

**Londonderry School District**

**FACILITY MAINTENANCE PLAN  
(Final Draft – April, 2021)**

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## MISSION

The Building & Grounds Department will provide a safe, clean, orderly, cost-effective school environment that supports and contributes to the school district's mission of educating our children to meet the life-long intellectual, physical, and emotional demands of the 21<sup>st</sup> century, and to be College and Career Ready. The department will also provide highly maintained school facilities to support the needs of the community and protect the multi-million dollar investment by the taxpayers.

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Signature  
Chairman, Londonderry School Board

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Date

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Signature  
Superintendent of Schools

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Date

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Signature  
Business Administrator

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Date

This plan was last reviewed and updated on:

Initial Approval: xx/xx/xxxx

## INTRODUCTION

This Facility Maintenance Plan has been developed by the Londonderry School District's Building and Grounds management team to document the manner in which the Londonderry School District will maintain its buildings and grounds in order to ensure a safe and sanitary condition for its students and staff, and to protect the District's investment in its assets through sound maintenance procedures.

NH RSA 189:24 requires that all schools approved by the Commissioner of Education be "in a suitable and sanitary building .... with suitable provision for the care of the health and physical welfare of all pupils". In addition, NH RSA 198:15-b requires that all school districts, prior to the receipt of any grant moneys, submit for review and approval a written maintenance plan describing in detail how the school district intends to maintain the new facility to be constructed with state aid moneys.

NH DOE Ed 306.07 requires the local school board to provide "a clean, healthy and safe learning environment for all areas of the school building, grounds, and school-related activities". NH DOE Ed 306.09 requires the local school board to provide for each school such custodial services as are necessary to ensure a clean, sanitary, and safe physical plant and grounds. The school plants shall be cleaned on a daily basis. School repairs and maintenance shall be performed on a regular basis.

This document is Londonderry School District's plan to meet all these requirements and maintain all of our facilities and grounds in a safe, suitable and sanitary manner.

In addition to the combined knowledge and expertise of the district's staff, several external resources were used in the development of this maintenance plan. These included existing maintenance plans at the Pelham School District, the Concord School District and the Laconia School District, as well as the sample facility maintenance plan provided to all NH school districts by the NH Department of Education's School Building Aid Program.

The *Planning Guide for Maintaining School Facilities* was also used. This guide is the product of the National Cooperative Education Statistics System and the collaboration of the National Forum on Education Statistics (<http://nces.ed.gov/forum>) and the Association of School Business Officials International (ASBO®) (<http://www.asbointl.org>). The project was sponsored by the National Center for Education Statistics (NCES) (<http://nces.ed.gov>) of the U.S. Department of Education. This Planning Guide was developed to address not only the concern of school facilities maintenance and resource management, but in providing a clean and safe environment for children and creating a physical setting that is appropriate and adequate for learning. The primary objective of this *Planning Guide* was to provide effective and practical recommendations for school facility maintenance planning. This document is available electronically at (<http://nces.ed.gov/forum/publications.asp>).

# FACILITY INVENTORY

## **Moose Hill School (Grades LEEP, Pre-K & K)**

150 Pillsbury Road  
Londonderry, NH 03053  
(603) 437-5855

Main Building: 34,500 square feet

Site Size: 15.0 acres (plus a driveway easement thru the orchard)

Date of Original Construction: 2001

Dates and Description of Additions: 2 portable classrooms and 2 small work areas installed July, 2018

Identification and Distance to Nearest Fire Station (miles): 0.4 mile

Londonderry Fire Department, 280 Mammoth Road  
Tel: Emergency 911, or 432-1122; Business Tel: 432-1124

Water Supply: Pennichuck Water Works 603-882-5191

Heating System: Hot water; 2 natural gas fired boilers

Natural Gas Supplier: Liberty Utilities 800-883-4200

Sewage Disposal System: Town Sewer

Description of Fire Protection Systems (alarms, sprinklers etc.): Building wide fire alarm system and fire sprinkler system; fire extinguishers throughout the school.

Asbestos Inspection Status: No ACBM present as certified by architect and construction manager

## **South Elementary School (Grades 1 to 5)**

88 South Road  
Londonderry, NH 03053  
(603) 432-6956

Main Building: 65,545 square feet

Site Size: 20 acres

Date of Original Construction: 1978

Dates and Description of Additions:

1997 (classrooms & gymnasium)

2008 (classrooms & renovations)

Identification and Distance to Nearest Fire Station (miles): 2.5 miles

Londonderry Fire Department, Nashua Road, Route 102  
Tel: Emergency 911 or 432-1122; Business Tel: 432-1124

Water Supply: Pennichuck Water Works 603-882-5191

Heating System: Hot Water; 2 oil fired boilers; 10,000 gallon UST  
Fuel Oil Supplier: Rymes Oil 603-889-0407

Sewage Disposal System: Onsite septic

Description of Fire Protection Systems (alarms, sprinklers etc.): Building wide fire alarm system and fire sprinkler system; hood suppression system in kitchen; fire extinguishers throughout the school

Asbestos Inspection Status: AHERA Inspection completed in 1987, no ACBM present

## **North Elementary School (Grades 1 to 5)**

19 Sanborn Road  
Londonderry, NH 03053  
(603) 432-6956

Main Building: 61,052 square feet

Site Size: 16 acres

Date of Original Construction: 1968

Dates and Description of Additions:

1972 (classrooms)

1997 (classrooms & gymnasium)

2006 (classrooms & renovations)

Identification and Distance to Nearest Fire Station (miles) 1.4 miles

Londonderry Fire Department, Grenier Field Road

Tel: Emergency 911 or 432-1122; Business Tel: 432-1124

Water Supply: Manchester Water Works 603-624-6494

Heating System: Hot Water; 2 natural gas fired boilers

Natural Gas Supplier: Liberty Utilities 800-833-4200

Sewage Disposal: Town Sewer

Description of Fire Protection Systems: (alarms, sprinklers, etc.) Building wide fire alarm system and fire sprinkler system; hood suppression system in kitchen; fire extinguishers throughout the school

