SUPERIOR-GREENSTONE DISTRICT SCHOOL BOARD

Plant Services

Working Together Towards ZERO Workplace Injuries

To view the proper measures to be taken to ensure the safe, continuous operation of SGDSB facilities and equipment select the item from the list of following information:

Operations Information

General Information

- School Addresses
- Head Custodian Information
- Maintenance Information
  - Plant Services Manager
  - Maintenance Coordinator
  - Maintenance Working Foremen
- Emergency Contact Information
- Contractor Approved Vender List
- Contractor Health & Safety Standard Operating Procedures Handbook
- Contractor Health & Safety Power Point Presentation
- Health & Safety Manual (SCBI)

Policies (list all policies pertaining to Plant Services and location of all Board Policies)

- Purchasing 303
- Building Grounds and Equipment Security 404
- Smoking 405
- Snow Removal 406
- Borrowing of Equipment 407
- Loaning of Equipment 408
- Use of School Buildings and Equipment 409
- Use of School Buildings and Equipment Management Guideline 409
- Lock and Keying Policy 410
- Lock and Keying Management Guideline 410
- Display of Flags 411
- Display of Flags Management Guideline 411
- Health and Safety 706
- Footwear 718

Procedures

- School Shutdown
- Lockout /Tagout
- Energy Management Systems
- Hot Work
- Painting and Flooring
- Water Flushing (Lead Regulation 243/07)
- Halloween
- School Evacuation
- Mould

- Confined Space
  - Entry Procedure
  - Entry Permit
  - Location of Confined Space

- Asbestos
  - Procedure
  - Location of Designated Substance
- Manual Material Handling
- Requisitions/Purchase Orders
- Work Order System
- Purchasing
- Community Use of Schools - FS Direct Work Orders

Occupational Health and Safety and 1st Aid

- Working Together Towards Zero Workplace Injuries
- Health and Safety Policy
- Occupational Health and Safety Act
- "In Case of Injury at Work" poster
- WHMIS regulations
- First Aid Regulations (WSIB Reg 1101)

Custodial Department

Custodial Department: Daily/Weekly/Monthly Tasks

- Daily
- Weekly
- Monthly

Custodial Inspection Information

- Fire Extinguishers – Done on PM Direct
- Fire Alarm Systems
- Water Flushing (Lead Regulation 243/07)
- Lamps and Lighting
- Elevator and Lift Devices
- Motorized Gym Equipment

Cleaning Procedures and Safety Information

- Vacuuming
- Wiping Surfaces
- Slips, Trips and Falls
- Footwear
- Cleaning Walls
- High Dusting
- Snow Shovelling
- Floor Scrubbers and Polishers
- Garbage
- Moving Furniture and Supplies
- Sweeping
- Electrical Tools and Machinery

Grounds Procedures and information

- Tractor Mowers
- Walking Lawn Mowers
- Riding Mowers
- String Trimmers
- Vehicle and Equipment Check List

Motorized Gym Equipment

- Basketball Winches
- Bleachers
- Gym Divider Doors and Curtains

Playground Inspections

- Daily inspections – Done on PM Direct
- Annual Inspections – Board will arrange the annual inspections

Maintenance Department

Mechanical Information

- Boilers and Hydronic Systems
- Pumps
- Compressors
- Heat Pumps
- HVAC Units
- Exhaust Fans
- Fire Sprinkler Systems
- Electrical Tools and Machinery
- Energy Management

Electrical Information

- Power Panels
- Circuit Breakers
- Cord Caps
- Lockout / Tagout
- Lockout Planning Steps
- Lockout Procedures
  - Electrical Lockout
  - Removing Locks and Tags Left on Equipment
  - Mobile Equipment (vehicles, genie lifts, floor scrubbers, etc.)
  - Equipment Testing and Troubleshooting
  - Energy Management Systems – Delta Controls
  - Working in Live Control Panels
  - Testing Live Electrical Circuit
- Lamps and Lighting
  - Compact Fluorescent Lamp Chart
  - Fluorescent Lamp Chart
  - Incandescent Lamp Chart
  - Light Source Color Chart

Health and Safety

- Personal Protective Equipment
- Fall Protection
- Working at Heights
  - Scaffolding
  - Elevating Work Platforms
  - Ladders
- Manual Material Handling
- Return to Safe Work Program **Under Construction

Forms and Checklists

Available in Public Folders in the Building/Maintenance Sub-Folder:

- B02-004 Alarm System and Call Out Report Form
- B03-001 Occupational Health and Safety Inspection Sheet
- B04-002 Vehicle Trip Log
- O Reg 243 Final Sampling Results Form
- O Reg 243 Flushing Results Form

Available on the Board Website
http://www.sgdsb.on.ca/article/occupational-health-and-safety-226.asp

- Superior-Greenstone District School Board Health and Safety Manual
- *SGDSB Employee Accident Report Form 1*
- *SGDSB Injury, Illness and Incident Investigation Report Form 2*
- *SGDSB Hazard or Incident Report Form 3*
- WSIB Workers Report Form 6
- WSIB Employers Report Form 7
- WSIB Functional Abilities Form

Procedures

School Shutdown Procedure

HVAC System

- Adjust your time clocks and computer schedules; run your heating system in occupied mode only when you need it.
- Use the smallest heating zone possible for the work being done. For example, if the cafeteria isn't being used, don't heat it.
- Verify your unoccupied set points: these should be set to 55^{o} F.
- Turn off automatic and manually operated exhaust fans where possible.

Lighting

- Turn off as many exterior lights as permitted by your administration. Modify your exterior lighting schedules to accommodate your work schedules as appropriate.
- Use interior lighting only in the areas being occupied. Use daylight if adequate.
- Turn off display and other task lighting.

Water

- Turn off or turn down electric water heaters at the circuit box (if not needed over the break). Turn off any hot water boosters for kitchen dishwashers.
- Turn off the domestic hot water circulation pumps if feasible.
- Check your water meters to verify there is no use due to water leaks.

Building Envelope

- Keep the blinds closed (turned so that the underside of the blade faces you). This will help reduce heat loss.
- Check the weather-stripping on your exterior doors for wear.

Plug-Loads

- Check to make sure all unnecessary electric appliances (copiers, computers, printers, fax, radios, water cooler, etc) are turned off.
- Unplug vending machines (inform vendors of intentions).
- Turn off compressors used in shops (auto, wood, etc).

Garbage

- Cancel unnecessary garbage and recycling pickups.

Lockout/Tag-out

- Follow lockout/tagout procedures when working on equipment or circuits.
- Never remove tags or locks placed on breakers or disconnects by other workers.

Procedure

- To prevent personal injury, which results from exposure to, or contact with electrical, mechanical, hydraulic, pneumatic, thermal, chemical and/or gravity stored energy sources (i.e.: suspended loads, charged air and water lines).

- To prevent personal injury or damage to equipment due to the accidental operation of equipment and/or release of stored energy (i.e.: suspended loads, charged air and water lines).

- This procedure applies to all maintenance and custodial employees of Superior Greenstone District School Board and all contractors and sub-contractors workings for Superior Greenstone District schools.

- Definition: "A set of work practices and procedures designed to guarantee no worker will come in contact with an uncontrolled energy source."

- Lockout procedures are a form of personal protection for workers. When de-energizing and isolation of equipment is required to ensure safety of workers and limit unnecessary equipment damage, lockout procedures will be followed.

Lockout procedures at Superior Greenstone District School Board incorporate the use of two devices:

1. Personal lock
2. A "DANGER – White "Men working on machinery" tag

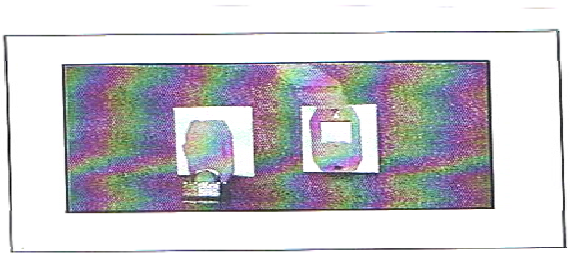
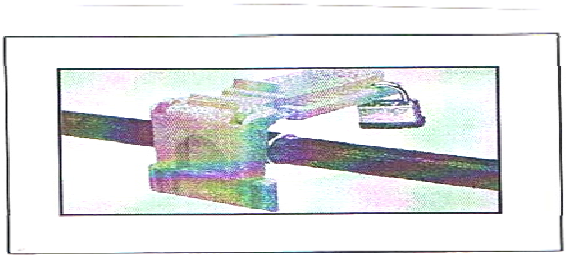
Personal Lock

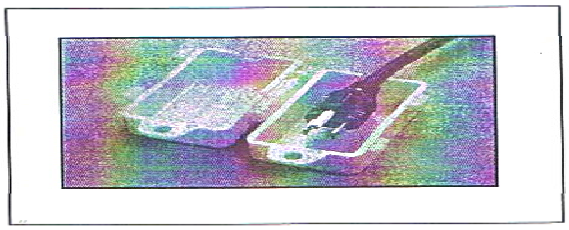
- Belong to one person only.
- Are not transferable.
- Are supplied to all maintenance and custodial staff at SGDSB.
- Are available through the maintenance coordinator by requisition.

White / Yellow "Danger" Tags

- Are used by each employee working on the equipment.
- Must always accompany each personal lock.
- Must be secured to the personal lock.
- Must state the reason the switch is open.
- Must state the name of the person doing the work (printed).
- Must show the current date.
- White "Danger" Tags are not to be used without a personal lock.

Lockout tags are available from the Head Custodian



Reminders

- Do not rely on control interlocks as protection against accidental start-ups. Lock out each piece of machinery independently.
- Disconnect electrical motor leads is not a recognized lockout procedure.
- White “Danger” tags must always be used when a personal lock is placed on a disconnect switch. The personal lock and the white tag combine to ensure the safety of people.
- Pulling fuses is not a substitute for lockout.
- Relying on switch position is not a substitute for lockout.
- Assuming job is too small to require locking out is not acceptable.
- Failure to test to verify energy status must be performed.
- Information tags do not equal lockout devices
- Personal Protective Equipment must be worn.
- Identify all equipment to be locked out. Be aware of the other energy sources in addition to electrical sources (batteries, charged air, hydraulic, steam or water lines).

Lockout Planning Steps

Specific lockout procedures will vary depending on the work and the process which must be shut down. The following chart can help you develop specific procedures.

1. Locate area, Identify equipment, machinery, etc.
2. Identify all energy sources
3. Determine parts to be locked out
4. Determine proper lockout methods
5. Notify affected personnel
6. Shut down equipment
7. Lock out equipment
8. Tag locked-out equipment
9. Verify: zero-energy state
10. Perform the work.

Lockout Procedures

Procedures

Electrical Lockout Procedure
Procedure for Removing Locks & Tags Left On Equipment
Mobile Equipment (vehicles, genie lifts, floor scrubbers etc…)
Testing / Troubleshooting
Energy Management Systems – Delta Controls Procedure
Procedure for Working in Live Control Panels
Procedure for Testing Live Electrical Circuit

Electrical Lockout Procedure

- Identify all equipment to be locked out. Be aware of the other energy sources in addition to electrical sources (batteries or charged air, hydraulic, steam or water lines).
- Stop the equipment or arrange to have it stopped. (Energy Management System).
- Verify all test meters are functional by testing a known power source, de-energizing test and re-energizing to test. This will ensure equipment is not faulty and in good working condition.
- Check to ensure the switch to be locked out coincides with the equipment stopped. Verify with cable markers and labels possible.
- Certified electricians are permitted to enter electrical panel(s), install new electrical equipment and supply new power source for SGDSB.
- Hydro permits installations and inspections must be entered in the electrical log book.
- If the voltage is 600 volts or less, turn switch on front of panel to off, then pull the handle (standing on either side of the door) to the off position. This isolates the equipment. If the voltage is greater than 600 volts, call an electrician. Only electricians are permitted to operate disconnects greater than 600 volts.
- Once power has been disconnected, install a lock(s) and fully completed white tag(s) on the disconnect switch handle(s). Each person working on the equipment must attach their own personal lock(s) and tag(s) to the switch handle(s) for each piece of equipment. Use multi-lock devises if necessary.
- Attempt to start the equipment. If the equipment can be remove started, contact the maintenance coordinator and ask for a start on the equipment which has been locked out.
- Proceed with work planned.

Removing Locks and Tags

- Personal locks and white tags must be removed by the person(s) who installed them when they leave the job, leave the property or complete the work on the equipment.
- If the work has been completed, remove all personal lock(s) and white tag(s)

- If the voltage is 600 volts or less, push the handle (stand on either side of the door) to the ON position.

- If the voltage is greater than 600 volts, call an electrician. Only electricians are permitted to operate disconnects at greater than 600 volts.

- Inform the Head Custodian that the work has been completed.

Procedure for Removing Locks and Tags Left on Equipment

- When a personal lock and white tag is left on after the completion of a job, every attempt must be made to contact the person(s) responsible. People so contacted will be asked to return to the site and remove their personal lock and white tag.

- If the person(s) cannot be contacted or does not return to remove the lock(s) and tag(s) the school supervisor shall ensure that re-energizing the equipment will not result in personal injury or equipment damage.

Locks and tags can be removed by someone other than the person(s) who owns them

- After the actions described in section 1) and 2) have been taken, and

- After the Plant Department Maintenance Coordinator or Plant Manager responsible for the facility authorizes the supervisor to remove them.

- In every situation where locks and tags are removed by a person other than the person who installed them, the school supervisor performing the removal is responsible for the following:

- Completing an incident report or initiating a full investigation, depending on the circumstances surrounding the incident.

- Communicate the change in status of the equipment to the entire people schedule to work on or near the equipment.

Personal locks MUST be kept personal.

Keys MUST NOT be given to another person.

A White "Danger Tag" MUST always accompany a personal lock when the lock is used as described in any Lockout Procedure.

Mobile Equipment Electrical Lockout Procedure

- The first person locking out a given piece of mobile equipment (genie lift, lifting equipment, custodial equipment etc..) must lock out the master switch, male plug end and the electrical control panel breaker by installing his/her personal lock and a complete white danger tag where required.

- Worker must test to make sure the mobile equipment cannot be started before commencing work. Stored pressure must be released from all hydraulic, air or water systems before systems are worked on.

- The personal lock and white tag shall be attached to the master switch, control panel and the male plug on the equipment's permanent trailing cable.

Equipment Testing and Troubleshooting Procedure

- This equipment testing procedure is a form of personal protection for workers. When testing or troubleshooting is required, the following procedure is to be followed to ensure the safety of workers and to limit unnecessary equipment damage.

- Testing / Adjusting / Troubleshooting procedure at superior Greenstone District School Boards incorporates the use of a white warning

- When equipment's power is used to "Adjust, Measure or Position", the White Warning Tag shall be used.

- When either the master switch, or the electrical disconnect is turned on, person(s) must attach a completed White Warning Tag to the source(s) to identify testing / troubleshooting.

- While testing, adjusting or troubleshooting is in progress, no other work will take place until testing or troubleshooting is completed.

- When testing or troubleshooting is completed, the White Warning Tag must be removed and equipment locked out to make repairs.

- When working on equipment with more than one energy source, a lock and personal tag may be used to isolate one source, while testing/troubleshooting is being performed on another part of the equipment.

Energy Management Systems – Delta Controls

SGDSB schools currently each have a Delta Energy Management Control System.

These systems are mainly used for night setback purposes and are not controlling the entire building control system in most cases. Local room thermostats will most often still provide room temperature control.

When problems with room temperature or fan unit operation are encountered it is important that they are approached in the following method:

1. **Safety First!** Never assume that a fan, pump, or heating element that is not running will stay that way while you work on it. Lock out procedures must be followed for all equipment. When a fan or other equipment is under the control of an Energy Management System we only interrupt control voltage level signals. Breakers and the main power supply remain the same as before the Energy Management System went in, so, ***Lock and Tag out!***

2. Check the room thermostat to ensure it has not been set wrong. Some baseboard heaters and reheat coils operate independent of Energy Management Systems.

3. Check voltage supply to Energy Management Panels. Power supply to panels must be 110-124 volts.

4. Check the breakers and fuses that feed the heating, cooling and ventilation system.

5. Check your air compressor if a pneumatic control system is used. Many overheat problems are caused by air system failure. Listen for air leaks in control piping; Make sure air tanks are not full of water, check belts, internal overloads and manual resets are not tripped.

6. Check filters and change them if they are dirty. Dirty filters are the main cause of complaints of stuffiness. Check heating and cooling coils and clean them if they are plugged.

7. If all the above steps have been carried out and the problem still exists then call me at the Red Rock Board Office 1-807-886-9998, or my cell phone at 807-229-5205. I will be able to check your system remotely and advise you.

8. Failing getting a hold of me, call Wayne Chiupka at the Marathon Board Office1-807-229-0436 ext 228, or his cell 807-229-7379. Great Northern Controls at 807-345-5300 office or cell 1-807-627-5914 and they can check the system remotely and advise what action to take.

9. Should Wayne Chiupka, Great Northern Controls or I not be able to resolve the problem, or you cannot reach us, then a Mechanical Contractor such as Thermal Mechanical, Clow Darling or GT Plumbing and Heating will need to be called. These companies are familiar with Energy Management Systems and usually can troubleshoot effectively.

With regards to computers for onsite monitoring of Energy Management systems, the IT Department installed a web server to allow the Plant Department to monitor the Energy Management Systems through any internet link. I will be working with the MWF over the upcoming year so they will be able to monitor the systems. I am confident that you will welcome what these systems can do.

Finally, if you notice a pattern of operating problems that may suggest programming changes are needed, please advise me. The systems are programmable as we need. The same goes for any equipment that you want to be added to the control system.

Energy Management Systems – Delta Controls Procedure

- All SGDSB schools currently each have a Delta Energy Management control system installed and administered by the SGDSB Plant Department Maintenance Coordinator, Plant Manager and John McCready of Great Northern Controls.

- These systems are mainly used for night setback purposes and are not controlling the entire building control system in most cases. Local room thermostats will most often still provide room temperature control.

- **When problems with room temperature or fan unit operation are encountered it is important that they are approached in the following method:**

- Safety First! Never assume that a fan, pump, or heating element that is not running will stay that way while you work on it. Lock out procedures must be followed for all equipment. When a fan or other equipment is under the control of an Energy Management System we only interrupt control voltage level signals. Breakers and the main power supply remain the same as before the Energy Management System went in, so, Lock and Tag out!

- Check the room thermostat to ensure it has not been set wrong. Many baseboard heaters and reheat coils operate independent of Energy Management Systems.

- Test Voltage meter on a known power source. Test, de-energize and test again (blown fuse in a meter will give no potential difference).

- Check voltage supply to Energy Management Panels. Power supply to panels must be 110-124 volts.

- Check the breakers and fuses that feed the heating, cooling and ventilation system.

- Check your air compressor if a pneumatic control system is used. Many overheat problems are caused by air system failure. Listen for air leaks in control piping; Make sure air tanks are not full of water, check belts, internal overloads and manual resets are not tripped.

- Check filters and change them if they are dirty. Dirty filters are the main cause of complaints of stuffiness. Check heating and cooling coils and clean them if they are plugged.

- If all the above steps have been carried out and the problem still exists then call Maintenance Coordinator, Marc Paris, at the Red Rock Board Office 1-807-886-9998, or my cell phone at 807-229-5205. I may be able to check your system remotely and advise you.

- Failing getting a hold of me, call Wayne Chiupka at the Marathon Board Office1-807-229-0436 ext 228, or his cell 807-229-7379. Final approach John McCready from Great Northern Controls at 807-345-5300 office or cell 1-807-627-5914 and he can check the system remotely and advise what action to take.

Procedure for Working in Live Control Panels

- Fire alarm panels, instrument panels, telephone systems and energy management systems are used to control stationary equipment on site. These panels are usually located in large cabinets. On occasion wires must be installed or removed from the terminal blocks to assist in live troubleshooting or equipment addition / removal.

- **Electrical work within the cabinet does not require a complete power outage inside the enclosure for the following reasons:**

- There are no exposed 208 volt or greater bus bars
- Potential fault current is very low
- Distribution panels are not control panels (i.e.: lighting/power panels)
- Before work starts in a control cabinet, the voltage potential must be identified. Use specific procedure “A Testing Live Electrical Circuits”.
- If the voltage is greater than 120 volts to ground, then no work is allowed inside the panel without proper personal protective equipment. If a barrier can be installed to isolate the voltage sources, then work can proceed without gloves.
- If, for some reason, you need to work beyond the limits of this procedure, contact the Plant Department Maintenance Coordinator or Plant manager.

Procedure for Testing Live Electrical Circuits

Definition of “testing” as it applies to live electrical equipment:

- There are times when electrical personnel are required to troubleshoot testing to be done with electrical circuits and equipment energized. Testing, in this context, is defined as the use of a meter device to determine voltage, current and/or resistance readings towards identifying problems with electrical equipment.
- Testing for the purpose of troubleshooting does not include any repair or construction work which might be required to return equipment to regular operation condition.
- Normal repair or construction work on equipment can only be done after the equipment has been de-energized and all lockout procedures have been followed.

Certified Electricians are the ONLY workers authorized by SGDSB to enter live electrical panels (lighting panels, power panels), install new electrical circuits and equipment.

This applies to any voltage

Hot Work Procedure

Procedure

Hot Work is any operation producing flames, sparks or heat, by cutting, welding, brazing, grinding, sawing, soldering, thawing frozen pipe and by applying roof covering.

The Superior Greenstone District School Board Plant Services Department operates under a Hot Work Procedure through a permit system. Before any Hot Work is carried out, SGDSB employees must complete a permit to do Hot Work.

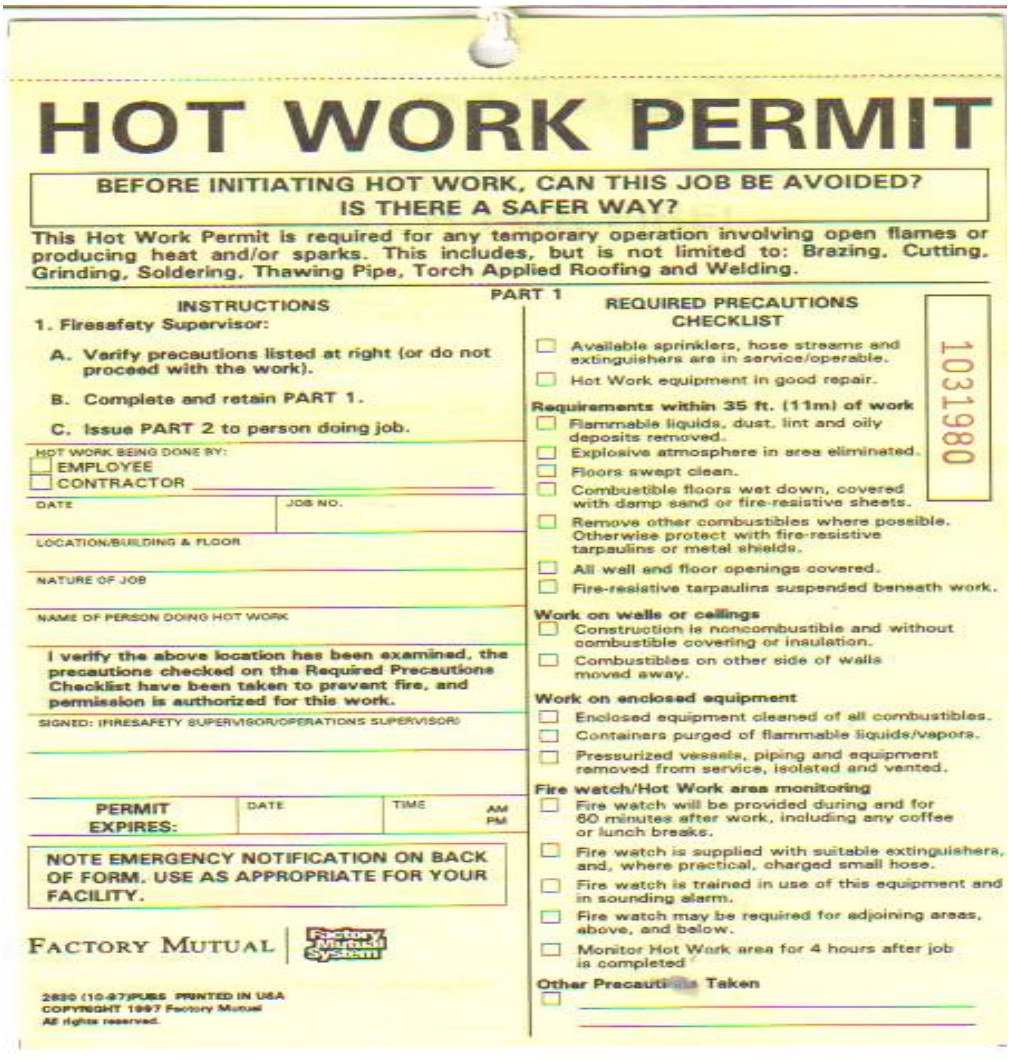
Employees who do not follow these procedures are not authorized to perform Hot Work repairs.

Methods

- Before Doing Hot Work
  - Seek another repair method if possible, which does not create risk of fire.
  - Hot Work Permit must be completed and signed by the person doing the work and posted in the work area.
  - Prepare the area properly to guard against fire.
  - Inspect the area for Fire Alarm smoke detectors.
  - Remove combustible contents or cover with fire resistant tarpaulins
  - Sweep floors clean.
  - Remove flammable liquids.
  - Ensure fire protection and Hot Work equipment function properly.
  - A fire hose and/or fire extinguisher must be available and function properly.
  - Notify the Head Custodian, or designate, of work to be carried out and the time lines.

- After Doing Hot Work
  - Fire watch up to one (1) hour after the work is completed.
  - Monitor the Hot Work area for at least four (4) hours after the job is complete.

Hot Work Permits are available from the school's Head Custodian



HOT WORK PERMIT

BEFORE INITIATING HOT WORK, CAN THIS JOB BE AVOIDED? IS THERE A SAFER WAY?

This Hot Work Permit is required for any temporary operation involving open flames or producing heat and/or sparks. This includes, but is not limited to: Brazing, Cutting, Grinding, Soldering, Thawing Pipe, Torch Applied Roofing and Welding.

PART 1

INSTRUCTIONS

1. Firesafety Supervisor:

A. Verify precautions listed at right (or do not proceed with the work).

B. Complete and retain PART 1.

C. Issue PART 2 to person doing job.

HOT WORK BEING DONE BY:
☐ EMPLOYEE
☐ CONTRACTOR

DATE | JOB NO.

LOCATION/BUILDING & FLOOR

NATURE OF JOB

NAME OF PERSON DOING HOT WORK

I verify the above location has been examined, the precautions checked on the Required Precautions Checklist have been taken to prevent fire, and permission is authorized for this work.

SIGNED: (FIRESAFETY SUPERVISOR/OPERATIONS SUPERVISOR)

PERMIT EXPIRES: | DATE | TIME | AM PM

NOTE EMERGENCY NOTIFICATION ON BACK OF FORM. USE AS APPROPRIATE FOR YOUR FACILITY.

FACTORY MUTUAL | Factory Mutual System

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REQUIRED PRECAUTIONS CHECKLIST

1031980

☐ Available sprinklers, hose streams and extinguishers are in service/operable.
☐ Hot Work equipment in good repair.

Requirements within 35 ft. (11m) of work
☐ Flammable liquids, dust, lint and oily deposits removed.
☐ Explosive atmosphere in area eliminated.
☐ Floors swept clean.
☐ Combustible floors wet down, covered with damp sand or fire-resistive sheets.
☐ Remove other combustibles where possible. Otherwise protect with fire-resistive tarpaulins or metal shields.
☐ All wall and floor openings covered.
☐ Fire-resistive tarpaulins suspended beneath work.

Work on walls or ceilings
☐ Construction is noncombustible and without combustible covering or insulation.
☐ Combustibles on other side of walls moved away.

Work on enclosed equipment
☐ Enclosed equipment cleaned of all combustibles.
☐ Containers purged of flammable liquids/vapors.
☐ Pressurized vessels, piping and equipment removed from service, isolated and vented.

Fire watch/Hot Work area monitoring
☐ Fire watch will be provided during and for 60 minutes after work, including any coffee or lunch breaks.
☐ Fire watch is supplied with suitable extinguishers, and, where practical, charged small hose.
☐ Fire watch is trained in use of this equipment and in sounding alarm.
☐ Fire watch may be required for adjoining areas, above, and below.
☐ Monitor Hot Work area for 4 hours after job is completed.

Other Precautions Taken
☐

Paint and Flooring

Procedure

To adopt a painting and flooring procedure that will ensure all staff and other parties are informed in advance when painting or flooring work will be performed in their schools.

Implementation of a professional uniform colour scheme will enable the schools to look similar to new construction upon completion. Promoting the use of low VOC paints, adhesives, and flooring materials, will see improved air quality for building users upon work completion.

Geraldton Composite High School and ***B.A. Parker Public School*** in Geraldton are ***"Paint Free Schools".***

No plant maintenance painting or flooring installation can take place unless approved by Superior-Greenstone District School Board's Manager of Plant Services or Maintenance Coordinator.

Materials have the potential to impact air quality; therefore the selection of painting, flooring materials and adhesives is an important consideration. Using various paint colours across the Board causes difficulty and extra cost when blending and colour matching.

Product Comments and Requirements

Paint

1. Low-emitting primer and paint will be standard and applied in all schools and shall consist of the following specifications:
   a) **Paint** – Glidden ICI Ultra Alkyd Oil – Low Odour (94410.501)
   b) **Primer** – Glidden ICI Gripper 250 (250.501)

2. Coordination with existing paint colours and building colour standard must be based with a uniform colour scheme and be continued throughout the school. Repainting will be done in the original colour unless the requester has received approval from Maintenance Coordinator or Plant Manager to change colours from the Plant Department Colour Schedule.

3. Head Custodians to ensure ICI Paints document used and store all records in their data base by school location, colour code, dye lot, and paint bases.

