
Dufferin Construction Company
A division of CRH Canada Group Inc.

HEALTH & SAFETY
REFERENCE MANUAL

Revised (May 2022)



Note:

This Health and Safety Reference Manual is an overview and summary of Dufferin Construction Company's, Health and Safety Management System.

The Company refers to Dufferin Construction Company.

The expectation for subcontractors, vendors and visitors, is to adhere to the applicable legislation, and the outlined reference manual. Should the subcontractor, vendor or visitor's Health and Safety Management System be more stringent, their system shall be followed.



Occupational Health & Safety Policy Statement

Dufferin Construction Company, A division of CRH Canada Group Inc.

Dufferin Construction Company's Senior Management and Management are committed to provide and maintain a safe and healthy work environment for all employees (including physical, psychological, and social well-being), in accordance with the Occupational Health and Safety Act (OHSA), all applicable legislation(s) and company procedures.

Dufferin Construction Company will strive to eliminate and prevent hazards which may result in injury, illness and property damage. Incidental injury and loss can be controlled through good management in combination with active employee involvement in our health and safety management system.

Dufferin Construction Company's Health and Safety Management System (HSMS) outlines health and safety responsibilities for all employees, subcontractors, supervisors, and visitors. Supervisors and Managers will be responsible for, and take all necessary actions to eliminate or control hazardous working conditions. All workplace parties will be held accountable for their health and safety performance.

Senior Management is committed to set and review Occupational Health and Safety (OHS) objectives and continual improvement of the Health and Safety Management System (HSMS) and OHS performance. Senior Management recognizes the rights of workers to work in a safe and healthy work environment. Management will also work in consultation and cooperation with all workers to ensure continuous improvement.

I trust that each of you will join me in a personal commitment to enforce this Health and Safety Policy as a way of life.

Chris McColl
Vice President, Construction

Reviewed in Oakville on May 2022
Previously reviewed on May 2021

BASIC BELIEFS

The Company considers the safety and health of workers on our sites to be as important a factor in our success as quality, production and cost. Our construction management team is committed to continuing improvements for the safety of our workers, clients, contractors and the environment in which we work. To this end, we commit ourselves to the following beliefs:

- Site wide consistency on safety is essential.
- All identifiable risks can be managed to prevent incidents.
- All persons share a responsibility as good workers to maintain a safe and healthy workplace and to work safely.
- It is our policy to meet or exceed the requirements set out in the Occupational Health and Safety Act and all pertinent legislation.
- Hazards resulting in injuries and property damage can be controlled and further reduced.
- Every contractor, subcontractor, worker, vendor and visitor must comply with the company safety policies, rules, procedures and exercise good judgment and common sense in each assignment.
- The safety and health of fellow workers, the community and the environment is the responsibility of every worker and contractor, subcontractor and vendor. Contractors, subcontractors and vendors will be evaluated on their safety performance.
- Line management (contractors, subcontractors, vendors) are responsible and accountable for providing a safe work environment.
- We expect excellence in health and safety performance.
- Safety is cost effective. A safe site is an effectively managed site.
- Our site specific safety plan program is an integral part of our company operations.



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I INTRODUCTION

This Health and Safety Reference Manual is an overview and summary of Dufferin Construction Company's, Health and Safety Management System. The Company refers to Dufferin Construction Company.

The expectation for subcontractors, vendors and visitors, is to adhere to the applicable legislation, and the outlined reference manual. Should the subcontractor, vendor or visitor's Health and Safety Management System be more stringent, their system shall be followed.

Workers, contractors, subcontractors and vendors shall not rely solely on this manual exclusively, it is intended to draw attention to methods to prevent injury, illness or loss within our industry and promote good communication on our site.

For specific compliance with statutory requirements, please refer to all applicable Federal and/or Provincial statutes that establish health and safety requirements, including the Canada Labour Code and/or any applicable Provincial - Occupational Health and Safety Act(s), and regulations or codes, enacted thereunder, standards or recognized industry guidelines. **Where the requirements of our policies or procedures exceed legislated requirements, they will take precedence.**

This Health and Safety Reference Manual is a summary of the most important incident prevention procedures and guidelines which apply to all workers working on The Company Sites.

The Company requires workers, contractors, subcontractors and vendors to place the highest importance and priority on safety. Contractors, subcontractors and vendors shall be responsible and accountable for safety including, but not limited to, the safety of its employees, agents, subcontractors, the public and other persons, facilities, property of The Company and the property of third parties. These requirements are in addition to all applicable laws, regulations, ordinances and orders of any proper authority having jurisdiction over the performance of the work.

Reference to workers, supervisors and managers shall mean those associated with the company, contractor, subcontractor or vendor. Reference to the constructor or contractor and facilities are implicit with the contractor's name.

The Company believes that all incidents can be prevented by making safety an integral part of every job and task. Safety rules do not guarantee freedom from risk or hazard. They do not cover every job situation. Adequate hazard assessments will dictate that additional precautions that may be required.

II INCIDENT PREVENTION RESPONSIBILITIES

All personnel must understand and comply with all applicable Federal, Provincial and Municipal Acts, Standards and Regulations. A key requirement in all safety legislation is that each person is responsible for working safely with equal concern for the safety of co-workers.

Employees, supervisors and management have specific safety responsibilities. Incident investigations have demonstrated that a failure of any person to adequately fulfill their obligations may lead to situations where an incident may occur.

All incidents must be reported to the supervisor of the facility or project site. Incident reports must be submitted within 3 days following any incident. Incidents include injury, near misses, environment spills, property damage, vehicle incidents and other.



WORKPLACE RESPONSIBILITIES

Health and safety activities are based on specific individual responsibilities, most of which can be found in the Occupational Health and Safety Act and the Regulations enacted thereunder. Outlined are details of specific responsibilities in the workplace to assist in implementing health and safety functions. This outline is not intended to be all-inclusive, but to help all parties better understand their responsibilities.

All individuals in the company, at all levels and functions are responsible for understanding and carrying out the responsibilities and duties outlined below.

Responsibilities are Assigned to the following parties

- Owner
- Constructor
- Employer
- Director
- Officer
- Supervisor
- Workers
- Contractors
- Subcontractors
- Health and Safety Representative
- Joint Health and Safety Committee
- Certified Members of the Joint Health and Safety Committee

OWNER

“owner” includes a trustee, receiver, mortgage in possession, tenant, lessee, or occupier of any lands or premises used as a workplace, and a person who acts for or on behalf of an owner as his agent or delegate;

- The owner shall determine whether any designated substances are present at the site and shall prepare a list of all designated substances that are present at the site.
- The tenderer of the site shall include the list of designated substances with the tender, and ensure that the constructor has received the total list prior to entering into a binding contract.

CONSTRUCTOR

“constructor” means a person (or company) who undertakes a site for an owner and includes an owner who undertakes all or part of a site by himself or by more than one employer;

- Ensure that all appropriate documentation for the start up of a site has been processed.
- Ensure that the measures and procedures required by the current Occupational Health and Safety Act and Regulations for Construction Sites and the Constructor’s own Health and Safety Program are carried out on the site.
- Ensure that employers and workers on the site comply with the Act and Regulations and the Constructor’s Health and Safety Program.
- Ensure that the health and safety of workers on the site is protected.
- Monitor subcontractors and vendors for compliance with the Occupational Health and Safety Act and Regulations for Construction Sites.
- Ensure that subcontractors and vendors are obliged by contract to comply with the Constructor’s health and safety program.
- Monitor safety performance and take corrective action when required.



EMPLOYER

“employer” means a person (or company) who employs one or more workers or contracts for the services of one or more workers and includes a contractor or subcontractor who performs work or supplies services and a contractor or subcontractor who undertakes with an owner, constructor, contractor or subcontractor to perform work or supply services;

- Appoint a competent supervisor;
- Ensure that the Health and Safety Policy has been communicated to all staff;
- Take every precaution reasonable in the circumstances for the protection of a worker;
- Provide a safe and healthy workplace;
- Establish, maintain, and review at least annually a health and safety program;
- Establish and maintain Worker Profile, Safety and Training Records;
- Report incidents and injuries to authorities as required by law;
- Provide first aid and medical care;
- Provide workers with health and safety information;
- Inspect sites and meet regularly with supervisors to monitor the program and take corrective action where required;
- Conduct Company safety meetings at regular intervals;
- Consider incident prevention and safety performance when evaluating Supervisors and Workers.

DIRECTOR AND OFFICER

- Take all reasonable care that the corporation complies with the *Occupational Health and Safety Act* and Regulations;
- Take all reasonable care that the corporation complies with orders and requirements of inspectors and Directors;
- Take all reasonable care that the corporation complies with orders of the Minister.

SUPERVISOR

“supervisor” means a person who has charge of a work place or authority over a worker;
A Supervisor must also be a competent person (Act S 1. -(1)). competent person means a person who,

- I. is qualified because of his knowledge, training and experience to organize the work and its performance;
- II. is familiar with the provisions of the Act and the Regulations that apply to the work; and
- III. has knowledge of any potential or actual danger to health or safety in the work place;

- Implement on-site incident prevention;
- Review safe work procedures for the site;
- Monitor the health and safety performance of subcontractors;
- Report incidents and injuries to management as required by the program and regulations;
- Investigate incidents and take actions to prevent reoccurrence;
- Ensure that the Company's Health and Safety Program is followed at the work level;
- Enforce disciplinary actions for violations of the Company's Health and Safety Program;
- Ensure that protective equipment required by law and by the program is provided, accessible, used and maintained properly by workers and that workers understand the reasons for its use;
- Instruct personnel in proper work practices and update instructions as needed;
- Check work practices and work areas for hazards and take corrective action where required;
- Consult and co-operate with the Health and Safety Representative/Committee where appropriate;
- Acquaint workers with hazards and safe work procedures;
- Ensure all new hire employees receive orientation training.

WORKER

“worker” means a person who performs work or supplies services for monetary compensation;

- Comply with the Occupational Health and Safety Act and all relevant regulations;
- Take every precaution reasonable necessary to prevent incidents;
- Work in accordance with the health and safety program;
- Work in a manner that will not endanger anyone;
- Report unsafe situations immediately to your supervisor;
- Report injury or illness immediately to your supervisor;
- Help new workers recognize job hazards and follow proper procedures;
- Participate in joint health and safety committees where applicable;
- Must be aware that workers are subject to disciplinary action where either Company Safety rules or government regulations are violated;

SUBCONTRACTOR OR VENDOR

- Maintain a health and safety management system as required under the Act;
- Adhere to the subcontractor’s health and safety management system as well as the Company site specific health and safety management system;
- Monitor site conditions in their work area and take corrective action as necessary;
- Report incidents, lost-time injuries and any hazards immediately to the employer and the Company.

