Safety Orientation Manual



CONTRACTOR'S

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INTRODUCTION:

This booklet shall be used to provide small contractors with a safety orientation when hired to perform small construction related jobs throughout the schools and divisional offices. Management and supervisors are required to provide the orientation to the contractor prior to their starting work at Pembina Trails.

Please review the book in its entirety, with explanations where required, with the contractor and have them sign off on the following forms:

- Contractors Safety Agreement Form
- Department of Labour Form
- Checklist
- □ Terms and Conditions Form
- □ Safety Orientation Agreement Form

Note: each employee that will be working on Pembina Trails SD property must have a safety & health orientation given by the prime contractor (either theirs or ours) and must sign a separate agreement form.

THE DECLARATION FORM (PAGE 77) MUST BE SIGNED AND RETURNED TO THE PEMBINA TRAILS SAFETY OFFICER, VIA FAX OR EMAIL.



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EMERGENCY NUMBERS

OUTSIDE AGENCIES

Emergency (Life Threatening):	911
Police (non-emergency)	
Fire Paramedic Service (non-emergency)	986-6380
Public Works Department (for Water Main Breaks)	311
Manitoba Hydro (gas and electric)	480-5900
XL Alarms	231-1072

FACILITIES & OPERATIONS DEPARTMENT PHONE NUMBERS

MAINTENANCE:

Weekend & Evening Security	612-5910
Maintenance Supervisor (carpentry, roofing, play structures)	
Asst. Director, Facilities and Operations	
Director of Facilities and Operations	226-2346
Utilities Supervisor (electrical, HVAC, plumbing & fire systems)	
Call Before You Dig (Pembina Trails SD Fiber Optics)	489-8989

SAFETY, HEALTH & ENVIRONMENT:

Divisional Safe	ety Officer	5338
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SAFETY & HEALTH POLICY (GBG)

The Pembina Trails School Division is committed to providing all staff, students, contractors, and visitors to its facilities, a safe and healthy environment in which to work and to learn. The Division recognizes the rights, roles and responsibilities of all employees with respect to workplace safety and health; and accepts an overall responsibility to maintain a comprehensive workplace safety and health program. The Division is committed to the prevention of occupational injuries, illnesses and violence within the workplace; to the promotion of safety and health consciousness; and to the ongoing education of all employees with respect to relevant provincial legislation.

Pembina Trails School Division endeavours to meet its responsibilities for the health and safety of the members of its community by complying with relevant health and safety standards and legislative requirements, and by assigning general and specific responsibilities for workplace health and safety. The Division shall give priority to ensuring a safe working environment when planning, budgeting, directing, and implementing policies and activities.

In carrying out its responsibility and commitment to provide a safe and healthy environment, the School Division has established a Safety and Health Committee at each school. The committees were established to ensure the requirements of the Workplace Safety & Health Act have been met and to serve as a resource for every person at the Division.

Pembina Trails School division is committed to the belief that:

- □ Safety & health are core values linked to every part of our Division;
- Active management commitment and employee involvement are key to ensuring an injury-free and healthy workplace;
- Each task can be performed without injury;
- Operating without injuries is the foundation of operational excellence.

The Division recognizes that safety and health is a shared responsibility between management, supervisors, employees, students and visitors – for providing and maintaining a safe environment by conducting activities in a safe manner, by observing safety rules, reporting unsafe conditions and by always practicing safe behavior. In order to achieve our goal all employees must work together and contribute to a safe and healthy environment.

EMERGENCY PROCEDURES FOR CONTRACTORS

Prior to starting work on Pembina Trails School Division property, all contractors must submit the following to the divisional supervisor you will be working with:

- □ A list of employees that will be working
- □ A list of emergency contact numbers and cell numbers.
- Emergency plans. Coordinate your emergency plans with the school emergency plans.
 E.g. Muster sites, means to communicate an emergency to staff; accountability for your staff; first aid supplies, etc.

All contractors must participate in any school safety event such as lock down, evacuation, fire drill, tornado drill, etc.

GENERAL EMERGENCIES:

- Call or alert the school office using one of the School numbers listed in Appendix A, Page 50.
- 2. Specify whether you need an Ambulance, Fire or Hazardous Material Spill or Police. Have the following information available if you are calling 911:
 - Name of caller,
 - Company name,
 - □ Type of emergency
 - Location (give the school or building's name and he address),
 - □ Where the caller may be found on the job site,
 - □ The phone number where the caller or site supervisor may be reached.
- 3. If possible, meet the emergency service requested at the building entrance.
- 4. Inform your supervisor and the Divisional Safety & Health Officer of the emergency.

FIRE/EXPLOSION:

- 1. Immediately stop what you are doing.
- 2. Pull the nearest fire alarm, if in a building.
- 3. Remove all persons from immediate danger.
- 4. Assign a staff member to call 911.
- 5. If possible, control fire with a fire extinguisher.
- 6. Proceed to evacuate the building in accordance with your Evacuation Plan.
- 7. Confine the fire by closing (not locking) doors and windows as you leave.
- 8. Extinguish the fire providing it is safe to do so.
- 9. Take attendance as soon as you arrive at your muster site.
- 10. Call the Pembina Trails Safety Officer to report fire 204-232-5338.
- The supervisor must wait for Fire Department at main entrance to building or main entrance to construction site. All other construction personnel must wait at the muster site with the rest of the school.
- 12. Do not re-enter the building until the All Clear has been given. The All Clear must be authorized by the most senior Winnipeg Fire Paramedics Services person at the scene.

EVACUATION:

- 1. Immediately stop what you are doing.
- 2. Evacuate the building using the nearest escape routes.
- 3. Contact your construction supervisor and notify them that you have been evacuated.
- 4. Check in with the Principal/Vice Principal/Designate
- 5. Wait for emergency services staff to arrive.
- 6. Support and cooperate with emergency services.
- 7. Remain at the evacuation site until the all clear has been received from Emergency Services, Safety Officer or Facilities and Operations Staff.

LOCKDOWN:

- 1. Any staff member, contractor, visitor who receives information or has reason to believe that there is an imminent threat to the safety of the school community or work site must contact the main office immediately.
- You may hear an announcement over the PA system that there is a school lockdown in effect. Or you may be notified of the lockdown by other means, such as, another staff member/student/noises/etc.
- 3. Immediately cease all activities and initiate a lockdown.
- If it is safe to do so the first course of action that should be taken is to run out of the building and far away until you are in a safe location, then proceed to the designated meeting location.
- 5. If you are not near or can't get to an exit safely. Move everyone into a room with a door, but only if safe to do so.
- 6. Lock the doors and mute your cell phone.
- 7. Turn off the lights and make the room appear uninhabited.
- Barricade: move any large, heavy objects in front of the door to barricade it. All moveable items such as chairs, desks, filing cabinets, etc. should be used as well. Once closed, DO NOT open your door for anyone. (The person knocking at your door may be the intruder!)
- 9. Close all blinds/curtains or paper windows to prevent any view into the room from the corridor.
- 10. Direct staff to move into a safe place away from windows/doors and where walls might be thicker, along the wall adjacent to the door, away from the line of site from the main door and below the level of the windows.
- 11. Hide along the wall closest to the exit but out of the view from the hallway (allowing for an ambush of the shooter and for possible escape if the shooter enters the room);
- 12. Remain silent. Silence all electronic devices. . All cell phones must be turned to vibrate.
- 13. Use strategies to silently communicate with first responders, if possible. For example, in rooms with exterior windows make signs to silently signal law enforcement officers and emergency responders to indicate the status of the room's occupants;
- 14. Counter an attack or distract an assailant to allow other staff/students to safely evacuate the area of immediate danger. Evacuate the building whenever possible and go to the designated school meeting place.

- 15. If the fire alarm is activated during a lockdown, ignore the alarm and remain in lock down. If fire or smoke is detected follow the evacuation route as guickly and guietly as possible.
- 16. Staff must wait patiently and quietly until they receive the "ALL CLEAR" from the designated school/office personnel or until their room is cleared by the police.
- 17. Any staff outside the school during a lockdown should proceed to the evacuation staging area, away from the school and await further instruction.

HOLD & SECURE:

The school is notified by the police of a potential threat or emergency outside of the school. All schools in the surrounding area will be required by the police to hold and secure.

- In the event of a Hold & Secure, there will be an announcement over the P.A. system the following instructions: "ATTENTION ALL STAFF, THE SCHOOL IS IN A HOLD AND SECURE"
- 2. All exterior doors to the building will be locked by the caretaker and signage will be placed on the doors indicating: "The school is in a hold and secure and all doors are locked. For school access please contact the school and indicate the phone number."
- 3. Staff will be assigned to monitor the main doors. No outside people will be allowed into the building until the all clear has been given by the police department.
- 4. Classes/work may continue to function normally. Blinds should be closed and/or windows covered as much as possible.
- 5. All movement outside the building is restricted and staff and students will not be allowed to leave the building until directed to do so by the police.
- 6. The police will notify the school when work can return to normal and doors can be unlocked.

SHELTER IN PLACE:

The shelter-in-place procedure provides a refuge for students, staff and the public inside the school building during an emergency. It is used when personal safety is considered to be in danger if anyone leaves the school and is mainly used for environmental or weather related events.

1. In the event of a Shelter in Place, there will be an announcement over the P.A. system the following instructions:

"YOUR ATTENTION, PLEASE. WE ARE EXPERIENCING AN EMERGENCY SITUATION AND NEED TO IMPLEMENT SHELTER-IN-PLACE PROCEDURES. STUDENTS AND STAFF ARE DIRECTED TO MOVE TO THE DESIGNATED SHELTER LOCATIONS AND SAFE AREAS. ALL STAFF AND STUDENTS OUTSIDE ARE TO IMMEDIATELY MOVE TO AN INSIDE ROOM. "

- 2. All students/staff/contractors outside the building will be required to move inside the building.
- Depending upon the emergency, the heating and air-conditioning or other intake/exhaust systems may be shut down to avoid drawing in air from the outside. Staff may also be directed to close all windows and doors.

- 4. Direct staff/students/contractors will be directed to move freely within the school but prevented them from leaving the school until safe to do so.
- 5. Be prepared for additional procedures announcements due to changing conditions of the incident.

BOMB THREAT:

- 1. All bomb threats whether received by telephone, note or letter will be taken seriously and handled as though an explosive device is in the building. If a bomb threat is received, contact the Winnipeg Police "911" immediately.
- When there has been a threat or if you see a package or foreign object in an unusual place

 don't touch it! Survey your immediate work area and immediately call "911" to report the device.
- 3. Notify the school principal and follow their instructions.

TORNADO:

- 1. The principal/vice principal/designate will make a special announcement to indicate a tornado has been sighted and is approaching.
- All staff/student/contractors/visitors will then proceed to their tornado safety locations in the school. All locations are signed with yellow signs.



- 3. Relocate to the designated safe areas until the danger has passed. It should take no more than 2 minutes to move to the safety zones.
- 4. Move everyone out of mobile classrooms/offices/etc. and away from windows.
- 5. Make special provisions for disabled students/staff/visitors.
- 6. Assign staff member to round up everyone that is in outdoor areas during a tornado warning.
- 7. Post a person to keep an eye on the storms as they approach.
- 8. As the storm nears, give the signal for "Everybody down!". Everyone should then crouch low, head down, protecting the back of the head with the arms.



- 9. All staff/contractors/students must stay in the safety areas until the severe weather threat has passed.
- 10. Once the storm has past, assess the safety of the building.
- 11. Recovery:
 - If the school you are working in has been severely damaged by the tornado, call 911.
 - Do not enter any damaged areas until they have been inspected and designated safe by the authorities. Please contact the divisional Safety Officer: 204-232-5338.
 - Help anyone who may require special assistance or medical aid. Help injured or trapped persons. Do not move seriously injured persons unless they are in immediate danger of further injury.
 - Keep everyone out of damaged parts of the school; chunks of debris or even that whole section of the building may fall down.
 - Ensure nobody is using matches or lighters, in case of leaking natural gas pipes or fuel tanks nearby.
 - Stay alert for the potential for additional storms.
 - Shut off the gas and electric supply to the building, if damage has occurred to the school, use the outside main valve if possible. Maps with all utilities locations are located at the front of every school.
 - Watch out for fallen power lines or broken gas lines and report them to the utility company immediately.
 - If a tornado has resulted in a disaster and/or a SOLE (State of Local Emergency) has been declared by an elected official, all persons will obey the orders of the Winnipeg Fire and Paramedic Service Incident Commander.

CHEMICAL SPILL – INTERNAL/EXTERNAL/VEHICLE/TRAIN:

In the event of a spill containing asbestos or PCBs please contact the Divisional Safety Officer at 204-232-5338

Within Building:

- 1. Assess the situation clear and seal area if necessary. If urgent and major evacuate and call 911. Contact the Divisional Safety Officer at 204-232-5338.
- 2. Control the source of spill if possible, (dike and contain to prevent entry into storm or sanitary sewers).
- 3. Alert the school that there has been a chemical spill.
- 4. Obtain a Material Safety Data Sheet (MSDS) for the chemical (s) spilled. Look up procedures for neutralizing and disposal of the chemical. Contact the building caretaker to utilize the school spill kit and follow the MSDS procedures for neutralizing or disposal of the chemical. Do not throw chemical waste into the general garbage or BFI bins. All chemical waste must be disposed of through Miller Environmental.
- 5. If necessary, shut off heating, cooling and ventilation systems in contaminated area to reduce the spread of contamination.

 If the spill cannot be cleaned up using local resources, confine the area of the spill; alert the school principal, and evacuate all staff/students from the area; Call 9-1-1 and request a HAZMAT response (#204-945-4888 or 204-944-4888).

External Spill – Vehicle/Train

- Call 911 and notify emergency responders of the event. Determine what procedures should be activated, such as EVACUATION or SHELTER–IN–PLACE. Note: this may be determined by police.
- 2. Notify maintenance/building, custodial, and grounds staff to shut off mechanical ventilating systems, if appropriate.
- 3. Alert staff to close windows and prepare for an emergency.
- 4. Monitor radio, television, Internet, and/or other means of information and report any developments to the emergency services.
- 5. If it is determined that conditions warrant an EVACUATION, issue instructions for relocating to a safer location upwind from the accident site.
- 6. Do not allow staff to return to the building until proper authorities have determined that it is safe to do so and given the "All Clear" signal after the threat has passed.

THEFTS:

Please report all thefts as soon as possible to Facilities & Operations at: 204-488-1767, ext. 1227.

You will then need to initiate a theft report with the City of Winnipeg Police. The Police Report number will be required for insurance purposes.

FIRST AID:

- 1. Administer FIRST AID and notify the divisional Safety Officer at 204-232-5338.
- 2. IF EMERGENCY INTERVENTION IS REQUIRED CALL 911.
- 3. Wait for Fire/Paramedic Services and/or ambulance at main entrance to building or main entrance to construction site.

REMINDER

It is the contractor's responsibility to report all accidents or reportable incidents to the Department of Labour, Workplace Safety and Health at 204-945-3446 and the Pembina Trails Safety Officer 204-232-5338

DUE DILIGENCE/RESPONSIBILITIES OF PRIME CONTRACTORS & CONTRACTORS

The '**Prime Contractor'** for a construction project is defined under the Workplace Safety and Health Act and is responsible to ensure that a construction project is undertaken in a safe and healthy manner and in accordance with all applicable provincial and federal regulations. This includes:

- Ensuring, so far as is reasonably practicable, that every person involved in work on the project complies with the Workplace Safety and Health Act and the Regulations;
- Co-coordinating the activities of Contractors, organizing and overseeing the performance of all work at the construction project site and conducting activities in such a way as to ensure, so far as is reasonably practicable, that no person is exposed to risks to his or her safety or health arising out of, or in connection with activities at the construction project site;
- Co-operating with any other person undertaking duties related to the project or exercising a duty imposed by the Workplace Safety and Health Act, or any other applicable Act or Regulations.