Asbestos Inspection Status: AHERA Inspection completed in 1987; as of July 2017, all known asbestos has been removed from the building

## **Matthew Thornton Elementary School (Grades 1 to 5)**

275 Mammoth Road  
Londonderry, NH 03053  
(603) 432-6940

Main Building: 74,535 square feet

Site Size: 31 acres

Date of original Construction: 1949

Dates and descriptions of Additions:

1961 (classrooms)

1964 (classrooms & gym)

1985 (2 story classroom addition + kitchen and cafeteria)

Identification and Distance to Nearest Fire Station (miles) .2 miles  
Londonderry Fire Department, 280 Mammoth Road  
Tel: Emergency 911 or 432-1122; Business Tel: 432-1124

Water Supply: Pennichuck Water Works 603-882-5191

Heating System: Hot Water, 2 natural gas fired boilers  
Natural Gas Supplier: Liberty Utilities 800-833-4200

Sewage Disposal: Town Sewer

Description of Fire protection Systems: (alarms, sprinklers, etc.) Building wide fire alarm system and fire sprinkler system; hood suppression system in kitchen; fire extinguishers throughout the school

Asbestos Inspection Status: AHERA Inspection completed in 1987; ongoing management plan;  
As of July 2019, all known asbestos has been removed EXCEPT for areas under the walls in the main office and guidance

Date of Most Recent Asbestos Inspection: 3 year re-inspection completed in 2019.

## **Londonderry Middle School (Grades 6 - 8)**

313 Mammoth Road  
Londonderry, NH 03053  
School: (603) 432-6925

Main Building: 158,900 square feet

Site Size: 24.78 acres

Date of Original Construction: 1982

Dates and Description of Additions:

1997 (2 story classroom addition + multi-purpose room)

Identification and Distance to Nearest Fire Station (miles): .1 miles  
Londonderry Fire Department, 280 Mammoth Road  
Tel: Emergency 911 or 432-1122; Business Tel: 432-1124

Water Supply: Pennichuck Water Works 603-882-5191

Heating System: Hot Water, 3 natural gas fired boilers  
Natural Gas Supplier: Liberty Utilities 800-833-4200  
15,000 gallon UST – used for additional oil storage for South School

Sewage Disposal System: Town Sewer

Description of Fire Protection Systems (alarms, sprinklers etc.) Building wide fire alarm system and fire sprinkler system; hood suppression system in kitchen; fire extinguishers throughout the school

Asbestos Inspection Status: No ACBM present as certified by architect and construction manager

## **Londonderry High School (Grades 9 – 12)**

295 Mammoth Road  
Londonderry, NH 03053  
(603) 432-6941

Main Building: 232,250 square feet

Site Size: 135 acres

Date of Original Construction: 1972

Dates and Descriptions of Additions:

1975 Phase 2 (classrooms & cafeteria)

1978 Phase 3 & 4 (2 story classrooms, gymnasium, cafeteria addition)

1997 Phase 5 (science wing classrooms)

2003 Phase 5 & 6 (2<sup>nd</sup> floor classrooms on phase 5 and convert old gym to 2 floors of classrooms)

2003 Stand alone gymnasium building

Identification and Distance to Nearest Fire Station: .1 mile

Londonderry Fire Department, 280 Mammoth Road

Tel: Emergency 911 or 432-1122; Business Tel: 432-1124

Water Supply: Pennichuck Water Works 603-882-5191

Heating System: Hot Water; 2 Cleaver Brooks natural gas fired boilers for heat and 1 for  
Domestic hot water

Natural Gas Supplier: Liberty Utilities 800-833-4200

Sewage Disposal: Town Sewer

Description of Fire Protection Systems: (Alarms, sprinklers, etc.) Building wide fire alarm system and fire sprinkler system; hood suppression system in kitchen; fire extinguishers throughout the school

Asbestos Inspection Status: AHERA Inspection completed in 1987; ongoing management plan and ongoing project to remove all known asbestos in the school

Date of Most Recent Asbestos Inspection: 3 year re-inspection completed in 2019

## **Londonderry High School Gymnasium Building**

295 Mammoth Road  
Londonderry, NH 03053  
(603) 432-6941

Main Building 52,000 square feet on 2 floors plus mezzanine

Site Size: 135 acres shared with High School

Date of Original Construction: 2003

Dates and Descriptions of Additions: None

Identification and Distance to Nearest Fire Station: .1 mile

Londonderry Fire Department, 280 Mammoth Road

Tel: Emergency 911 or 432-1122; Business Tel: 432-1124

Water Supply: Pennichuck Water Works 603-882-5191

Heating System: Hot Water; 2 gas fired boilers for heat and 1 for domestic hot water

Natural Gas Supplier: Liberty Utilities 800-833-4200

Sewage Disposal: Town Sewer

Description of Fire Protection Systems: (alarms, sprinklers, etc.) Building wide fire alarm system and fire sprinkler system; fire extinguishers throughout the building

Asbestos Inspection Status: No ACBM present as certified by the architect and construction manager

## **Londonderry School District Office SAU12**

6A Kitty Hawk Landing, suite 101 (leased office space)  
Londonderry, NH 03053  
(603) 432-6920

Main Building: 10,175 square feet

Site Size: located on a 20 acre property site

Date of Original Construction: 2013

Dates and Description of Additions: None

Identification and Distance to Hearest Fire Station: .1 miles  
Londonderry Fire Department, 20 Grenier Field Road  
Tel: Emergency 911 or 432-1122; Business Tel: 432-1124

Water Supply: Manchester Water Works 603-624-6494

Heating System: Natural gas fired hot air furnaces located on roof  
Natural Gas Supplier: Liberty Utilities 800-833-4200

Sewage Disposal System: Town Sewer

Description of Fire Protection Systems: (alarms, sprinklers, etc.) Building wide fire alarm system; fire sprinklers; fire extinguishers throughout the building

Asbestos Inspection Status: No asbestos present per the architect and the construction management company

**District Square Foot Totals**

- Londonderry High School 232,250
- Londonderry HS Gymnasium Bldg. 52,000
- Londonderry Middle School 158,900
- Matthew Thornton School 74,535
- North Elementary School 61,052
- South Elementary School 65,545
- Moose Hill School 34,500
- MHS Portable Classrooms 2,880
- SAU Offices 10,175

**Total 691,837**

## **SAFETY**

Safety must be the top priority in everything we do in order to protect the health, welfare and well being of every student and employee. The Londonderry School District, SAU #12 District Safety Plan documents all required safety policies and procedures for the District. The District Safety Plan is an integral component of this Facility Maintenance Plan.

