positive for a Prohibited Substance under the terms of this Policy is subject to discharge, up to or including immediate termination.
2. Last Chance Agreements. Individuals who are subject to termination for violation of this Policy may, at Kent Companies' sole discretion, be offered the opportunity to enter into a Last Chance Agreement ("LCA"). LCAs typically feature the following conditions:
  - a. The employee acknowledges in writing that he or she has violated the terms of this Policy;
  - b. The employee certifies that he or she has obtained or is obtaining treatment from a licensed drug or alcohol rehabilitation program or through a certified addiction counselor satisfactory to Kent Companies;
  - c. The employee agrees in writing to submit to testing on demand for the remainder of his or her employment; and
  - d. The employee will be discharged for any violation of the LCA or subsequent violations of this Policy.

- e. If Kent Companies offers an LCA to an employee, that employee will be placed on an unpaid suspension during the course of his or her treatment in a licensed drug or alcohol rehabilitation program or through a certified addiction counselor satisfactory to Kent Companies. Such unpaid suspension shall not result in the loss of accrued but unused paid time off or benefits provided that the employee satisfactorily completes all terms and conditions of his treatment.
3. **Re-Employment for Terminated Employees.** After a minimum suspension of 28 days following termination for violation of this Policy, any employee terminated under the terms of this Policy may petition Kent Companies for re-employment. If a suitable position compatible with the employee's skills is available and Kent Companies deems it in its best interest to re-hire the terminated employee, an offer of employment will be extended. At his/her own expense, the employee will be required to take an alcohol and drug screen at a Kent Companies-approved facility. If the results of this test demonstrate the presence of no Prohibited Substances or their metabolites in the former employee's system and fewer than six months have elapsed after the date of the employee's termination, the employee will be reinstated as a Kent Companies' employee without a break in service. Reinstated employees may be subject to additional testing at the Company's discretion. If a reinstated employee fails a subsequent test, that employee will be subject to immediate termination of employment.

**Voluntary Rehabilitation.** An employee who has never been disciplined by Kent Companies for any offense related to the use, sale, distribution, dispensation, manufacture, or possession of alcohol or a controlled substance may affirmatively and voluntarily request the Company's assistance for treatment of his/her alcohol and/or drug use problem. Such assistance can be requested through Kent Companies' Human Resources Department or through the confidential EAC Program. The Company shall attempt to refer the employee to appropriate medical treatment and counseling, and shall grant the employee a leave of absence, if necessary, to undertake such rehabilitative treatment. Employees requesting voluntary rehabilitation are still subject to the terms of this policy. Employees who are granted such leave of absence will be required by the Company to successfully complete a return to service medical examination, including alcohol and/or drug testing. Employees returning to work under this policy will be subject to periodic or random alcohol and/or drug testing, as a condition of reinstatement to work.

## **Firearms/Weapons Policy**

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Possession of firearms or weapons on any property under the control of Kent Companies, Inc. including company owned vehicles is prohibited. As a safety precaution, entry into or upon any property or work location of Kent Companies, Inc. is conditioned upon the company's right to search the person and the personal effects of any entrant for firearms or weapons. All persons, while on company owned or controlled property or while entering or leaving same, will be subject to personal, baggage, tool or lunch box and package checks by duly authorized company personnel. You should understand that participation in this search is strictly voluntary. If you do not wish to be searched, you will not be searched. You will, however, be asked to gather your belongings and depart company premises. You will not be allowed to report or return to work until further notice. From time to time and without prior announcement, searched by authorized company representatives may be made of anyone entering, leaving, or while on company premises. When appropriate, such items discovered through these company inspections may be taken into custody and may be turned over to the project law enforcement authorities.

## **Spill Containment Plan**

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### **OBJECTIVE**

To eliminate or minimize the possibility of a chemical spill on the job site, In order to accomplish this goal Kent Companies' employees will take the following steps:

1. All barrels and drums of sealers form oil or other job related chemicals will be stored in an upright position with the original screw plugs tightly in place. no barrel or drum will be stored with a plastic barrel bung or spigot in place unless stored in an appropriately labeled secondary container designed to capture any potential overspill.
2. Gasoline and diesel fuel for small equipment will be stored in MIOSHA approved 5 gallon safety cans
3. If an accidental spill happens on sire, Kent Companies' employees will immediately notify the General Contractor or his agent.
4. In the event of an accidental spill, Kent Companies' employees will act quickly to eliminate the source of the contamination.
5. Any soil that is deemed to be contaminated will be promptly removed from the site and disposed of properly.

## Hazard Communications Program

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### INTRODUCTION

Kent Companies, Inc. is firmly committed to provide all of its employees with a safe and healthy work environment. It is a matter of company policy to provide our employees with information about hazardous chemicals on the work site through our hazard communication program, which includes container labeling, Safety Data Sheets (SDSs) and employee information/training.

The safety Manager will have the overall responsibility for coordination the hazard communication program for Kent Companies, Inc. The Safety Manager will make our written hazard communication program available, upon request, to employees, their designated representatives, the assistant secretary of Labor for Occupational Safety and Health and the Manager of National Institute for Occupational Safety and Health.

### LIST OF HAZARDOUS CHEMICALS

The Safety Manager will compile a list of all hazardous chemicals that will be used on the work site by reviewing container labels and Safety Data Sheets. The list will be updated as necessary, and is available digitally on the company website in the "employee links" area.

### LABELING

It is the policy of this company to ensure that each container of hazardous chemicals on a job site is properly labeled. The labels will list:

- The contents of the container
- Appropriate hazard warnings;
- The name and address of the manufacture, importer or other responsible party

To ensure that employees are aware of the chemical hazards of material used in their work areas, it is our policy to label all secondary containers. Secondary containers will be labeled with either an extra copy of the manufacture's label, or with a sign or generic label that list the container's contents and appropriate hazard warnings. This responsibility has been assigned to the Safety Manager.