MSDS and DATA Sheets

1. MSDS sheets must be on site prior to any painting and be filed in the school's WHMIS binders.

Flooring *(carpet, vinyl, related flooring materials and adhesives)*

1. Install carpet, vinyl and related flooring materials only when the school building is not occupied, except for small installations or repairs.

    3. Use of low-emitting VOC adhesives recommended, manufactures and/or suppliers to submit information about product emissions that may adversely impact air quality.

Safe Working Practice

1. Avoid re-circulating air from painted or flooring installation areas, ensure return air systems are temporarily covered and or blocked.

2. Use supply and exhaust fans to remove paint fumes and/or flooring fumes from the school.

3. During exterior painting keep windows and doors closed as much as possible.

4. Seal containers carefully after use.

5. Dispose waste following appropriate manufactures recommendations.

School Requirements

1. Whenever possible, painting and flooring installations will be scheduled during school breaks or summer vacation periods. However, this is not always possible.

2. Prior to establishing a schedule for interior painting and flooring installations, the Maintenance Coordinator, Maintenance Working Foreman and or Head Custodian shall discuss the proposed dates with the school Principal/Vice Principal. The discussion shall consider accommodations with respect to class relocation and safety requirements.

3. Notification to staff by way of a bulletin and onsite notice shall be given one (1) week prior to the scheduled painting.

4. Notice of painting in progress is to be posted on entrance doors by the Maintenance Working Foreman, Head Custodian or designate.

5. No painting will be undertaken in a classroom or area that is occupied.

6. Keep paint stored in approved storage cabinets.

7. MSDS information required and reviewed prior to any painting or flooring work to begin.

8. A Work Order Request must be submitted requesting the area to be painted and be approved by the Principal/Vice Principal and Maintenance Coordinator.

PLANNED PAINTING / FLOORING WORK

FROM: _____

SCHOOL: _____

Is it intended that the above work will begin_____

And be completed by_____

In the following areas of the school:

Foyer	[ ]
Administration Area	[ ]
Corridors	[ ]
Washroom	[ ]
Gymnasium	[ ]
Library	[ ]
Classrooms	[ ]
Other	[ ]

_____

Please be assured that the area being worked on will be ventilated to the maximum extent possible.

If you are allergic to paint or adhesive substances, please contact me as soon as possible so that special arrangements can be made.

_____

(SGDSB Principal / Vice-principal)

Water Flushing (Lead Regulation 243/07)

The goal of the regulation is to provide increased protection for children who are particularly vulnerable to the effects of lead.
Mandatory flushing and testing requirements are to be performed within SGDSB schools. These requirements are set out *in Ontario Regulation 243/07 – Schools, Private Schools and Day Nurseries*.

Key Provisions of **R*egulation 243/07*** are:

- A record shall be kept of the date and time of every required flushing and the name of the person who performed the flushing records will be stored on the Board's PM program.

- The Ministry of Environment will be performing random audits to ensure schools are in compliance.

- Lead and Micro Biology test records will remain on file at each school location (front office) for a minimum of 6 years and be available for any member of the public. (Board Office also to file all school flushing records)

- Record keeping shall consist of the following:
  - School map 8x11 clearly identifying school fountains and taps used for drinking or for food preparation.

Annual Testing

- At every School, an annual sample of water must be submitted to ALS Laboratory Group of Thunder Bay to be tested for lead. The sample is to be of cold water taken on a date ***between June 15 and June 25*** from a tap that is commonly used to provide water for consumption.

  Two Samples Required
  - *First Sample* – taken after a period of six hours or more when the plumbing is not used (essentially overnight).

  - *Second Sample* - the tap must be turned on for at least five minutes, then turned off and left unused for a period of at least 30 but not more than 35 minutes.

Weekly/Daily Flushing

Water flushing required daily prior to school opening
Plumbing shall be flushed in two steps:

1. By turning on the cold water at the last tap on each branch or each run of pipe in the plumbing for at least five minutes.

2. Following step (1), turning on the cold water at every drinking water fountain and tap that is commonly used for drinking or for food preparation for at least 10 seconds.

IMPORTANT: Schools MUST comply with flushing requirements during weekends and other school breaks when user groups (under age 18) are using your facility.

Daily Flushing School Sites

- B.A. Parker Public School
- Caramat Public School
- George O'Neill Public School
- Manitouwadge Public School
- Marjorie Mills Public School
- Nakina Public School
- Red Rock Public School
- Schreiber Public School
- Terrace Bay Public School
- Geraldton Composite High School
- Lake Superior Public School
- Marathon High School
- Nipigon-Red Rock District High School

Weekly Flushing School Sites

- Beardmore Public School
- Dorion Public School
- Margaret Twomey Public School
- Manitouwadge High School

It is important that each Head Custodian take the time to review and understand regulation 243/07, the three links below will give you plenty of information and answer all your questions on lead flushing.

The first link is literature on how to flush and test:
http://www.ontario.ca/drinkingwater/178731.pdf

The bottom two links are videos from the MOE which will inform you on testing and flushing requirements as per regulation 243/07:
http://www.ontario.ca/drinkingwater/243278.wmv
http://www.ontario.ca/drinkingwater/243279.wmv

Halloween Procedure

As in previous years, the following measures should be taken to minimize the possibility of vandalism-related problems, and are to be implemented prior to the evening of Halloween.

- The Outside perimeter of all buildings should be inspected and action taken to secure any items which may be prone to vandalism or theft, or could be used as tools to cause vandalism. Roof access areas should be locked and measures taken to prevent unauthorized access to the roof. Watch for loose bike racks and other things that could be used as makeshift ladders to access the roof (this actually happened at one of our sites several years ago).
- Garbage should be secured and locked to prevent access.
- Lights should be left on in all main floor rooms and hallways, which are visible from the outside of the building. This should remain in effect 24-hours per day over the course of Halloween night.
- Doors and windows should receive extra care in ensuring they are locked and secure. It is suggested that an exterior walk-around be carried out by the custodial staff to inspect and test windows and doors for weakness.
- Exterior lighting should be turned on and confirmed to be working, well in advance.
- In-school announcements may be advisable, to warn would be vandals and to enlist the attention of the students to watch out for their school. (This is just a suggestion - you should decide whether you wish to do this.)

School Evacuation

- **First and foremost** the safety of staff, students, parents, and all residents is critical.
- Next the safety and security of the building and equipment they contain is important.

Some preparation tips include

- Ensure that easily moved valuable items are not left visible and unsecured.
- Lock things up or chain them down.
- Electrical power should be left on as normal.
- Alarm systems should be left on as normal.
- Security lighting should be left on as normal.
- Ventilation systems should be shut down by Maintenance or Custodial staff.
- Windows should be locked and checked to ensure resistance to forced entry.
- All interior doors should be closed and locked (where equipped).
- All exterior doors should be locked and checked to ensure resistance to forced entry.
- All outside gates, storage buildings, and compounds should be chained and padlocked.
- Trailers or other easily moved equipment should be chained to an unmoveable object, where possible.
- Remember to have the charger for your cell phone as you leave.

Plant Services realizes that there may not be time to carry out all of the above when an evacuation if ordered, so anything that can be done now should be carried out (as long as it does not affect current school classes).

Another thing that you may wish to consider is to turn ventilation systems off in the event smoke levels are high in the air within your community. That way you are not pumping smoke into you classes when the kids are in. This is a short term action that you will need to decide on day by day.

Mould

Procedure

The appropriate mould abatement procedure is determined by the quantity of mould identified and the type of material that is contaminated. The following procedure outlines the remediation measures that must be followed by Superior Greenstone District School Board staff, contractors and subcontractors as defined by the extent of the mould contamination.

1. For areas contaminated with mould that are **less than 10 sq. ft (1m^2)**:
   - Personal protective equipment and potential health hazards can conduct the necessary remediation.
   - The personal protective equipment that should be worn includes *gloves*[1] and *goggles*[2].
   - Remediation of materials can be completed during school hours providing there are no occupants in the adjacent vicinity where the work is being completed.
   - Contaminated materials should be removed, sealed in double plastic bags and disposed as normal waste.

   [1] *The appropriate gloves that can be used include: natural rubber, neoprene, nitrile, polyurethane or PVC.*

   [2] *The goggles should not have any vent holes to prevent any dust/debris entering the eyes.*

2. For areas contaminated with mould that are **between 10 sq.ft and 100 sq. ft (1 to 3m^2)**:
   - The areas requiring remediation should be contained with floor to ceiling enclosed with polyethylene sheeting and maintained under negative pressure with a HEPA filtered fan unit. The supply and return air vents in the contaminated area should be blocked prior to commencing the remediation.
   - The personal protective equipment that should be worn includes a N95 respirator or a half face respirator with HEPA filter, disposable coveralls, gloves1 and goggles2.
   - Remediation of materials contaminated with this extent of mould must be completed after school hours and with advance notification to the area occupants.
   - Contaminated materials should be removed, sealed in double plastic bags and disposed as normal waste.

3. For areas contaminated with mould that are **greater than 100 sq.ft (3m2)**:
   - Any surfaces requiring remediation that are greater than 100 sq.ft should be completed by a qualified contractor.

Mould Remediation

Process

Action within 24-48 hours

Actions are for damage caused by clean water. If it is known or suspected that the water is contaminated by sewage or chemical or biological pollutants, consult a professional. Do not use fans unless the water is clean and sanitary.

1. Discard non-valuable items.
2. Photocopy valuable items, and then discard.
3. Freeze (in frost-free freezer or meat locker) or freeze-dry.
4. Remove water with water-extraction vacuum.
5. Reduce humidity levels with dehumidifiers.
6. Accelerate drying process with fans and/or heaters.
    - Don't use heat to dry carpet.
    - Use caution applying heat to hardwood floors.
7. Discard and replace.
8. May be dried in place, if there is no swelling and the seams are intact. If not, then discard and replace.
9. Ventilate wall cavity.
10. For all treated or finished woods, porous (linoleum, ceramic tile, vinyl) and non-porous (metal, plastic) hard surfaces, vacuum or damp-wipe with water or water and mild detergent and allow to dry; scrub if necessary.
11. For porous flooring and carpets, make sure that subfloor is dry
12. Wet paneling should be pried away from walls for drying.

Clean-up Methods

Methods are for damage caused by clean water. If it is known or suspected that the water is contaminated by sewage or chemical or biological pollutants, consult a professional.

These are guidelines only. Other cleaning methods may be preferred by some professionals. Consult Action within 24-48 hours in the chart if materials have been wet for less than 48 hours and mould growth is not apparent.

If mould growth is not addressed promptly, some items may be damaged beyond repair. If necessary, consult a restoration specialist.

A: Wet-vacuum the material. In porous material, some mould spores/fragments will remain but will not grow if material is completely dried. Steam cleaning may be an alternative for carpets and some upholstered furniture.

B: Damp-wipe surfaces with water or with water and detergent solution (except wood - use wood floor cleaner); scrub as needed.

C: Use a high-efficiency particulate air (HEPA) vacuum once the material has been thoroughly dried. Dispose of HEPA-vacuum contents in well-sealed plastic bags.

D: Remove water-damaged materials and seal in plastic bags inside containment area, if there is one. Dispose of as normal waste. HEPA-vacuum area once it is dried.

Precautions

PPE (Personal Protective Equipment)

Use professional judgment to determine PPE for each situation, particularly as the size of the remediation site, and the potential for exposure and health effects, increase. Be prepared to raise PPE requirements if contamination is more extensive than expected.

M Minimum - Gloves, N-95 respirator, goggles/eye protection.

L Limited - Gloves, N-95 respirator or half-face respirator with HEPA filter, disposable overalls, goggles/eye protection.

F Full - Gloves, disposable full-body clothing, head gear, foot coverings, full-face respirator with HEPA filter.

Containment

Use professional judgment to determine containment for each situation, particularly as the size of the remediation site, and the potential for exposure and health effects, increase.

NR None Required

L Limited – From floor to ceiling, enclose affected area in polyethylene sheeting with slit entry and covering flap. Maintain area under negative pressure with HEPA-filtered fan. Block supply and return air vents in containment area.

F Full - Use two layers of fire-retardant polyethylene sheeting with one airlock chamber. Maintain area under negative pressure with HEPA-filtered fan exhausted outside of building. Block supply and return air vents in containment area.

Notes

- Upholstery may be difficult to dry within 48 hours.
- For items with monetary or sentimental value, consult a restoration specialist.
- Follow manufacturer’s laundering instructions.

Confined Space

Confined Space Entry Procedure

1. Complete the entry permit.

2. Control all hazards.

3. Set up barricades and warning signs as needed around entry point.

4. Atmospheric testing to be completed before confined space entry & periodically, air testing device will remain with the entrant during entry. Ventilating or purging may be required.

5. Inspect personal protective and safety equipment, set up emergency retrieval equipment if required.

6. Test radio communication equipment and stay in contact at all times.

7. A space condition report will be communicated to the attendant for any dangers or hazards that may exist.

8. The attendant shall ensure that every worker who enters, exits or occupies a confined space follows the plan

Confined Space Emergency Procedure

1. The attendant, upon receiving an emergency call from the entrant(s) will contact the appropriate emergency unit, ex. Fire Department or Medical Unit.

2. The attendant will then commence the rescue.

Medical Emergency

- Once the injured entrant reaches the access point emergency first aid will be performed until the medic arrives.

Fire Emergency

- Once all entrants reach the access point the access will be closed and all personnel will immediately vacate the building by the nearest designated exit.

A copy of all permits will be retained at the school for a minimum of two years.

A copy is to be faxed to the Manager of Operations.

Confined Space Entry Permits and SGDSB Health and Safety Reference Manual are available from the school's Head Custodian.

Confined Space Entry Permit

Date & Time Issued:

_____/_____Expires:_____/_____School:_____

Permit Entry Location: _____ Purpose of Entry_____

Entrants Company: _____

Entry Worker
1:_____2:_____3:_____

Attendant: _____

All Entrants, Attendant(s) & Entry Supervisor Verified Trained For Duties. Yes____ No____

Hazard(s) of Space: Atmospheric _____ Engulfment _____ Electrical_____
Mechanical _____ Water _____ Other_____

Equipment Available:

	YES	NO	N/A		YES	NO	N/A
Calibrated Gas Monitor				Protective Clothing			
Safety Harness & Lifeline				Ventilation			
Emergency Retrieval Line				Breathing Apparatus			
Hoisting Equipment				Lights & Tools			
Intrinsically Safe Equipment				Communication			

Entry cannot be approved if any entries are marked with the "NO" column. This permit is not valid unless all items are completed.

TESTING & MONITORING: Periodic _____ Continuous _____

Oxygen: 19.5% - 23% 1._____2._____3._____4._____5._____

Flammability: <10%LEL 1._____2._____3._____4._____5._____

H2S Concentrations: 1._____2._____3._____4._____5._____

Co Concentration:
1._____2._____3._____4._____5._____

Additional Work Permits: Hot - Work_____

Entry is authorized_____ (Attendant Worker)

Entry is authorized_____ (Entry Worker/Entry Supervisor)