It is the responsibility of all Building & Grounds managers and supervisors to ensure that all staff receives the required training to ensure that all B&G staff can perform their work assignments in a safe manner.

At a minimum, all new Building & Grounds employees must receive the following training:

- Asbestos awareness
- Avoiding slips, trips & falls
- Blood borne pathogens
- Electrical safety related work practices
- General safety and good housekeeping
- Hazardous materials
- Hand and power tool safety
- Lifting and materials handling
- Lockout/Tagout
- Machine Guarding
- Personal protective equipment
- Portable ladder safety

It is the responsibility of all Building & Grounds managers and supervisors to ensure that all vendors working onsite follow the District Safety Plan.

## MAINTENANCE & OPERATIONS STAFFING

Planners, administrators, and community members must agree on what constitutes “cleanliness.” While there is not a nationwide standard for describing standards of cleanliness, a five-tiered system of expectations is emerging to help guide decision-making:

- Level 1 cleaning results in a “spotless” building, as might normally be found in a hospital environment or corporate suite. At this level, a custodian with proper supplies and tools can clean approximately 10,000 to 11,000 square feet in an 8-hour shift.
- Level 2 cleaning is the uppermost standard for most school cleaning, and is generally reserved for restrooms, special education areas, kindergarten areas, or food service areas. A custodian can clean approximately 18,000 to 20,000 square feet in an 8-hour shift.
- Level 3 cleaning is the norm for most school facilities. It is acceptable to most stakeholders and does not pose any health issues. A custodian can clean approximately 24,000 to 28,000 square feet in an 8 hour shift.
- Level 4 cleaning is not normally acceptable in a school environment. Classrooms would be cleaned every other day, carpets would be vacuumed every third day, and dusting would occur once a month. At this level, a custodian can clean 45,000 to 50,000 square feet in an 8 hour shift.
- Level 5 cleaning can very rapidly lead to an unhealthy situation. Trash cans might be emptied and carpets vacuumed on a weekly basis. One custodian can clean 85,000 to 90,000 square feet in an 8 hour shift.

The figures above are estimates and assume 100% time dedicated to custodial cleaning.

The actual number of square feet per shift a custodian can clean will depend on additional variables, including the following:

- grade level (elementary school takes longer to clean than higher grades)
- type of flooring (carpeting is harder to clean than VCT)
- building construction (wall covers, and number of windows, all of which must be taken into account when determining workload expectations)
- type of maintenance equipment
- building usage (occupied buildings take longer than unoccupied buildings)
- day custodian staff who do not typically have nightly cleaning responsibilities
- non-custodial cleaning workload (set-up and tear down time for building usage events)

The Londonderry School District will staff to provide a Level 3 expectation of cleanliness in its schools.

## Required Staffing

### Management and Maintenance Staffing

One (1) District-wide Building & Grounds Director who will be responsible to oversee the work order and preventive maintenance program; all building maintenance and grounds activities and employees district-wide; vendor relations; B&G budgeting and purchasing; and providing supplemental maintenance support for all schools.

One (1) Office support staff person to manage work orders; billing for functions; telephone systems; department employee timesheets for payroll; computer training for new hires; summer and temp. help

One (1) District Wide Custodian Supervisor (High School, Matthew Thornton School, North School, South School, Moose Hill School)

One (1) Head Custodian (Londonderry Middle School)

The DW Supervisor and the Head Custodian will be responsible for managing all custodial staff, coordinating required maintenance operations, ensuring that all preventive maintenance activities are completed, managing vendor relations for all work done in the building, purchasing custodial supplies, and performing any needed daytime cleaning activities.

### Custodial Staffing

Custodians in each building will be primarily responsible for cleaning assigned work areas. Almost all assigned cleaning will be scheduled for second and third shifts after the end of the school day. Day time custodians will be assigned based on the requirements of the building. Custodians will also be used for non-custodial duties including building use set-up and clean-up requirements, emergency maintenance needs, as well as any other duties assigned by the facility manager or lead custodian.

The following custodial staffing is required to fully implement this maintenance plan:

Londonderry High School & Gymnasium:

- 14 full-time positions
  - 3 day shift
  - 6 second shift
  - 5 third shift
- Average of 25,840 sq. ft. cleaning area per custodians on 2<sup>nd</sup> & 3<sup>rd</sup> shifts

Londonderry Middle School:

- 9 full-time positions
  - 2.5 day shift
  - 3.5 second shift shift
  - 3 third shift
- Average of 24,446 sq. ft. per custodian on 2<sup>nd</sup> & 3<sup>rd</sup> shifts

#### Matthew Thornton Elementary School:

- 4.5 full-time positions
  - 1.5 day shift
  - 3 second shift
- Average of 24,845 sq. ft. per custodian on 2<sup>nd</sup> shift

#### North Elementary School

- 3.5 full-time positions
  - 1 day shift
  - 2.5 second shift
- Average of 24,420 sq. ft. per custodian on 2<sup>nd</sup> shift

#### South Elementary School

- 3.5 full-time positions
  - 1 day shift
  - 2.5 second shift
- Average of 28,375 sq. ft. per custodian on 2<sup>nd</sup> shift

#### Moose Hill School

- 2 full time positions
  - 1 day shift (with 2 hours AM cleaning time)
  - 1 second shift (divided into 2 – 4 hour positions shared with MT & LHS)
- Average 27,600 square feet per equivalent 8 hour cleaning shift

### **Grounds Staffing**

Grounds staff will be responsible for all assigned district-wide grounds and field maintenance activities. In addition, the grounds staff will also be used for athletic event set-up activities such as the lining of all athletic fields, and preparing game sites (e.g. moving bleachers & benches, prepping fields and setting up fencing). The School District Grounds staff will also provide some limited services for the LAFA fields and assist the Town with the West Road fields.