### SAFETY DATA SHEETS

Copies of safety data sheets for all hazardous chemicals to which employees may be exposed are kept digitally on the company website under the "employee links" section, and are readily available on demand.

#### Employee Training

Employees are to attend a training session on hazardous chemicals in their work area at the time of their initial work assignment. The training session will cover the following:

- An overview of the hazard communication requirements
- A review of the chemicals present in their workplace operations

- The location and availability of our written hazard communication program, a list of hazardous chemicals in the work area
  - The physical hazards of the chemical in the work area
  - The health of the chemicals in the work area, including signs and symptoms of exposure and any medical condition known to be aggravated by exposure to the chemical.
  - How to lessen or prevent exposure to hazardous workplace chemicals by using good work practices, personal protective equipment, etc.
  - Emergency procedures to follow if employees are exposed to hazardous workplace chemicals
  - An explanation of our hazard communication program, including how to read labels and Safety Data Sheets to obtain appropriate hazard information
- When a new type of product is introduced into a work area of the chemical composition of a new product changes, the Safety Manager will review the above items as they are related to the new chemicals

### **NON-ROUTINE TASKS**

Periodically employees are required to perform non-routine tasks. Prior to starting work on such projects, each affected employee will be informed by the Safety Manager about hazard to which they may be exposed and appropriate protective and safety measures.

### **INFORMING OTHER EMPLOYERS**

To ensure that the employees of other contractors have access to information on the hazardous chemicals at a job site, it is the responsibility of the Safety Manager to provide the other contractor the following information

- Where the SDSs are available
- The name and location of the hazardous chemicals to which their employees may be exposed and any appropriate protective measures required to minimize their exposure; and
- An explanation of the labeling system used at the job site.

Each contractor bringing chemicals onto a job site must provide us with the appropriate hazard information on those substances to which our own employees may be exposed to on that job site.

## **Concrete Construction**

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Kent Companies performs many aspects concrete construction, including but not limited to, foundations and footings, slab-on-grade, slab-on-metal decks, cast-in-place shored decking, cast-in-place columns and core walls, tilt walls, and post-tension operations.

### **REBAR**

1. All protruding reinforcing steel onto and into which employees could fall, shall be guarded to eliminate the hazard of impalement.
2. Reinforcing steel or walls, piers, columns, and other similar vertical structures shall be guyed, braced or otherwise supported to prevent collapse.
3. A route designated as a means of access or egress across reinforcing steel for general traffic shall be provided with a walkway.

### **CONCRETE POURING**

1. A handle on a bull float that is used where it may contact an energized electrical conductor shall be constructed of a nonconductive material or insulated.
  - a. A handle may also be shortened to eliminate the risk of contact or arc using equipment operation tables for distance requirements from energized lines based on voltage.
2. A powered and rotating-type concrete trowel that is manually guided shall be equipped with a control switch that will automatically shut off power when the operator removes his/her hands from the equipment.
3. Employees are not permitted to ride, walk, or work under a bucket that is suspended from crane or cableway.

- a. A concrete bucket that is positioned by a crane or cableway shall be suspended from an approved swivel safety-type hook.

#### **FORMS AND SHORING**

1. Formwork, shoring, and reshoring shall be designed, erected, supported, braced, and maintained so that they will support all vertical and lateral loads that may be imposed during the placement of concrete or until loads can be supported by the concrete structure.
2. Drawings or plans prepared by a qualified person (Professional Engineer) which shows the jack layout, formwork, shoring, working decks shall be available at the jobsite.
3. No construction loads shall be placed on a concrete structure (or portion of a structure) unless the employer determines, based on information from a qualified person (Professional Engineer) in structural design, that the structure is capable of supporting the loads.
4. Baseplates, shore heads, extension devices, and adjustment screws shall be in firm contact with the footing sill and the form.
  - a. Eccentric loads on shore heads and similar members or shoring are prohibited, unless the shore heads are designed for the loading.
5. Shoring equipment shall be inspected by a qualified person before erection to determine that it is as specified in the plans.
6. Before concrete is placed in forms all shoring equipment shall be inspected by a qualified person to determine if it was erected as specified in the plans.
7. Erected shoring shall be inspected by a qualified person during and immediately after pouring concrete. Any deficient shoring shall be immediately reinforced or reshored.
8. Only designated employees shall be permitted under the forms during concrete placement.

#### **POST-TENSION OPERATIONS**

1. Expendable and reusable strand deflection devices shall not be loaded in excess of their maximum intended load.
2. Kent Companies shall designate a qualified person to inspect all jacking and pulling equipment before each use and during use.
3. Tensioning strands that have kinks, bends, nicks, and other defects will not be used.
4. Welding or cutting is prohibited near strand that has been unrolled, strung, or tensioned or at any other location where strand is stored.
5. During jacking operations of any tensioning elements, the anchor shall be kept turned up close to the anchor plate.
6. An employee shall not stand in the line of, in back of, or over the jacking equipment during tensioning operations.
7. Only an employee who is operating tensioning equipment shall be permitted in the immediate vicinity when tensioning is in progress.
8. Audible or visual signaling devices shall be operated to warn employees when tensioning operations are under way.
9. All employees who are not directly involved in the tensioning operations shall be cleared from the area and shall remain clear until the tensioning operations are completed and the signaling devices are turned off.

#### **TILT-UP OPERATIONS**

1. Lifting inserts which are embedded or otherwise attached to tilt-up members shall be capable of supporting at least 2 times the maximum intended load applied or transmitted to them.
  - a. Lifting hardware shall require a safety factor of 5.
2. An employee, except for a connector, shall not be permitted under a precast section, wall, or panel during lifting and tilting operations.

