

**WisDOT MEGA PROJECT**

**OCIP SAFETY MANUAL**

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**Aon Risk Services**

**SAFETY AND HEALTH PROGRAM**

**Mega Project**

**SAFETY MANUAL**

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**WisDOT MEGA PROJECT**

**OCIP SAFETY MANUAL**

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**WisDOT**

**Issue Date: June 1st, 2015**

# WisDOT MEGA PROJECT

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### DEFINITIONS

**Aon Risk Services (ARS)** Responsible for brokering and administering the Wrap-up Insurance Program including the development and compliance monitoring with the Construction Safety Standards.

**Contractor.** The entity awarded a particular construction contract.

**Department.** Wisconsin Department of Transportation (WisDOT).

**Engineer.** The WisDOT Employee or Consultant delegated by WisDOT responsible for engineering supervision of the construction.

**Insurance Carrier.** Principle companies that provide the insurance coverage for the WisDOT Mega Project.

**Loss Control Consultant (LCC).** Aon or insurance carrier representative providing consulting services for the overall safety programs on the project, providing technical construction safety expertise, conducting loss control safety audits.

**Wisconsin Department of Transportation (WisDOT).** Owner.

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**Project Manager – Contractor.** The Contractor's representative who is responsible for administering construction contracts, and who is responsible for the Contractor's safety compliance on each construction site.

**Project Safety Team (PST).** The project safety team is composed of OCIP Safety Director and Construction Safety Coordinators, the insurance carrier's (IC) loss control consultants, WisDOT's Safety Manager and WisDOT OCIP Program Manager.

**Safety Representative – Contractor.** The Contractor's employee designated as responsible for implementing employee safety programs, identifying project safety concerns and taking corrective action.

**Safety Representative – Subcontractor.** The Subcontractor's employee designated as responsible for implementing employee safety programs, identifying project safety concerns and taking corrective action.

**Wrap-up Insurance Program.** The Owner's wrap-up insurance program which provides insurance coverage for owner's representatives, consultants, sub consultants, contractors and subcontractors of any tier working on the construction project.

**OCIP Safety Director (OCIP SHD).** Aon's Loss Control Consultant who is responsible for monitoring evaluating, and coordinating Contractor's and all Subcontractors' safety, health and environmental compliance effort.

**WisDOT Mega project Safety Engineer.** The WisDOT employee who oversees the safety of the WisDOT employees and their consultants (CEC's)

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**Visitor.** A person who on **rare occasions** visits the OCIP work zone. All visitors are required to register at the (OCIP SHD's) office attend a brief orientation, have the proper PPE, and be escorted around the job-site by a competent person who has been through the full orientation, passed the pre-employment drug test and is allowed full site access.

**State employee visitor.** State employees coming into the OCIP work zone for business purposes on a reoccurring basis shall be fully enrolled in the program. State employee visitors who occasionally visit the site are treated as any other visitor to the site

**Project emergency response team.** The contractor's safety representative, and the OCIP SHD or his staff.

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### STATEMENT OF SAFETY AND HEALTH POLICY

To: All Employees and Contractors

Safety and health in the construction of WisDOT Mega Project must be a part of every operation. Safety and health is the responsibility of each contractor and every employee on the job site, regardless of level.

It is the intent of WisDOT to comply with all applicable federal, state and local safety regulations. To do this, we must constantly be aware of conditions in all work areas that can produce injury. No contractor shall require an employee to perform job duties or specific job tasks that have been determined to be unsafe. Cooperation by the contractors and their employees in detecting hazards, and in turn controlling them, is a condition of your continued presence on the job site. Supervisors should be immediately informed of any unsafe condition. Where correction of any unsafe situation is beyond their ability or authority to correct, it shall be reported to the project superintendent of the Contractor.

The personal safety and health of each employee working on WisDOT Mega Project is of primary importance. The prevention of occupational-induced injuries and illnesses is of such consequence that it shall be given precedence over operating productivity whenever necessary. To the greatest degree possible, the contractors shall provide all mechanical and physical facilities required for the personal safety and health of their workers.

Each contractor will maintain a safety and health program conforming to the best practices of the WisDOT Mega Project safety and health program. To be successful, such a program must embody the proper attitudes toward injury and illness prevention on the part of both supervisors and employees. It must also address a cooperative spirit in all safety and health matters between supervisor and employee, employee and his fellow workers, WisDOT and Aon. Only

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through such a cooperative effort can we achieve a safety record that is in the best interests of everyone.

The objective of WISDOT is a safety and health program that will minimize the number of disabling injuries or property damage to workers or the public. Our goal is **ZERO** accidents and injuries.

Each contractor's safety and health programs must include:

1. Enforcement and compliance with all applicable federal, state and local safety regulations.
2. Provisions for the necessary mechanical and physical safeguards to assure the maximum protection to employees working on the project.
3. A plan with specific provisions to conduct a program of safety and health inspections to locate and correct unsafe working conditions on practices; to control health hazards, and to comply fully with the safety and health standards for the project.
4. A plan that addresses good safety and healthy training of all employees.
5. Provisions for the necessary personal protective equipment and instruction for its use and care.
6. The plan must include the development and enforcement of safety and health rules, and the requirement for all employees to comply with the rules as a condition of employment.

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7. The Contractor must investigate promptly and thoroughly, every accident to find out the cause and implement action to correct the problem so that it will not recur.
8. The Contractor must investigate, promptly and thoroughly all incidents including those that do not produce an injury but have the potential to produce an injury.

#### **Contractors and employees share the responsibilities for safety and health.**

1. WisDOT and its Contractor's accept their role in the responsibility for leadership of the safety and health program for the WISDOT Owner Controlled Insurance Program (OCIP). WisDOT will assist the contractors in the identification of problem areas, and in the implementation of changes in providing a safe working environment for all employees and for the public.
2. Each contractor is responsible for the implementation of a safety and health program that instills a positive attitude by supervisors and employees in their safety and to ensure that all operations will be performed with the utmost regard for the safety and health of all personnel involved as well as the public.
3. Employees must be held accountable for a genuine cooperation with all aspects of the safety and health program, including compliance with all rules and regulations, and for continuously practicing safety while performing their duties.

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### PURPOSE

The purpose of the WisDOT Mega Project safety and health program, developed for the Wisconsin Department of Transportation, is to assist in the development and implementation of appropriate safety standards that will safeguard employees and the public from harm. This manual is prepared to establish minimum requirements for safety during all aspect of the construction.

This program is based on applicable government regulations, insurance-related safety/risk management requirements, accepted safety practices within the construction industry, and common sense. The maintenance of safe premises, operations and equipment, protection of the construction employees, state employees and the public, and the avoidance of unsafe conditions and practices (during all construction phases) are the responsibility of the Contractor and Subcontractors, regardless of tier, performing the construction work.

This manual is intended to provide a working, uniform, and minimal level of program rules and guidelines to assist and provide direction to the Contractor. This manual is not intended to replace the responsibility for each contractor to establish and maintain a site-specific safety and health program as required by the Department of Labor, Occupational Safety and Health Act (29 CFR 1926 and 29CFR 1910). However, such a program must, at a minimum, meet all the standards set forth in this Manual.

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### PHILOSOPHY

The Wisconsin Department of Transportation is dedicated to providing a safe work place for its Contractors, all Subcontractors and other third-party employee engaged in work activities on the WisDOT Mega Project and is equally dedicated to the protection of the general public.

As such, the Contractor and all Subcontractors and other third-party employees must be committed to zero accidents for all operations. Safety is to be the number one priority of the Contractor and all Subcontractors engaged in work on the I-94 NORTH - SOUTH CORRIDOR PROJECT. **Safety shall not be sacrificed in lieu of schedule, cost, production or any other component of the work process.**

To achieve the goals of WisDOT, the Contractor and all Subcontractors must:

1. Thoroughly plan their work operations and activities so that they are performed safely as well as efficiently.
2. Effectively communicate the safety requirements of the project and the safety requirements of each operation to their employees at all levels of the project (JSA's).
3. Coordinate work operations and activities to minimize or eliminate situations, which compromise the employees' safety due to conflicting or simultaneous, work operations or activities.
4. Safety is the responsibility of all employees on this project, and each employee shall be responsible and held accountable for their own safety and the safety of other employees.

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5. **The Contractor will be responsible for holding each Subcontractor, regardless of tier, accountable for the implementation and enforcement of the WisDOT Mega Project safety and health program.**

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### SCOPE AND OBJECTIVES

#### INTRODUCTION

The provisions of the safety and health program will apply to all aspects of the Wisconsin Department of Transportation Wrap-up Insurance Program as they relate to contractor compliance with:

1. The regulations and requirements of the Federal Code of Regulations, 29 CFR 1926 and applicable 29 CFR 1910.
2. The construction contract documents and agreements.

#### OBJECTIVES

The WisDOT Mega Project safety and health program and the safety standards contained in this document were developed as minimum guidelines to assist the contractors in the elimination or reduction of hazards and risks associated with the construction and renovation project, and to prevent accidents, reduce employee injuries, prevent damage to property, promote efficiency and effect savings by reduction of unplanned business interruption.

WisDOT, its authorized representatives, and its Contractors and Subcontractors must actively participate to make these standards effective by coordinating and monitoring all contractors' efforts in performing the following tasks:

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1. Provide a safe work environment for employees.
2. Use safety planning as a tool to eliminate workplace injuries and property damage.
3. Provide safety audits/inspections to identify, prioritize, and correct non-compliance conditions.
4. Protect public and private property adjacent to all construction site work zones.
5. Educate and train employees by implementing the following:
  - a. New hire safety orientations
  - b. Pre-task planning/tailgate safety meetings.
  - c. Safety training, i.e., hazard communication, trenching, shoring, confined space entry, etc.
  - d. Mandatory personal protective equipment (PPE) programs.
  - e. Injury reporting and record keeping to maintain up-to-date accident experience and trend analysis.

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- f. Using accident investigation information to correct deficiencies and eliminate additional losses.
  - g. Daily and weekly surveys of the projects to isolate conditions responsible for accidents and injuries, and devise corrective action before they produce an injury.
- 6. The primary objectives of the safety and health program are to:
  - a. Minimize personal injuries.
  - b. Maximize property conservation.
  - c. Achieve greater efficiency.
  - d. Reduce both direct and indirect costs.
  - e. Protect the public.
- 7. The WisDOT Mega Project safety and health program works in conjunction with the contractors' individual site-specific safety and health programs. **All Contractors and subcontractors shall submit a site-specific Safety Program to the OCIP SHD for review, prior to mobilization on the project.**

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8. Require the Contractor's and/or Subcontractor's superintendents and job foremen to be familiar with the provision of OSHA, MSHA and WISDOT.

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### SAFETY GOALS

In keeping with the philosophy of this project, as described by WisDOT, the Contractor and all Subcontractors, regardless of tier, shall put forth their best efforts to achieve the following goals:

1. A lost time incident rate, as defined by OSHA, of 0.00 for the total project.
2. A recordable incident rate of zero.
3. Zero property damage – this includes WisDOT's property, equipment, buildings, vehicles, etc., as well as contractor-furnished equipment, vehicles, tools, materials, etc.
4. A successful partnership with OSHA?

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### RESPONSIBILITIES

#### A. RESPONSIBILITIES OF THE CONTRACTOR

1. In addition to these Special Provisions, the Contractor and all sub-contractors are responsible for accident prevention and job site safety for all work as defined by the Contract's "Standard Specifications for Highway and Structure Construction".
2. The Contractor shall ensure that every Subcontractor, regardless of tier, is in compliance with all local, State and Federal safety regulations; that they are provided a copy of the WisDOT Mega Project Safety and Health Program Manual; and they are informed of their obligations with regards to safety on WisDOT Mega Project.
3. The Contractor shall review the following information (submitted by each Subcontractor, regardless of tier) to ensure complete compliance with the WisDOT Mega Project safety and health program, and all Federal, State and local regulations. The Contractor shall work with the Subcontractor to correct any deficiencies in the following information to ensure total compliance prior to commencement of work and provide the OCIP SHD final copies of all information required:
  - a. The Subcontractor's site-specific safety and health program, outlining safety policy, responsibilities and procedures.
  - b. Subcontractor's written Right-to-Know Program.

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- c. Material Safety Data Sheets (MSDS's) on every chemical that each Subcontractor, regardless of tier, will use the project in their specific scope of work. They shall be conveniently located where ever the chemicals are in use for easier access
- d. **Resumes** of the designated site Safety representative, and alternates.

**The Contractors and subcontractors** are required to have a **non-working** site safety coordinator of management level if they have **(25) Twenty five people or more** on the WisDOT Mega Project, **two** if they have more than **100**. **(This means that if a Prime contractor has 25 or more workers, including subcontractors, they are required to have a non-working safety coordinator of management level)** The contractor shall identify alternate Safety representative(s) they must meet the same requirements as the primary safety coordinator. In the absence of any full time safety representative, the contractor shall submit in writing the names of the alternate safety representative two weeks prior to their use; all alternates must be approved in advance. The alternate safety representative shall be on the job two weeks prior to the primary safety representative being absent from the job-site while acting as an alternate Safety representative, this individual cannot be assigned any other collateral duties. The contractor shall have an alternate any time a full time Safety Representative is absent from the job for **½ day or longer**.

- e. The minimum requirements for the Safety Representative are at least an OSHA thirty hour or equivalent and three years experience. *Subcontractors with less than thirty employees on the WisDOT Mega Project payroll are required to have a Safety Designee with at least an **OSHA thirty-hour card current within five years** that will interface with the OCIP SHD and attend the weekly and monthly safety meetings. The Safety Representative and approved alternate(s) **shall be present on site during all work activities**. The Safety Representative shall have no other collateral duties.*

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4. The Contractor will inform all Subcontractors, the Engineer, and the OCIP SHD of any Federal or State inspection prior to the site tour. The Contractor will receive copies of all Federal and State inspection reports, citations, penalties, abatement dates, etc., and forward copies to the Engineer and the OCIP SHD within 48 hours of receipt.
5. The Contractor will ensure that Subcontractors supply, maintain, and monthly inspect all fire extinguishers throughout the project in their respective offices, storage, and refueling areas. In the event a fire extinguisher is discharged or damaged, it shall be removed from service and replaced with a charged unit immediately. Contractors will supply, maintain, and inspect fire extinguishers in their respective areas, offices, storage, and refueling areas.
6. The Contractor has a general duty to furnish each employee with a place of employment free from recognized hazards causing or likely to cause death or serious physical harm.
7. The Contractor shall have standard emergency procedures to direct the immediate removal and treatment, if necessary, of any employee who may be injured or become ill. The Contractor shall keep on the job a first-aid kit supplied according to current regulations, and shall have at least one person trained in first aid for each crew. A copy of their first-aid and CPR certificates must be submitted to the OCIP SHD prior to commencement of work.
8. The Contractor will collect, maintain, and provide to the OCIP SHD written records for their employees and of every Subcontractor:

**Document**

**When Needed**

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- |   |                             |
|---|-----------------------------|
| a. Mobile Equipment Safety Inspection Report              | Before use of equipment     |
| b. Written Fall Protection Program                        | Before start of work        |
| c. OSHA 300 Log (this jobsite)                            | Yearly                      |
| d. Daily Pre-Task planning Meetings                       | Weekly                      |
| e. Weekly Self Safety Inspections                         | Weekly                      |
| f. Federal, State, and Local Inspection Reports           | 48 Hours                    |
| g. Other Information as Requested by Engineer or OCIP SHD | Promptly                    |
| h. Copy of First-Aid and CPR certifications               | Before start of work        |
| i. Critical lift plan                                     | 72 hours prior to lift      |
| j. Crane assembly and disassembly plan                    | 24 hours prior to operation |
| k. Structure demolition plans                             | 72 hours prior to operation |
| l. Material Safety Data Sheet                             | Before start of work        |
| m. Contractor Safety and Health Program                   | Before start of work        |
9. The Contractor shall observe Federal, State, and local laws and regulations pertaining to pollution control, water supply, fire protection, sanitation facilities, waste disposal, hazardous waste disposal, and other related items.
10. The Contractor shall comply with OSHA Regulation 1926.21 (b) (2), which states that the employer shall instruct each employee in the recognition and avoidance of unsafe conditions, and the regulations applicable to the work environment.

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11. The Contractor is responsible and will be held accountable for their Subcontractors safety practice and safety management. It is the Contractors responsibility to assure that the subcontractor is in full compliance with the provisions of this Manual and must take action appropriate to assure such compliance.
12. As in paragraph # 11 above, the Contractor is responsible and will be held accountable to assure that their subcontractors are in full compliance with this project's Return To Work program (alternate duty within restrictions) for their own employees as well as their subcontractors' employees. Contractors are encouraged to work closely with their subcontractors in developing alternate duty tasks in advance of any injury to enhance the transition when the injury occurs.

#### **B. RESPONSIBILITIES OF THE SUBCONTRACTOR**

1. Each Subcontractor, regardless of tier, will be responsible for the safety and loss control of employees, return to work and areas of work under their control.
2. Each Subcontractor, regardless of tier, shall submit the following information to the Contractor for review prior to commencement of work:
  - a. The Subcontractor's site-specific safety and health program, outlining safety policy, responsibilities and procedures.
  - b. Subcontractor's written Right-to-Know Program.
  - c. Material Safety Data Sheets (MSDS's) on every chemical that each Subcontractor, regardless of tier, will use on the project in their specific scope of work.

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- d. Resumes of the field supervision, site Safety representative, and alternates. (*\*The Safety Representative must be a competent person with an OSHA ten hour card (current within 5 years) who is capable of identifying existing and predictable hazards in surroundings that are unsanitary, hazardous or dangerous to employees, and has the authority to take prompt corrective measures or stop work to eliminate them.\**) **The designated Safety Rep must have a 10-hour OSHA card current within five years.**
- 3. Each Subcontractor, regardless of tier, will maintain and provide to the Contractor written records of the following as stipulated:

Document	When Needed
a. Mobile Equipment Safety Inspection Report	Before Use of equipment
b. Written Fall Protection Program	Before start of work
c. OSHA 300 Log	Annually
d. Toolbox Safety Meetings	Weekly
e. Self Safety Inspections	Weekly

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- f. Federal, State and Local Inspection Reports      48 Hours
  - g. Other Information as requested by Engineer or OCIP SHD      Promptly
- 4. All Subcontractors, regardless of tier, shall cooperate fully with the Contractor in the implementation of the Contractor and WisDOT's site-specific safety program.
- 5. All Subcontractors, regardless of tier, shall provide and enforce the wearing of all pertinent personal protective equipment designated for the task to protect the employees from the predetermined hazard.
- 6. All Subcontractors, regardless of tier, have a general duty to furnish each employee with a place of employment free from recognized hazards causing or likely to cause death or serious physical harm.
- 7. All Subcontractors, regardless of tier, shall comply with OSHA Regulation 1926.21(b)(2), which states that the employer shall instruct each employee in the recognition and avoidance of unsafe conditions, and the regulations applicable to the work environment.
- 8. Each Subcontractor, regardless of tier, shall observe Federal, State and local laws and regulations pertaining to pollution control, water supply, fire protection, sanitation facilities, waste disposal, hazardous waste disposal, and other related items.
- 9. All Subcontractors, regardless of tier, will supply, maintain, and inspect all fire extinguishers throughout their areas of work, in their respective offices, storage, and refueling areas.

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### C. SAFETY MEETINGS

1. The Contractor, at its weekly progress meetings, shall allow adequate time at the beginning of the meeting for the Contractor's Safety Representative and the OCIP SHD to articulate to all of the contractors the safety and health concerns observed during the previous construction activities. Dialog should be exchanged with consideration for corrective action and abatement.
2. The Contractor and all Subcontractors, regardless of tier, shall conduct weekly toolbox meetings involving all personnel working on the site. Toolbox meetings should address the safety and health concerns noted during each supervisor's and Safety Representative's work activities. Consideration should be given to corrective action and abatement. All Contractors are required to do daily pre task planning and to document attendance and content.
3. Attend OCIP Safety Staff announced safety meetings with all safety and health representatives on the project. The meeting will be to discuss overall project safety and health concerns with consideration for corrective action and abatement. This meeting can be called at any time (but not less than monthly) by the OCIP SHD and attendance is mandatory.

### D. ORIENTATION

1. The OCIP SHD will conduct new employee orientation for every employee, supervisor, manager and visitor, whose assignment requires him or her to be on the project. All persons on the project will be required to complete this orientation. **No exceptions.** All personnel who complete the orientation will be given a hardhat sticker reflecting an enrollment number indicating that they have

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been through the required orientation program and have not had a positive result on the drug test.