DANGER
CONFINED SPACE
ENTRY BY PERMIT ONLY

NORTH
GYMNASIUM
LIBRARY
OFFICE
MECH. ROOM
ACCESS TO AIR HANDLING UNIT #1 2nd FLOOR MECH ROOM
MNPS#3
MNPS#4
GRAVITY SPACE ACCESS
MNPS#2
GRAVITY SPACE ACCESS
MNPS#1
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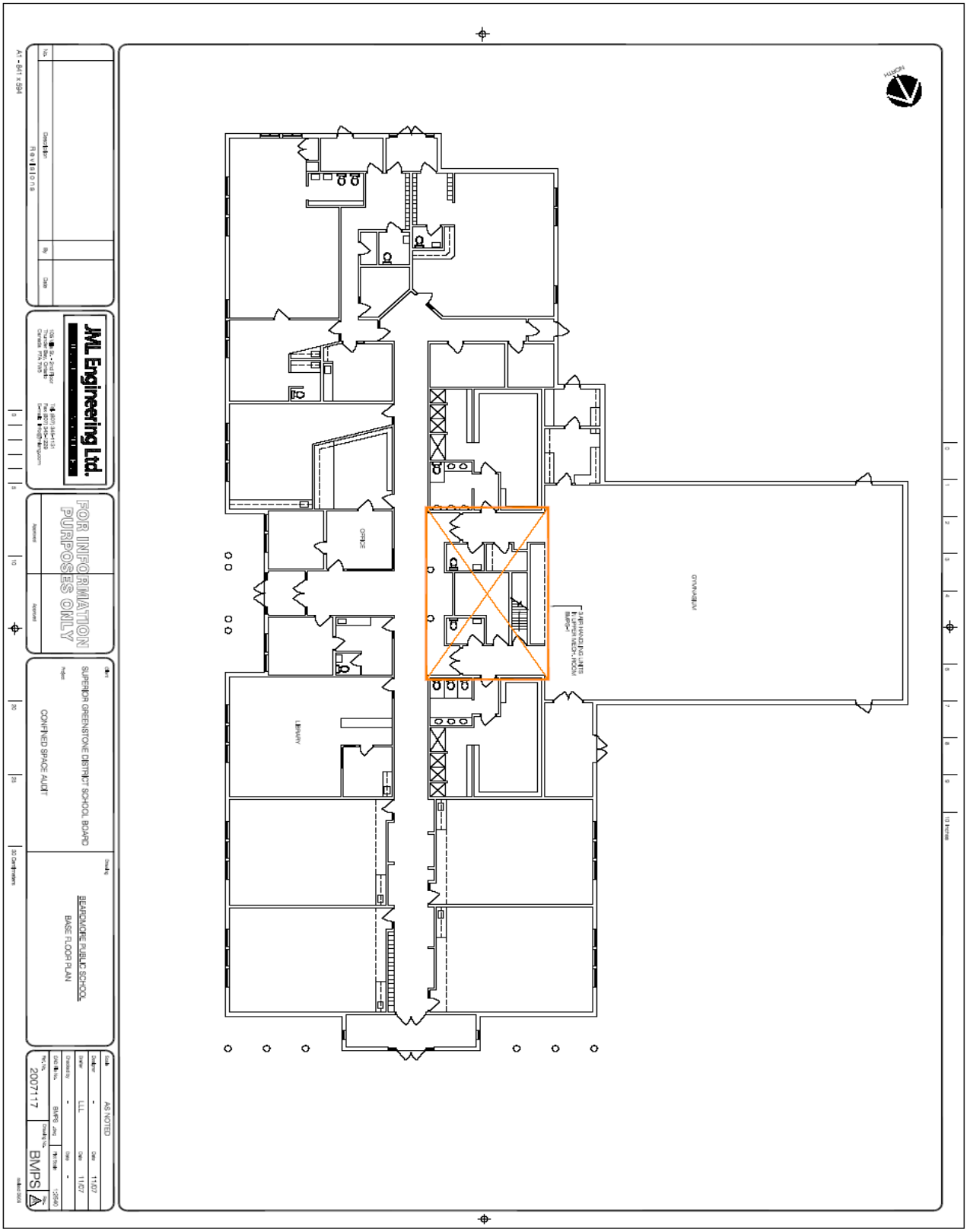
FOR INFORMATION PURPOSES ONLY
SUPERIOR GREENSTONE DISTRICT SCHOOL BOARD
CONFINED SPACE AUDIT
MANITOUWADGE PUBLIC SCHOOL
BASE FLOOR PLAN
AS NOTED
2007119
MNPS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LIBRARY
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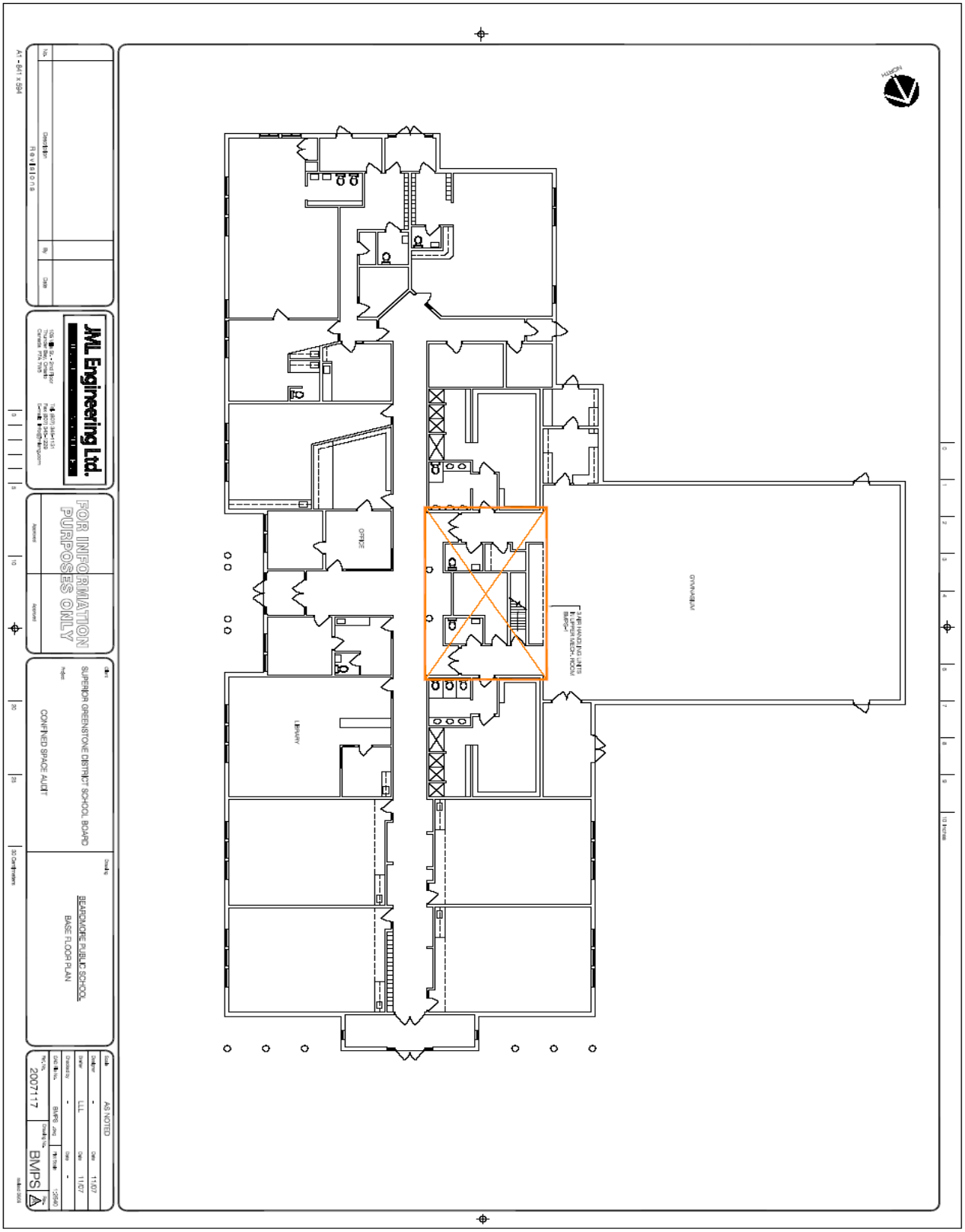
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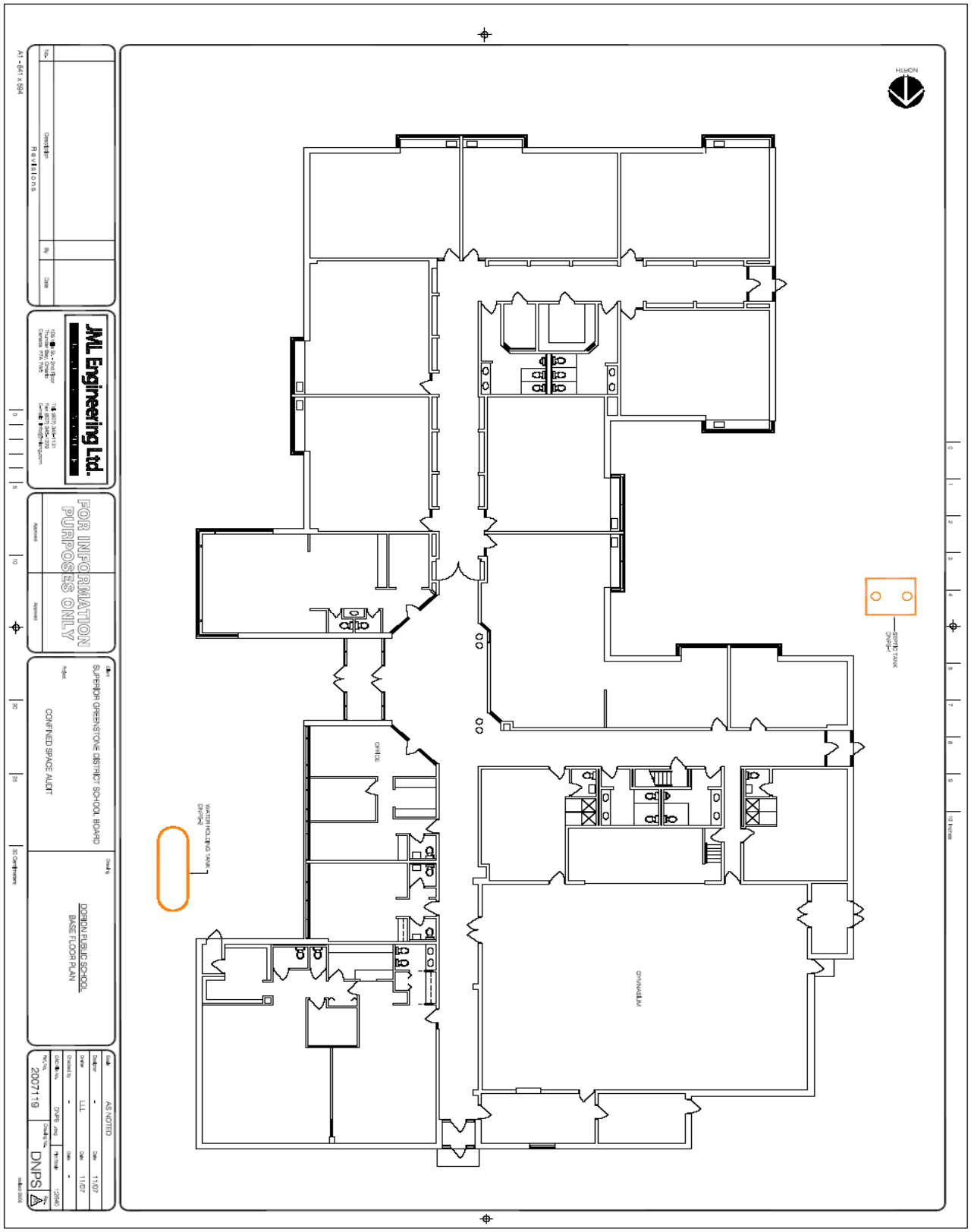
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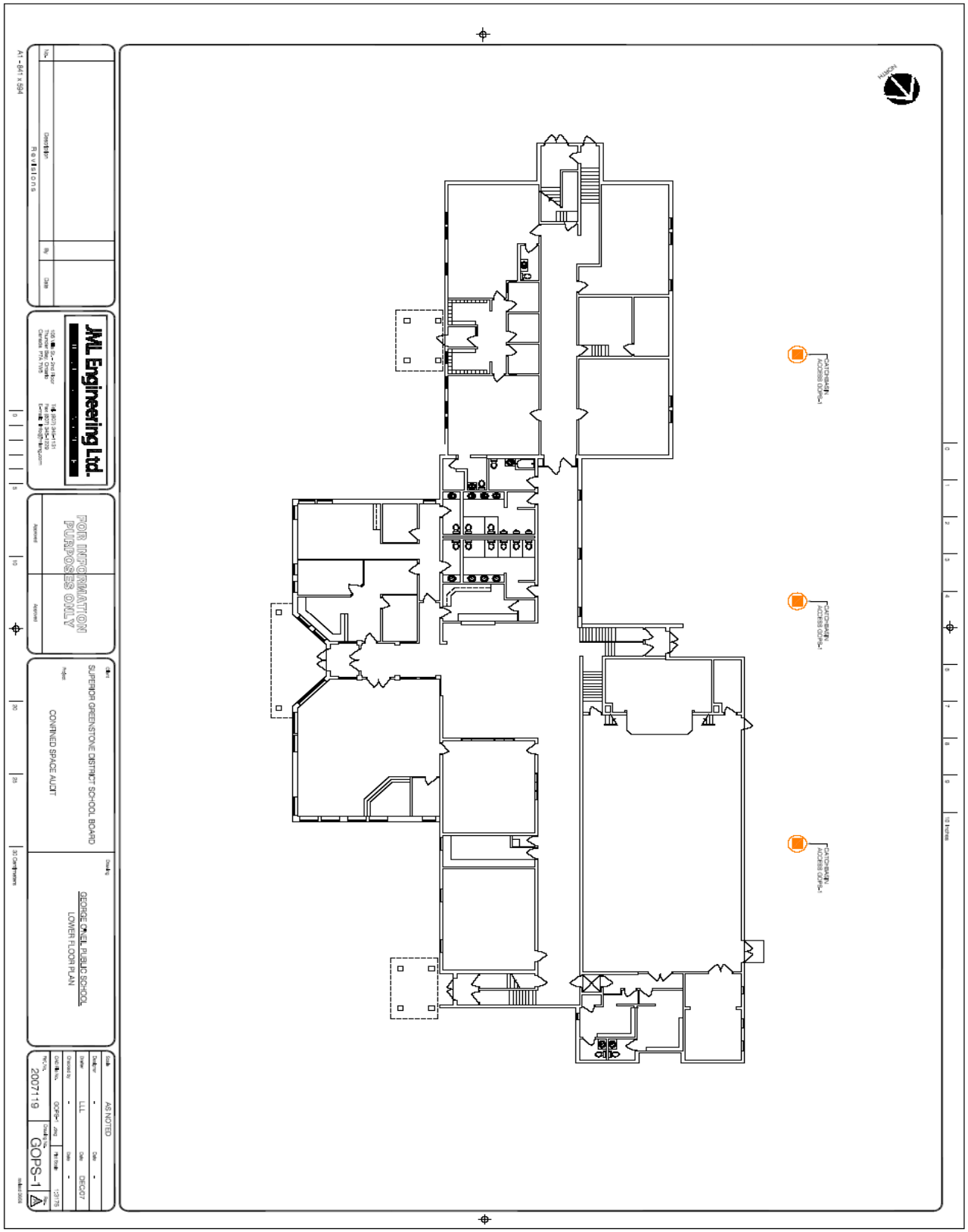
WATER HOLDING TANK
SEPTIC TANK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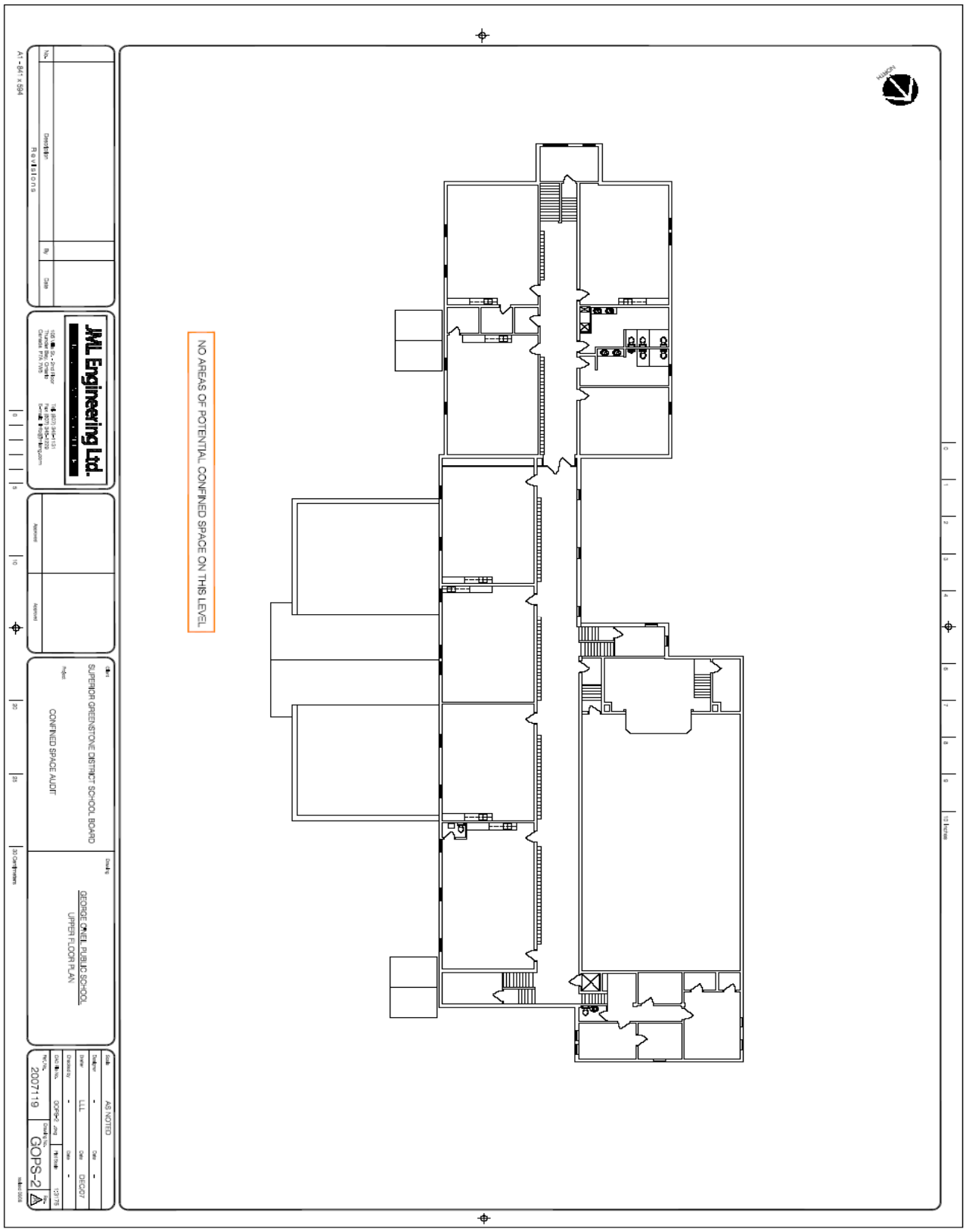
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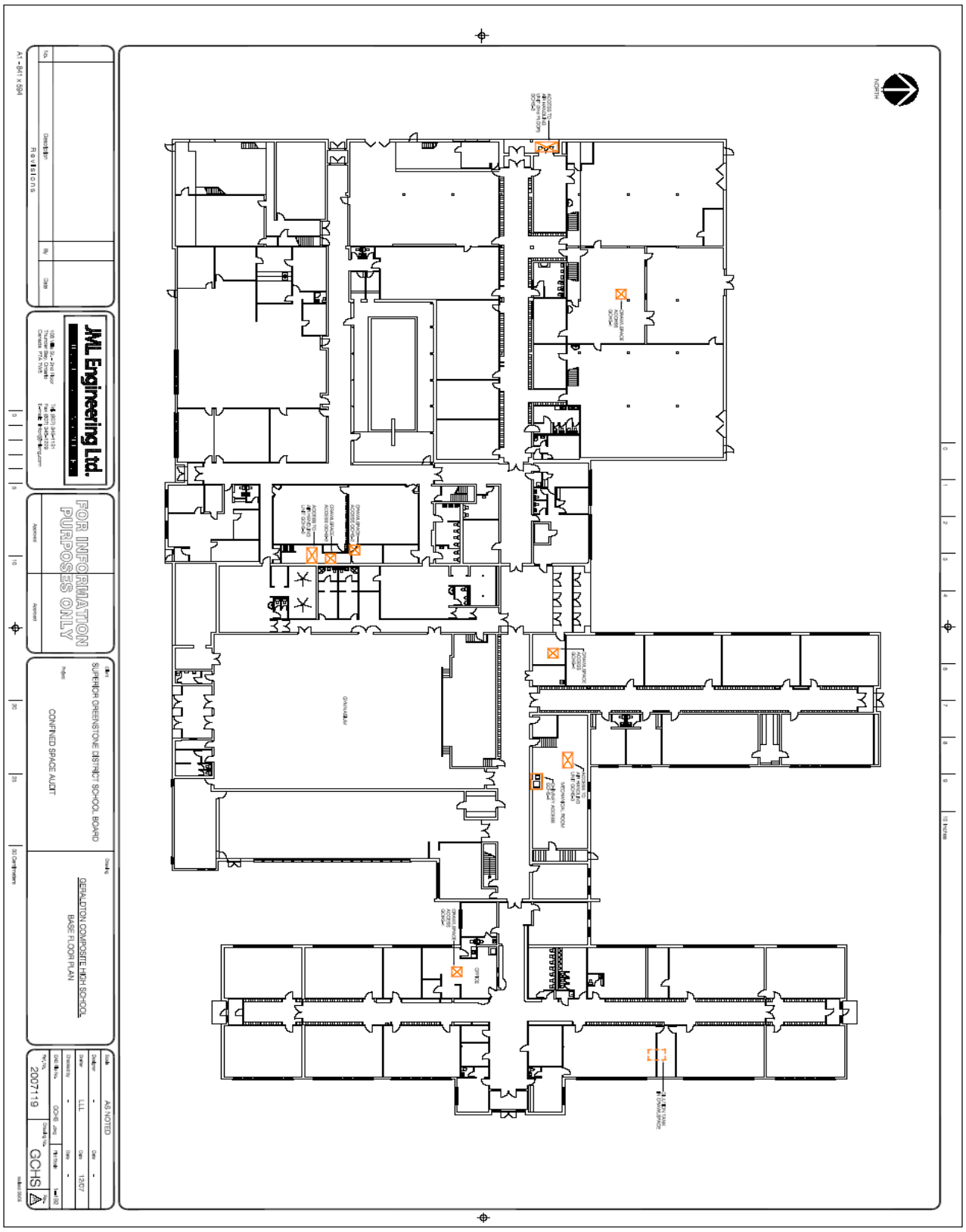
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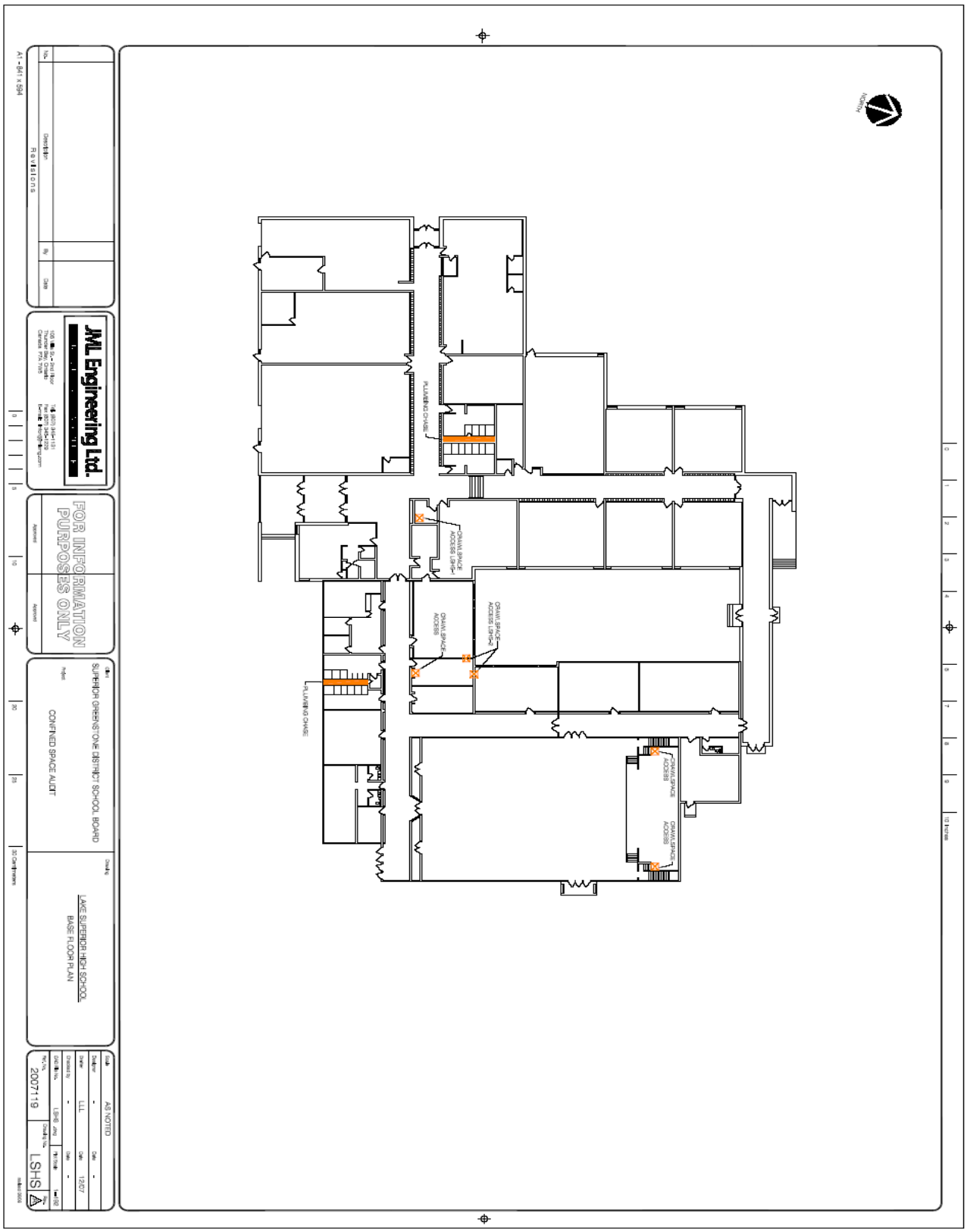
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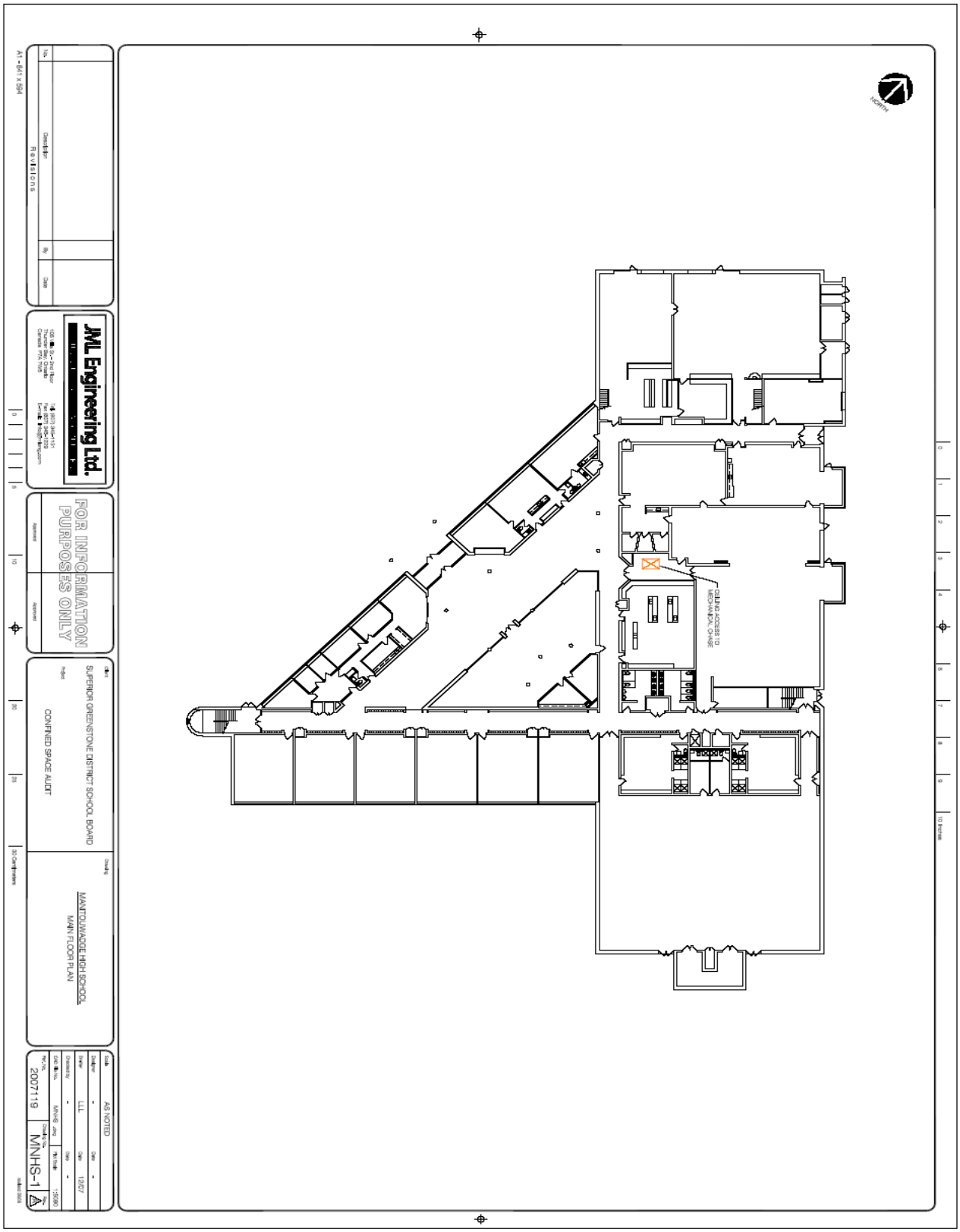
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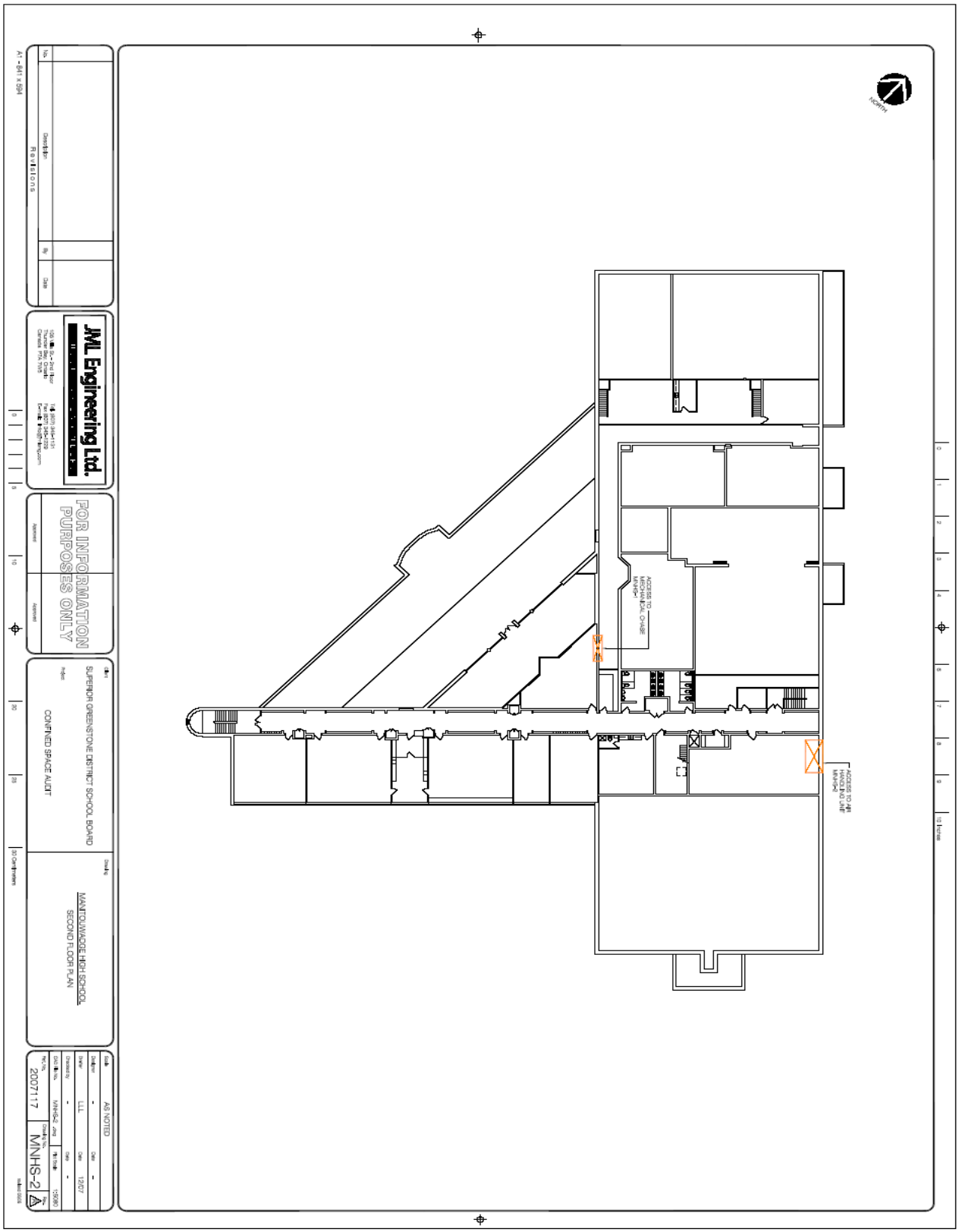
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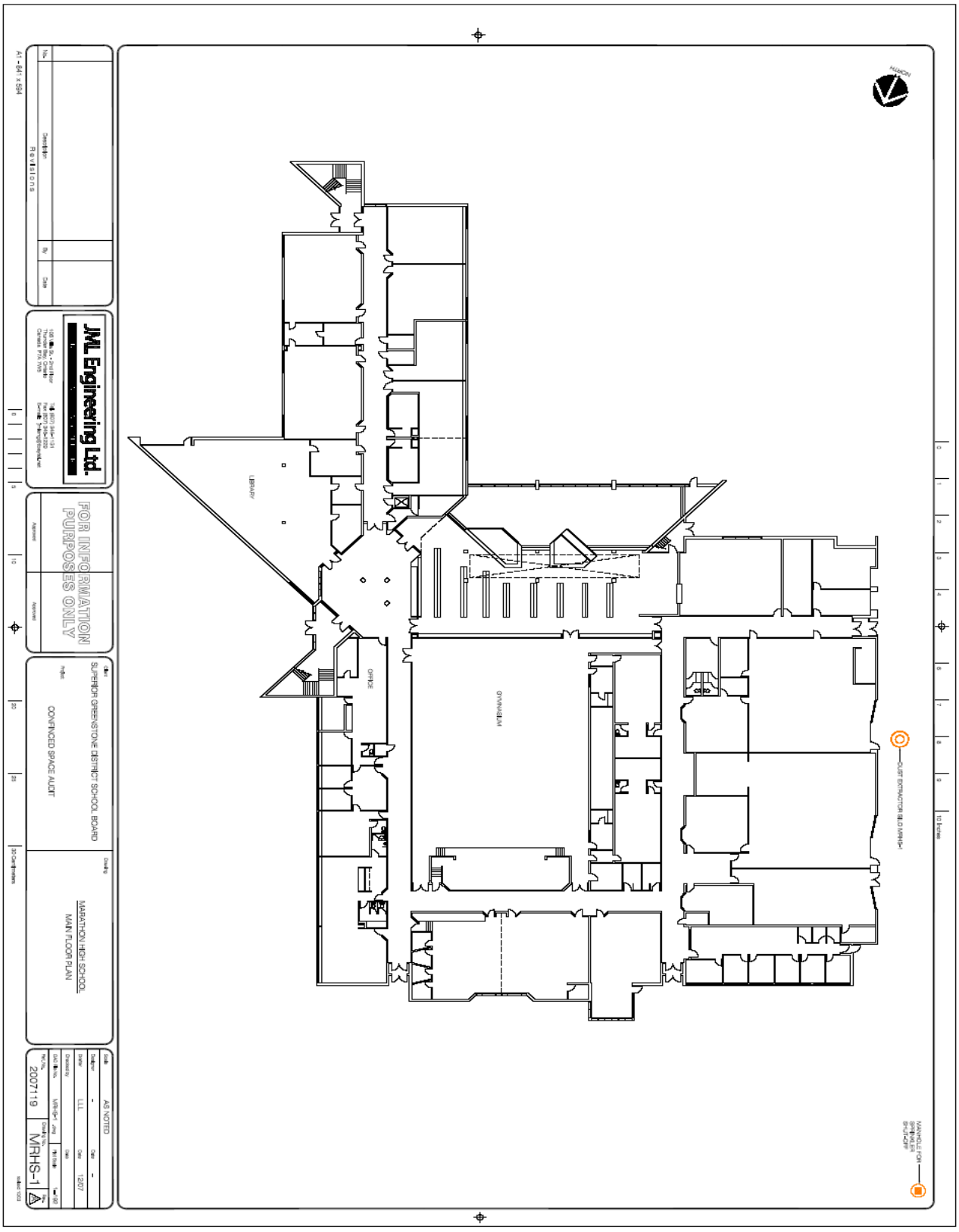
ACCESS TO AIR HANDLING UNIT MNHS-2
NORTH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OFFICE
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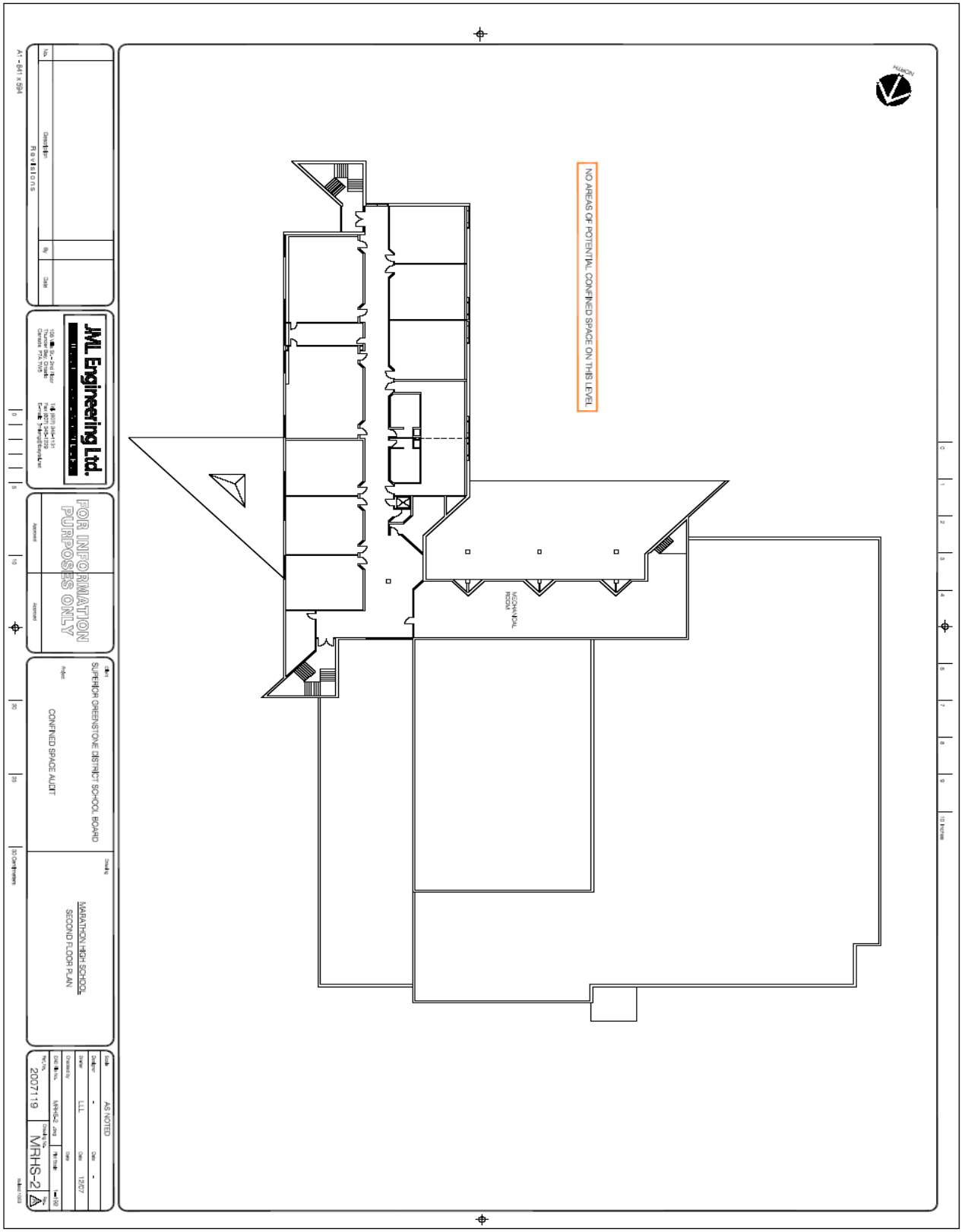
DUST EXTRACTOR BELOW ROOF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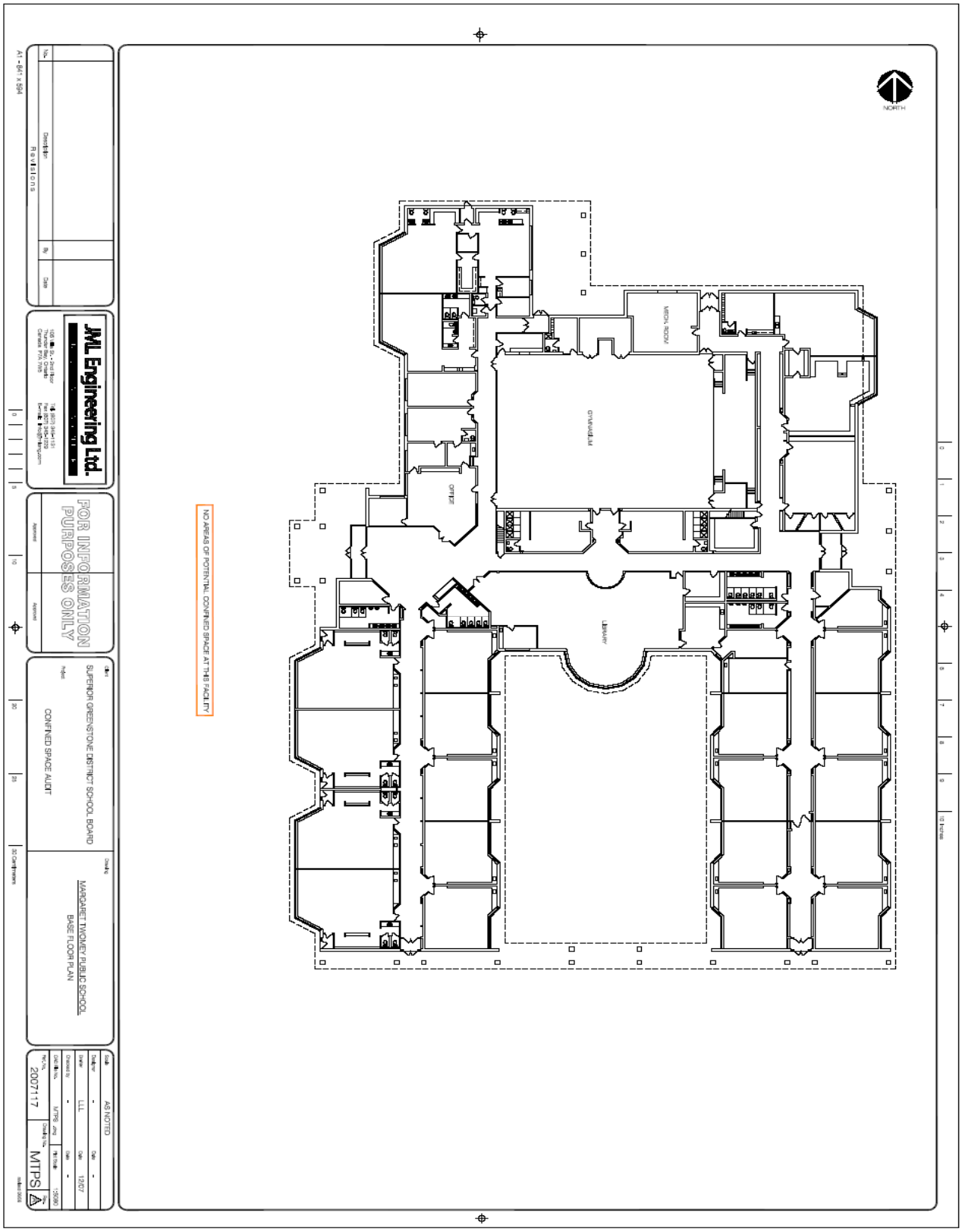
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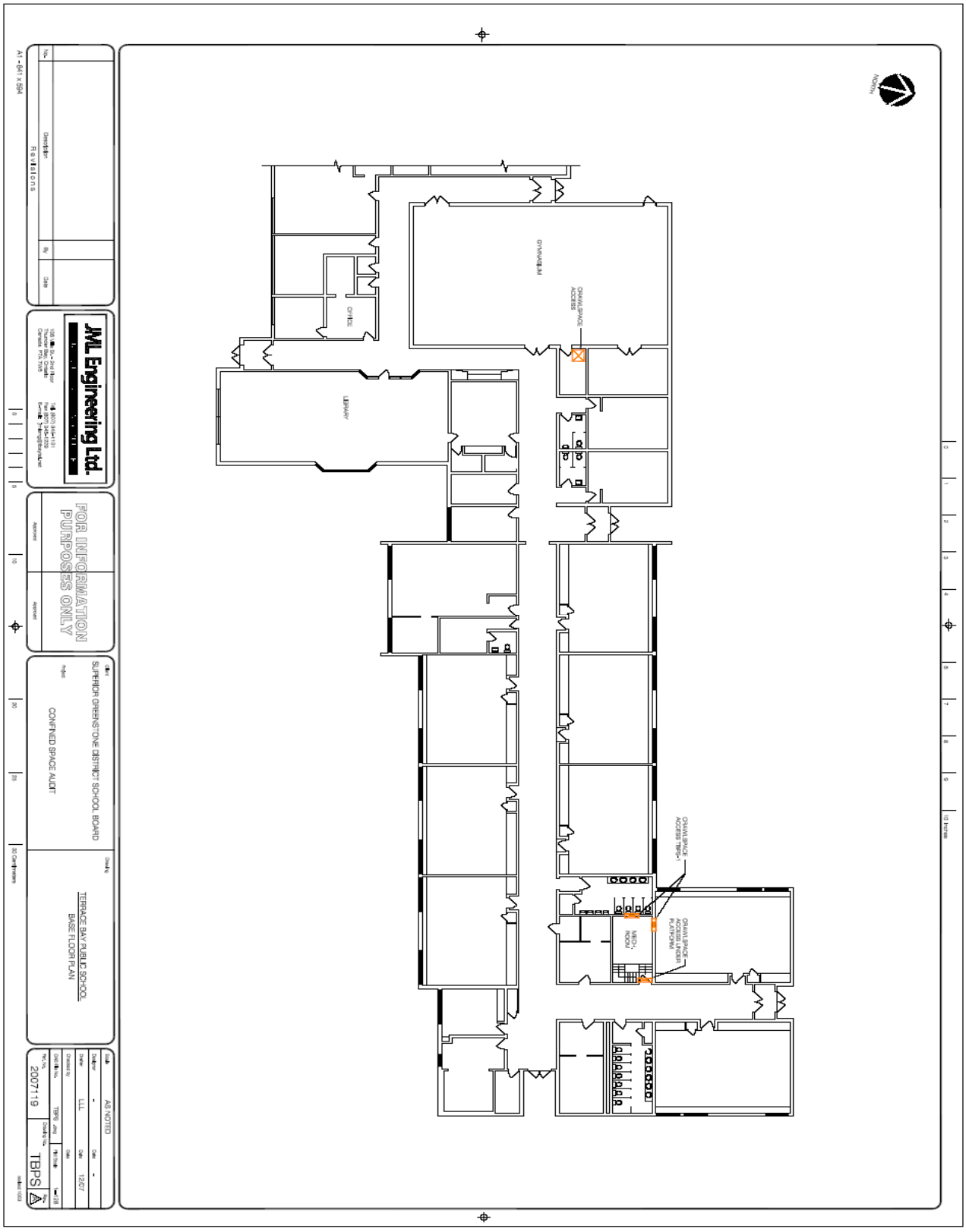
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TBPS
AS NOTED
GYMNASIUM
LIBRARY
OFFICE
MECH. ROOM
CRAWLSPACE ACCESS
CRAWLSPACE ACCESS TRAP
CRAWLSPACE ACCESS PLATFORM