### **Mobile Equipment Operations**

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Kent Companies uses mobile equipment in many aspects of work. The list of equipment covered by these rules includes but is not limited to, rough terrain forklifts, earth-moving equipment, aerial work platforms, and concrete placement buggies.

## GENERAL RULES

1. Employees must be designated as operators by Kent Companies prior to operation of any mobile equipment.
  - a. Kent Companies must provide training and operator cards for rough terrain forklifts, counterbalance forklifts, boom lifts, and scissor lifts.
  - b. Kent Companies must verify competency of operations for earth-moving equipment and concrete placement buggies.
2. All employees designated as operators must operate machinery in accordance with manufacturer provided operators manuals.
  - a. Pre-use inspections including functional and visual checks, and inspection of the operational environment must be done prior to operations daily.
  - b. Equipment is not allowed to be field-modified in any way.
  - c. Any equipment found to be deficient must be immediately tagged and removed from service.
    - i. All maintenance and/or repairs other than routine greasing must be performed by qualified service technicians and approved by Kent Companies prior to return to field use.
3. Minimum clearance distances for equipment from electrical hazards must be respected.
  - a. All lines are assumed to be energized until verification of de-energization is provided by the utility provider.
  - b. Electrical hazards must be noted on pre-use inspections as an environmental hazard, and if not moved or de-energized should be visually marked.

<b>Minimum Clearance Distances for Equipment</b>	
<b>Voltage</b>	<b>Clearance</b>
0 to 50 KV	10 feet
Over 50 KV	10 Feet + 0.4 in per KV over 50 KV

4. All operators may have their privileges revoked or suspended at any time by Kent Companies field management or safety. Kent Companies may also require re-training prior to re-authorization.
5. Any equipment either being operated or left unattended at night and adjacent to roadways must have proper reflectors and lighting

## Cranes and Rigging

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General guidelines for crane use and rigging operations apply to all Kent Companies employees and their subcontractors. If operation of a crane is required for completion of Kent Companies scope but is under the supervision of the controlling contractor on site a member of the Kent Companies project team (project manager, safety personnel, general superintendent) must verify that all certifications and authorizations for crane operators are in order and available for review at any time.

### CRANE LOCATION AND ASSEMBLY/DISASSEMBLY

1. The controlling entity must ensure that ground preparations and conditions are adequate to meet the needs required by the crane and must alert operators of any hazards beneath the equipment that could potentially impact safe operation of the equipment (voids, tanks, utilities, etc.).
2. Assembly/Disassembly (A/D) must comply with manufacturer guidelines.
3. A/D must be directed by a person who is both competent and qualified, or by a competent person who is assisted by one or more qualified persons.
4. The A/D director must ensure that the entire crew has been informed of their tasks, hazards associated with those tasks, and hazardous positions/locations that must be avoided.

5. Electrical hazards must be de-energized, or alternatively they can be visually marked and clearances must be maintained per Table A.

<b>TABLE A—MINIMUM CLEARANCE DISTANCES</b>	
<b>Voltage (nominal, kV, alternating current)</b>	<b>Minimum clearance distance (feet)</b>
up to 50	10
over 50 to 200	15
over 200 to 350	20
over 350 to 500	25
over 500 to 750	35
over 750 to 1,000	45
over 1,000	(as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution).
<p><b>Note:</b> The value that follows "to" is up to and includes that value. For example, over 50 to 200 means up to and including 200kV.</p>	

## **CRANE OPERATION**

1. Inspections
  - a. Daily, Monthly, and Annual inspections are required for all cranes. Documentation must be available immediately in the cab of the crane or job trailer.
    - i. Annual inspections for cranes owned by Kent Companies must be performed by 3<sup>rd</sup> party inspectors deemed qualified by the manufacturers to complete comprehensive annual inspections.
  - b. Cranes not in regular use must be inspected by a qualified person and fulfill the requirements of a standard monthly inspection.
  - c. Wire Rope must be inspected prior to use daily, monthly, and annually.
2. Safety Features
  - a. Crane level indicators are required.
  - b. Boom stops, anti two-block devices, anemometer, LMI system, and a horn must be present and operational.
  - c. Cranes must have swing radius area blocked to prevent material and personnel strikes
3. Inclement Weather
  - a. Operators must monitor weather and wind speeds and follow manufacturer guidelines for operation limits.
  - b. Visible lightning strikes start a rolling half-hour temporary shutdown.
4. Signaling

- a. Employees must have training on hand signals, or verification and testing of employees if they have prior experience and are now working for Kent Companies by a qualified evaluator from Kent Companies or an approved 3<sup>rd</sup> party.
  - b. Hand Signals
    - i. Hand signals should be designated between riggers and operator prior to beginning lifting operations.
    - ii. If more than 1 person is required to rig or land materials 1 person should be designated in advance as the signal person.
  - c. Radio
    - i. Operators must have the ability to receive radio signals without hands leaving the controls.
    - ii. Signals must be on designated frequencies to prevent cross-traffic talking.
    - iii. If there is more than 1 crane on site each operator should have access to those signals to coordinate their lifting and movement operations to prevent crane to crane strikes.
    - iv. Voice signals should be agreed upon by crane operator(s) and rigger(s) prior to lifting operations.
      - 1. Voice signals require three elements:
        - a. Function (main hoist, jib, etc.)
        - b. Direction
        - c. Distance and/or speed
5. Lifting/Rigging
- a. Anyone rigging equipment or materials for hoisting needs to be qualified to do so.
    - i. Qualified riggers are not required to hold a certification, but must be able to adequately problem solve and be familiar with how to calculate loads to select proper rigging material and style of rigging for the material they wish to move.
  - b. Hoisting routes should be designated to minimize overhead exposure to employees and the public on ground level.
  - c. Employees are forbidden to enter the fall zone of hoisted material except to:
    - i. Engage in hooking, unhooking, guiding a load
    - ii. Engage initial attachment of load to component or structure
    - iii. Operate a concrete hopper or bucket
  - d. During tilt-up:
    - i. No employee may be directly under the load.
    - ii. Only essential employees are allowed in the fall zone:
      - 1. Physically guiding the material
      - 2. Closely monitor and give instructions for movement
      - 3. To detach it from or attach it to another component of the structure
        - a. Installing bracing, connecting, etc.