The 'Prime Contractor' shall ensure that a site supervisor is assigned and on site at all times while work is ongoing and shall also ensure that a Workplace Safety and Health Committee is formed and functioning on all projects as required by the WSH Act and Regulations. The 'Prime Contractor' shall ensure that meetings of the Committee are held on a regular basis and that copies of the minutes are forwarded to the Divisional project coordinator and Safety Officer.

A "**Contractor**" means a person who directs the activities of one or more employers or selfemployed persons involved in work on a project. Contractors have the same duties as Prime Contractors with respect to the workers they employ or any sub-Contractor that works for them. A Contractor is to advise the Prime Contractor of the name of every employer or self-employed person with whom the contractor has contracted to perform work on the project.

Every contractor shall ensure, so far as is reasonably practicable, that every process or procedure performed at a workplace does not create a risk to the safety or health of any person.

Pembina Trails School Division provides a safe environment for students, visitors and staff. To help ensure this and minimize disruptions, contractors are required to know, understand and apply the Divisional Safety Requirements while on site and in addition to federal, provincial Acts, Regulations and Guidelines.

Contractors working at the Pembina Trails School Division shall not engage in work that may compromise the safety of students, staff and visitors at the Division.

TERMS, CONDITIONS & SAFETY INFORMATION GOVERNING WORK AT PEMBINA TRAILS S.D.

The Pembina Trails School Division has begun a major initiative to ensure that contractors who conduct work on Divisional property are made aware of their responsibilities and the requirements of the Workplace Safety & Health Legislation.

GENERAL:

This section provides information regarding the terms and conditions for Contractors working on Pembina Trails SD premises and covers the general terms and conditions of the contract issued by the Pembina Trails School Division to the contractor. It is the sole responsibility of the contractor to ensure that all Contractor personnel are aware of this information and comply with all the terms therein. Failure to comply may be considered a fundamental breach of contract that may result in, but is not limited to, expulsion from the premises and may be cause for exclusion from any further bidding considerations.

SITE SUPERVISOR:

The employee designated by the prime contractor and accepted by Pembina Trails who supervises the job for which the contractor has been engaged, to ensure compliance with all applicable regulations. The site supervisor **MUST BE** on site at all times as long as work is ongoing at the project site.

CONTRACTOR PRE QUALIFICATION:

The Pre-Qualification process used by the school division requires contractors to indicate whether they are 'Safety Certified' or actively participating in the Manitoba Building Contractors 'COR' Safety Program. They are rated accordingly in order for them to be allowed to bid on school Division projects.

Qualified contractors are occasionally brought in to deal with hazardous waste and controlled products, such as asbestos. These contractors must be registered with the province as hazardous waste carriers and have experience in the industry. Asbestos abatement contractors must meet the requirement as outlined in the school division's Asbestos Management Program. These requirements ensure only qualified firms and trained workers work on divisional property.

CONTRACTOR ORIENTATION:

A mandatory safety and health orientation for all Contractors working at Pembina Trails School Division is now a requirement to ensure the responsibilities and the requirements are communicated and understood by all parties. Every worker (general, mechanical, electrical, landscape and roofing contractor, etc.) wishing to work at the school Division must complete the attached orientation and return it to the Divisional S&H Officer prior to starting work on any divisional project.

CONDITIONS OF ENTRY & WORK:

1. Employee Listings:

- The Contractor will provide Facilities & Operations department with the names of all contractor personnel engaged in the project.
- This should be done at least 48 hours prior to commencing work on the property.

2. Safety Program:

- All contractors working on school division property are required to have a Safety & Health Program in place.
- If you do not currently have a S&H Program in place you will be required to follow the Prime Contractors Program.
- Any contractors hired by Pembina Trails SD that do not have a S&H Program will be required to follow the divisional safety program.

3. Hours of Work:

- Normal hours of work at any of the schools in Pembina Trails S. D. are from 08:00 16:30 hrs. Mon.- Fri.
- For after hours and weekend work, the contractor must receive permission from the appropriate Pembina Trails supervisor. The supervisor is responsible to notify security services.

4. Reporting In/Out Procedures:

- Workers are required to report to and communicate with their supervisor every morning.
- □ If working inside the school, a list of names must be submitted to the school's secretary prior to starting work and the workers must check in/out with the office.
- Workers must be informed of when they start work and when work ends and where to park their vehicles as parking in school parking lots is not allowed unless visitor parking is available.
- If you are a sub-contractor your staff must have supervision at all times while on school division property.

5. Facility Security:

- Site and facility security controls must be complied with by all contractors.
- Workers must be instructed when the facility closes and when alarms are activated.

6. Parking:

- All contractors, their employees and sub-contractors must abide by each school's parking requirements.
- All parking spaces at each school are designated; contractors cannot park in assigned stalls. If there are no visitors stalls, contractors must park on the street or they can report to the front office at the school and ask for a parking spot (if one is available).
- At no time are contractors allowed to park on sidewalks, play pads, in front of exit doors, etc.

7. Emergency Procedures:

- □ The workers emergency contact numbers and cell phone numbers shall be made available to the site supervisor.
- □ If you are a sub-contractor you must submit a list of employees that will be working on school property to the Divisional supervisor you will be working with.
- Workers will be given a list of emergency contact numbers from Pembina Trails to assist them in the event of an emergency.
- If you are a sub-contractor working on school property, emergency procedures must be in place and include the following: muster site that has been coordinated with the school's muster site; a means to communicate an emergency to staff; accountability for your staff; a means of communication; list of emergency numbers; first aider on site and first aid supplies; etc.
- Contractors working in schools are also required to comply with any school fire drills or evacuations and any lockdowns or tornado drills.

8. Reporting Of Near Miss, Incidents & Accidents:

- All incidents, such as accidents or near misses involving contractor personnel MUST be immediately reported to the site supervisor who will take the appropriate action.
- All incidents must be investigated by the prime contractor and copies of the investigation must be forwarded to the Divisional S&H Officer. Cause(s) & corrective action that will be taken must be disclosed.
- □ All serious incidents must be reported to the Facilities supervisor responsible for the work & divisional Safety Officer.
- □ If you are a sub-contractor working on school property you must report your incident to divisional Safety Officer.

9. Alcohol, Drugs, And Firearms In The Workplace:

- No possession, sale or consumption of drugs or alcohol are allowed on any school property while at work.
- □ Firearms are not allowed on school property.

10. Smoking Restrictions In The Workplace:

- □ No smoking is allowed in the school or on school property.
- □ This includes: tobacco related products; electronic vapourizer devices or any other vapour device; marijuana products.
- □ Check with the site supervisor, divisional supervisor or school principal for specific smoking areas.

11. Use Of Earbuds, Cell Phones & Radios:

- Cell phones and ear buds are not to be used while at work.
- □ Cell phones are not to be used when driving.
- □ Vehicle radio volume levels are not to interfere with the operator's ability to know what is happening around him/her.
- Where 2 way radios are used only work related communication is allowed.
- □ If working inside while school classes are in radios (music) are not allowed.

12. Work Clothing:

- □ Workers are expected to wear clothing that is suitable for the work environment and provide protection (long pants & shirts).
- Being shirtless or wearing shorts is not allowed on any site.
- □ Specialty clothing shall be worn when exposure to hazards exist (i.e. Fire retardant, chemical, asbestos, corrosive, bio hazardous protective clothing, etc.)

13. Materials Management & Disposal:

- The Prime Contractor must arrange for a material and equipment storage area, where necessary, and will advise contractor personnel of general precautions and special requirements.
- At no time shall material be stored inside the school.
- If work that is to be carried over from one shift to another, materials and tools must be stored in a designated area and that area will be kept clean and tidy and free from hazardous conditions.
- □ Work areas and storage areas must be secured from student access.
- Workers are responsible for their own clean up. This is to be done daily on an ongoing basis. Cleanup must be arranged with the site supervisor and not left for the school caretaker.
- The contractor shall not dispose or permit to be disposed any hazardous material except in accordance with the regulations of the Province of Manitoba and The City of Winnipeg by-law 5058/88 part 5. The contractor must remove all hazardous and nonhazardous materials from site. Hazardous waste must not be dumped into the BFI bins.
- All asbestos related waste materials bagged and labeled and must be disposed of at a proper disposal site Waste materials are not allowed to be stored on site and must be cleared at the end of each work day.

14. Site protection:

- The prime contractor will ensure that the site is securely fenced and that all signage is in place.
- The prime contractor signage must have: the contractor's name, location of any first aid service, name and telephone numbers of the persons who can be contacted for S&H matters, and the S&H representatives contact information.
- Any work that takes place over an entrance / exit must be protected and covered according to the Manitoba S&H Regulations.
- □ The contractor will adequately protect the work, divisional property, and the property of other contractors.
- The school division assumes no liability for the loss or theft of the contractor's tools and equipment while on divisional property.

15. Controlled or Restricted Products & Materials:

□ These types of products/materials are not permitted on the property without the permission of the School Division.

- All WHMIS controlled materials entering the Divisional property must be clearly identified in accordance with WHMIS regulations and must have Material Safety Data Sheets available on site at all times.
- □ All personnel who work with or around hazardous chemical products must be WHMIS trained.
- All appropriate PPE and ventilation must be in place prior to use of any controlled products.

16. Fall protection:

- Fall protection is mandatory when working over 3m or as required by Part 14, Section 14.1 (1) of the Manitoba Safety & Health Regulation on all sites.
- Guard rails are required at all times, unless the situation does not allow for it, only then may personal fall protection (travel restraint or fall arrest) be used.
- Any workers working on powered mobile equipment that is equipped with man baskets or elevated work platforms are required to wear fall protection and to be tied off to an approved anchor on the machine.

17. Confined Space Entry:

- □ Workers must be trained in confined space entry prior to entering any divisional confined spaces.
- All contractors that will be working in school crawl spaces must follow the posted procedures for confined space entry. All spaces have been labelled with the requirements for entry.

18. Fire Prevention, Protection & Control:

- Contractors must complete the attached Hot Work Permit 24 hrs. in advance of all hot work conducted on divisional property and forward it to the Safety Officer. See Appendix C, page 52.
- The contractor will provide adequate fire protection for all equipment and welding operations.
- Trained fire watchers equipped with all necessary fire extinguishing equipment are required during all hot work operations.
- Contractor personnel are to familiarize themselves with emergency egress routes and must notify the Safety Officer and/or divisional supervisor responsible for the work, if a fire emergency situation occurs.
- It is the responsibility of the contractor to ensure that fire watches are maintained according to the Manitoba fire code which calls for <u>60minutes</u> of continuous monitoring after all work is completed and additional inspection of the work site and adjacent rooms, 4 <u>hours after</u> work has been completed.
- Short cuts will not be allowed. Contractors are not allowed to pass this responsibility on to others.

19. Live Electrical Work

- □ No live electrical work is allowed to be conducted on divisional property at any time.
- □ In the event that the work to be done cannot be de-energized the contractor must complete a "*Live Electrical Work Permit*".

No work is allowed to proceed until the permit is approved by the school division supervisor, safety officer, prime contractor and the subcontractor's supervisor. See Appendix D, Page 56

20. Safe Work Procedures:

- Workers are required to follow all safe work procedures for operating equipment and performing tasks.
- If you are a sub-contractor you must ensure you have safe work procedures for all high risk tasks you are conducting on divisional property.
- All sub-contractor staff must be trained on the safe work procedures.

21. Machine Safety & Guarding:

- □ No equipment or tools are to be used without appropriate guards in place.
- If guards or protective devices are missing the equipment or tool must be taken out of service & tagged out or locked out to prevent use.
- Personal tools & equipment are subject to inspection and corrective action if a hazard is identified.

22. Powered Mobile Equipment & Vehicle Operation:

- □ Vehicles & equipment are to be operated in a safe manner.
- Only qualified & licensed operators can operate equipment on a public roadway.
 Proof of training must be provided upon request.
- Speed limits are to be observed (not greater than 10km/h) while on Pembina Trails S.D. property.
- □ Where equipment requires certification to operate proof of certification will be requested (forklifts, tele-handlers, cranes, boom trucks, etc.).
- Contractors must not operate powered mobile equipment when children are on the playground. Please make arrangements with the school for operating times.

23. Working Alone:

- Where a worker is required to work alone or when a worker is required to perform potentially dangerous work by him or herself, a Working alone plan must be prepared and implemented to ensure employee safety and to provide help should an accident occur.
- □ If this scenario occurs at a project, the subcontractor must develop a working alone plan and provide a copy to the project supervisor.
- High risk, hazardous work is not allowed outside of working hours.

24. Use of Facilities:

□ Contractors are <u>not allowed</u> to use school washrooms and are required to provide washroom services outside of the facility.

25. Permits/Licenses:

All building permits, licenses, or other legislated requirements for the approval, construction, and inspection of a project are the sole responsibility of the Prime Contractor or his/her designee unless otherwise stated in the contract agreement.

26. Construction Projects on Pembina Trails SD sites:

- Contractually, there are safeguards in dealing with contractors who default on the performance of their work or violate the procedures or any other Divisional protocols in dealing with hazardous materials or safe working procedures.
- Pembina Trails has the right to inform the contractor if they are negligent in the performance of his work, give them a limited amount of time to take corrective action and failing that, terminate the Contract.

27. Compliance with Regulations:

Contractor personnel will comply with all provisions of the Fire Code and Manitoba Workplace Safety and Health Act chapter W210 of the statutes of Manitoba and all the regulations thereof, including but not limited to:

- Wearing of personal protective equipment, e.g. hard hats, protective footwear & eyeware at all times while on site, etc.
- □ Proper use of confined space procedures;
- Application of electrical lockout procedures;
- □ Application of arc flash requirements;
- □ Equipment guarding & emergency procedures;
- Powered Mobile Equipment
- □ Proper scaffolding set up; and
- Excavations

During the construction phase, the Director of Facilities and the Safety Officer have recourse and a method of enforcement should a contractor or one of his employees be negligent when dealing with hazardous materials or safety related issues posing a hazard to the trade employee or the school Division in general.

The first step would be notification to the Prime Contractor's site supervisor to take proper action or precautions. If a satisfactory response is not received, the second point of contact would be the Contracting firm's Project Manager or even Owner and at this point, the notice would be in writing. If again, there is not satisfactory action taken by the contractor, the offending employee can be excused from site or if the firm has not addressed the issue, the firm can be excused. (In the case of immediate danger to workers or the general public, the Director of Facilities and the Safety Officer have the right to immediately suspend all or part of work until the issue is addressed).

GENERAL SAFETY RULES ON SITE

General and specific safety rules are an integral part of a safety program. The following fundamental rules and practices will reduce injuries to workers and damage to property.