2. The Contractor and all Subcontractors, regardless of tier, shall be required to conduct site-specific orientation for all employees after they have finished project orientation and prior to commencement of any work on the WisDOT Mega Project. All personnel must attend the site-specific orientation by their immediate employer prior to accessing the site.
3. Project-wide new employee orientation will be made available at the project as necessary. The frequency and time of the orientation will be determined by the OCIP SHD, contractor and WisDOT.

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### GENERAL PROJECT SAFETY RULES

1. Access to the WisDOT Mega Project is restricted to contractor employees and those authorized by WISDOT. The Contractor and all Subcontractors will be authorized to work within a designated area of this project. Any Contractor's or its Subcontractor's employees who are in an unauthorized area of the project who are not performing work required by contract and or are not being escorted by an authorized agent of the Company, will be removed from the site.
2. No audio/visual entertainment devices are allowed on site, unless required to facilitate construction.
3. No glass containers are allowed on site.
4. Unless otherwise posted, the speed limit is 25 mph on the project site. 10 MPH if the vehicle is within 200 feet of workers.
5. Only authorized and trained persons are permitted to operate equipment.
6. No riders on machinery or equipment. Riders in trucks are to be seated in a seat and wearing a seat belt while the vehicle is moving. No employees may be on or in a vehicle that is moving unless they are belted in a seat.
7. All mobile machinery must have operable backup alarms, running lights, flashing/strobe lights at **ALL** times while machinery is running.

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8. No one shall enter a trench or excavation unless it is inspected by a competent person and properly shored or sloped and documented.
9. Only trained, qualified operators will use powder-actuated tools, and only when proof of training is readily maintained.
10. The Contractor and all Subcontractors will be responsible for maintaining a first aid kit in their field office and/or “gang box (es),” and have a qualified person to use it. The Contractor and all Subcontractors must have employees certified in CPR and first aid. All first aid injured or treated persons must report THE INCIDENT TO THE SITE Safety Manager. Employees who are transported directly to the designated treatment facility must be reported to the OCIP SHD.
11. Report all accidents, unsafe conditions or practices immediately to your supervisor and the OCIP SHD.
12. Private autos are only allowed at designated locations within the site. All company vehicles shall be identified by the contractor’s name, be authorized by OCIP SHD to operate on the site and shall have their Hazard Lights, Headlights and Strobe lights on while driving on the site. No motorcycles are allowed to be onsite as well.
13. The Contractor and all Subcontractors will utilize ground fault circuit interrupters (GFCI’s) on all electrical outlets. Generators must be the GFCI-type, or the GFCI receptacles must be plugged in at the generator and all tools plugged into it.
14. All electrical cords and power tools are to be regularly inspected with a written record submitted to the project safety director on a monthly basis. Defective tools and equipment are to be tagged “DEFECTIVE” and removed from service immediately.

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15. The Contractor and all Subcontractors will be responsible for providing and distributing clean drinking water for its employees.
16. The Contractor and all Subcontractors will be responsible for providing adequate and clean sanitary facilities for its employees.
17. Adequate temporary lighting is to be installed in accordance with all federal, state, and local governmental regulations.
18. Extension cords, air hoses, welding leads, and burning leads are to be distributed in an orderly manner, so as not to create a tripping hazard. Periodic “roll ups” will be conducted at the direction of the OCIP SHD.

#### UNSAFE AND IMPROPER BEHAVIOR

The Contractor and Subcontractors' employees performing, involved in, or participating in any of the following are in violation of the OCIP Safety and Health Program, subject to fines and removal from the job site:

1. Under the Influence: Entering or being found on the WisDOT Mega Project while under the influence of, or in the possession of, intoxicating liquor or controlled substances.( see drug and alcohol program)
2. Stealing. Unauthorized removal, attempted removal, or possession of property belonging to someone else or to the owner.
3. Fighting: On the WisDOT Mega Project property.

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4. Dangerous Weapons: In possession of guns or dangerous weapons while WisDOT Mega Project property.
5. Property Damage: Willful damage to equipment, buildings, or other WISDOT property.
6. Horseplay: Scuffling, pranks, wrestling, or throwing material at others.
7. Insubordination: Refusal to perform a safe work assignment given by a supervisor.
8. Visiting Other Operations: Visiting other operations if work does not require you to do so.
9. Housekeeping: Willful littering, writing, defacing, or other poor housekeeping actions to equipment, buildings, locker room/toilet facilities, or other WISDOT property.
10. Unsafe Acts Actions, which place yourself or coworkers in an unsafe, working environment or situation.
11. Threatening other employees by profane and abusive language.

### RESPONSIBILITY

The safety and health program mandates that all supervisory employees accept their responsibility for the prevention of accidents and be responsible for the safety training and instructions of employees under their supervision. Supervisory employees are responsible for administering discipline when safety violations occur. While consistency

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and fairness are important in all disciplinary structures, it is especially important within the context of an OCIP where many different contractors are operating under the same set of contractual conditions. Therefore, we have provided the following minimum guidelines that we expect are followed by all contractors registered in the OCIP.

A violation of the safety program rules may result in penalties assessed to the contractor up to and including barring specific contractor employees from work on the project. While such penalty may be a consideration in the degree of discipline, it should not be the sole determinant.

### PROCEDURE

Project managers/superintendents and/safety professionals or foremen are directly responsible for discipline that is administered in a fair and consistent manner.

Except in cases involving major violations or significant project safety rules and regulations are violated, the progressive constructive discipline model is encouraged. Constructive discipline is discipline that is administered for the purpose of producing a corrective change in the employee's behavior. However, if the change does not occur, then a more progressive and serious form of discipline will be administered. Examples of major safety violations would be falsely reporting of an injury to claim workmen's compensation benefits, fighting, use of drugs or alcohol on project property, etc.

Rules of conduct have been established for project safety. All employees must follow these rules.

The safety rules listed in this manual are to be considered a baseline and not all-inclusive.

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Safety rules are “rules of conduct” based primarily upon the safety standards established for the project. The communication of the safety rules to employees is critical, but of equal importance is the enforcement of these safety rules in a fair and consistent manner. To maintain fairness and consistency, the supervisor must administer the proper discipline in accordance with the severity of the safety violation. Considerations in determining appropriate discipline may include the follows:

1. Has the safety violation been verified?
2. Is this the first offense? If no, what discipline was administered?

The typical disciplinary action pattern is as follows; however, the severity of a violation will determine the level of disciplinary action administered:

1. Verbal Reprimand: The supervisor will inform the employee that he/she has committed a safety violation, which, if repeated, could result in further disciplinary action.
2. Written Reprimand: A formal written notice will be issued by the supervisor informing the employee of the safety violation and notifying the employee that future violations may result in suspension or discharge from work.
3. Suspension. The employee’s supervisor will inform the employee that he/she is suspended from work without pay for a specified period of time for a violation of project safety rules or regulations, and that future violations may result in discharge.

## **WisDOT MEGA PROJECT**

### **OCIP SAFETY MANUAL**

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4. Discharge: Employment will be terminated as a result of a major safety violation or a pattern of safety violations.

Whenever discipline of a safety violation is administered, proper documentation of the action must be recorded and a copy forwarded to the OCIP SHD. The documentation should state what safety rules were violated, the level of disciplinary action administered, and any other comments the supervisor wishes to note relative to the incident.

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### PROJECT SAFETY RULES

1. Safety head protection, i.e. hard hats (ANSI Z89), safety glasses (ANSI Z87), and Class II safety vests must be worn at all times while on the work site.

In addition, A Class III ensemble shall be worn during nighttime, low visibility. For all work on the WisDOT Mega Project, when A Class III ensemble is required, it shall include Class E, full length, reflective pants. Any exceptions regarding the use of Personal Protective Equipment will need to have prior written approval of the OCIP Safety Manager. **Flaggers are required to have class III including type E pant at all times**

2. Failure to follow these guidelines will result in fines issued for improper Personal Protective Equipment.
3. Long pants, 4 inch sleeved T-shirts, and safety-toe (ANSI Z41.1) leather, work shoes or boots shall be worn at all times by all personnel on the work site, including visitors.
4. All injuries, accidents, and incidents will be reported immediately to a supervisor.
5. False claims of injury will result in discharge.
6. Personal protective equipment (respirators, earmuffs or plugs, gloves, boots, safety harness, etc.) will be provided by the contractor as required by the hazard involved in work assignments. This equipment must be worn when specified by project supervision or when conditions warrant their use.

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7. Report defective machines, tools, etc., and have them taken out of service.
8. Reporting to work under the influence of intoxicants, tranquilizers, narcotics, or other dangerous drugs; or possession of such is prohibited and will result in discharge.
9. No employee shall remove, displace, damage, destroy, or alter any safety device or safeguard furnished or provided for use in any place of employment, nor shall anyone interfere in any way with the use thereof.
10. Any employee who observes unsafe acts or unsafe conditions in a work area, which might result in an accident or injury, shall report such acts or conditions to supervision immediately.
11. Familiarize yourself with signs and posters bearing pertinent information, warnings, directions, and instructions. Know the locations of fire extinguishers in your work areas.
12. Fighting, creating a disturbance or horseplay will not be tolerated.
13. Stealing: Unauthorized removal, attempted removal, or possession of property belonging to someone else or to the owner will result in termination.
14. Dangerous Weapons: Possession of guns or dangerous weapons while on WisDOT property will result in termination.
15. Property Damage: Willful damage to equipment, buildings, or other plant property will result in termination.

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### OCIP SAFETY MANUAL

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16. Insubordination: Refusal to perform a safe work assignment given by a supervisor will result in termination.
17. Visiting Other Operations: Do not visit other operations if work does not require you to do so.
18. Housekeeping: Housekeeping, safety, and productivity go hand in hand. You are responsible for keeping your work area clean. Willful littering, defacing, or other poor housekeeping actions to equipment, buildings, locker room/toilet facilities, or other WisDOT property will not be tolerated.
19. Unsafe Acts: Actions, which place yourself or coworkers in an unsafe working environment or situation, will not be tolerated.
20. Threatening other employees by profane and abusive language will not be tolerated and is subject to disciplinary action up to and including termination.

NOTE: VIOLATIONS OF SAFETY RULES OR SAFETY STANDARDS MAY RESULT FINES, AND MAY INCLUDE REMOVAL FROM THE PROJECT.

# WisDOT MEGA PROJECT

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### NOTICE OF SAFETY VIOLATION

EMPLOYER: \_\_\_\_\_

PROJECT: \_\_\_\_\_

EMPLOYEE: \_\_\_\_\_

CLASSIFICATION: \_\_\_\_\_

SUPERVISOR: \_\_\_\_\_

DESCRIPTION OF VIOLATION:

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## OCIP SAFETY MANUAL

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DISCIPLINARY ACTION TAKEN:

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DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

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## OCIP SAFETY MANUAL

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### NON-COMPLIANCE TO SAFETY POLICIES

In an effort to ensure compliance to this program and all other established OSHA standards, WisDOT hereby implements this procedure of non-compliance to all Contractors and Subcontractors working on this project. This procedure will be followed by the OCIP Safety Staff and is fully supported by WisDOT.

#### E. LIFE THREATENING VIOLATIONS

1. If life-threatening activities are observed, immediate instruction to halt the unsafe practice will be issued and fines will be issued to the prime contractor without previous written warning.

Life threatening situations are interpreted by the OCIP Safety Staff and are non-negotiable.

#### NON-LIFE THREATENING VIOLATIONS

1. 1<sup>st</sup> offense, worker and contractor is given a verbal warning - written record kept.
2. 2<sup>nd</sup> offense, worker is given a written warning and his supervisor is brought into the office for a "discussion" with the Prime Contractor and the OCIP Safety Staff. A copy of the written warning is sent to the offending worker's company's office, with a statement to the effect that if this happens again, the worker will be removed from the project and will lead to a fine.
3. 3<sup>rd</sup> offense, worker is permanently removed from the project and contractor is fined.

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### GENERAL CONDITIONS

1. If repeated safety violations are noted within the same crew, the supervisor of said offenders will be subject to fines and if correction is not made, is subject to removal from the project.
2. To assist in our efforts to provide a safe work place, the violations and penalties described in this manual are included in this General Safety Program. Signs enumerating this policy will be posted at the job site.
3. Fines and penalties established in this manual will be imposed at the sole discretion of the OCIP Safety Staff. Second offenses by the same employee within 6 months of the previous violation will result in a “2<sup>nd</sup> Offense” assessment to the contractor.

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Contractors or their employees or agents involved in unsafe acts or conditions may be directed to cease the activity until the condition is brought into compliance with the site safety procedures. Any delay costs will be borne by the Contractor. In addition, if a contractor or its sub-contractor refuses to correct unsafe conditions, WisDOT may correct the situation by using other employees and back charge the contractor or its subcontractor for expenses incurred.

4. The prime contractor will be billed for fines assessed and are required to pay directly as follows:

Payable to the: WisDOT Mega Projects Safety Violations Fund

Safety Violations Fund

WisDOT Mega Projects Safety Office

TBD

Milwaukee WI

**Fines collected will be distributed as determined by a Safety Incentive Committee (SIC) comprised of representatives of WisDOT, representatives of the Aon, a representative of each prime contractor. The SIC will create the criteria for use of these funds. The WisDOT OCIP Administrator must authorize any withdrawals or disbursements from the Fund.**

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## OCIP SAFETY MANUAL

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### PROJECT FINES

<u>Violation</u>	<u>Fine</u>	
	<u>1<sup>st</sup> Violation</u>	<u>2<sup>nd</sup> Violation</u>
SPEEDING IN WORK AREA	\$ 200	\$ 400
SAFETY TOE FOOT WEAR	\$ 200	\$ 400
HARDHAT	\$ 200	\$ 400
SEATBELTS	\$ 200	\$ 400
SAFETY GLASSES	\$ 200	\$ 400
DRESS CODE	\$ 200	\$ 400
GFCI	\$ 200	\$ 400
DAMAGED CORDS	\$ 200	\$ 400

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RIDING IN BED OF TRUCK	\$ 200	\$ 400
USE OF CELL PHONE WHILE OPERATING	\$ 200	\$ 400
MACHINE GUARDING	\$ 200	\$ 400
SEATBELTS	\$ 200	\$ 400
FAILURE TO TIMELY REPORT INJURIES/ INCIDENTS	\$ 500	\$ 1000
Multiple	\$ 500	\$1,000
IMPROPER USE OF LADDER	\$1,000	\$2,000
HOUSEKEEPING	\$1,000	\$2,000
VISITOR PROCEDURE	\$2,000	\$4,000
IMPROPER CONFINED SPACE ENTRY	\$2,000	\$4,000

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PERSONAL FALL PROTECTION	\$2,000	\$4,000
REMOVING GUARDRAIL without replacing	\$2,000	\$4,000
IMPROPER HOLE COVERING removing hole cover	\$2,000	\$4,000
VISITOR PROCEEDURE	\$2,000	\$4,000
IMPROPER TRENCH PROTECTION	\$2,000	\$4,000
IMPROPER SCAFFOLDING and procedure	\$3,000	\$6,000
IMPROPER FLAGGING/BARRICADING	\$3,000	\$6,000
ENTERING DEMOLITION AREAS	\$3,000	\$6,000
OTHER SAFETY VIOLATIONS NOT LISTED HERE	\$200 - \$3,000	\$6,000

### EMERGENCY RESPONSE

Emergencies may arise at any time with the potential to cause loss to people and property. Advanced planning for emergencies is the only way to minimize this potential loss. The following procedures will be established and adhered to in the event of an emergency. Job site-specific procedures will be developed and updated during the course of the project as conditions warrant.

#### PERSONAL INJURY

All injuries must be reported to the OCIP SHD immediately. Should an individual suffer a work-related injury they should report it to the OCIP safety staff and then proceed to the nearest approved medical facility unless it requires life-threatening emergency medical treatment and transportation to an off-site medical facility; the following procedure are to be followed:

1. Secure the accident scene.
2. Try not to disturb any of the accident scene unless it is in the best interests of the injured party that certain things be moved. However, it is extremely important that nothing be moved if possible.
3. Take pictures to document the accident scene. Be sensitive. Do not take pictures of the injured person, but try to take pictures of the accident scene, date, and time as best as possible.
4. The employee's immediate supervisor will contact the OCIP SHD or his designee to inform them of the accident, seriousness of the injury, location, and the need for immediate emergency medical attention.

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5. The OCIP SHD or his designee will contact the designated emergency response facility to arrange for the emergency transport vehicle.
6. The personal injury response team will assemble and provide first aid until the ambulance arrives and then will assist the ambulance personnel in the handling of the individual to the rescue vehicle.
7. Get the name and address of all witnesses.
8. Take statements for each individual who was an actual eyewitness to the incident. (Statements from individual who heard certain things but did not see them are considered third party and should not be utilized as a statement.)
9. Investigate the incident thoroughly, identifying specifically what happened, how it happened, who was involved, and what equipment or tools if any were involved. A comprehensive report with mitigation must be done within 72 hours after the injury. If the comprehensive report cannot be accomplished in this timeframe due to investigations by law enforcement agencies, a report and tentative mitigation shall be submitted and updated every 72 hours until the final report can be delivered.
10. Assemble all of the parties' together, witnesses and those who were involved in the incident, along with their immediate supervisors and devise corrective action to prevent a recurrence.
11. Copies of the data collected from any investigation shall be supplied to the SHD and the WisDOT Safety Engineer in a timely manner to review and verify that the corrective actions seem appropriate and are documented and to share the findings at the next weekly Contractor Safety Meeting for others to improve project safety.

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### SEVERE WEATHER

Should weather conditions, such as severe electrical storms, tornadoes, etc., develop around or near the project site that could cause work conditions to become unsafe or hazardous, the following procedures will be followed:

1. The OCIP SHD or his designee will monitor the area weather by the use of a weather alert radio, computer, etc..
2. Should conditions warrant a cessation of work activities, the OCIP SHD, Engineer or his designee will notify all affected Contractor personnel and all Subcontractors. The contractor and all subcontractors shall immediately secure their work site and evacuate to a designated safe area.
3. Should the project or certain work activities be shut down due to severe weather conditions (if lightning is present, extreme temperatures and high speed winds), the Engineer/OCIP SHD or his designee will notify all affected parties as to when it is safe to resume the operations.
4. Tornado: In the event of a tornado, all personnel employed at the project will evacuate to the designated tornado evacuation area. The Contractor's and all Subcontractor's project managers and/or superintendents will be responsible for obtaining a "head count" of the employees.

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### EMERGENCY EVACUATION PROCEDURES

In the event of an emergency, such as a bomb threat, fire, explosion, etc., that requires the evacuation of the job site, the following procedures shall be followed:

1. The Engineer/OCIP SHD or his designee will notify the Contractor and all Subcontractors of the need to evacuate the project site.
2. Once the evacuation signal is given, the Contractor and all Subcontractors shall immediately cease work. All equipment is to be shut down and secured as quickly as possible. All personnel will then exit the site in an orderly manner, leaving nonessential personal belongings behind and proceed to the designated evacuation area-gathering site.
3. The Contractor's and its Subcontractor's project managers and superintendents will be responsible for obtaining a head count of their employees. Any missing individual(s) will be reported to the Engineer/OCIP SHD or his designee immediately.
4. No Contractor or any Subcontractor's employees will re-enter the project site until the Engineer/ OCIP SHD or his designee gives the "all clear" signal.

### FIRE

Should a fire occur on the project site, the following procedures shall be followed:

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**If a worker discovers a fire on the project, and it is small enough to grab a nearby fire extinguisher and put it out without putting themselves in harms way or other workers in danger then (Put it out!!) if this will not work, by all means call 911.**

1. The individual(s) discovering the fire will notify the Contractor's project manager or superintendent.
2. The Contractor's project manager or superintendent will notify the Engineer/OCIP SHD or his designee immediately and advise of the exact location of the fire.
3. The Engineer/OCIP SHD or his designee will contact the designated fire department to request their assistance.
4. The project emergency response team will assemble and attempt to control the fire until the fire department arrives. The project emergency response team will then assist the fire department in extinguishing the fire.
5. The Contractor's and all Subcontractor's personnel shall immediately evacuate to a designated safe area and account for their employees. This result shall be reported to the Engineer/ OCIP SHD or his designee.