#### **OPERATOR CERTIFICATION AND EVALUATION**

1. All Kent Companies employees who operate cranes must be certified to operate the style of crane they are operating.
  - a. 3<sup>rd</sup> party certifications are required, and NCCCO is preferred. Any 3<sup>rd</sup> party certification outfit must be fully accredited and in good standing with the industry at large.
2. All operators must be evaluated by their employer to operate any given crane, even if they hold a certification.
  - a. Kent Companies crane operators must be audited on proper operation, but also safety features, and must have the ability to use the LMI systems and read/locate the appropriate load charts for any given configuration of the crane they are operating.
  - b. Sub-contracted operators must provide employer evaluations to Kent Companies prior to any crane operations for Kent Companies employees.
  - c. If operators are hired and controlled by controlling contractor on site, field management and/or the safety team from Kent Companies must request and verify the certifications and evaluations prior to any crane-related operations done for Kent Companies.

## Excavation, Trenching, And Shoring

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**All excavations must be prepared in accordance with Federal Standard 1926 Subpart P. If operations are occurring in Michigan then all excavations must be prepared in accordance with MIOSHA CONSTRUCTION STANDARDS PART 9: Excavation, Trenching, and Shoring.**

Kent Companies requires that a competent person be on site during trenching/excavation activity or employee entry into a trench or excavation. A competent person must have the following qualifications:

- Be able to identify and predict trenching/excavation hazards.
- Have authority to eliminate hazards and stop work if necessary.

### TRAINING

1. Initial training of employees shall occur during orientation for employees who work in divisions that are routinely exposed to excavations. Hazard recognition and excavation protection systems shall be included in the training.
2. Prior to entering excavations on a jobsite all hazards and necessary control measures will be discussed with Kent employees during morning huddles, as led by the competent person on site.

### GENERAL PRECAUTIONS

1. Know the location of all underground facilities before digging.
2. Hand dig to expose all known utility lines.
3. If a pipe or cable is damaged, evacuate the danger area and notify the utility company immediately.
4. Check the table on Benching, Sloping, Shoring and Shielding Requirements for soils and proper angle of repose.
5. Trenching over five feet deep must be properly shored or sloped.
6. Water, loose materials or obstacles that create a hazard must be removed or supported before beginning work.
7. Do not store materials within two feet of the excavation's edge.
8. Vehicles must not be driven or parked where a cave-in might occur.
9. Excavation 48 inches deep must have access ladders extending 36 inches above the edge or earth ramps sloped at a maximum of 45 degrees.
10. No employee can be further than 25 feet away from an egress point at any time in a trench excavation that is 48 (or more) inches deep.
11. Use of portable trench boxes and shields are permitted if they provide the same level or protection as shoring or sloping.
12. Keep walkways clear and protected along excavation areas and when entering roadways.
13. Protect structures adjacent to excavation or trenching from damage or shifting.
14. The atmosphere must be tested in excavations that are 48 or more inches deep when hazardous materials are stored nearby or when there is potential for other atmospheric hazards.

### INSPECTIONS

The competent person shall conduct inspections:

1. Daily and before the start of each shift.
2. As dictated by the work being done in the trench.
3. After every rain storm.
4. After other events that could increase hazards, such as snowstorm, windstorm, thaw, earthquake or dramatic change in weather.
5. When fissures, tension cracks, sloughing, undercutting, water seepage, bulging at the bottom or other similar conditions occur.
6. When there is a change in the size, location or placement of the spoil pile.
7. When there is any indication of change or movement in adjacent structures.

8. For excavations 4 feet or greater in depth, a trench inspection form shall be filled out for each inspection.

### **SOIL TYPES**

1. Type A: cohesive soils with an unconfined compressive strength of 1.5 tons per square foot (tsf) or greater.
  - a. Clay, silty clay, sandy clay, clay loam are all examples of type A soils.
  - b. Any soil that has been previously disturbed cannot be considered Type A.
2. Type B: cohesive soil with an unconfined compressive strength of greater than 0.5 tsf but less than 1.5 tsf., or granular cohesionless soils including: angular gravel, silt, silt loam, and sandy loam.
3. Type C: cohesive soil with an unconfined compressive strength of 0.5 tsf or less, or granular soils including gravel, sand, and loamy sand.

### **TESTING METHOD**

The competent person in charge of the excavation shall be responsible for determining the soil type. If the competent person wants to classify the soil as Sand, they do not need to do any tests. However, tests must be conducted to determine if the soil can be classified as Firm Clay. To do this, the competent person shall use a visual test coupled with one or more manual tests.