HEALTH AND SAFETY REPRESENTATIVE

- *(required where the number of workers regularly exceeds five - Section 8 of the Act);*
- Inspect the workplace;
- Identify situations that may be a source of danger;
- Relay concerns from workers and make recommendations to the Supervisor; All workers must first go to their immediate supervisor with their concern in order to mediate corrective action.
- Assist in incident investigations;
- Assist in resolving work refusals and reports of dangerous circumstances.

JOINT HEALTH AND SAFETY COMMITTEE

- *(required where the number of workers regularly exceeds 19 for more than 3 months Section 9 of the Act);*
- Inspect the workplace;
- Attend Joint Health and Safety Committee meetings;
- Review health and safety reports;
- Identify situations that may be a source of danger;
- Relay concerns from workers and make recommendations to the Employer; All workers must first go to their immediate supervisor with their concern in order to mediate corrective action.
- Assist in incident investigations;
- Assist in resolving work refusals and reports of dangerous circumstances.

CERTIFIED MEMBER OF JOINT HEALTH AND SAFETY COMMITTEE

- *(required where the number of workers at a site regularly exceeds 49 for more than 3 months - Section 45 and 47 of the Act);*
- Same duties as Joint Health and Safety Committee Health and Safety Representative but with additional rights to initiate bilateral and unilateral work stoppage;
- For further information on the effective functioning of the Joint Health and Safety Committee, reference may be made to the IHSA Guidelines for the Structure and Function of a Joint Health and Safety Committee.
- It is emphasized that all workers must read and become familiar with the Occupational Health and Safety Act and all applicable regulations, along with the requirements of the Company's Health and Safety Program. They must know what their responsibilities are and have the required ability and training to fulfill them.

DISCIPLINARY ACTION POLICY

- All workers are required to comply with all statutory requirements concerning the health and safety of workers in the workplace, as well as the Safe Work Procedures and any other requirements of the Company's Health and Safety Management System. The level of discipline will be determined by the investigations findings. The Company will not condone any contravention of any statutory requirements or our health and safety program. The Company has implemented a progressive disciplinary actions program which is supported by Senior Management.

WORKPLACE INSPECTIONS & HAZARD REPORTING

- Workplace inspections of construction sites are vital in maintaining a safe workplace and identifying existing or potential hazards in order that appropriate corrective action can be taken.
- An assessment shall be made by the Health and Safety Representative in conjunction with the Supervisor of the frequency of inspections required based on the potential dangers at the site. These inspections must be conducted on a monthly basis as a minimum. Reports shall be forwarded to site management.
- It is important to observe both conditions, safe work practices and procedures during the inspection. If a hazard poses an immediate threat, take immediate action to eliminate the hazard.
- A follow-up of all reports and action taken to eliminate hazards must be completed in a timely manner.
- Subsequent workplace inspection will review the items from previous inspections to ensure that remedial action has resolved the concern.

REPORTING AND INVESTIGATING INCIDENTS

- All incidents and injuries must be reported to the supervisor immediately who will in turn inform management. All incidents and injuries will be investigated once the occurrence has been attended to and further risks have been eliminated. Subcontractors are required to notify the Company representative(s) within 1 hour of all incidents that occurred within project sites and facilities.
- The prime objective of reporting and investigating incidents is to prevent recurrence. Knowing how to identify incidents and following the procedures and forms set out hereafter will help prevent the recurrence of incidents. These procedures include the following:
 - Incidents.
 - Investigation Required.
 - Investigation.



- Action of the Investigation.
 - ◆ Forms.
 - ◆ Records.
 - ◆ Follow-up.

INCIDENTS

- Incidents vary in severity. The reporting requirements of incidents and incidents by management to the Ministry of Labour, the Health and Safety Committee/Representative and trade union, if any, vary in time. Incidents and reporting requirements are outlined in the following table:

Circumstances	Action Required
1) Fatality or Critical Injury	<p>Management is immediately to contact the Ministry of Labour followed by a written report within 48 hours with information outlined in the Regulations for Construction Sites.</p> <p>All reports for incidents involving a critical injury or fatality must be reviewed by the Company's legal counsel prior to submission to the Ministry of Labour.</p>
<p>Critical injury is defined in the Act as follows:</p> <ul style="list-style-type: none"> • Is that of a serious nature. • Places life in jeopardy. • Produces unconsciousness. • Results in a substantial loss of blood. • Involves a fracture of a leg or arm, but not a finger or toe. • Involves the amputation of a leg., arm, hand or foot. • Consists of burns to a major portion of the body. • Causes the loss of sight in an eye. 	<p>Ministry of Labour has issued a clarification to this legislation, which includes a fracture to the hand, wrist, ankle, two or more fingers and toes.</p>
2) When a person requires medical aid, misses next shift, or is disabled from doing his or her usual work.	Report this occurrence to the project supervisor.
<p>3) When an incident or construction occurrence involves:</p> <ul style="list-style-type: none"> • a worker falls a vertical distance of three metres or more, • a worker falls and the fall is arrested by a fall arrest system other than a fall restricting system, • a worker becomes unconscious for any reason, • there is accidental contact by a worker or by a worker's tool or equipment with energized electrical equipment, installations or conductors, • there is accidental contact by a crane, similar hoisting device, backhoe, power shovel or other vehicle or equipment or its load with an energized electrical conductor rated at more than 750 volts, 	Report to the Ministry of Labour in writing within four days.



<ul style="list-style-type: none">• there is a structural failure of all or part of falsework designed by, or required by Ontario Regulation 213/91 (Construction Projects) to be designed by, a professional engineer,• there is a structural failure of a principal supporting member, including a column, beam, wall or truss, of a structure,• there is a failure of all or part of the structural supports of a scaffold,• there is a structural failure of all or part of an earth- or water-retaining structure, including a failure of the temporary or permanent supports for a shaft, tunnel, caisson, cofferdam or trench,• there is a failure of a wall of an excavation or of similar earthwork with respect to which a professional engineer has given a written opinion that the stability of the wall is such that no worker will be endangered by it, or• there is an overturning or a structural failure of all or part of a crane or similar hoisting device.	
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INVESTIGATION REQUIRED

- An investigation is required as soon as an incident has been attended to and the risk of further damage is eliminated.

INVESTIGATOR

- The investigation will be performed by management with the assistance of the health and safety committee representative as stipulated in Section 15 of the Act.

ACTIONS OF THE INVESTIGATION

- The key actions to be taken by the investigation are:
 - ◆ Secure the scene.
 - ◆ Identify witnesses.
 - ◆ Survey the scene.
 - ◆ Gather evidence and witnesses.
 - ◆ A best practice technique is to interview separately.
 - ◆ Analyse the facts.
 - ◆ Prepare a report.
- As an aid when conducting an incident investigation, keep in mind the five W's (who? what? where? when? and why?).

RECORDS

- Keep all records of the investigation and subsequent report of any incidents on file for future reference.
- Record retention for a period of 40 years must be maintained for WSIB claims. All other records must be maintained for a period 10 years as a minimum.

FOLLOW UP

- The results of the investigation shall be circulated to all Company work sites for the awareness and education of all workers. A review of the incident reports and recommendations shall be conducted at Company health and safety meetings. All recommendations for further action shall be followed up.

MINISTRY OF LABOUR INSPECTORS, ORDERS AND APPEALS

- *The Occupational Health and Safety Act* is enforced by Ministry of Labour inspectors and other officials of the Government of Ontario Ministry of Labour. Inspectors are trained in the law regarding the *Occupational Health and Safety Act* and the Construction Regulations. Inspectors have broad authority under the law and may inspect workplaces, conduct investigations where there has been an incident or occurrence, and perform routine review of employer's health and safety procedures and programs.
- Inspectors are authorised under the *Occupational Health and Safety Act* to issue Orders where they determine that a provision of the Act or a regulation is being contravened. It is critical to note that an Order is a legal determination by an inspector that the contractor/employer is breaking the law and must rectify the situation.
- A number of different types of orders may be issued by inspectors. There are compliance orders where certain changes to the workplace must be made within a specific time period. There are stop work orders where all work on a site must stop until the safety issue has been resolved. There are also orders that are issued even after a safety issue has been resolved, to merely confirm that there was a problem that is now resolved or to satisfy the personal interests of the inspector to confirm his presence on the job site that day.

WORKER'S RIGHT TO REFUSE UNSAFE WORK - UNSAFE WORK REFUSAL PROCEDURE

BASIS FOR REFUSAL

- At the first stage of the refusal, the worker must have a "reason to believe" that either some machinery he operates or his actual work situation is "likely to endanger" himself or a fellow worker. This requires a subjective, personal belief by the refusing worker that his job or workplace is unsafe for himself or others, or both.

REPORTING REFUSAL TO SUPERVISOR

- Work refusals are permitted under the O.H.S.A. to protect the health and safety of workers in the workplace. To facilitate this objective, the work refusal must be promptly reported to the worker's supervisor or employer.

FIRST INVESTIGATION

1. Once the worker has reported the work refusal to his employer or supervisor, the O.H.S.A. requires an investigation to be conducted. The investigation shall be conducted by the supervisor or employer, the refusing worker, and a health and safety representative or health and safety committee member. If a health and safety representative or committee member is not required by law, then someone who because of knowledge, experience and training is selected by a trade union that represents the worker, or if there is no trade union, is selected by the workers to represent them, safety experience who is



selected by the union that represents the refusing worker. Worker remains in a safe place near work station while all attempts are made to resolve the perceived problem to the satisfaction of all parties.

RETURN TO WORK OR CONTINUING REFUSAL

- The first investigation may either resolve the refusal to work or result in a continuing refusal by the same worker. In the case of the former, the worker will either return to work or remain in a safe place near his work station until the necessary changes have been made to the unsafe working condition that gave rise to the work refusal and then return to work.

SECOND INVESTIGATION AND ROLE OF MINISTRY OF LABOUR INSPECTOR

- If a worker believes that there are reasonable grounds to continue to refuse to do the work assigned by the employer, and continues to refuse to do the unsafe work, the worker, supervisor or employer must notify a Ministry of Labour inspector. The inspector will attend at the workplace and conduct a second investigation of the circumstances surrounding the continuing work refusal. The second investigation must be conducted in the presence of the employer, the refusing worker and a health representative or a person experienced in health and safety chosen by the union that represents the worker. The Ministry of Labour inspector who conducts the second investigation must make a decision in writing with respect to the basis for the continuing work refusal.