OFFICE
MECHANICAL ROOM
LIBRARY
GYMNASIUM
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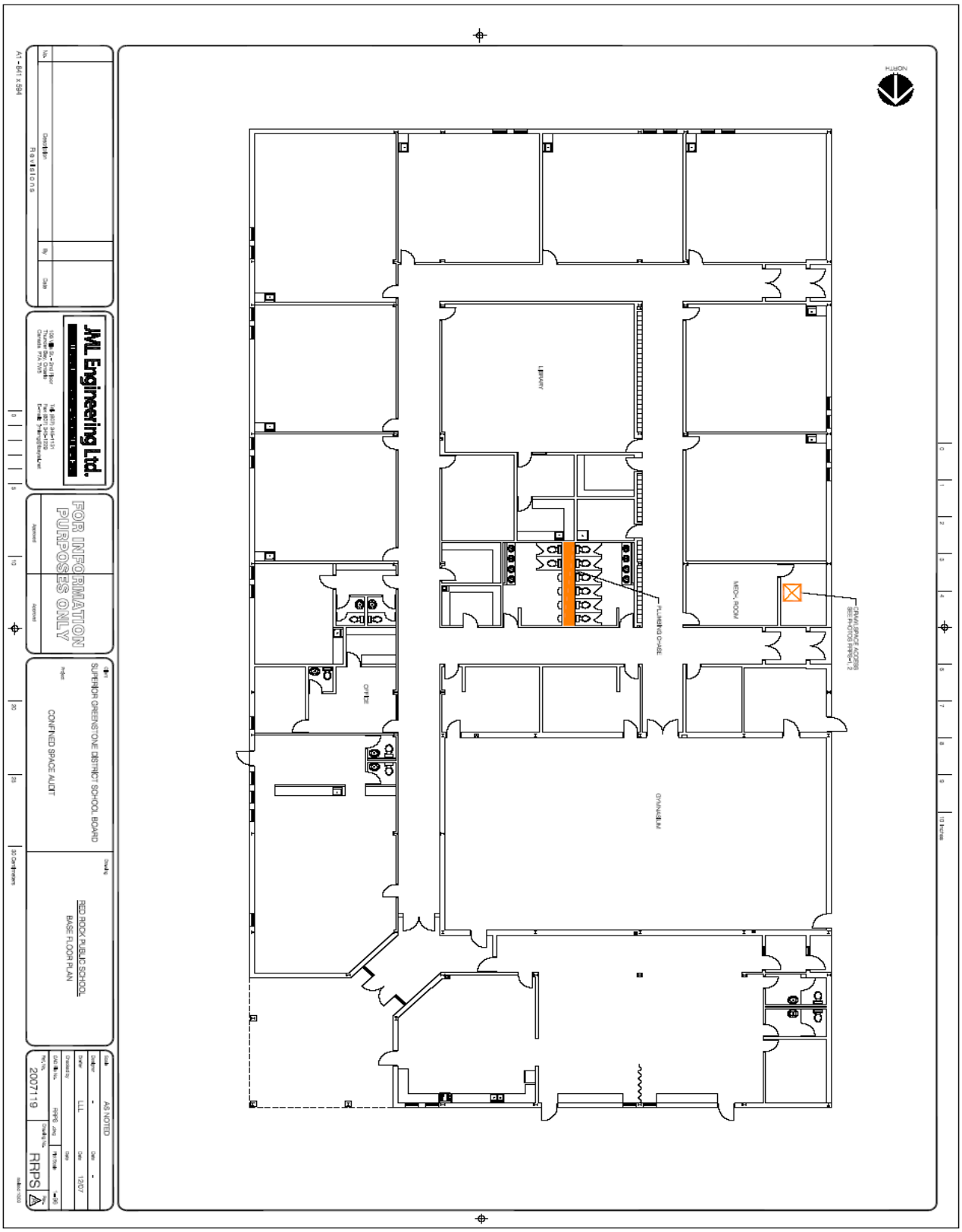
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RRPS
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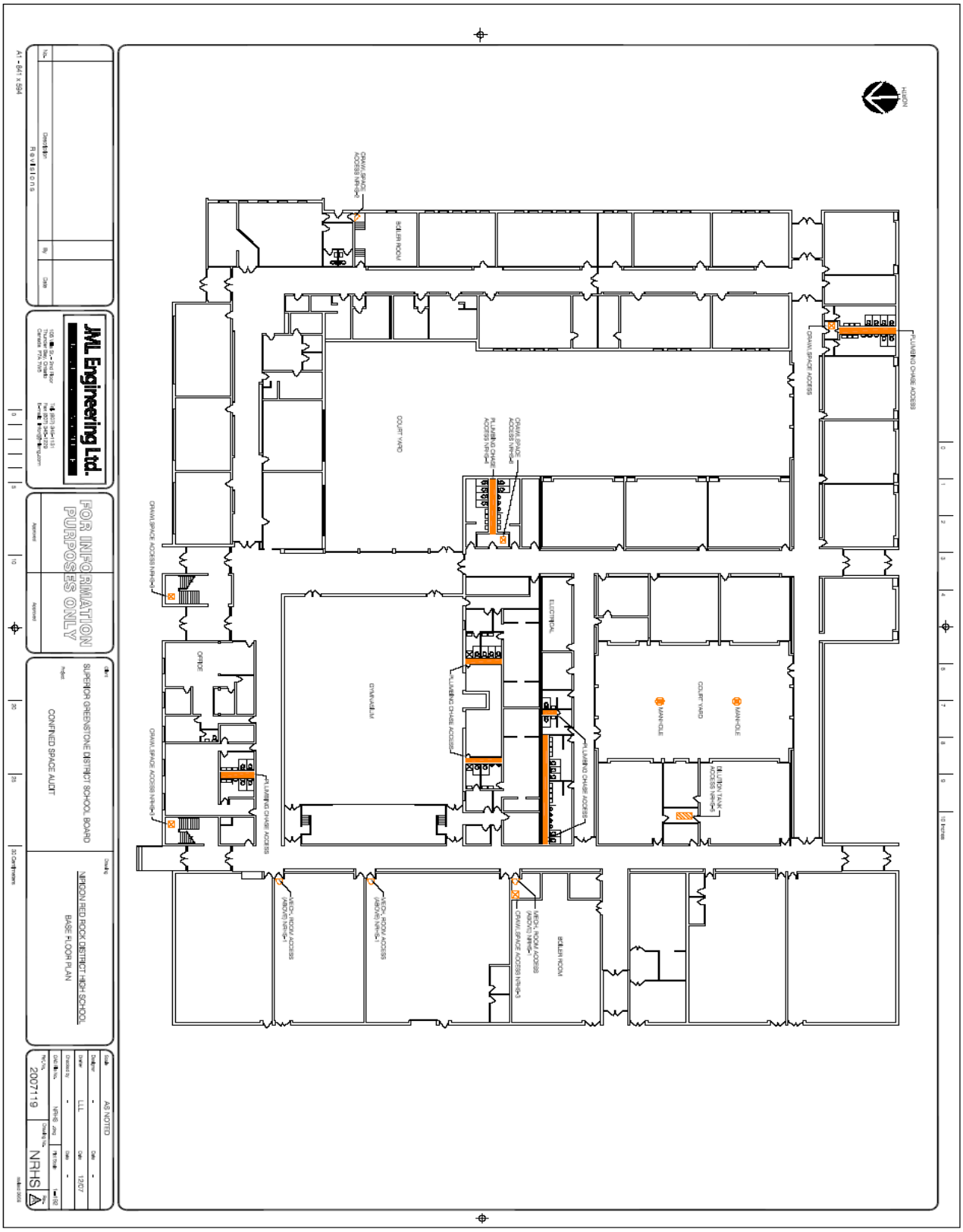
MECH. ROOM
PLUMBING CHASE
STAIRWAY ACCESS
SEE PHOTOS FRPG#1,2
NORTH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NIPIGON RED ROCK DISTRICT HIGH SCHOOL
BASE FLOOR PLAN
AS NOTED
2007119
NRHS
COURT YARD
GYMNASIUM
OFFICE
ELECTRICAL
MECH. ROOM
MANHOLE
PLUMBING CHASE ACCESS
CRAWL SPACE ACCESS

Asbestos

Procedure

Superior Greenstone District School Board shall provide a safe and healthy environment. The purpose of this plan is to provide information on procedures and accepted work practices in compliance to the current Ontario Regulation 838 regarding Asbestos on Construction Projects and in Building and Repair Operations. To properly establish this program, staff must be aware of the program and the procedures to follow when conducting maintenance and other work that might disturb asbestos-containing material.

Health and Safety Reference Manual for Accessible Asbestos Containing Materials (ACM)

As part of the Asbestos Management Plan, it is mandatory to prepare and maintain a record of all buildings owned and occupied within the Superior Greenstone District School Board which contain asbestos materials. A building record will be established by means of a written report or electronic file with attached floor plans. The report and/or drawings will show the extent and condition of the accessible asbestos containing materials in the building, location of any samples taken, as well as the results of the analysis of the samples taken.

A copy of the Health and Safety Reference Manual, as well as the Asbestos Management Plan will be kept accessible in the Head Custodian's office or Plant Department Yellow Lockers where it will be available for review. It will be used to direct employees or contractors in locating asbestos containing material while they are performing work.

Notification of Damaged ACM

Any concerns regarding damaged/deteriorated asbestos materials are to be directed to the Maintenance Department. The Maintenance Department will evaluate the condition of the material and arrange for clean up and repair/ removal as appropriate.

Annual Re-Assessment

A yearly inspection will be arranged by the Maintenance/Safety Coordinator to update the condition of any accessible asbestos containing materials in the building. A copy of this inspection will be kept by the school with the Asbestos Management Plan.

Asbestos Work Report

All persons involved in Type II and Type III operations are required by the Ministry of Labour to produce an Asbestos Work Report "Form 1". Form 1 must be submitted to the Ministry of Labour once every 12 months, and immediately upon termination. The Asbestos Work Report will include the number of hours the worker has spent on a Type II or Type III operation. The Provincial Physician keeps track of the worker's accumulated exposure and will determine when a medical examination is required. It is the responsibility of the Maintenance Supervisor to quarterly submit exposure times of asbestos abatement workers to the Health and Safety Department.

Training Program

Asbestos Abatement Workers

Training is to be provided to Superior Greenstone District School Board workers who are working directly with asbestos containing material in repair/removal operations. The training will be arranged by the Maintenance/Safety Coordinator and designed to cover the following objectives as stated in Regulation 838 Section 15:

- the hazards of asbestos
- personal hygiene and work practices
- the use, disposal and cleaning of personal protective equipment (i.e. respirator training).

Maintenance of the Asbestos Management Plan

A copy of the Health and Safety Reference Manual – Asbestos section 1, as well as any repair/removal reports must be maintained at the school in the Head Custodian's office or the Plant Yellow Lockers (within the asbestos section), as well as the Maintenance/Safety Coordinator Master Asbestos Reports Binder. Any consultant/contractor or maintenance reports involving repair or removal must be forwarded to the Maintenance/Safety Coordinator.

Type I Operations

Type I operations (Appendix 1) may be performed by the Maintenance Working Foreman. The Maintenance Department will provide supplies and equipment as required (Refer to Appendix 2: Procedures to Follow for Repair/Removal). All repair/removal operations will be documented and forwarded to the Health and Safety Department.

Type II and III Operations

Board employees will not undertake Type II work. *This will be contracted out to contractors experienced in this field. The work area will be designed so that there will be no need for Board employees to require access to the work-site except in emergency situations or to inspect work.*

The Supervisor of Maintenance will be responsible for contracting and supervising a qualified consultant familiar with the Ontario Regulation respecting Asbestos on Construction Projects and in Building and Repair Operations.

School Notification

It is the responsibility of the Manager of Plant Services or designate to notify the school Principal/Vice-Principal prior to any asbestos repair/removal projects under said Supervisor's control. Note: If the Principal/Vice-Principal is not available for notification (i.e. summer hours), then notification will take place through the Head Custodian or Maintenance Working Foreman.

Staff Notification

It is the responsibility of the Principal/Vice-Principal to notify staff of the Asbestos Management Plan and Asbestos reports. These documents are available for review in the **Health and Safety Reference Manual located in the mechanical room Plant Department Yellow Lockers or the Head Custodian's office**.

Principals/Vice Principals will notify staff of the time and location of any asbestos work operation.

Records of Location

Locations of all identified friable asbestos-containing materials have been identified on drawings in the **Health and Safety Reference Manual of the Asbestos Manuals**. The Maintenance Working Foreman and Head Custodian must become familiar with the locations of all identified asbestos in his/her building.

Transportation and Disposal

The Manager of Plant Services or designate will arrange for proper disposal of asbestos waste as per the asbestos waste regulation made under the Environmental Protection Act.

The waste will be transported to a designated site for asbestos waste only.

Inspection for Construction Purposes

In the event of renovation or demolition of a building, it is the responsibility of the Maintenance/Safety Coordinator to arrange for an inspection to non-accessible areas when necessary.

Asbestos Contact Person (Head Custodian)

Head Custodians are designated as the Asbestos Site Contact Person and have the following responsibilities:

- Become familiar with all asbestos-containing materials that have been identified in their buildings, as described in the Health and Safety Reference Manual - Asbestos section.
- Keep written records of ALL asbestos-related work including re- inspections, fibre release episodes and removal or repair of any asbestos-containing materials.
- Ensure proper response to any disturbances of asbestos-containing materials (fibre release episodes).
- Annually re-inspect with Maintenance/Safety Coordinator of all identified asbestos-containing friable materials and suspected non-friable materials.

Appendix 1 Classification of Asbestos Work Operations

Work is to be classified into three categories, according to the likely risk of exposure to asbestos that it presents.

Type I

May result in minimal exposure to asbestos fibres. Type I removal operations may involve the following:

- The installation or removal of non-friable material containing asbestos (i.e. ceiling tiles, vinyl tiles) if the material covers an area less than 7.5 square metres (24 sq.ft.) without being broken, cut, drilled, abraded, ground, sanded or vibrated.
- Breaking, cutting, drilling, abrading, grinding, sanding or vibrating non-friable material that contains asbestos if the material is wetted to control the dust or fibres.
- The use of non-powered hand tools to cut, grind asbestos containing materials.

Type II

Work performed results in greater airborne concentration of asbestos. For minor disturbances or removal of friable material the classification is: Type II removal operations may involve the following:

- Removal of all or part of a false ceiling where a significant amount of friable asbestos is likely to be lying on the surface of the false ceiling.
- Minor removal or disturbance of friable asbestos material during the repair, removal, maintenance or alteration of equipment.
- The enclosure or taping of pipe or boiler insulation containing asbestos.
- Drywall removal where asbestos filler compound has been used.
- Enclosing friable material containing asbestos.
- The installation or removal of products other than non-friable cement pipes containing asbestos (i.e. ceiling tiles) if the material covers an area of at least 7.5 square metres (24 sq.ft.)
- Breaking, cutting, drilling, abrading, grinding, sanding or vibrating non-friable material that contains asbestos if the material is not wetted to control the dust or fibres.
- Removing insulation containing asbestos from a pipe, duct or similar structure using a glove bag.

Type III

Will result in the highest asbestos fibre levels resulting in a high risk of health effects. All major removals of friable material are classified as Type III. For Type III operations and asbestos of a type other than chrysotile, a powered air purifying dust respirator is required. If dry removal is performed, a positive pressure supplied air respirator must be used.

Type III removal operations may involve the following operations:

- Removal other than minor removal of friable material containing asbestos.
- Spray application of a sealant to friable asbestos.
- Cleaning or removal of air handling equipment that has sprayed fireproofing containing asbestos.
- Repair or demolition of a kiln, furnace or boiler made in part of refractory materials containing asbestos.
- Breaking, cutting, drilling, abrading, grinding, sanding or vibrating non-friable material that contains asbestos by means of power tools.
- Use of power tools not equipped with a HEPA filter used for the use of asbestos containing materials.

Appendix 2 Procedures to Follow For Repair/Removal

The protective measures and the procedures to follow will depend on the classification of the particular work at hand.

Type I

Preparation of work area

- Remove any visible dust from the surface of the work area with a damp cloth or a vacuum equipped with a HEPA filter.
- Use drop sheets where appropriate to control the spread of dust from the work area.

Removal process

- A wetting agent (amended water) must be applied to the material to be repaired/removed unless the use of water will create a hazard.

Personal protective equipment

- Protective equipment is required and will be supplied. In this case a NIOSH approved respirator in accordance with the Schedule "Work Category" is required and shall be fitted so that there is an effective seal between the respirator and the workers face.
- Type 1 operations require a NIOSH 10 with N-, R-, or P- series filter and 100 % efficiency.
- Disposable coveralls (i.e. Tyvek) that do not permit the penetration of asbestos fibres must be worn. The coverall must have a snug fit at the wrists, ankles and neck, and must contain a hood.
- Eating, drinking, chewing or smoking shall not be permitted in the work area.

Clean-up

- Discard waste in a 6-mil polyethylene disposable bag, identified as containing asbestos waste, and seal with tape. Place this bag in a second clean, labelled bag and seal with tape.
- Frequent clean up must be done at regular intervals by use of HEPA Vacuum, or damp mopping, or by wet sweeping.
- Wet and fold any contaminated drop sheets and coveralls used at the completion of work that are to be discarded and placed in a container.
- Workers must use the washing facilities at a nearby rest room.

Type II and III

Type III: Superior Greenstone District School Board employees will not undertake Type III work. This will be contracted out to contractors experienced in this field. The work area will be designed so that there will be no need for Superior Greenstone District School Board employees to require access to the work-site except in emergency situations or to inspect work.

Appendix 3 Health and Safety Reference Manual

Introduction

The Health and Safety Reference Manual has been prepared to facilitate asbestos management in all building owned by Superior Greenstone District School Board. It is to be used as a guide by all Maintenance Working Foreman and or Head Custodian in order to ease their respective asbestos management duties.

Responsibilities

The responsibilities of the Maintenance/Safety Coordinator, Maintenance Working Foreman and Head Custodian are as follows:

- Become familiar with all asbestos-containing materials that have been identified in their buildings, as described in the Health and Safety Reference Manual - Asbestos section of the manuals.
- Keep written records of all asbestos-related work including re-inspections, fibre release episodes and removal or repair of any asbestos-containing materials.
- Ensure proper response to any disturbances of asbestos-containing materials (fibre release episodes).
- Periodically re-inspect all identified asbestos-containing friable materials and suspected non-friable materials.

Appendix 4 Asbestos Condition Report

The keeping of complete and accurate records is absolutely vital to an Asbestos Management Program. The Health and Safety Reference Manual (Asbestos-section 1) has been prepared for this purpose.

It is to be filled out when any of the following situations occur:

- Fibre release episode (asbestos-containing material is damaged).
- Periodic re-inspection of asbestos-containing materials conducted by the Plant Department (condition may or may not have changed).
- Asbestos-containing material has been removed or repaired following proper procedures by a professional contractor.

Subsequent to the completion of a Condition Report (Asbestos-containing Materials) or any of the above-mentioned situations, the Maintenance Working Foreman and Head Custodian are responsible to ensure that:

- One copy is submitted to the Maintenance/Safety Coordinator;
- And the original report is filed in back of Section 1 of the Health and Safety Reference Manual (Asbestos Section 1) that is maintained by the Head Custodian.

Emergency Response Procedures

Asbestos-containing materials that are present in the schools will be damaged from time to time, through such causes as natural deterioration, water damage, accidental contact or vandalism. These incidents will create fibre release episodes. Emergency response procedures must be applied to minimize the release and spread of asbestos fibres.

The following emergency response procedures should be performed if a release episode has occurred:

- Immediately shut off any air handling units that affect the area.
- Isolate the area by sealing any openings, posting "warning" signs at the entrance to the area and installing locks to prevent unauthorized access, in the case of a minor disturbance (less than 3 ft2 or 3 linear ft. of asbestos-containing material).
- Contact the Maintenance Coordinator 1-807-229-5205 or Manager of Plant Services 1-807-229-7379.
- Document the episode by completing a Condition Report (Asbestos-containing Materials).
- The Maintenance Working Foreman and or Head Custodian shall ensure that the affected air conditioning and ventilation filters are changed by an professional contractor trained in asbestos removal.

Periodic Asbestos Re-Inspections

Re-inspections are to be conducted annually by the Maintenance/Safety Coordinator, as long as any potentially friable asbestos-containing materials remain in a facility. A Condition Report (Asbestos-containing Materials) is to be filled out for each material so that any deterioration or damage is noted and acted upon before a dangerous situation develops.

The following information shall be included

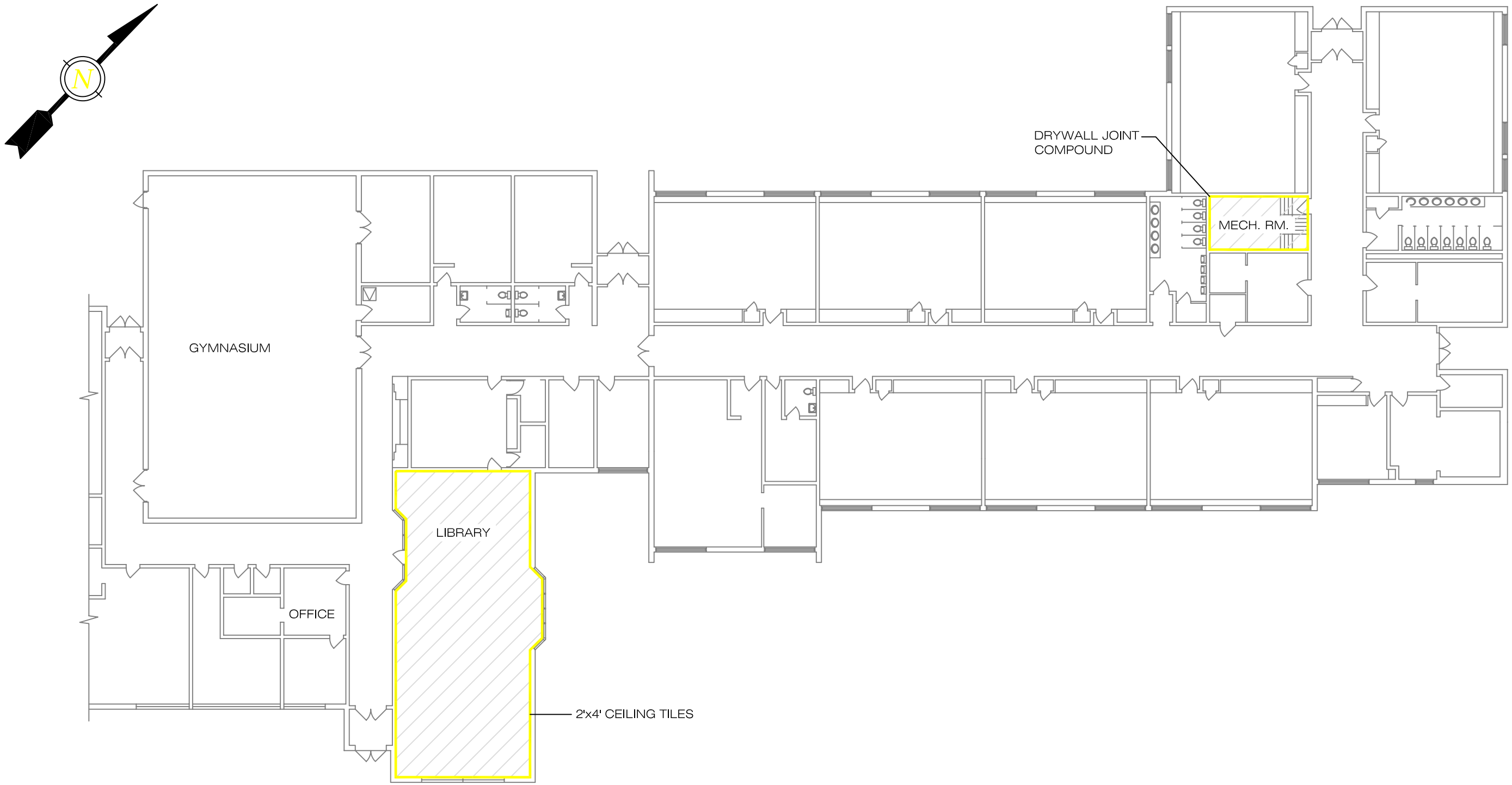
- Location of asbestos-containing material.
- Type of asbestos-containing material.
- Assessment (evidence of damage, accessibility, degree of activity near material and other observations).
- Recommended action (Maintenance/Safety Coordinator, Manager of Plant Services).
- Date of re-inspection and signature of Maintenance/Safety Coordinator, Maintenance Working Foreman and Head Custodian).

Non-friable materials such as floor tiles, linoleum and cement board, which have been assumed to contain asbestos in a particular building should also be re-inspected. The reason for this is that normally non-friable materials may become friable once they are damaged, and fibres may be released if they are disturbed. The Maintenance Working Foreman and Head Custodian should also ensure that sawing, sanding or drilling is not performed on any of these materials by their staff, other Superior Greenstone District School Board employees or outside contractors.

NOTE: Any suspect materials that have not been previously identified as asbestos-containing or any non-friable materials that have been assumed to contain asbestos should be sampled prior to planned disturbances such as demolition or any other type or renovation. When in doubt, the Maintenance Working Foreman and or Head Custodian must contact the Maintenance/Safety Coordinator 1-807-229-5205 and or the Manager or Plant Services 1-807-229-7379.

Documentation of Asbestos Removal

Superior Greenstone District School Board has been on an asbestos removal program since 1990 and all of their buildings shall be free of identified friable asbestos-containing materials (not including materials enclosed in fixed ceilings or walls) in the near future. As stated previously, the Maintenance Working Foreman and or Head Custodian are to fill out a Condition Report (Asbestos-containing Materials) in order to document the removal of any such materials in their respective buildings.