### PERSONAL INJURY EMERGENCY RESPONSE TEAMS

The Contractor's and all Subcontractor's personnel who are certified in first aid/CPR may be called upon to participate on the project emergency response team. A group of qualified first aid/CPR employees from the Contractor/Subcontractors on the project will be identified and

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assembled to comprise the personal injury emergency response team. In the event of an accident requiring emergency action, this group will be summoned to respond to the emergency. Selection of individuals and the direction of the activities of this team will be by the OCIP SHD or his designee.

### TRAINING

The Contractor and all Subcontractors will be formally advised of all site emergency procedures, and it will be their responsibility to advise and train its employees in these procedures.

### MEDIA

Media access to the construction site shall be coordinated with/ through the Mega Project Public Information Office and requires prior approval from the Construction Management Team.

Authorized media shall be escorted by WisDOT project personnel as determined by the Construction Management Team. Authorized media will be in full PPE while on site with the only exception being the on-camera reporter may be allowed to remove the hardhat and glasses while recording on-camera clips. The final determination of acceptability of this removal shall be determined by the escorting WisDOT person depending upon site conditions at the point of recording.

Any media found within the construction footprint without proper PPE and/or without a WisDOT escort should be identified and be reported to project personnel immediately.

Only authorized personnel are permitted to give interviews.

Requests for interviews from the media should be directed to the Mega Project Public Information Office. Media is allowed to view operations from public areas. Awareness of media activity from public areas should also be reported.

### TOURS

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All visitors/tours, both public and private, not directly related to the operational needs of the project shall be coordinated with/ through the Mega Project Safety Engineer and requires prior approval from the Construction Management Team.

Tours entering upon the construction footprint shall conform to this requirement, shall be signed in and out in conformance with OCIP Visitor requirements at the construction field office and shall conform to all PPE requirements.

The construction footprint shall consist of all areas behind or being protected by traffic control devices including sidewalks and lanes closed to the general public.

Tours conducted only from locations open to the general public do not require prior approval.

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### FIRST AID MEDICAL

The purpose of this section is to provide competent and responsible medical and first aid care for all employees. Our health care shall meet or exceed Federal, State, and local requirements.

#### RESPONSIBILITY

The OCIP SHD shall assist project management and the Department in establishing first aid facilities at the project work site. Responsibility for medical personnel and facility maintenance on WisDOT Mega Project will be delegated to each safety representative and/or superintendent of each Contractor and Subcontractors.

Training of employees in the area of first aid and emergency care shall be the responsibility of the safety representative/superintendent.

**The responsibility for providing proper transportation of the sick or injured lies with the safety representative of each contractor.**

Employee medical and safety records are the responsibility of each contractor's safety representative. All safety and medical records must be filed separately from employee personnel records.

#### GENERAL

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Provisions will be made prior to the commencement of the project for prompt medical attention in case of serious injury.

Telephone numbers of physicians, hospitals, and ambulance services shall be posted next to each phone.

All employees will be instructed in the proper reporting of injuries.

Emergency response teams shall be developed to respond to an accident. A competent person will be identified and shall make initial treatment and assessment of injuries.

The initial visit by an employee to a physician or clinic for medical treatment and evaluation shall be to the project-designated physician or clinic. The Medical Authorization form shall be completed by the OCIP SHD or the Project Safety Representative and sent to the treatment facility with the injured employee.

Employees who obtain medical treatment for alleged work-related injury or illness without being referred by project medical personnel or the OCIP SHD must advise project management or the OCIP SHD immediately following treatment.

### **EMPLOYEE ACCESS TO MEDICAL RECORDS**

Beginning December 1, 1980, the Occupational Safety and Health Administration set forth rules which allow for the access of an employee to their exposure and/or medical records relating to any toxic or harmful physical agents with which they may have come into contact while in our employ.

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Posters stating this are to be posted at points of assembly throughout the job site.

All project personnel concerned should read this standard. Specific persons who should be copied within project location are superintendents, safety representative, and office personnel involved in project record keeping.

In the event you are approached by any of the individuals identified in OSHA 1910.20 requesting access to the exposure and/or medical records, the following procedure shall be implemented:

1. Acknowledge the request of the employee and state the fact that by law you have 15 working days in which to present these records to them. Assure them that we will comply with their rights to access within that specified period in as full and complete a manner as we can.
2. Notify the administration of the request by the individual or his representative for access to these records.

### INDUSTRIAL HYGIENE

Employees shall be protected from environmental hazards that arise out of or during the course of employment. Hazardous exposures that may adversely affect health, both immediate and long term shall be controlled.

A program that deals with the recognition, evaluation, and control of environmental health hazards shall be developed.

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### **OCIP SAFETY MANUAL**

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Contractors must have training records for their employees handling lead. They also must hand in a lead abatement plan the OCIP SHD before any lead work commences.

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## OCIP SAFETY MANUAL

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### SECURITY

The Contractor's and all Subcontractor's personnel will comply with the following security procedures for the WisDOT Mega Project:

1. WisDOT, its agents or the OCIP SHD will have the right to inspect any motor vehicle and its contents driven onto the project site. Drivers hereby consent to such inspection.
2. Alcohol, drugs, firearms, and dangerous weapons are not permitted on WisDOT property. If such items are identified on the property, authorities will be notified; you will be escorted off WisDOT project site and may be refused future admittance.
3. Park only in authorized areas.
4. Obey all safety and traffic controls, signs, and devices.
5. Contractors are required to post speed limit signs in accordance with the job site rules.
6. You are permitted to go only to your destination or assigned work area.
7. Be alert and stay clear of all moving equipment.

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8. You are responsible for securing and safekeeping of your property. WisDOT/Insurance carrier assumes no risk of liability.
9. Report unusual or suspicious activity to security: TBD

Pager after hours: TBD

Failure to comply with any WisDOT project site security or safety policies, rules, or regulations may result in refusal for future admittance.

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### COMMUNICATION SYSTEM

Communications are essential for the success of any program. The same holds true for a successful safety and health program. The Contractor and all Subcontractors working on this project must implement the following programs and follow the project specific communication guidelines.

#### CONTRACTOR ORIENTATION

The Contractor will be required to attend an orientation meeting conducted by OCIP SHD prior to commencing work on the WisDOT Mega Project. The agenda for this meeting will include safety requirements, security, emergency procedures, and work rules. The Contractor's and all Subcontractors' project manager, superintendents, and site safety representative shall attend this meeting.

#### NEW EMPLOYEE ORIENTATION

- A. The OCIP SHD will conduct new employee orientation for every employee, supervisor, manager and visitor with a reason to be on the project. All enrolled contractors employees on the project will be required to attend this orientation. **No Exceptions.** All personnel are subject to drug and alcohol testing and must successfully pass such testing before accessing the site. All employees who complete these requirements will be given a hardhat sticker authorizing their access to the site.

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- B. The Contractor and all Subcontractors, regardless of tier, shall be required to conduct site-specific orientation to all employees after they have finished the project orientation and prior to commencement of any work on I-94 NORTH - SOUTH CORRIDOR PROJECT. All personnel must attend both the project orientation and site-specific orientation by their immediate employer prior to accessing the site.
- C. Project-wide new employee orientation will be made available at the project site as necessary.

#### **SAFETY MEETINGS**

- A. The Contractor, at its weekly progress meetings, shall allow adequate time at the beginning of the meeting for the Contractor's Safety Representative and the OCIP SHD to articulate to all of the contractors the safety and health concerns observed during the previous construction activities. Dialog should be exchanged with consideration for corrective action and abatement.
- B. The Contractor and all Subcontractors, regardless of tier, shall conduct weekly toolbox meetings involving all personnel working on the site. Toolbox meetings should address the safety and health concerns noted during each supervisor's and Safety Representative's work activities. Consideration should be given to corrective action and abatement.
- C. Attend OCIP Safety announced safety meetings with all safety and health representatives on the project. The meeting will be to discuss overall project safety and health concerns with consideration for corrective action and abatement. This meeting can be called at any time (but not less than monthly) by the OCIP SHD and attendance is mandatory.

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## OCIP SAFETY MANUAL

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# WISDOT MEGA PROJECT

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### JOB SITE POSTING REQUIREMENTS

The Contractor and all Subcontractors, regardless of tier, will ensure compliance with any and all of the Wisconsin workers' compensation statutes, the regulations of the Occupational Safety and Health Administration, the regulations of all other Federal, State, and local governmental agencies, including but not limited to the WISDOT Standard Specifications for construction, that certain notices, signs, or posters be put up in a conspicuous place where employees can readily see them or where notices to employees are customarily posted. Minimum posting requirements include the following:

1. OSHA Job Site Safety and Health Poster
2. Emergency Telephone Number Listing
3. MSDS Notice to Employees: This notice advises employees that MSDS's for a particular job site are located in the job trailer along with the written HAZCOM program.
4. OSHA Annual Summary: The summary is actually the last page of the OSHA 300 form with totals listed for all OSHA recordable cases. It is required to be posted from January through March.
5. Workers' Compensation Notices
6. Equal Employment Opportunity Poster

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### 7. Right to Medical Records

The Contractor and all Subcontractors will be responsible for the posting of all applicable safety danger/warning signs pertaining to the hazards associated with its work.

### ACCIDENT INVESTIGATION

Accident investigation has one primary goal: to prevent the recurrence of similar accidents. The objective of investigating accidents is to make the workplace safer for everyone.

1. An accident investigation report will be completed on all accidents and near-hits incidents. (Near-HITS: any incident that does not result in personal injury or property damage, but has the potential.)
2. The investigation report will be completed and turned into the OCIP SHD within 24 hours of the incident. A comprehensive report with mitigation must be handed in with 72 hours after the incident. If the comprehensive report cannot be accomplished in this timeframe due to investigations by law enforcement agencies, a report and tentative mitigation shall be submitted and updated every 72 hours until the final report can be delivered.
3. The OCIP SHD will review the investigation report with the Contractor and all Subcontractors to discuss recommended corrective action and its implementation. It is the Contractor's and all Subcontractor's responsibility to discuss the incident's cause and recommended corrective action to prevent recurrence with its employees and implement it.
4. The accident investigation report is to include additional information not included on the "First Report of Injury" but necessary for isolating the conditions responsible for the injury or accident, and to devise corrective actions.

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### OSHA INSPECTION

#### PRE-INSPECTION

1. Normally, OSHA will come on the job without advance notice during regular business hours for an inspection because of:
  - a. Complaints filed by employees, Contractors, Subcontractors, unions or even outside third parties. (Ask for a copy of the complaint.)
  - b. A fatality or serious accident involving two or more being hospitalized.
  - c. Random selection or program inspection.
2. The OSHA compliance officer or inspector will present his credentials, explain the nature and the purpose of his visit, and usually will ask for an opening conference at which he may want the Contractor's safety personnel, Subcontractors' representatives, and union representatives or employee representatives present.
3. Notify the OCIP SHD immediately.
4. Try to get a brief delay (an hour or so) so top management can attend, so that everyone desired can be rounded up, so that this section can be reviewed, and so that the Engineer can be advised immediately by telephone.

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5. While getting all necessary personnel together:
  1. Call the Engineer immediately and advise of imminent inspection.
  2. Review this section.
  3. Advise the Contractor and all Subcontractors of the inspection.
  4. Have at least one individual, knowledgeable in potential OSHA hazards, begin inspection/correction ahead of the OSHA Inspector to give him some advance help and make his job easier by eliminating possible violations. If the inspection lasts several days, keep working on this.

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### OPENING CONFERENCE

(Superintendent must attend, or safety rep)

1. Begin filing out an OSHA Safety Inspection Report.
2. Record names of all present.
3. Identify and record names of all persons assigned to go with OSHA compliance officer on walk-around inspection.
4. During opening conference, walk-around inspection and closing conference, it is extremely important that the Contractor's and all Subcontractors positive safety attitude be communicated to the OSHA inspector. However, NEVER volunteer information. Maintain a good attitude during the entire inspection. Be cooperative and polite. Outline the Contractor's and Subcontractors' safety efforts where appropriate. A good safety attitude when OSHA is not around will help when it is.

### THE INSPECTION ("Take pictures of everything the inspector photographs.")

1. It is strongly recommended that the project manager, and the OCIP SHD accompany the OSHA inspector on the entire walk-around inspection. The project safety representative or some other responsible and knowledgeable supervisor must accompany the inspector.
2. The OSHA inspector will take pictures during his/her inspection where he/she thinks there may be a violation, and should notify the Contractor's and/or the Subcontractor's

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representatives when he/she does so. If he/she does not, ask him/her to do so. Take picture-for-picture with the inspector in as close to his/her position as possible. Take additional photographs as necessary for better perspective or additional detail and information. When the Contractor's or a Subcontractor's representative makes the inspection walk, he/she shall maintain a photograph log. This log shall list each photograph by number, with pertinent data, for easy reference to subsequent citations, if any.

3. Take notes of each location visited, i.e., equipment checked names of personnel talked to, gist of conversations, etc. Try not to get involved in conversations between questions but remain with them all the time. The inspector does have the right to interview various employees privately. Answer questions but do not volunteer any information, particularly about operations of particular machines. NEVER perform a demonstration. If the machine is not being operated, NEVER state that it was or when in its present condition.
4. "Unsafe Acts". It is important to distinguish between "unsafe acts" and "unsafe conditions". Most serious violations (as well as injuries) are the result of "unsafe acts" on the part of the workman and not "unsafe conditions." "Unsafe acts" include such things as failure to wear Contractor/Subcontractor-furnished goggles or failure to wear Contractor/Subcontractor-furnished safety harnesses and lines. Threats of discharge or actual discharge for repeated, "Unsafe acts" "sometimes is the Contractor or all Subcontractors" only remedy. However, when the Contractor's representatives accompanying OSHA inspectors observe an "unsafe act," the representative should immediately contact the employee's supervisor. If he is not immediately available, he should contact the employee directly and instruct him to cease the "unsafe act." This action may not avoid a citation, but it will certainly mitigate the circumstances and show good-faith efforts.
5. "Unsafe Conditions": This includes such things as guard rails down, missing toe-boards, defective ladders, guards off of saws, poor housekeeping, improper storage or caps off oxygen and acetylene cylinders, underground electrical equipment and defective tools and equipment. Most OSHA citations are for "unsafe conditions" which the Contractor and all Subcontractors can do something about. However, during walk-around inspections, "unsafe conditions" may be found that can be corrected immediately. This

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should be done, as the compliance officer generally records such correction, which will demonstrate the employer's good-faith efforts. If he/she fails to note immediate abatement, corrections should be called to his/her attention, especially at the closing conference. However, even though corrected, apparent violations may still be the basis for a citation and/or proposed penalty. Defective equipment being operated should be stopped immediately and removed or red-tagged out of service. Work in areas of violations that cannot be corrected immediately should be stopped and workers reassigned until corrections can be made.

### **CLOSING CONFERENCE** (Superintendent must attend.)

At the closing conference with the employer, the compliance officer will discuss what has been found on the inspection and state the apparent violations for which a citation may be issued or recommended.

1. Record the names of all present and take notes of what was said.
2. List all alleged violations discussed by the inspector and indicate whether serious or non-serious. Record the OSHA regulation number given for each alleged violation by the inspector. If he/she does not give the number, ask him/her for it.
3. If you don't believe an item was a violation, give him/her your reason.
4. Again, be cooperative and polite, and display a positive safety attitude. Don't be antagonistic. NEVER admit that something is a violation.

### **POST INSPECTION**

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1. Immediately complete the OSHA Safety Inspection Report and send to the OCIP SHD as soon as possible, along with the photographs, photograph log and job comments regarding each alleged violation including abatement action taken. This will considerably help establish the Contractor's and all Subcontractors' position in contesting any citations.
2. Any citations received by the job should be sent immediately to your corporate office with a copy to the project safety director.
3. Under no circumstances should an employee who has filed a complaint with OSHA be discharged or laid off because of the complaint filed, as such action is a serious violation of the OSHA law.

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### PERSONAL PROTECTIVE EQUIPMENT

#### PURPOSE AND SCOPE

This section specifies the minimum criteria for personal protective equipment to be established and applies to all Contractor's and all Subcontractors' employees.

Approved personal protective equipment shall be equipment that meets federal and state specifications and standards.

The standard code of dress for the Contractor's and all Subcontractors' personnel on the WisDOT Mega Project shall be: hardhat, safety glasses, work boots, Class II safety vests, shirts with four-inch sleeves, and long work pants. In addition, Class III high visibility apparel shall be worn for night work including type E pants. (No exceptions!)

All PPE will be worn in its entirety while operating construction equipment.

Project Manager and superintendents/supervisors shall be responsible to ensure compliance with the personal protection standards by the Contractor's and all Subcontractors personnel. The Contractor's designated safety representative and the OCIP SHD shall be responsible for regular field surveys to audit compliance.

#### HEAD PROTECTION

1. All areas of the project will be mandatory hardhat and safety glasses areas. All personnel, including Subcontractors and visitors on site shall wear approved hard hats

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and safety glasses. Hats shall meet specifications contained in American National Standards Institute Z89.1 Class A or B, 1969, Safety Requirements for Industrial Head Protection. Class B is required for electrical contractors or workers. Hard hats shall identify the contractors by company and employee.

2. A 'bump cap' is not an approved hard hat and is not acceptable at the WisDOT Mega Project
3. Non-typical hardhats (cowboy hats, etc), even if conforming to ANSI Z89, shall not be worn on the WisDOT Mega Project
4. All employees engaged in night time work shall have a working head lamp on their hardhat.

### EYE PROTECTION

1. All of the Contractor's and all Subcontractors' employees are required to wear safety glasses with fixed side shields in accordance with ANSI Z87.1 standards **At all times**, this applies to prescription eyeglasses as well.
2. Employees shall be provided with and be required to wear eye and face protection equipment when machines or operations present potential eye or face injury from physical, chemical or radiation agents.

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3. Eye and face protection required herein shall meet the requirements specified in American National Standards Institute Z87.19 1968. Employees whose vision requires the use of corrective lenses or contact lenses and who are required by this standard to wear eye protection shall wear goggles or prescription safety glasses with side shields.
4. Full-face shields, in addition to safety glasses, are required for all grinding and chipping operations.
5. Burning goggles are required for all burning operations such as oxygen, acetylene, propane and natural gas.
6. Face and eye protection equipment shall be kept clean and in good repair. The use of defective equipment (with structural or optical defects) is prohibited. The safety glasses must be suited for the visibility.
7. Welding hoods and flash glasses are required for all welding operations. Adequate screening and shielding for employees outside the work area shall be provided.

### RESPIRATORY PROTECTION

1. Respiratory protection devices approved by the United States Bureau of Mines, NIOSH, or MSHA for specific contaminants to which the employee is exposed shall be available and worn by personnel in emergencies or when exposed to hazardous concentrations of toxic or noxious dust, fumes, or mists as established by enforcing standards.
2. Only respirators, which are applicable and suitable for the purpose intended and approved by MSHA and NIOSH, will be used. They should be selected on the basis of the hazards to which the employee is exposed.

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3. Employees required to use respiratory protective equipment approved for use in atmosphere immediately dangerous to life shall be thoroughly trained in the use and limitations of such equipment.
4. Respiratory protective equipment will be inspected regularly and maintained in good condition by the Contractor. Chemical cartridges will be replaced as necessary to provide complete protection. Dust respirators are to be replaced as necessary so as to avoid undue resistance to breathing.
5. Respiratory protective equipment (except dust respirators), which has been previously used, shall be cleaned and disinfected before it is issued to another employee.
6. All employees required to use this personal protective equipment shall be given individual instruction regarding the PPE prior to its use. This training shall be documented.
7. All employees must be clean-shaven to ensure the proper fitting of the respirator. The Contractor and all Subcontractors must perform fit testing on each employee to ensure the proper fit of the respirator.
8. All employees must go through a medical evaluation from a doctor, before using cartridge-based air purifying respirators. The results of such tests must be submitted to the OCIP SHD.
9. The Contractor and all Subcontractors must have a written respirator program, and this program is to be submitted to the OCIP SHD prior to working on this project.

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10. A NIOSH approved N95 mask must be worn if concrete dust is created while operating any cutting or grinding tool.

### **HEARING PROTECTION**

1. Approved ear protection shall be available and worn by personnel exposed to sound levels above permissible noise exposures as established in the Federal safety and health standards. Cotton is not to be used as hearing protection.
2. Employees shall be protected from noise levels that can cause hearing impairment. Permissible noise exposures shall not exceed those listed in 29 CFR 1926.52, Table D-2. Any noise monitoring will be the responsibility of the contractor.