1. Visual Tests:
  - a. In addition to checking the items on the trench inspection form, the competent person should perform a visual test to evaluate the conditions around the site. In a visual test, the entire excavation site is observed, including the soil adjacent to the site and the soil being excavated. The competent person must also check for any signs of vibration.
  - b. During the visual test, the competent person should check for crack-line openings along the failure zone that would indicate tension cracks. They should look for existing utilities that indicate that the soil has been previously disturbed, and if so, what sort of backfill was used. The competent person must also observe the open side of the excavation for indications of layered geologic structuring.
  - c. This competent person should look for signs of bulging, boiling or sloughing, as well as for signs of surface water seeping from the sides of the excavation or from the water table.
  - d. The area adjacent to the excavation should be checked for signs of foundations (or other intrusions) into the failure zone. The evaluator should check for surcharging and the spoil distance from the edge of the excavation.
2. Manual Tests:
  - a. Thumb penetration test. Attempt to press the thumb firmly into the soil in question. If the thumb penetrates no further than the length of the nail, it is probably granular soil. If the thumb penetrates the full length of the thumb, it is sand or silt. It should be noted that the thumb penetration test is the least accurate testing method.
  - b. Dry strength test. Take a sample of dry soil. If it crumbles freely or with moderate pressure into individual grains it is considered granular. Dry soil that falls into clumps that subsequently break into smaller clumps (and the smaller clumps can only be broken with difficulty) it is probably clay in combination with gravel, sand or silt.
  - c. Plasticity or Wet Thread Test. Take a moist sample of the soil. Mold it into a ball and then attempt to roll it into a thin thread approximately 1/8 inch in diameter by two inches in length. If the soil sample does not break when held by one end, it may be considered Firm clay or granular.
  - d. A pocket penetrometer, shearvane, or torvane may also be used to determine the unconfined compression strength of soils.

### **SPOIL**

1. Temporary Spoil: Spoil shall be placed no closer than 2 feet from the surface edge of the excavation, measured from the nearest base of the spoil to the cut. This distance should not be measured from the crown of the spoil deposit. This distance requirement ensures that loose rock or soil from the temporary spoil will not fall on employees in the excavation. Spoil should be placed so that it channels rainwater and other run-off water away from the excavation. Spoil should be placed so that it cannot accidentally run, slide or fall back into the excavation.
2. Permanent spoil: Should be placed some distance from the excavation.

### **SURFACE CROSSING OF TRENCHES**

Surface crossing of trenches should not be made unless absolutely necessary. However, if necessary, it is only permitted under the following conditions:

1. Vehicle crossings must be designed by and installed under the supervision of a registered professional engineer.
2. Walkways or bridges must:
  1. Have a minimum clear width of 20 inches.
  2. Be fitted with standard rails.
  3. Extend a minimum of 24 inches past the surface edge of the trench.

### **EXPOSURE TO VEHICLES**

Employees exposed to vehicular traffic shall be provided with, and required to wear, reflective vests or other suitable garments marked with, or made of, reflectorized or high-visibility materials. Trained flag persons, signs, signals and barricades shall be used when necessary.

### **EXPOSURE TO FALLING LOADS**

1. Employees are not allowed to work under raised loads.
2. Employees are not allowed to work under loads being lifted or moved by heavy equipment, used for digging or lifting.
3. Employees are required to stand away from equipment that is being loaded or unloaded to avoid being struck by falling materials or spillage.
4. Equipment operators and truck drivers may remain in their equipment during loading and unloading if the equipment is properly equipped with a cab shield or adequate canopy.

### **WARNING SYSTEMS FOR MOBILE EQUIPMENT**

The following steps should be taken to prevent vehicles from falling into a trench or excavation:

1. Barricades must be installed where necessary.
2. Hand or mechanical signals must be used as required.
3. Trenches left open overnight shall be fenced and barricaded.

### **HAZARDOUS ATMOSPHERES AND CONFINED SPACES**

Employees shall not be permitted to work in hazardous and/or toxic atmospheres. Such atmospheres include those with:

1. Less than 19.5% oxygen.
2. A combustible gas concentration greater than 20% of the lower flammable limit.
3. Concentrations of hazardous substance that exceed those specified in the Threshold Limit Values for airborne contaminants established by the ACGIH. All operations involving such atmospheres must be conducted in accordance with OSHA requirements for occupational health and environmental controls for personal protective equipment and for lifesaving equipment. Engineering controls (such as ventilation) and respiratory equipment may be required.

### **TESTING FOR ATMOSPHERIC CONTAMINANTS**

If there is any possibility that the trench or excavation could contain a hazardous atmosphere, atmospheric testing must be conducted prior to entry. Conditions that might warrant atmospheric testing

would be if the excavation was made in a land- fill area or if the excavation was crossed by, was adjacent to or contained pipelines containing a hazardous material (for example, natural gas lines).

### **STANDING WATER AND WATER ACCUMULATION**

Methods for controlling standing water must be provided and should consist of the following if employees must work in the excavation:

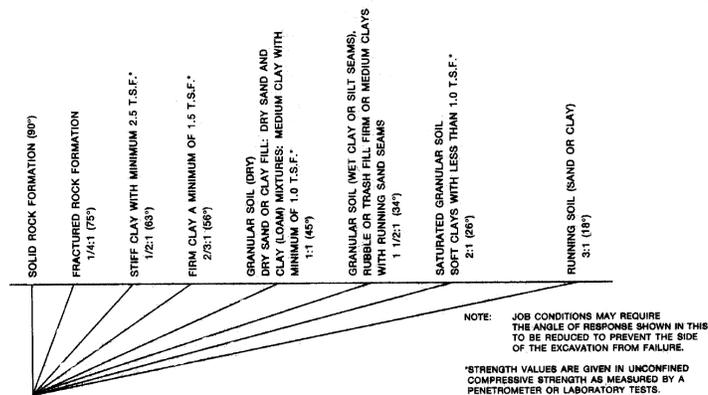
1. Use of special support or shield systems approved by a registered professional engineer.
2. Water removal equipment, such as pumps, used and monitored by a competent person.
3. Employees removed from the trench during rainstorms.
4. Trenches carefully inspected by a competent person after each rain and before employees are permitted to re-enter the trench.