WORKER'S RIGHT TO REFUSE UNSAFE WORK

- **DEFINITION:** Where a worker has reason to believe that:
 - ◆ the use or operation of a machine or equipment, or other thing will likely endanger himself/herself, or another worker; or;
 - ◆ the physical condition of the workplace in which he/she works is likely to endanger himself/herself;
 - ◆ the use or operation of a machine, equipment or other thing he or she is to use or operate is in contravention of the Act or regulations, and it is likely to endanger a worker; a worker may refuse to work.

Reference Section 43 of the OHSA.

INCIDENT PREVENTION RESPONSIBILITIES

All personnel must understand and comply with all applicable Federal, Provincial and Municipal Acts, Standards and Regulations. A key requirement in all safety legislation is that each person is responsible for working safely with equal concern for the safety of co-workers.

All workers, supervisors and management have specific safety responsibilities. Incident investigations have demonstrated that a failure of any person to adequately fulfill their obligations will lead to situations where an incident may occur. All incidents shall be reported to the project supervisor who in turn will notify the Health and Safety Department. Reports are to be prepared for all incidents or near misses and forwarded to the Site Superintendent and the Health and Safety Department.

WORKERS:

- Use protective devices or clothing as required by the task.
- Maintain equipment and tools in good condition.
- Use equipment in a manner that will not endanger themselves or others.
- Report to their supervisor the absence of, or defect in any equipment or protective device of which they are aware and which may endanger themselves or another worker.



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- Report unsafe work conditions, practices and hazards ensuring that appropriate interim action is taken to prevent exposure to other personnel.
 - Advise any individual to stop if they are working unsafely or ignoring safety rules or practices. If the individual does not stop when advised, his/her supervisor shall then be notified.
 - Exercise the right to refuse unsafe work.

SUPERVISORS:

- Analyze all work to ensure that work is correctly planned to avoid risk of injury or incident and executed in an effective manner.
- Provide safe job instructions. Ensure each employee understands the hazards, the correct procedures and applicable regulations pertaining to the task.
- Ensure that safety regulations, safe practices and operating instructions are correctly applied.
- Ensure tools and equipment provided are safe and suitable for the job.
- Ensure that employees perform their work in accordance with correct procedures, protective devices and measures prescribed by the Occupational Health and Safety Act, and any Regulation enacted thereunder; the subcontractor's own safety program (where applicable) and supplementary requirements of The Company.
- Follow up as prescribed by legislation when a worker refuses unsafe work.

MANAGEMENT:

- Promote and manage incident prevention programs.
- Provide safety and job instruction training.
- Supply proper tools and equipment.
- Supply protective clothing and equipment.
- Ensuring the safe conduct of the visitor(s) or calling person(s).
- Securing compliance with all safety standards, procedures and contracted obligations to The Company.

SUBCONTRACTOR MANAGEMENT:

A Subcontractor is responsible for explaining and securing compliance with The Company's rules and practices by any subcontractor engaged by him for work on a The Company site as if the subcontractor was a direct employee of the principal subcontractor.

The Subcontractor is responsible for all employees working for them and for all other persons calling on him or doing business with his firm while on a The Company site or property. The Subcontractor is responsible for training and advising his respective employees of all site specific hazards, safe work practices, procedures and requirements.

HUMAN PERFORMANCE (CONTRIBUTING CAUSES OF INCIDENTS)

At Dufferin Construction we believe that Error likely situations are predictable, manageable, and preventable. Error precursors are unfavourable conditions that create a mismatch between the task and the individual. Below are examples of Error Precursors that may lead to incidents.



1 – TASK DEMANDS	3 – INDIVIDUAL CAPABILITIES
1A -Time Pressure (in a hurry)	3A -Unfamiliarity with task/ First time
1B -High workload (memory requirements)	3B -Lack of knowledge (faulty mental model)
1C -Simultaneous, multiple tasks	3C -New technique not used before
1D -Repetitive actions/Monotony	3D -Imprecise communication habits
1E -Irreversible actions	3E -Lack of proficiency; Inexperience
1F -Interpretation requirements	3F -Indistinct problem-solving skills
1G -Unclear goals, roles, or responsibilities	3G -“Can do” attitude for safety-critical task
1H -Lack of or unclear standards	3H -Illness or fatigue; general health
1I -Confusing procedure/Vague guidance	3I -Unawareness of critical parameters
1J -Excessive communication requirements	3J -Inappropriate values
1K -Delays: idle time	3K -Major life event; medical, financial, emotional
1L -Complexity/High information flow	3L -Poor manual dexterity
1M -Excessive time on task	3M -Low self-esteem; moody
1N -Long-term monitoring	3N -Questionable ethics (bends the rules)
	3O -Sense of Control. Learned helplessness
	3P -Personality type

2 – WORK ENVIRONMENT	4 – NATURAL TENDENCIES/HUMAN NATURE
2A – Distractions/Interruptions	4A –Stress
2B -Changes/Departure from routine	4B -Habit patterns
2C -Confusing displays/controls	4C –Assumptions
2D -Work-arounds/Open operator station instrumentation	4D -Complacency/Overconfidence
2E -Hidden system responses	4E -Mind set (intentions)
2F -Unexpected equipment conditions	4F –Inaccurate risk perception
2G -Lack of alternative indication	4G -Mental shortcuts or biases
2H -Personality conflicts	4H -Limited short-term memory
2I -Back shift or recent shift change	4I -Pollyanna effect
2J -Excessive degree of group cohesiveness	4J -Limited perspective (bounded rationality)
2K -Production overemphasis	4K -Avoidance of mental strain
2L -Adverse physical climate (habitability)	4L -Tunnel vision (lack of big picture)
2M -No accounting of performance	4M -“Something is not right”
2N -Conflicting conventions; stereotypes	4N -Pattern matching bias
2O –Poor equipment layout; poor access	4O -Social preference
2P -Fear of consequences of error	4P -Easily bored
2Q -Mistrust among work groups	4Q -Close-in-time cause-effect correlation
2R -Meaningless rules	4R -Difficult to see own errors
2S -Unavailable parts or tools	4S -Frequency & similarity bias
2T -Acceptability of “cook-booking”	4T -Overload bias
2U -“Rule book” culture	4U -Imprecise physical actions
2V -Equipment sensitivity (inadvertent actions)	4V -Limited attention span
2W -Lack of clear strategic vision or goals	4W -Spatial disorientation
2X -Identical & adjacent displays or controls	4X -Physical reflex
2Y -Out of service warning systems	4Y -Anxiety (involving uncertainty)
2Z -Nuisance alarms	



IV PREVENTING INCIDENTS

Incident prevention is best achieved by being alert, ensuring the safe way to accomplish each task is understood and that everyone is ever mindful of changing conditions and situations which may compromise safety.

BEFORE STARTING ANY JOB, ASK YOURSELF...

- What are the hazards associated with the job (heat, toxic products, electrical, tools, environmental, etc.)?
- What can be done (and shall be done) to eliminate these hazards?
- If the hazard cannot be eliminated, what protective equipment or procedure is necessary to effectively manage the hazard or risk?
- What could go wrong and what contingency action shall be taken to minimize the consequences?
- Have all these questions, and the answers, been discussed with everyone involved on the job?

BEFORE CARRYING OUT ANY TASKS, ASK YOURSELF...

- Do I understand what is required and the safe way to do this task?
- Is there a written procedure? (If not, shall there be?)
- Is this a deviation from a standard procedure? (If so, exactly what is the deviation?)
- What effect could the deviation have on normal operation? (Is a new job plan necessary?)
- What could go wrong if the operation is carried out this way?
- What contingency actions are available if it does go wrong?
- Has everything above been discussed with those involved in the operation?

You are the one most responsible for safety. This can only be accomplished by accepting that responsibility and doing the right things at the right time in a safe manner.

Remember:

“Safety is not the absence of events; safety is the presence of defenses” (Todd Conklin).

V. SAFETY GUIDELINES FOR ALL DUFFERIN SUPERVISORS, EMPLOYEES, CONTRACTORS, SUBCONTRACTORS, VENDORS AND THEIR EMPLOYEES

ACCESS

- All entrances, exits, and access/egress to equipment, platforms, ladders, stairs, and buildings shall be continuously maintained free of all obstructions, slippery conditions, overhead danger, etc.

ACCOUNTABILITY

- Each Supervisor, employee contractor, subcontractor and vendor and its respective workers are required to comply with all applicable health and safety legislation and with established standards, regulations and procedures.
- Contravention of a safety regulation could result in the issuance of orders and a penalty prescribed and enforced under the Occupational Health and Safety Act.
- **Contravention of a The Company policy or procedure could result in the subcontractor or its employee(s) being removed from the site, at the discretion of the Site Superintendent.**



ADJUDICATION

- Where a conflict occurs in the application of the Health and Safety Reference Manual or reference document produced by The Company, consensus will be established by a third party adjudicator mutually agreed upon by the contractor, subcontractor or vendor and The Company. The adjudicator will assess the validity of the claims. Wherein an agreement cannot be reached in the selection of an adjudicator, The Company will appoint a third party professional adjudicator. In all cases, the subcontractor/vendor will be required to pay all reasonable costs associated with the third party adjudicator. The judgment of the adjudicator in all cases will be deemed final and binding.

AGE OF WORKERS (minimum)

- All Contractors, subcontractors and vendors shall ensure that workers are at least 18 years of age.

ALCOHOL/UNAUTHORIZED DRUGS (FIT FOR DUTY)

- All workers must be fit for duty at all times while performing work or on the site. It is the responsibility of the Supervisor to conduct visual checks to ensure workers are fit for duty. All DCC employees, subcontractors and visitors entering the site area are considered to be in a safety-sensitive position.
- An employee working in a safety-sensitive position may be required to undergo a substance test under the following circumstances:

Reasonable cause: Refers to a situation where a person in authority is in possession of objective and clear facts that reasonably lead to the suspicion that an individual is not fit to work because of a substance that affects the capacity and/or ability to perform the work.

- Any unauthorized substance (including alcohol and marijuana) prohibited on The Company property and work sites. Any person under the influence of alcohol or illegal drugs will be refused entry or removed from the premises.
- No employee shall report to work under the influence of a substance.
- **Unauthorized substance:** Any substance, including cannabis, illicit drugs, medications or other substances, the use of which may alter mental activity. For the purposes of this Policy, drugs are those substances that have the potential or effect of impairing faculties or work performance, including fitness for work.

ASBESTOS

- Prior to commencing operations involving asbestos, contractors, subcontractors and vendors shall complete a written **Site Specific Health & Safety Plan** and submit the completed plan to the Site Superintendent.
- **Site Specific Health & Safety Plans** shall follow the format prescribed in The Company's Health and Safety Reference Manual. (See - Site Specific Health & Safety Plans and/or Job Hazard Analysis (JHA))
- Asbestos insulation may be present in some locations. If asbestos insulation is suspected, all work affected is to be suspended and the The Company Site Superintendent immediately notified.
- Special procedures are required when working with or around asbestos. Furthermore the above mentioned special procedures apply to work involving man made mineral fibres (MMMF) e.g. fibrous glass - ceramic fibre - rock wool - and slag wool.