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C	02/12	UPDATED AS PER 2011 LTL REPORT
B	02/11	UPDATED AS PER 2008 LTL REPORT
A	12/07	ISSUED FOR REPORT

Revisions

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Thunder Bay, ON P7A 7W5
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FOR INFORMATION PURPOSES ONLY

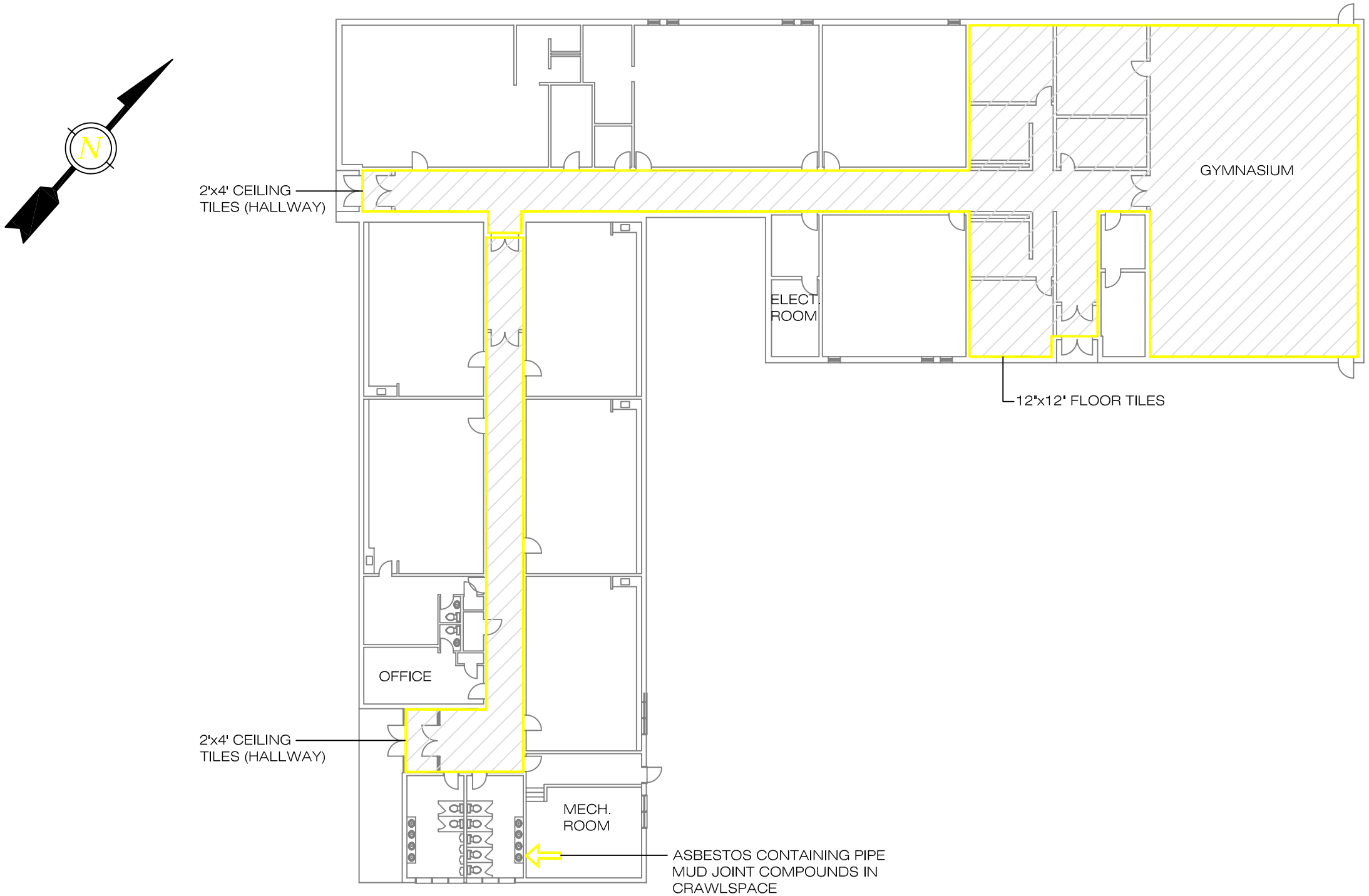
Client: SUPERIOR-GREENSTONE DISTRICT SCHOOL BOARD

Project: TERRACE BAY PUBLIC SCHOOL
TERRACE BAY, ONTARIO

Drawing: MAIN FLOOR PLAN
ASBESTOS ABATEMENT

Designer	-	Date	21/12
Drafter	LLL	Scale	NTS
Checked	-	Plot Scale	1=1
Approved		Ref. No.	2012011
Cad File No.	2012011TBPS	Dwg	
Drawing No.	TBPS	Rev.	C

Revised sheets



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Client
SUPERIOR-GREENSTONE DISTRICT SCHOOL BOARD

Project
SCHREIBER PUBLIC SCHOOL
SCHREIBER, ONTARIO

Drawing
MAIN FLOOR PLAN
ASBESTOS ABATEMENT

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Drawing No.	SCPS	Rev.	C

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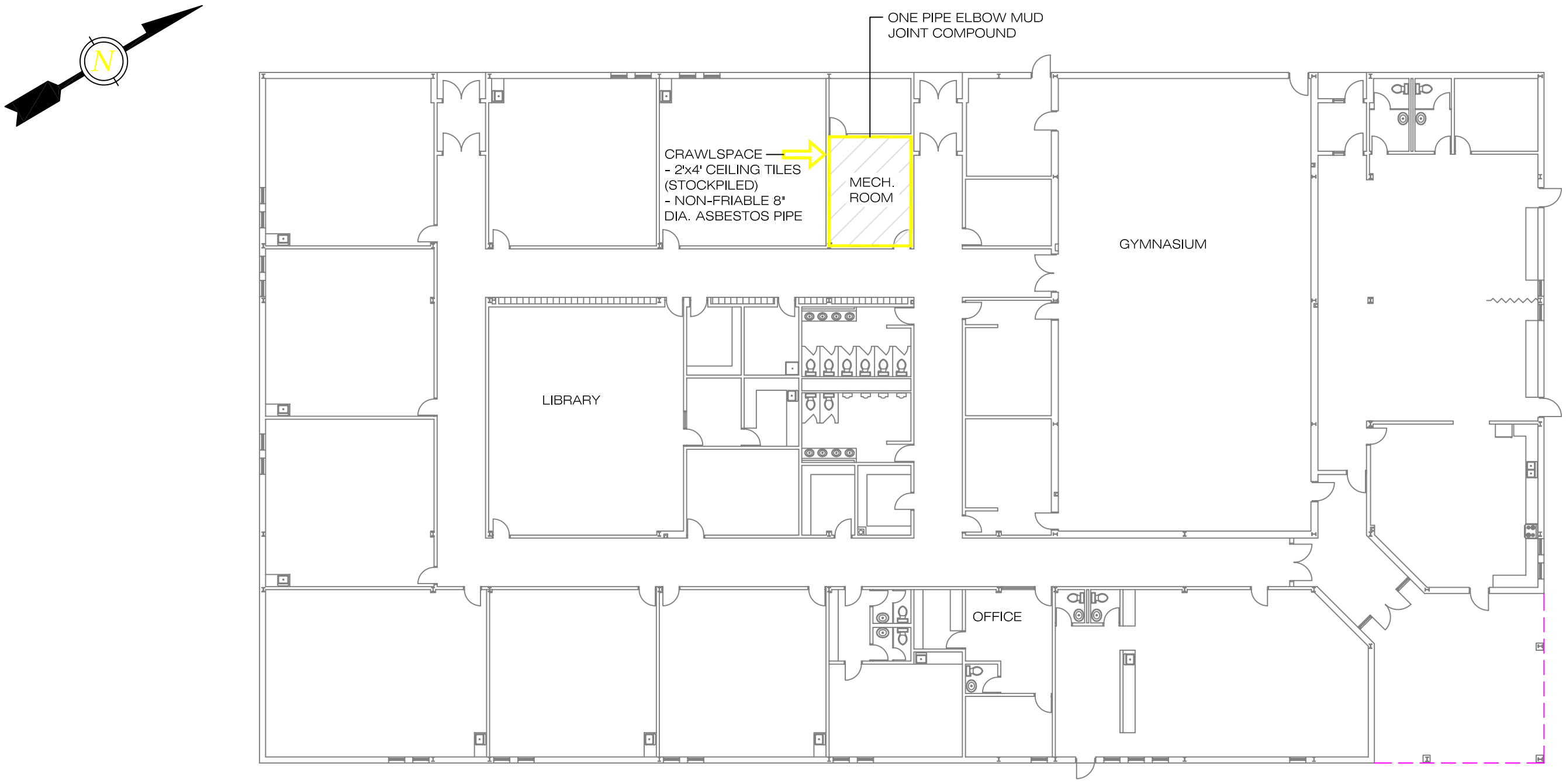

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FOR INFORMATION PURPOSES ONLY

Client
SUPERIOR-GREENSTONE DISTRICT SCHOOL BOARD

Project
RED ROCK PUBLIC SCHOOL
RED ROCK, ONTARIO

Drawing
MAIN FLOOR PLAN
ASBESTOS ABATEMENT

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Approved		Ref. No.	2012011
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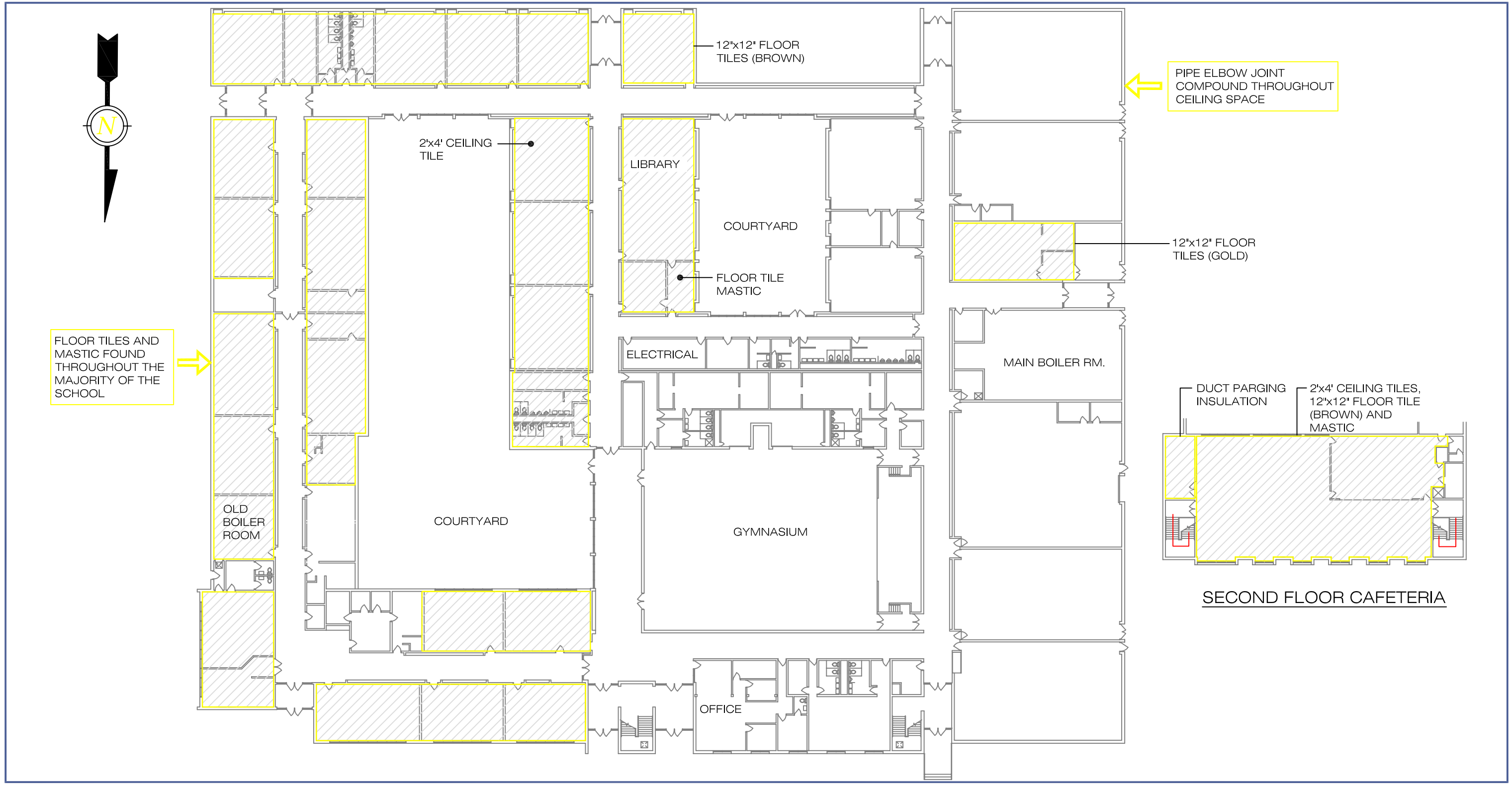
Drawing No.	RRPS	Rev.	B

Revised 06/09



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Client
SUPERIOR-GREENSTONE DISTRICT SCHOOL BOARD

Project
NIPIGON RED ROCK DISTRICT HIGH SCHOOL
RED ROCK, ONTARIO

Drawing
MAIN FLOOR AND SECOND PLAN
ASBESTOS ABATEMENT

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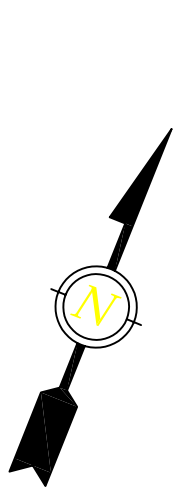

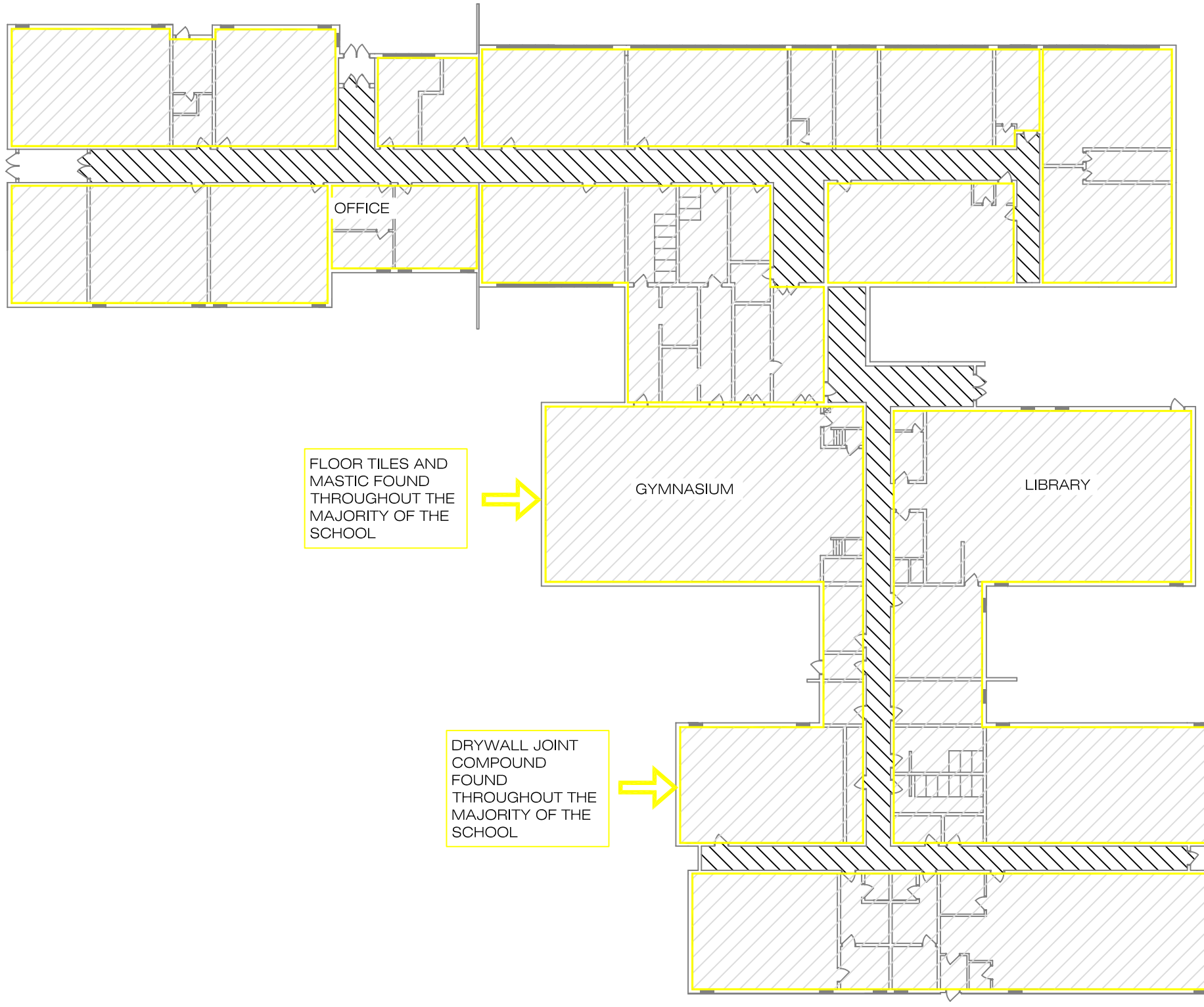

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Client
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Project
NAKINA PUBLIC SCHOOL
TERRACE BAY, ONTARIO

Drawing
MAIN FLOOR PLAN
ASBESTOS ABATEMENT

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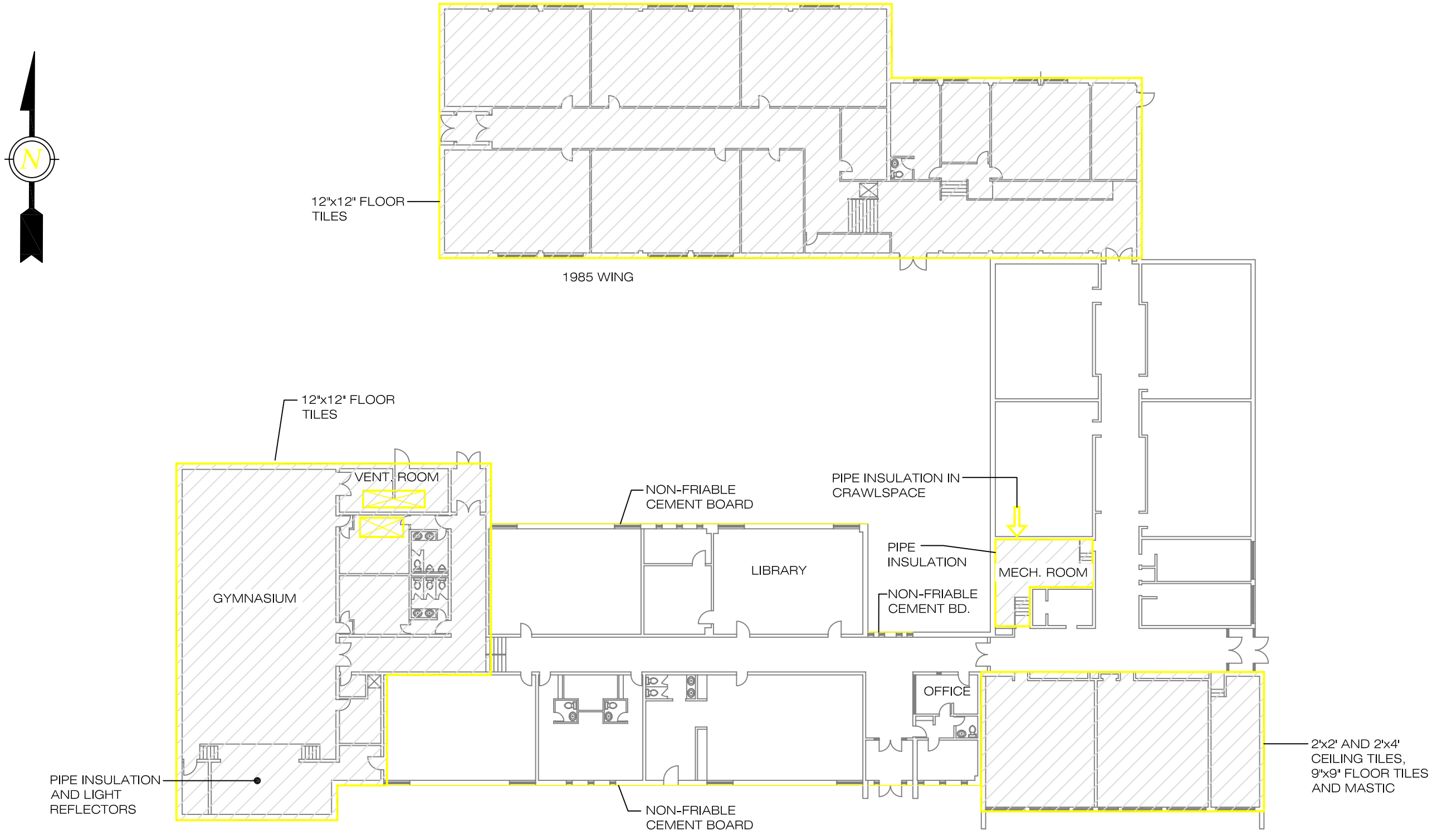

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Project: MANITOUWADGE PUBLIC SCHOOL
MANITOUWADGE, ONTARIO

Drawing: MAIN FLOOR PLAN
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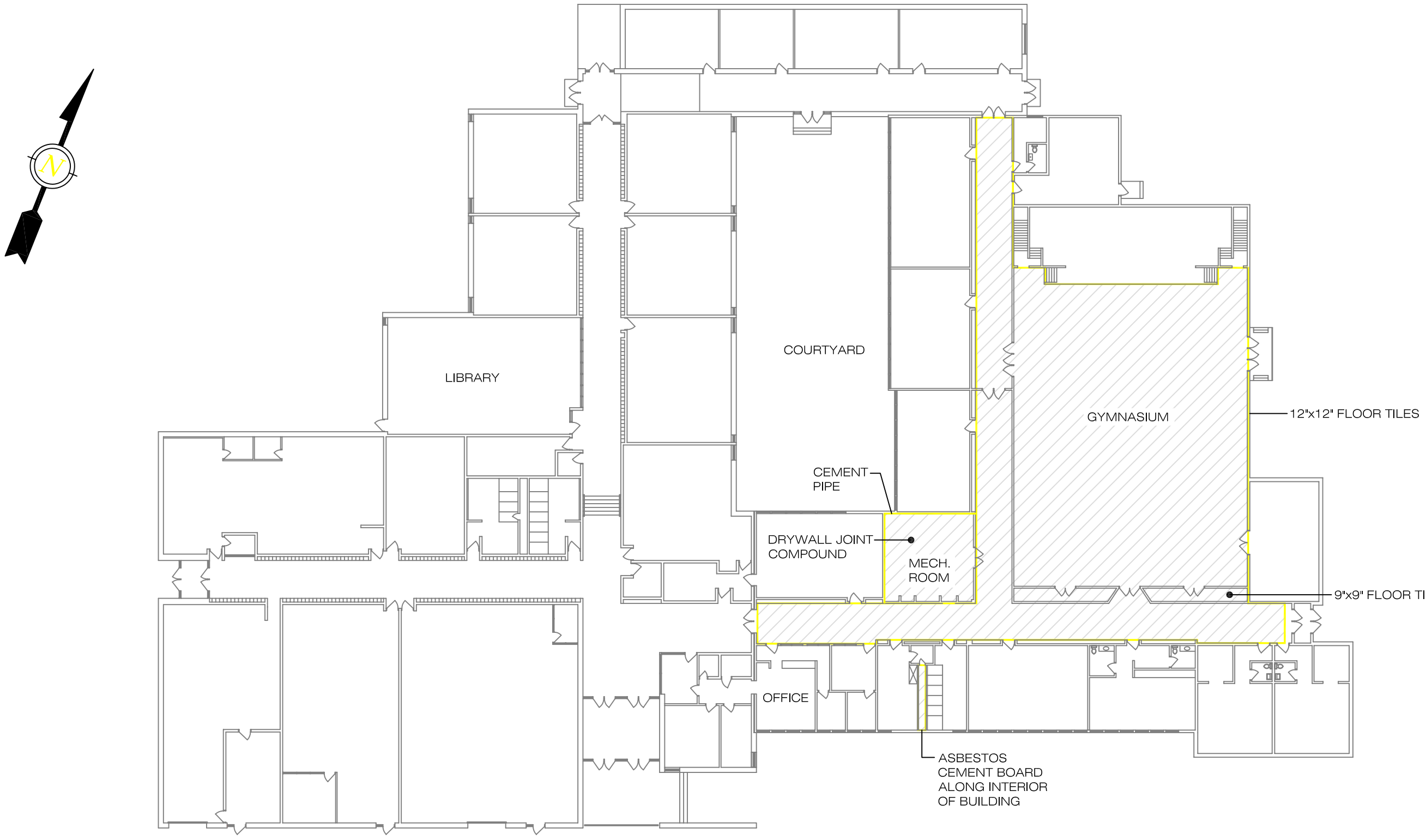

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Client
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LAKE SUPERIOR HIGH SCHOOL
TERRACE BAY, ONTARIO

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MAIN FLOOR PLAN
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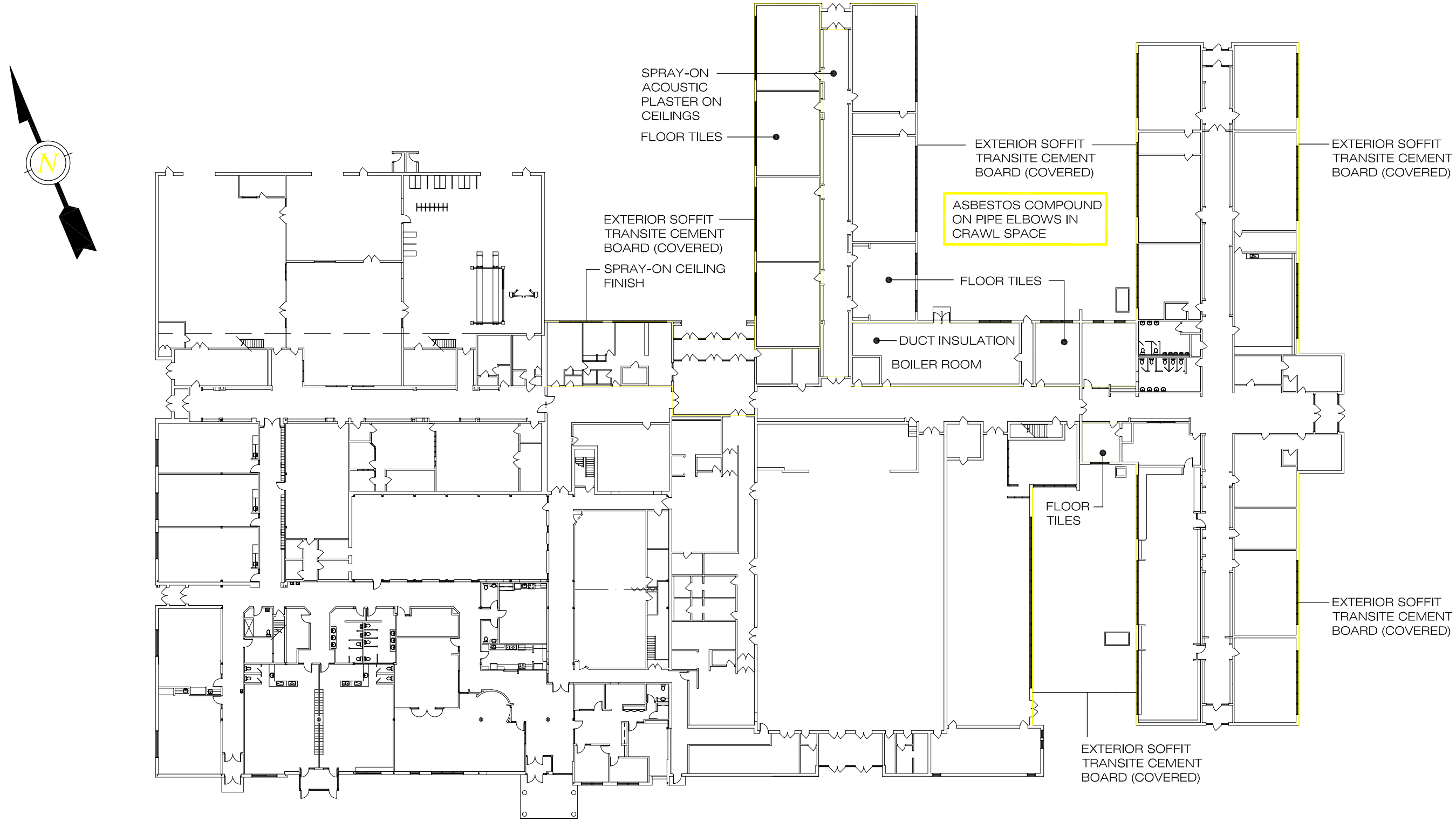

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Client
SUPERIOR-GREENSTONE DISTRICT SCHOOL BOARD

Project
GERALDTON COMPOSITE HIGH SCHOOL
GERALDTON, ONTARIO

Drawing
MAIN FLOOR PLAN
ASBESTOS ABATEMENT

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Drawing No.	GCHS	Rev.	C

Revised 06/09

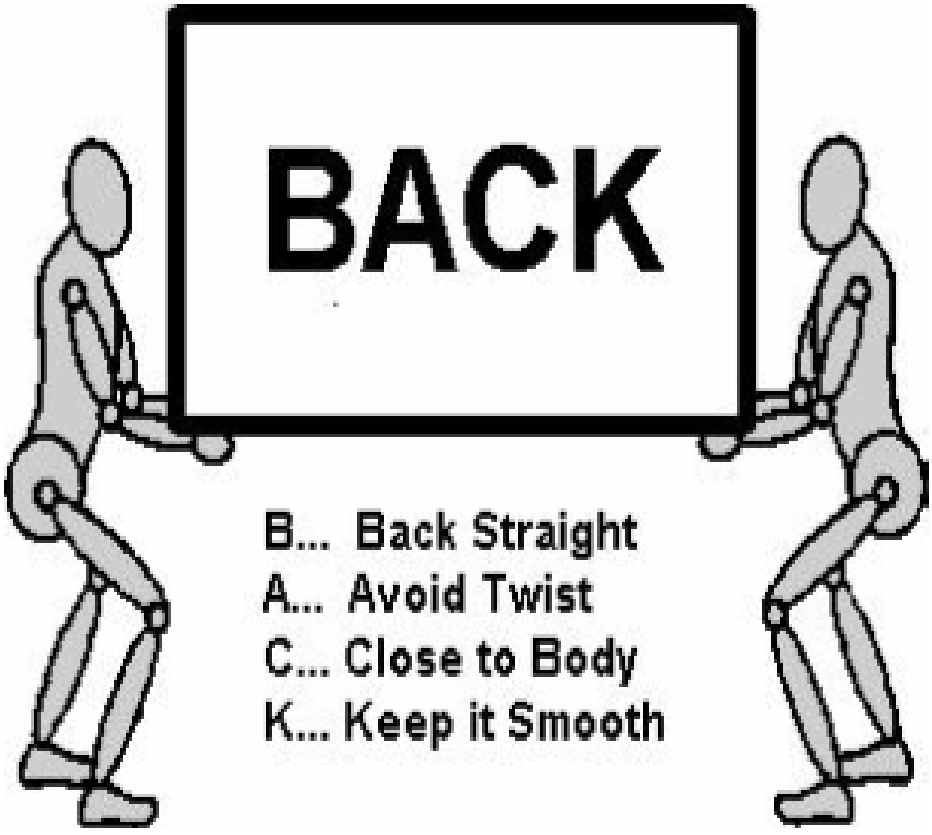
Manual Material Handling

Procedure

This procedure has been developed to minimize the risk of injury associated with Manual Material Handling (MMH).