### **SAFETY HARNESES**

1. Safety harnesses meeting the Federal and State safety and health standards shall be available and worn employees exposed to falls from unprotected heights of six feet or more. Safety lanyards shall be of minimum one-half inch nylon or equivalent, with a maximum length to provide for falls of no greater than six feet.
2. Safety harness shall be worn as the outer-most PPE worn except for PFD's when both are necessary

### **FOOT PROTECTION**

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1. Sturdy leather **ANSI Z41 safety-toe work boots** shall be worn for general construction work. Sneakers, street shoes, low-cut shoes, dress shoes, sandals, or canvas shoes are not acceptable or permitted as work shoes on the WisDOT Mega Project

### WORK VESTS

1. Coast Guard approved PFD's shall be worn when working over or adjacent (within six feet) to water where danger of drowning exists.
2. ANSI Class II vests are required at all times and Class III high visibility apparel including Class E pants shall be worn during night work.
3. Personal protective equipment shall be kept reasonable clean. Any grease, oil or dirt that significantly compromises the function of the PPE shall be cleaned from the device or the device shall be replaced in a timely fashion.

### CLOTHING

1. As a minimum, all personnel working on the WisDOT Mega Project shall wear long pants and shirts with four-inch sleeves.
2. Proper work attire is to be worn at all times. Shorts and tank tops are not permitted.
3. Fire retardant clothing including Class II vests are required for all burning and welding operations.

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### HAND PROTECTION

1. When cuts, burns or hazardous substances present a hand hazard, gloves shall be worn to protect the hands from injury.

### OTHER PERSONAL PROTECTIVE EQUIPMENT

1. Unusual circumstances such as inclement weather, high temperature work, handling corrosive liquids, molten metal, etc., not specifically mentioned above may require specialized personal protective equipment. The project superintendent and/or safety representative for each contractor will review the potential hazards and protective equipment standards will be established for personnel.
2. Supplemental protective equipment may be required depending on the work operations involved. All Contractor and Subcontractor employees will be required to wear the appropriate personal protective equipment in accordance with the task involved.

### CARE AND MAINTENANCE OF PERSONAL PROTECTIVE EQUIPMENT

1. Personal protective equipment shall be used and maintained as per the manufacturer's specifications. Personal protective equipment shall be kept reasonable clean. Any grease, oil or dirt that significantly compromises the function of the PPE shall be cleaned from the device or the device shall be replaced in a timely fashion.
2. Personal protective equipment, which has been altered in any manner that reduces its effectiveness, shall be repossessed, repaired or destroyed.

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3. Personal protective equipment, which has been worn-out or damaged, shall not be reissued to another employee.
4. In those instances where employees are required to provide their own personal protective equipment, the Contractor and all Subcontractors shall be responsible to ensure the adequacy, maintenance and sanitation of such equipment in accordance with Federal OSHA.

## **RESPIRATORY PROTECTION PROGRAM**

### **GENERAL REQUIREMENTS AND SCOPE**

This program is designed to provide protection for our workers from any diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays or vapors.

The primary objective is to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosures or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used pursuant to the following requirements:

1. Contractors will provide respirators when such equipment is necessary to protect the health of our employees:
  - a. Respirators will be applicable and suitable for the purpose intended.
  - b. Contractors will establish a “Respiratory Protective Program.”
  - c. The wearing of the appropriate respirator in the areas designated for protection is “mandatory.”

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- d. All employees shall use the provided respirator protection in accordance with instructions and training received.
2. Employees will be required to follow the rules regarding the selection and use of the respirators. (No exceptions.)
3. Respirators will be selected on the basis of hazards to which each employee will be exposed.
4. Each employee will be instructed and trained in the proper use of respirators and their limitations.
5. Respirators shall be cleaned and disinfected regularly.
6. Respirators used by more than one worker shall be thoroughly cleaned and disinfected after each use.
7. Respirators shall be stored in a convenient, clean, dust-free and sanitary location.
8. Respirators used routinely shall be inspected during cleaning. Worn or deteriorated parts shall be replaced.
9. Designated areas requiring respirators will be surveyed periodically to determine if environmental conditions have changed by measuring their exposure and observing the areas to ascertain the degree of stress caused by the area conditions and the constant wearing of respirators.

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10. These periodic surveys will also be utilized as opportunities to measure the continued effectiveness of the program.
11. All personnel working in designated areas requiring respirators must have an employer provided physical by a licensed physician to determine if they are physically able to wear a respirator and do their jobs with no adverse respiratory problems. Medical surveillance will be conducted annually on each employee working in the designated areas to ensure their continued physical capabilities.
12. All respirators used on this project will be designed to provide adequate respiratory protection against a particular hazard and approved by the U.S. Department of the Interior, Bureau of Mines, and the National Institute for Occupational Safety and Health.

### SELECTION OF RESPIRATORS

Respirators will be selected according to the guidelines listed in the American National Standard Practices for Respiratory Protection Z88.2-1969.

### USE OF RESPIRATORS

1. Respirators will be selected based on the hazard present.
2. Contractors shall have every respirator needed to protect their employees from the hazards associated with their respective construction task. All employees must wear the designated respirator for the designated hazard. (No exceptions) The box container provides the instruction on the proper way to wear, fit and care for the respirator the

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employee will be wearing. Additionally, contractors may use the throwaway mask when possible.

- a. The proper respirator should be selected according to the hazard the employee will be exposed to:
  - (1) Follow the instructions on the package or the box on the proper way to put it on.
  - (2) All employees required to wear respirators will not be allowed to wear facial hair in the proximity of the area that the respirator touches the face, i.e.:
    - (a) Mustaches;
    - (b) Beards;
    - (c) Large sideburns;
    - (d) Eye glasses;
    - (e) Dentures
- b. Contractors will allow employees to select the respirator that is comfortable and that is designed to preclude the recognized hazard from the breathing zone.
- c. Conduct the fit test.

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- d. During the course of the shift, the respirator should not be worn on the neck or on the forehead.
  - e. Once the respirator is removed from the face, it should be discarded not worn in other areas of the body (throw-away type)>
  - f. Respirator should be replaced several times during the shift or when it begins to show evidence of being soiled or cause restriction in the employee's breathing.
- 3. The supervisor will designate which respirator will be worn for a particular construction task or for a specific process.
  - 4. The supervisor will be responsible for the distribution of the proper respirator.
  - 5. The supervisor will also be responsible for training and instruction.
  - 6. The supervisor will also be responsible for periodically checking all personnel in their departments to ensure that the respirators are being selected, used and cared for properly and according to the manufacturer's recommendations.

### MAINTENANCE AND CARE OF RESPIRATORS

Most of the respirators that will be used on this project will be the throwaway type; however, some tasks may require the canister type.

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If an employee is issued a canister type, the following rules regarding maintenance and care apply:

1. All respirators shall be inspected routinely before and after each use. A respirator that is not routinely used but is kept ready for emergency use shall be inspected after each use and at least monthly to ensure that it is in satisfactory working condition.
2. Respirator inspections shall include a check of the tightness of the connections and the condition of the face piece, headbands, valves, connecting tube, and canisters. Rubber or elastomer parts shall be inspected for pliability and signs of deterioration.
3. Stretching and manipulating rubber or elastomer parts with a massaging action will keep them pliable and flexible and prevent them from taking a set during storage.
4. A record shall be kept of inspection dates and findings for respirators.
5. Routinely used respirators shall be collected, cleaned and disinfected (not with alcohol based cleaners) as frequently as necessary to ensure that proper protection is provided for the wearer.
6. Only experienced persons shall do replacement or repairs with parts designed for the respirator. No attempt shall be made to replace components or to make adjustment or repairs beyond the manufacturer's recommendations.
7. Respirators shall be stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals (not openly in gang boxes).

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8. The compartments where the respirators are stored should be clearly marked.
9. Dust respirators, i.e., 3M-8710, may be stored in zip-lock-type bags.
10. Respirators should not be stored in such places as lockers or tool (gang) boxes unless they are in carrying cases, sealed containers or cartons.

### TRAFFIC PEDESTRIAN, AND RESIDENCE PROTECTION

#### INTRODUCTION

OSHA regulations do not address the protection of the general public on a job site. However, the activities of most construction projects can present serious and significant exposure to pedestrians and vehicles, therefore protection of the general public must be addressed on this project and especially in areas where work will be done near or overhead.

Besides protecting employees, the Contractor and all Subcontractors also have a responsibility to provide a job site that is free of recognizable hazards, which have caused or are likely to cause possible exposure or loss to the general public. The following work rules are to be followed:

1. All traffic signs devised or used for protection of the public shall conform to the American National Standards Institute, D6.1, Manual of Uniform Traffic Control Devices for Streets and Highways.
2. Barricades, cones, and/or similar protective devices shall be used whenever employees or the public are exposed to traffic or similar hazards.
3. When traffic patterns are closed or altered due to work activity, instructional or warning signs shall be used. Contractors cannot alter traffic control that is designed by the traffic engineer without permission.

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4. When used, flagmen and signalmen shall be properly trained in the proper procedures for safely moving and processing vehicle traffic around construction activities. Flaggers are required any time construction traffic crosses or interferes with public traffic. The contractor shall provide documentation that the flaggers have been properly trained in the proper procedures for safely moving and processing vehicle traffic around construction activities.
5. At a minimum, employees working adjacent to traffic shall wear a class II reflectorized vest. Employees working adjacent to traffic at 55mph or greater and the job zone is divided by barrels, a class III ensemble which consists of a class II vest and Type E pants must be worn.
6. Whenever and wherever possible or necessary, low voltage (12 volt) protected lights, Type A or C, shall be used to mark fences and barricades and other such encroachments onto public streets or sidewalks. These lights shall be kept operational.
7. When provided, covered sidewalks shall be equipped with permanent lights to provide sufficient illumination for use by the public day or night. All bulbs will be cage protected and kept operational.
8. Public walkways and roadways shall be kept clean and free of construction-related hazards and/or materials at all times.
9. Public walkways will have abrasive non-slip surfaces.
10. When steel plates, wood planking, or similar covers are used on public ways to cover excavations, they will be substantially secured to prevent movement from traffic.

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11. When such covers are located where there is pedestrian traffic or exposure, they shall be tapered on all sides with cutback, cold mix, or similar material to eliminate tripping hazards. Covers will be non-slip in nature or have a non-slip surface.
12. Whenever sidewalks or other normal pathways for pedestrians are blocked off due to construction activities, protected pedestrian pathways shall be provided around the blocked zone to protect pedestrians from traffic of other hazards.
13. When work is to be performed over or very near to roadways, walkways, or other areas used by the public, adequate protection shall be taken to prevent material from falling on persons or vehicles. Employees will be instructed as to the proper methods to be used for discarded rubbish and debris. Debris netting shall be installed on all outside edges of bridge decks during construction which are over active public traffic
14. Construction material, which might be blown or swept off roads or floors, shall be properly secured and shall not be staged or stored near roof or floor perimeters.
15. All trash hauls must be tarped before leaving the site.
16. Temporary chain link fence must be used and maintained to deter the public from entering the jobsite.
17. A false deck shall be installed on all bridge spans which are over active public traffic.
18. Pile driving adjacent to active public traffic shall have provisions made to prevent oil from spraying into traffic.

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19. During demolition operations adjacent to or over public traffic the contractor shall have barriers installed to prevent debris from entering active public traffic or falling from adjacent spans.
20. All concrete operations which require the spraying of concrete curing compound the contractor shall develop and submit a written plan for the prevention of spraying into public traffic.
21. All bridge approaches to incomplete bridge structures shall have orange safety fence installed completely across roadway to restrict access.
22. Migratory dust shall be controlled.

#### EMPLOYEE TRAINING

The rules and regulations associated with this section will be covered in a weekly toolbox safety meeting to ensure that all Contractor and Subcontractor personnel are familiar with these rules. Training shall be documented.

### SIGNS AND BARRICADES

Signs, barricades, barrier tapes, and other warning or entry restriction devices shall be provided whenever required by the work or any act or ordinance. Such placement shall include, but not be limited to, the following instances and circumstances (see most recent version of the Wisconsin Department of Transportation Standard Specifications for Construction):

1. Around work areas
2. Around storage and fabrication areas.
3. Around crane swing area. Post overhead work signs.
4. To define areas of overhead work. Post overhead work signs.
5. Around excavations.
6. For road closures. Provide Type A lights if barricades are left overnight. Coordinate any road closure with WISDOT.
7. Protective barricades shall MUTCD standards

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8. The Contractor and all Subcontractors, regardless of tier, shall coordinate the placement of such devices with the Engineer where the devices are outside of the actual work area or intended to control the approach to, or divert movement around, the actual work area.

### FIRE PREVENTION AND PROTECTION

The superintendent for the Contractor and all Subcontractors shall be responsible for the proper implementation and administration of the program, giving due consideration to the availability of the public or private fire department and the type of work to be performed on the project.

#### FIRE PROTECTION

1. Only approved fire protection equipment shall be purchased and issued. Fire equipment shall be used only for fire extinguishment and fire protection.
2. Only authorized personnel shall maintain fire equipment.
3. Fire equipment subject to freezing shall be kept out of the weather during freezing periods, unless protected with an approved antifreeze solution.
4. Local fire fighting personnel shall be brought in to visit the site to acquaint them with project conditions and special hazards.
5. **Fire extinguishers shall be inspected monthly and tagged.**
6. Fire hoses shall be provided when directed or required.

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7. Access shall be maintained at all times to existing or newly activated fire hydrants and/or fire department connections.
8. Access to excavation and structures for fire department entry shall be maintained at all times.

Emergency fire department phone numbers shall be conspicuously posted at all times.

### TYPES OF FIRE EXTINGUISHERS (SEE EXHIBIT “A”)

1. Water: May be stored pressure; pump tank; or cartridge operated. May be used on Class A fires only.
2. Carbon dioxide (CO<sub>2</sub>): Used on class A, B, and C fires.
3. Dry Chemical: Used on Class A, B, and C fires.

### CLASSES OF FIRES

1. **Class A:** Wood, paper, cloth, and many plastics.
2. **Class B:** Flammable or combustible liquids.

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3. **Class C:** Energized electrical equipment.
4. **Class D:** Combustible metals.

### FIRE EXTINGUISHERS

1. A fire extinguisher rated B/C shall be available within 50 feet of work areas, within 10 feet of heat producing operations, and adjacent to hazardous areas.
2. A fire extinguisher rated at 5A shall be provided for each 3,000 square feet of area, in multistory buildings, and as needed on other types of structures or projects to provide adequate protection.
3. Fire extinguishers shall be inspected monthly and maintained in accordance with manufacturer's specifications.
4. All fire extinguishers shall be inspected and re-tagged by an independent fire extinguisher servicing company annually.
5. A 20 B/C fire extinguisher shall be available within 50 feet of work areas.
6. A 20 B/C fire extinguisher shall be available within 50 feet of whenever gasoline-operated equipment is being used.

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7. A 20 ABC fire extinguisher shall be available within 10 feet of welding/cutting operations or where flammable liquids are used.

### FIRE PREVENTION

1. **Housekeeping:** All areas of the project shall be kept free of accumulations of wood scraps, paper, and other combustible debris.
  - a. General cleanup is to be performed as needed to ensure good housekeeping.
  - b. Project manager, superintendent, or designated safety representatives of each contractor shall conduct daily safety/housekeeping inspections.
2. **Smoking:** Smoking shall be prohibited in the vicinity of operations, which constitute fire hazards, such as fuel dispensing locations and rubbish dumps. "NO SMOKING" or "OPEN FLAME" signs shall be conspicuously posted in these areas.
3. **Welding and Burning:** Welding and burning operations shall be authorized and controlled by project supervision. Combustibles in close proximity of burning or welding operations shall be protected or removed.
4. **Flammable and combustible Liquids:** Flammable combustible liquids shall be stored in approved containers or in approved portable tanks.

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5. Electrical: Electrical work; installations and wire capacities both temporary and permanent shall be in accordance with the National Electrical Code.
6. Combustible Refuse: Combustible refuse from construction operations shall not be burned or dumped on the construction site. Such refuse shall be removed at frequent intervals as needed.
7. Construction Debris: the storage of large quantities of construction debris will be in heavy metal dumpster-like containers on the project site.

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### HOUSEKEEPING

1. During the course of construction, form and scrap lumber and all other debris will be kept cleared from work areas, passageways and stairs, in and around buildings, and other structures.
2. Scrap materials and rubbish are fire and accident hazards, and shall be removed from the construction site at regular intervals during the course of construction.
3. Containers shall be provided for the collection and separation of waste, trash, oily and used rags, and other refuse. Containers for oily, flammable or hazardous waste such as canisters, acids or harmful dusts shall be covered.
4. Trash barrels shall be located throughout the job site for rubbish disposal.
5. Tools and surplus materials should be returned to storage areas and stored in a safe manner.
6. Tools and materials shall not be left on site where they create a hazard.
7. Clean up spilled liquids immediately.
8. No material, tools, equipment or anything stored within (6) six feet of a guardrail on any elevated decks.

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9. Construction debris or trash is prohibited on any residence or public property unless permitted by plan.

## **SANITATION**

### **POTABLE WATER**

1. An adequate supply of potable water shall be provided in all places of employment.
2. Portable containers used to dispense drinking water shall be capable of being tightly closed and equipped with a tap. Water shall not be dipped from containers.
3. Any container used to distribute drinking water shall be clearly marked as to the nature of its contents and not used for any other purpose.
4. The common drinking cup is prohibited.
5. Where single-service cups (to be used once) are supplied, both a sanitary container for the unused cups and a receptacle for disposing of the used cups shall be provided.

### NON-POTABLE WATER

1. Outlets for non-potable water, such as water for industrial or fire fighting purposes only, shall be identified by signs meeting the requirements of subpart G of this part, to indicate clearly that the water is unsafe and is not to be used for drinking, washing, or cooking purposes.
2. There shall be no cross-connection, open or potential, between a system furnishing potable water and a system furnishing non-potable water.

### EATING AND DRINKING AREAS

No employee shall be allowed to consume food or beverages in a toilet room or in any area exposed to a toxic material.

## **FLAMMABLE AND COMBUSTIBLE LIQUIDS**

1. Absolutely no smoking is permitted near any flammable liquid storage areas. Areas where flammable or combustible liquids are stored shall be marked with signs that read: Flammable-No Smoking or Open flame Within 50 Feet.
2. Storage of flammable and combustible liquids shall be in accordance with federal, state and city codes, and shall be away from open flames.
3. No more than 25 gallons of flammable or combustible liquids shall be stored in a room outside of an approved storage cabinet or inside tool trailers. Approved metal safety containers will be used for indoor storage and handling. Containers are to be kept in good condition and inspected regularly. Any defective containers are to be disposed of immediately.
4. Storage areas shall be kept free of trash, weeds, debris or other combustible material.
5. At least one portable fire extinguisher with a rating of not less than 20-B units shall be located outside of, but not more than 10 feet from, the door to any room used for storage of flammable or combustible liquids.
6. Flammable or combustible liquids shall not be stored in areas used for safe passage of people.
7. Quantities of flammable or combustible liquids in excess of 25 gallons shall be stored in an acceptable or approved cabinet.

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8. Storage areas outside of buildings shall be graded or otherwise provide some means of preventing spills from entering buildings.
9. Outdoor portable tanks shall not be located nearer than 20 feet from any building.
10. Within 200 feet of each portable tank, there shall be a 12-foot wide access way to permit approach of fire control apparatus.
11. At least one portable fire extinguisher having a rating of not less than 20-B units shall be located not less than 25 nor more than 75 feet from any flammable liquid storage area located outside.
12. Flammable liquids shall be kept in closed containers when not actually in use.
13. Transfer of flammable liquids from one container to another shall be done only when containers are electrically interconnected (bonded).
14. Dispensing devices and nozzles for flammable liquids shall be of an approved type. The dispensing nozzle shall be an approved automatic closing type without a latch-open device.
15. The gasoline-powered motors of all equipment being fueled shall be shut off during fueling operations.
16. Storage shall not present exposure to any structures.

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17. Storage areas must be diked.
18. Storage tanks shall be labeled as to their contents.
19. Flammable liquids may be stored outside, away from buildings, in a safe and secure location in standard, approved storage containers or tanks. All approved storage containers and tanks must have a secondary containment system properly installed and capable of containing the volume of liquid in the container.
20. Portable fuel tanks will be installed in accordance with federal, state, and local requirements.