During the winter months, the Grounds staff will use School District trucks, tractor, Bobcat, and other equipment for snow removal including plowing and sanding parking lots and fire roads.

- 3.5 full-time positions
  - 1 Grounds Supervisor
  - 2.5 Grounds Maint. Techs
  - 3 Full time seasonal employees to help with mowing and field maintenance during the spring and summer

## **Building Maintenance Staffing**

Building maintenance staff will be responsible for preventative maintenance, repairs and minor construction projects. Through the use of the School Dude Maintenance Direct computerized work order system, work order requests will be assigned to Bldg. Maintenance staff. They will update and/or close out the work orders as applicable. All staff are expected to cross-train and work together as much as possible to share responsibilities and support licensed trad technicians and outside contractors.

- 5.5 full-time positions
  - 1.5 HVAC Tech
  - 1 Electrician
  - 1 Security System Tech
  - 2 Building Maint. Techs

# CUSTODIAL SERVICE

## Standard of Work Performance and Duties

This is an outline of what is expected of Londonderry School District Custodians.

1. BE ON TIME TO WORK.
2. If you are going to be late or absent, you **MUST** call your supervisor and the Director of B&G's office a minimum of four hours before your shift starts to let them know the reason you are going to be out.
3. Keep areas (closets, carts, maintenance rooms and supply rooms) neat, organized, fully stocked and clean.
4. Keep equipment clean (vacuums, auto scrubbers, hand tools, etc.) report any break downs or problems to your supervisor immediately. Check equipment filters daily. Do not leave any auto scrubber, wet dry vacuum, any piece of equipment, etc. with any solution or recovery tanks full! Drain and rinse out at end of your shift.
5. After use, return all equipment (buffers, carpet machines, vacuums, hand tools, etc.) to where they belong. A lot of time can be wasted looking for tools and or equipment. Be considerate of the next person.
6. Keep break areas clean.
7. Perform emergency maintenance activities (e.g. clogged toilets, bodily fluids, etc.) **as needed**.
8. Complete work orders assigned and approved by the B&G Director or Supervisor

## Cleaning

### Classrooms

1. Empty and reline all trash cans daily, wash as needed.
2. High dust corners, edges, air vents, cabinet tops, lights as needed or at least once a week.
3. Clean chalk and/or white board marker trays as needed.
4. Wipe down desk tops; counter tops and window sills weekly or as needed.
5. Clean sinks daily.
6. Clean door glass wipe down door casing and hinges weekly or more often if needed.
7. Sweep or dust mop tile floors daily, spot mop as needed and wash completely at least once a week (recommended daily at elementary level). During winter months may need to be washed daily.
8. Vacuum carpets daily; clean spots as needed.

## Halls

1. Check walls, spot clean where and when needed. Empty and reline all trash cans daily.
2. Clean all water coolers daily.
3. Dust door closers weekly/wipe down door casings and hinges weekly.
4. Clean fire extinguisher cabinets as needed.
5. Clean behind doors daily.
6. Dust mop, sweep or vacuum all floors daily, remove food & debris, scuff marks, etc.
7. Wash all hall floors to include edges once weekly or more often if needed (during winter months may need to be done daily).
8. Clean locker tops weekly; clean fronts as needed.

## Stairways and Landings

1. Clean walls as needed, clean any spots where and when needed.
2. Wipe down hand rails daily.
3. Sweep stairs top to bottom daily, wash weekly or more often if needed.
4. Clean windows in fire doors, dust window sills, clean doors and door closers, and wipe down door casing and hinges weekly or more often if needed.
5. Sweep landings daily, **spot wash any spills etc. daily**, wash as needed, remove dirt, etc.

## Elevators

1. Clean walls as needed.
2. Clean all stainless steel as needed.
3. Vacuum or sweep daily.
4. Clean door tracks weekly.

## Bathrooms

1. Empty and reline all trash cans daily, wash as needed.
2. High dust edges, air vents, window sills, top of stall partitions weekly.
3. Clean stall doors and walls daily.
4. Clean and refill all dispensers daily.
5. Clean mirrors daily.
6. Clean all sinks, toilets, urinals, light switch plates, faucet handles, spouts, flush handles, door push plates. Disinfect daily. Let stand several minutes, wipe down. Make sure to get undersides of all above - and behind/base of toilets.
7. Clean walls around urinals and toilets daily. Look for and clean any marks, bodily fluids etc daily.
8. Sweep and wash floors daily, put a gallon of water down floor drain monthly or more often if needed.

## Offices

1. Empty and reline all trash cans daily, wash as needed.
2. Dust daily – window sills, counters, high corners, air vents, etc.
3. Vacuum all carpets daily.

4. Clean bathrooms daily.
5. Clean door glass and windows as needed – wipe down door casings and hinges weekly.
6. Sweep floors, wash entire floor twice weekly or more often if needed (recommend vacuum, sweep & wet mop daily for elementary level).

### **Common Areas**

1. Empty and reline all trash cans daily, wash as needed.
2. Dust locker tops weekly, clean as needed (Do not use abrasive cleaners or sponges).
3. Dust window sills, corners, and air vents as needed.
4. Vacuum carpets daily.
5. Sweep floors daily.
6. Spot clean carpets as needed.
7. Clean all glass daily as needed.
8. Clean doors, casings and hinges weekly.

### **Entrances**

1. Clean glass daily.
2. Dust weekly.
3. Clean doors, casings, hinges, sills, door closers weekly or more often if needed.
4. Sweep floors – wash daily.
5. Spot wash any spills etc daily.
6. Vacuum entry rugs daily.
7. Keep threshold/s free of dirt, etc.