RULES:

- Every individual is responsible for safety.
- Approved hard hats and safety footwear shall be worn at jobsites as designated.
- □ Horseplay, fighting, etc. are forbidden on all jobsites.
- Report all injuries or damage to property and equipment, no matter how slight, to supervisor/foreman.
- □ Walk carefully at all times. Run only in an emergency.
- Wearing rings/jewelry is dangerous and should be avoided to prevent accidents or injuries. Any item or hair that could become caught in a moving component must be removed or secured.
- Consumption of alcohol and illegal drugs or coming to work under the influence is strictly prohibited.
- Use proper lifting techniques.
- Perform all work in accordance to safe work practices, procedures and safety regulations.
- Only qualified personnel are allowed to operate machinery and mobile equipment.
- Only qualified/authorized personnel shall operate power-actuated tools.
- □ Consult the supervisor/foreman before operating a tool or machine that is new or unfamiliar.
- All employees shall ensure safety devices (guards, seat belts) are in good working condition and properly installed before using equipment and machinery. While the equipment is in use, all safety devices must be used.
- Do not use any tool or equipment with defective or missing safety devices (tag out of service and return it for repair).
- Report all unsafe acts or conditions to your supervisor/foreman.
- Use only approved supports and planks for platforms and scaffolds.
- Remove protruding nails from boards or ensure nails are embedded into the wood.
- □ Maintain good housekeeping on all jobsites.
- Do not use compressed air or gas to blow off or clean clothes.
- □ Food or beverages must not be stored or consumed in an area exposed to hazardous materials. Hazardous products can contaminate the food or drink to be consumed.
- □ Safety glasses or a face shield shall be worn when concrete breaking, metal chipping, grinding, or any other operation where the potential for foreign objects may exist.
- No employee shall ride any equipment unless it is specifically designed for passengers.



PERSONAL PROTECTIVE EQUIPMENT (PPE)

It is the responsibility of all personnel to wear the items of personal protective equipment as required, both in general, and as each job may dictate. It is the responsibility of the individual to assure the protective equipment to be used is in good condition and if not, to replace it and send the defected equipment back to the main shop to be repaired. No alterations are to be made to any PPE provided by the company. No work will proceed without the use of proper personal protective equipment.

- Hard Hats ANSI and/or CSA approved hard hats will be worn on all projects at Pembina Trails S.D. and are to be in good condition and worn according to the manufacturer's design requirements.
- Footwear CSA Construction Grade approved footwear will be worn on all projects at all times. The type of footwear to be worn is to provide adequate protection for the work environment and the work task.
- Respiratory Protective Equipment The proper type of respirator must be worn when performing any task in an environment where airborne respiratory hazard(s) exist. Those hazards can include exposure to: dusts, toxic fumes, asbestos, silica, mist or vapors. If you are required to wear a respirator for work, you must be fit tested and trained in the respirators use, care and maintenance instructions prior to wearing it. You must be clean shaven in order to wear any type of respirator.
- ☐ Eye and Face Protection CSA approved safety glasses, goggles or face shield must be worn at all times when conducting any type of construction related work. When grinding, a face shield must be worn in addition to the eye protection.
- Hearing Protection CSA approved hearing protection must be worn when the noise level in the work area exceeds the permissible occupational exposure limit. (80 dBA)
- Hand Protection Appropriate gloves must be worn when handling rough, sharp, or hot items, caustics, acids, solvents, concrete or chemicals.
- Clothing It is mandatory that shirts with at least a four-inch sleeve or long sleeves and long pants be worn at all times. <u>Shorts are not to be worn on site at any time</u>.
- Hi-Visibility Clothing When working around heavy equipment, in an area where there is vehicle traffic and whenever weather or light conditions make visibility poor, CSA approved hi-visibility clothing must be worn.
- Fall Protection Any worker working at heights (3 meters in Manitoba) must use an approved form of Fall Protection. Guardrails must always be considered first. All workers require fall protection training prior to using any type of fall protection equipment.
- Arc Flash PPE Is required for all electoral workers. Arc Flash PPE includes arc flash rated clothing, rubber gloves with leather covers, face shield and sock, protective headwear and footwear. Any live work must be approved by Pembina Trails S.D. prior to initiation and a completed Live Electrical Work Permit and SWP must be completed and approved (Appendix D Page 56).

RESPONSIBILITY / ACCOUNTIBILITY FOR SAFETY

WORKERS' RESPONSIBILITIES:

The Workplace Safety & Health Act & Regulations state that every worker while at work shall:

- □ Familiarize themselves and comply with safety legislation and regulations.
- □ Familiarize themselves and comply with all general safety rules.
- □ Familiarize themselves and comply with specific safe work procedures.
- Take reasonable care to protect themselves and others who may be affected by their actions.
- Proper use of safety equipment, clothing, and devices.
- □ Participate in Safety Meetings and other safety related meetings.
- Correct and report unsafe acts or where the safety of themselves or others is in danger.
- Cooperate with, or participate in, accident and incident investigations.
- □ Report any anticipated loss of work time as soon as possible following an injury.
- □ Maintain good housekeeping in the work area.
- □ Set a good example.

WORKER RIGHTS:

- □ **THE RIGHT TO KNOW** about hazards in the workplace, and what precautions must be taken to prevent injuries or illness from these hazards.
- THE RIGHT TO PARTICIPATE in safety and health activities at the workplace, including involvement in the joint workplace safety and health committee, or as a worker representative
- THE RIGHT TO REFUSE dangerous work or any task that the worker has reasonable grounds to believe is dangerous to his/her safety and health or the safety and health of other persons.
- THE RIGHT TO PROTECTION FROM DISCRIMINATION Workers cannot be disciplined or discriminated against for exercising their rights and acting in the best interest of safety.

ASBESTOS

Asbestos containing materials shall not be used in any new construction or renovation at Pembina Trails School Division.

The Division has an Asbestos Management Program (AMP) that identifies locations where asbestos is either present or suspected. These locations include mechanical rooms, crawlspaces, interstitial spaces and similar locations that are secured by locked access or other means. All secured locations are identified by a sign on the door. However any classrooms that may contain asbestos containing materials are not labeled. Contractors are required to meet with the facility caretaker or the appropriate Facilities Supervisor to determine the location of the asbestos containing material. If the contractor or subcontractor, during the work, should discover previously unidentified asbestos containing material, the contractor is to cease work immediately and notify the Pembina Trails Safety Officer. The Safety Officer will take immediate appropriate action to verify presence of friable or non-friable asbestos and will be responsible for to arrange for removal for any asbestos containing materials.

Any contractors that are removing asbestos material must be a certified asbestos abatement company. Staff must be fully train and safe work procedures must be available on site. Contractors must follow the proper procedures for Level 1, 2, 3 asbestos removal. Contractors must complete a Pembina Trails Asbestos Work Permit, prior to the start of the work. (See **Appendix B, page 51**).

<u>Contractors must complete and provide a copy of the Manitoba Government Notice of</u> <u>Asbestos Work Permit for all asbestos removal, regardless of type and level of removal.</u> Note: there has been new legislation changes in 2017.

Sample photos of asbestos containing materials:

Mag Block



Caposite



Air Cell



Parging Cem ent



Sweatwrap



Thermal Sprayed on Insulation



Textured Ceiling Finishes



V inyl Sheet Flooring



Acoustic Ceiling Tiles



Plaster Finishes



V inyl Floor Tiles

LABELING OF MECHANICAL ROOMS:

As part of the Pembina Trails Asbestos Management Program, the division has established a signage and labeling protocol for locations that may have ACM's (asbestos containing material). These locations are accessible to trained staff only. These locations also include mechanical rooms, crawl spaces, interstitial spaces and similar locations that are secured by locked access or other means.

These areas are identified by signage on the entrance to the space. The signs indicate that the area does or may contain asbestos and the precautions that must be taken as per the Divisional Asbestos Management Program. All suspect material in these spaces shall be treated as ACM, unless testing confirms otherwise. Please note that drywall joint compound found in walls composed of drywall have not been tested. Please ask the school division to test prior to beginning construction.



SILICA

Silica is found in two forms: crystalline or non-crystalline (also referred to as amorphous) and is found in many naturally occurring and man-made materials. Sand and quartz are common examples of crystalline silica. Materials that contain crystalline silica are not hazardous unless they are disturbed, generating small-sized particles that can get in your lungs ("respirable crystalline silica"). For example, blasting, cutting, chipping, drilling, sawing, hammering, crushing and grinding materials that contain silica can result in silica dust that is hazardous for construction workers and others to breathe. Other activities include: crushing loading, hauling or dumping; building demolition; power cutting or dressing stone; façade renovation, including tuck-point work; abrasive or hydro blasting; dry sweeping or pressurized air blowing; tunneling, excavating or earth moving.

Many common construction materials contain silica including, for example, asphalt, brick, concrete block, cement, concrete, drywall, grout, mortar, stone, sand; masonry tiles, brick and refractory brick; granite, sand fill dirt and top soil; asphalt containing rock or stone; abrasives used for blasting; etc.

Inhaling crystalline silica can lead to serious, sometimes fatal illnesses including silicosis, lung cancer, tuberculosis (in those with silicosis), and chronic obstructive pulmonary disease (COPD). It only takes a very small amount of the very fine respirable silica dust to create a health hazard. Recognizing that very small, respirable silica particles are hazardous, the occupational exposure limit has been set at TLV 0.025 mg/m3 for an 8-hour period.

EXPOSURE:

Exposures to respirable crystalline silica occur when the following tools (not an exhaustive list) are used on concrete, brick, block, stone, mortar, and other materials that contain crystalline silica:

- □ Stationary masonry saws;
- □ Handheld power saws;
- □ Walk-behind saws;
- Drivable saws;
- □ Rig-mounted core saws or drills;
- Handheld and stand-mounted drills (including impact and rotary hammer drills);
- □ Dowel drilling rigs;
- □ Vehicle-mounted drilling rigs;
- □ Jackhammers and handheld powered chipping tools;

- □ Handheld grinders;
- Walk-behind milling machines and floor grinders;
- □ Drivable milling machines;
- □ Crushing machines; and
- Heavy equipment and utility vehicles when used to abrade or fracture silica containing materials (such as hoeramming or rock ripping) or during demolition activities, and for tasks such as grading and excavating.

Exposures to respirable crystalline silica also occur during abrasive blasting when sand or other blasting agents containing crystalline silica are used, or when abrasive blasting is performed on substrates that contain crystalline silica, such as concrete.

CONTROL METHODS:

Control methods refer to workplace procedures adopted to minimize injury, reduce adverse health effects and control damage to property or equipment. As part of full and proper implementation tools must be operated and maintained according to manufacturers' instructions for minimizing dust emissions. Manufacturer's instructions for minimizing dust can include:

- Masonry/walk behind/drivable/hand held power saws equipped with integrated water delivery system with continuous water feeds to the blade. Rates;
- Rig mounted core saws or drills equipped with integrated water delivery systems or HEPA dust collection system.
- Hand held power saws for cutting fiber cement board must have HEPA dust collection system, e.g. HEPA filtered vacuum attachment.



- □ Handheld and stand mounted drills (including impact and rotary hammer) equipped with shroud or cowling with HEPA filtered dust collection system or vacuum.
- □ Jackhammers and hand held powered chipping tools water delivery system with a continuous stream or spray of water or HEPA filtered dust collector.
- □ Handheld grinders for mortar/concrete/surface coating removal equipped with commercially available shroud and HEPA dust collection system.
- □ Walk behind milling machines and floor grinders equipped with water delivery system or HEPA dust collection system.
- When cleaning up dust dry brushing or dry sweeping is not allowed. Cleaning must employ a HEPA filtered vacuum or wet sweeping (cleaned up with a wetvac and transferred to a bag or pail for disposal).
- □ Compressed air is not allowed for cleaning of surfaces or clothing.
- To avoid bringing home silica dust on personal clothing change into disposable or washable work clothes at the worksite; showering and changing into clean clothes before leaving the worksite.
- Note: some methods used above may still require respirator protection.

Some employees in the construction sector perform tasks involving occasional, brief exposures to respirable crystalline silica that are incidental to their primary work. These workers include carpenters, plumbers and electricians who occasionally drill holes in concrete or masonry or perform other tasks that involves exposure to respirable crystalline silica. When these tasks are performed for a very short period of time, exposures may be below the allowable exposure limit. However, because silica is considered a carcinogen, control measures must be put in place to reduce exposure to as close to zero as possible and therefore <u>dust control</u> <u>procedures are still required</u>. For example: HEPA filtered drill, HEPA filtered vacuum attachment to drill, or using wetting procedures to control dust. The presence of large amounts of visible dust generally indicates that controls are not fully and properly implemented.

MOLD

If the Contractor or subcontractor should discover mold, workers are required to cease work immediately and notify the Pembina Trails Safety Officer. The Safety Officer will take immediate appropriate action to verify presence of mold and will be responsible to arrange for removal of the mold or moldy materials.

All mold abatement contractors must follow the procedures for the removal of mold found in the Guideline: Investigation, Assessment and Removal of Mold in the Workplace. The type of mold removal will vary based on the size of the contaminated area:

SMALL AREA: less than 1m²

- Small area procedures can be considered when fewer than three patches of mold are present in the same room, provided the sum total of all mold present does not exceed 1m².
- Workers must wear N95 or P100 respirator, gloves and eye protection.
- Mechanical ventilation must be disabled and sealed.
- 6 mil poly sheeting must be placed under the contaminated material to be removed.
- All surfaces to be removed must be gently misted with a suitable solution (soap or detergent and water) to minimize the spread of mold or spores.
- Contaminated materials/debris must be placed into 6 mil plastic bags or wrapped in sheeting, sealed and removed from the building as soon as possible.

MEDIUM AREA: between 1m² and 3m²

- Similar to that of a Level 2 asbestos abatement.
- Post warning signs that mold is being removed.
- Prevent the spread of contamination by erecting a negative pressure enclosure with air lock.
- Disable all mechanical ventilation to the area and seal.
- Workers must wear protective clothing, eye protection, gloves, ½ mask respirator with P100 filters.
- All contaminated debris must be bagged in 6mil poly bags. Bags must be sealed, vacuumed or wet wiped before removing from the enclosure for disposal.
- All surfaced in the enclosure must be vacuumed or wet wiped prior to dismantling the enclosure. All PPE must be decontaminated prior to removal from the enclosure.

□ LARGE AREA: greater than 3m²

- Similar to that of a Level 3 asbestos abatement.
- Requires warning signs, negative pressure enclosure with worker and waste decontamination unit connected to the work site.
- Workers must wear protective clothing, eye and hand protection, full face respirator with P100 filters.
- All contaminated debris must be bagged in 6mil poly bags. Bags must be sealed, vacuumed or wet wiped before removing from the enclosure for disposal.
- All surfaced in the enclosure must be vacuumed or wet wiped prior to dismantling the enclosure. All PPE must be decontaminated prior to removal from the enclosure.

If you have questions or concerns regarding removal of mold found in a construction or renovation are please contact the Pembina Trails site supervisor or the Safety Officer.

CHEMICAL MANAGEMENT & WHMIS REQUIREMENTS

All chemicals brought into the School Division must be handled according to the Workplace Hazardous Materials Information System (WHMIS). Chemicals are also governed by the requirements of the Transportation of Dangerous Goods regulations and the Manitoba Fire Code.

Each contractor is responsible to provide specific instruction on the chemicals they will be using on site and provide WHMIS training for all of their workers. All employees must be fully qualified and properly equipped to handle specific chemicals brought on site by the contractor, this includes additional ventilation and personal protective equipment where required.

Copies of material Safety Data Sheets (SDS) must be kept on site at the school and must be submitted to the divisional Safety Officer prior to the start of work.