The risk factors related to MMH including:

- Force (required to perform the task)
- Weight (of the object to be moved)
- Repetition (number of times the lifting motion is performed)
- Duration (length of time task performed)
- Grip
- Stability of load (liquids are not as stable as the centre of gravity shifts)
- Size of object
- Travel distance (vertical and horizontal)



Lifting Practices

The best lifting practice is to control the risk factors. The following outlines the necessary controls to be followed by contractors involved with MMH.

1. When the weight of the object is greater than 100 pounds the object should be designated as a "team lift" involving at least two staff members. Gloves should be worn when lifting these objects to secure a grip.

2. Objects that have the potential to be unstable should be secured prior to lifting.

3. The horizontal travel distance should be minimized where possible to limit unnecessary lifting. This is accomplished by picking-up/dropping off equipment as close as possible to its final destination.

4. The following practice should be implemented for all Manual Material Handling:
   - Stand close to the load and face the way you intend to move.
   - Use a wide stance to gain balance.
   - Be sure you have a good grip on the load.
   - Lift the load as close to the body as possible, and lift smoothly without jerking.
   - Avoid twisting and side bending while lifting.
   - Use appropriate mechanical assistance where available.

Requisitions / Purchase Orders

Procedure

- All purchases over $ 300 require a requisition.

- The Purchase Requisition form is located in Outlook Public Folders. Go to Public Folders, "Board Forms" folder to access required forms, which are grouped by department. Open the "Finance" folder.

- Complete the requisition as required.

- E-mail a copy of the completed purchase requisition form to the Maintenance / Safety Coordinator for required signatures.

- For additional information review Purchasing Policy 303

NOTE: It is good practice to requisition ALL purchases if possible

Work Order System

The following outlines how the on-line Maintenance Work Order System functions and should be used to have repairs carried out:

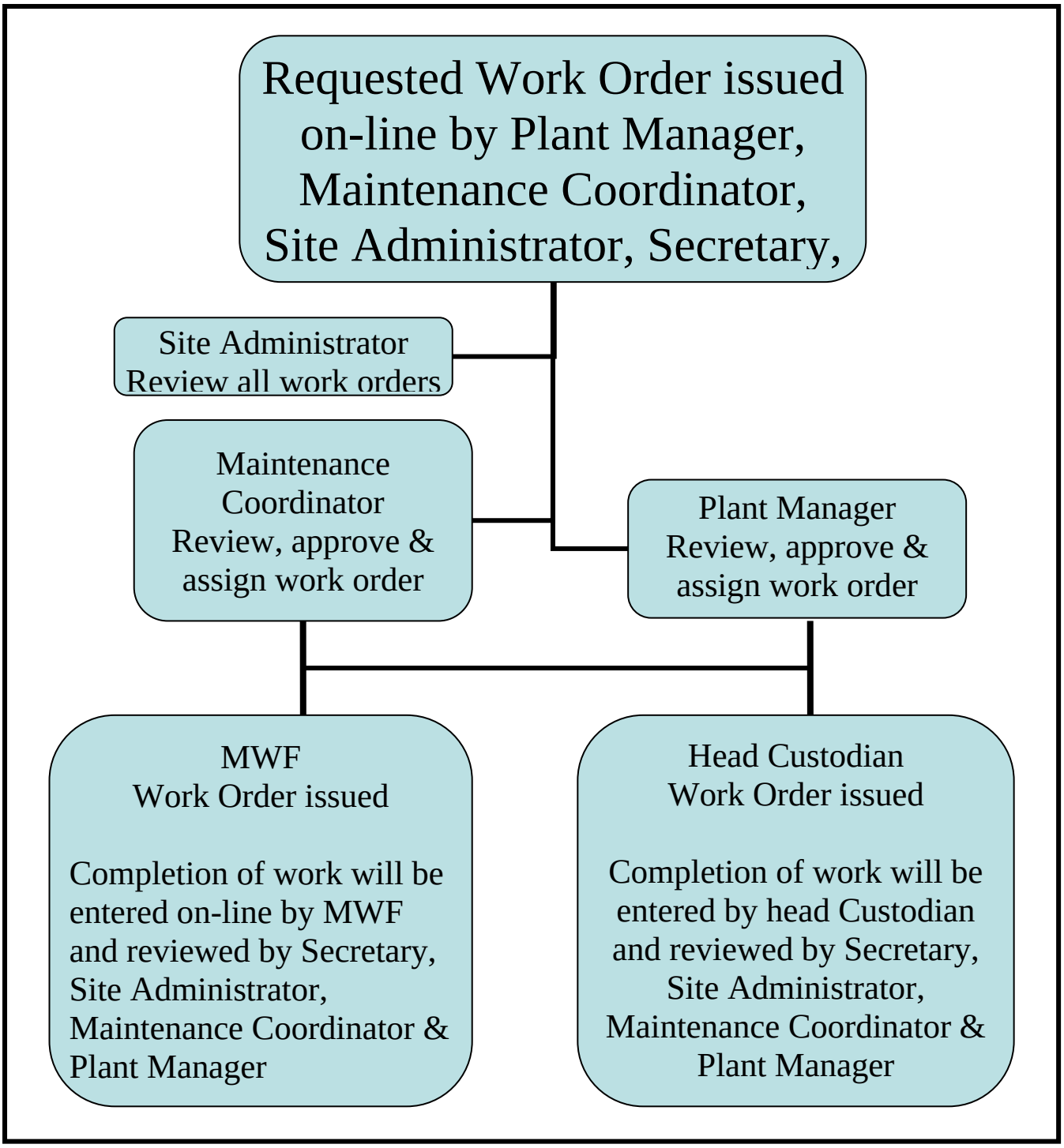
1. A problem or need is identified in a facility.

2. Staff requesting work or repairs must send an e-mail to the Head Custodian or School Secretary (The designated person will depend from site to site – Site Administrators will assign this position) The Head Custodian will discuss the request with the Site Administrator, Plant Services Manager, Maintenance Coordinator; prior to receiving approval the Head Custodian will enter the maintenance work order on-line. (Manager of Plant, Maintenance Coordinator, Maintenance Working Foreman, school secretaries and Head Custodian can also enter on-line maintenance work orders) It is suggested that the Maintenance Working Foremen not be asked to fill out all work orders as this takes away from the time available to actually carry out repairs.

3. Emergencies are to be dealt with in a quicker manner. However, once the emergency work has been dealt with, a work order request for the work that was done must be entered on-line as soon as possible.

4. Work orders submitted on-line are first forwarded and approved by the Site Administrator and then secondly forwarded to the Maintenance Coordinator for final approval. A work order is automatically assigned, priority of need is checked, and the job is assigned to the Maintenance Working Foreman or Head Custodian. Work orders not approved or otherwise changed are dealt with by direct communication between Site Administrator, Maintenance Coordinator, Manager of Plant and the person requesting the work.

5. The Maintenance Working Foreman/Head Custodian receives the work order by e-mail and carries out repairs as directed. This may include calling in a contractor. Once work has been completed, Work Orders are checked complete and forwarded on-line to the Maintenance Coordinator. Maintenance Coordinator reviews all completed work orders.


Requested Work Order issued on-line by Plant Manager, Maintenance Coordinator, Site Administrator, Secretary,
Site Administrator Review all work orders
Maintenance Coordinator Review, approve & assign work order
Plant Manager Review, approve & assign work order
MWF Work Order issued
Completion of work will be entered on-line by MWF and reviewed by Secretary, Site Administrator, Maintenance Coordinator & Plant Manager
Head Custodian Work Order issued
Completion of work will be entered by head Custodian and reviewed by Secretary, Site Administrator, Maintenance Coordinator & Plant Manager

Working Together Towards Zero Workplace Injuries

- By providing access to health, safety and wellness information for all staff we should achieve our goal of "Working Together towards Zero Workplace Injuries". Managers and Supervisors for each department shall ensure documents are posted and remain up to date.

- The following documents must be posted in on the Health and Safety Bulletin board in a conspicuous high traffic location (reception, lunch room, staff room)

    1. **Health and Safety Policy**
    2. **Occupational Health and Safety Act**
    3. **WHMIS regulations**
    4. **All applicable MSDS's (less that 3 years old)**
    5. **Applicable Designated Substance Regulations**
    6. **Any other applicable regulations (e.g. Industrial Regs, Construction Regs)**
    7. **WSIB Form 82 ("In Case of Injury at Work" poster) at First Aid stations**
    8. **First Aid Regulations (WSIB Reg 1101) at First Aid stations**
    9. **Emergency telephone numbers (e.g. police, fire, ambulance, MOL, Poison Control)**
    10. **Ministry of Labor orders**
    11. **Health and Safety assessment/testing (e.g. noise levels, water testing, lead testing, IAQ)**
    12. **JHSC/H/S rep Monthly workplace inspection reports**
    13. **JHSC meeting minutes**
    14. **Workplace incident/accident report summaries**

- First Aid Kits are required to meet **Section 9 & 10** of the regulation depending on school staff numbers.

- **Selection of Members** – The members of a committee who represents workers shall be selected by the workers they are to represent or, if a trade union or unions represent the workers, by the trade union or unions.

- Monthly workplace inspections must be forwarded to the Plant Secretary at the end of each month.

The Occupational Health and Safety Act requires as a minimum:

Site Conditions	Requirements
0 to 5 workers	➢ Specific Health and Safety person not requires
6 – 19 Workers	➢ Health and Safety Rep only ➢ No certification ➢ No management Representation
20 – 39 Workers	➢ Health and Safety Committee ➢ Two Members 1 worker/1 management ➢ Both members require certification training ➢ Meet every three months
50 Workers or more	➢ Same as "20 – 39 worker" above except must have committee of four; 2 workers/2 management member ➢ One worker member and one management member require certification training
Designated substances on site i.e.: Asbestos, Mercury, Lead etc.	➢ Same as 20 – 39 worker above applies

In all Cases

- Worker rep/member is to do monthly inspections of the workplace;
- Worker must be advised of action taken on inspection items within 21 days in written response (copy of work order request can suffice)
- Committee must meet at least **once every three months** (can be short and notes on the inspection form can act as minutes and 21 day response)
- Minutes and communications, including inspection forms, must be kept on file (on-site)

Tip

Do inspections with your representative or worker committee member then conduct a short meeting to discuss findings. Sign off the inspection form showing action you will pursue for each item found, and provide a copy of the inspection form to the worker. You have now met all the requirements of meetings, inspections, and communications. However, if you are at a site with a four member requirement then the other two members must be present at the meeting (or at least a quorum based on your terms of reference).

Custodial Department: Daily/Weekly/Monthly Tasks

Custodial Responsibilities

The following are all custodial responsibilities performed by or conducted under the direction of the Head Custodian. This page has been categorized by duties which are performed on a daily, weekly, monthly, as needed or yearly basis.

Daily

General

- Opening - alarms and doors
- Water Flushing as per regulation 247/03
- Safety Inspection (heat, playground, door hardware, etc.)
- Raise flags
- Lunch cans/tables set up
- Lunch cans/tables clean up
- Crew instructions

Building Cleaning

- Wastebaskets/pencil sharpeners emptied
- Counter tops/sinks cleaned
- Dispensers stocked
- Restrooms cleaned (all fixtures, floor, walls, mirrors, wastebaskets)
- Tile surfaces (sweep & mop)
- Carpets vacuumed
- Wall spots cleaned
- Drinking fountains cleaned

Grounds / Exterior

- Building/grounds visual inspection for safety and cleanliness
- Grounds picked up
- Front entrance swept

Weekly

General

- Building safety inspection
- Custodial area assignment inspection

Cleaning

- Dusting
- Clean chalk trays/white boards
- Spot walls/doors/furniture

Monthly

General

- Fire extinguisher inspection and report
- Emergency Lighting inspection and report
- Gas Meter readings and report
- Water Meter reading and report
- Water Lead Flushing reading and report
- Electricity Meter reading and report
- Ladder inspection
- Inspect door locks and hardware
- Inspect playground equipment

As Needed

General

- Burned out lights changed
- Principals requests (health, safety, program)
- Community activities/program set ups
- Community use arrangements
- Receiving of building supplies
- Filter Change 3x/yr (Aug - Dec - Apr)
- Submit work orders/coordinate with Head Custodian and Principal
- Instruct subs and evaluate after 3 + days assign at site
- Training crew
- Routine maintenance to upright vacuums (belts, brushes, impellers, beater bars, clips, bags)
- Vandalism reports
- Schedule holidays
- Update time clocks - October and April

Building Cleaning

- Carpet cleaning and spotting
- Spills, accidents and illness clean up
- Floor/remove black marks and scuffs
- Clean Windows
- Fill soap jugs
- Stock custodial supply area

Grounds / Exterior

- Care of plants/annuals
- Care of grounds, schedule watering
- Exterior walls/graffiti
- Rake playground chips/sand
- Shovel snow off sidewalks and ramps

Custodial Inspection Information

Elevator and Lift Devices

All tests need to be marked in logbook.

- Check oil level.
- Report any leaks in hydraulic system in machine room.
- Check elevator pit area for oil leakage. Remember to lockout/tagout elevator disconnect when working in the pit.
- Clean door tracks
- Do not use the machine room for any kind of storage and keep clean.
- Report if elevator floor is over an inch off with floor level.
- Keep lights in operating condition in the pit area and machine room and in the elevator car.

Fire Alarm Systems

1. The maintenance department will have a contractor test these systems annually.

2. The Inspection Certificate is to be displayed on the Plant Services Information Board.

Emergency Lighting

- Battery backup emergency lighting units are to be tested monthly by the custodial department.

Lamps and Lighting

1. Develop a lamp inventory for your building.
2. Become familiar with different types of lamps.

Fluorescent

1. T-12
2. T08
3. U-shaped lamps
4. PL types 2-pin/4-pin

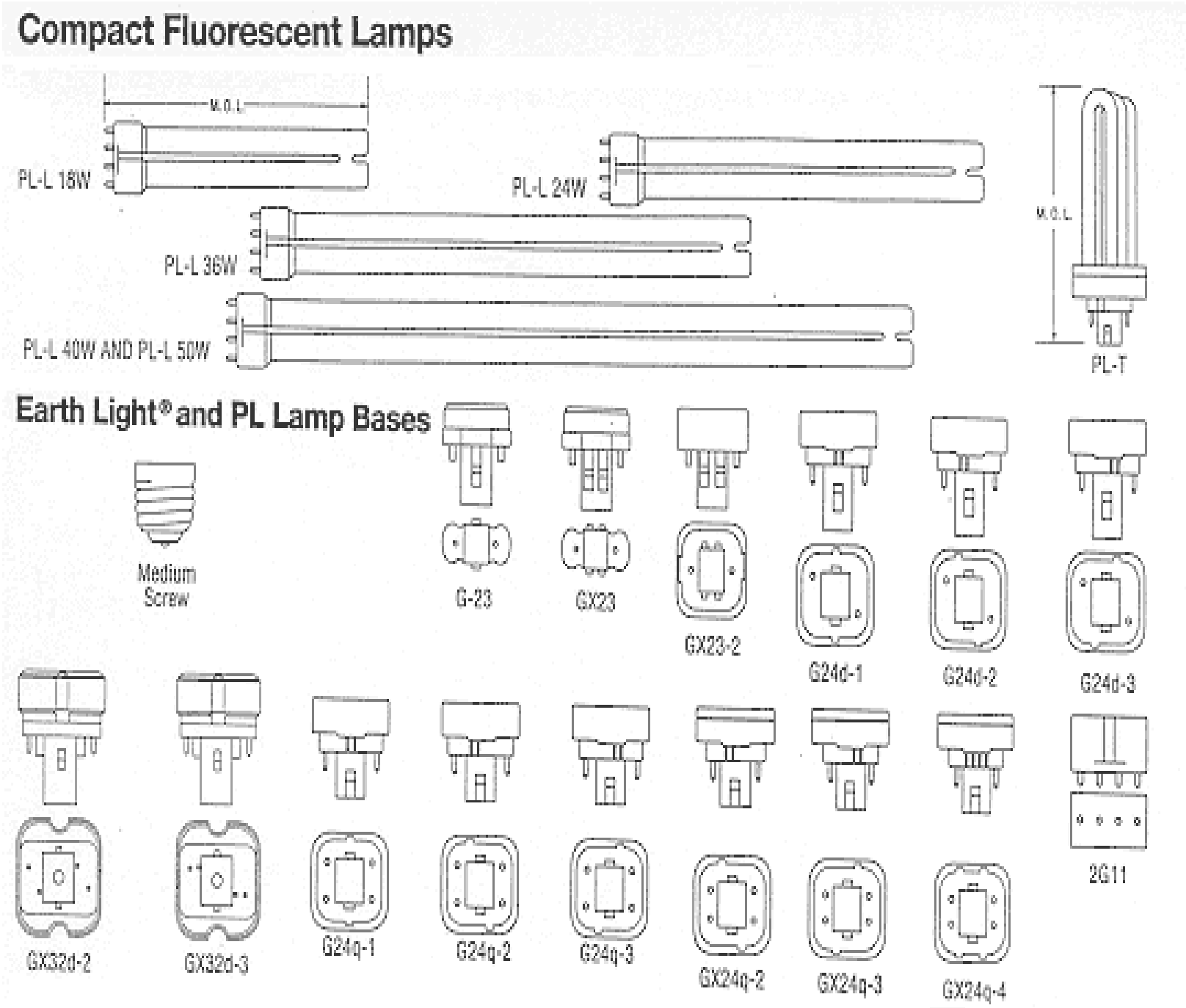
High Pressure Sodium

1. Medium Base
2. Mogul Base

Metal Halide

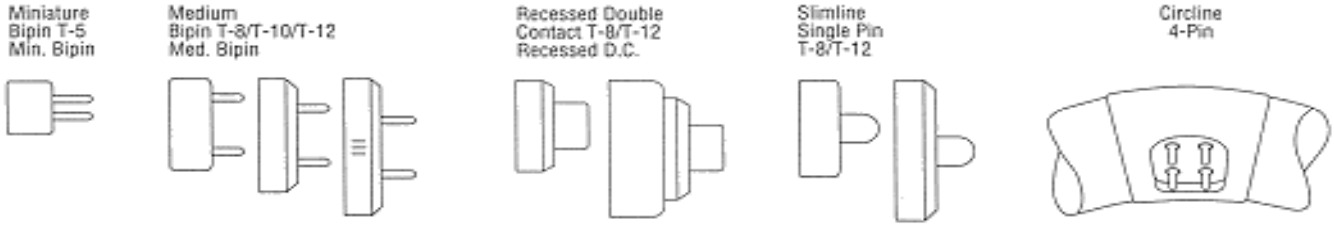
1. Medium Base
2. Mogul Base
3. Base Orientation

Additional Reference – Refer to Following Charts



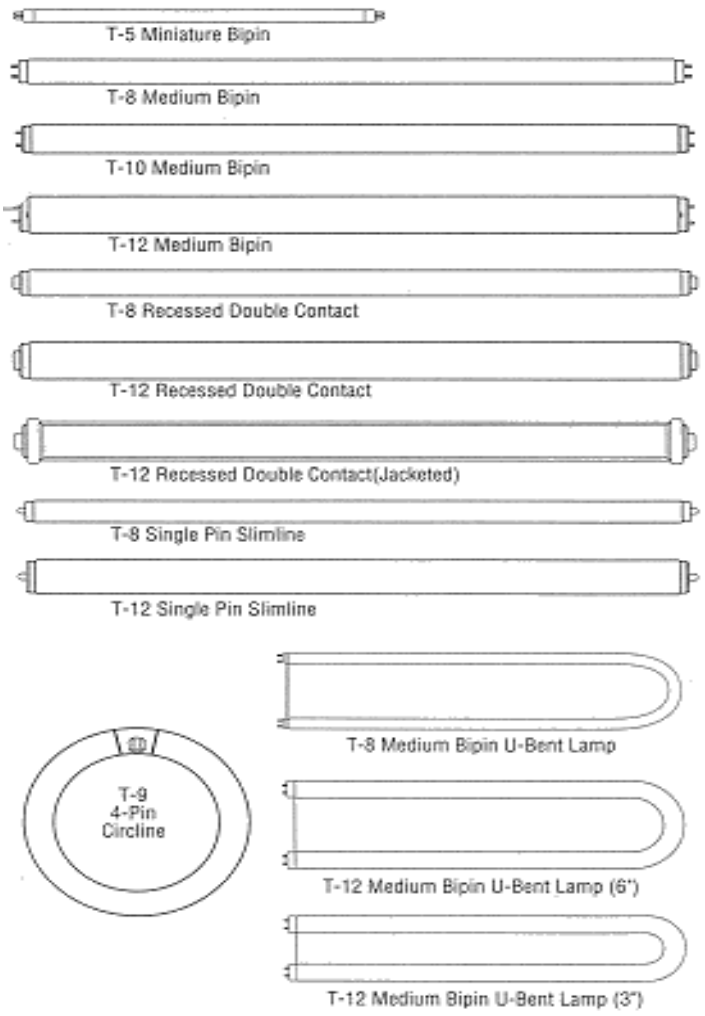
Fluorescent Lamps

Base Types (Not Actual Sizes)

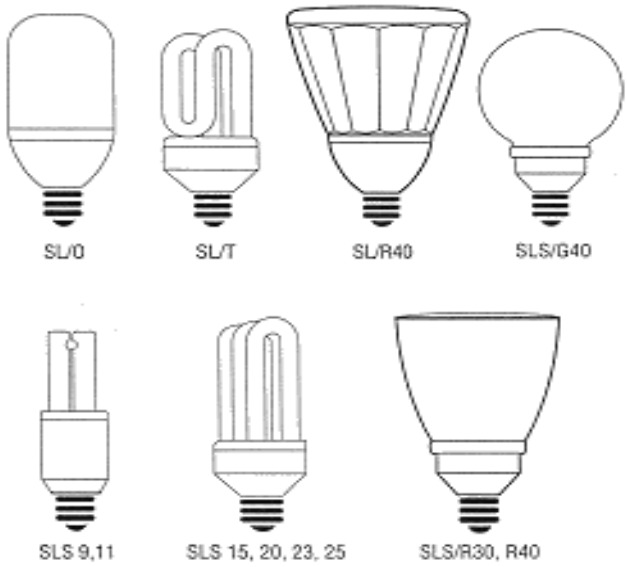


Bulb Shapes (Not Actual Sizes)

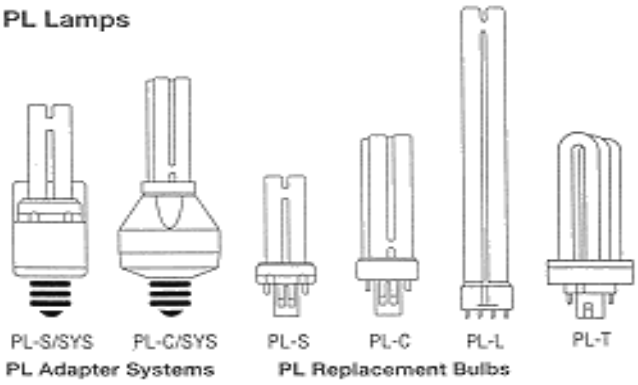
The size and shape of a bulb is designated by a letter or letters followed by a number. The letter indicates the shape of the bulb while the number indicates the diameter of the bulb in eighths of an inch. For example, "T-12" indicates a tubular shaped bulb having a diameter of 12/8 or 1½ inches. The following illustrations show some of the more popular bulb shapes and sizes.



Earth Light® Lamps

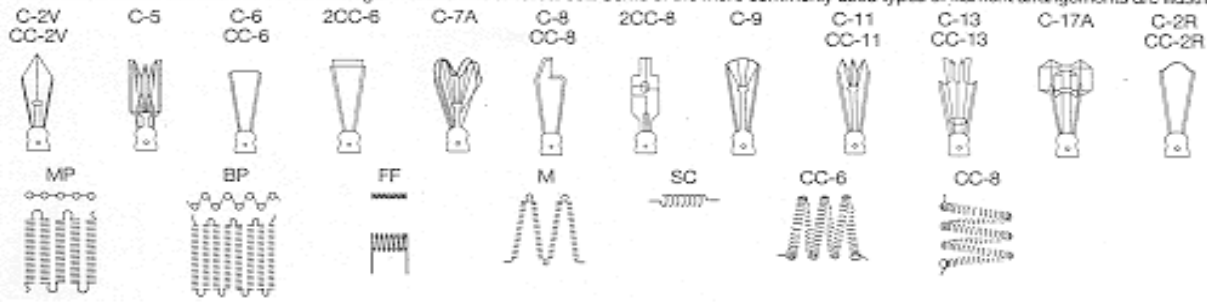


PL Lamps

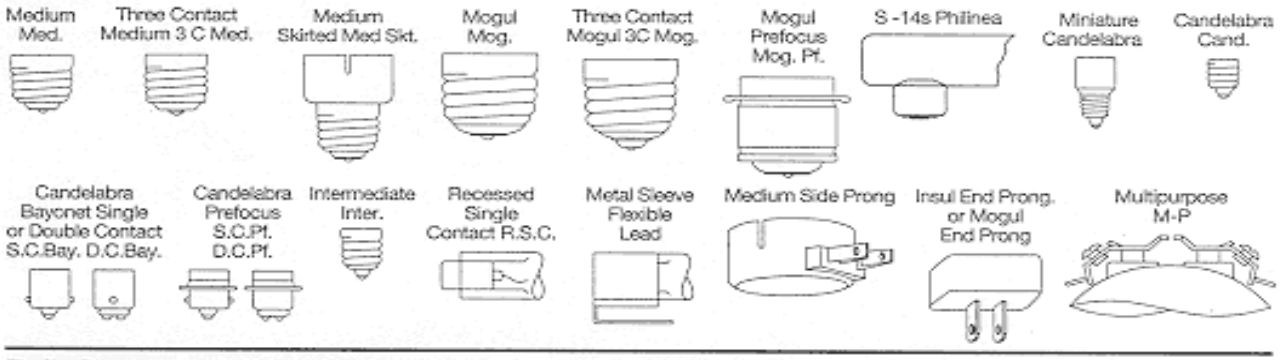


Filament Designations

Filament Designations consist of a letter or letters to indicate how the wire is coiled, and an arbitrary number sometimes followed by a letter to indicate the arrangement of the filament on the supports. Prefix letters include C (coil) — wire is wound into a helical coil or it may be deeply fluted; CC (coiled coil) — wire is wound into a helical coil and this coiled wire again wound into a helical coil. Some of the more commonly used types of filament arrangements are illustrated.

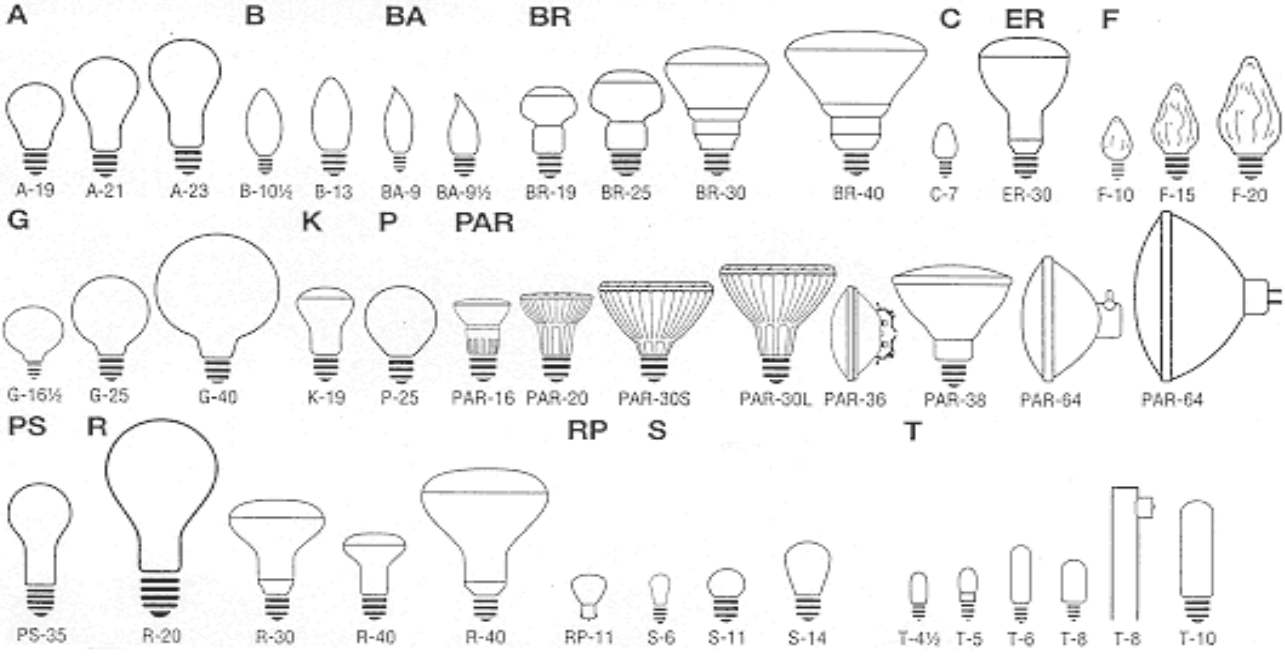


Base Types (Not Actual Sizes)



Bulb Shapes (Not Actual Sizes)

The size and shape of a bulb is designated by a letter or letters followed by a number. The letter indicates the shape of the bulb while the number indicates the diameter of the bulb in eighths of an inch. For example, "T-10" indicates a tubular shaped bulb having a diameter of $^{10}/_{8}$ or 1¼ inches. The following illustrations show some of the more popular bulb shapes and sizes.