### **Kitchens (including Classrooms)**

1. Empty and reline all trash cans daily, wash as needed.
2. Break down boxes and recycle.
3. Sweep and wash floors daily.
4. Clean all glass as needed/clean doors, door casings and hinges weekly.
5. Clean offices daily, clean all glass as needed.
6. Clean exhaust hoods/vent filters yearly or more often if needed.

### **Cafeteria**

1. Monitor during the day, pick up trash, clean tables as needed; at least between lunches
2. Empty and reline all trash cans daily, wash as needed.
3. Clean all tables and disinfect daily.
4. Wash all walls and glass as needed.
5. Sweep floors, remove food & debris, and wash floors daily.
6. Clean soda and vending machine tops weekly (if applicable).

## **Grounds**

1. Empty and reline all barrels as needed.
2. Check grounds daily for trash/pick up.
3. Care for trees, planting beds, shrubs as needed.
4. Keep dumpster areas clean.
5. Lawn mowing and trimming as needed.
6. Snow removal as needed.
7. Sand and salt as needed.

## **Locker Rooms**

1. Empty and reline all trash cans daily, wash as needed.
2. Clean all bathroom areas daily.
3. Sweep and Wash floors daily.
4. Wash shower walls weekly, or more often if needed. Use scrub brush or pressure washer when necessary.

## **Multi-Purpose Rooms**

1. Pick up all trash, paper, cans, etc. daily.
2. Vacuum daily.
3. Spot clean carpets as needed.
4. Wash chair backs and arms monthly.
5. Sweep stage, wash as needed
6. Clean all glass as needed.
7. Empty and reline all trash cans daily, wash as needed.

These are the minimum standards of cleanliness that are expected. There may be other duties or tasks that are required at specific schools. If employees have any questions about how to do something, how to use and care for equipment or cleaning chemicals – be sure to check with your supervisor.

# CUSTODIAL CLEANING FREQUENCY

## Entrances, Lobbies and Corridors

These areas are generally the first areas seen by students, staff and visitors. Their condition and cleanliness leaves a lasting impression on all that enter the building. It is of the utmost importance that these areas are maintained as best as possible to a standard of excellence.

Considerable dirt is carried in and deposited in entryways and corridors. The custodian's schedule should include adequate time to sweep these areas of travel more often than once a day. Regular sweeping or snow removal from the sidewalks outside of entryway doors will prevent some dirt and sand from entering the building. Snow and ice should be removed from the entryway as soon as possible using sand or ice melt to avoid slips and falls. Use only those ice melt products that are approved by the school district. Some entryways have floor mats to serve as a dirt and sand trap. These must be cleaned periodically, or daily during the 'mud' season. Entryway carpet is cleaned most effectively with an extractor running the rinse cycle 1-3 times. Fans need to be on during this process to speed drying and help prevent mildew.

### Daily:

- Empty and reline all trash cans daily, wash as needed, remove debris, check entrance for snow, leaves, and litter, and remove.
- If floor is resilient tile, dust mop floors with a wide dust mop, keeping the dust mop head on the floor at all times. Pick up soil from floor with dustpan. With a lightly dampened mop, spot-mop floors as necessary to remove soil.
- Vacuum carpet areas and mats; remove gum and soil spots.
- Disinfect drinking fountains. (*see following procedures*)
- Clean entrance door glass.

### Weekly:

- Dust the tops of lockers, fire closets, extinguishers and window casings. (Low dusting, below 5')
- Clean glass partitions, display cases, and interior door glass.
- Spot-clean finger marks and smudges, etc. on walls, door facings, and doors. Use appropriate cleaning solution.
- Dust Furniture.
- Restore floor finish on non-carpeted floors.

### Monthly:

- High dust vents, lights, pipes, window blinds, over doorways, hanging light fixtures and connecting and horizontal wall surfaces. (High dusting, above 5')

**Note:** When cleaning stairways, on a routine schedule clean out the corners and the edges of each step. Remove gum, etc. with a putty knife. Damp mop or spot clean as necessary.

## **Classrooms and Laboratories**

There is more time spent in classroom cleaning than any other phase of custodial duties. Valuable time and many steps can be saved by careful planning. Due to the many different types of furniture and equipment used in the classroom, a careful analysis should be made to determine how to clean each room in the shortest time with the fewest steps and still maintain the required standard of cleanliness. To keep a classroom clean will entail much more than just sweeping the floor and dusting the furniture. It will require a custodian with a willingness to work, who takes pride in his/her work and one who is interested in the welfare of the occupants. Some classrooms will have desks that may be shifted from side to side each day as you clean the floor, while others have tables that can only be moved a few inches. Some furniture in the rooms can be rolled away from the wall to make sweeping easier; other furniture is stationary and must be cleaned around and underneath. Tables and desks must be wiped off with disinfectant. The custodian's cart will hold the necessary equipment and materials to clean classrooms.

Classrooms should have adequate lighting. Check for burned out lamps or bulbs and replace them with bulbs of the same wattage. Properly dispose of used fluorescent tubes.

### Daily:

- Empty and reline all trash cans daily, wash as needed.
- Vacuum carpets, floors; remove gum and soil spots.
- Dust mop and wet mop tiled floors.
- Empty pencil sharpeners
- Clean glass in doors and partitions.

### Weekly:

- Dust furniture surfaces and damp clean desk and table tops. (low dusting, below 5 feet)
- Clean door surfaces.

### Monthly:

- High dust vents, lights, pipes, window blinds, and connecting vertical and horizontal wall floors. (high dusting, above 5 feet)
- Vacuum upholstered furniture.

### Vacation Weeks:

- Restore floor finish on non-carpeted floors as directed by the supervisor.

## **Office, Lounge and Conference Rooms**

Most of the same cleaning procedures, as outlined for 'Classroom Cleaning' in the previous section, can be followed for cleaning office areas, faculty lounges, conference rooms, libraries, Library/Media, etc.

