

CSDA Best Practice

Title: Hazard Identification and Debris Removal
Issue No: CSDA-BP-003
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1. Evaluate work area and job site conditions

- 1.1. Investigate and identify job site hazards.
 - 1.1.1. Look for oil or fuel tanks, lead, respirable silica, asbestos
 - 1.1.2. Determine if hazards are hidden or buried and not obvious like underground utilities, asbestos-coated blocks, flitch plates, biohazards like septic fields or dead animals
 - 1.1.3. Look for hazards on site or in close proximity to the job site such as overhead power lines, electric transformers, explosive or flammable materials (gaseous, fluid or dust), nearby excavation or terrain issues such as sink holes, deep pits, falling rocks, exposed electrical cords or high pressure hydraulic hoses
 - 1.1.4. Be aware of vehicular traffic patterns, operating speeds, stopping distances
- 1.2. Determine environmental concerns.
 - 1.2.1. Noise
 - 1.2.1.1. Noise on the job site that could impede communication or require hearing protection
 - 1.2.1.2. Noise generated by the equipment over the threshold levels set by local laws or ordinances
 - 1.2.2. Vibration
 - 1.2.2.1. Vibration to the body of the machinery operator
 - 1.2.2.2. Vibration on the job site having an impact on structures, work platforms or other areas on or near the job site
 - 1.2.3. Air quality
 - 1.2.3.1. Dust
 - 1.2.3.2. Fumes
 - 1.2.3.3. Carbon monoxide and hydrocarbons such as exhaust gases
 - 1.2.4. Hydraulic oil, fuel or other hazardous fluid leaks or spills
 - 1.2.4.1. Weather Conditions – Temperature, either extreme heat or cold, humidity, slippery footing, ice, mud, visibility
- 1.3. Prevent contamination of nearby bodies of water and ground water sources
 - 1.3.1. Slurry management
 - 1.3.2. Sediment control
 - 1.3.3. Can slurry be left onsite or does it need to be hauled away?

2. Determine structural issues

- 2.1. Slope or grade of the material.
- 2.2. Evaluation of the material.

- 2.3. Structural integrity of the elevated work area.
 - 2.3.1. Cutting through pre- or post-tension cables
- 2.4. Falling hazards.
 - 2.4.1. Items falling from the work area onto personnel
 - 2.4.2. Vehicular traffic below
- 2.5. Openings in the slab surface.
 - 2.5.1. Properly supporting an opening that is being cut
 - 2.5.2. Proper dunnage underneath support
 - 2.5.3. Proper wedging techniques
 - 2.5.4. Proper rigging and supporting overhead
 - 2.5.5. Cutting taking place on secure work surface
 - 2.5.6. Appropriate barricades or covering of opening to keep skid steers, loaders, trucks and other pieces of equipment from falling through the opening
 - 2.5.7. Cold joints
 - 2.5.8. Steel patterns
- 2.6. Determine method for lifting limitations and path of egress for removing debris.
 - 2.6.1. Weight limitations
 - 2.6.2. Size limitations
 - 2.6.3. Egress limitations
 - 2.6.4. Expansion anchors for lifting
 - 2.6.5. Thru-bolting for lifting
- 2.7. Determine disposal requirements.
 - 2.7.1. On-site
 - 2.7.2. Dumpsters
 - 2.7.3. Truck and trailer
 - 2.7.4. Hazmat
 - 2.7.5. Recycling
 - 2.7.6. Reclamation of concrete

3. Select an appropriate cutting method for the work area and job site conditions

- 3.1. Cutting.
 - 3.1.1. Type of concrete or asphalt saw
 - 3.1.1.1. Chain saw
 - 3.1.1.2. Cutoff saw
 - 3.1.1.3. Wire saw
 - 3.1.1.4. Ring saw
 - 3.1.1.5. Wall saw
- 3.2. Size of the saw.
 - 3.2.1. Horsepower or torque
 - 3.2.2. Weight
 - 3.2.3. Depth of cut

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- 3.3. Power option for the saw.
 - 3.3.1. Gasoline engine.
 - 3.3.2. Liquid propane.
 - 3.3.3. Diesel.
 - 3.3.4. Electric.
 - 3.3.5. Hydraulic.
 - 3.3.6. Pneumatic.
- 3.4. Breaking.
 - 3.4.1. Hammers
 - 3.4.1.1. Dust and noise
 - 3.4.1.2. Splitters
 - 3.4.1.3. Expansive agent

4. Estimate the amount of debris to be generated

- 4.1. Debris might need to be sorted by ‘type’ for reclamation, recycling, special handling (EPA, OSHA, hazmat) or landfill regulations.

5. Establish administrative and engineering controls for the job

- 5.1. Determine regulations for recycling, special handling (EPA, OSHA, Hazmat) or landfill.
- 5.2. Secure the required permits and job site approvals.
- 5.3. Have general contractor sign off on work order.
- 5.4. Define a safe work zone with appropriate barriers and marking techniques.
- 5.5. Educating the work site personnel as to the job site hazards.
- 5.6. Post and provide the appropriate Personal Protective Equipment (PPE) for the work zone including eye protection, steel toe boots, hard hats, gloves, respirator, electrical insulating boot/gloves, back support/brace, visible vest and any other appropriate PPE.
- 5.7. Provide proper ventilation with fans and ventilators to minimize carbon monoxide levels and reduce airborne dust.
- 5.8. Monitor exposure levels for noise, carbon monoxide and silica.
- 5.9. Protect existing facilities below the new opening.

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