## **L.P. GAS/TEMPORARY HEATING**

### **L. P. GAS**

1. L. P. gas containers shall be secured in an upright position with valve protection caps or guards in place.
2. For temporary heating, heaters shall be located at least 6 feet from any L.P. gas container. Blower and radiant-type heaters shall not be directed toward any L.P. gas container within 20 feet.
3. Portable heaters, including salamanders, shall be equipped with an approved automatic device to shut off the flow of gas to the main burner, and pilot if used, in the event of a flame failure.
4. Storage of L.P. gas within buildings is prohibited.
5. Combustible floors (except bridge decks when monitored) shall be protected from excessive heat generated by heaters.
6. Heaters shall be kept at least 6 feet away from combustible walls, partitions, and other combustible material and shall not be placed directly on combustible flooring.
7. Only qualified personnel shall handle L.P. gas.

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8. A proper storage facility shall be maintained on the job for tanks in storage.
9. Fire protection shall be immediately available at all locations where L.P. gas is in use.
10. Installations shall meet applicable local and N.F.P.A. codes.
11. Heaters shall, whenever practical, be hung.
12. Adequate ventilation shall be provided.
13. The storage and handling of L.P. gas shall be in accordance with N.F.P.A. pamphlet number 58.

#### **OTHER TEMPORARY HEAT**

1. Solid fuel salamanders, fire barrels, or open fires are strictly prohibited.
2. Temporary heating devices shall be installed and maintained by qualified personnel and in accordance with local and N.F.P.A. codes.

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3. Fire protection shall be immediately available at locations where temporary heating devices are in use.
4. A minimum of 10 feet of clearance shall be maintained between heaters and combustible materials.
5. Heaters shall be installed securely on non-combustible bases.
6. In the event that insulation materials are required, they shall be of a non-combustible type. The use of unprotected Styrofoam, paper batting and the like is prohibited.
7. Adequate ventilation shall be provided. Air quality tests shall be made on a periodic basis.
8. Access to areas being heated shall be unobstructed.
9. Fire retardant materials shall be used to enclose areas to be heated.
10. Manufacturer's specifications for installation shall be followed.
11. Temporary heaters will not be used in confined spaces.
12. Temporary heaters will be checked for correct operation prior to being put into service each day. Heaters will not be modified or altered.

**GAS CYLINDERS (ACETYLENE AND OXYGEN)**

1. Storage of compressed gases shall be in accordance with nationally recognized safety practices and OSHA regulations.
2. Gas cylinders shall be:
  - a. Stored in the vertical position at all times with valve caps in place.
  - b. Secured to rigid vertical support to prevent tipping.
  - c. Separated by 20 feet or ½ hour-rated wall when stored.
3. Empty cylinders should be separated from full cylinders and conspicuously marked.

## **WELDING AND CUTTING**

Welding and cutting operations have a high potential for personal injuries and fires. When doing either, the following precautions shall be followed.

### **GENERAL**

1. When cutting or welding, approved eye protection with suitable filter lenses shall be worn.
2. Keep welding leads and burning hoses up off floors, walkways and stairways.

### **WELDING**

1. If personnel are exposed to flying objects from chipping slag or other weld cleaning activity, approved eye protection shall be worn.
2. When welding near other workmen, they shall be protected from the arc rays by noncombustible screens or shall wear adequate eye protection (flash glasses).
3. The frames of all welding machines shall be grounded.

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4. Electrodes shall be retracted or removed when not in use. Electrode holders not in use shall be placed so that they cannot make electrical contact with an employee, fuel, gas tank, or conducting object.
5. A welder shall not let live electrodes or holders touch his bare skin or damp clothing. When arc welding is performed in wet conditions or under a condition of high humidity, the welder shall be protected against electric shock.
6. A screen shall be provided to protect employees working in the proximity from being exposed to direct rays of the arc.
7. Spliced welding cable shall not be used within 10 feet of an arc-welding machine.
8. Equipment in need of repairs that constitutes a safety hazard shall not be used until repairs are made.
9. Cut insulation on work and lead cable or exposed bare conductors of an arc welding machine shall be protected by electrical tape and shall be made watertight or the conductor shall be replaced. Splices shall be made by: insulated welded joints or pressure connectors.
10. Personnel Protective Equipment
  - a. Face and eye protection shall be worn by a welder when performing welding operations and by other employees exposed to a risk of injury from spatter or flash, or both.

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- b. Welding gloves shall be provided to protect the hands and wrists.
- c. Sleeves shall be provided when performing overhead arc welding to protect the arms.
- d. Leather shoes or other appropriate apparel that covers the ankle shall be worn.
- e. Other protective devices, such as, but not limited to, body protection, chaps and curtains when an employee is exposed to a risk of injury by flash burn, sparks and foreign bodies.

#### CUTTING

- 1. Only spark ignites shall be used for lighting torches. Matches, cigarette lighters, etc. shall not be used.
- 2. Appropriate gloves shall be worn.
- 3. When a crescent or special wrench is required to operate the acetylene cylinder valve, the wrench shall be kept in position on the valve.
- 4. Hose and hose connections used for a welding operation shall be as prescribed in 3.5.6 of the ANSI Standard Z49.1-1973.

### STORAGE AND HANDLING OF CYLINDERS

1. The protective caps shall be kept on cylinders not in actual use.
2. Back flash arrestors are required.
3. Cylinders shall be secured in the vertical position to prevent tipping.
4. Oxygen and acetylene (or other fuel gas) cylinders in storage shall be separated from each other by 20 feet or by a 5-foot barrier, which has a one-half hour fire rating.
5. Cylinders shall not be taken into confined spaces.

### VENTILATION AND PROTECTION

1. Welding, cutting and heating performed in confined spaces may require general mechanical or local exhaust ventilation to reduce the concentrations of smoke and fumes to acceptable levels.
2. If adequate ventilation cannot be provided, employees shall be provided with and require to use air-supplied breathing apparatus.
3. In the open air, when welding, cutting or heating metals having toxic significance, such as zinc, lead, cadmium, or chromium-bearing metals, filter-type respirators shall be worn.

## UTILITIES IDENTIFICATION AND PROTECTION

In general, the operations of the Contractor and all Subcontractors impact both private and public utilities. Damage to utilities can have disastrous results, including loss of power, fire, explosion, flooding and loss of life or serious injury.

The Contractor must not assume unmarked facilities have been abandoned, and are not in use. The facilities could be hazardous or carry vital information. At no time is it acceptable to push, pull, cut or drill an unmarked facility without explicit consent from the utility owner. Contact the utility owner for confirmation.

### CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES

For protection of underground utilities and according to Public Act 53, 1974, the Contractor shall dial **Diggers Hotline 811** a minimum of three full working days, excluding Saturdays, Sundays, and holidays, before beginning each excavation in areas where public utilities have not been previously located. Utility members will thus be routinely notified. This does not relieve the Contractor of the responsibility of notifying utility owners who may not be a part of the Diggers Hotline alert system.

Contractors working outside of Metro District should contact the maintenance representative at the WISDOT District Office to have lighting systems staked.

The Contractor shall not begin work until arrangements are made for the protection of adjacent utilities, or other property where damage might result in considerable expenses, loss, or inconvenience.

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The Contractor shall cooperate with the owners of the utilities in their removal and rearrangement work.

A Contractor shall not use another contractor Diggers hotline ticket number in the plotted area where they will begin to excavate.

#### **NEW UNDERGROUND UTILITIES**

Once installed, it is recommended that the Contractor place utility identification tape of a type and at a depth above the installed utility as specified by the drawings or specifications. The purpose of this tape is to provide a future warning in the event excavation may be performed in this area.

## EXCAVATION, TRENCHING, AND SHORING STANDARDS

### DEFINITIONS

*Accepted engineering practices* means those requirements that are compatible with standards of practice required by a registered professional engineer.

**Aluminum hydraulic shoring** means a pre-engineered shoring system comprised of aluminum hydraulic cylinders (cross braces) used in conjunction with vertical rails (uprights) or horizontal rails (walers). Such system is designed specifically to support the sidewalls of an excavation and prevent cave-ins.

**Bell-bottom pier hole** means a type of shaft or footing excavation, the bottom of which is made larger than the cross section above to form a belled shape.

**Benching** (benching system) means a method of protecting employees from cave-ins by excavating the sides of an excavation for form one or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between levels.

**Cave-in** means the separation of a mass of soil or rock material from the side of an excavation, or the loss of soil from under a trench shield or support system, and its sudden movement into the excavation, either by falling or sliding, in sufficient quantity so that it could entrap, bury, or otherwise injure and immobilize a person.

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**Competent person** means who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

**Cross braces** means the horizontal members of a shoring system installed perpendicular to the sides of the excavation, the ends of which bear against either uprights or walers.

**Excavation** means any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

**Faces or sides** means the vertical or inclined earth surfaces formed as a result of excavation work.

**Failure** means the breakage, displacement, or permanent deformation of a structural member of connection as to reduce its structural integrity and its supportive capabilities.

**Hazardous atmosphere** means an atmosphere which, by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic, or otherwise harmful, may cause death, illness or injury.

**Kickout** means the accidental release or failure of a cross brace.

**Protective system** means a method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.

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**Ramp** means an inclined walking or working surface that is used to gain access to one point from another, and is constructed from earth or from structural materials such as steel or wood.

**Registered Professional Engineer** means a person who is registered as a professional engineer in the state where the work is to be performed. However, a professional engineer, registered in any state is deemed to be a “registered professional engineer” within the meaning of this standard when approving designs for “manufactured protective systems” or “tabulated data” to be used in interstate commerce.

**Sheeting** means the members of a shoring system that retain the earth in position and in turn are supported by other members of the shoring system.

**Shield** (shield system) means a structure that is able to withstand the forces imposed on it by a cave-in and thereby protect employees within the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses. Additionally, shields can be either pre-manufactured or job-built in accordance with Section 1926.652 (c)(3) or (c)(4). Shields used in trenches are usually referred to as “trench boxes” or “trench shields”.

**Shoring** (shoring system) means a structure such as a metal hydraulic, mechanical or timber shoring system that supports the sides of an excavation and which is designed to prevent cave-ins.

**Sloping** (sloping system) means a method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation so as to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences in such factors as soil type, environmental conditions of exposure, and application of surcharge loads.

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**Stable rock** means natural solid mineral material that can be excavated with vertical sides and will remain intact while exposed. Unstable rock is considered to be stable when the rock material on the side or sides of the excavation is secured against caving-in or movement by rock bolts or by another protective system that has been designed by a registered professional engineer.

**Structural ramp** means a ramp built of steel or wood, usually used for vehicle access. Ramps made of soil or rocks are not considered structural ramps.

**Support system** means a structure such as underpinning, bracing, or shoring, which provides support to an adjacent structure, underground installation, or the sides of an excavation.

**Tabulated data** means tables and charts approved by a registered professional engineer and used to design and construct a protective system.

**Trench** (trench excavation) means a narrow excavation (in relations to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet. If forms or other structures are installed or constructed in an excavation so as to reduce the dimension measured from the forms or structure to the sides of the excavation to 15 feet or less (measured at the bottom of the excavation), the excavation is also considered to be a trench.

*Trench box.* See “U shield.”

*Trench shield.* See “U shield.”

**Upright** means the vertical members of a trench shoring system placed in contact with the earth and usually positioned so that individual members do not contact each other. Uprights placed

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so that individual members are closely spaced, in contact with or interconnected to each other, are often called “*U* sheeting.”

**Wales** means horizontal members of a shoring system placed parallel to the excavation face whose sides bear against the vertical members of the shoring system or earth.

### 1926.651 GENERAL REQUIREMENTS

1. Surface encumbrances: All surface encumbrances that are located so as to create a hazard to employees shall be removed or supported, as necessary, to safeguard employees.
2. Underground installations:
  - a. The estimated location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall be determined prior to opening an excavation.
  - b. Utility companies or owners shall be contacted within established or customary local response times, advised of the proposed work, and asked to establish the location of the utility underground installations prior to the start of the factual excavation. When utility companies or owners cannot respond to a request to locate underground utility installations within 24 hours (unless a longer period is required by state or local law), or cannot establish the exact locations of these installations, the employer may proceed, provided the employer does so with caution, and the provided detection equipment or other acceptable means to locate utility installations are used.

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- c. When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means.
  - d. While the excavation is open, underground installations shall be protected, supported or removal as necessary to safeguard employees.
- 3. Access and Egress
  - a. Structural Ramp.
    - (1) A competent person shall design structural Ramps that are used solely by employees, as a means of access or egress from excavations. Structural ramps used for access or egress of equipment shall be designed by a competent person qualified in structural design, and shall be constructed in accordance with the design.
    - (2) Ramps and runways constructed of two or more structural members shall have the structural members connected together to prevent displacement.
    - (3) Structural members used for ramps and runways shall be of uniform thickness.
    - (4) Cleats or other appropriate means used to connect runway structural members shall be attached to the bottom of the runway or shall be attached in a manner to prevent tripping.

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- (5) Structural ramps used in lieu of steps shall be provided with cleats or other surface treatments on the top surface to prevent slipping.

### b. Means of Egress from Trench Excavations

A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are 4 feet or more in depth so as to require no more than 25 feet of lateral travel for employees.

### 4. Exposure to Vehicular Traffic

Employees exposed to public vehicular traffic shall be provided with, and shall wear; warning vests or other suitable garments marked with or made of reflectorized or high visibility material.

### 5. Exposure to Falling Loads

No employee shall be permitted underneath loads handled by lifting or digging equipment. Employees shall be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs or vehicles being loaded or unloaded when the vehicles are equipped, in accordance with 1926.601(9b)(6), to provide adequate protection for the operator during loading and unloading operations.

### 6. Warning System for Mobile Equipment.

When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have a

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clear and direct view of the edge of the excavation, a warning system shall be utilized such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

### 7. Protection from Hazards Associated with Water Accumulation

- a. Employees shall not work in excavations in which there is accumulated water, or in excavations, in which water is accumulating, unless adequate precautions have been taken to protect employees against the hazard posed by water accumulation. The precautions necessary to protect employees adequately vary with each situation, but could include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of a safety harness and lifeline.
- b. If water is controlled or prevented from accumulating by the use of water removal equipment, a competent person to ensure proper operation shall monitor the water removal equipment and operations.
- c. If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering the excavation and to provide adequate draining of the area adjacent to the excavation. Excavations subject to runoff from heavy rains will require an inspection by a competent person.

### 8. Stability of Adjacent Structures

- a. Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or

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underpinning shall be provided to ensure the stability of such structures for the protection of employees.

- b. Excavation below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to employees shall not be permitted except when:

- 1. A support system, such as underpinning, is provided to ensure the safety of employees and the stability of the structure; or
- 2. The excavation is in stable rock; or
- 3. A registered professional engineer has approved the determination that the structure is sufficiently removed from the excavation so as to be unaffected by the excavation activity; or
- 4. A registered professional engineer has approved the determination that such excavation work will not pose a hazard to employees.

- c. Sidewalks, pavements, and appurtenant structure shall not be undermined unless a support system or another method of protection is provided to protect employees from the possible collapse of such structures.

### 9. Protection of Employees from Loose Rock or Soil

- a. Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such

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protection shall consist of scaling to remove loose material, installation of protective barricades at intervals as necessary on the face to stop and contain falling material; or other means that provide equivalent protection.

- b. Employees shall be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavations. Protection shall be provided by placing and keeping such materials or equipment at least 2 feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.

### 10. Inspection

- a. Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard-increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated. These inspections must be documented.
- b. Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees shall be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.

### 11. Fall Protection

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- a. When employees or equipment are required or permitted to cross over excavations, walkways or bridges with standard guardrails shall be provided.
- b. Adequate barrier physical protection shall be provided at all remotely located excavations. All wells, pits, shafts, etc., shall be barricaded or covered. Upon completion of exploration and similar operations, temporary wells, pits, shafts, etc., shall be backfilled.
- c. Should the fall potential exceed 6 feet from top of trench to the excavated bottom, adjacent areas shall be restricted to employees by use of tape or fencing and access only to personnel utilizing proper PPE for fall protection unless another engineered system of protection is installed.
- d. Any exposed hole must be covered, (the cover shall withstand two times the intended load limit) secured and or cleated (if the weight of the cover such as  $\frac{3}{4}$  plywood allows to be moved with ease by an employee manually) , and labeled "hole".

### 12. Protection of Employees in Excavations

- a. Each employee in an excavation shall be protected from cave-ins by an adequate protective system designed in accordance with sections 13 and 14, except when
  - (1) Excavations are made entirely in table rock; or

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- (2) Excavations are less than 5 feet in depth and examination of the ground by a competent person provides no indication of a potential cave-in.

- b. Protective systems shall have the capacity to resist without failure all loads that are intended or could reasonably be expected to be applied or transmitted to the system.

### 13. Design of Sloping and Benching Systems

The slopes and configurations of sloping and benching systems shall be selected and constructed by the employer or his designee.

- a. Options 1: Allowable Configurations and Slopes

- (1) Excavations shall be sloped at an angle not steeper than one and one-half horizontal to one vertical (34 degrees measured from the horizontal), unless the employer uses one of the other options listed below.

- (2) Slopes shall be excavated to form configurations that are in accordance with the slopes for Type C soil.

- b. Option 2: Determination of Slopes and Configurations.

Maximum allowable slopes and allowable configurations for sloping and benching systems shall be determined in accordance with the conditions and requirements set forth in section 18 and appendix B.

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- e. Option 3: Design Using Other Tabulated Data
  - (1) Designs of sloping or benching systems shall be selected from and be in accordance with tabulated data, such as tables and charts.
  - (2) The tabulated data shall be in written form and shall include all of the following:
    - (a) Identification of the parameters that affect the selection of a sloping or benching system drawn from such data.
    - (b) Identification of the limits for use of the data, to include the magnitude and configuration of slopes determined to be safe.
    - (c) Explanatory information as may be necessary to aid the user in making a correct selection of a protective system from the data.
  - (3) At least one copy of the tabulated data, which identifies the registered professional engineer who approved the data, shall be maintained at the job site during construction of the protective system. After that time, the data may be stored off the job site, but a copy of the data shall be made available to the Secretary of Labor upon request.
- f. Option 4: Design by a Registered Professional Engineer

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- (1) A registered professional engineer shall approve sloping and benching systems not utilizing Option 1, 2 or 3.
- (2) Design shall be in written form and shall include at least the following:
  - (a) The magnitude of the slopes that were determined to be safe for the particular project.
  - (b) The configurations that were determined to be safe for the particular project.
  - (c) The identity of the registered professional engineer approving the design.
- (3) At least one copy of the design shall be maintained at the job site while the slope is being constructed. Once constructed the design must be available to the Secretary of Labor upon request.

#### 14. Design of Support Systems, Shields Systems, and Other Protective Systems.

Designs of support systems, shield systems, and other protective systems shall be selected and constructed by the contractor or his designee, unless otherwise specified. Adjacent to live traffic, a shoring system shall be in place to maintain the integrity of the roadway and designed and signed by a Registered Professional Engineer. Any undermining of an active lane shall immediately stop work until such time as the shoring

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system is revised to prevent additional undermining and the compromised roadway is restored to a structurally sufficient condition.

- a. Optional: Designs using Section 18, Appendices C and D

Designs for timber shoring in trenches shall be determined in accordance with the conditions and requirements set forth in Section 18 and appendix D. Designs for aluminum hydraulic shoring shall be in accordance with section b of this section but if manufacturer's tabulated data cannot be utilized, designs shall be in accordance with Appendix D.

- b. Option 2: Designs Using Manufacturer's Tabulated Data

- (1) Design of support systems, shield systems, or other protective systems that are drawn from manufacturer's tabulated data shall be in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer.
- (2) Deviation from the specifications, recommendations, and limitations issued or made by the manufacturer shall only be allowed after the manufacturer issues specific written approval.

Manufacturer's specifications, recommendations, and limitations, and manufacturer's approval to deviate from the specifications, recommendations, and limitations shall be in written form at the job site during construction of the protective system. After that time, this data may be stored off the job site, but a copy shall be made available to the Secretary of Labor upon request.

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c. Option 3: Designs Using Other Tabulated Data

- (1) Designs of support systems, shield systems, or other protective systems shall be selected from and be in accordance with tabulated data, such as tables and charts.
- (2) The tabulated data shall be in written form and include all of the following:
  - (a) Identification of the parameters that affect the selection of a protective system drawn from such data;
  - (b) Identification of the limits of use of the data:
  - (c) Explanatory information as may be necessary to aid the user in making a correct selection of a protective system from the data.
- (3) At least one copy of the tabulated data, which identifies the registered professional engineer who approved that data, shall be maintained at the job site during construction of the protective system. After that time, the data may be stored off the job site, but a copy of the data shall be made available to the Secretary of Labor upon request.

d. Option 4: Design by a Registered Professional Engineer

- (1) A registered professional engineer shall approve support systems, shield systems, and other protective systems not utilizing Option 1, Option 2, or Option 3 above.