Daily:

- Empty and reline trash cans daily, wash as needed.
- Vacuum carpeted floors and remove gum and soil spots.
- Dust mop and wet mop tiled floors.
- Clean glass in doors and partitions.

Weekly:

- Dust furniture surfaces and damp clean tabletops. (low dust below 5 feet)
- Empty pencil sharpeners.
- Clean door surfaces.

Monthly:

- High dust vents, lights, pipes, window blinds, and connecting vertical and horizontal wall surfaces. (High dust above 5 feet)

Vacation Weeks:

- Restore floor finish on non-carpeted floors as directed by the supervisor.

**Restrooms, Locker Rooms and Showers**

*Daily:*

- Empty and reline all trash cans daily, wash as needed.
- Thoroughly clean and disinfect toilets and urinals.
- Thoroughly clean and disinfect shower rooms and dressing rooms.
- Restock dispensers: soap, paper towel, toilet tissue and sanitary napkins, etc.
- Clean mirrors; clean and disinfect urinals and stools; clean basins; polish stainless steel and chrome surfaces.
- Spot wash walls, lockers, and partitions.
- Dust mop and wet mop floors with appropriate cleaning solution.

Weekly:

- Damp clean and polish partitions.
- Dust wall and ceiling vents.
- Clean doors and wall tile.

Monthly or more often if needed:

- Pour at least one gallon of water down floor drains (add enzymes if directed by supervisor).
- De-scale fixtures.
- Scrub floor with floor scrubber.

## **Cafeterias and Lunch Areas**

### Daily:

- Clean table tops with disinfectant.
- Empty and reline all trash cans daily, wash as needed.
- Dust mop and wet mop tiled areas.
- Vacuum carpeted areas and mats, remove gum and soil spots.
- Disinfect drinking fountains.

### Weekly:

- Clean glass partitions, display cases, and interior door glass.
- Spot clean walls.

### Monthly:

- Dust and clean furniture.
- High dust vents, lights, pipes, window blinds, and connecting vertical and horizontal wall surfaces. (high dusting, above 5 feet)
- Clean fire closets and extinguishers. (low dusting, below 5 feet)

### Vacation Weeks:

- Restore floor finish on non-carpeted floors as directed by the facility manager.

## **Shop Areas**

### Daily:

- Empty and reline all trash cans daily, wash as needed, dust mop or sweep floors; and spot - mop floors.

### Twice Monthly:

- Dust sills and ledges; spot - clean walls

### Monthly:

- Mop floors with appropriate cleaning solution.

## **Gyms, Multipurpose and Weight Rooms**

### Daily:

- Empty and reline trash cans, wash as needed.
- Dust mop court floors and spot clean using recommended treatment for dust mop.
- Clean glass in doors, mirrors and partitions.
- Clean and disinfect drinking fountains.
- Vacuum carpeted floors; remove gum and soil spots.
- Dust furniture, sweep and pick up trash on bleachers.
- Dust mop and wet mop tiled floors.
- Spot clean walls; remove graffiti.

### Weekly:

- Vacuum carpeted areas thoroughly.
- Clean door surfaces.
- Sweep and pick up trash on & below bleachers.
- Spray buff tiled floors; remove scuffmarks.

### Monthly:

- High dust (above 5') or vacuum vents, lights, pipes, window blinds, drapes, connecting horizontal and vertical wall surfaces.

### Annually:

- Reseal floor using manufacturer's recommended procedures and finishes.
- Wood gym floors will be refinished by a flooring contractor

# CUSTODIAL METHODS AND PROCEDURES

## Assembling Equipment and Supplies

At the beginning of each shift, the custodian should assemble all tools and materials needed to clean thoroughly. This will minimize frequent return trips to the custodial closet to get something else.

- Custodian cart with caddy
- Spray bottles with appropriate solutions to clean glass, counters, sinks, disinfect surfaces, and spot cleaning
- Dust cloths
- Supplies (soap, paper towels, toilet paper & sanitary liners)
- Putty knife/razor blade scrapper
- Dust mop (treated if needed)
- Wet mop (if needed)
- Mop bucket and press (if needed)
- Vacuum cleaner complete
- Plastic liners (small and large)
- Counter brush
- Dust pan
- Gum remover
- Protective glasses and gloves
- Rest room closed and wet floor signs

**Note: Safety is an important responsibility. Use of "restroom closed" and "caution wet floor" signs are very important.**

## Drinking Fountains

If drinking fountains are not cleaned regularly and correctly, they can become a health hazard. The public expects clean drinking water; therefore, it is the responsibility of the custodian to keep the drinking fountains clean and sanitary. Drinking fountains should be cleaned daily using the following methods:

1. Use spray bottle with appropriate disinfectant solution to spray or wipe solution over all surfaces.
2. Agitate with clean cloth, small brush, or paper towel.
3. Rinse.
4. Use clean cloth or paper towel to wipe dry and polish chrome and other surfaces.

## Chalkboards and Marker Boards

During the annual summer cleaning, all chalkboards and marker boards must be cleaned. Teaching staff will be advised that all content on the board will be erased.

1. Most chalkboards can be cleaned by simply erasing with a clean felt eraser and wiping with a clean cloth.
2. Water is not recommended for most chalkboards as the water plus chalk equals glue and will fill the chalkboard pores, giving a poor writing surface.
3. Some of the newer boards require washing as they are not designed for chalk. If you are not sure, check with your supervisor.

4. An eraser and treated dusting cloth can be used to remove the fine chalk dust if necessary.
5. On occasion, as assigned, fine cleanser can be used carefully on some chalkboards to restore “bite”.
6. Use only solutions recommended by the manufacturer when cleaning “Dry Erase Marker Boards”.
7. The chalk tray can be damp wiped or vacuumed out while vacuuming the carpet during this annual cleaning, or more often if directed by the facility manager.

## **Dusting**

From the standpoint of health as well as appearance, dusting is one of the most important jobs of the custodian. Dust can be a carrier of disease germs. Visible dust presents a dirty appearance that needs to be taken care of as soon as possible.