AUTHORIZED

- Defined as any employee who by reason of training and experience has been judged competent by / Dufferin Management, Subcontractor and regulating authorities to perform specific tasks in a safe



manner consistent with his job responsibility and in accordance with all standards, acts and regulations and procedures.

BARRICADING

- All open excavations, trenches, open utility chamber temporary ground or floor openings, where there could be a hazard presented to any person through trips or falls, must be adequately and properly barricaded in accordance with the Occupational Health and Safety Act and any Regulation enacted thereunder.
- All areas where work in or around water must be barricaded or the employee will be required to wear a Personal Flotation Device.

BEARDS/HAIR

- Employees must be clean shaven when the nature of the work requires or may require the effective use of personal respiratory protection.
- Long hair which may catch in equipment or other facilities must be appropriately covered by a hard hat or cut to prevent entanglement.

BLASTING & DRILLING OPERATIONS

- Prior to commencing drilling and/or blasting operations, contractors, subcontractors and vendors shall complete a written **Site Specific Health & Safety Plan** and submit the completed plan to the Site Superintendent.
- **Site Specific Health & Safety Plans** shall follow the format prescribed in The Company's Divisional - Site specific safety reference manual. (See - Site Specific Health & Safety Plans and/or Job Hazard Analysis (JHA))

CAMERAS

- Cameras are not permitted on company sites or property unless authorized by the Site Superintendent.

CHAINSAW USE

- Every chainsaw that is used on a site must be stopped when not being used to cut.
- Chainsaws must be equipped with a chain that minimizes kickback and have a device to stop the chain in the event of a kickback.
- No worker shall use a chain saw unless he or she has been trained in its use.
- Chainsaws must be held firmly when starting the chainsaw. Chainsaws must be held with two hands at all times while in use.
- No worker shall use a chain saw unless he or she is wearing adequate PPE and clothing including gloves and adequate eye and hearing protection.

CLEANING

- Appropriate cleaning agents are to be used on floors desks walls in washrooms etc.
- Ensure Safety Data Sheets (SDS) are available.
- The use of gasoline or similar materials capable of giving off hazardous vapours at normal atmospheric temperatures are prohibited for cleaning clothing, carpets, floors, motors, engines or other equipment.

COMPANY

- Company is defined as The Company and its associates and affiliates. DCC is the abbreviated designation for The Company.



COMPANY FACILITIES

- Contractor, subcontractor or vendor workers are not permitted to use any company facilities, tools or equipment unless permission is granted by a Dufferin Construction Company supervisory representative.
- Subcontractor's employees are not permitted to use any lunch room, locker room or sanitary facilities provided by the The Company for its employees unless required by contract or when permission is granted, by a The Company supervisory representative.

COMPRESSED AIR

- Compressed air must not be used for cleaning clothes or directed towards any part of the body.
- Air hoses shall not be placed on a sidewalk or roadway unless precautions have been taken to minimize tripping, entanglement or damage to the hose.
- Verify the source of supply before connecting air-powered tools. Be sure it is industrial air, not natural gas, etc.

COMPRESSED GAS CYLINDERS

- Compressed gas cylinders must be secured in an upright position.
- Compressed gas cylinders (full or empty) must be disconnected, cylinder caps installed and secured in an upright position when not in use or during transportation.
- Compressed gas cylinders must be stored in a safe place away from hazardous work areas when not in use.

CONFINED SPACES ENTRY

- Prior to commencing confined spaces entry operations, contractors, subcontractors and vendors shall complete a written **Project Specific Health & Safety Plan** and submit the completed plan to the Project Superintendent.
- All confined space entry work will comply with Occupational Health and Safety Act and associated Regulations.
- Subcontractors whose workers will be performing work in the same confined space or related work with respect to the same confined space must be provided with a copy of the coordination document supplied by Dufferin Construction Company.
- Before a subcontractor begins any work in a confined space on a Dufferin Construction Company project, the Project Superintendent must review the subcontractors's policy and safe work procedures relating to the hazards of a confined space.
- Subcontractors must have a written program for the confined space that meets the intent of the amended Regulation as noted before any worker enters a confined space.
- The subcontractor shall follow the Dufferin Construction Company Confined Space Program should their written program (e.g. training, confined space permit and rescue plan, etc.) be deemed unsuitable by the Project Superintendent.
- Entering a tank, vessel or any other confined space for any purpose is not permitted unless the interior conditions have been tested by a qualified person and the necessary safe work permit issued in accordance with the written program.
- An attendant shall be located immediately outside of the confined space work area to render assistance in the event of an unsafe or emergency condition.
- The subcontractor shall ensure that adequate written on-site rescue procedures that apply to the confined space have been developed and are ready to use for immediate implementation.
- All personnel working inside a confined space must have reviewed the confined space specific rescue plan. An appropriate communications system must be developed and enforced between the attendant and the inside worker(s).



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- Additional site specific confined spaces entry procedures may be requested at the discretion of Dufferin Construction Company.

CONTACT LENSES

- Contact lenses shall not be worn during any work which will expose the wearer to chemicals, gases, vapours, dust or other materials that may harm the eyes or cause irritation.
- Contact lenses must not be worn when wearing self contained breathing apparatus (S.C.B.A.).

DIVING OPERATIONS

- Prior to commencing diving operations, contractors, subcontractors and vendors shall complete a written **Site Specific Health & Safety Plan** and submit the completed plan to the Site Superintendent.
- **Site Specific Health & Safety Plans** shall follow the format prescribed in The Company's Divisional - Site specific safety plan Manual. (See - Site Specific Health & Safety Plans and/or Job Hazard Analysis (JHA))

DRILLING & BLASTING OPERATIONS

- Prior to commencing drilling and/or blasting operations, contractors, subcontractors and vendors shall complete a written **Site Specific Health & Safety Plan** and submit the completed plan to the Site Superintendent.

DRINKING WATER

- Approved containers used to store drinking water shall be clearly marked and shall not be used for any other purpose.
- Potable water and disposable cups must be available in the immediate vicinity of all work areas.

ELECTRICAL HAZARDS (ONTARIO)

- All subcontractors and employers must implement the safe work procedures (which have been provided to your organization previously) in accordance with OH&SA and the Construction Regulations Section 188 (4) that all subcontractor and employers must provide the written measures and procedures to workers before starting any work and explain them to the workers.
- Prior to commencing electrical maintenance and/or repair operations, contractors, subcontractors and vendors shall complete a written **Project Specific Health & Safety Plan** and submit the completed plan to the Project Superintendent.
- No work shall be performed, no material piled, sorted or handled, no scaffolding erected or dismantled, nor any tools, machinery or equipment operated in close proximity to electrical power sources where contact or arcing may occur.
- All electrical systems shall be de-energized and the controls locked out in accordance with Occupational Health and Safety Act or any Regulations enacted thereunder.
- Electrical systems shall not be energized except when permission is granted by the person in charge and then, only by a competent electrician holding a certificate of qualification issued under the Buildings Opportunities in the Skilled Trades Act, 2021.
- All electrical panels and generators must be equipped with a functional ground fault circuit interrupter (GFCI).
- Ground fault circuit interrupters shall be inspected and tested daily in a manner consistent with the manufacturer's instructions.
- A signal person shall assist an operator if any part of the load may approach the minimum distance noted as follows:



Nominal Phase to Phase Voltage Rating	Minimum Distance
750 to 150,000 volts	3 metres
150,000 to 250,000 volts	4.5 metres
more than 250,000 volts	6 metres

ELECTRICAL HAZARDS (ALBERTA)

- Dufferin Construction has attached a copy of the written measures and procedures to ensure minimum distances are not encroached.
- All subcontractors and employers must implement the safe work procedures (which have been provided to your organization previously) in accordance with OHS Act, Regulations and Code that all subcontractor and employers must provide the written measures and procedures to workers before starting any work and explain them to the workers.
- Prior to commencing electrical maintenance and/or repair operations, contractors, subcontractors and vendors shall complete a written **Project Specific Health & Safety Plan** and submit the completed plan to the Project Superintendent.
- No work shall be performed, no material piled, sorted or handled, no scaffolding erected or dismantled, nor any tools, machinery or equipment operated in close proximity to electrical power sources where contact or arcing may occur.
- All electrical systems shall be de-energized and the controls locked out in accordance with the Occupational Health and Safety Act, Regulations and Code.
- Electrical systems shall not be energized except when permission is granted by the person in charge and then, only by a qualified electrician.
- All electrical panels and generators must be equipped with a functional ground fault circuit interrupter (GFCI)
- Ground fault circuit interrupters shall be inspected and tested daily in a manner consistent with the manufacturer’s instructions.
- A signal person shall assist an operator if any part of the load may approach the minimum distance noted as follows:

Nominal Phase to Phase Voltage Rating	Minimum Distance
0-750 volts Insulated or polyethylene covered conductors ⁽¹⁾	300 millimeters
0-750 volts Bare, uninsulated	1.0 metre
Above 750 volts Insulated conductors ^{(1) (2)}	1.0 metre
750 volts – 40 kilovolts	3.0 metres
69 kilovolts, 72 kilovolts	3.5 metres
138 kilovolts, 144 kilovolts	4.0 metres
230 kilovolts, 260 kilovolts	5.0 metres
500 kilovolts	7.0 metres

Notes:

- (1) Conductors must be insulated or covered throughout their entire length to comply with this group.
- (2) Conductors must be manufactured to rated and tested insulation levels.

Electronic Devices

- Electronic entertainment devices such as an iPod, MP3, DVD, CD etc. are not permitted while working or if they create a hazard or distraction to oneself or others.



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- Personal Electronic Devices should not be used where their use can put the user at risk of injury, e.g. they should not be used when walking about because of the risk of slips, trips or falls and they should never be used when climbing or descending stairs/steps, or when the user is exposed to equipment or vehicles that pose a hazard.
 - Use hands-free mode while driving a vehicle as per provincial laws.

EMERGENCIES

- An emergency response plan will be developed at each site prior to commencing work.
- Report all emergencies (fire, spill, serious injury, serious illness, and significant weather events, etc.) to the site superintendent and The Company's Health and safety Department.
- Emergency telephone numbers shall be posted at each job site.