REMINDER:

- Never assume that an unlabeled material is what it seems and do not use any substance in an unmarked container. Have unlabeled materials identified and correctly labeled before use.
- Every Chemical has an information sheet known as the Material Safety Data Sheet (MSDS). You should refer to the appropriate MSDS before using any WHMIS controlled product.
- Remember that chemicals can be extremely toxic and dangerous when not handled correctly. If not fully competent in the use of any product, report the fact to your Supervisor and get the proper training.



CONFINED SPACE ENTRY

All contractors and consultants must conform to the Workplace Safety and Health regulations and the school division's procedures with respect to entering confined places, which includes crawl spaces.

A confined space may be defined as an enclosed or partially enclosed space having restricted access and egress and which, due to its design, construction, location, atmosphere, the materials or substances in it, or other conditions, it may become hazardous to a worker entering it or does not have an easy means of escape or rescue of a worker entering it.

Confined spaces at the Pembina Trails include areas such as, but not restricted to, boilers, HVAC systems, lift systems, <u>crawl space areas</u>, etc. Contractors and consultants must follow the WSH regulations and guidelines for "Confined Space Entry".

ANY WORKERS ENTERING A CONFINED SPACE MUST:

- □ **<u>Be trained</u>** in confined space entry, entry attendant, and rescue (note: awareness training is not enough). Training records will be required;
- □ Have rescue procedures and air testing equipment on site prior to starting any work;
- □ Have and complete a confined space entry permit;
- □ Have an entry attendant at the opening of each space;
- □ Have a means to ventilate the space if welding/soldering. Compress gas cylinders are not allowed in the confined space.
- □ Have a means of communication (radios).

If uncertain about the area, you will be entering please consult with the divisional Safety Officer. Copies of the competed entry permit must be posted on site during work and a copy submitted to the divisional Safety Officer.

Admittance into any divisional crawl space requires the contractor to follow all posted instructions as well as sign in on the permit sheet posted on the door, have a means of communication, an entry supervisor (some spaces require two person entry), a harness, a multi gas detector and emergency procedures.

Note: if your work will create any atmospheric hazards, contractors must have additional ventilation equipment on site to assist in ventilating the area, a separate entry permit and specific rescue procedures in place including rescue staff.



HOT WORK

The Pembina Trails School Division has a "Hot Work Permit" for dealing with "Hot Work". Hot work is defined as any operation where heat is used or generated in sufficient intensity to cause a fire or explosion. In order to reduce the risk of fire or explosion, the normal safety precautions must be in place and the following procedure must be strictly adhered to. This includes roofing and any welding, grinding or cutting.

Prior to the start of any hot work project, the contractor conducting the work will:

- Obtain a Hot Work Permit from the site caretaker or facilities supervisor. Appendix C, Page 52.
- Observe and follow all instruction listed on the hot work permit.
- Deviations from the permit instructions are not allowed.
- □ Inspect the site for combustibles and fire alarm system.
- If a fire alarm system exists, the contractor must request a fire alarm shutdown and obtain approval prior to the start of the work. The school or worksite will then go into fire watch until the work is completed.
- Notify the appropriate Facilities & Operations supervisor that hot work will be taking place.
- The fire code requires a fire watch to be maintained during the work and for a period of 60 minutes after work has been completed. A fire extinguisher must be present and the fire watch must be trained in the use of equipment; what to look for; and is required to monitor all adjacent areas to the work.

ON COMPLETION OF THE WORK PROJECT, THE CONTRACTOR WILL:

- Notify the site caretaker that the work has been completed and provide a <u>60 min.</u> <u>continuous fire watch</u>.
- □ Ensure that the area is secure.
- Let the caretaker know that they can re-activate life safety systems (i.e. smoke and heat detectors).
- □ Fire watch after hot work is completed: The fire code requires a final check of the work area to be made <u>4 hours after work is completed</u>. Inspect the entire site and any adjacent work areas for fire. This must be performed by the contractor. Fire Code, Section 5.2.3.1



LADDER USE

Ladders are meant for work of short duration (20 min. or less) and only for work that can be done safely from a ladder. Otherwise, the employer must ensure that a worker is provided with scaffolding or an elevated work platform while engaged in work that cannot be done from the ground or any other safe elevation.

One ladder is rarely suitable for all jobs. The first step in ladder safety is selecting the correct ladder for the task at hand by answering the following questions:

- What TYPE of ladder do I need? (i.e. is a step or extension ladder required?)
- What SIZE of ladder is required to perform the task?
- What MATERIAL of construction do I need? (i.e. what material should my ladder be made from?)
- What DUTY RATING do I need? (i.e. how much weight will the ladder need to support?)

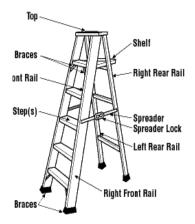
When selecting a duty rating adequate for your needs, you MUST allow for the combined weights of: the user + clothes + tools + material. The maximum load rating of the selected ladder should NEVER be exceeded.

Max. Load Capacity	Rated Use	CSA	ANSI
200 lbs.	Light Duty Household: Designed for infrequent household chores, cleaning, painting, etc.	Grade 3	Type III
225 lbs.	Medium Duty Commercial: Designed for moderate use by homeowners, painters, handymen, etc.	Grade 2	Туре II
250 lbs.	Heavy Duty Industrial: Designed for use by contractor's in maintenance construction & industrial applications	Grade 1	Туре І
300 lbs.	Extra Heavy Duty: Designed for frequent use in maintenance, construction & industrial applications.	Grade 1	Туре 1А
375 lbs.	Special Heavy Duty: Designed for the most demanding industrial & construction applications.	Grade 1	Type 1AA

** CSA does not recognize the ANSI Type 1A or1AA ratings.

Note: all construction related work requires a Grade 1 ladder. Grade 2 and 3 ladders are not allowed on a construction site. Contractors must provide their own ladders while on site and will not be allowed to use PTSD equipment.

STEP LADDERS:



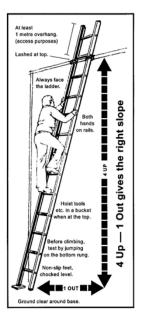
Step Ladders are designed to be self-supporting, range in sizes from 2 to 16 feet in length, and in some cases, are designed to be used by one person at a time. Step Ladder Setup:

- 1. Inspect ladder before each use. If worn or damaged, remove from use.
- Perform a hazard assessment: Will the base of the ladder be set on a solid surface? Where is the top of the ladder resting? Can you secure (tie off) the ladder against all movement? Overhead hazards?
- Use a stepladder that is about 1 m (3 ft) shorter than the highest point you have to reach. This gives a wider, more stable base and places shelf at a convenient working height.
 - a. Open the stepladder spreaders and shelf fully.
 - b. Check stability. Ensure that all ladder feet are on a firm, level and non-slippery surface.
 - c. Place a stepladder at right angles to the work, with either the front or back of the steps facing the work.
- Face the stepladder when climbing up or down. Keep your body centered between side rails. You have climbed too high if your knees are above the top of the stepladder or if you cannot maintain a handhold on the ladder.
- 5. Maintain a firm grip. Use both hands when climbing.

EXTENSION LADDERS:

Extension ladders are only to be used for short duration work (20 minutes). If you are in poor health, have a physical handicap that would impair your climbing ability or if you are under the influence of any drug or alcohol, do not use a ladder. Ladder Set Up:

- Select a ladder that is appropriate for your task .
- 2. Check for over head electrical wires before setting up.
- Guard or fence off the area around a ladder when persons have access.



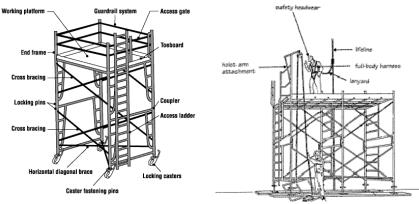
- 4. Ensure the ladder is placed on a firm surface
- 5. Extend the ladder so that it has 3 rungs above the access surface. Note: the picture has the third rung cut off.
- Space the bottom of an extension ladder in a 1:3 or 1:4 ratio. Have a partner hold the ladder. Climb the ladder and secure the top of the ladder by tying off.
- 7. Tie off the bottom of the ladder to prevent the ladder from sliding out at the bottom.
- 8. Always face the ladder when climbing up or down, and do not carry tools. Maintain three-point contact at all times. Grasp the rungs when climbing a ladder, not the side rails. If your foot slips on a ladder, holding onto rungs is easier than holding onto the side rails. Keep your body within the rails of the ladder while working.

SCAFFOLDING USE

A scaffold is a temporary structure usually made of metal frames and tubing, which provides temporary support and access for workers and materials used in construction, demolition, repair and maintenance work. Scaffolding must be used for any lengthy type of work (20 minutes or greater).

SCAFFOLDING SETUP:

- 1. Inspect frames, braces and other components for damage, bends and excessive rust or wear.
- 2. Assemble frame scaffolds with one other person so that one person is on the scaffold and one is passing materials from the ground.
- 3. Check for squareness and alignment of all scaffold parts as you build.
- 4. Use appropriate mudsills 50 x 250 mm (e.g., 2 x 10 ft. planks), that are continuous under at least two support feet. The sill should extend at least 2 ft. beyond the scaffold feet at the end. Sills are required to prevent damage to interior flooring within the school division. Do not substitute concrete blocks, bricks or scrap lumber for a proper mudsill base, plates and jackscrews.
- 5. Install baseplates or castors depending on whether or not the scaffolding will be moveable.
- 6. Secure the screw jacks onto the baseplates or castors. Do not overextend jackscrews.
- 7. Insert end frames onto screw jacks and connect the two end frames together using the vertical cross bracing.
- 8. Ensure all scaffolding frames have working pins and that all cross bracing is secured with pins to prevent fallout. Do not use nails or other devices in the place of proper retention parts as recommended by manufacturer.
- 9. Install horizontal cross bracing and ensure squareness and alignment of the scaffolding.
- 10. Install decking on the top of the frames. Note: the working level must be fully decked while working on the upper level. That means you must have two levels of decking available while working.
- 11. Once you have erected and fully decked the second level, fall protection is required and mandatory.
- 12. Install ladders as the erection proceeds. When scaffolds are to be in place for an extended period, install a stairway. Ladders must extend 1 m (3 ft.) above platform and be tied securely.
- Any scaffolding build over 3 sections must either have tie-ins or outriggers. Tie-ins are <u>not</u> allowed inside divisional buildings.
- 14. On the final working level, install guardrails. Top rails 36-42in high, mid-rails 18-22in. high.
- 15. Reminder the worker level must be completely decked!
- 16. Fasten all braces and guardrails securely.
- 17. Assemble all equipment according to manufacturer's specifications or engineer's design. Do not mix frames and parts from different manufacturers.
- 18. Do not use ladders or makeshift devices on top of scaffolds to increase the height.



ELECTRICALLY SAFE CONDITION:

The most important principle of electrical safety is to assume all electric circuits are energized unless each involved worker ensures they are not.

It is the Pembina Trails S. D. policy to de-energize live parts at all times before anyone works on or near them. This is the preferred method for protecting everyone from electrical hazards. Staff must follow the school divisions Lockout/tag-out program to safely de-energize live parts prior to working on them. See **Appendix E page 57**, Lockout/Tag-out Safe Work Procedure.

Personnel are permitted to work on or near exposed live parts only if it is demonstrated that deenergization:

- Introduces additional or increased hazards, or
- □ Is infeasible due to equipment design or operational limitations, or
- Creates other hazards for life-safety on a case-by-case basis.

If it has been demonstrated that a work task cannot be accomplished in a verified de-energize condition, then an "Energized Electrical Work Permit" (see Appendix D, page 56) must be completed and a safe work procedure must be created. Energized parts that operate at less than 30 volts need not be de-energized if there is no increased exposure to electrical burns or to explosion blast due to electric arcs.

Ensure that equipment & tools that are placed out of service or in need of repairs have tags attached to inform other workers not to use them. Prior to repairing any equipment, etc. lockout procedures must be developed and followed. The equipment/panel must be locked out with a locking device (electrical tape is not allowed). A tag must be attached identifying the person who is locking out. Tag out alone, is not allowed. If the contractor does not have a lockout/tag out procedure, they will be required to utilize the school division procedure.

Any type of work or inspections that are done on equipment requires all sources of energy to be released. That can include: hydraulics, electrical, raised attachments, control valves, air, gas, etc. Equipment and attachments must be disabled or blocked to prevent starting & movement.

ENERGIZED ELECTRICAL WORK PERMIT:

If live parts are not placed in an electrically safe condition (de-energized), work to be performed shall be considered energized electrical work and shall be performed using a live electrical work permit only.

A copy of the Live Electrical Work Permit can be found in **Appendix D**, **Page 56** of this document. The intent of this permit is to ensure that all appropriate safety precautions are taken prior to starting energized electrical work.

Work related to testing, troubleshooting, and voltage measuring may be completed without a permit provided appropriate safe work practices and PPE are used.

Live Energized Work Permits shall be submitted to the Facilities & Operations Utilities Supervisor. The permit must be posted in an appropriate location where the energized work is taking place for the duration of the task. A copy must be sent to the divisional Safety Officer. All arc flash clothing and insulated tools must be used.

CAPITAL PROJECTS - LIVE ELECTRICAL WORK EXCEPTION:

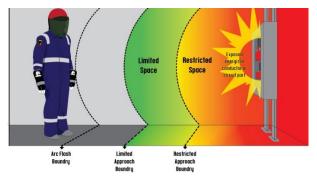
It is the responsibility of the Pembina Trails SD capital Projects" Project Manager to initiate and coordinate with the Divisional Safety Officer any "Capital Projects Live Work" and cannot delegate this responsibility to the Contractor. For situations where Contractors are working on large projects that routinely require Energized Work Permits, project contractors may perform this work under their local (job site) Energized- Work Permits if their work:

- Does not affect any Divisional building beyond the immediate area and total control of the project (that is, within the project boundary), and
- Does not require any shut down or isolation of Divisional electrical services, and the
- □ Project's "Permitting Plan" is pre-approved by the Project Engineer, divisional Utilities Supervisor and the Divisional Safety Officer prior to start of work on the project.

ARC FLASH HAZARD STUDY & PANEL LABELLING:

Any time a contractor installs a new panel on Divisional property the contractor shall engage the service of an Engineering Services Company to conduct an arc flash hazard study and determine the appropriate arc flash warning label requirements and label. All Arc Flash studies must follow the Pembina Trails SD Electrical Safety Program. Once completed, the arc flash study documentation in its entirety is the sole property of the school division. All documents are required to be handed over to Facilities and Operations staff. Documentation is required in order to conduct the arc flash review every 5 years.

The Pembina Trails SD Electrical Safety Program can be obtained from Divisional Utilities Supervisor, Project Manager or Safety Officer and is also available in electronic format off of the Pembina Trails SD website.



HOARDING & PROTECTION AT EXCAVATIONS

All barricades and barriers on construction sites shall conform to all safety practices required by regulations and good practices. Barriers for work outside the construction site must be visible both day and night.

All walkways in close proximity to job sites, this includes entrances and exits to school building that are within the construction area but required for access / egress to the building, shall be built with overhead protection where overhead work is being performed in close proximity. Chain link fencing or hoarding is also required to keep children and the public out of the work area.

In vehicular areas barriers shall conform to the requirements of Part 8 of the Manitoba Building Code. The placement of all barriers in vehicular areas must be approved by the Prime Contractor and divisional Project Coordinator. All excavations on Pembina Trails SD property must be covered and protected to prevent children from entering the area. Where the placement of barriers involve the City of Winnipeg Streets, the approval is also required from the appropriate department.