### **BENCHING, SLOPING, SHORING AND SHIELDING REQUIREMENTS**

1. All excavations or trenches 5 feet or greater in depth shall be appropriately benched, shored or sloped according to the procedures and requirements set forth in OSHA's Excavation standard, 29 CFR 1926.650, 1926.651, and 1926.652.
2. Excavations or trenches 20 feet deep or greater must have a protective system designed by a registered professional engineer.
3. Excavations under the base or footing of a foundation or wall requires a support system designed by a registered professional engineer.
4. Sidewalks and pavement shall not be undermined unless a support system, or another method of protection, is provided to protect employees from their possible collapse.
5. Sloping:
  - a. Type A: 3/4:1 (53 degrees) sloping
  - b. Type B: 1:1 (45 degrees) sloping
  - c. Type C: 1 ½ : 1 (34 degrees) sloping
6. Shoring: Shoring or shielding are used when the location or depth of the cut makes sloping back to the maximum allow able slope impractical. There are two basic types of shoring - timber and aluminum hydraulic.
  - a. Hydraulic Shoring
    - i. Hydraulic shoring provides a critical safety advantage over timber shoring because workers do not have to enter the trench to install them. They are also light enough to be installed by one worker; they are gauge-regulated to ensure even distribution of pressure along the trench line; and they can be adapted easily to various trench depths and widths. However, if timber shoring is used, it must meet the requirements of 29 CFR 1926.650, 1926.651, and 1926.652.
    - ii. All shoring shall be installed from the top down and removed from the bottom up. Hydraulic shoring shall be checked at least once per shift for leaking hoses and/or cylinders, broken connections, cracked nipples, bent bases and any other damaged or defective parts.
    - iii. The top cylinder of hydraulic shoring shall be no more than 18 inches below the top of the excavation.
    - iv. The bottom of the cylinder shall be no higher than four feet from the bottom of the excavation. (Two feet of trench wall may be exposed beneath the bottom of the rail or plywood sheeting, if used.)
    - v. Three vertical shores, evenly spaced, must be used to form a system.
    - vi. Wales are to be installed no more than two feet from the top, no more than four feet from the bottom and no more than four feet apart vertically.
    - vii. In Soil Type B, hydraulic shores must be installed in accordance with Table D - 1.2 and Table D - 1.3.
    - viii. In Soil Type C, hydraulic shores must be installed with sheeting in accordance with Table D - 1.4.
    - ix. Aluminum hydraulic shoring:
      1. Vertical aluminum hydraulic shoring (spot bracing).

2. Vertical aluminum hydraulic shoring (with plywood).
  3. Vertical aluminum hydraulic shoring (stacked).
  4. Aluminum hydraulic shoring waler system (typical).
- b. Shielding: Trench boxes are different from shoring because, instead of shoring up or otherwise supporting the trench face, they are intended primarily to protect workers from cave-ins and similar incidents.
- i. The excavated area between the outside of the trench box and the face of the trench should be as small as possible.
  - ii. The space between the trench box and the excavation side must be backfilled to prevent lateral movement of the box. Shields may not be subjected to loads exceeding those which the system was designed to withstand.
  - iii. Trench boxes are generally used in open areas, but they also may be used in combination with sloping and benching.
  - iv. The box must extend at least 18 inches above the surrounding area if there is sloping toward the excavation. This can be accomplished by providing a benched area adjacent to the box.
  - v. Any modifications to the shields must be approved by the manufacturer.
  - vi. Shields may ride two feet above the bottom of an excavation, provided they are calculated to support the full depth of the excavation and there is no caving under or behind the shield.
  - vii. Workers must enter and leave the shield in a protected manner, such as by a ladder or ramp.
  - viii. Workers may not remain in the shield while it is being moved.
- c. Michigan Construction Safety and Health Standard Part 9 Excavation, Trenching, and Shoring: Table with soil types and angles of repose:

**TABLE 1**  
MAXIMUM ALLOWABLE ANGLE OF REPOSE FOR THE SIDE OF AN EXCAVATION IN EXCESS OF 5' DEPTH



## Demolition

1. Before any demolition operation begins, the Demolition Plan shall be completed and posted on site.
2. Before starting demolition, check the following:
  - a. Condition of the foundation, walls and floors.
  - b. The effect on adjacent structures.
  - c. Utilities are shut off.
  - d. Other conditions or equipment that could affect health and safety.
3. Keep standpipe and sprinkler systems in place as long as possible.
4. Properly shore structures that have been damaged before starting manual demolition.
5. Properly dispose of any potential hazardous materials in tanks, pipes, etc. before beginning demolition.