EMERGENCY ACTION

- All personnel must be familiar with the emergency procedures established for the work site and their required response.
- In the event of a fire or serious injury to a fellow worker, all qualified employees are expected to take prompt action to render assistance in addition to making the emergency call. Use the available fire protection equipment provided to extinguish a fire if possible. Once EMS arrives, proceed with your normal or emergency duties depending on the nature of the emergency situation.
- Personnel not involved in the emergency response shall leave the area and proceed to their designated muster point and report to their supervisor on arrival.
- Personnel must remain at the muster point location until an "All Clear" is announced, or alternate instructions are received from the Site Superintendent.

EMERGENCY VEHICLES

- All vehicles and personnel shall give emergency vehicles and response crews the right of way.
- Fire and ambulance routes must be maintained clear and emergency vehicles shall be directed by designated personnel.

EQUIPMENT

- All equipment, such as trucks, cranes, welding machines, etc. must be maintained in good working condition in accordance with manufacturers specifications.
- All equipment must be identified to the Site Superintendent prior to use on site.
- All equipment and tools used by the Subcontractor and their employees must be suitable for the work and the work area environment.
- No equipment shall be modified or altered to perform differently than intended unless written agreement by the manufacturer or certification from a Professional Engineer is obtained.
- Defective equipment shall not be used on a Company site.
- Defective equipment shall be turned off and sufficient measures taken to prevent the equipment from being operated and warning signs posted.
- All mobile equipment and similar vehicles shall be equipped with a functional back up warning device.

EQUIPMENT OPERATION

- Only authorized personnel are permitted to operate, adjust and repair The Company equipment.
- The Wait for the Wave initiative is a shared responsibility by all parties to eliminate struck by incidents. Equipment Operators need to ensure they are aware of workers or pedestrians in their vicinity and intended path.
- Workers on foot must use hand signals to communicate with the operator such as a wave or a specific hand signal.



- Workers must never enter a machine's blind spot without waiting for eye contact and receiving an all clear via WAIT FOR THE WAVE.
- No equipment shall be left running unattended.

EQUIPMENT/VEHICLE BACKUP PROCEDURES

- Every project shall be planned and organized so that vehicles and machines and equipment are not operated in reverse or are operated in reverse as little as possible. Vehicles, machines and equipment at a project shall not be operated in reverse unless there is no practical alternative to doing so.
- Prior to commencing equipment and vehicle backup procedures, contractors, subcontractors and vendors shall complete a written **Project Specific Health & Safety Plan** and submit the completed plan to the Project Superintendent.
- Where vehicles and equipment must operate in reverse, signs shall be posted at the project in conspicuous places warning workers of the danger.
- Workers in the vicinity of moving vehicles and equipment must wear a reflective safety apparel.
- Wherever possible, a barricade should be erected in order to separate workers on foot from vehicles and equipment in motion within the job site.
- When vehicles and equipment must travel in reverse within the construction area and the vicinity of workers who may be endangered, it is necessary for the supervisor to appoint a competent signal person or "spotter". The spotter shall assist drivers/operators while vehicles or equipment are traveling in reverse.
- The signal person or spotter must:
 - ◆ not perform other tasks while acting as a signal person
 - ◆ be trained or instructed to perform the task
 - ◆ know and understand proper signals
 - ◆ know driver/operator blind spots
 - ◆ remain out of the path of the vehicle
 - ◆ remain in full view of the operator/driver
 - ◆ maintain full view of workers and obstructions in the path of the vehicle.
 - ◆ If he or she is the designated signal person, they must wear a green vest
- All vehicles and equipment must be equipped with an automatic audible alarm that signals when the vehicle or equipment is being operated in reverse. All dump trucks, must have back up alarm in accordance with Section 105 of the Regulations for Construction Projects.
- All vehicle/equipment operators, signal persons and workers on foot within the construction area must be provided with instructions specific to the conditions and procedures to be employed on the construction site.
- All vehicle and equipment operators, supervisors, signal persons and workers on foot shall be provided with instructions specific to the hazards, conditions and procedures appropriate for the circumstances.

EXCAVATIONS

- Prior to commencing trenching, excavating and boring operations, Company employees, contractors, subcontractors and vendors shall complete a written **Site Specific Health & Safety Plan** and submit the completed plan to the Site Superintendent.
- All excavations and trenches shall be prepared in accordance with the Occupational Health and Safety Act and Regulations for Construction Projects.
- All excavations must be regularly inspected by a competent person in order to ensure the integrity of site conditions and the protective measures employed within or around an open excavation.
- All excavations must have appropriate entrance and exit routes in accordance with the nature of the excavation.

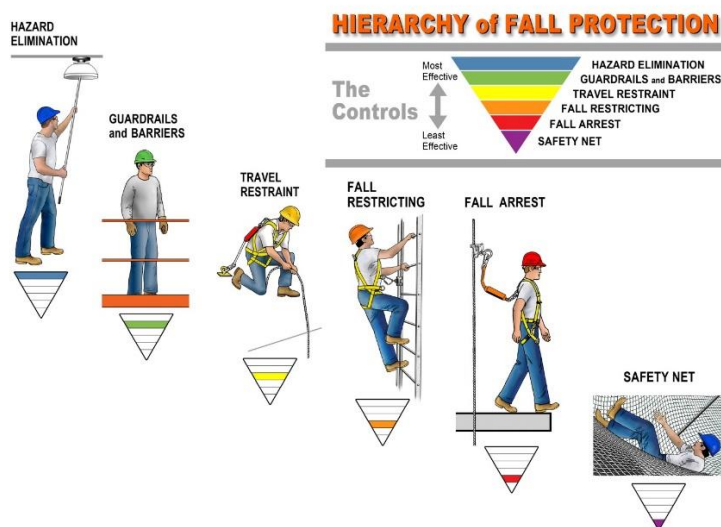
- All open excavations or trenches which pose a hazard must be properly guarded by a substantial railing or barricade. When required, flashing warning lights, appropriate to the area classification, must be installed.
- All open utility chambers, removed gratings or floor openings must be guarded with proper barricades or appropriate covers. Warning signage to be placed on the protective cover.
- No worker shall enter an excavation or trench unless properly excavated or shored to ensure their safety.
- Excavator operators must adhere to the Original Equipment Manufacturer's (OEM) Manual relating to the machine's quick coupler attachment safe operating procedures. Adherence to the DCC SOP for Quick Couplers must also be followed at all times when changing buckets or other attachments.

FACILITIES - CONTRACTOR/SUBCONTRACTOR/VENDOR

- Subcontractor's temporary buildings such as, field offices and similar structures may only be placed in areas approved by Owner's representative.
- Open electric or flame heaters are not allowed without the specific approval of the Site Superintendent.

WORKING AT HEIGHTS

- Prior to commencing any work at heights, it is imperative that fall hazards are assessed and adequate measures are in place in accordance to the hierarchy of controls.



- Prior to commencing operations which may expose a worker to the risk of falling, Company Supervisors, contractors, subcontractors and vendors shall complete a written **Site Specific Health & Safety Plan** and submit the completed plan to the Site Superintendent.
- All workers who may use a fall protection system are adequately trained in its use and given adequate oral and written instructions by a competent person. A record of training and instruction shall be made available to The Company's Superintendent and the Ministry of Labour.
- To ensure that workers are continuously protected at all times from the hazards of falling, secured full body harness and lanyard must be worn by employees :
 - When working at heights greater than **8 feet** above grade or floor level where it is impractical to provide adequate work platforms or guard rails.
 - When working over any operating machinery, open space or hazardous substance which cannot be guarded.



- When occupying an elevated or aerial work platform.
- When entering a confined space where a harmful atmosphere exists or may develop.
- The use of a safety belt as an alternative to a full body safety harness is unacceptable and will not be permitted on Company sites.
- A safety net shall be used when safety harnesses and adequate work platforms are not possible.
- Before any use of a fall arrest system or a safety net by a worker at a site, the worker's employer must develop written procedures for rescuing the worker after his or her fall has been arrested.

FALLING MATERIALS

- When there is a danger of material falling onto work areas or where the public might be endangered, it is required that such areas be barricaded against entry and warning signs prominently displayed on all sides and approaches or protective canopies installed.

FENCING (PUBLIC WAY PROTECTION)

- If work on a project may endanger a person using a public way, a sturdy fence at least 1.8 metres in height shall be constructed between the public way and the project. Refer to O. Reg. 213/91, s. 64-66.
- Where applicable, construction site perimeters shall be fenced off in such a manner and using such temporary fencing materials that will provide high levels of warning and protection to all persons on or attending the work site. Fencing shall be erected so as to enhance the overall appearance of the site.

FIREARMS

- Possession of firearms by any person except police officers is prohibited on The Company property or sites.

FIRE EXTINGUISHERS

- All Company employees, contractor, subcontractor and vendor employees shall be trained in the use of fire extinguishing equipment.
- A 4A40BC dry chemical fire extinguisher shall be placed at the point of welding, grinding or cutting.
- The Company Supervisor, contractor, subcontractor or vendor shall supply sufficient fire extinguishing equipment to handle any anticipated emergency in the employee, contractor's, subcontractor's or vendor's respective work area and ensure that the extinguishers charge is confirmed at an appropriate frequency.
- All Welding machines are to be equipped with a 4A40BC dry chemical fire extinguisher.
- Discharged fire extinguishers must be reported and recharged.
- All fire extinguishers are required to be inspected on a monthly and annual basis.

FIRE PROTECTION EQUIPMENT

- Know the location of fire fighting equipment in your area.
- Fire fighting equipment must be used only for its intended purpose and not removed from its place of storage.
- Do not block access to fire fighting equipment.
- Every worker who may be required to use fire extinguishing equipment shall be trained in its use.

FIRST AID/EMERGENCY RESPONSE DEVICES AND PERSONNEL

- All Company Supervisors, contractors, subcontractors and vendors must ensure the provision of trained first aid and emergency response personnel, facilities and adequate supplies as required by the Workplace Safety and Insurance Act and First Aid Regulations as well as the Occupational Health and Safety Act and any Regulation enacted thereunder.



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- First Aid Certificates and records of training for first aid personnel shall be made available and posted at all job site trailers / offices.
 - Emergency telephone numbers are to be posted on the safety board within the trailers.
 - First aid trainers shall keep their training certificate current.

FORMWORK AND FALSEWORK

- Prior to commencing formwork, false work and concrete placement operations, Company Supervisors, contractors subcontractors and vendors shall complete a written **Site Specific Health & Safety Plan** and submit the completed plan to the Site Superintendent.
- Prior to the placement of concrete, formwork and false work shall be inspected by a professional engineer (or a competent worker appointed by the engineer) to examine and verify in writing that the form and false work has been erected in accordance with engineered drawings.