INDOOR USE OF FUEL FIRED EQUIPMENT

To ensure that air quality is maintained when operating fuel-fired equipment or using gas fired heaters inside divisional buildings contractors are required to:

- □ Post proper signage in and around the work area.
- Barricade and isolate the work area.
- Where welding work is done, obtain a "HOT WORK PERMIT" from the Prime Contractor or the divisional Project Coordinator if the prime contractor does not have one.
- Remove all flammable/hazardous materials from the work area.
- Provide an adequate supply of ABC and water fire extinguishers.
- Provide advance notice to occupants of the affected building about the proposed work.
- □ Establish Emergency Protocol for the work area.
- □ Follow all construction/workplace safety protocols with regard to the use of personal protective equipment.
- Ensure no exhaust fumes enter the ventilation system of building or surrounding area.
- □ Ventilate the work area with fresh air at a rate of least 6 air changes per hour.
- Use local exhaust ventilation in conjunction with isolation techniques and fresh air ventilation to reduce contaminant levels. (This may require providing positive air pressure to the area and exhaust through dedicated outlets.)
- Monitor air quality in the area for toxic gases frequently. The monitoring equipment must be equipped with an alarm to indicate levels in excess of the TLV.
- Cease all operations and turn off all fuel-fired equipment if CARBON MONOXIDE levels reach 25 ppm or higher or the OXYGEN level falls below 20.5%. Notify the divisional Safety Officer at 204-232-5338.
- PLEASE NOTE: all schools are equipped with CO sensors throughout the school. Indoor use of fuel fired equipment may trigger a Carbon Monoxide alarm. Ventilation must be used at all times.

OVERHEAD POWER LINES

Work that is conducted in close proximity of an overhead power lines must be carried out only after Manitoba Hydro has de-energized, guarded or displaced the power line. Contractors must notify Manitoba Hydro:

- □ Anytime you are working within 3m (10 ft.) of a power line, or
- Anytime you are using machinery where any part of the machinery is capable of coming within 3m (10 ft) of a power line,

You must contact Manitoba Hydro before any work commences. Manitoba Hydro will do the following and provide written confirmation that this protection has been provided:

- De-energize the line;
- □ Effectively guard the line against contact; or
- Re-route or displace the electricity from the worksite.

If Manitoba Hydro is unable to take any of the three protective actions noted above, they will provide instructions on how to safely proceed. These instructions must be followed. In addition, a signal person must be assigned. The signal person must:

- Have an unobstructed view of the operator. Where it is not possible for the signal person and the operator to have unobstructed views a suitable means of communication must be provided (this could include a another person posted in-between the signal person and the operator);
- Warn or signal the operator when equipment or machinery is capable of coming within 3m (10 ft.) of the line;
- Ensure that persons not authorized to be in the area, leave the site; and
- Prevent persons, other than the operator, from touching the equipment or machinery until safe to do so.

If equipment or machinery comes into contact with an energized electrical line the contractor must ensure the following:

- □ The employee stays on board the equipment to remain safe;
- □ If required to leave it, jumps clear of it, so that no part of the employee's body touches the equipment or machinery and the ground at the same time;
- Take immediate precautions to prevent any other employee from coming close to, or in contact with, the electrical line or the equipment or machinery that is in contact with it; and
- □ If the equipment is operable and can be moved out of contact without doing additional damage to the line or poles, do so.

If or when an electrical line is down:

- Do not approach the line;
- Do not attempt to move anything that is in contact with the line;
- Set up barricades and warn others of the danger; and
- Advise Manitoba Hydro of the downed line.

The prime contractor is responsible to develop a safe work procedure for working near overhead electrical lines. The procedure should include plans and precautionary actions to be taken at the worksite before work is started. Please contact the Pembina Trails Utilities Supervisor if Hydro lines have to be de-energized or displaced.

POWERED MOBILE EQUIPMENT & VEHICLES

At no time will contractors be allowed to transport any type of mobile equipment or vehicles through divisional playgrounds while children are at play on the play grounds. Movement of mobile equipment through the playgrounds can be coordinated around recess and lunch breaks while school in in session.

ADDITIONAL INFORMATION:

- During the summer, Christmas break, spring break and divisional professional development days when the playgrounds may be in use by the public all mobile equipment must be accompanied by a spotter walking alongside the equipment while it moves throughout the playgrounds.
- Establish designated travel areas, ideally with barricades or other means to set apart from work locations.
- All equipment operators must be trained and be able to provide an operator's license upon request.
- □ Fall protection is required to be worn when working in any man baskets, elevated work platforms, etc.
- A hazard assessment of the work area must be conducted prior to operation. Poor sight lines and visibility issues exist in some equipment that is used on construction project sites and in industrial workplaces.
- Ensure that no one approaches the mobile equipment until it has stopped and the operator has indicated the person has been seen.
- If you must have workers and mobile equipment working in the same area, establish a traffic control system. Where you have heavy traffic a signal person or traffic spotter must be designated to control traffic movement at the site.



FALL PROTECTION

Planning plays a key role in protecting workers from fall hazards and therefore contractors must ensure that fall protection plans are:

- Designed to address site-specific conditions and
- Compliant with the occupational health and safety regulations.

Where there is a potential fall hazard, work must be carried out without undue risk to the worker. The responsibility to ensure workers are trained and the manner in which training is conducted rests with the employer. As such, Pembina Trails requires the following:

- 1. A written Fall Protection Plan must be completed before work commences at a location:
 - Where workers are not protected by permanent guardrails, and from which a fall of 3.0 m or more may occur;
 - A vertical distance of less than 3 meters where there is an unusual possibility of injury or into or onto a hazardous substance or object, or through an opening on a work surface, etc.;
 - On a scissor lift, zoom boom or forklift with attached work platform.
 - A fall protection plan template, in Appendix F page 64, is provided to assist contractors in the fall protection planning process. Staff must be trained on the plan.
- 2. <u>Fall protection system(s)</u> must be used as required within the fall protection plan. Control measures may include the use of:
 - Guardrails or similar barriers;
 - Fall arrest equipment (safety harness, shock absorber, lanyard, lifeline and anchor);
 - Travel restraint equipment (safety harness, lifeline and anchor);
 - Controlled access zone (used to prevent workers from coming within 2m from a leading edge).
- All equipment must be approved and in good condition & used in accordance with the manufacturer's design. An emergency rescue plan must be developed specific to the work being done.
- 4. Workers are knowledgeable and trained about the written fall protection plan and systems in place for this location (including the identified hazards, elimination and control, equipment inspection and maintenance, use of fall control systems, and relevant emergency response procedures). Proof of training is required upon request.
- 5. Within Pembina Trails, 2 people must be present at all times when the use of a travel restraint or fall arrest system is required (emergency rescue).

Supervisors must ensure that workers review and sign the fall protection work plan prior to starting work in an area where a hazard of falling exists. This plan must be available at the worksite prior to the start of work and for the duration of the work activities.

CONCRETE & ASPHALT

Every year there are hundreds of injuries/incidents associated with the installation of concrete and asphalt. Workzone safety is imparitive and safe construction practices need to be discussed and impleented prior to performing any operation. The following is a list of requirements for the installation of concrete and asphalt on Pembina Trails SD property.





- Required personal protective equipment to be worn while on site: eye, ear, hardhat, hand protection, hearing protection, safety vest, rubber boots (steel toed) and gloves. All workers must wear long pants, boots with steel toes.
- □ Traffic control use of barricades, cones, were necessary to prevent access to work area; keep the general public and divisional employees out of the work area at all times.
- Congested worksite every worker must wear a high vis vest and be alert for vehicles. Equipment operators are concentrating on the job at hand and may not be watching for pedestrians.
- □ Work Zone always be aware of your surroundings; be alert to traffic; make eye contact with operators; stay focused; do not use your cell phone when you are in the work zone.
- □ Vehicles: stay out of equipment blind spots; pay attention to equipment backing up; stay clear of stopped vehicles; know the traffic control plan; use spotters when necessary.
- Unsafe conditions watch for unsafe conditions; resume work only after the unsafe situation has been corrected. Halt work if necessary.
- Determine proper access and egress requirements for the project. Where possible organize work to permit drive-through (forward travel) operation; reduce backup as much as possible. Where equipment is operated in reverse where workers may be endangered, a signal person is required. Signal person is also required when working near overhead power lines.
- □ Work in close proximity of an overhead power lines must be carried out only after Manitoba Hydro has de-energized, guarded or displaced the power line.
- □ Determine waste disposal methods and procedures. Hazardous waste must be removed from site daily and is not allowed to be stored on site overnight.
- Do not commence excavation on divisional property until utility locates have been completed.
- □ No refueling of equipment is allowed on divisional property.
- Accumulations of combustible waste material, dust, and debris shall be removed from the job site and its immediate vicinity at the end of each work shift or more frequently if necessary for safe operation.
- Hot work permit is required when any torch work is done and requires the presence of extinguishers and fire watch. All torch operators and fire watch shall be trained in the use of fire extinguishers. Extinguishers (minimum rating 4A:40BC) shall be readily accessible and adjacent to the immediate work at all times.

PLAYGROUND INSTALLATIONS

All playground equipment must be installed/repaired by an approved installation company (trained/certified on the CSA standard Z614: Children's Playspaces and Equipment). Parents, parent committees, daycares, community organizations, untrained contractors, etc. are not allowed to install/repair playground structures. Assembly and installation must adhere to the following:

- Strictly follow all instructions from the manufacturer.
- □ Secure anchoring is a key factor to stable installation, and the anchoring process should be completed in strict accordance with the manufacturer's specifications.
- Powered mobile equipment for digging/landscaping/moving must only be operated by trained/certified operators. Spotters are required when driving equipment/vehicles through the playgrounds.
- All grading and drainage must be installed as per pre-approved drawings and must be inspected prior to the application of play surfacing material. Drainage is mandatory and must be preapproved by Facilities.
- Grass, dirt and landscaping wood mulch are not considered protective surfacing. All play surfacing must be IPEMA certified engineered wood fibre. Wood fibre must maintained at a minimum of 12inches deep and be surrounded by ACQ 6" x 6" timber edging. Plastic edging materials will not be accepted.
- □ All extraneous materials are to be removed from the Site and disposed of in a safe and legal manner.
- □ Worksite must be fully fenced and enclosed until all the work is completed.
- After assembly and before its first use, equipment must be thoroughly inspected by a certified playground safety inspector for safety.
- □ The contractor will repair/replace any damaged materials/structures; cut, patch and make good existing surfaces as required to accommodate new work; clean-up the worksite as work progresses; return all areas under contract to a condition equal to what previously existed .
- The manufacturer's assembly and installation instructions, and all other materials collected concerning the equipment, must be kept in a permanent file by the school division.



ROOF WORK

Roofing operations involving open flames or hot processes present a significant fire hazard. Ignition sources include heated kettles of tar and asphalt, open flame torches and hot-air guns. The installation of torch-applied roofing systems can be particularly hazardous. Torching can reach temperatures over 1000°C (1800°F). Roofers may suffer serious burns from the torch or the hot modified bitumen they are applying. In addition, temperatures generated by torching applications have been known to start fires that may smolder out of sight, only to burst into flame later, well after torching is over.

The project-specific local safety requirements along with the fire prevention practices listed below should be confirmed with the roofing contractor prior to the start of work:

FIRE SAFETY DURING CONSTRUCTION:



- All related construction activities shall adhere to the requirements of NFPA 241 – Standard for Safeguarding Construction, Alteration, and Demolition Operations.
- Roofers shall ensure that existing asphalt and tar paper are sampled to determine if Asbestos is present. Proper abatement procedures must be followed if asbestos is present.
- All collections or artifacts within construction areas shall be removed or protected in-place, before construction activities are initiated. All in-place protection shall be facilitated through the use of non-combustible or fire-retardant protective materials.
- □ To the greatest extent possible, fire suppression and/or detection systems shall remain inservice and fully functional during construction activities. If the systems must be impaired for any reason, a fire watch must be approved by Facilities & Operations Dept.
- □ The means of egress from all construction areas shall be maintained clear of impediments and protected from debris, falling objects, and other obstructions at all times. If a building means of egress must be closed, egress from all portions of the building must be evaluated and alternative routes complying with the NFPA 101 Life Safety Code shall be provided. If such alternate routes cannot be provided, the affected areas shall be closed.
- □ Fire department access shall be provided for the immediate job site at the start of the project and maintained until project completion.
 - Fire lanes shall be clear and free of obstruction at all times, thus providing usable access to the building and construction site.
 - Fire department connections, post indicator valves, and other exterior fire protection components shall be accessible to the fire department. Signs shall be posted to clearly identify the location of any fire protection feature when visibility is obstructed, or temporary equipment is installed to facilitate protection during construction.
- Accumulations of combustible waste material, dust, and debris shall be removed from the job site and its immediate vicinity at the end of each work shift or more frequently if necessary for safe operation.
- Trash chutes shall be constructed of non-combustible materials and shall be as straight as practical to avoid accumulations or clogging within the chute.
- □ Commercial trash/waste dumpsters shall be located at least 15 feet away from the building under construction.

- Fire extinguishers shall be located throughout the construction area, so that travel distance to an extinguisher does not exceed 15m (50 feet). Contractors are to provide their own portable fire extinguishers.
- Flammable and combustible liquids storage and handling shall be in accordance with NFPA 30 Flammable and Combustible Liquids Code, and the requirements below and a portable fire extinguisher (minimum rating 4A:40BC) shall be located not more than 50 feet from the flammable liquids storage area.
- All hot work operations shall be conducted in accordance with the requirements of Pembina Trails "Hot Work Permit System", the National Fire Code, the Manitoba Fire Code and NFPA 51B – Standard for Fire Prevention During Welding, Cutting and Other Hot Work.
- □ Temporary heating equipment shall be UL Listed or FM Approved, and must be used in accordance with the manufacturer's instructions.
- Propane and kerosene heaters shall be prohibited inside buildings and heating equipment shall not be left unattended during operation.
- Heating equipment shall be located a minimum of 15 meters away from combustible materials and must be secured. Refueling of heaters shall occur in an approved manner. This may include allowing the unit to cool down before refueling and/or removal or movement of the unit to a safe area for refueling.
- Temporary guardrails must be in place for all roofing applications done on divisional property.

TAR KETTLES:



- Tar kettles must not be located on the roof or under canopies of any facility. Whenever possible, the best practice is to locate the tar kettle, asphalt and fuels at grade and pump material to the roof (minimum 3 m (10 ft.) from the building, and any egress paths or exits).
- Tar kettles, associated LP-Gas cylinders, and asphalt shall be located outside a facility and a minimum of 3-6m (10-20 ft.) from any facility or structure and shall be placed on a noncombustible surface.
- Keep combustible materials, packaging, debris, etc., at least 15 m (49 ft.) from the kettle; require daily removal of roofing debris and product packaging. Any combustible materials that cannot be moved, must be protected with metal guards or flameproof covers (i.e. fire-resistant tarpaulins).
- Tar kettles shall be placed downwind from the building at all times to prevent tar/asphalt fumes from entering the building through the building envelope/windows/etc. Kettles with chimneys are preferred.