6. Start manual demolition at the top of the structure and work down, one level at a time.
7. Clear loose materials from structural supports as you proceed downward.
8. Do not work under a floor opening if demolition is being conducted on the level above, unless it is protected by a solid, 42-inch barricade located at least 6-feet back from the edge of the opening above.
9. Inspect the demolition site on a continuing, daily basis for any safety hazards. Take the necessary corrective measures before continuing to work.
10. Employees performing demolition work above 6 feet must be protected with a harness and lanyard and be attached to an approved anchor.
11. When an employee is required to be inside of a structure that is being demolished; one means of egress shall be designated by the supervisor, used and maintained. All other means of egress shall be blocked off.
12. The means of egress shall be free of hazards. During manual demolition, the means of egress shall be supplied with an illumination intensity of not less than 10 candlepower.
13. A means of egress shall be guarded to protect an employee from falling, and from falling material.
14. An employee entrance to a multi-story structure scheduled to be demolished shall be protected by a roof canopy. The canopy shall be 1 foot wider, on each side, than the entrance and shall protect employees up to 8 feet from the building. The canopy shall be capable of sustaining a load of 150 pounds per square foot.
15. The area onto (and through) which material is to be dropped shall be completely enclosed with barricades not less than 42 inches high and not less than 6 feet from the opening receiving material. Signs warning of the hazard of falling materials shall be posted on the barricade at each level containing barricades.
16. Where materials are dropped through more than 1 level inside of a building, up to 40 feet, barricades shall be used. Where materials are dropped more than 40 feet inside of a building, only material chutes shall be used.
17. Where materials are dropped 20 feet outside of a building, a material chute is required and shall extend to within 8 feet of the area to which materials are dropped.
18. A material chute shall be constructed to withstand any impact load imposed on it without failure.
19. Where material is dumped from mechanical equipment or wheelbarrow, a toe-board or bumper not less than 4 inches thick, 6 inches high and made of lumber shall be secured to the floor at each material chute opening.
20. Removal of material, barricades and chutes shall not be permitted until material handling by use of a chute ceases.
21. A harness and lanyard are required to be worn by those placing materials into a chute and at any level above 6 feet if guard- rails are not provided at each opening.
22. During manual demolition, a wall or ceiling shall not be permitted to fall on the floor of a building unless the floor is capable of sustaining the impact.
23. A chimney, stack or wall shall not be permitted to stand alone without lateral bracing unless it can withstand the force of the wind and other uncontrolled forces. A chimney, stack or wall shall be left in stable condition at the end of each shift.
24. During manual demolition, a wall serving as a retaining wall to support earth shall not be demolished until the load against the wall has been removed.
25. A wall serving as a retaining wall for debris shall be capable of supporting the imposed load.
26. A wall serving as a bearing wall for an adjoining structure shall not be demolished until the adjoining structure has been underpinned.
27. The materials from a brick or masonry chimney can be dropped into the stack provided that access to the stack has been eliminated.
28. During manual demolition, structural steel shall be removed column length by column length and tier by tier without over- stressing any member.
29. Structural steel members shall be lowered from an upper level by mechanical means.
30. A floor upon or above which an employee is working and which will be weakened by manual demolition shall be shored to support the intended load.

31. An opening that is cut into a floor for disposal of materials shall not be more than 25% of the total floor area, unless the lateral supports or the removed flooring remains in place.
32. Storage of debris or salvaged material on a floor shall not exceed the allowable floor load.

## Silica Information

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Before beginning any cutting, grinding, or renovations a silica control plan must be completed for the work area. The plan must be completed by a Competent Person and the plan must be shared with all personnel on site, including general contractor. A copy of the report must remain on site for reference.

Refer back to Table 1 for clarification of the standards and exposure limits. Only the selected Competent Person(s) may work in the posted area with the proper controls and respirators. If we are working outside of Table 1 the objective data must be present onsite during the work operations.

1. Working inside of a building with limited air flow we must have barricades and signs posted at the entrances, all the proper engineered solutions in place, and the proper respirators all in place before work begins.
2. When working outside of Table 1 we must have all relevant objective data immediately available for viewing if requested.
3. We must follow all manufacturers' recommendations and maintenance plans with all tools used to control dust.
4. Kent Companies is only responsible for our own personnel

Silica awareness training is required depending on the level of potential exposure.

## Fall Protection

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1. All employees working on a walking/working surface 6 feet or more above the ground or lower level, with an unprotected side or edge, shall be protected from falling by the use of guardrail systems, safety net systems or personal fall arrest systems.
2. Holes (two inches or greater in dimension) must be covered, fastened down and labeled.

### GUARDRAIL SYSTEMS

1. The top-rail, mid-rail, toe-kick and posts of a guardrail system shall at minimum be made of 2 by 4 lumber.
2. The top-rail shall be installed at 42 inches, plus or minus 3 inches, from the finished floor.
3. The mid-rail of a guardrail system shall be installed at halfway between the top rail and the finished floor.
4. A toe board shall be installed to keep materials, tools and debris from being kicked over the edge. The toe board shall be a minimum of 3 1/2 inches high.
5. Top-rail shall be capable of withstanding, without failure, a force of at least 200 pounds in any outward or downward direction at all points along the guardrail. Mid-rail must be able to withstand 150 pounds of force in an outward or downward direction.
6. Guardrail systems shall be surfaced as to prevent injury to an employee from punctures or lacerations and to prevent snagging of clothing.
7. When guardrail systems are used at hoisting areas, a chain, gate or removable guardrail section shall be placed across the access opening between guardrail sections when hoisting operations are not taking place.

## **SAFETY NET SYSTEMS**

1. Safety net systems shall be installed as close as practical under the walking/working surface upon which employees are working but never more than 30 feet below the walking/working surface.
2. Safety nets shall be installed with sufficient clearance under them to prevent contact with the surface or structures below.
3. Defective nets shall not be used.
4. Safety nets shall be inspected once per week for wear, damage and other deterioration. Defective components shall be removed from service. Safety nets shall also be inspected after any occurrence which could affect the integrity of the safety net system.
5. Materials, scrap pieces, equipment and tools which have fallen into the safety net shall be removed as soon as possible from the net and no later than before the next work shift.
6. The maximum size of each safety net opening shall not exceed 36 square inches nor be longer than 6 inches on any side. All mesh crossing shall be secured to prevent enlargement.
7. Each safety net shall have a border rope for webbing with a minimum breaking strength of 5,000 pounds.
8. Connections between safety net panels shall be as strong as integral net components and shall be spaced not more than 6 inches.
9. A designated person shall certify each safety net before they can be used as fall protection. Certification includes a visual inspection of the net, net components and installation. Each net shall be identified with a numbered tag and a record of each net certification shall be kept on site.

## **PERSONAL FALL ARREST SYSTEM**

1. Personal fall arrest systems shall comply with the following:
  1. Lifelines shall be protected against being cut or abraded.
  2. Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorages being used to support or suspend platforms and capable of supporting at minimum of 5,000 pounds per attached employee.
  3. Be rigged so an employee doesn't fall more than 6 feet or come into contact with a lower level.
2. Harnesses, retractables or other components shall not be used to hoist materials or tools.
3. Personal fall arrest systems including harnesses, retractables and retractable life-lines that are damaged shall be removed from service and given to the safety Manager for repair or to be taken out of service.
4. Any component of a personal fall arrest system that has been used previously to arrest a fall shall be removed from service and destroyed.
5. Proper anchor points are to be established by either the manufacturer or a competent person.