FUELING

- All gasoline, diesel and propane powered engines must be shut off when refueling.
- Fuels must be dispensed with a pump and hose.
- Fuels must be stored in approved safety containers and appropriately labeled.
- Safety Data Sheets must be available at the area of dispensing.
- All fuel trucks and fuelling stations will contain spill kits in the event of a fuel spill as well as a fire extinguisher.
- No smoking signs must be posted at all fuelling stations.

GRINDERS

- Hand grinders must not be altered and used as a bench grinder.
- Proper grinding wheels matched to the grinder speed must be used.
- Eye protection including, safety glasses and face shields must be worn when grinding.
- Do not remove or make guards inoperative.

GUARDRAILS

- All guardrails shall be construction assembled and maintained in accordance with the Occupational Health & Safety Act and Regulations for Construction Sites also the Regulations for Industrial Establishments.
- A guardrail shall be provided in locations as prescribed in the Occupational Health & Safety Act and Regulations for Construction Sites.
- For guidance on Construction and Assembly of Construction Guardrail, refer to IHSA's Construction Health and Safety Manual.

HAND TOOLS

- Avoid hand tool injuries by:
 - using the right tool for the job
 - maintaining tools in clean and good condition
 - using tools in the intended way
 - carry pointed or sharp edged tools in pouches or sheath
 - hammer head, screwdriver and etc., shall be ground periodically to remove mushrooming and rounding.
 - do not hold the work in one hand while directing a screwdriver or chisel with the other. The tools will most likely injure the holding hand when they slip.



- All protective guards for equipment and portable tools must be used as intended by the manufacturer.
- All openings and excavations must be appropriately guarded.
- All stairs having more than four risers must have handrails.

HOISTING OPERATIONS

- Prior to commencing hoisting operations, contractors, subcontractors and vendors shall complete a written **Site Specific Health & Safety Plan** and submit the completed plan to the Site Superintendent.
- Appropriate delineation including signs and warning devices must be posted at the perimeter of all areas where hoisting operations are performed.
- Only authorized personnel are permitted to operate material hoisting equipment.
- Safe lifting loads marked on lifting devices must not be exceeded.
- All hooks on hoisting equipment shall comply with safety standards and regulations. See additional regulations for precautions for lifts near energized power lines.
- Persons must not stand or pass under any suspended load.
- **The use of a crane, forklift or other equipment as a personnel lift device and/or work platform is prohibited unless it is designed and intended for that purpose**
- Cranes shall be regularly inspected by a competent person and a report detailing the findings of the inspection shall be kept with the crane for review by the contractor.
- Boom trucks, mobile and stationary cranes shall be operated by a competent worker.
- Crane operators shall retain their Certificate of Qualification on the site at all times while performing hoisting operations and shall provide the certificate to the contractor on demand.
- Boom trucks and cranes shall be inspected monthly by a competent person.
- Mobile Crane Logs shall be completed monthly for each crane on the site; and the log shall be available for review by the contractor on demand. Each and every mobile crane shall complete a daily circle check.
- When utilizing an excavator to position and place utility chambers, pipe(s) and or trench boxes.
- **Further, when using a basket to hoist worker(s) by a crane, reference must be made to the DCC Basket Standard Operating Procedure before work can begin on site. No work shall begin in a Basket until permission has been granted by the DCC Project Superintendent, DCC Operations Manager and the DCC Manager, Health and Safety.**

HORSEPLAY

- Startling, scaring, pushing, distracting, fighting, etc. is strictly prohibited. Horseplay incidents will be investigated and adequate disciplinary actions will be determined.

HOUSEKEEPING

- The work site is to be kept clean and free from slip and trip hazards.
- All equipment, tools and unused materials at a job site must be returned to their proper storage area when not in use.
- All waste material must be appropriately disposed of in a designated location.
- Keep all walkways, stairs and platforms free of obstructions. In the winter months all walkways must be free of snow and ice.
- All spills shall be reported, contained and cleaned up immediately.
- Observe good housekeeping practices at all times and maintain the work area free of combustible/flammable materials and tripping hazards.
- Store all waste or rags in closed metal containers.
- Ensure waste containers are emptied when full and disposed of weekly.
- Nails shall be removed from all lumber prior to storage or disposal.



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- Remove scrap and waste materials regularly during each shift to maintain access/egress routes and at least daily for all other work areas.

JOINT HEALTH AND SAFETY COMMITTEE

- A Joint Health and Safety Committee will be established at all sites where the number of employees regularly exceeds 20 and the expected duration of the site will exceed 3 months; or as prescribed by the Occupational Health and Safety Act.
- Subcontractors and vendors shall participate, cooperate and provide supervisory and/or employee representation on the committee, at the request and discretion of The Company.
- A Worker Trade Committee will be established where the number of employees regularly exceeds 50 and the expected duration of the site will exceed 3 months.
- The trade unions shall be actively involved in selection of worker representatives.

UTILITY KNIVES

- Proper hand protection shall be worn for the task requiring use of knives.
- A knife shall be used carefully and not as a screwdriver or pry bar.

LADDERS

- A portable ladder at a project shall be manufactured and shall meet the design, performance, test and marking requirements of a Grade 1, Grade 1A or Grade 1AA ladder in the CSA Standard Z11-12, Portable Ladders.
- Metal or wire reinforced ladders shall not be used in proximity to electrical equipment.
- All ladders must be inspected and found to be free of defects prior to use. Unacceptable ladders shall be removed immediately from the site.
- Ladders must be equipped with non-slip devices or safety shoes at the foot.
- Ladders must be secured at the top or held by a second person to prevent movement during use.
- The base of an inclined portable ladder shall be no further from the base of the wall or structure than 1/4 the length of the ladder, measured from the point at which the ladder contacts the wall or structure.
- When sections of an extension ladder are extended, the overlap between ladder sections must not be less than 3'0" for ladders up to 36'.
- Do not stand on, or work from, the top two rungs of a ladder.
- Step ladders must be fully extended when in use.
- Face the ladder and use both hands while climbing or descending.
- Tools must be carried in a pouch or lifted by a handling or lifting device when ascending or descending ladders.
- Ladders must be appropriately stored and made secure.
- Ladder jack scaffolds are prohibited.
- The area around the ladder base must be free from slippery substances and tripping hazards.
- Landings at the top and bottom of ladders must be free from slippery substances, obstructions and trip hazards.
- Three point contact must be maintained at all times when climbing up and down ladders. Three point contact means two hands and one foot or two feet and one hand.

LANGUAGE

- Where a contractor's, subcontractor's or vendor's employee cannot read or understand English, the supervisor is responsible for ensuring that he thoroughly understands the safety standards and regulations and all other pertinent safety requirements.



- Where a contractor's, subcontractor's or vendor's employee has a communication problem, special procedures, must be developed by the employer to ensure he/she can perform the work in a safe manner and that he or she can be made aware of emergency situations.

LIFTING & MATERIAL HANDLING

- Do not lift more than can be safely handled. Get help.
- When manually lifting a heavy object, bend the knees, keep a straight back and use your legs to lift the load.
- Use mechanical equipment wherever practical for heavy or awkward objects.
- Stretch before lifting objects to prevent MSDs

LIGHTING

- All electrical facilities temporary or permanent must comply with the requirements of the applicable Federal, Provincial or Local Electrical Code and applicable Safety Standards and Regulations.
- Temporary lighting shall be suitable for the work being conducted with cords and cables suitably strung to prevent tripping, or entanglement.
- All temporary lighting must be equipped with proper guards to prevent incidental contact with the bulb.

MACHINE GUARDING

- An effective machine guard shall have certain characteristics in design and construction. Such a guard shall:
 - ◆ Guards must be considered a permanent part of the machine.
 - ◆ Must afford maximum protection and be highly visible.
 - ◆ Must be designed in a manner so no person can reach in, around, over or under and come into contact with moving parts.
 - ◆ Guards must be installed securely and not interfere with the normal operation, inspection, and lubrication of equipment.
 - ◆ Guards must extend 0.9 metres (3 feet) beyond the pinch point.
 - ◆ Consideration must be given to the design, shape, weight and ease of handling when installing guards on machinery.
 - ◆ Guards must be installed at return rollers.
 - ◆ Railings must be installed alongside the conveyor to prevent a worker from falling into the conveyor.
 - ◆ Shaft and shaft ends must be guarded if they present a hazard.
- Machine guards manufactured and/or provided by the equipment manufacturer shall meet or exceed the requirements of the Occupational Health and Safety Act or any applicable Regulation(s) enacted thereunder. Modified or replacement machine guards from other than the original equipment manufacturer shall be designed, manufactured and installed consistent with **CSA Z432-94 Safeguarding of Machinery** or shall be designed by a licensed Professional Engineer.

MACHINERY

- Guards must be placed on machinery to prevent contact with moving parts.
- Guards must not be removed except when the machine is shutdown and locked out. Guards must be replaced before machinery is put in operation.
- Machines must be shut down, locked out and tagged before any repair work is done. This includes electrical, air, steam or other driven equipment.
- Safe operating procedures for machinery must be followed
- Work over moving machinery is prohibited unless adequate protection is provided.
- Be aware of pinch points where hands/fingers could be caught or trapped.



MARINE OPERATIONS

- Prior to commencing marine operations, contractors, subcontractors and vendors shall complete a written **Site Specific Health & Safety Plan** and submit the completed plan to the Site Superintendent.
- Refer to IHSA's Construction Health and Safety Manual for more information of water and ice hazards https://www.ihsa.ca/rtf/health_safety_manual/pdfs/hazards/Water_and_Ice.pdf

MARKING PHYSICAL HAZARDS

- Hazards shall be appropriately identified, guarded and where appropriate, warning signs shall be posted (falling material, noise protection, and overhead electrical power lines).
- See Excavations.

NAILS

- Exposed nails and spikes must be removed or bent flat.
- Discarded nails must be properly disposed of and not left on the ground or other surfaces.

NEW OR INFREQUENTLY PERFORMED JOBS

- All new or infrequently performed jobs shall have a pre-job review and approved procedures developed when warranted.
- A pre-work safety review must be conducted before the shift starts with all personnel involved.
- Workers must be oriented to these procedures.

NOISE PROTECTION

- Adequate hearing protection devices such as muffs or plugs must be worn while working in areas posted with hearing protection signs or when required by the nature of the work being performed.
- If there is any uncertainty, hearing protection must be worn.

OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATION FOR CONSTRUCTION SITES

- A copy of the most current Occupational Health and Safety Act and Regulations for Construction Sites or amendments must be retained at each work site and made available to all contractor, subcontractor or vendor employees.

ORIENTATION

- All Company Supervisor, contractors, subcontractors and vendors must provide their respective employee(s) with adequate and appropriate safety orientation prior to commencing work.
- Visitors must be briefed by the applicable contractor, subcontractor or vendor responsible for the visitor.