A **HEPA bag** vacuum cleaner is the best tool for removing dust.

Treated “dust cloths” can be used for most dusting. These are usually rolls of factory treated flannel cloth. Micro fiber cloths are very good for dusting also.

Some surfaces lend themselves well to ‘damp dusting’ using a clean cloth and plastic sprayer with appropriate solution. Where students eat at their desks, the desk tops are to be cleaned daily with a district-approved general purpose cleaner.

Dust all horizontal surfaces such as window ledges, sills, files, counter tops, and desks. Inspect student desk tops and spot clean them to remove heavy soil, heavy marking or graffiti.

As a general rule all horizontal surfaces less than 5’ will receive a thorough dusting weekly. Horizontal surfaces greater than 5’ will receive a thorough dusting monthly. Some surfaces may require spot dusting on a daily basis.

**Note:** Lock all windows when you clean the sills.

## **Cleaning Classroom Sinks and Counters**

1. Clean sinks and replenish paper towels and hand soap daily. Clean sinks by using plastic sprayer with detergent solution only disinfectant as needed. Spray and wipe dry with a paper towel, or use fine cleanser, rinse and wipe dry with clean cloth or paper towel.
2. Spray solution on counter and wipe clean with clean cloth or paper towel.

## **Dust Mopping Resilient Floors**

If the floor is resilient type either totally or partially, the following is recommended:

1. Pick up large pieces of paper or other debris before starting to clean.
2. Use treated dust mop and carefully dust mop all resilient floor areas. Clean under all desks, equipment, etc. that are off the floor.
3. Dust mop debris to one area for pick-up with counter brush and dust pan.
4. Dust mop may be lightly shaken or vacuumed to remove dust. Do in appropriate area.
5. Retreat dust mop as necessary by lightly spraying with dust oil and allow setting before using, or hanging up.

6. If area is carpeted, with a strip of resilient flooring, it is permissible to sweep dust onto carpet for pick up when vacuuming.

## Trash

Empty all trash receptacles. Do not reach into the receptacles, but carefully dump the contents of the receptacle into the waste collection bag. Damp wipe soiled receptacles. Replace plastic liners daily and wash when soiled or otherwise needed.

**Note:** Remove lunch trash immediately following lunch. Use safe lift practices when lifting trash into the dumpster. This will minimize injury.

## Carpet Vacuuming

The vacuum cleaner is the most effective tool to remove soil from many surfaces, especially carpeting.

1. Move furniture in room only as necessary to vacuum all areas of the carpeting.
2. Pick up large pieces of paper and other debris before vacuuming (if not previously picked up by students).
3. Vacuum all carpeted areas, getting under desks, furniture and equipment that is off the floor.
4. Replace all furniture.
5. Look for and clean up spots or soiled areas on carpeting using plastic sprayer, appropriate cleaner, and clean cloths or paper towels. Remove gum by using gum remover-follow manufacturer's instructions.

## Spot Cleaning

1. Spot clean walls, doors, and ledges as previously recommended. Spot clean daily in carpeted areas where students are eating. Use clean cloth or paper towels and detergent solution in plastic spray bottle.
2. Spot clean glass in doors and partitions and on the inside of windows to remove smudges as previously recommended. Use soft, lint free, clean cloth or paper towels and glass cleaner in plastic sprayer.
3. Dust or clean vents in ceilings of classrooms, offices, etc. as previously recommended.  
Before leaving the room, visually check to make sure all the following duties are completed:
  - Windows are locked.
  - All items are in appropriate place.
  - Room looks clean and - is clean!
  - Lights are turned off.
  - Door is locked.

## Restroom Cleaning

The job of cleaning and disinfecting your rest rooms is not a difficult one, if the work is done efficiently and daily. Modern fixture design usually makes cleaning them fast and effective if proper procedures are followed. Remember that **deodorant blocks and/or air fresheners are not permitted, except in the basin of urinals.** Deodorants do not clean or sanitize, but merely cover up one odor with another. Clean rest rooms are important for a number of reasons:

- Bacteria control to help eliminate cross infections to safeguard health.
- Many times the custodial staff is judged on the appearance and cleanliness of the rest rooms.
- Clean rest rooms encourage the public to help keep them that way.
- Clean rest room fixtures greatly reduce the possibility of offensive odors (and complaints).
- The most frequent lingering cause of odors in rest rooms is due to uric acid salts. Remove these salts through proper cleaning procedures and the odors are gone! Rest rooms also require adequate ventilation.

Appropriate safety signage warning occupants must be used at all times.

### **Refilling Dispensers**

1. Check all dispensers daily to insure adequate supply.
2. Refill all dispensers as required (including soap, toilet paper and paper towels dispensers).
3. Check the working condition of the units.
4. Close and lock dispenser.
5. Spray the surfaces with appropriate cleaning solution and let stand per manufacturer's recommendations and wipe dry with paper towel. At the same time check the soap valve to assure proper operating condition.
6. Clean the surface of the dispenser as above.
7. Fill all soap dispensers.

### **Cleaning Sinks and Wash Basins**

Several methods can be used to clean sinks with equal final results, however, the following is recommended:

1. Spray the surfaces with appropriate cleaning solution and let stand per manufacturer's recommendations and wipe dry with paper towel. (inside and outside), faucets and adjacent wall areas.
2. Rinse as necessary and polish with clean cloth or paper towel.
3. Wipe walls adjacent to sinks to remove grime, spots, etc. as above.
4. Clean pipes underneath sinks daily as part of the procedure.
5. Do not use lime de-scaler on counter tops.
6. Do not use any materials/supplies used in cleaning toilets or urinals on sinks and washbasins.

### **Mirrors**

Mirrors in rest rooms are easy to keep clean by spraying lightly with appropriate glass cleaner solution and wiping dry and/or polishing with a clean, lint free cloth or paper towel. Never use an abrasive cleaner or acid or dirty cloth on mirror. These may mar or scratch surface. Avoid using excessive water as it may get into the frame backing and damage the silvering.