- □ Tar kettles <u>MUST BE</u> continuously attended by a minimum of one qualified experienced operator knowledgeable of the operations and hazards, during any period of operation. The operator shall be within 7.6m (25 feet) of the kettle at all times, and shall always have the kettle within line of sight. The kettle operator must remain on the same level as the kettle while it is in operation.
- The kettle operator should be knowledgeable of the material's temperature limits and kettle features to prevent heating above the flash point. Working and flash point temperatures should be readily available on keg packaging or sheets. Never heat contents above working temperature to improve workability at application point, which is a common practice in colder weather.
- □ The kettle should have a tight fitting, metal cover that can be closed by gravity, capable of smothering a fire.
- Ensure the kettle outlet has a quick-closing valve. An extension handle is necessary as well for access to the valve in the event of a kettle fire.
- A tar kettle shall be charged or loaded in a manner to avoid splashing. The vessel shall not be filled closer than 6 inches from the overflow level; shall be maintained level when containing molten material; and shall not be moved while being fired.
- The tar kettle **MUST BE** equipped with a working/functional automatic temperature gauge.
- Pipe, tubing, hose and conductors used for hot material from a tar kettle shall be supported when above the ground. Hose, tubing, pipe and conductors running horizontally shall be supported at intervals that will prevent sagging. Connections shall be made with unions or couplings and shall be maintained free of leaks.
- Where a pump unit is mounted on a tar kettle and the fuel container is an integral part of the pump, the pump unit shall be shielded from the tar kettle by a barrier of rigid noncombustible material.
- A minimum of two 4A:40BC 20lb dry chemical fire extinguishers for each tar kettle shall be located within 7.6m (25 feet), on opposite sides of the kettle; at least two additional fire extinguishers within 7.6 m on the roof being covered or 6.1m (20 ft. for torch-applied equipment)
- Extinguishers shall be readily accessible at all times in case of an emergency. All kettle operators and roof installers shall be trained in the use of fire extinguishers. Note: do not place any fire extinguishers within 1.5 m (5 ft.) of the kettle since access to the fire extinguisher could be prevented by a fire at the kettle.
- The fuel for a tar kettle or pump motor shall be limited to a quantity necessary for daily tar kettle functions shall be maintained at the work site. LP gas for firing the burner and/or gasoline to fuel the pump motor shall not be stored closer than 3m (10ft) from any source of ignition. Extra tanks of LP gas/fuel must be kept a minimum of 7.6m (25 ft.) from the tar kettle. Excess fuel shall not be maintained at the site for these operations.
- Used roofing mops and rags shall be cleaned of excessive asphalt and stored away from the building and combustible materials. Store all cleaning solvents away from the kettle and fuel cylinders.
- Discarded roofing mops and rags shall not be in contact with combustibles.
- Tar kettles shall not block exits, means of egress, gates, roadways, or entrances. In no case shall kettles be closer than 3m (10 ft.) from exits or means of egress.
- Follow all applicable hot work procedures and safety precautions, including inspecting the area before work begins, issuing a hot work permit and maintaining a fire watch during and at least 4 hours after all kettles and torches are turned off each day. During some roofing operations, it may be necessary to maintain a fire watch under the roof paying attention to areas being heated by torches, such as around flashing.

- When asphalt is being applied near air intakes, the intakes should be adequately sealed. If the building has window air conditioners, set them to recirculate the air, rather than drawing air from outside the building.
- If the placement of the kettle on the roof is unavoidable (this should be used as a last resort and only when all other efforts have been exhausted and must be approved by school division management), these additional fire safety considerations should be followed:
 - Notify the fire department whenever an asphalt/tar kettle and fuels will be located on the roof.
 - Verify weight of full kettle and asphalt/tar kegs do not exceed structural capacity of roof.
 - Locate kettle and fuels at least 5 m (16 ft.) from egress paths and roof exits and at least than 3 m (10 ft.) from roof edges unless suitable guardrails are in place.
 - Locate kettle at least 3 m (10 ft.) from walls and roof mounted equipment. Locate kettle at least 5 m (16 ft.) from walls with combustible construction (or use a fire resistive barrier if adequate spacing is not possible).
 - <u>DO NOT</u> place kettles in front of, next to, or near any fresh air intakes. When asphalt is being applied near air intakes, the intakes should be adequately sealed.



Fire caused by roofing operations

- Place the kettle on a non-combustible base.
- Consider spill containment means in the event of tank or hose leak to ensure liquid asphalt/tar cannot flow into a floor opening or over the roof edge exposing workers and materials below.
- Any mops and rags must be safely disposed of and not left in buckets or unattended on the roof. Buckets or buggies must not leak.
- Make sure kettle wheels are chocked or locked to prevent rolling or movement from bumping. The kettle must be leveled prior to operation.

APPENDIX

- Appendix A Divisional Phone Numbers
- Appendix B Asbestos Work Permit
- Appendix C Hot Work Permit
- Appendix D Live Electrical Work Permit
- Appendix E Lockout / Tag-Out Safe Work Procedure
- Appendix F Fall Protection Plan
- Appendix G Contractor's Safety Orientation / Declaration Form
- Appendix H Dept. Of Labour: Release Of Employer Information Request Form

APPENDIX A – DIVISIONAL OFFICE PHONE NUMBERS

SCHOOL NAME	ADDRESS	PHONE #
Acadia Junior High	175 Killarney Ave	204-269-6210
Arthur A. Leach School	1820 Chancellor Drive	204-269-1674
Bairdmore School	700 Bairdmore Blvd.	204-261-3350
Beaumont School	5880 Betsworth Avenue	204-895-2820
Beaverlodge School	6691 Rannock Avenue	204-895-8213
Bonnycastle School	1100 Chancellor Drive	204-261-9400
Chancellor School	1520 Chancellor Drive	204-261-9535
Chapman School	3707 Roblin Blvd.	204-888-3192
Charleswood School	505 Oakdale Drive	204-889-9332
Crane School	888 Crane Avenue	204-453-0539
Dalhousie School	262 Dalhousie Drive	204-269-4101
Dieppe School	530 Dieppe Road	204-889-1034
Fort Richmond Collegiate	99 Killarney Avenue	204-275-7520
General Byng School	1250 Beaumont Street	204-452-3040
Henry G. Izatt	960 Scurfield Blvd.	204-489-1239
Laidlaw School	515 Laidlaw Blvd.	204-888-1678
Linden Meadows School	335 Lindenwood Drive E.	204-489-0799
Oak Park High School	820 Charleswood Road	204-895-7221
Oakenwald School	666 Oakenwald Avenue	204-474-0269
Pacific Junction School	715 Cathcart Street	204-831-7099
Ralph Maybank School	20 Donnelly Street	204-453-4631
River West Park School	30 Stack Street	204-895-7225
Royal School	450 Laxdal Road	204-889-6650
Ryerson School	10 Ryerson Avenue	204-269-1400
St. Avila School	633 Patricia Avenue	204-269-5677
Shaftesbury high School	2240 Grant Avenue	204-888-5898
South Point School	615 Kirkbridge Drive	204-594-4434
Tuxedo Park School	2300 Corydon Avenue	204-889-3602
Van Walleghem School	1 Princemere Road	204-489-0995
Vincent Massey Collegiate	975 Dowker Avenue	204-453-8023
Viscount Alexander	810 Waterford Avenue	204-452-8945
Westdale School	6720 Betsworth Avenue	204-895-8205
Westgrove School	6720 Westgrove Way	204-895-8208
Whyte Ridge School	400 Scurfield Blvd.	204-488-4245
Pembina Trails Admin Office	181 Henlow Bay	204-488-1767
Facilities & Operations Building	165 Henlow	204-488-1767, Ext. 1227
Loudoun Carpentry Shop	3350 Wilkes Avenue	204-895-0301

APPENDIX B – ASBESTOS WORK PERMIT

ASBESTOS WORK PERMIT

NOTICE: All work shall conform to Federal, Provincial, Municipal standards, codes and guidelines	PERMIT NO.
and the requirements set forth in the AMP for the PTSD or any project specifications prepared. In	in de mente de la comprenensión
the case of a conflict in any of the above noted documents, the most stringent shall apply.	

Asbestos Work Request Origina	itor	Contact		Telephone No.
Date of Request		Anticipated Sta	art Date	Anticipated Completion Date
Work Site Location		Project Descrip	otion	
Work will be completed by:	PTSD train	ed Employees	Pre-Qualified Contractor	Specify Contractor:

ASBESTOS PROCEDURES

Check al	i applicable
the state of the s	

Ceiling Tiles	≤ 10 tiles in one location – Type 1
	$\square > 10$ tiles in one location – Type 2
Contaminated Space Entry (ceiling, crawlspace, shaft,	Type 1
chase, etc.)	Type 2
Sheet Flooring	Type 2
Floor Tiles	Type 1
Asbestos Cement Panels	Type 1
	Type 3
Mechanical Insulation	Type 2 Removal
	Type 2 Repair
	Type 3
	Glove Bag
Asbestos Debris Clean-up	Type I
	Type 2
	Type 3

OTHER CONTROL FACTORS

Evening Work	Specify Hours:
Day Work	Specify Hours:
U Weekend Work	Specify Hours:
Restricted Access to Work Area by Occupants	Specify Areas:
Re-location of Occupants Required	Specify Area to be Relocated:
Inspection and Air Monitoring Required	Arrangements made for Inspections
HVAC Shut Down	Specify Hours and Zones:
Other System Shut Down	Specify:

NOTIFICATION

Notification Sent to:	Manitoba Workplace Safety and Health (for Type 3)
	□ APO
	Building Tenants
	Department Head

APPENDIX C – HOT WORK PERMIT



HOT WORK PERMIT

This Hot Work Permit is required for any operation involving open flame or producing heat and/or sparks. This includes, but is not limited to: brazing, cutting, grinding, soldering, thawing pipe, and similar applications involving heat, e.g. roofing, asphalt, etc. An inspection of the area where the work is going to be performed must be done before a hot work permit can be issued. All hazards must be identified and the emergency procedures in place, prior to requesting the work permit.

PLEASE COMPLETE IN FULL - FAILURE TO DO SO N	AY RESULUT IN YOUR HOT W	ORK BEING STOPPED.
Permit Valid (24 hrs. only) on Date:	From Time:	To:
Type of work to be performed:		
Welding: Grinding:	Heating:	
Cutting: Brazing:	Other:	
Hot work being done by: Employee Contractor:		
Name: Company:		Phone:
Name: Company:		Phone:
Location of Hot Work: Building:	Floor:	Classroom:
Type of portable fire extinguisher or suppression equipme	ent that is available:	
Person conducting inspection of the area before the work	begins and at completion:	
Name: Company:		
I verify that the above location has been inspected and the permission is authorized to complete work. Please fax 24		
Signature:	_ Permit expires: Date:	Time:am/pm
THIS PERMIT IS VA	LID FOR ONE DAY ONLY	
INSTRUCTIONS	REQUIRED RISK/HAZARD A	SSESSMENT
1. Verify that the Precautions shown at right have been completed or do not proceed with the work.	Requirements within 15 meters of w □ Floors swept clean of combustibles.	
2. Complete and retain this permit.	 Flammable liquids, dust, lint and an Explosive atmospheres eliminated. 	
3. The Hot Work area has sprinkler protection?	Combustible floors wet down, cover	ed with fire-resistive sheets.
Yes = No = Deactivated The Hot Work area has smoke detection?	 All other combustibles removed, or All wall and floor openings covered. 	
□ Yes □ No □ Deactivated		
5. The Hot Work area is on the roof?	Work on walls, ceiling or enclosed of Construction is non-combustible and	
a Yes a No a If yes, Fall Protection provided / worn? 6. Hoses & portable fire extinguishers are in service / operable?	insulation.	-
 Poses a portable fire excinguishers are in service / operable? Yes = No 	Combustibles moved away from op Provisions are in place to guard aga	
7. All Hot Work equipment is in good repair?	to another area Enclosed equipment is cleaned of a	- combustibles
□ Yes □ No □ If no, removed from service.	Containers are purged of flammable	
 Is work being done in a confined space? – Yes – No If yes, has a confined space permit been completed? 	Al wall, floor, duct and ceiling penet have been located and sealed / cov	
□ Yes □ No	have been located and sealed / cov	ered.
FIRE WATCH DURING HOT WORK:	FIRE WATCH - AFTER HOT W	ORK IS COMPLETED:
	Fire Code requires the fire wa	
Date & time Hot Work/Fire Watch started:	and for a period of 60 minute	
Date: Time:am / pm Date & time Hot Work/Fire Watch ended:	fire extinguisher is present an the use of equipment; all adja	
Date: Time: am/pm	monitored.	cont areas to the work die
	E Fire Code requires a final che	
Signature of Fire Watch:	4 hours after work is complet	
	by the contractor. Fire code:	5.2.3.1

Final Check Time:

When the Fire Watch has ended return the completed form to the Pembina Trails Safety Officer, Fax: 204-488-8385

Reviewed/Updated July 20, 2017

Issued Sept. 21, 2012

(initialed)



HOT WORK PERMIT

GENERAL RULES FOR PERMITS:

- Hot work permits must not be issued in areas affected by sprinkler/fire alarm system impairments. In
 the event of a sprinkler/fire alarm system impairment during work, the area supervisor or contractor
 must be notified to cease hot work operations until the impairment can be corrected.
- In the event that the fire alarm system needs to be taken off line to prevent false alarms, the
 contractor must contact the head custodian and inform them of the work. The custodian will then be
 required to take the system off line and place the school under a fire watch until the system can be
 put back online.
- Permits are valid as long the same person or crew is continuously working on the job, for a period not
 exceeding 24 hours.
- Permits must not be issued for work areas that cannot be made fire safe.
- The permit is automatically void and hot work is stopped immediately if work area conditions
 change such that the area is no longer fire safe. Only when the permit is resigned, or another permit
 written, after the work area reassessed and new fire hazards addressed, work can continue.

HOT WORK PERMIT - STEPS:

- Prior to start of any hot work operation, the permit issuer must personally examine the work area to confirm that the following minimum safety precautions have been taken:
 - Hot work equipment inspected and in good working condition.
 - The equipment or material to be worked on is thoroughly cleaned of all deposits of oil, carbon, dust, or other combustible/flammable residues.
 - Whenever possible, the hot work operation should be moved to a designated fire safe area to minimize the risk of fire in the facility.
 - Sprinklers, where provided, are in commission and will not be taken out of service while this work is being done.
 - All combustibles materials have been located at least 15 meters from the operation and any combustible materials that cannot be moved, must be protected with metal guards or flameproof covers (i.e. fire-resistant tarpaulins).
 - Any materials or building surfaces that cannot be removed or protected should be thoroughly wetted to prevent ignition. Since there is a possibility of sparks leaking onto combustible materials in adjacent areas to the hot works in progress, all openings in walls, floors, or ceilings must be covered or closed.
 - o The work will be confined to the area or equipment specified on the permit.
 - Surrounding floors have been swept clean and, if combustible, wet down.
 - Ample portable extinguishing equipment has been provided and is easily accessible. These
 extinguishers are not from the immediate area, but are additional ones.
 - Exhaust and return air fans (HVAC) within 15 meters have been turned off.
 - All floor, wall, and ceiling openings within 15 meters of the operation have been tightly covered to
 prevent sparks or slag from entering an unobserved area.
 - Hot work areas must be isolated with tape, barricades, or traffic horses to warn personnel from walking into and under this area when work is in progress and divert them from hazards, such as falling sparks and flash burns.
 - Compressed oxygen is not to be used under any circumstances for the purpose of ventilation, comfort, cooling, blowing dust from clothes, or for cleaning the work area.
- 2. All appropriate emergency procedures must be reviewed with the person doing the hot work.
- 3. The hot work permit must completed and be posted it in a visible location in the hot work area.