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- (2) Designs shall be in written form and shall include the following:
  - (a) A plan indicating the sizes, types, and configurations of the materials to be used in the protective systems; and
  - (b) The identity of the registered professional engineer approving the design.
- (3) At least one copy of the design shall be maintained at the job site during construction of the protective system. After that time, the design may be stored off the job site, but a copy of the design shall be made available to the Secretary of Labor upon request.

### 15. Materials and Equipment

- a. Materials and equipment used for protective systems shall be free from damage or defects that might impair their proper function.
- b. Manufactured materials and equipment used for protective systems shall be used and maintained in a manner that is consistent with the recommendations of the manufacturer, and in a manner that will prevent employee exposure to hazards.
- c. When material or equipment that is used for protective systems is damaged, a competent person shall examine the material or equipment and evaluate its suitability for continued use. If the competent person cannot assure the material or equipment is able support the indented loads or is otherwise suitable for safe

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use, then such material or equipment shall be removed from service, and shall be evaluated approved by a registered professional engineer before being returned to service.

### 16. Installation and Removal of support – General

- a. Members of support systems shall be securely connected together to prevent sliding, falling, kickouts or other predictable failure.
- b. Support systems shall be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support system.
- c. Individual members of support systems shall not be subjected to loads exceeding those, which those members were designed to withstand.
- d. Before temporary removal of individual members begins, additional precautions shall be taken to ensure the safety of employees, such as installing other structural members to carry the loads imposed on the support system.
- e. Removal shall begin at, and progress from, the bottom of the excavation. Member shall be released slowly so as to note any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation.
- f. Backfilling shall progress together with the removal of support systems from excavations.

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g. Additional requirements for support systems for trench excavations:

- (1) Excavation of material to a level no greater than 2 feet below the bottom of the members of a support system shall be permitted, but only if the system is designed to resist the forces calculated for the **full** depth of the trench, and there are no indications while the trench is open of a possible loss of soil from behind or below the bottom of the support system.
- (2) Installation of a support system shall be closely coordinated with the excavation of trenches.

17. Sloping and Benching System

Employees shall not be permitted to work on the faces of sloped or benched excavations at levels above other employees except when employees at the lower levels are adequately protected from the hazard of falling, rolling, or sliding material or equipment.

18. Shield System - General

- a. Shield systems shall not be subjected to loads exceeding those, which the system was designed to withstand.
- b. Shields shall be installed in a manner to restrict lateral or other hazardous movement of the shield in the event of the application of sudden lateral loads.

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- c. Employees shall be protected from the hazard of cave-ins when entering or exiting the areas protected by shields.
- d. Employees shall not be allowed in shields when shields are being installed, removed or moved vertically.
- e. Additional Requirements for Shields Systems Used in Trench Excavations

Excavations of earth material to a level not greater than 2 feet below the bottom of a shield shall be permitted, but only if the shield is designed to resist the forces calculated for the full depth of the trench, and there are no indications while the trench is open of a possible loss of soil from behind or below the bottom of the shield.

**Cemented soil** means a soil in which a chemical agent such as calcium carbonate holds the particles together, such that a hand-size sample cannot be crushed into powder or individual soil particles by finger pressure.

**Cohesive soil** means clay (fine grained soil), or soil with a high clay content, which has cohesive strength. Cohesive soil does not crumble, can be excavated with vertical sideslopes, and is plastic when moist. Cohesive soil is hard to break up when dry, and exhibits significant cohesion when submerged. Cohesive soils include clayey silt, silty clay, clay and organic clay.

**Dry soil** means soil that does not exhibit visible signs of moisture content.

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***Fissured*** means a soil material that has a tendency to break along definite planes of fracture with little resistance or a material that exhibits open cracks, such as tension cracks, in an exposed surface.

***Granular soil*** means gravel, sand, or silt (coarse-grained soil), with little or no clay content. Granular soil has no cohesive strength. Some moist granular soils exhibit apparent cohesion. Granular soil cannot be molded when moist and crumbles easily dry.

***Layered system*** means two or more distinctly different soil or rock types arranged in layers. Micaceous seams or weakened planes in rock or shale are considered layered.

***Moist soil*** means a condition in which a soil looks and feels damp. Moist cohesive soil can easily be shaped into a ball and rolled into small diameter threads before crumbling. Moist granular soil that contains more cohesive material will exhibit signs of cohesion between particles.

***Plastic*** means a property of a soil, which allows the soil to be deformed or molded without cracking, or appreciable volume change.

***Saturated soil*** means a soil in which the voids are filled with water. Saturation does not require flow. Saturation, or near saturation, is necessary for the proper use of instruments such as a pocket penetrometer or shear vane.

***Soil classification system*** means a method of categorizing soil and rock deposits in a hierarchy of Stable Rock, Type A, Type B, and Type C, in decreasing order of stability. The categories are determined based on an

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analysis of the property and performance characteristics of the deposits and the environmental conditions of exposure.

**Stable rock** means natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.

**Submerged soil** means soil, which is underwater or is free seeping.

### 19. Type A Soil

Type A soil means cohesive soil with an unconfined compressive strength of 1.5 tons per square foot (TSF) (144kPa) or greater. Examples of cohesive soils are: clay, sandy clay, clay loam and, in some cases, silty clay loam and sandy clay loam. Cemented soil such as caliches and hardpan are also considered Type A. However, no soil is Type A if:

- a. The soil is fissured; or
- b. The soil is subject to vibration from heavy traffic, pile driving, or similar effects; or
- c. The soil has been previously disturbed; or
- d. The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one (4H:IV) or greater; or

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- e. The material is subject to other factors that would require it to be classified as a less stable material.

#### 20. Type B Soil

- a. Cohesive soil with an unconfined compressive strength greater than 0.5 tsf (48kPa) but less than 1.5 tsf (144kPa); or
- b. Granular cohesionless soils including; angular gravel (similar to crushed rock), silt, silt loam, sandy loam and, in some cases, silty clay loam and sandy clay loam.
- c. Previously disturbed soils except those, which would otherwise be classed as Type C soil.

#### 21. Type C Soil

- a. Cohesive soil with an unconfined compressive strength of 0.5tsf (48kPa) or less; or
- b. Granular soils including gravel, sand, and loamy sand; or
- c. Submerged soil from which water is freely seeping; or
- d. Submerged rock that is not stable, or

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- e. Material in a sloped, layered system where the layers dip into the excavation or a slope of four horizontal to one vertical (4H: 1V) or sleeper.

### 22. Unconfined Compressive Strength

Means the load per unit area at which a soil will fail in compression. It can be determined by laboratory testing, or estimated in the field using a pocket penetrometer, by thumb penetration tests, and other methods.

### 23. Wet Soil

Means soil that contains significantly more moisture than moist soil, but in such a range of values that cohesive material will slump or begin to flow when vibrated. Granular material that would exhibit cohesive properties when moist will lose those cohesive properties when wet.

### 24. Classification of Soil and Rock Deposits

A competent person shall classify each soil and rock deposit as stable rock, Type A, Type B or Type C, in accordance with definitions set forth.

### 25. Basis of Classification

The classification of the deposits shall be made based on the results of at least one visual and at least one manual analysis. Such analyses shall be conducted by a

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competent person using recognized methods of soil classifications and testing such as those adopted by the American Society for Testing Materials, or the U.S. Department of Agriculture's textural classification system.

### 26. Visual and Manual Analyses

The visual and manual analyses, such as those noted as being accepted in Section 29 shall be designed and conducted to provide sufficient quantitative and qualitative information as may be necessary to identify properly the properties, factors, and conditions affecting the classification of the deposits.

### 27. Layered Systems

In a layered system, the system shall be classified in accordance with its weakest layer. However, each layer may be classified individually where a more stable layer lies under a less stable layer.

### 28. Reclassification

If, after classifying a deposit, the properties, factors, or conditions affecting its classification change in any way, a competent person shall evaluate the changes. The deposit shall be reclassified as necessary to reflect the changed circumstances.

### 29. Acceptable Visual and Manual Tests

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Visual analysis is conducted to determine qualitative information regarding the excavation site in general, the soil adjacent to the excavation, the soil forming the sides of the open excavation, and the soil taken as samples from excavated material.

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### FALL PROTECTION REQUIREMENTS

WisDOT is committed to the philosophy of continuous full hazard control wherever the potential exists for personnel falls from heights of six feet or more. Accordingly, the Contractor and all Subcontractors will take all practical measures to eliminate, prevent, and control fall hazards. The project shall be surveyed to identify all hazards of personnel falling from elevations. First consideration shall be given to the elimination of those hazards. If a fall hazard cannot be practically eliminated, second consideration shall be given to implementing effective permanent means of fall protection.

All personnel who are working where fall hazards cannot be eliminated or the onset of falls prevented shall be uniformly equipped, trained, and given refresher training at specific intervals to minimize the adverse effects of accidental falls.

***This 100% fall protection requirement at six (6') feet is mandatory for all trades, including structural steel erection; rebar assembly, concrete forming, pre-cast erection, masonry, inspection etc.***

### GENERAL FALL PROTECTION

All personnel working on this project exposed to falls of six feet or greater while working on ladders, scaffolding, elevated decks, elevated platforms, stairways, stairwells, reinforced steel, and any other elevated area or equipment must be tied off at all times, utilizing a full body harness and shock absorbing lanyard. Body belts are not permitted at any time while working on this project. On properly erected scaffolds, elevated decks, and elevated platforms where perimeter guardrail systems consisting of top rail, mid rail, and toe plate have been properly installed, individuals working in these areas may do so without tying-off. Shall the perimeter protection be removed (even temporarily); individuals working in the area exposed to a fall will tie-off until the perimeter protection has been properly reinstalled.

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Personal fall arrest systems shall be inspected prior to each use for wear, damage, and other deterioration and defective components will be removed from service.

Positioning devices shall be rigged so that a worker cannot free-fall more than two feet. Positioning devices shall be secured to an anchorage point capable of supporting at least twice the potential impact load of a worker's fall or 3,000 pounds, whichever is greater.

### TRAINING PROGRAM

1. Training shall be provided for workers to enable them to recognize hazards of falling and to train them in the procedures to be followed in order to minimize these hazards.
2. Training shall cover the following areas as, necessary:
  - a. Nature of fall hazards in the work area;
  - b. Correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems to be used;
  - c. Use and operation of guardrail systems, personal fall arrest systems, safety access zones, and other protection to be used;
  - d. Role of each worker in a safety monitoring system;

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- e. Limitations of mechanical equipment during the performance of roofing work on low-sloped roofs;
- f. Correct procedures for handling and storage of equipment and materials and erection of overhead protection;
- g. Role of the workers in fall protection plans; and
- h. OSHA regulations.

### Certification of Training

Compliance will be verified by preparing a written certification record of all training. The written certification record shall state the name or other identity of the workers trained, date(s) of training, and the signature of the person who conducted the training or signature of the employer.

### Retraining

1. If there is a reason to believe any affected worker who has already been trained does not have the understanding and skill required, the worker shall be retrained.
2. Circumstances where retraining is required include situations where:
  - a. Changes in the work place render previous training obsolete;

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- b. Changes in type of fall protection systems or equipment to be used render previous training obsolete;
- c. Inadequacies in an affected worker's knowledge or use of fall protection systems or equipment indicate the worker has not retained the requisite understanding or skill.

As required by OCIP staff due to non-compliance issues with contractors

#### FALL PROTECTION PROGRAM PURPOSE

While this program contains the generic components and parameters for fall protection, it is understood that protection must be project-specific, where control measures must be developed and implemented for each identified project and/or job function. The fall protection controls are unique to every project and a plan, which complies with the requirements of Subpart M, must be submitted for each job.

The purpose of this program is:

- a. Supplement our standard safety policy by providing safety standards specifically designed to cover fall protection; and
- b. Ensure that each employee who may be exposed to fall hazards is trained and made aware of the safety provisions which are to be implemented by this program prior to the start of each job.

#### RESPONSIBILITY

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It is the responsibility of the Contractor and all Subcontractors to coordinate the fall protection program. The Contractor and all Subcontractors are responsible for continual observational safety checks of work operations to enforce that the safety policy procedures will be performed. Fall protection systems are to be provided for all employees in work areas where injury from a fall to a lower level is a recognized hazard. Contractor and Subcontractors are required to develop an emergency rescue plan to address rescue efforts and a copy of that plan shall be submitted to the OCIP SHD. It is the responsibility of all employees to bring to the attention of management any unsafe or hazardous conditions or acts that may cause injury to either himself/herself or other employees.

### WALKING/WORKING SURFACES

A determination will be made of the walking/working surface on which employees are to work to ensure the strength and structural integrity to support them safely. Employees are allowed to work on those surfaces only when the surfaces have the requisite strength and structural integrity as required by the standards.

1. A plywood or equivalent walk way shall be a minimum of 18 inches wide ,secured and shall be provided once the bridge deck rebar has been placed.

### GENERAL REQUIREMENTS

Each employee on a walking/working surface, which is six feet or more above a lower level, shall be protected from falling by the use of guardrail systems, systems, or personal fall arrest systems for the following exposures:

- Unprotected sides and edges
- Leading edges
- Holes

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- Ramps, runways, and other walkways
- Excavations
- Walking/working surfaces not otherwise addressed

#### **PROTECTION FROM FALLING OBJECTS Refer to CFR 29, 1926.5020**

1. Erect toeboards, screens, or guardrail systems to prevent objects from falling from higher levels.

#### **CRITERIA AND PRACTICES FOR FALL PROTECTION SYSTEMS**

Guardrail Systems Refer to OSHA CFR 1926.502

Safety Net Systems Refer to 1926.105

Personal Fall Arrest Systems Refer to 1926.502

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Positioning Device Systems Refer to 1926.502

### Warning Line Systems

Warning line systems shall meet the following requirements:

1. Erected around all sides or fall hazard areas and maintained until fall exposure is 100% secure.
2. Erected not less than six feet from fall hazard areas when mechanical equipment is not being used.
3. Points of access, material handling areas, storage areas, and hoisting areas shall be connected to the work area by an access path formed by two warning lines.
4. Consists of ropes, wire, or chains and supporting stanchions erected according to 1926.502(f)(2)(I-v).
5. No employee is allowed in the area between the fall hazard edge and warning line unless personal fall arrest systems are used.
6. Mechanical equipment in fall hazard areas used or stored only in areas where employees are protected by warning line system, guardrail system, or personal fall arrest system.

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7. When mechanical equipment is being used, the warning line shall be erected not less than 6 feet from the fall hazard edge which is parallel to the direction of mechanical equipment operation, and not less than 10 feet from the fall hazard edge which is perpendicular to the direction of mechanical equipment operation.

#### Controlled Access Zones (CAZ)

Safety monitoring systems shall meet the following requirements:

**A safety monitoring system can only be used if conventional fall protection system is impossible.**

1. A competent person shall be designated to monitor the safety of other employees, and the employer shall ensure that the safety monitor complies with the following:
  - a. The safety monitor shall be competent to recognize fall hazards.
  - b. The safety monitor shall warn the employee when it appears that the employee is unaware of a hazard or is acting in an unsafe manner.
  - c. The safety monitor shall be on the same walking/working surface within visual sighting distance of the employee being monitored.
  - d. The safety monitor shall be close enough to communicate orally with the employee.

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- e. The safety monitor shall not have other responsibilities, which could take the monitor's attention from the monitoring function.
2. Mechanical equipment shall not be used or stored in areas where safety-monitoring systems are being used to monitor employees.
3. No employee, other than an employee engaged in active work operations shall be allowed in an area where an employee is being protected by a safety monitoring system.
4. Each employee working in a CAZ shall be directed to comply promptly with fall hazard warning from safety monitors.

Covers for holes in floors, roofs, and other walking/working surfaces shall meet the following requirements:

Floor holes and floor openings shall be securely protected through the use of a standard guardrail or cover. If a cover is used, it shall be secured against movement (shut down) and shall be of sufficient strength to support 2 times the intended load of personnel or material that may be required to pass over it. Also the covering shall be marked with high visibility paint "hole".

1. When covers are removed to run piping, conduit, ductwork, etc., through floor openings, the covers shall be replaced and re-secured when the work is completed or when workers leave the area.

### FALL PROTECTION PLAN

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A fall protection plan may be required from the contractor for special situations. Pre-cast concrete work and certain demolition operations would be occasions for a specific plan. The fall protection plan would need to be submitted to and approved by the OCIP prior to beginning the operation.

### TRAINING REQUIREMENTS

The employer shall provide a training program for each employee who might be exposed to fall hazards.

The employer shall ensure that a competent person qualified in the following areas has trained each employee, as necessary:

1. Nature of fall hazards in the work area.
2. Correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used.
3. Use of and operation of guardrail systems, personal fall arrest systems, safety monitoring systems, controlled access zones, and other protection to be used.
4. The role of each employee in the safety monitoring system when this system is used.
5. The limitations of the use of mechanical equipment during the performance of roofing work on low-sloped roofs.

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6. The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection.
7. The role of employees in fall protection plans.

#### **THE FALL PROTECTION STANDARDS, 1926.500-1926.503**

The employer shall verify compliance of the training requirement by a written record. The record shall contain the name of the employee trained, date of training, and the signature of the person who conducted the training or the signature of the employer. The latest training record shall be maintained.

The employer shall retrain an employee when the employer has reason to believe that the employee does not have the understanding and skill required. Circumstances where retraining is required include, but are not limited to, situations where there are:

- Changes in the workplace;
- Changes in the type of fall protection systems or equipment; and/or
- Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment.
- As required by OCIP staff due to compliance issues

#### **INSTRUCTIONS AND GUIDELINES FOR THE USE OF WIRE ROPE WHEN USED AS A GUARDRAIL**

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### Wire Rope Size

1. All wire rope is to be a minimum of 3/8 in diameter.
2. It must be able to withstand a 200-pound load in any direction.
3. It shall be flagged at not more than 6-foot (1.8m) intervals with high-visibility material.

### Connections

1. All connections are to be in the form of eyes.
2. Dead ends are not to be overlapped and clamped together.
3. Ends are not to be joined with “tuck” splices.

### Eyes in Rope

1. At least three clips are to be used at each rope eye.
2. Clips are to be turned in so that the saddle does not ride on the dead end of the rope.

### Hardware

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1. Hardware shall be drop forged, malleable iron type.
2. Circular eyelets to run the rope through shall be of the closed-eye type. The rope comes out of the open eyes.
3. Shanks shall be as short as possible.
4. The shank shall not extend beyond the anchor material, usually a concrete column, more than one inch.

### Supports

1. Supports for the rope need not be spaced the same as for wood guardrails but more than 3 inches of sag shall not be allowed.
2. A tension device can be used but the hook shall be of the closed, not open, type.

### Anchor Points

Considerations must be given to the anchor points for eyelets, floor plates for vertical supports, for all anchors shot into concrete, and for other anchoring methods. They must be capable of holding the load of the guardrail **UNDER STRESS**.

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### **NOTICE**

The Contractor's and all Subcontractors' employees must request permission from the superintendent in charge to remove or alter any temporary guardrail.

Any Contractor's and all Subcontractors' employee who removes or alters a temporary guardrail without the permission of the superintendent in charge will be subject to disciplinary action, up to and including terminations.

## **STAIRWAYS AND LADDERS**

**GENERAL REQUIREMENTS – LADDERS Refer to 1926.1050**

## **SCAFFOLDING**

**GENERAL REQUIREMENTS Refer to 1926.28**

### **12. Tagging System**

Over-hanging brackets and forms shall not be considered scaffolds.

\*When the scaffold is complete the scaffold will be tagged complete and safe for use.

\*A scaffold plan shall be submitted to the OCIP safety department before use.

\*A competent person before each work shift, and after any occurrence, which could affect a scaffold's structural integrity, shall inspect scaffolds and scaffold components for visible defects.

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### Green Tag

A green tag indicates that the scaffold is complete and safe to use with no additional precautions.

### Yellow Tag

A yellow tag indicates that the scaffold requires additional fall protection equipment as indicated on the back of tag.