Light Source Color Chart

Light Source Color Chart

Fluorescent Color	Color Abbrev.	Atmosphere	Light Output (%) In 4' Lamp	Correlated Color Temp.	Color Rendering Index, CRI	Lighted Appearance CIE Color Coordinates	
						X	Y
Cool White	CW	Cool	100	4100K	62	0.380	0.380
Deluxe Cool White	CWX	Cool	72	4100K	89	0.376	0.367
Daylight	D	Cool Daylight	85	6500K	79	0.313	0.337
Daylight Deluxe	DX	Cool Daylight	76	6500K	84	0.314	0.341
Lite White	LW	Cool	104	4200K	51	0.376	0.386
Natural	N	Neutral	69	3700K	90	0.384	0.357
3000K, SPEC30	SPEC30	Warm	105	3000K	70	0.444	0.409
3500K, SPEC35	SPEC35	Neutral	105	3500K	73	0.410	0.395
4100K, SPEC41	SPEC41	Cool	105	4100K	70	0.382	0.385
Advantage™ T12 30	ADV30	Warm	118	3000K	82	0.444	0.409
Advantage™ T12 35	ADV35	Neutral	118	3500K	82	0.410	0.395
Advantage™ T12 41	ADV41	Cool	118	4100K	82	0.382	0.385
Advantage™ T12 50	ADV50	Daylight	118	5000K	82	0.346	0.360
Warm White	WW	Warm	102	3000K	53	0.440	0.403
Colortone 50	C50	Daylight	72	5000K	92	0.345	0.359
Colortone 75	C75	Daylight Plus	66	7500K	95	0.299	0.316
3000K, Ultralume	30U	Warm	108	3000K	85	0.444	0.409
3500K, Ultralume	35U	Neutral	108	3500K	85	0.413	0.395
4100K, Ultralume	41U	Cool	108	4100K	85	0.382	0.385
5000K, Ultralume	50U	Daylight	93	5000K	85	0.346	0.356
3000K, TL 70	TL730	Warm	93	3000K	75	0.439	0.402
3500K, TL 70	TL735	Neutral	93	3500K	75	0.410	0.395
4100K, TL 70	TL741	Cool	93	4100K	75	0.382	0.385
5000K, TL 70	TL750	Daylight	90	5000K	75	0.346	0.356
3000K, TL 80	TL830	Warm	98	3000K	85	0.439	0.402
3500K, TL 80	TL835	Neutral	98	3500K	85	0.410	0.395
4100K, TL 80	TL841	Cool	98	4100K	85	0.382	0.385
5000K, TL 80	TL850	Daylight	97	5000K	84	0.346	0.356
3000K, TL 90	TL930	Warm	66	3000K	95	0.438	0.399
5000K, TL 90	TL950	Daylight	66	5000K	98	0.344	0.355
Advantage™ T8 830	ADV830	Warm	105	3000K	82	0.444	0.409
Advantage™ T8 835	ADV835	Neutral	105	3500K	82	0.410	0.395
Advantage™ T8 841	ADV841	Cool	105	4100K	82	0.382	0.385
Advantage™ T8 850	ADV850	Daylight	105	5000K	82	0.346	0.360

Residential Applications Light Source Color Chart

Fluorescent Color	Color Abbrev.	Atmosphere	Light Output (%) In 4' Lamp	Correlated Color Temp.	Color Rendering Index, CRI	Lighted Appearance CIE Color Coordinates	
						X	Y
Home Light Cool	H/L Cool	Cool	105	4100K	70	0.382	0.385
Home Light Warm	H/L Warm	Neutral	105	3500K	73	0.410	0.395
Home Light Warm Deluxe	H/L WX	Warm	108	3000K	85	0.444	0.409

Correlated Color Temperature, CCT, describes the apparent color, or chromaticity, of a light source. A fluorescent light source of 3000K, for example, Warm White, or 3000K Ultralume has a warm chromaticity, while 5000K lamps such as Colortone 50 or 5000K Ultralume have a higher blue content and are considered to be cooler in color.

Color Rendering Index, CRI, is a relative value that indicates the color rendering quality of illumination provided by a light source. The higher the index number, the better the quality of illumination. While one lamp may have the same apparent color in CCT as another, its ability to render colors properly may be more or less than another light source. For example, Warm White 3000K, 53 CRI lamps will not render colors of objects in an illuminated space as well as 3000K Ultralume, 85 CRI lamps.

Both CCT and CRI should be cited together when properly describing light source color attributes.

o Motorized Gym Equipment

Basketball Winches

When operating motorized gymnasium equipment, remain at operating station with hand on key at all times.

Inspection

1. Visually inspect cables for obvious damage and free movement within guide pulleys.
2. Inspect motor belts and replace if worn or broken.
3. Re-glue foam rubber safety pad along bottom edge of backboard at first sign of separation before entire pad gets torn off.
4. Replace broken or damaged hoops.

Operation

1. Do not permit anyone, other than SGDSB maintenance/custodial employees, to operate this equipment.
2. If unusual noise or erratic movement is observed **STOP! DO NOT** attempt to reverse direction and call maintenance for help.
3. In some cases if the winch fails and appears to be an electrical problem maintenance personnel can remove the belt and crank pulley by hand to raise the basket.

Bleachers

Inspection

1. Clean beneath and on top of bleachers after EVERY use. Even small objects can severely damage drive mechanism and under carriage of bleachers.

2. Visually inspect tier catchers (floor brakes) for free movement and not bent, after EVERY use. Bent tier catchers will cause uneven tracking and severe damage to under carriage.

Operation

1. Do not permit anyone, other than SGDSB maintenance/custodial employees, to operate this equipment.

2. If unusual noise or erratic movement is observed STOP! DO NOT attempt to reverse direction and call maintenance for help.

3. Store pendant switch in a location where staff access is limited. It has been recommended locked in custodial receiving area.

Gym Divider Doors and Curtains

Inspection

1. Visual inspection of panel hinges (divider doors) for obvious damage, loose screws or unsecured hinge pins.

2. Keep divider door storage bays swept and completely clear of obstructions. This is not a storage area for dust mops, bleacher score tables, volleyball poles, etc.

Operation

1. Do not permit anyone, other than SGDSB maintenance/custodial employees, to operate this equipment.

2. If unusual noise or erratic movement, ESPECIALLY WITH DIVIDER CURTAINS and also divider doors STOP! Do not attempt to reverse direction. Failure to follow this guideline will greatly add to preventable repair time and material costs.

3. Before raising or lowering divider curtains check and make sure all obstructions are clear. Failure to do this causes cables to slack and tangle in its motor. This requires complete cable replacement.

4. Before operating divider doors, open bay doors fully and secure in the open position. Make sure all obstructions are clear of the path of the divider door.

NOTE: Compliance with these guidelines is a team effort and will minimize disruptive and unnecessary impact to athletic programs and maintenance repair schedules.

Cleaning Procedures and Safety Information

Vacuuming

All vacuums present a risk to the upper body from repeated wrist and elbow movements.

Protect Shoulders, Wrists & Arms

- Keep elbows at or near the sides to minimize shoulder movement
- Avoid movements where the elbows are behind the body
- Adjust the location of your grip on the vacuum cleaner wand so that your hands are level with your forearm
- 'Walk' the vacuum cleaner to reduce repetitive motion

Vacuuming Motions

- Maintain a neutral spine while working comfortably
- Use neutral ranges in your shoulders
- Avoid extreme ranges in your wrists
- Keep arms close to your body to encourage neutral posture
- Use both hands, one to pull and one to push
- Avoid overreaching
- Stand upright and avoid bending forward
- Move the legs and not the back
- Move light furniture out of the way to make a clear path for you and the vacuum

Best Practice

- Change or empty the vacuum bag frequently – a full bag can add 10-20 pounds to the overall weight of the bag
- Use the appropriate attachment
- Use a lightweight vacuum with swivel wheels
- Use upright stance while vacuuming
- Vacuuming large areas without breaking to rotate tasks
- Walk with the vacuum
- Keep the handle close to the body and avoid over reaching
- Keep the back straight, move the legs
- Walk in straight lines where possible (clear the area, stack chairs)
- Select the proper style of vacuum for the task (canister, upright, backpack)
- Empty the bag frequently
- Maintain the wheels and beater bar
- Adjust the height of the beater bar
- Wrap the handle
- Longer ergonomic handles or wands
- Small areas and rotate the task
- Rotate arms and rotate task

Vacuuming: Head Types & Backpack

- Dry head: select a light brush, swivel cuffs
- Wet head: avoid wet vacuum over dry areas
- Power head: move wand slowly when working with power head
- Hose length: avoid using hose as a leash to drag the vacuum
- Backpack vacuum: provide the greatest amount of mobility

Wiping Surfaces

Main Hazards

Force

- Pushing/scrubbing to clean a surface
- Wringing out rags
- Squeezing spray bottle trigger
- Gripping the rag
- The size of the rag

Awkward Postures

- Reaching forward and over shoulder
- Back bending and twisting
- Wrist and forearm bending and twisting

Repetition

- Wiping large areas without breaking to rotate tasks

Best Practice

- Walk around an object to avoid over reaching
- Kneel on a chair when wiping desktops to keep the back straight
- Place one hand on the surface to support the torso
- Use long handled tools (flat mops, window kits, dusters, doodle bug) to minimize reaching and wrist bending
- Use the hand over hand method of wring out rags
- Use the bucket/wringer and insert for quantities of rags
- Walk and use the body to move the tool & exert force
- Use scrub pads to minimize force
- Let cleaning solution sit and activate
- Cut cloths to hand size
- Fibre cloth rags
- Pressurized spray bottles
- Small areas, heights and rotate the task
- Rotate arms

Slips, Trips and Falls

One of the most common hazards for custodians is slipping on wet floors or tripping over an object. A slip or trip may result in a fall. A fall may cause injuries such as broken bones, head injuries, sprains, strains or bruises.

Slips

Occur when there is too little traction between the footwear and the floor

- Wet, waxed, oily floors
- Loose mats or carpets
- Weather hazards
- Improper footwear (ice, rain, snow) (slippery soles)

Trips

Occur when your foot hits something that causes you to lose your balance and fall

- Poor lighting
- Clutter
- Wrinkled carpeting
- Obstructed view
- Cables/cords in the open
- Bottom drawers open
- Uneven surfaces (steps, thresholds)

Good Housekeeping

Is the first and most important step in preventing falls due to slips and trips. Non-slip flooring, specialty footwear, or training on techniques of walking and safe falling are only effective with good housekeeping practices.

- Clean all spills and debris immediately
- Mark spills and wet areas with warning signs and barricades
- Spread grease-absorbent compound on oily surfaces
- Keep walkways and doorways free of clutter
- Secure mats, rugs, and carpets that do not lay flat by tacking or taping them down
- Always close cabinet or storage drawers
- Cover cords/cables that cross walkways
- Keep working areas and walkways well lit

Footwear

Refer to Footwear Policy 718 below

Appropriate Pace

Avoid rushing through your work to reduce the chances of a fall

- Take your time and pay attention to where you are going
- Adjust your pace to suit the type of flooring and the tasks you are doing
- Walk with your feet pointed slightly outward
- Make wide turns at corners

Proper Visibility

- Always use available light sources to provide sufficient light for your tasks
- Use a flashlight when entering a dark room
- Ensure the things you carry, push, or pull, do not prevent you from seeing obstructions or spills

SUPERIOR-GREENSTONE DISTRICT SCHOOL BOARD

Section	PERSONNEL	
Policy Name	FOOTWEAR	718
Board Approved: December 4, 2007		*Review Prior To: December 2012*

POLICY

In the School Board workplace, there are potential risks for foot injuries. These risks could arise from objects that fall or roll, sharp objects, slippery surfaces, chemical products, power sources or any other risk that may cause injury to the foot, or cause a person to slip, trip, or fall. All reasonable effort will be taken by the Board to eliminate or reduce these risks by establishing physical or administrative control measures. In addition to these measures, the Board has established requirements regarding the type of footwear to be worn, in order to counter the risks that cannot be covered by the control measures in place.

This Policy applies to all employees of the Board, while on Board business, either on or off Board property, and contractors while on Superior-Greenstone District School Board property.

RESPONSIBILITIES

Senior management, school management and supervisors must:

- Identify the activities that require protective footwear;
- Determine the appropriate type of protective footwear according to the identified risk;
- Direct those under their supervision to wear the appropriate footwear.
- Ensure that employees wear the appropriate footwear in all areas where a risk exists.

All personnel shall:

- Wear the appropriate protective workplace footwear at all times;
- Ensure that footwear used is in good condition.
- Check with their supervisor, when unsure about what might be required.

All personnel shall not:

- Walk around workplaces in bare feet or in socks;
- Wear open-toed sandals, flip flops, "crocs" or similar footwear.
- Walk outdoors in wet, ice, or snow conditions, without proper outdoor footwear.

Type of footwear that must be worn for general classroom or office duties:

- Closed-toe shoes;
- Soft rubber soles;
- Flat or a maximum 2 1/2 inch heel.

Cleaning Walls

- Stand upright and use a lightweight long-handled mop or squeegee
- Adjust the length of a telescopic handle to minimize awkward bending and overreaching
- Alternate lead hands to avoid fatigue
- Use your legs, not just your arms, to generate force

Using Telescopic Wall Washing Tools

- Keep your hands in front of you and between your shoulders
- Work in a small area of the wall and try to keep your elbows below shoulder level
- Face the wall and move the tool up and down while:
- Using a combination of small arm movements while walking sideways

- OR -

- Holding the tool across your body while walking forward to minimize arm movements
- Extend your washing range by walking forward to wash higher and walking back to wash lower

High Dusting

Is defined as reaching up while holding a duster for long periods of time and requires awkward, fixed positions of the arms, shoulders, and neck. This task can lead to pain and stiffness in the neck, shoulders, arms and upper neck.

Extend your reach by using high dusting tools with telescoping handles or a ladder.

High Dusting Practice

- Wear face/eye protection
- Stand at an angle and not directly under the dusting area
- Keep elbows close to the body to minimize over-reaching
- Limit time spent in this position
- Allow for more frequent work breaks
- Rotate tasks regularly to change the physical demands

High Dusting Tools

- Use lightweight tools with telescoping handles and bendable necks
- Work with your hands in front of your body in the area between your shoulders to minimize effort
- Bend the neck of the handle to align it with the surface to be cleaned
- Extend the telescopic handle and step back from the wall to improve neck position

Snow Shovelling

The potential for musculoskeletal injury is high particularly among custodians working in school districts where snowfalls are small or infrequent. Use mechanized snow removal equipment whenever possible.

Before you begin

- Warm up your muscles for 10 minutes with light exercise or stretching
- Check with your doctor before shoveling if you have a medical condition or do not exercise regularly
- Dress in layers

Shovel early and often

- Newly fallen snow is lighter than heavily packed or partially melted snow

Pushing the snow

- Keep the shovel close to your body
- Space your hands on the shovel to increase leverage
- Shovel an inch or two off the top of the snow
- Use a shovel that feels comfortable for your height and strength

Lifting the snow

- Squat with your legs apart, knees bent and back straight
- Lift with your legs...do not bend at the waist
- Scoop small amounts of snow into the shovel and walk to where you want to dump it

Pace yourself

- Take frequent breaks and replenish fluids to prevent dehydration, which affects muscle movement
- Shoveling snow is an aerobic activity

Do not

- Hold a shovelful with your arms outstretched – it puts too much weight on your spine
- Remove deep snow all at once
- Throw the snow over your shoulder or to the side – this requires a twisting motion that stresses your back
- Use a shovel that is too heavy or too long

Floor Scrubbers and Polishers

Operating floor machines requires skill and experience. Very small motions can produce sudden, extreme direction changes.

Operating Floor Machines

- Maintain a neutral spine position
- Let the machine do the movement by moving with it as a unit
- Grip machine with neutral wrist posture
- Control direction by raising and lowering the handles
- Use a cart when transporting the machine to avoid lifting it

Changing the Pads

1. Lock the handle in an upright position
2. Tilt the machine to place it on the floor
3. Place the pad on the floor near the machine
4. Lower the machine onto the pad

Garbage

Emptying the Cans

- Always wear gloves
- Check the weight of the can by tilting or pushing it
- Look over the contents of the can for sharp points or protrusions
- Grasp the lip around the rim of the can; use two hands if the can is heavy and avoid bending your wrists
- Change hands to pick up and lower trash cans
- Empty trash cans frequently to avoid accumulating heavy loads

Bend your knees and keep your back straight as you pick up or lower cans

Position the can on the barrel rim before you empty contents and replace the lining

Do not stoop over to line the can

Pulling Bags

Repeated heavy lifting is more difficult when the contents of the bag have been pushed down to avoid extra trips to the dumpster. A strong suction is generated and extra force is needed to pull the bag out.

Suction Effect

Garbage bags fit tightly against the walls of the container and create a suction effect. This makes it difficult to remove the bags by increasing the force required. In order to remove the bag, air must enter the space between the bag and container.

To reduce the suction

- Place a loosely fitting false bottom in the container (i.e., alight piece of foam, empty box placed upside down)
- Drill holes in the sides or bottom of the container
- Use barrels designed with lift vents

Maintaining Garbage Cans

- Empty cans before they are half full
- Do not overfill or compact trash in the barrel
- Ask for help when the bag is overfilled and too heavy

Pulling the Bag Tilt and Pull

Put the container on its side and use a pulling motion to get the bag out to avoid awkward lifts above your shoulders.

GET HELP IF THE LOAD IS TOO HEAVY

Managing Garbage Containers and Bags

Don't assume that garbage cans weigh the same each time Injuries can occur when lifting an unexpectedly heavy can.

The risks of injury are related to

- Size of the garbage can
- Trying to predict the weight
- Holding the bag in place
- Ability to replace lifting with pulling
- Controlling the weight of bag
- Method of transporting bag to dumpster
- Mechanics of lifting bag into dumpster

Container Size

The right capacity for the container is based on the size and weight of the items placed in it. When collecting heavy articles (wet paper, books, food waste):

- Use a smaller container
- Put in a false bottom to reduce the available space Controlling Bag Size
- Ensure the garbage bags are not overfilled
- Place a false bottom (styrofoam blocks or cardboard box) in the container to "use up some of the capacity"
- Tie off the bag when it's 1/2 (one-half) full and start a new bag on top of the first
- Tie off the second bag when it reaches the top of the container at 1/2 (one-half) full

Predicting the Weight

Often the person filling the container is not the person emptying it, so the containers may be overfilled.

- Test the load before lifting it, especially when a heavy load would be unusual
- Classroom set-up time
- Classroom clean-up time
- Special events (holidays, food days, graduation parties)

Moving Furniture and Supplies - Main Hazards

Force

- Weight of the item (lifting and carrying)
- Carrying items; may involve stairs
- Pushing or pulling furniture over carpet

Awkward Postures

- Back bending and twisting when lifting
- Awkward and unbalanced loads (liquid, salt)
- Lifting over the shoulder or below the knee
- Working in congested areas

Repetition

- Lifting or carrying several items in a row (ie: moving all classroom furniture in or out of the classrooms over a few days)
- Making several trips with supplies in a row

Best Practice

- Break down supplies
- Test the load before lifting it
- Bend the knees and keep the back straight when lifting
- Keep the load close to the body
- Try to keep lifts between knuckle and shoulder height
- Use two hands
- Work with a partner
- Plan the lift and clear the area
- Balance the load when carrying
- Use cart or dolly

- Use scooter carts or casters
- Stair carts
- Carpet sliders
- Push instead of pull
- Rotate moving furniture with other tasks
- Organize storage room and shelving
- Purchasing (consider ergonomics when ordering supplies and equipment)

Sweeping

Sweeping floors may involve awkward positions of wrists and prolonged contact pressure on hands. Also, the back and neck are often in an awkward forward bent posture.

Alternate right and left hands at the top of the mop handle

Use lightweight brooms, stand-up dustpans, and lobby brooms

Wear knee pads and kneel down to get closer to the work

Add a foam sleeve over the broom handle for a better and more comfortable grip

Do not bend your back. Use tools that allow you to remain upright. If needed, bend your knees and not your back.

Electrical Tools and Machinery

Procedure

- Only use the power tool for the task in which it was designed.
- Inspect all power tools prior to use for damaged or worn parts and ensure screws, nuts and bolts are tightened.
- Inspect cords for defects: check the power cord for cracking, fraying, and other signs of wear or faults in the cord insulation.
- If a tool is defective, remove it from service immediately for repair by a qualified person.
- Read the operator's manual before using the tool and operate the tool according to the manufacturer's instructions.
- Ensure that the power tool has the correct guard, shield or other attachment that the manufacturer recommends.
- Wear or use personal protective equipment (PPE) or clothing that is appropriate for the work you are doing; this may include items such as safety glasses or goggles, hearing protection, dust mask, gloves, safety boots or shoes, or rubber boots.
- Pull the plug, not the cord when unplugging a tool. Pulling the cord causes wear and may adversely affect the wiring to the plug - an electrical shock to the operator may result.
- Before plugging or unplugging tools be sure power switch is turned off.
- Never clean or repair a tool unless power is disconnected and only if you are trained to complete such repairs.
- Electric tools should be properly grounded or double-insulated.
- Keep power cords clear of tools during use.
- Suspend power cords over aisles or work areas to eliminate stumbling or tripping hazards.
- Ground fault circuit interrupters must be used with any portable electric tool operated outdoors or in wet locations.
- Wear the appropriate PPE for the task being completed.

Grounds Procedures and Information

Tractor Mowers

Tractor Mowers are specialized motor vehicles. The design and intended use of tractors gives them a high center of gravity and results in them being unstable on non-level ground; when accessories are incorrectly attached; or when something is towed or pulled incorrectly.

Hazards - General

- Mowing over hidden objects such as rocks, bottles, sprinkler heads, ruts, culverts, washouts, etc.
- Rollover when mowing a steep slope - an incline that is too steep to safely perform the job
- Improper attachment of front or rear objects being attached or towed
- Lacerations or amputations from blades
- Defective or missing parts of rotary attachments
- Rotary mower attachment set too close to ground

Safety Guidelines/Corrective Action

- Inspect the area to be mowed for obvious hazards. Make sure hazards are removed before the mower operation begins. Mark stationary hazards with wood stakes that are brightly painted, or tie highly visible plastic tape to the upright visible end of stakes.

- Consult your supervisor if in doubt about safety of mowing on an incline. Discontinue operation if wet grass or other surface conditions indicate that slipping may occur.

- Ensure that safety belts are in use and the tractor is equipped with a manufacturer's approved rollover protective structure.

- Keep all four wheels of a tractor on level ground whenever possible. The top areas on a slope can be safely mowed by working on a level surface and directing the bar down the slope.

- The power must be shut off and locked out whenever blades are changed, cleaned, lubricated or adjusted.

- Rotary blades protected by steel barriers provide better protection than a loose chain guard.

- Proper settings are essential to avoid soil from being scalped and surface objects being thrown.

- Lift the rotary attachment, when approaching driveways, roads, or other objects.

- Do not attempt to weld or bolt rotary blades that have fractured. Use only factory approved repairs, the heat from welding may affect tensile strength and the centrifugal force could damage the weakened are of the blade.

- The heat from welding may affect tensile strength and the centrifugal force could damage the weakened area of the blade.

Walking Lawn Mowers

Operating Precautions

Injuries are caused by broken or detached cutting blades, debris launched by the high-speed blades, and allowing the feet and hands to come in contact with moving parts.

Safety Guidelines for Electric and Gas Mowers

Read and follow the Manufacturer's Safety recommendations, specifically developed for the make and model being used.

1. All electric extension cords and electric motors must bear the label of a recognized testing agency (Canadian Standards Association, Underwriters Laboratories Canada Inc. or other recognized authority) and be approved for the purpose and power rating being used.
2. Select electric-powered mowers and cables, which have a ground wire - unless the unit is double insulated (Electrical Code).
3. Do not use electric motors in wet areas - Electric powered mowers are dangerous when used in the rain or wet grass even if grounded or double insulated.
4. Remove defective mowers from service - Do not use defective mowers until they are properly repaired.
5. Wear steel-toed footwear with a sole designed for proper traction on wet surfaces.
6. Keep motors free of accumulations of grass, leaves, or excessive grease that may cause fires, overheating or motor damage.
7. Clear areas to be mowed - Remove any rocks, stones, wire, sticks, or other debris. Do not allow blades to rotate when crossing gravelled areas.
8. Start the mower on firm, clear, level ground. Maintain a firm grip on the mower, or place a foot on the housing, and stand to one side when starting.
9. Go slowly - Proceed slowly when cutting tall, heavy grass or weeds to avoid choking or stalling the motor.
10. Adjust mower to proper height - Set the mower at the highest cutting point while operating on rugged or uneven terrain to prevent it from accumulating or ejecting an excessive amount of debris.
11. Cut hills and banks sideways - Hills and banks should be cut sideways, instead of up and down, when using walk-behind mowers. This allows better control of the mower and reduces the possibility of contact with it in the event control is lost. If the hill is extremely steep; help should be obtained by having a person at the top of the hill hold a rope attached to the mower.
12. Clear the area of people and animals - If someone approaches, mower should be shut off.
13. Never reach under the housing or guards - Do not make adjustments or clear the mower of grass unless the motor has been shut off and the spark plug wire has been disconnected. A gasoline engine can start of its own accord if the blades are turned while the plug wire is attached.
14. Keep clothing away from moving parts- Do not wear loose clothing. If adjustment requires that the motor be running, take precautions to ensure you stay clear of moving parts.
15. Store gas in labelled containers - Gasoline should be stored in approved gas containers bearing the label of a recognized testing agency (Canadian Standards Association or Underwriters Laboratories Canada Inc.). The containers should be outdoors in a shed or a garage.

16. Do not refuel hot mowers -Do not refuel a gasoline mower while it is hot, running, or in a closed area.
17. Maintain balance- Be certain of your footing and balance, especially when mowing on an incline.
18. Check mower regularly- Locate improperly functioning parts.
19. Never leave the mower unattended while it is running.
20. Do not use defective mowers-Mowers with missing chain guards, broken wheels, or other defects that can interfere with safe operation should not be used.

Riding Mowers

Operating Precautions

Observe all the precautions recommended for walking mowers when using riding mowers. Riding mowers on uneven or sloped ground can overturn onto the operator.

Mower Design Features

All riding mowers should have the following features:

1. Low center of gravity - Stability is the most important feature of a rider mower.
2. Sufficient power Mowers should be able to operate on moderate inclines without stalling or having excessive strain on the motor.
3. Blade Activation Mowers should be equipped with clutch activated mower blades.
4. Roll over protection - All tractor types must have roll over protection.

Safety Guidelines

1. Avoid ruts, dips and holes - be on the alert for irregularities and obstructions in lawns.
2. Mow inclines vertically rather than horizontally - riding mowers are more stable vertically because they generally have a longer wheel base than wheel width.
3. Never turn while on a slope
4. Engage the clutch carefully - manipulating the clutch too quickly can cause the mower to tip backwards or forwards
5. Use a walking mower for areas that are too steep for the rider mower.
6. Never allow riders.
7. Back up only when necessary - make sure no one is behind the mower before backing up and always face the direction of travel.
8. Mark off work areas - use markers or signs to alert the public of work in progress.
9. Display a "slow moving vehicle" symbol and follow all regulations concerning the use of flags and/or flashing lights. Use flashers for all tractor-style of vehicles.
10. Inspect all areas - be on the alert for loose objects that could be thrown into the path of moving vehicles.
11. Observe traffic regulations - use "defensive driving" procedures when using roads shared with the public.
12. Respect private property - observe all "No Trespassing" or “Do Not Enter” signs. Supervisors, who are thoroughly familiar with the area, including specific hazards, should assign all mowing operations (and instruct operator accordingly).

13. Park mowers safely - do not obstruct or endanger the public.
14. Be on the alert for children – stop work in areas where children are playing.
15. Do not leave running mowers unattended - ensure that the power is off, and the ignition key is removed, before leaving any mower even for a short period of time.

String Trimmers

Ensure you are thoroughly familiar with the equipment and manufacturer's recommendations for its use.

Hazards – General

The principle hazards of grass trimmers are cuts or amputations from contact with the line and being hit by objects thrown at high speeds.