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Issued Sept. 21, 2012



HOT WORK PERMIT

- 4. During and after hot work, the following work rules must be implemented:
 - Fire watch will be provided during and for <u>60 minutes</u> after work, including any coffee or lunch breaks. This is a fire code requirement and must be complied with.
 - Fire watch person is supplied with a suitable fire extinguisher and properly trained in use of fire
 extinguisher and activation of the nearest local fire alarm
 - The hot work area and all adjacent area (including floors above and below) must be monitored
 periodically for <u>4 hours</u> after the work has been completed. (Fire Code: Section 5.2.3.1). When
 hot work is performed on or near a wall, check the other side of wall because there is a chance
 that heat was transferred or radiated through the wall. The 4hr fire watch is a fire code
 requirement and is non-negotiable and must be completed by the contractor.
 - If barricades are removed, mark hot materials to warn other workers, employees, and visitors of the potential burn hazard.
- 5. Additional Measures:
 - To reduce or eliminate the possibility of nuisance or "false alarms", temporarily cover sprinklers in the immediate vicinity with noncombustible material or damp cloths.
 - Smoke detectors in the affected area may be temporarily "zoned off" or "bagged" to avoid activation and so as to maintain maximum protection for the duration of the hot works.
 - Remember to remove the temporary protection when the hot works operation is completed!
- Upon completion of the work, the permit issuer (supervisor) will conduct a final inspection of area and sign off on the permit only if the area is fire-safe.
- The posted permit must be kept for documentation purposes. A copy of permits must be sent or faxed to Pembina Trails School Division's Safety Officer at 204-488-8583

WORK ON PIPING, EQUIPMENT, OR CONTAINERS:

Hot works shall not be performed on containers, equipment, piping containing combustible, or flammable liquids or gases unless they have been cleaned and tested with a gas detector to ascertain that they are free of explosive vapours. Work on the container must be approved by a supervisor once they have observed that the above requirements have been met.

CONFINED SPACES:

If the hot work is being done in a confined space (i.e. closed container, tank, drum or similar equipment, or crawl space, etc.) which contain or may have contained flammable liquids or other combustible materials, then the following additional safety precautions must be applied for both employees and contractors, before work is started:

- · A confined space entry permit must be completed and posted at the site.
- Confined space entry work requires two people: one to enter and one to monitor the entrance.
- · Personal protective equipment and rescue equipment must be on site.
- Check atmosphere for combustible gases or vapors using reliable gas detection equipment. If there is
 a chance of a gas vapor release into the area during the hot work, continuous gas detection
 monitoring of the area. Continuous ventilation of hot work fumes must also be conducted.
- Thoroughly empty, clean, and vent. Purge any flammable gases or vapors with inert gas (i.e. nitrogen) until atmosphere is safely below the explosive range. Flush with water if necessary to remove any combustible residue.
- Blank off or disconnect all points of entry into the container to prevent gases from entering the confined work area.

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HOT WORK PERMIT

PERSONAL PROTECTIVE EQUIPMENT:

- Appropriate personal protective equipment (i.e. welding goggles, face shield, safety glasses, gloves, etc.) must be worn by any person involved in a hot work activity.
- Hot work operations performed in congested areas requires use of welding flash shields, curtains, or
 partitions to protect adjacent workers or nearby employees from flash burns, otherwise, suitable eye
 protection must be provided.
- Fire watchers (patrol) who are stationed within twenty (20) feet of the work area (especially electric or heli-arc welding) must be provided with eye protection (i.e. dark glasses) for protection against flash burns.

VENTILATION:

- Local mechanical exhaust systems (i.e. welding fume extractors, booths, smoke eaters, additional
 ventilation, etc.) must be provided and arranged to prevent the accumulation of toxic welding fumes,
 gases, or dust containing hazardous metals or compounds in confined spaces or where the welding
 area contains partitions or other structural barriers that significantly obstruct cross ventilation.
- Movable local exhaust hoods should be placed as close to the point of welding as practicable to minimize worker exposure.
- Exhaust hoods or booths must provide a forced air flow rate sufficient to maintain a minimum capture velocity of 100 feet per minute in the welding zone.

WELDING EQUIPMENT:

The Pembina Trails S.D. employee or contractor doing the work is responsible for applying the following additional welding equipment safety precautions:

- Secure gas cutting and welding cylinders so they will not be upset or damaged. Replace protective top caps on all cylinders not in use.
- Use portable cable stands to elevate welding hose or cable off floor areas where it can be easily damaged.
- All welding equipment must have flash back arrestors.
- Thoroughly inspect all valves, regulators, hoses, and torches, before use, to ensure all welding
 equipment is in good condition. Defective equipment should be immediately taken out of service for
 repair or replacement. DO NOT work with defective welding equipment!
- Carefully connect the ground clamp when using electrical arc welding equipment. Since an improperly
 made ground can be a source of ignition, the ground clamp should be connected as close to the work
 as possible so that it may be easily observed.

EMERGENCIES:

The prime contractor or Pembina Trails S.D. area supervisor in charge of the hot work operation is responsible for the following emergency response requirements:

- All hot work operations must be stopped immediately upon notification of a fire, gas leak, or other
 emergency in the facility. All equipment must be shut off and employees/contractors must evacuate
 the work area until the emergency is over.
- All personnel, including contractors, assigned to the hot work operation must be told the location of the nearest fire alarm, fire exit, and portable fire extinguishing equipment, and must be familiar with the facility's emergency evacuation and notification procedures.
- All contractors must have emergency procedures posted and include: muster sites, means of communication, emergency phone numbers, contact numbers, Pembina Trails S.D. emergency contacts, means of accounting for all workers on site, etc.

Reviewed/Updated July 20, 2017

Issued Sept. 21, 2012

APPENDIX D – LIVE ELECTRICAL WORK PERMIT

Pembina Trails School Division	"LIVE" ELECTRICAL WORK	PERMIT
PART I:		
1. Work Location:	Date:	
2. Description of work to be done:		
3. Justification for why the circuit / equipment cannot be de-	nergized or the work deferred until the next scheduled outage:	
4 Requestor Name:	Date:	
-		
PART II		Check when completed
1. Detailed job hazard analysis and safe work procedure to b	be used in the above detailed work:	
2. Job hazard analysis and safe work procedure attached?		
3. Results of the shock hazard analysis:		
a) Limited approach boundary		0
b) Restricted approach boundary		0
c) Prohibited approach boundary		0
d) Safety watch and other protective equipment is available	e to safely perform the live work	
List personnel and equipment:		
Results of the arc flash hazard analysis:		
		0
b) Arc Flash boundary:		0
5. Means employed to restrict the access of unqualified perso	ons to the work area:	0
 Written completion of a job briefing, including a discussion Do you agree the above described work can be done safe 		0
7. Do you agree the above described work can be done sale	y? Thes No (if no, return to supervisor)	
Electrically Qualified Person 1	Date	
Electrically Qualified Person 2	Date	
PART III - APPROVALS TO PERFORM THE WORK WHILE	E ELECTRICALLY ENERGIZED:	
Utilities Supervisor	Date	
ounces supervisor	Date	
Director / Asst. Director Facilities & Operations	Date	
Director / Asst. Director r adirues a Operations	Dale	

APPENDIX E - LOCKOUT / TAG-OUT

Pembina 'I School Division Accamplish Anything	rails	SAFE	WORK PROCEDU	JRE	Gene	OUT / TAG-OUT ral Procedure age 1 of 7
LOCATION	WRITTEN	BY:	APPROVED BY:	DATE	CREATED	LAST REVISION
All Schools	Lorie Carri	ere	Brent Vandenbosch	May	7, 2013	July 25, 2017
	PERSON	AL PI	ROTECTION EQUI	PMENT (PPE)	

0	Safety glasses or face shield must be worn at all times in work areas.	0	Long and loose hair must be tied back
0	Appropriate footwear must be worn. Shoe must be fully enclosed. No open toed shoes.	4	Close fitting/protective clothing must be worn. Remove strings hanging from pullovers/sweaters.
0	Rings and jewelry (long necklaces / bracelets, etc.) must not be worn.	2	Arc Flash protective clothing must be worn by electricians until they can prove electrical equipment has been de-energized.

HAZARDS PRESENT	ADDITIONAL REQUIREMENTS		
Electrical shock Arc flash Burns Cuts Pinch points	 Lockout / Tag-out training Lockout / tag-out equipment PPE First Aid / CPR 		

SAFE WORK PROCEDURE

Only persons who are "Qualified" may conduct -LOTO processes. A person must be "Qualified" by their Supervisor when their duties include performing cleaning, repairing, servicing, setting-up and adjusting operations on equipment requiring Energy Isolation for safe work activities. All "Qualified Person(s)" must be trained in LOTO and be provided appropriate tools to conduct Lockout/Tag-out, and follow all procedures.

PROCEDURE:

1.0 Prepare for Shutdown:

- The authorized employee will:
- 1.1 Identify machines, equipment and processes to be isolated.
- 1.2 Inform all affected employees when machinery or piece of equipment will be locked out.
- 1.3 Identify the types and magnitude of hazardous energy to be controlled and understand the hazards of that energy.
- 1.4 Identify the methods for controlling the hazardous energy.
- 1.5 Identify all isolation points and energy isolation devices to be locked out. Ensure remote computer and/or programmable computer logic controllers are considered.
- 1.6 Identify and obtain appropriate personal protective equipment.



1.7 Identify and obtain locks, tags, lockout devices and other equipment required to perform The work. All trades and head caretakers are issued a suitable lock (or locks for multiple energy sources). Each worker has the only key to the lock / lock set.



Typical locks and hasps for use in locking out equipment.

2.0 Equipment Shutdown:

- 2.1 Notify all affected employees of the lockout.
- 2.2 The Qualified Person checks to be sure that no one is operating the equipment BEFORE turning off energy sources.
- 2.3 Shutdown the equipment following the normal stop or rundown procedures. (e.g. push ON/OFF or START/STOP buttons or switches).

3.0 Isolation:

- 3.1 Locate all energy isolation devices required to control the hazardous energy.
- 3.2 Operate the energy isolation devices such that the machine or equipment is isolated from energy sources. This usually involves opening a disconnect switch, circuit breaker or closing valves. Note: Never open a disconnect switch without first shutting down the equipment as it could result in arcing or an explosion. Use the left hand rule when opening and closing disconnect switches. (Left hand rule: Stay to the right of the disconnect switch, face away and use your left hand to operate the switch. This positioning protects the face and body in the event of arcing or an explosion).
- 3.3 Steam, air, and hydraulic piping or tanks must be bled, drained, and/or brought to atmospheric pressure and locked "open" to assure no pressure or vacuum in piping or in reservoir tanks.
- 3.4 Gas cylinders must be locked 'closed' and if possible disconnected from distribution piping.
- 3.5 Any mechanical component that could roll, shift or otherwise move, such as springs, counterweights, wheels, fan blades, etc. must be chained, barred or blocked.

4.0 Apply Lockout/Tag-Out Devices:

- 4.1 Apply locks and tags to each energy isolation device to ensure it is held in OFF position.
- 4.2 Where a lockout device is required for an energy isolation device, install the lockout device and apply locks and tags to ensure it is held in the "OFF" position.
- 4.3 Each person who will be working on the machinery must put a lock on each of the machine's lockout device(s). Each lock must remain on the machine until the work is completed. Only the worker who placed the lock may remove their lock.
- 4.4 All energy sources which could activate the machine must be locked or blocked out.





SAFE WORK PROCEDURE

LOCKOUT / TAG-OUT General Procedure Page 3 of 7



Electrical panels shown "locked out"

Electrical plug lockout



Piping shown "locked out"



Disconnect panels with "lockout here" labels and energy isolation information



Pembina Trails School Division Accomplish Anything

LOCKOUT / TAG-OUT General Procedure Page 4 of 7



Locked com. Airline

Locked globe valve

Locked gas cylinder Locked propane cylinder

5.0 De-energization: Stored Energy Release or Restraint:

- 5.1 After application of lockout devices, all stored or residual energy must be relieved, disconnected, blocked, bled, restrained or otherwise made safe. Note: Remember to consider energy stored in capacitors, springs, pressure lines, elevated equipment.
 - Compressed air /gasses / hydraulic fluids / steam /pressurized water need to be locked out and bled to release residual pressure. Physically disconnect the equipment from the supply plumbing if possible. If not, use double valves or blind off supply lines with appropriate flange plates or pipe caps.
 - Mechanical energy block equipment components so they cannot move using support rods for counterweights or elevated components, a wedge-shape wheel chock for rolling components, locking chains around movable equipment components and locking it to an immovable object, etc.

6.0 Verification:

- 6.1 Ensure all affected employees are cleared of the machine or equipment.
- 6.2 Before beginning any work, verify the machine or equipment is isolated and cannot be activated or restarted by one or more of the following actions:
 - Manually operating control buttons or switches to start or operate the machine or equipment. Return controls to their off or neutral position.
 - · Using test instruments to test circuits.
 - Visually inspecting the position or movement of parts such as gears, rotating parts, shafts, flywheels to ensure movement has ceased; inspecting gauges or other indicators.
- 6.3 Electrical Work Conducted by Electricians all electricians conducting electrical work must wear PPE while shutting down. Every electrical conductor or circuit part is considered energized until proven otherwise. Workers must use lock out devices on electrical conductors and circuit parts operating at 30V or more. Workers must use test instruments every time electrical work is done to determine the absence of voltage on conductors / circuit parts operating at 30V or more. Workers must ensure that they have an electrically safe work condition prior to starting work. Stored energy in electrical capacitors must be safely discharged.

CAUTION: Return disconnects and operating controls to the "off" position after each test.



7.0 Testing/Adjusting Equipment during Lockout:

- In many maintenance and repair operations, machinery must be tested and therefore energized before additional maintenance work can be performed. For such situations, this procedure must be followed: 7.1 Clear the machine or equipment of parts and tools that could be affected by energizing the machine
- or equipment.
- 7.2 Clear people from the area..
- 7.3 Remove blocks and lockout devices and re-energize systems, following the established safe procedure.
- 7.4 Proceed with tryout or test.
- 7.5 De-energize and re-apply the lockout/tag-out devices shut off all energy sources reinstalling lockouts on energy sources, reinstall blocks, bleed all pressure systems and verify all energy sources de-energized prior to continuing work.
- 7.6 Verify the machine or equipment has been re-isolated by operating controls etc...
- 7.7 Resume work on the machine or equipment.

Equipment design and performance limitations may dictate that effective alternative worker protection be provided when the established lockout procedure is not feasible. If machinery must be capable of movement in order to perform a maintenance task, workers must use extension tools, personal protective equipment and other means to protect themselves from moving parts and potential injury.