### Red Tag

A red tag indicates an unsafe scaffold and is not to be used. The only person who may enter a red-tagged scaffold is a trained scaffold builder while completing or doing repairs on the scaffold, and has the proper personal protective equipment.

### No Tag

If a scaffold has no tag, it shall be assumed to be red tagged and it is not to be used until inspected and properly tagged, if a scaffold is found to be deficient or unsafe and is tagged green or yellow that tag shall be immediately removed and the contractor fined.

NOTE: LEAN-TO TYPE SCAFFOLDS ARE PROHIBITED AND SHALL NOT BE USED.

## CONFINED SPACE ENTRY PROGRAM

**PURPOSE** Refer to 1926.146

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To establish a written program that contains the requirements for safe practices and procedures to protect employees from the hazards of entry into permit-required spaces.

## **HAZARD COMMUNICATION PROGRAM**

### **OBJECTIVE Refer to 1910.1200**

Henceforth, it shall be the policy of the Contractor and all Subcontractors to implement the various requirements of the Chemical Hazard Communication Regulation as required by the U.S. Department of Labor Occupational Safety and Health Administration or any governing state requirements. Material Safety Data Sheets (MSDS) shall be in a binder and submitted to the OCIP SHD.

### **RESPONSIBILITY**

Unless notified otherwise, the Contractor's and all Subcontractors' safety representative, superintendent, or supervisor is designated as the person responsible for implementing this written program.

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### PORTABLE GENERATORS

1. Portable generators shall be grounded pursuant to manufacturer specifications.
2. The placement of generators shall be such to minimize the build up of fumes in work areas.
3. All generators shall be protected with GFCIs.
4. Flexible cords shall be used only in continuous lengths without splice or tape.
5. Sixteen (16) gauge extension cords are prohibited.

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### MOTOR VEHICLES, MECHANIZED EQUIPMENT

#### OPERATOR SELECTION

Heavy earth moving and handling equipment: Only trained and qualified individuals shall be permitted to operate this type of equipment. Training must include a thorough review of the hazards, safe and unsafe procedures, and a good working knowledge of the machine itself.

Licensed Motor vehicles: Operators must be experienced and licensed drivers regardless of whether they are operating on or off highways.

#### EQUIPMENT

Equipment left unattended at night, adjacent to active roadways or adjacent to construction areas where work is in progress shall have appropriate lights, reflectors, or barricades equipped with lights to identify the location of the equipment.

All construction equipment shall be inspected at the beginning of each shift to ensure that the equipment and accessories are in safe operating condition and free of apparent damage that could cause failure while it is in use. All defects shall be repaired before the equipment or vehicle is put back in service. Defective equipment shall be tagged out of service with an explanation of its defects until repaired. All equipment and motor vehicle inspections shall be documented and turned in to the project manager of each subcontractor daily.

Cab glass shall be safety glass or equivalent that introduces no visible distortion affecting the safe operation of any machine.

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Wherever it is not feasible to reduce the noise levels or duration of exposures as specified in the permissible noise exposure tables, each operator shall be required to wear hearing protection devices when operating such equipment.

Equipment (except skid steers and rollers) shall be equipped with a fire extinguisher having a 5 BC rating or higher.

Whenever the equipment is parked, the parking brake shall be set. Equipment parked on inclines must have the wheels chocked and the parking brake set.

All equipment must be equipped with working back-up alarms and strobe lights. Strobe lights must be in use at all times while vehicle is in operation on the jobsite.

Slow-moving vehicles (less than 25 mph) shall be clearly identified by posting a triangular emblem, colored fluorescent yellow-orange with a dark red reflective border.

All equipment equipped with ROPS requires that a seatbelt be used at all times.

Heavy equipment has the right of way.

The use, care, and charging of all batteries shall conform to the requirements of Subpart K of 29 CFR 1926, Construction Standards.

All equipment shall comply with the requirements of 29 CFR 1926.550(a)(15) when working or being moved in the vicinity of power lines or energized.

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The speed limit is **25 mph** in the worksite **10 mph** within 200 feet of workers. At all times the speed shall be controlled such that the vehicle can stop should a worker step into their path.

### MOTOR VEHICLES

Vehicles shall have a service brake system, an emergency break system, and a parking brake system. These systems may use common components and shall be maintained in operable condition.

The safety standards listed below apply to the following types of earth moving equipment: scrapers, loaders, crawler or wheel tractors, bulldozers, off-highway trucks, graders, agricultural and industrial tractors, and similar equipment.

Seatbelts shall be provided on all equipment and shall meet the requirements of the Society of Automotive Engineers and Seat Belts for Construction Equipment. Seatbelts are to be worn at all times while traveling on the WisDOT Mega Project.

Seatbelts need not be provided for equipment that is designed only for stand-up operation.

PPE must be worn by the operator in the cab if there are any openings in it.

Earth moving equipment shall have a service break capable of stopping and holding the equipment, fully loaded, as specified in Society of Automotive Engineers, Loader, Dozer, Graders, and Scrapers specifications.

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The speed limit is **25mph** in the work site, **10 mph** within 200 feet of workers.

All bi-directional equipment shall be equipped with a horn, distinguishable from the surrounding noise level, which shall be operated as needed when the machine is moving in either direction.

No employer shall permit earth moving or compacting equipment, which has an obstructed view to the rear to be used in reverse gear unless the equipment has in operation a reverse signal alarm distinguishable from the surrounding noise level or an employee signals that it is safe to do so.

Fenders: Pneumatic-tired earth moving haulage equipment (trucks, scrapers, tractors, and trailing units) whose maximum speed exceeds 15 mph shall be equipped with fenders on all wheels.

All construction vehicles shall be inspected at the beginning of each shift to ensure that the equipment and accessories are in safe operating condition and free of apparent damage that could cause failure while it is in use. All defects shall be repaired before the equipment or vehicle is put back in service. Defective equipment shall be tagged out of service with an explanation of its defects until repaired. All equipment and motor vehicle inspections shall be documented and turned in to the project manager of each subcontractor daily.

Scissors Points: Scissors points on all front-end loaders, which constitute a hazard to the operator during normal operation, shall be guarded.

### ROPS PROTECTION

Included, but not limited to the following list is equipment that shall be equipped with a Rollover Protective Structures (ROPS) cab:

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- Rubber-tired, self-propelled scrapers
- Rubber-tired, front-end loaders
- Rubber-tired dozers
- Motor graders
- Bulldozers
- Scrapers, tractors, etc., with or without attachments, that are used in construction

This requirement does not apply to pipe laying tractors.

The design of ROPS shall provide vertical clearance of at least 52 inches from the work deck to the ROPS at the point of ingress or egress. Each ROPS shall have the following information permanently affixed to the structure:

- Manufacturer or fabricator's name and address
- ROPS model number (if any)
- Machine make, model, or series number that the structure is designed to fit.

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### **MULTIPLE LIFT RIGGING PROCEDURES (CHRISTMAS TREEING)**

A multiple lift shall only be performed if the following criteria are met:

1. A multiple lift rigging assembly is used.
2. A maximum of five members is hoisted per lift.
3. Only beams and similar structural members are lifted.
4. All employees engaged in the multiple lift have been trained in these procedures in accordance with 29 CFR 1926.761(c)(1).

No cranes are to be used for a multiple lift where such use is contrary to the manufacturer's specifications and limitations.

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### CRANES AND DERRICKS

#### MANUFACTURER'S REQUIREMENTS

The manufacturer's specifications and limitations applicable to the operation of any and all cranes and derricks must be complied with. The manufacturer's recommended rated load capacities, operating speeds, special hazard warnings, or instructions shall be visible to the operator while he is at his control station. No modifications or additions, which affect the capacity of safe operation of the equipment, shall be made without the manufacturer's written approval.

#### OPERATOR REQUIREMENTS

Certified crane operators (NCCCO or OECP) are required for all cranes 20-tons or greater.

#### DESIGN CRITERIA AND SITE INSTALLATION

Inspection of hoisting machinery shall be made by a qualified third party before the machine is allowed to be operated on site and submitted to the OCIP SHD. If the machine is physically removed off site, an additional qualified third party (excludes rubber tired mobile cranes, they only need the annual inspection done) inspection is required before the machine is operated on site.

Cranes and derricks shall be constructed and installed to adequately meet all stress imposed in main members and components under normal conditions when handling loads not exceeding manufacturer's load ratings. They must be designed, constructed, installed, tested, maintained, inspected, and operated as prescribed in the ANSI Standards.

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A positive acting device or warning device shall be used which prevents contact between the load block or overhaul ball and the boom tip (anti-two-blocking devices), or a system shall be used which deactivates the hoisting action before damage occurs in the event of a two-blocking situation (two-block damage prevention feature). Cranes actively used in pile driving operations may have the two-block warning device disabled while the pile driving leads are attached.

Anti-two-blocking devices and power down is required on all cranes used to lift man-baskets. (Man-baskets must be designed by an engineer and signed off) and have the proper test weights, and tested each time the crane is moved.

### CRANE SIGNALS

Hand signals to crane and derrick operators shall be those prescribed by the applicable ANSI Standard for the type of crane in use. An illustration of the signals must be posted at the job site. The operators(s) shall move the hoisting apparatus only on signals from the rigger-in-charge. No response shall be made unless signals are clearly understood.

A stop signal must be obeyed regardless of who gives it.

### MECHANICAL GUARDING AND BARRICADING

Belts, gears, shafts, etc., or other reciprocating, rotating, or other moving parts or equipment must be guarded when such parts are exposed to contact by employees or otherwise create a hazard.

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Guards must be securely fastened.

Exhaust pipes shall be guarded or insulated in areas where contact by employees is possible in the performance of normal duties.

Accessible areas within the swing radius of the rear of the rotating superstructure of the crane, either permanently or temporarily mounted shall be barricaded in such a manner as to prevent an employee from being struck by or crushed by the crane.

### OPERATION OF EQUIPMENT ADJACENT TO ELECTRIC POWER LINES

Unless insulating barriers that are not part of or an attachment to the equipment or machinery have been erected to prevent physical contact with the lines, equipment of machines shall be operated in proximity to power lines only in accordance with the following:

- For lines rated 50kv or below, minimum clearance between the lines and any part of the crane or loads shall be 10 feet.
- For lines rated over 50kv, minimum clearance between the lines and any part of the crane or load shall be 10 feet plus 0.4 inch for each 1kv over 50kv, or twice the length of the line insulator, but never less than 10 feet.
- For lines that have an unknown kv, a minimum clearance between the lines and any part of the crane or loads shall be 20 feet.

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- In transit with no load and boom lowered, the equipment clearance shall be a minimum of 4 feet for voltage less than 50kv, and 10 feet for voltages over 50kv up to and including 345kv and 16 feet for voltages up to and including 750kv.

A person shall be designated to observe clearance of the equipment and give timely warning for all operations where it is difficult for the operator to maintain the desired clearance by visual means.

### RIGGING

Any person, who is rigging any loads on the WisDOT Mega Project job site, shall be trained by their employer in proper rigging techniques and inspection of rigging equipment. Documentation of this training shall be made available to the OCIP SHD upon request. Improved plow steel wire rope and wire rope slings shall have permanently affixed durable identification stating size, grade, rated capacity, and sling manufacturer.

## **TOOLS**

### **PERSONAL PROTECTIVE EQUIPMENT**

Employees using hand and power tools shall be provided with and required to wear the personal protective equipment necessary to protect them from the hazards involved.

### **USE OF HAND TOOLS**

A part of every site-specific training program shall include training in the proper use of hand tools.

### **PORTABLE POWER TOOLS**

1. The tool shall be disconnected from the power source before accessories are changed or repairs are made. Guards shall be replaced and put in correct adjustment prior to the tool being used.
2. Tools shall not be left in an overhead place where there is a possibility that the cord, if pulled, will cause the tool to fall.
3. Electric extension cords, when used, shall be laid out in such a way that they will be protected from damage and will not present a tripping hazard.

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### GUARDING

Power tools designed to accommodate guards shall be so equipped. Belts, gears, shafts, pulleys, or other reciprocating, rotating, or moving parts of equipment must be guarded if such parts are exposed to contact by employees or otherwise create a hazard.

### ELECTRIC POWERED TOOLS

1. Electrically operated tools shall either be of the approved double insulated type or shall be effectively grounded. GFCI's are always required.
2. Electric cords shall be inspected periodically and kept in good condition. Heavy-duty plugs that clamp to the cord shall be used to prevent strain on the current carrying parts.

### PNEUMATIC POWER TOOLS

1. Air operated power tools shall be secured to the hose by a positive means to prevent the tools from becoming accidentally disconnected.
2. Air lines greater than ½" inside diameter shall be wired, cabled, chained, or otherwise secured.
3. The manufacturer's safe operating pressure for hoses, pipes, valves, filters, and other fittings shall not be exceeded.

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4. The use of hoses for hoisting or lowering tools shall not be permitted.
5. Hoses exceeding ½" inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in event of hose failure.

#### OTHER TYPES OF POWERED TOOLS

1. Fuel powered tools shall be shut off while being refueled, serviced, or maintained.
2. When fuel operated tools are used in enclosed spaces, the applicable requirements for concentrations of toxic gases, use of personal protective equipment, and ventilation required must be followed; and the area could be considered a confined space.
3. Manufacturer's safe operating pressures for hydraulic powered tools for hoses, valves, pipes, filters, and other fittings shall not be exceeded.
4. A hydraulically powered tool shall use approved fire-resistant fluids that do not change the performance characteristics during temperature extremes.
5. Hoses used on or around an electrically energized line or equipment shall be nonconductive.

## **MATERIALS HANDLING**

### **MATERIALS HANDLING**

1. Where mechanical handling equipment is used, sufficient safe clearances shall be allowed for aisles, at loading docks, through doorways, and wherever turns or passage must be made. Aisles and passageways shall be kept clear and in good repair, with no obstruction across or in aisles that could create a hazard. Permanent aisles and passageways shall be appropriately marked.
2. Materials stored in tiers shall be stacked, racked, blocked, interlocked, or otherwise secured to prevent sliding, falling, or collapse.
3. Materials shall not be stored on scaffolds or runways in excess of supplies needed for immediate operations.
4. Lumber piles shall not exceed ten (10) feet in height. If lumber is to be handled manually, piles shall not exceed six (6) feet in height.
5. Structural steel, poles, pipes, bar stock and other cylindrical material unless racked shall be stacked and blocked so as to prevent spreading or tilting.
6. Gloves or other hand protection shall be used when necessary to prevent hand injuries.
7. When opening a wire-bound bale or box, employees shall wear eye protection, as well as stout gloves to prevent the ends of the bindings from striking their face or body.

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8. If material is dusty or toxic, the employee handling it shall wear a respirator as well as other suitable personal protective equipment.
9. Bagged material
  - a. The height of a manually stacked pile of bagged material weighing more than 30 pounds per bag shall not exceed 5 feet.
  - b. Pallets should not be more than 36" high, should be secured to prevent displacement, and stacked only two pallets high.
10. Loose brick or tile
  - a. Tapered back 2" for every foot of height above 4 feet.

## **LEAD EXPOSURE CONTROL PLAN**

Lead Exposure Control Plan must comply with 1926.62 of the 29 CFR 1926.

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### SILICA

#### NIOSH

The National Institute of Occupational Safety and Health (NIOSH) recommended exposure limit (REL) for respirable crystalline silica is:

0.05mg/m<sup>3</sup> (50 g/m<sup>3</sup>)

as a Time Weighted Average for up to 10 hours/day during a 40-hour workweek.

#### ABRASIVE BLASTING MATERIALS

When possible, substitute “Black Beauty” coal slag material for silica sand in blasting applications. In addition, investigate other options for sand blasting such as “Shot Blasting”, “Water Blasting”, or “Media Blasting” when available.

#### ENGINEERING AND WORK PRACTICE CONTROLS

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### DUST CONTROL

The key to preventing silicosis is to keep dust out of the air. Dust controls can be as simple as a water hose to wet the dust before it becomes airborne. Use the following methods to control respirable crystalline silica:

- Use the dust collection systems available for many types of dust-generating equipment. Use local exhaust ventilation to prevent dust from being released into the air. Do not use equipment if the dust control system is not working properly.
- During rock drilling, use water through the drill stem to reduce the amount of dust in the air, or use a drill with a dust collection system. Use drills that have a positive-pressure cab with air conditioning and filtered air supply to isolate the driller from the dust.
- When sawing concrete or masonry, use saws that provide water to the blade when they are available.
- Use good work practices to minimize exposures and to prevent nearby workers from being exposed. For example, remove dust from equipment with a water hose rather than with compressed air. Use vacuums with high-efficiency particulate air (HEPA) filters, or use wet sweeping instead of dry sweeping.
- Use abrasives containing less than 1% crystalline silica during abrasively blasting to prevent quartz dust from being released in the air.
- During demolition of concrete structures the use of water to wet it down may be requested per the SHD.
- Use containment methods such as blast-cleaning machines and cabinets to prevent dust from being released into the air.

### SCHEDULING

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Many times silica exposure to the bulk of the work force can be eliminated simply by rescheduling or suspending operations in a specific area during a silica generating activity, or by scheduling a silica activity for “off-hours”. For example: A contractor needing to sandblast a new concrete bridge abutment to obtain a raised aggregate finish could schedule the sandblasting for Saturday afternoons when other contractors were not in the area.

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### Aerial Lifts

Aerial lifts will comply with OSHA standard 29 CFR 1926.453 and ANSI A92.2-1990 and the provisions of this section.

1. Aerial lifts include the following types of vehicle mounted aerial devices used to elevate personnel to job-sites above ground, these devices include:
  - a. Extensible boom platforms
  - b. Aerial ladders
  - c. Articulating boom platforms
  - d. Vertical towers
  - e. A combination of the above devices
2. Aerial lifts may be field modified for uses other than intended by the manufacturer provided the modification had been certified in writing by the manufacturer or by equivalent entity.

### Demolition

#### Scope and Application

It is the intent of the WisDOT Mega Project Safety team to monitor and review the safety procedures during demolition processes to ensure the safety of all subcontractors and the public. The Contractor superintendent and Safety Director will be responsible for providing direction and guidance to all of its employees during the demolition operation. It is the sole responsibility of the Contractor who conducts these processes to utilize and enforce the following procedures and meet all current federal, state, and WisDot requirements relevant to the operation(s). The contractor shall be responsible for submitting a job Safety Analysis/Job Hazard Analysis and work procedures plan at a minimum of seven days prior to the start of demolition for each phase.

#### Procedures

1. Prior to the beginning of demolition operations, an engineering survey will be made by a qualified person designated by the contractor. This survey shall determine the condition of the structure, deck, and sides, and will also determine the possibility of an unplanned collapse of any part of this structure's adjacent structures will be checked for structural integrity. Written evidence of the results of this survey is to be given to the OCIP SHD. In addition the contractor shall supply a job safety analysis of the demolition operation.
2. Prior to the beginning of demolition operations, the contractor will obtain from the owner a site survey identifying the locations of asbestos and lead containing materials. If the owner is unable to provide this information, the contractor shall employ a testing agency that can identify and/or verify areas suspected of containing these materials prior to their disturbance during demolition operation at their own cost.

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3. All electric, gas, water, sewer, and other service lines shall be shut off capped, or otherwise controlled outside the demolition area before demolition work is started. Any utility company whose services are affected will be notified in advance by the contractor.
4. All roadway and guardrail openings, which pose a fall exposure, shall be protected by sufficient temporary guardrails and covers.
5. Removal of steel: steel construction shall be dismantled column length by column length and tier by tier. If cutting and burning is to be done on steel then the steel must be checked for lead based paint. If lead is found in the paint, the proper precautions must be taken to prevent worker exposure. Also a fire watch must be maintained for a minimum of thirty minutes after all cutting and burning had been completed.
6. When demolition balls, clam buckets, or sheers are used for demolition, no craft personal will be allowed to enter an area where they can be adversely affected by this operation. Only those contractors necessary for the performance of the demolition operation will be permitted in this area during demolition.
7. The weight of a demolition ball shall not exceed 50 percent of the crane's rated load. This is based on the length of the boom and the maximum angle of operation at which the ball will be used; or it will not exceed 25 percent of the nominal breaking strength of the line by which it is suspended, whichever is less.
8. The ball will be attached to the load line with a swivel-type connection to prevent twisting of the loadline, and attached so that the weight cannot become accidentally disconnected.
9. During demolition, continuing inspections by the contractor's assigned Competent Person shall be made as the work progresses so that hazards that could result from weakened or deteriorated roadways, sides, or columns or loosened material are detected. No contractor employee will be allowed to work where such hazards exist until these hazards are corrected by shoring, bracing, or other effective means.