PARKING AND JOB ACCESS

- Company employees, contractor's, subcontractor's and vendor's employees will use proper entrances and travel routes when proceeding to their respective work area in order to avoid passing through other operating locations.
- Parking shall occur only in designated areas as assigned by the Site Superintendent.
- All vehicles must back into designated parking areas **whenever possible**.



PERSONAL PROTECTIVE CLOTHING

- Wear appropriate protective clothing adequate for the task to cover and protect the body.
- Sleeved shirts and long pants are mandatory.
- Do not wear loose fitting clothing, jewelry, rings, bracelets and necklaces which may be caught in machinery or other devices and pinch points.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Inspect all your personal protective equipment to ensure it is in good working order prior to use.
- Adequate personal respiratory protection must be worn when handling any hazardous materials/substances, which poses an inhalation hazard.
- Self-contained breathing apparatus (SCBA) or other approved means of supplied air and breathing protection must be worn whenever prescribed to protect an employee from exposure to harmful gases, vapours or oxygen deficiency. Each employee required to wear such equipment, must be instructed and qualified in its use.
- Life jackets must be worn by workers exposed to the danger of drowning in water deep enough for the life jacket to be effective.
- Foot and leg guards must be worn for all work where the lower part of the body is exposed to injury. Such work includes the use of chain saws, jackhammers, etc.
- Wear goggles, face shield, rubber gloves, and rubber suits when a worker may be exposed to an acid, caustic or other similar hazardous material.
- Refer to Sections: Safety Glasses/Goggles, Safety Hard Hats, Safety Footwear and Fall Arrest Systems.

PORTABLE FLAMMABLE/COMBUSTIBLE LIQUID CONTAINERS

- Only approved designated CSA containers may be used to store gasoline, diesel and other flammable or combustible liquids.
- Only working quantities of flammable or combustible liquids may be present in working areas. Bulk or reserve quantities of such substances shall not be present in working areas.
- Portable containers must be adequately labeled as to contents and hazards.

POWER TOOLS

- Tools must be suitable for the job being performed, in good condition and appropriate to the hazardous conditions which may exist during their use.
- All electrical tools must be in good working condition. Inspect for damaged cords, casing, handles, etc.
- Keep guards in place on all power tools.
- Air hoses and electric cords shall not be placed on walk and roadways unless precautions have been taken to prevent tripping entanglement and wear.
- Inspect couplings, hose and hose connections of pneumatic tools prior to use. Ensure all hose connections are secured together with a whip check.
- Verify the source of supply before connecting air-powered tools. Be sure it is industrial air, not natural gas, nitrogen, etc.
- Ensure air hose is connected to the equipment prior to turning on the air supply.
- LOTO - The air supply must be shut off when changing pneumatic tools. Air supply must not be shut off by kinking the air hose.
- Disconnect power tools from power source before making repairs or adjustments.
- Explosive actuated fastening tools must only be operated by authorized personnel who have received adequate training to ensure competence.



POWERED ELEVATING WORK PLATFORMS (PEWP)

- Ensure powered elevating work platforms are operated in accordance with the manufacturer's specifications and inspected daily.
- Platforms must be level and stable.
- Platforms shall be selected in consideration of load requirements, site conditions and equipment limitations.
- Company Supervisors, contractors, subcontractors and vendors must ensure that their respective personnel using a powered elevating work platform have received adequate written and oral training to operate the platform safely.
- Do not travel in an elevated position.
- All workers inside the PEWP must be trained in Working at Heights and wear a full body harness.
- All workers must be attached to a proper anchor point inside the basket. Refer to manufacturers instructions and equipment safety warning labels.

SITE SAFETY ASSESSMENTS (Workplace safety inspections)

- Site Safety Assessments will be conducted in accordance with the planned inspections and audit policy for The Company. All DCC project sites and facilities are subject to an assessment.
- **Subcontractors shall participate and cooperate with the efforts and recommendations prescribed as a result of all Site Safety Assessments.**

SITE SPECIFIC HEALTH AND SAFETY PLANS

- Prior to commencing work, subcontractors and vendors shall complete a **Site Specific Health & Safety Plan** submit the completed legibly printed or type written plan to the Site Superintendent.
- Completion of a **Site Specific Health & Safety Plan** shall as a minimum require the following steps:
- Assessment of the nature and scope of the work to be performed.
- Assess and identify the operations involved and potential hazards that may result from each operation.
- Develop specific strategies to address each potential hazard scenario.
- Identify workers who may be affected by potential hazards and develop strategies to address worker requirements.
- Identify worker skill sets require to perform all tasks and evaluate workers to identify and address skill deficiencies.
- Identify the time frame in which the potentially hazardous operation will be performed, and when remedial and preventive measures will be in place to mitigate the potential hazard.
- Complete and submit the **Site Specific Health & Safety Plan** to the Site Superintendent.
- Communicate to all workers the details of the completed **Site Specific Health & Safety Plan**.
- Implement all recommendations as prescribed in the plan.
- Monitor the effectiveness of the **Site Specific Health & Safety Plan**.
- Modify the plan as required to address required changes.
- Changes to the plan must be approved by the Site Superintendent.

RADIOS

- Permission must be obtained from the Site Superintendent prior to using radios or cellular telephones on or near a site where blasting operations are being conducted.

RAILROADS

- Adhere to all of the Railroad authority safety requirements/rules.
- Ensure you have the proper training in accordance with the railroad authority's requirements.
- Adhere to all Railroad specific Personal Protective Equipment requirements.



- Ensure proper authorization is granted by the Railroad authority prior to commencing work within the railway corridor right of way.

REPORTING VEHICLE INCIDENTS

- Any Company employee, contractor, subcontractor or vendor employee involved in a motor vehicle incident on site must report the incident immediately to their supervisor who will in turn be expected to advise the Site Superintendent.
- An incident report must be prepared and submitted to the Site Superintendent and Health and Safety Department.

RESPIRATORY PROTECTION

- Company Supervisors, contractors, subcontractors and vendors shall arrange and supply adequate respiratory protective equipment when required by the hazards of the job being performed.
- Contractors, subcontractors and vendors shall ensure all personnel using respiratory protective equipment are appropriately trained and fit tested to the equipment.

RIGGING

- Use only competent riggers.
- Know the weight of the load to be lifted.
- Ensure loads are properly rigged and stable during the lift.
- Use tag lines to control loads unless such use will create a hazard.
- Inspect all hardware, slings, cable and equipment before using.
- Replace worn equipment.
- Never rig or hoist any load if weather conditions are such that hazards to personnel or property are created, e.g. high wind velocity, low visibility, etc.
- Specific procedures must be prepared and submitted to the contractor prior to performing an unusual or complex hoisting operation.

ROLL-OVER PROTECTIVE STRUCTURES (ROPS) AND RESTRAINING SYSTEMS

- Roll-over protective structures and restraining systems are required on all mobile equipment except:
 - rated by the manufacturer at 15 kilowatts or less and has a tare mass of 700 kg or less;
 - was manufactured before 1980 and is not factory-equipped with adapters to accept a roll-over protective structure.
- Mobile equipment not equipped with a roll-over protective structure shall be restricted to locations and operations where the risk of overturning is minimal.
- Operators must inspect the ROPS as part of the vehicle/equipment general inspection checklist.
- Do not make any modifications or repairs to the ROPS unless qualified. Refer to regulation O.Reg 856.
- Seat belts must be worn when equipped.

SAFETY EYE PROTECTION

- Dufferin Construction has implemented a 100% mandatory eye protection policy and only CSA approved Safety Protection may be worn.
- Some areas of the site may require the compulsory use of additional measures to protect the eyes and face including use of face shields or chemical goggles. Observe signs indicating this requirement.
- Safety protection must be worn by any person working on a Dufferin Construction project; or in a yard; plant facility or lab including all visitors, owner representatives and suppliers.



- Designated PPE Free areas must be approved by the JHSC and signs placed to identify boundaries.

SAFETY HARD HATS

- As a minimum, an approved CSA Z94 1-15 Type 1, Class E safety hard hats in accordance with the Occupational Health & Safety Act and Regulations for Construction Projects, must be worn as intended by all personnel in all work areas at all times.

SAFETY INSPECTIONS

- All Company Supervisors, contractors, subcontractors and vendors are required to conduct safety weekly inspections (at a minimum) for all areas for which they are responsible.
- The Safety Department and Senior Management will perform additional site safety assessments such as Safety Leadership Interactions, Life Saving Rule Assessment, Formal and Informal Project Safety Inspections (IPSA).
- JHSC representatives and committee members will conduct Monthly Safety inspections.

SAFETY FOOTWEAR

- Appropriate CSA approved, Grade 1 “green patch” safety boots must be worn in all work areas.
- Safety boots must provide dielectric protection. To determine if the boot has dielectric protection, a white label with the Greek letter OMEGA in orange will be indicated on the boot.
- Safety shoes are not allowed on The Company sites.
- A minimum 6 inch work boot on all DCC project sites, unless client / owner requirements are more stringent.

SAFETY SHOWERS/EYE WASH STATIONS

- Emergency eye wash stations will be provided by the contractor, subcontractor or vendor for areas not having safety showers and eye wash stations when required by the nature of the work and inherent hazards.
- Conduct regular inspections of the showers and eye wash stations in your work areas to ensure they are functioning properly.
- Eye wash solution for portable stations must not be expired.
- Be mindful of inclement weather to ensure all eyewash and showers are operable (i.e. flowing water).

SCAFFOLDS

- Scaffolds, swing stages or other temporary work platforms used for maintenance, installation or removal of equipment must be constructed, maintained and used in compliance with Regulations for Construction Sites.
- Scaffold must be inspected regularly as per the Regulations for Construction Projects.
- Engineered drawings when applicable must be on site and available upon inspection.
- Written instructions must be reviewed and available on site for workers.
- Scaffolds must be erected, maintained and dismantled under the direction of a competent worker.
- Ladder jack scaffolds are prohibited from use.

SIGNAL PERSON

- (See - Equipment/Vehicle Backup Procedures, Electrical Hazards and Overhead Electrical Power Lines)



SMOKING / VAPING

- Follow the Smoke-Free Ontario Act (SFOA) by obeying all posted smoking signs and not smoking in vehicles, offices and equipment.

SPILLS

- Clean up all spills or slippery surfaces which will create a slipping or environmental hazard.
- Report all spills to the Site Superintendent and call the emergency number provided by the Site Superintendent (where applicable).
- Supply and maintain spill kits at each site.

SUBCONTRACTOR OR VENDOR SUPPLIED MATERIALS

- All vehicles arriving on the site shall first report to the site office trailer and/or Site Superintendent.
- Contractors, subcontractors and vendors shall provide sufficient notice and information to permit The Company to assess the circumstances, identify potential hazards or productivity interruptions and implement corrective measures.