## **PROTECTION FROM FALLING OBJECTS**

1. Toe-boards, when used as protection from falling objects, shall be erected along the edge of the overhead walking/working surface.
2. Toe-boards shall be capable of withstanding (without failure) a force of at least 50 pounds applied in any outward direction at any point along the toe-board.
3. Toe-boards shall be a minimum of 3 1/2 inches high.
4. Where tools, equipment or materials are piled higher than the top edge of a toe-board, paneling or screening shall be erected from the walking/working surface or toe-board to the top of the guardrail system.

5. Materials and equipment shall not be stored within 6 feet of a protected edge unless guardrails are erected at the top edge.
6. Materials, which are piled, grouped or stacked near a protected edge shall be stable and self-supporting.

#### **FALL PROTECTION PLANS**

1. Employees involved in leading edge work, pre-cast concrete erection work or residential construction work where conventional fall protection (guardrail systems, safety net systems or personal fall arrest systems) is infeasible or creates a greater danger, must have a Fall Protection Plan posted on site.
2. All Fall Protection Plans must be completed by the project supervisor or foreman and be approved by the safety Manager.
3. All Fall Protection Plans must be job specific and state why the use of conventional fall protection is not feasible or creates a greater danger.

## Employee's Statement of Job-Related Incident

Exact Location of Incident		Date of Incident / /	Time: <input type="checkbox"/> AM <input type="checkbox"/> PM
Name		Phone Number ( )	
Street Address		City	State Zip
What crew were you working on at the time of the incident?		What were you doing at the time of the incident?	
Name of Direct supervisor?		Is this part of your normally assigned duties?	
Describe the incident? <input type="checkbox"/> Additional Documents <input type="checkbox"/> Diagram Attached <input type="checkbox"/> Photos taken and attached			
If injured, what are your injuries?		List any witnesses to the incident?	
In your opinion what could have prevented the incident?			
Additional information / comments?			
<p><b>Affirmation and Authorization:</b></p> <p>I hereby affirm that the information on the form is true and correct and that there are no omissions. I authorize any physician, medical facility, law enforcement agency, administrator, state agency, institution, information service bureau, insurance company, or employer contacted by this company or agent of this company to furnish or verify worker's compensation information and medical records. By signing this form, I hereby authorize the use of this disclosure of my individually identifiable testing and medical information. I understand that if the organization authorization authorized to receive the information is not a health plan or health care provider, the released information may not be protected by federal and state privacy laws.</p> <p>I further acknowledge that a telephone facsimile (FAX) or photocopy shall be as valid as the original.</p> <p>Date: _____ Signature: _____</p> <p>_____</p> <p>Date: _____ Authorized Company</p> <p>Representative: _____</p>			

## Supervisor's Investigation Report

Type of Accident

- Personal Injury  
 Third Party

- Property Damage  
 Equipment Damage

- Motor Vehicle  
 Significant Incident

Division:

Job Number:

Name of Individual or Property Affected by this Incident		Employee ID Number	
Employees Job Title	Date of Hire / /	Sex <input type="checkbox"/> Male <input type="checkbox"/> Female	Date of Birth / /
Describe Injury/Damage (Use Separate Sheet of Paper for Additional Space)		Date of Accident / /	Time of Accident <input type="checkbox"/> AM <input type="checkbox"/> PM
Substance Testing? <input type="checkbox"/> Yes <input type="checkbox"/> No(if no, explain) If yes, who was tested?		Date Reported / /	Property Damage: Estimated Cost of Repairs \$
Describe Incident: <input type="checkbox"/> Additional Documents <input type="checkbox"/> Diagram Attached <input type="checkbox"/> Photographs/Video <input type="checkbox"/> Employee Statement Attached			
Use a separate sheet for additional information.			
Name of Employee's Immediate Supervisor		Location of Supervisor at the time of the accident/incident. (Be specific)	
Anticipated Severity of Injury <input type="checkbox"/> Fatality <input type="checkbox"/> Lost Workdays-days away from work <input type="checkbox"/> Lost Workdays – restricted <input type="checkbox"/> Medical Treatment <input type="checkbox"/> First Aid (no medical treatment) <input type="checkbox"/> Other:	Date Admitted to Hospital / /	Name and Address of Physician	
	Name and Address of Hospital		
What caused the incident? (Include direct, surface, and root cause)			
Use a separate sheet of paper for additional space.			
Corrective Action Taken (Specify whether actions are temporary or permanent.)			
Use a separate sheet of paper for additional space.			
Name of Witness	<input type="checkbox"/> Statement attached	What safety equipment was being used?	
Investigated by:	Name	Title	Signature
Approved by:			Date

## Witness Statement

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Location of Interview		Date / /	Time: <input type="checkbox"/> AM <input type="checkbox"/> PM
Name	Phone Number ( )		
Street Address	City	State	Zip
Name of Employer (if not MSSEI Employer)	Occupation		
Street Address	City	State	Zip
Name of person/s involved in incident	Date of Incident	Time of Incident <input type="checkbox"/> AM <input type="checkbox"/> PM	
Exact location of incident?	Are you a Kent employee? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Your location at the time of the incident?	Approximately how many feet away?		
Witness Statement <i>(Use the space below to describe the incident in your own words.)</i>			

I have read the above or have had it read to me and it is true and correct to the best of my knowledge.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Witnessed by: \_\_\_\_\_ Date: \_\_\_\_\_