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### Training

Contractors are responsible for training their employees in all applicable demolition operations and all applicable Federal, State and Local laws, codes and standards.

## WisDOT Mega Project

### **SUBSTANCE ABUSE TESTING PROGRAM**

#### **I. INTRODUCTION**

- A. This Substance Abuse Testing Program ("Program") has been adopted and implemented in an effort to assure a safe and drug-free workplace environment for all workers, vendors, suppliers, customers and visitors who provide services and/or perform work on the WisDOT Mega Project ("Project").
- B. Each Contractor and any Subcontractor ("contractor") hired to perform work on the Project is responsible for complying with the terms and conditions set forth in this policy governing the Program.
- C. Every employee of the contractor is expected to follow the terms and conditions of this policy at all tiers, including bargaining unit and non-bargaining unit employees.
- D. Drug abuse can jeopardize the safety of employees, coworkers and customers. For this reason, the Project is committed to ensuring a drug free workplace for every employee covered hereunder. In addition, all contractors have an obligation to their customers and to the public to ensure that high quality services, product and workmanship achieve an equally high level of customer satisfaction. Substance abuse by workers could result in serious mistakes in judgment and thereby compromise both the high quality of services and customers' trust.

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- E. Express Drug Screening has been retained to provide Third Party Administration services for all elements of the Program.
  
- F. Maintaining confidentiality of workers' private information, including substance abuse information, is of utmost concern to everyone under this Program. Each Contractor must designate one or more "Contractor Communicator(s)" within their company who shall be the sole person(s) that will receive any information relating to employee substance abuse test results and related information under this Program. The Contractor Communicators, the clinics, the laboratories, the MRO, and the Third-Party Administrator will treat as confidential all test-related information, subject to the terms of this Program. Such information includes, but is not limited to, test results, information regarding referral for counseling, rehabilitation, other treatment, or aftercare, the result of any such referral for counseling, rehabilitation, other treatment or aftercare, and the reason(s) for any disciplinary action taken under this Program.
  
- G. This Program has been established to:
  - (1) Provide a safe and healthy workplace free of illegal and/or unauthorized drugs;
  - (2) Teach workers about the consequences of substance abuse;
  - (3) Encourage workers with substance abuse problems to get appropriate care and assistance.
  - (4) Reduce substance abuse related injuries and property damage;
  - (5) Reduce substance abuse related absenteeism and tardiness;
  - (6) Improve employee productivity/workmanship;
  - (7) Demonstrate the commitment of contractors and their workers to a workplace free from the ill effects of substance abuse.
  
- H. This Program recognizes that chemical dependency and other medical behavioral conditions are highly complex problems, which often can be successfully treated. Workers who have substance abuse problems are invited and encouraged to seek assessment, counseling and/or rehabilitation through their employer or union Employee Assistance Program.

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### II. GENERAL PROVISIONS

- A. This Program prohibits the use, possession, sale or distribution of alcohol, illegal and/or unauthorized drugs and drug paraphernalia on work premises or work sites included in the Project. For purposes of this Program, “premises” means all Project land, property, buildings, structures, installations, parking lots, equipment and/or means of transportation owned by or leased to the contractor. Employees must not report to work or be on work premises under the influence of alcohol or any other illegal drugs, even if used off contractor premises and time. The use and possession of legally prescribed drugs is permitted provided the drugs are in the original prescription container, prescribed by a medical practitioner for current use of the person in possession of the drug, and do not impair the worker’s ability to perform his or her job. The Program also permits use of lawfully acquired over-the-counter drugs provided the use is consistent with the manufacturer’s instructions.
- B. Persons found illegally in possession, offering for sale, purchasing or distributing any illegal drug may be reported to civil authorities.
- C. Any contractor employee working on a Federal project is required by law to report any conviction of a violation relating to a criminal drug statute occurring in the workplace to his or her employer within five days of such conviction.

### III. TYPES OF TESTING TO BE CONDUCTED

- A. **Pre-assignment Testing.** All employees of any contractor performing work on the Project will be required to take a pre-assignment drug screen.
- B. **Random Testing.** All workers covered by this Program are subject to testing for illegal and/or unauthorized drugs and alcohol on a periodic, unannounced basis pursuant to random testing. Selection of individuals to be tested will be made by Express DS from its

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computer database of all workers on-site at the time of the random selection. Random selections will be made on an annualized basis of 24% of the on-site workforce.

- C. **Reasonable Suspicion Testing.** Any worker whose supervisor has reasonable suspicion to believe the employee is in the possession of or under the influence of alcohol or an illegal drug will be required to undergo a drug and alcohol test. "Reasonable suspicion" is a belief based on behavioral observations or other evidence, sufficient to lead a reasonable person to suspect an employee is under the influence and exhibits such traits as slurred speech, inappropriate behavior, decreased motor skills, etc. Circumstances, both physical and psychological, will be given consideration.

Whenever possible, before a worker is required to submit to testing based on reasonable suspicion, the worker should be observed by more than one supervisory or managerial employee. A form that may be used in documenting a reasonable suspicion incident is attached to this Program. The contractor who is requiring an employee to be tested based upon reasonable suspicion will provide transportation for the employee to the drug-testing trailer or outside facility, if necessary. Under no circumstances will a worker thought to be under the influence of alcohol or an illegal drug be allowed to operate a vehicle or other equipment for any purpose. Such employee will not be allowed to work pending the contractor's notification of the test result from Express DS. If the test result is positive, the employee will face the consequences as defined in this policy. If the test result is negative, the employee will be put to work by the contractor and be paid for all lost time according to the shift the employee was working prior to undergoing testing.

- D. **Post-incident Testing.** This Program also requires a drug and alcohol test when a worker is involved in or causes a work related accident or where a worker was operating or helping to operate machinery, equipment or vehicles involved in a work related accident, or property damage, and no apparent cause of the accident can be determined. Such worker will not be allowed to work pending the contractor's notification of the test result from Express DS. If the test result is negative, the worker is put back to work by the contractor. If the test result is positive, the employee will face the consequences as defined in this policy.

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### IV. TESTING PROCEDURES

- A. A positive drug test result means a result having a drug concentration that meets or exceeds the levels set by appropriate state or federal Department of Health & Human Services (DHHS) and/or Department of Transportation (DOT) regulations as amended from time to time. Positive tests for drugs other than alcohol will be confirmed. Initial testing for drugs other than alcohol will include an initial Enzyme Multiplied Immunoassay Screening Test (EMIT). Confirmation testing for drugs other than alcohol will be gas chromatography/mass spectrometry. The laboratory will be certified for Federal Workplace Drug Testing Programs by the U.S. DHHS - Substance Abuse and Mental Health Services Administration (SAMHSA). Chemicals tested for, and their cut-off levels include:

<u>DRUG</u>	<u>IMMUNOASSAY LEVEL</u>	<u>GC/MS LEVEL</u>
Amphetamines	1000ng/ml	500ng/ml
Cocaine	300ng/ml	150ng/ml
Marijuana	50ng/ml	15ng/ml
Opiates	2000ng/ml	2000ng/ml
Phencyclidine	25ng/ml	25ng/ml

Testing for alcohol content will be by a Breathalyzer unless necessity for blood analysis is required. A confirmed positive test result for alcohol will be reflected by breath/blood-alcohol content equal to or greater than .02% (current Wisconsin regulations).

- B. The "split specimen" method of collection will be followed with conformance to SAMHSA collection procedures and protocols. Urine, blood, saliva or breath specimens may require collection by an off-site clinic selected by EDS. An unbroken chain of custody, including tamper proof handling methods, shall be maintained to protect employee confidentiality and to protect specimens from adulteration and misidentification. All urine samples collected under this program will be analyzed by a SAMHSA certified laboratory.

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- C. Prior to being tested, a worker must complete and sign the provided Project consent and release form authorizing and agreeing to the test. In the event a worker is not competent or able to authorize specimen collection or is in need of medical help, such help shall not be delayed pending specimen collection. Such worker, however, must authorize the treating health care provider to conduct specimen collection and release to the Medical Review Officer the necessary records to monitor the worker's compliance with this Program.
- D. To protect the worker's right to confidentiality, any test results shall be disclosed only to the testing lab, the Contractor Communicator, Medical Review Officer, the employee and the designated Company Representative.
- E. All tests indicating a potentially positive result will be reviewed by the Express DS Medical Review Officer (MRO) for final interpretation and evaluation to determine if a violation of this Program has occurred. The MRO is a licensed physician who has knowledge of substance abuse disorders and is able to interpret and evaluate an individual's positive drug test result as it relates to the worker's medical history or other biomedical information. In the event of a first confirmed positive test for drugs or alcohol, the worker will be removed from the project and barred from performing any work on the project for a period of 60 days (or longer as consistent with the Employer's policy or evaluations). The worker will be permitted to return to work at the project after 60 days if the worker can provide proof of successful completion by a substance abuse professional of an Alcohol and other drug abuse (AODA) program.
- F. Any worker who has a confirmed positive drug test result may submit a written request to the MRO to have the original specimen re-tested at a DHHS laboratory of the worker's choice. Such request must be made within 3 working days of the worker's notification by the MRO of the confirmed positive test result. The cost for this re-test will be paid to the MRO by the worker.

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- G. In the event of a first confirmed positive test for drugs or alcohol, the worker will be removed from the Project jobsite and barred from performing any work on the jobsite for a period of sixty (60) calendar days. The worker will be permitted to return to work at the job-site after 60 days if (1) the worker can provide proof of participation in an Alcohol and Other Drug Abuse (AODA) assessment that is satisfactory to Express DS.
- H. The worker provides a negative drug test, at personal cost, through Express DS. Upon return, such worker will be subject to additional unannounced random drug/alcohol testing for a period of one year.
- I. In the event a worker tests positive for drugs and/or alcohol a second time, the worker will be permanently barred from future work on the Project jobsite.

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J. The following examples will constitute a positive drug test and its consequences:

- (i) Testing above the established cutoff levels
- (ii) Refusal to submit to testing as directed
- (iii) Refusal to complete consent/release form for testing
- (iv) Using a drug prescribed for someone else or abusing one's own prescription drug
- (v) Failure to call the MRO as directed
- (vi) Switching, adulterating, tampering with, or attempting to switch, adulterate or tamper with a specimen for testing, or otherwise interfering with the specimen collection and/or testing process
- (vii) Using, possessing, concealing, storing, selling, or distributing illegal drug(s) on the Project
- (viii) Failure for an employee of a "diluted" sample to retest, under supervision "immediately." "Immediately" is defined as: after the employer notifies the employee of the diluted sample and need to retest, the employee must stop what he/she doing and report for a retest. Extenuating circumstances allowed by the project team may be honored at their discretion, but they must be notified why the employee cannot retest "immediately." If the project team allows the employee to retest later than "immediately", the employee's test may only be postponed at not later than 24 hours.

K. This Program may be modified as determined necessary by Express DS.

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#### **L. INSTRUCTIONS FOR USE OF THE OPTIONAL REASONABLE SUSPICION CHECKLIST.**

This reasonable suspicion checklist was designed to assist Contractors in focusing on the symptoms of drug use. Some of the symptoms manifest themselves when a person is under the influence of alcohol or an illicit drug. Other symptoms manifest themselves over longer periods of abuse. Both types of symptoms are listed on the checklist for consideration.

The checklist, while not mandatory, is helpful for anyone requesting an employee to submit to a drug and alcohol test or an EAP referral.

#### **REASONABLE SUSPICION CHECKLIST**

Date of Report \_\_\_\_\_

Time Period Covered by Observation

\_\_\_\_\_

Employee Name

\_\_\_\_\_

Address

\_\_\_\_\_

\_\_\_\_\_

Social Security Number

\_\_\_\_\_

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Check all that apply:

### PHYSICAL SYMPTOMS

Flushed or Pale Face	_____
Dilated Pupils	_____
Glassy Eyes	_____
Bloodshot Eyes	_____
Swaying, Wobbling, Stumbling, Staggering or Falling	_____
Dizziness	_____
Excessive Sweating in Cool Areas	_____
Smell of Liquor	_____
Strange Chemical Odor on Breath	_____
Drowsiness	_____
Incoherent, Confused or Slurred Speech	_____
Apparent Insensitivity of Pain	_____
Reduced Reaction Time	_____
Poor Coordination	_____
Increased Breathing Rate	_____

### MOOD SYMPTOMS

Antagonistic	_____
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Restless	_____
Overreacts to Minor Things	_____
Insulting	_____
Unusually Talkative	_____
Excessively Withdrawn	_____
Excessive Laughter or Hilarity	_____
Baseless Panic	_____
Withdrawn	_____
Rapid Mood Swings	_____
Irritable	_____
Combative	_____
Aggressive	_____
Depressed	_____
Exaggerated Sense of Self Importance	_____

#### WORK SYMPTOMS

Doesn't Follow Task Instructions	_____
Shows Disregard for Safety of Self and Others	_____
Exhibits Excessive Carelessness	_____
Appears Unable to Concentrate	_____
Excessive Mistakes	_____

# WisDOT MEGA PROJECT

## OCIP SAFETY MANUAL

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Unexplained Declines in Productivity

\_\_\_\_\_

Dangerous Behavior

\_\_\_\_\_

Unable to Order Tasks

\_\_\_\_\_

Excessive Focus on Minute Details

\_\_\_\_\_

### LONG TERM FACTORS

Complaints from Co-Workers

\_\_\_\_\_

Excessive Work Absences

\_\_\_\_\_

Leaves Job Early for Variety of Reasons

\_\_\_\_\_

Comes Late for a Variety of Reasons

\_\_\_\_\_

Accident Prone

\_\_\_\_\_

Unexplained and Frequent Absences from Work Areas

\_\_\_\_\_

Deteriorating Physical Condition

\_\_\_\_\_

# WisDOT MEGA PROJECT

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### Recommendation - Conclusion

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Date of Report \_\_\_\_\_

\_\_\_\_\_

By (Signature) \_\_\_\_\_

Title: \_\_\_\_\_

By (Signature) \_\_\_\_\_

Title \_\_\_\_\_

Refer to EAP \_\_\_\_\_

Refer to Testing Facility \_\_\_\_\_

# WisDOT MEGA PROJECT

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NOTES:

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# WisDOT MEGA PROJECT

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WisDOT Mega Project

### INJURED WORKER

### RETURN-TO-WORK PROGRAM

The purpose of this program is to establish an organizationally specific Return-to-Work plan through which eligible employees will be provided temporary alternate employment or job tasks that accommodates any medically imposed restrictions during the healing period. **Prior to proceeding with any work on this project**, contractors are required to develop organizationally appropriate alternate duty programs for injured workers that are consistent with the goals of this program.

The goal of this Return-to-Work program is to provide employees who have sustained work-related injuries or illness to appropriate levels of employment as soon as practical, medically advisable and safe. The program requires each employer to develop a list of tasks or projects that the injured worker may perform subject to medical concurrence, on a temporary basis during a healing period. These "alternate duties" are considered transitional and temporary in nature. The OCIP program will provide appropriate medical management of the injured worker. Employers and Employees will be equally engaged in the medical management of each case.

Each contractor/subcontractor shall appoint/designate a Return-to-Work Coordinator who has the responsibility of coordinating the alternate duty assignment between the OCIP Insurance Case Manager and the employee.

### RETURN-TO-WORK PROGRAM

General Program Information

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1. The Return-to-Work program is designed to allow an employee with medical restrictions to safely return to work in a modified position. Return to work programs assist in the employee's rehabilitation, and allow employee's to stay connected with their co-workers which enables a return to a full duty position sooner, maintains self-esteem, and provide a higher level of compensation during participation in the program.
2. All OCIP enrolled employees are included in the Return to Work program.
3. Any employee who refuses to participate in the program may forfeit their disability compensation.
4. The employer may request the OCIP insurance carrier or the OCIP insurance carrier may on their own initiative, require the employee to be examined by an independent physician.
5. The employer must pay the employee's wage at a rate appropriate for the modified duty. (Appropriate in this context means the same rate the employer would pay any other non-injured employee for similar work). The OCIP Insurance Carrier will pay any difference in the wage rate between the employer's rate for the modified duty and the worker's compensation disability benefit.

#### **Responsibility**

##### Injured Employee

1. Reports injury to supervisor and OCIP safety manager immediately.

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2. Completes all appropriate reports.
3. Maintain contact with your employer/return-to-work coordinator, providing regular updates on health condition, treatment and medical status to Return to Work Coordinator at least weekly.

#### Contractor/Subcontractor Manager/Supervisor

1. Conducts a through investigation of the incident to verify how it happened and what could have been done to prevent the incident.
2. Completes Supervisor Accident Investigation Report and all other needed paperwork.
3. If the incident resulted from violations of work rules and practices including terms and conditions of the OCIP Safety Program the employer is required to take appropriate corrective action and to notify the OCIP Safety Director of that action.
4. Maintains contact with the injured employee and Return-to-Work Coordinator.
5. Provides modified work for employee, within restrictions.

#### Return-to-Work Coordinator

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1. Coordinates modified duty assignments and monitors its effectiveness.

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### Contractors Responsibility

Employee does not report for next scheduled shift:

1. If/when the employee calls to report their absence from work; the manager needs to ascertain whether it is due to the job-related injury or illness. If the employee fails to call, the manager contacts employee at home that day to find out if loss of time is due to on-the-job injury.
2. Direct employee to seek treatment with the designated physician, report findings and complete appropriate forms to initiate a claim with the OCIP Insurance Carrier.

**If:**

Employee released for work, no restrictions.

1. Employee returns to regular work.
2. Manager/supervisor checks back with employee throughout the shift and advise OCIP Insurance Carrier of the employees return to full duty.

Employee released for work with restrictions.

1. Review medical restrictions and assign appropriate alternate duties within the medical restrictions to the employee.

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2. Notify the OCIP Insurance Carrier and the OCIP S&H Manager of the modified duty.
3. If the employer is unable to provide appropriate modified duty, a request for assistance to the OCIP S&H Director must be made within 24 hours of such determination. The employer must demonstrate due diligence in their efforts to accommodate the employee including but not limited to work off-site, work for other contractors, work for outside agencies such as Vocational Rehabilitation Centers, etc.
  - a. If the OCIP S&H Director determines that due diligence has been made and reasonable accommodations cannot be made, the OCIP S&H will recommend to WisDOT that the temporary alternate duties cannot be provided at the time.
  - b. If WisDOT accepts such recommendation, no penalty provision will be assessed.
4. The employer and the OCIP S&H will work closely with the OCIP Insurance Carrier to keep apprised of changing medical conditions and aggressively seek out opportunities to provide alternate duty.

Employee reports to modified work.

1. As treatment progresses and the restrictions are further modified or lifted, re-assess the job modification as appropriate until full return is accomplished.

Employee refuses or fails to report to work.

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1. The employer shall:

Inform the OCIP Insurance Case Manager immediately.

- a. If employee has been offered modified duty within the medical restrictions of the doctor and declines to accept such duty, provide written notification to the OCIP SHD.
- b. Upon notification that the employee has refused alternate duty, the OCIP SHD will notify the OCIP insurance carrier.
- c. Document that the employee was informed of Injured Worker Responsibility; employee has been sent job offer which meets the medical restrictions as identified by the doctor.

Employee has permanent restrictions.

1. Upon release from doctor, employee must notify employer within five days that he or she is available to return to work with permanent restriction.
2. If suitable employment is available, employee is offered work in permanent position. Offer made in writing, sent by certified mail.
3. If suitable employment is not available, employee is placed on injured worker re-employment list. Return-to-Work Coordinator and personnel manager will then review and consider other position available in the facility. The employer and the OCIP

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Insurance case Manager should discuss vocational issues and benefits and work proactively towards permanent job placement.

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### Penalties

The Contractor and its subcontractors must provide a modified return to work program for any of its employees injured under Workers Compensation as part of the OCIP program. Failure to provide reasonable alternate duty to an injured employee will result in a penalty assessment to the Contractor of **\$3,000 per week**. The penalty assessment shall continue until such time as the injured worker is returned to work in a position that accommodates the workers restrictions or until such time as the worker returns to work without medical restrictions. Such an accommodation is not restricted to work on this project and may include assignment to other locations. .

Contractors will be billed for penalty assessments and are required to pay directly as follows:

Funds collected for failure to provide reasonable alternate duties will be applied to WisDOT's Loss Control Costs. The WisDOT OCIP Administrator shall direct the withdrawals from the Trust Account.