8.0 Restoring Equipment to Service:

After the work is completed and the equipment is ready to be returned to normal operation, this procedure must be followed:

- 8.1 Ensure all non-essential equipment or parts have been removed from the machine and the machine is operationally intact and safe to be operated.
- 8.2 See that all equipment components are operationally intact, including reinstalling guards and safety devices.
- 8.3 Repair or replace defective guards before removing locks.
- 8.4 Ensure the machinery, equipment and surrounding area is clear of anyone who could be harmed by the start-up.
- 8.5 Ensure each person who applied a lockout device and tag removes these from each energy isolation device. Remove each lockout device using the correct removal sequence. Each lock is removed by the qualified person that applied it, or under his/her direct supervision. If the qualified person is absent from the work place, then the lock or tag can be removed by a qualified person designated to perform this task provided that the immediate supervisor:
 - · Verifies that the qualified person is not present and therefore unable to remove the lock;
 - Makes all reasonable efforts to inform the qualified person that the lockout/tag-out device has been removed; and
 - Ensures that the qualified person knows their lockout/tag-out device has been removed before their work resumes.
- 8.6 Energize the machine, but do not start it up.
- 8.7 Notify all affected employees the machine or equipment is ready to be started. Make a visual check before restoring energy to ensure that everyone is physically clear of the equipment.
- 8.8 Re-start the machine or equipment.



9.0 Group Lockout:

When maintenance or servicing work is being performed by more than one authorized employee, a primary authorized employee must be assigned responsibility for controlling all energy isolating devices for the machine, equipment or process.

- 9.1 Before beginning work, the primary authorized employee will apply a multi-lock hasp and lock to each energy isolating device and verify the machine, equipment or process has been isolated.
- 9.2 Other authorized workers review the adequacy of the isolation and apply their own locks to the multi-lock hasp.
- 9.3 Authorized employees perform work.
- 9.4 Upon completion of work, each authorized employee removes non-essential items from the work area and remove their own personal lock(s).
- 9.5 The primary authorized employee is the last one to remove their lock and the energy isolating device. This can only be done after the primary authorized employee has assessed the area and is satisfied it is safe to do so.

10.0 Contractors:

Whenever outside contractors perform maintenance or servicing work that require lockout/tagout procedures, the designated Divisional representative and each contractor shall inform each other of their respective lockout/tag-out procedures. The PTSD representative must communicate this information to affected employees and ensure these respective procedures are mutually understood.

**See the attached work specific safety lockout procedures.

REGULATORY REQUIREMENTS

- WS&H Act W210, Section 4, 5, 7, 7.1
- Mb. Workplace Safety & Health Regulations 217/2006,
- Part 38, Electrical Safety, Sections 38.1, 38.2, 38.14
- Part 2, Safe Work Procedures
- Part 6, Personal Protective Equipment
- Part 8, Musculoskeletal Injuries
- Safe Work Bulletin #164 PPE
- Safe Work Bulletin #246 Safe Lifting
- Safe Work Bulletin #277 Arc Flash Hazards
- CSA Z462 Workplace electrical Safety



LOCATION:	WRITTEN BY:	DATE:	EQUIPMENT:	ROOM:
School:				

ALWAYS PERFORM A MACHINE STOP BEFORE LOCKING OUT DISCONNECTS. NOTIFY AFFECTED PERSONNEL BEFORE SERVICING THIS EQUIPMENT.

Energy Source	Lockout Location	Procedure for locking out and/or releasing energies	Verification procedure

APPENDIX F – FALL PROTECTION PLAN TEMPLATE

NAME OF THE COMPANY:	
SCHOOL SITE:	PLAN IS VALID FOR:
PLAN CREATED BY:	DATE:

FALL HAZARD(S) AT THE SITE:

An employer must develop procedures to remove or control fall hazards in a fall protection plan. The plan must outline the specific situation where fall protection is required and consider what objects are below the worker and how far they are below. (e.g. "4:12 sloped roof, snow on roof, eaves at 3.5 meters above ground" or "work on steel, heights between 4 and 8 m above, steel below").
1.
2.
3.
4.
5.

FALL PROTECTION SYSTEM TO BE USED AT THE WORK SITE:
Details about the type of equipment (travel restraint, fall arrest, fixed anchor, lifeline and grab, SRL, shock-absorber, etc.), brands and models of components, length of lanyard, etc.
1.
2.
3.
4.
5.

ANCHORS TO BE USED:
Be specific. Describe the precise anchor point, including anchor strength and location relative to worker. Note: In most cases when using a lifeline there will be <i>swing</i> which adds distance to the fall.
1.
2.
3.
4.
5.

CLEARANCE REQUIREMENT:

This must be calculated. The distance the worker would fall must be less than the distance to the nearest object/surface below the worker. Note: If using a lifeline and rope grab, the calculation will have to be from the grab location.
1.
2.
3.
4.

PROCEDURES TO ASSEMBLE, MAINTAIN, INSPECT, USE AND DISASSEMBLE THE FALL PROTECTION SYSTEM:

	Be detailed. It would be acceptable to attach the manufacturer's specifications for the specific equipment being used, and ensure that workers are trained in these procedures.
	1.
	2.
ľ	3.

4.		
5.		
6.		
7.		

RESCUE PROCEDURE:
Using 911 alone is not enough! Your plan must specify how the worker will be rescued if he/she falls and is suspended. Examples include ladders, aerial devices, self-rescue fall protection equipment (suspension steps that deploy when the shock-absorber deploys, self-rescue SRLs, etc.)
1.
2.
3.
4.
5.

WORKER SIGN-OFF:			
The employer must ensure that all workers affected by this plan have read and understood the above			
Worker:	Date:		
Worker:	Date:		
Worker:	Date:		

CONTRACTOR SAFETY ORIENTATION: SIGNED/COMPLETED FORMS

- □ Contractor Safety Agreement Form
- Dept. of labour Release Form
- Checklist
- □ Emergency Contact List
- □ Contractor Declaration form

CONTRACTOR SAFETY AGREEMENT

All contractors and self-employed persons working on Pembina Trails School Division property must comply with the Safety and Health Act and Regulations of Manitoba in the performance of this contract. Safety is of paramount importance and as a condition of employment, is the personal responsibility of each worker.

Every contractor or self-employed person working on a project at one of our sites shall provide a copy of their safety program. Where a contractor or self-employed person does not have their own safety program, they will fall under the prime contractors S&H program and must comply with their Safety Program and be provided with a safety orientation. Contractors or self-employed persons will be required to provide their own risk assessments, safe work procedures and MSDS for the job they are doing.

Contact numbers and a schedule of workers needing to enter facilities must be provided to the Maintenance Supervisor and School Head Caretaker.

Appropriate signage will be placed prior to work beginning. Where required, instructions on lockout of energy sources will be discussed with the Head Custodian or other appropriate worker at the site. Any live work will require an "Energized Work Permit" from the WSH Officer.

As a condition of a contract with Pembina Trails School Division the contractor or self-employed person must provide the following information.

WCB #:			
COR #	Safety Program Registration # or		
Training Records:			
	ool Division and will adher		or the Safety and Health at in and cooperate with all
Name of Contractor		Start Date:	End Date:
Description of Contra	actor		
(Prime, Contractor, S	Self-Employed Person Sig	Date: nature)	
		Date:	
(PTSD Representativ	ve Signature)		

RELEASE OF EMPLOYER INFORMATION – REQUEST FORM



Workplace Safety & Health 200-401 York Avenue Winnipeg, Manitoba R3C 0P8 Phone: (204) 945-3446 Toll-free in Canada: 1-866-888-8186 Fax: (204) 948-2209

Date Received (WSH):

Release of Employer Information Request Form

Requestor Contact Information (Required)				-	
Name				Date	
Address	City	7, 1	Fown, Municipality	Postal Code	
Phone	Em	ail			
Employer Information		-			
Company Name				Company Phone	
Address			City, Town, Municipality	Postal Code	
Union or Association name (Where applicable)					
Requesting Information On (Select Applicable)					
Date of Last Inspection			Fatalities and Serious Incidents	(As defined in Legislation)	
Improvement Orders Issued at Last Inspection (If any)	n (If any)				
Stop Work Orders Issued at Last Inspection (If any)	Safety and Health Committee Reporting to WSH				
Prosecution Fines, Administrative Penalties and Status (Paid or Outstanding)					
Comments/Questions:					
Release of information limited to one employer	per r	rec	quest.		
For requests beyond these parameters, contact: FIPPA Co-ordinator Manitoba Family Services and Labour Phone: 204-945-2013 Toll Free: 1-800-282-8069 ext 2013 (Manitoba only) E-mail: fippa@gov.mb.ca					
The personal information you provide on this form is needed to respond to your access request. It is collected under the authority of clause 36(1)(a) of <i>The Freedom of Information and Protection of Privacy Act</i> (the "Act") and the Access and Privacy Regulation. Your personal information is protected by the Act. We cannot use or disclose your personal information for other purposes unless you consent or we are authorized to do so by the Act. If you have any questions about your personal information, please contact the Access and Privacy Coordinator of the public body to which you sent your access request.					су
Кеер а сору о	of this	s fe	orm for your records.		

CONTRACTORS CHECKLIST

Workers Name:		Date:			
	(Please Print)				
Company Name:					
	(Please Print)				
Pembina Trails School Div	sion Contact Person(s):				
Primary:		Phone#:			
Secondary:		Phone#:			

Prior to performing work for The Pembina Trails School Division, the contractor / self-employed person has provided / been advised of the following information:

Orientation Items	YES	NO	Copies Provided	Comments
Sub-Contractor Has Provided To Us				
Contact Name and Number where he can be reached Name:Cell: Names and contact numbers of job site safety supervisors				
Names and contact numbers of job site safety supervisors Name: Cell: Name: Cell: Name: Cell:				
Proof of Liability Insurance:				
Provide School Division with a copy of your Company's current written Health and Safety Program				
WCB Information: • WSH Division – Release of Employer Information Request Form • WCB Clearance , https://www.securewcb.mb.ca/clearances/logon.jsp • Proof WCB Coverage				
WHMIS: • Will Controlled Products Be Used? • Proof of WHMIS Training?				
 SDS for all Controlled Products used while performing work on site? Supervisor on site at all times 				
Safety meetings & inspections				
Safety personnel on site at all times (larger projects)				
Site Specific				
Job Specific Safety Management Plan Including:		[
Written hazard and risk assessments				
First Aid Preparedness				
Emergency Response Plans				
Washrooms				
Lunchroom				
 Incident Reporting Procedures 				
Restricted areas / traffic patterns				
 Mandatory PPE (footwear, head, eye, fall protection) 				
Hot Work				
Material Storage				
 Safe Work Procedures – high risk work 				

- Fall protection		
- Confined Space Entry		
 Lockout & Energized Work Permit (working live) 		
 Asbestos Abatement 		
 Training records for asbestos, respirator fit testing must 		
be provided for all workers/subs		
- Copies of permits for abatement work must be provided.		
Confined Space Entry		
 Training records must be provided 		
Fall Protection		
 Training records must be provided 		
 Housekeeping – ongoing daily, Project wrap-up 		
Smoking		
Equipment (scissor lift, JLG, cranes, forklift, zoom boom etc.)		
 Equipment (scissof int, JEG, cranes, forkint, 20011 booth etc.) all equipment operators must have training cards on them 		
while on site.		
List of workers entering the building. Check in / out		
Parking		
Worker orientation – see the attached		
Owner Notification		
Near Miss or Personal Injury		
Property Damage		
Safety meetings (tool box meetings)		
Hot Work Permits		
School's Emergency Response Plan	• •	
Exits		
Muster Point		
Warning signals (follow all fire drill, lock down, lock out, etc.)		
We Have Mutually Established		
System of Information Exchange		
Clarification of Responsibilities Re: WSH hazards associated		
with the job		
Company representative assigned to the project to ensure		
compliance with prescribed requirements		
Ensure relevant WSH requirements of our company are applied		
to sub-contracted workers		
A plan to monitor sub-contracted workers		
When health and safety reports and documents are to be		
submitted		
Contracted Employer Safety Agreement Signed		
Site Supervision – supervisor must be on site at all times.		

I have been provided with a safety orientation. I understand this information and will ensure that this information is provided to my workers and to any sub-contractors prior to commencing work on site. I understand the risks of performing work in the facility to both myself and my workers. I will at all times ensure that my workers and my sub-contractors work in compliance to the Workplace Safety and Health Act and in accordance to safety policies and procedures of the School Division to minimize any risks.

I also understand that any unsafe work practices or other misconduct while working on Pembina Trails School Division buildings or property may result in immediate escort from the facility and in the event that a contractor, their workers or the self-employed person, do not agree to follow these expectations or will not use the appropriate safety equipment, they will not be allowed to continue work on this site.

Contractor or self-Employed Person Signature

EMERGENCY CONTACT LIST



SITE SPECIFIC EMERGENCY CONTACT LIST						
SCHOOL LOCATION:						
PROJECT:						
CONTRACTOR NAME:						
PROJECT START DATE:		END DATE:		# WORKERS:		

NAM	e (print)	JOB TITLE	CELL #	E-MAIL
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				

PEMBINA TRAILS SD CONTACT LIST						
NAME	TITLE	CELL #	EMAIL			
GORD HOWE	DIRECTOR FACILITIES	204-226-2346	ghowe@pembinatrails.ca			
KERRI JOSS	ASST. DIR. FACILITIES	204-805-3746	kjoss@pembinatrails.ca			
LEON PREVOST	CARPENTRY SUPERVISOR	204-981-9163	lprevost@pembinatrails.ca			
BRENT VANDENBOSCH	UTILITIES SUPERVISOR	204-471-7985	bvandenbosch@pembinatrails.ca			
LORIE CARRIERE	SAFETY OFFICER	204-232-5338	lcarriere@pembinatrails.ca			

CONTRACTOR'S SAFETY ORIENTATION / DECLARATION FORM

All construction and maintenance work undertaken by contracted parties for Pembina Trails School Division will be performed in a safe manner. The references outlined below must be read and the *declaration form must be signed prior to start-up*. Review of contractor's safety orientation and signing of declaration form must be completed annually.

Contractor Name:		
Address:		

Does your company currently have a Safety & Health Program? Yes No
If yes, is your company COR or SECOR certified? Yes No Certification #:
If no, does your company have any safety systems in place? Ves No
If ves, please specify:

Please mark I the items below for all applicable training you / your workers currently hold:

Fall Protection	Articulating boom lift	Asbestos Abatement
Confined Space	WHMIS (annual)	Mold Abatement
Scaffolding	Lockout / Tag-out	TDG
Ladder Training	Arc Flash	Working Alone
Forklift	Fire Extinguisher	
Zoomboom	Respirator fit tested	
Scissorlift	First Aid / CPR	

DECLARATION:

- □ I have read the information provided to me by Pembina Trails SD respecting my company's safety and health requirements when working on divisional property:
 - Pembina Trail's SD General Contractor Safety Orientation Manual
 - Pembina Trails SD Safety Policy
 - Personal protective Equipment (PPE)
- As required by all employers in the Province of Manitoba, I have obtained current copies of Workplace Safety and Health Legislation and Guidelines.
- As required by all employers in the Province of Manitoba, I will ensure workers are supervised by a competent supervisor, who is familiar with WSH Act and Regulations, and properly trained prior to starting work on divisional property.
- □ As required by all persons in the Province of Manitoba, I will share required information with the division, and those affected, necessary to identify and control both the existing and potential hazards.
- My company's employees and I will ensure that all accidents, incidents and near misses that occur on divisional property will be immediately reported to the responsible Pembina Trails supervisor and/or Safety & Health Officer.

My company's employees and I meet the minimum safety training requirements and have valid certifications, qualifications and/or competencies as outlined in Manitoba's Workplace Safety and Health legislation.

Print name:	Signature:	Signature:		
Company:	Date: /		/	
	(Month)	(Day)	(Year)	

Please remove this page once signed and forward to the PTSD Divisional Safety & Health Officer

NOTES