Additional Hazards

- long term hearing loss from the engine noise
- toxic hazards from the fuel and exhaust

Safety Guidelines

Always wear the necessary personal protective equipment:

- long snug-fitting work pants to protect your legs
- approved safety boots with non-slip soles
- eye protection - goggles or a face shield
- non-slip heavy duty gloves
- hearing protection - ear plugs or muffs
- secure long hair

Check the trimmer

- ensure the safety shield has no cracks and is securely fastened
- ensure there are no loose fittings or fuel leaks
- lock the swivel handle either upright for flat weeding or tilted for edging
- the spring-loaded throttle control on the handle must operate freely
- use the cut-off blade to ensure the correct line length
- adjust the harness (if present) and the hand grip to work comfortably
- fill the fuel tank outdoors

Precautions while operating

- watch for and avoid pedestrians, wire fences, and objects hidden in the grass
- use a firm two-handed grip on the equipment and keep the tool close to the body in a comfortable position so the trimmer is weight balanced to allow easy manoeuvring while working
- string trimmers are only for weeds and grass, not shrubbery, or other plants
- do not use in a manner where the line is at ground level where it can raise dust and throw debris
- keep your body away from the rotating string head and hot parts of the engine
- If the unit starts vibrating - stop the unit, disconnect the spark plug wire and inspect it for the problem

Vehicle and Equipment Check List

General Precautions

Lawn mowers, tractors, small trucks and other mobile equipment used in performing grounds keeping work are tools and operators must be fully trained to use them. All operators should be familiar with the equipment they operate and should perform a daily weekly check of the equipment and any attachments to ensure they are safe to operate.

Daily checks for all equipment

Check the manufacturer's recommendations for the specific vehicle specifications. Checks should be carried out in a systematic manner to ensure items don't get missed. One of two methods should be utilized:

1. A circle check which is carried out by checking the vehicle/equipment in a circular pattern. The circle check should be carried out for all large vehicles/equipment.
2. A system checks where each system is checked in sequence.

Items to be checked daily prior to using

Tires

- tread wear, amount of tread and evenness of the wear
- cuts, bulges, nails
- check for hidden damage on the backside
- proper inflation

Brakes

- adjustment
- wheels for signs of leakage if the brakes are hydraulic
- linkages in good condition if the brakes are mechanical
- any unusual noises which could indicate a problem

Oil

- proper level

Cooling system

- filled and no signs of leaks (water cooled engines), no obstructions in air flow

Lights

- all operational

Mirrors

- present and in usable condition

Steering

- leaks or mechanical damage at the steering gear box

Clutch / transmission

- operate smoothly

Guards

- all recommended guards present, properly attached and in good condition

Hitches/tow bars

- firmly attached and undamaged

Exhaust system

- no leaks or broken parts

Seat belts

- in good condition (if vehicle has rollover protection)

Riding Lawn Mowers and Small Tractors

1. Lawn Mowers and Small Tractors are intended for use only as off road vehicles.
2. Guards - all recommended guards must be present, in good condition and properly attached
3. Power drive belts - wear and proper tension
4. Cutters - properly mounted with no play and in good condition

Towing Vehicles

1. Ensure expected load doesn't exceed the Gross Vehicle Weight Rating set by the manufacturer.
2. Hitch ball - meets or exceeds vehicle weight rating:
    - mounted securely and ball lubricated and not deteriorated
    - appropriate size for the trailer hitch
3. Safety chain fastener - not corroded or damaged
4. Mirrors - extended wider than the object being towed

Trailers

1. Load range - suitable for the job and load planned
2. Wheels - bearings re-greased if trailer has been sitting for a period of time
    - lug nuts secure
3. Tires - proper load rating and specified pressure
    - check for wear, cuts, bulges and hidden damage
4. Lights - connected and operational (not required for small off road trailers)
5. Load - weight spread so 10 percent of the weight is on the hitch
6. Hitch - locking device secure and in good condition
7. Safety chain - adequate to keep the trailer from breaking if the hitch fails

Pick-up Trucks

1. Wipers - operational and in good condition
2. Horn – operational
3. Driving lights - all operational
4. Turn signals – operational
5. Tail gate - attached and operational
6. Restraint system - if heavy loose items are to be carried
7. Emergency equipment - fire extinguishers and first aid kits should be in the cab

Playground Inspections

Mechanical Information

Boilers and Hydronic Systems

General Cleaning

- Sweeping boiler room
- Keeping debris out of boiler room
- Dusting the boiler
- Keep storage in designated areas

Instructions on Safety Devices

- High limit switch
- High temperature switch
- Operating controls
- Low water cut-off switch
- Location of manual gas valve
- Location of emergency gas shut off switch
- How to shut off the main gas meter (Do you have a wrench?)
- Relief valve (blow down monthly)
- Boiler log book (weekly and monthly as per log. See log)

Quick Reference Troubleshooting: Boiler Won't Fire

- Check the Energy Management System to see that the boiler is enabled
- Check that the circulation pumps are running (visual)
- If the boiler still won't fire call Maintenance Working Foremen

Burner Operating Controls

- The main purpose of the boiler operating control system is to operate the boiler to meet system demand requirements.
- The control senses either steam pressure or water temperature and is used to stop and start the burner (operating control), provide a margin of safety (high limit control), and vary burner-firing rate (modulating control).

Operating Pressure Controls (OPC)

- Settings should not exceed 90% of the safety valve set point due to the potential for valve leakage.
- Continued leakage will cause erosion and early replacement of the valve.
- Set to ensure burner is at low fire prior to modulation and shutdown.
- Differential should be set to eliminate frequent on-off cycles.

High Limit Control (HLC)

- Set point is above Operating Pressure Control to avoid nuisance shutdowns.
- HLC is used as a safety limit to shut the burner down should the OPC fail to do so.
- The control will require manual reset.
- The HLC on a hot water boiler must be set below 240-F.

Rules for a Competent Operator

1. The competent operator shall be able to explain the function of all the controls on the boiler.
2. The competent operator shall know what would happen if the boiler was allowed to operate below the lowest permissible operating level.
3. The competent operator shall know all possible methods of feeding water to the boiler.
4. The competent operator will know what would happen if the water was carried too high.
5. The competent operator shall know how to blow down a boiler in a safe manner.
6. The competent operator shall know how to shutdown the boiler safely.
7. The competent operator shall know how to start the boiler safely.

Pumps

Major Components

- Motor
- Bearing assembly
- Coupler
- Base
- Disconnect
- Isolation valves

Run Types

- Constant RPM on/off
- Variable drive

Maintenance Required (Annually)

- Grease (if not a sealed unit)
- One squirt of grease on the motor per zerk fitting.
- Two squirts of grease from the grease gun on the bearing assembly.
- Blow out the variable drive control cabinets with compressed air.
- Check condition of electrical wiring (visual) for melted, heat discolored
- Control cabinet idiot lights (if burned out)
- Change the lead lag settings tri-annually

Compressors (Shops and Controls)

- Belts (tri-annually)
  - Check condition
  - Check tightness
  - Check alignment; look for black powder residue around motor and base, etc.
- Sheaves (tri-annually)
  - Check condition (grooves)
- Oil (tri-annually)
  - Check oil level; add when low
  - Ingersoll Rand use “30T” oil
  - All other brands use Chevron “GST – 100” oil
- Blow down
  - Verify auto blow-down device works (cycles and relieves air and moisture)
  - Give a manual blow-down, bypassing the automatic feature
  - Change air filter annually

Heat Pumps

- Change filters (tri-annually)
- Belts (annually)
  - Check condition
  - Check tightness
- Sheaves (annually)
  - Check condition/grooves
- Coils (annually)
  - Check for build up (matting)
  - Vacuum when found to be dirty
- Blower Motors (annually)
  - Grease *if not a sealed unit
  - Two squirts of the grease gun only on bearings and shaft
  - One squirt only on motors
  - Vacuum the electric motors cooling fan
- Condensate Pans (annually)
  - Check when checking coils. Look for water build up (not holding water)
  - Ensure they are draining properly (visual)

HVAC Units

Housekeeping of mechanical rooms and areas. Keeping items away from equipment access doors, burners and moving parts.

Major Components

- Blower
- Blower motor
- Coil
- Dampers
- Control valve / Strip or Element heat
- Filter
- Stream Trap
- Belts and Sheaves

Preventative Maintenance Required

- Change filters (tri-annually)
- Oil/Grease motor and blower bearings (annually)
- Check belts and sheaves (tri-annually)
- Check condition of coil- matted, dirty, etc. (annually)

Uni-Vents

- Change filters (tri-annually)
- Oil/Grease motor and blower bearings (annually)
- Check belts and sheaves (tri-annually)
- Check condition of coil- matted, dirty, etc. (annually)
- Clean garbage/debris from interior uni-vent cabinet and supply grille (annually)
- Clean outside air intake grille (OSA) (annually)

Exhaust Fans

Maintenance Required

- Grease motor
- Check belts
  - Belt tension
  - Belt alignment
  - Belt condition
- Sheaves
  - Condition (are they worn or grooved)
- Rubber mounts
  - Check condition

Fire Sprinkler Systems

1. The maintenance department will have a contractor competence-test these systems annually.
2. The Inspection Certificate is to be displayed on the Plant Services Information Board.
3. This is all the maintenance required.

Electrical Information

Power Panels

- Keep stored materials 36" away from panel.
- Do not store materials on top or leaning against panels.
- Main power distribution rooms shall not be used for storage.
- Check for warm breaker periodically

Certified Electricians are the ONLY workers authorized by SGDSB to enter live electrical panels (lighting panels, power panels), install new electrical circuits and equipment.

THIS APPLIES TO ANY VOLTAGE

Circuit Breakers

When a circuit breaker trips it is usually an indication of an overload or a short circuit condition. Before resetting a breaker, make the following checks:

- Feel the breaker with the back of your hand; if it is warm, there may be too many units plugged in. Try unplugging a couple units before trying a reset. Fixed loads such as lighting, may require a electrician to look at the circuit.

- Check the condition of the outlets and cords connected to the circuit. Do not reset if any outlet is damaged, tag out the outlet until the outlet can be properly repaired. If cord caps are damaged, please refer to cord cap instructions. If the cord is damaged beyond repair, please dispose of properly.

- Only reset 20 amp single pole breakers. Multiple pole breakers, being 20 amps and larger, usually control large equipment and should be checked out by a electrician or HVAC technician before resetting. Large amperage circuit breakers that are connected

to a short circuit can explode causing personal injury and costly damage to the electrical equipment.

- When resetting breakers, proper personal protective equipment must be worn and you should not look directly at the breaker in case there is a flash or explosion.
- Main breakers should not be reset unless the circuit has been checked by a qualified electrician.

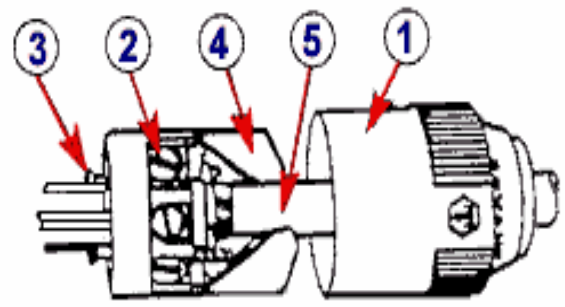
If you are not sure what you are doing, CALL someone who does.

Cord Caps

Assembly Instructions

1. Disassemble product.
2. Thread cord through cover (**1**)
3. Strip conductors to gauge.
4. Back off terminal screws (**2**)
5. Connect wires:
   - Green to Green Screw
   - White or Gray to Silver Screw
   - Black or Red to Brass Screw
   - 240 V devices use brass screws in place of silver

   Ensure there are no loose strands outside the wire chambers.
6. Tighten terminal screws (**2**) securely 12-14 lb-in (1, 4-1, 6 Nm).
7. Check cord grip function by flexing fingers (**4**) to insure engagement with cord jacket (**5**)
8. Reassemble and alternately tighten assembly screws (**3**) until secure; approximately 10 lb-in (1, 1 Nm).
9. Using a continuity tester, confirm that the ground prong on the cord cap makes a circuit to equipment frame. If not inspect cord for broken wire and repair.



Power Bars / Multi-Outlets Strips

Power bars are found throughout our workplaces. They are often selected as the first response to a shortage of outlets when new equipment is purchased and then used in areas which were never designed for the number of electronic devices which have become common in our lives. Power bars and similar devices must be considered to be part of the electrical distribution system of the room where they are being used. They, like all other components of the power distribution network, are covered by specific codes, regulations and should be used following practices which ensure a safe environment.

Power Outlet Strips and the Law:

Most multi-plug power strip-outlet devices provide multiple grounded outlets and an on/off switch with a flexible power cord ending in a three prong plug supplied, and intended to be used, as one unit. Many of these devices have surge protection built in.

Some power bars have a supplementary device built in which is often identified as a circuit breaker. These devices are not true circuit breakers and do not provide branch circuit protection. In the event of a fault the contacts in these devices are legally permitted to weld shut, rather than opening and interrupting the source of power, with the result that the device will provide no protection. Another concern is that once these devices have been activated by an overload the only way to determine if they are functioning properly is to physically check them.

The user can provide better supplemental protection by using Arc Fault Circuit Interrupters (AFCI) for circuits where power bars and similar devices are used or when additional protection is desired for any other reason.

The OESC does not specifically define plug-in power bars / multiple outlet strips as separate devices. However the code requires that all electrical equipment be approved for its intended use. There must be a label attached indicating the approvals from a recognized certification agency. For example the bar must have a CSA (or equivalent) approval for extended use.

The cords used as part of the power bar are the same or similar in design to extension cords. Under OESC power bars would be considered equivalent to “flexible cords” used as extension cords.

Defined in the OESC, flexible cords can only be *used “for household or similar use having a rating of under 15A”* and voltages under 250V *“which is intended to be:*

(i) Moved from place to place, and
(ii) Detachably connected according to a CSA Part II Standard”

Also, some limitations on the use of “flexible cords” are the following:

In Ontario, the Canadian Standards Association (CSA), document entitled “Canadian Electrical Code Part 1 C22.1-2002” as amended by the “Ontario Amendments” form the “Ontario Electrical Safety Code (OESC)”.

The Electrical Safety Authority is responsible for ensuring compliance with the OESC.

“*Flexible cord shall not be used for the fixed wiring of structure and shall not be:*
(i) Permanently secured to any structural member; or
(ii) Run through holes in walls, ceilings or floors; or
(iii) Run through doorways, windows or similar openings.”

"Flexible or extension cords shall not be used in place of permanent wiring."

Further information

1. Where flexible cables connected to outlets are intended for extended use, the wires from the outlets attached to the flexible cables are considered part of the permanent room wiring. They must be permanently wired into a proper electrical enclosure and inspected - not plugged into a receptacle.

2. Electrical receptacles are available which have built in ground fault protection and/or surge protection, suitable for most uses.
3. Extension cords, power bars and other temporary CSA (or equivalent) approved power sources may be used for experimental or developmental purposes, as a short-term power source solution, or for portable tools or equipment that must be moved frequently. Surge-protected power strips or voltage regulators which are CSA (or equivalent) approved for continuous use are acceptable for computer equipment and other electronic devices or lab equipment such as voltage regulators, timers, and some controllers when they are being used as intended by the manufacturer. All other electrical equipment must be plugged directly into a permanent receptacle as defined within the OESC.

Summary and Power Bar Safety

Surge protectors / power strips can be used in place of extension cords under the following circumstances:

i. When wall outlet availability is inadequate and electrical equipment/appliances are positioned, as much as practical, in close proximity to electrical wall outlets. This would only be for a short-term power source solution. When the number of wall outlets is inadequate more permanent circuits and wall outlets should be installed

ii. Where approved surge or voltage protectors are required and being used for their intended purpose. When multi outlet devices such as power bars are used for equipment:

iii. They should only be used for computers, audio equipment, video equipment, and low amperage office equipment.

iv. Power bars and other related devices must be CSA (or equivalent) approved.

v. Ground pins on the plugs and the devices plugged into the receptacles must be intact.

vi. Power bars should have an on/off switch.

vii. Units must be free of cracks, splits, and damage as a result of general wear and tear.

viii. Cords must not be coiled or looped when in use.

ix. Multiple outlet units and their cords must not be covered by carpeting, clothing, furniture, or other objects.

x. Each cord should be plugged directly into structurally mounted electrical receptacle. They should not be chained together or fed from another extension cord.

xi. When exposed to potential harm; by being stepped on, hit or damaged by cleaning equipment, wheels or other objects; outlet strips and their cords should be off the floor and attached to either the desk or other work surfaces or provided with other forms of approved mechanical protection.

xii. Do not run through doorways, windows or holes in the wall, floor or ceiling.

xiii. If the multi outlet device experiences a fault, the device should be tested by qualified personal prior to placing the device back into service.

This information sheet is intended as a guide and does not constitute legal or professional advice. If you require further clarification or information refer to the Ontario Electrical Safety Code, or contact the Electrical Safety Authority.

Health and Safety

Personal Protective Equipment

Procedure

When exposure to a particular chemical, physical or biological hazard cannot be eliminated or adequately controlled then it may be necessary for workers to wear Personal Protective Equipment (PPE). The type of hazard and the expected exposure duration will determine the appropriate PPE. For Superior Greenstone District School maintenance and custodial employees this may include: foot and eye protection, gloves, head protection, respirators and fall protection. The following directives provide information as to the proper care and use of the PPE.

Foot Safety

When a worker is exposed to hazards that could cause a foot injury it is necessary that safety footwear be worn. All SGDSB Maintenance and custodial employees are required to wear protective footwear certified by the Canadian Standards Association (CSAZ195-M1992). The footwear should be Grade 1 that offers the highest protection with a steel toe that protects against falling objects and an insole that protects against punctures to the bottom of the foot. In addition, it is recommended that all Maintenance workers and electrical contractors purchase the Grade 1 safety footwear protection with soles that provide resistance to electric shock under dry conditions.

Refer to Policy 718 for additional information.

Eye Safety

There are 7 classes of eye protection certified by the Canadian Standards Association (CSAZ94.3-99) to match particular hazards (i.e. impact, splash, radiation). The following protective eyewear is recommended for TCDSB trades staff based on the potential hazards that are likely to occur when completing job tasks.

Potential Hazard	Eye Protection Required
Flying Objects (nailing, drilling, crushing)	Class 1A – Spectacles with side protection **or** Class 2B – Cover Goggles with indirect ventilation for optimum protection.
Flying Particles and Dust (woodworking, sanding, plastering, mould abatement)	Class 2B – Cover Goggles with indirect ventilation
Radiation (Welding)	Class 3 – Welding Helmet

Safety Gloves

Should there be the potential for the hands to be injured by a chemical, biological or physical hazard (abrasion, puncture, laceration) then appropriate gloves should be used and maintained. The gloves should be comfortable and provide a secure fit. The table below outlines the potential hazards to the hands for tasks completed by the trade's staff.

Potential Hazard	Hand Protection Required
Abrasion, Biological Contamination (specific for the Plumbers using the "Snake"	Nitrile glove underneath the metal glove
Abrasion, Sharp Edges	Leather gloves
Electricity	Rubber-insulating gloves tested to appropriate voltage with leather outer glove if risk of puncture, abrasion and moisture or if voltage greater than 250V
Trades Chemicals (based on MSDS)	Polyvinyl or neoprene gloves

NOTE: The Material Safety Data Sheets (MSDS) for any new chemicals to be used by SGDSB employees should be reviewed prior to using the chemical to determine the appropriate glove. It should be noted that not any one glove is resistant to all chemicals.

Head Protection

In particular circumstances depending on the work being completed some SGDSB sites may be classified as construction sites. In this case as with all construction sites it is necessary that workers on site wear head protection. The appropriate head protection must comply with the Canadian Standards Association (CSAZ94.1M1992) and protect against impact and small flying or falling objects and can withstand specific electrical contact. The appropriate head protection would be a Class E hardhat.

Hearing Protection

If potentially hazardous noise exposure levels cannot be adequately reduced through engineering or administrative controls then it will be necessary for SGDSB employees to wear appropriate hearing protection. Based on the nature of the maintenance work being performed, staff should have earmuffs that comply with the Canadian Standards Association (CSA Standard Z94.2-M1984) for working in areas with elevated noise levels (e.g. HVAC units, adjacent to compressors).

Respirators

Job tasks conducted by SGDSB employees can result in the production of respiratory hazards including gases, vapours, fumes, mist and/or dusts. The concentration of these respiratory hazards currently does not warrant respiratory protection based on the existing engineering and administrative controls. However, in the circumstances that a respirator is necessary then determine the appropriate respirator based on the contaminant characteristics and anticipated exposure limit. Upon selecting a respirator it is imperative that the respirator fits properly and is maintained accordingly to ensure the protection factor is not compromised.

Fall Protection

Travel restraint or fall arrest system consists of the following components:

- CSA-approved full body harness
- Lanyard
- Lifeline
- Rope grab
- Adequate anchorage

All fall protection equipment must be inspected for damage, wear and obvious defects prior to each use. Each worker required to use fall protection must be trained in its safe use and proper maintenance. Any defective components should be immediately replaced.

Fall Protection Safety Equipment Checklist

		Equipment				
General Factors	**Inspected By:** _____	**Tie-Off Adaptors**	**Lanyards**	**Full Body Harness**	**Anchorage Plates**	**Hook / Carabineers**
		(Place date inspected in corresponding box)				
Hardware / Physical Damage (includes d-rings, snap hooks, carabineers, adjusters, keepers, thimbles, buckles, keepers, back pads)	Inspect for damage, distortion, sharp edges, burrs, cracks, corrosion, and proper operation					
Webbing	Inspect for cuts, burns, tears, abrasion, frays, knots, excessive soiling, and discoloration					
Stitching	Inspect for pulled or cut stitches					
Labels	Inspect and make certain all labels are securely held in place and legible.					
Additional Comments:						

Fall Protection Safety Equipment Checklist is available from the Head Custodian

Anchor Points

Maintenance Working Foremen must install all temporary anchor points prior to commencing any tasks that require fall protection.

Anchor points capable of withstanding a 5000 pound shock unless a deceleration device in use limits fall to 2 feet, in which case a 3000 pound anchor point may be used.

Refer to Occupational Health and Safety Regulations

Working at Heights

Procedure

All Superior Greenstone District School Board employees working at heights shall exercise caution and safe practices appropriate to the elevated work structure (i.e. any structure or device that is used as an elevated work base for persons or means of access or egress). The following directives serve as a practical guide to ensure the safest practical means of accessing an elevated work area.

Scaffolding

- Install and secure all necessary planks and test all scaffold planks prior to use. Immediately report and tag out any damaged planks.
- On scaffolding where a staff member can fall 2.4 metres (8feet) or more, guardrails must be installed or a fall-arrest system must be worn.
- The scaffold should be braced to prevent lateral movement.
- Scaffold Inspection Tags must be fixed to the scaffolding prior to commencing any work.
    - **Green** **Safe for use scaffolding inspection tag**
    - **Yellow** **Caution scaffold inspection tag**
    - **Red** **Do not use scaffold inspection tag**
- Inspection tags are available from school Head Custodian.
- Do not climb up or down the scaffold frame, a portable ladder should be made available.
- Do not use scaffolds for the storage of material and do not overload a scaffold.
- Scaffolds must be able to support at least four times their designated load capacity.

No:_____
SGDSB Scaffold
Site:_____

SAFE FOR USE
SCAFFOLD INSPECTION TAG

DATE ERECTED D/M/Y_____ EXPECTED DATE/REMOVAL D/M/Y_____

THIS SCAFFOLD WAS BUILT FOR THE FOLLOWING WORK

_____

_____

SPECIAL REQUIREMENTS

_____

_____

Scaffold certified safe by – Signature: _____
Contact Person: _____ Date: _____
Radio #: _____

No:_____
SGDSB Scaffold
Site:_____

CAUTION
SCAFFOLD INSPECTION TAG

DATE ERECTED D/M/Y_____ EXPECTED DATE/REMOVAL D/M/Y_____

THIS SCAFFOLD WAS BUILT FOR THE FOLLOWING WORK

_____

_____

_____

SPECIAL REQUIREMENTS

_____

_____

Scaffold certified safe by – Signature: _____
Contact Person: _____ Date: _____
Radio #: _____

DO NOT USE
THIS SCAFFOLD

KEEP OFF

THIS SCAFFOLD IS BEING ERECTED
OR TAKEN DOWN
ONLY AUTHORIZED EMPLOYEES
USING REQUIRED
PERSONAL PROTECTIVE
EQUIPMENT MAY WORK
ON THIS SCAFFOLD

DATE: _____
SCAFFOLD NO: _____
SIGNATURE: _____

Elevating Work Platforms

The safe directives for the two basic types of elevating platforms – boom and scissor machines are outlined below:

- All elevating work platforms must be engineered tested to meet relevant standards and must be checked each day before use by a trained worker.
- Be familiar with the manufacturer's operating manual and emergency controls.
- Utilize a powered boom platform and/or a scissor lift.
- A boom machine is not intended for lifting materials.
- Check for overhead power lines before moving or operating an elevating work platform.
- Mobile equipment such as personal lifting equipment is essentially tools used in the field for carrying out various jobs.
- Maintenance and an understanding of load capacity is a must to prevent accidental injury and machinery breakdown.

Reminders

1. Only authorized and trained SGDSB employees are permitted to operate lifts.
2. Ensure safe working conditions and environment prior to starting a job.
3. Properly maintain tools, equipment, protective eye wear, hard hats and all other protective gear.
4. A pre-check of the unit, its equipment, safety devices and work platform for mechanical operation and housekeeping is a must prior to utilization of equipment.
5. Personnel working on or about work platforms must be aware of and keep clear of moving parts or pinch points.
6. When a person is climbing down from the lift, 3-point contact must be maintained.

Standard Safety and Checklist

1. Standard personal safety equipment – gloves, boots, hard hat and safety glasses.
2. Necessary rigging gear where required.
3. Shall not be loaded in excess of its rated working load.
4. Shall only be used on firm level surfaces.
5. Shall be used only in accordance with the written instructions of the manufacturer.

Ladders

Procedure

All Superior-Greenstone District School Board employees are required to comply with the requirements outlined in the Industrial Establishments, Regulation 851 under the Occupational Health and Safety Act for access ladders in fixed position and portable ladders. In addition, the following directives should be applied to prevent injuries when using a ladder to complete work or as a means of access/egress.

Directives

- Inspect the condition of rails, braces, steps and rungs.
- Tag defective ladders so they are out of service and cannot be utilized. Do not make temporary repairs.
- Use an appropriate ladder for the task at hand that meets the accreditation standard (i.e. height, material, ladder type) and use according to specifications.
- Always face the ladder when climbing up or down and when working on the ladder.
- Maintain a three point contact when ascending/descending a straight ladder.
- Clear debris, tools and other objects from area where the ladder will be placed to ensure the ladder is secured.
- When erecting a straight ladder, the feet should be 1 rung out for every 4 rungs height to the point the ladder touches the wall.
- Clean muddy or wet soles of shoes/boots before mounting the ladders.
- One or more workers should hold a portable ladder that exceeds 6 metres in length and is not securely fastened or is likely to be endangered by traffic in place.
- Assistance should be made available for any employee required to move a heavy or long ladder.
- Hoist materials or attach them to a belt. Do not carry materials in your hands.
- Painting a ladder is prohibited as it can hide deficiencies.
- The legs of a stepladder should be fully extended and locked before use and should never be leaned against a wall for use as a straight ladder.

Ratings and Types

Manufactured ladders are rated to the duty or service to which they will be put and the working load under which they will be used in a standard inclined position. The following table provides the different grades of ladders and loads they are rated for:

In-Line Load Ratings & Duty Type

Wooden and Metal Ladders	
Duty Rating and Type	**Working Load (Pounds)**
Extra Heavy Duty – Type IA	300
Heavy Duty – Type I	300
Medium Duty – Type II	225
Light Duty – Type III	200

Ladder Inspection Reports are available from the school's Head Custodian

LADDER INSPECTION REPORT

TRUCK NO. _____

MAKE AND MATERIAL _____

LADDER NO. _____

TYPE: EXTENSION _____ SINGLE _____ STEP _____

DATE PURCHASED _____

ASSIGNED TO _____

DEPARTMENT _____

INDICATE "S" - SATISFACTORY
"U" - UNSATISFACTORY

DATE OF INSPECTION D/M/Y _____

STEPS, RUNGS:	S( ) U( )
RUNG LOCKS:	S( ) U( )
ROPE AND PULLEY:	S( ) U( )
SAFETY FEET:	S( ) U( )
SIDERAILS:	S( ) U( )
HINGES:	S( ) U( )
SPREADERS:	S( ) U( )
UPRIGHTS:	S( ) U( )
VEHICLE LADDER STORAGE:	S( ) U( )

INSPECTED BY: (print name)_____

COMMENTS: _____

_____

_____

SIGNATURE: _____

Playground

1. Ensure surfaces around playground equipment have at least 12 inches of wood chips, mulch, sand, or pea gravel, or are mats made of safety tested rubber or rubber-like materials.
2. Check that protective surfacing extends at least 6 feet in all directions from play equipment. For swings, be sure surfacing extends, in back and front, twice the height of the suspending bar.
3. Make sure play structures more than 30 inches high are spaced at least 9 feet apart.
4. Check for dangerous hardware, like open "S" hooks or protruding bolt ends.
5. Make sure spaces that could trap children, such as openings in guard rails or between ladder rungs, measure less than 3.5 inches or more than 9 inches.
6. Check for sharp points or edges in equipment.
7. Look out for tripping hazards, like exposed concrete footings, tree stumps, and rocks.
8. Make sure elevated surfaces, like platforms and ramps, have guardrails to prevent falls.
9. Check playgrounds regularly to see that equipment and surfacing are in good condition.
10. Carefully supervise children on playgrounds to make sure they're safe.

Power Washer

1. Before operating the power washer read all manufactures instructions, and operating manuals.
2. Proper personal protective equipment to be worn.
3. Head custodians to ensure all custodial staff understand the instructions and safety operations of the power washer.

Pneumatics Maintenance Checklist

Maintenance Task	Frequency
Drain condensate from receiver tank	Daily
Check function of automatic tank drain Check oil level for proper fill	Weekly
Inspect intake filter element	Monthly
Replace intake filter element	Annually (more often if necessary)
Change air compressor oil	After 2,000 running hours, or every 6-months, whichever occurs first
Check function of safety relief valve Check belt tension Inspect belt for wear Check motor pulley and pump flywheel alignment	Every 6-months
Lubricate motor	Every 2 to 3 Years (for motors with grease fittings)

Air Compressors

- Routine maintenance (annually)
- Blow-down the filter moisture trap

Check the coils for matting and vacuum, or blow out with compressed air

Utility Shut-Off