TRAFFIC

- Adhere to all posted Speed Limit signs.
- Where no speed limit is posted, travel with caution and according to the terrain, job conditions, adjacent work activities and weather conditions.
- All street, railroad stop and warning signs must be adhered to.
- Passengers must never leave or board a vehicle in motion.
- Workers are not permitted to ride in the back of a pickup truck or ride in a piece of equipment without a seat belt.
- Vehicles parked on a Company site or property must be left with the engine shut off and parking brake set.
- All vehicle incidents occurring on a Company site or property must be reported and an Incident Report prepared.
- Remember **GET OUT AND LOOK (GOAL)** before moving your vehicle or equipment.

TRAFFIC CONTROL – Traffic Protection Plans (TPP) and Internal Traffic Protection Plans (ITPP)

Traffic Protection Plans (TPP):

- Traffic control measures must be employed in order to meet the requirements of the Ontario Traffic Manual - Book 7, Section 67-69 of the Regulations for Construction Sites and the following objectives:
 - To protect construction crews and the motoring public by regulating traffic flow.
 - To stop traffic whenever required by the progress of work.
 - Otherwise to keep traffic moving at reduced speeds to avoid tie-ups and delays.
 - To allow construction to proceed safely and efficiently.
 - To ensure that public traffic has priority over construction equipment.
 - To ensure a risk assessment has been completed that details the need for pedestrian and vehicle segregation in the work zone.
- Equipment used for traffic control including, but not limited to signs, delineators, cones, barricades, flashers, barriers, markers, crash trucks and drums must meet all applicable Federal, Provincial or local requirements.
- Where required, the contractor, subcontractor or vendor is responsible for appointing a competent traffic control person (TCP) who shall not perform any other work while setting up or removing the measures and shall develop in writing a traffic protection plan specifying the vehicular hazards and the measures described to protect workers.



- The contractor, subcontractor or vendor must ensure that the traffic protection plan is kept at the site and made available for review by a worker on request.
- All signs shall be in accordance with the latest reflectivity standards of Book 7 and workers shall wear CSA approved safety vests with 360 degree visibility.
- Workers directing traffic shall receive training and deemed competent, shall not direct vehicular traffic for more than one lane in the same direction and not direct traffic if the posted speed is greater than 90km/h.

Internal Traffic Protection Plans (ITPP):

- A written ITPP is a method to coordinate workers, work vehicles and equipment movements in the activity area of a work zone and to inform all workers within the activity area about the location and hazards of others. An activity area is the area where work is undertaken within the work zone on a particular project or facility. It is the area “inside the barrels”.
- The ITPP (i.e. drawing/sketch) must be communicated to all workers. This can be achieved through the Pre-work hazard assessment process.

UNDERGROUND UTILITIES (Ground disturbance)

- Locations of all underground utilities must be requested by the Company Supervisor or representative, contractor, subcontractor or vendor excavating.
- The Company Supervisor, contractor, subcontractor or vendor shall thoroughly review locate information with the utility company’s representatives before excavating has begun.
- Locate must be kept on site and with the supervisor and operator.
- Extreme caution must be exercised during excavations as supplied underground drawings may not be accurate.
- The Company Supervisor, contractor subcontractor or vendor shall comply with the procedures outlined in the **CSA Standard (Z247-15):Damage prevention for the protection of underground infrastructure** when excavating in the vicinity of pipes, conduits and cables for gas electrical and other services.
- In addition to the above note, the company supervisor, contractor, subcontractor or vendor must also comply with the requirements of **Sections 228 and 229 of the Ontario Construction Regulations 213/91 for utilities and the protection of adjacent structures.**
- Piping and other underground services must not be damaged during excavation.
- All utility damage must be reported to the site Superintendent.

VEHICLES AND MOBILE EQUIPMENT (also - see Equipment/Vehicle Backup Procedures)

- Vehicle operators must have a valid operator’s license.
- All vehicles must be maintained in proper working order and inspected prior to use.
- All dump trucks, trucks and mobile equipment used at the work site area are to be equipped with working automatic back-up audible warning alarms.
- It is unacceptable to transport workers in the back of a pickup truck or mobile equipment not equipped with a seat and seat belt.
- A functional Truck Box indicator shall be installed on all end-dumps hired by The Company or Subcontractor. If your truck is not equipped with a Truck Box indicator talk to The Company Site Superintendent.

VENTILATION

- Effective ventilation shall be maintained to ensure a proper air supply free of contaminants and impurities which will exceed safe exposures.
- Forced ventilation systems will be required depending on the nature of the work, work environment and atmospheric condition.



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- An inadequate air supply will require the use of appropriate personal protective equipment.

VISITORS

- Contractors, subcontractors and vendors are responsible for the safe conduct of visitors at the work site and must provide orientation to safety requirements during their visit.
- The Site Superintendent must be advised of all anticipated visitors, new workers, vendors and other workers prior to their arrival.

WEEKLY SAFETY TALK MEETINGS

- Each Company Supervisor, contractor, subcontractor and vendor shall conduct a safety talk weekly with all respective personnel in attendance.
- Topics to be addressed at safety talk meetings will be decided in consultation with the Site Superintendent.
- Weekly safety talk meetings will be properly documented and the document submitted to the Site Superintendent.

WELDING

- Prior to commencing welding operations, Company employees, contractors, subcontractors and vendors shall complete a written **Site Specific Health & Safety Plan** and submit the completed plan to the Site Superintendent.
- Only certified welders must be used for structural welding. (e.g. guardrails, platforms).
- Inspect all welding or burning equipment before use for leaks and the presence of oil or grease.
- Flash back preventers must be installed on the fuel and oxygen lines at the torch and regulators.
- Safety eye protection, including face shields must be worn when cutting, chipping or grinding.
- Adequate eye protection must be worn by anyone assisting or working near a cutting, welding, chipping or grinding operation.
- A fire hose or extinguisher must be readily available at the work area.
- Welding machines must be shut down prior to fueling.
- Remove all combustible materials to a safe distance from the welding area.
- Suitable shielding must be placed around welding and grinding areas to protect personnel in adjacent areas from flashing and flying particles.

WORK PERMITS - HOT WORK

- Prior to commencing operations requiring a hot work permit, contractors, subcontractors and vendors shall complete a written **Site Specific Health & Safety Plan** and submit the completed plan to the Site Superintendent.
- The following operations are specifically classified as "hot work": welding, burning, hot riveting, hot forging, use of electric hot plate, open fires of any kind, grinding, soldering, the use of any electrical arc or sparking device, etc.
- Procedures, including permits, must be submitted to the Site Superintendent prior to commencing hot work.
- A hot work permit completed daily.
- A fire watch must be designated for any hotwork operations.



WORKER TRAINING

- Company Supervisors, contractors, subcontractors and vendors must provide their respective workers with adequate training to ensure workers are familiar with their work tasks, the hazards and the application of the Act and all applicable Regulations.
- Proof of training is required whenever a task is required to be performed which necessitates a competent person and/or competent worker as prescribed by the Occupational Health and Safety Act and any Regulation enacted thereunder.
- All contractors, subcontractors and vendors shall ensure their respective workers are trained in the following areas, where applicable:
 - Health and Safety Awareness Training (Safe at Work 4 step or 5 step program)
 - Workplace Harassment and Violence Prevention training (Bill 168)
 - Incident reporting and investigation
 - Working at Heights Training
 - Back-Up Hazard Awareness
 - Controlling Traffic Safely
 - Equipment Lock-out Procedures
 - PEWP and personnel lift device and/or work platform Operation
 - Safe Work Practices Near Underground and Overhead Utilities
 - Train the Trainer - Tailgate Safety Meetings
- Contractors, subcontractors and vendors are responsible for the training of their personnel.
- Training recognized by The Company and may be available through various health and safety delivery organizations, including but not limited to, the Infrastructure Health and Safety Association (IHSA), local union halls, the Workplace Safety and Prevention Services, and other Safe Workplace Association.
- The Company reserves the right to evaluate the content of training claimed by the contractor, subcontractor or vendor.
- The contractor, subcontractor or vendor shall provide to the Site Superintendent upon request any information relating to training, including but not limited to:
 - training course outline
 - course curriculum
 - representative training materials
 - details relating to facilitation format
 - name and details of the instructor(s)
 - documents confirming worker attendance/contractor shall be provided on request

WORKING IN & AROUND WATER

- Extreme caution must be exercised when work in and around water. Site specific safety plans must be developed for all diving operations, work in water or around water.
- Workers must not work within 10 feet of open water unless they are tied off to a travel restraint system.
- If a worker is at risk of drowning, he or she, must wear a life jacket.** refer to your site specific safety plan.
- Must develop a written rescue plan if workers are at risk of drowning. The plan must include, at minimum, training of workers, rescue boat, alarm system and rescue equipment. The plan must be communicated with all workers.
- Refer to IHSA's Construction Health and Safety Manual for more information of water and ice hazards https://www.ihsa.ca/rtf/health_safety_manual/pdfs/hazards/Water_and_Ice.pdf



WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

- The purpose of the Workplace Hazardous Materials Information System is to ensure that the hazards of all chemicals produced or employed are evaluated, and that information concerning their hazards is transmitted to employers and employees. This transmittal of information is to be accomplished by means of a comprehensive **WHMIS** program, which must include container labeling and other forms of warning, material safety data sheets and employee training.
- Subcontractors must inform their employees of the availability of the program, including the required list(s) of hazardous chemicals, and safety data sheets required.
- The Company personnel and subcontractor shall ensure that each container of hazardous chemicals on the site is labeled, tagged or marked with the identity of the hazardous chemical(s) contained therein; and must show hazard warnings appropriate for employee protection.
- The Company personnel and subcontractors shall have a safety data sheet for each hazardous chemical which they use.
- The Company personnel and the subcontractor shall provide employees with information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new hazard is introduced into their work area. Subcontractors shall also provide employees with information on any operations in their work area where hazardous chemicals are present; and the location and availability of the written **WHMIS** program, including the required list(s) of hazardous chemicals, and material safety data sheets required by the standard.
- The Site Superintendent will advise all site personnel and subcontractors of any chemical hazard that may be encountered in the normal course of their work on the premises, the labeling system in use, the protective measure to be taken, and the safe handling procedures to be used.
- In addition, the Site Superintendent will notify all site personnel and subcontractors of the location and availability of SDSs.
- Each subcontractor bringing chemicals on-site must provide the Site Superintendent with the appropriate hazard information on these substances, including the labels used and the precautionary measures to be taken in working with these chemicals.

VI IN CONCLUSION

"When I SEE something, I will STOP and DO something"