### **Urinals and Toilet Bowls**

1. Wear rubber gloves at all times. This is for your personal protection.
2. Do not use any materials/supplies used in cleaning sinks and washbasins on urinals and toilet bowls.

**To clean inside bowl:**

1. Flush toilet and/or urinal.
2. Use appropriate disinfectant following manufacturer's instructions.
3. Use cotton swab (poodle tail) and/or toilet brush and swab inside of bowl using solution.
4. Scrub as necessary-be sure to swab solution up and under the flush rim. Scrub thoroughly.
5. Flush toilet or urinal and rinse swab or brush in clean water before proceeding to next fixture.

**To clean seat and outside of fixtures using sprayer:**

1. Spray appropriate germicidal/disinfectant solution on toilet seat (both sides), and all of the outside surfaces of the fixtures (toilets and urinals).
2. Let stand per manufacturer's instructions.
3. Wipe dry with paper towels starting with the top of the seat, then underside and finally the balance of the fixture down to the floor.

**Note:** This procedure is the most effective way to sanitize a fixture, because you are always using clean solution with no chance of cross-contamination. Be sure to spray plunger with disinfectant after use. Keep in a bucket when not in use.

**Bathroom Walls and Partitions**

1. Spray or damp dust with an appropriate disinfectant solution on surfaces such as ledges, partitions, dispensers, wainscoting, shelves, areas around urinals and toilets, and lower walls as necessary.
2. Use either sprayers or bucket with germicidal/detergent solution, paper towels, clean cloths or a brush.
3. Wipe dry, if necessary, with paper towels or clean cloth to prevent streaks and spotting.

**Additional Notes**

To discourage graffiti, always remove it as soon as possible. Test chemical or cleaner in an obscure area prior to use. In older buildings it may be necessary to paint the stalls frequently to maintain desired levels of appearance.

**Bathroom and Shower Floors**

The floors are made of a variety of materials. Some judgment is necessary as to the use of strong chemicals and excessive amounts of water. If the floor can be damaged by over-wetting, substitute with light damp mopping.

1. Mix mopping solution per manufacturer's instructions.
2. Use clean, wet mop and wet down the floor thoroughly with the solution (damp mop if floor would be damaged as above).
3. Let stand per manufacturer's instructions for the chemicals to work.
4. Agitate the solution with your mop as needed.
5. Pick up soiled solution with mop, floor squeegee, and pick-up pan or floor drain, or use wet-vac for pick up. Clean all corners and edges. (Scrape if necessary.)
6. Return all receptacles to proper position.

**Note:** Do not rinse floor as we want to take full advantage of the residual benefits of the disinfectant. Before leaving the rest room, take a quick visual check of the area and see if it smells clean and looks clean! Be proud of doing the job well.

## Shower Rooms, Locker Rooms and Dressing Rooms

### Trash

1. Empty all trash containers (including small pieces of soap and other debris) into cart.
2. Reline containers with plastic liner.
3. Spray or wipe containers with appropriate disinfectant solution. Wipe dry with clean cloth or paper towel.

### Benches Furniture and Lockers

1. Spray or wipe (with cloth) with appropriate disinfectant solution and scrub or wipe dry with clean cloth.
2. Spot clean walls and lights as needed (as above). Report burned out lights to the facility manager.
3. Replenish paper towels, soap, etc. Clean dispensers and lock.

### Showers

1. Wipe down walls with appropriate disinfectant solution and cloth, wedge mop, sponge mop, or brush. Let solution stay on walls per manufacturer's instructions to allow chemicals to work.
2. Scrub or agitate solution to loosen soil and scum. Rinse with clean water.
3. Polish handles, shower heads, and other hardware and wipe dry.
4. Clean hair, etc. from shower drain.

### Floor Surfaces

The flooring surfaces vary considerably in the different buildings, however, the following is recommended:

1. Sweep or dust mop (treated) floor to remove large pieces of paper and other debris.
2. Pick up towels, socks, shoes, etc. and store appropriately (PE teachers and students should assist).
3. Lightly flood floors with appropriate cleaning solution and warm water.
4. Let stand per manufacturer's instructions for chemical action.
5. Agitate or scrub with wet mop, brush (long handled), or power buffer, if necessary.
6. Pick up soiled solution with mop, squeegee to drain, or wet vacuum up.

**Note:** Rinsing not necessary as the residual benefits of the cleaning solution are desirable. Clean all equipment and store properly.

## Bodily Fluids Cleanup

Clean up bodily fluids immediately and always use gloves. Follow the instructions below:

1. Follow safety procedures as documented in the Litchfield School District Safety Plan.
2. If on carpeting only, use absorbent granules, sweep, then extract with disinfectant and dump waste directly into basin.

3. Clean off furniture.
4. Clean all equipment and store properly.

### **Gym and Multi-Purpose Room Floors**

These areas present two (2) different types of flooring material (wood and resilient flooring); therefore each type of flooring will be addressed here.

#### **Resilient Floors**

These include such flooring surfaces as asphalt tile, hard vinyl tile, and resilient 'poured' floors. Most of the custodian's work in these areas will consist of floor care procedures, with a limited amount of time spent dusting or cleaning benches, bleachers, or chairs.

1. Use treated dust mop using factory recommended treatment to clean floor. Do not 'sweep' with dust mop as this will scatter dust into the air. Keep dust mop on the floor and clean in long 'runs'. Clean out dust mop by carefully shaking where appropriate or clean with vacuum cleaner.
2. Re-treat lightly with 'mop dressing' as needed.
3. Pick up dust and debris with dust pan and counter brush or with vacuum and dispose of trash.
4. Wet mop total floor or damp mop as needed to remove spots. Use detergent and water solution. Agitate with wet mop or lightly scrub with buffer if necessary.
5. Pick up soiled solution.
6. Reseal as necessary (floors are sealed when new).
7. High speed buff as needed. Very effective way to clean and repair floor.
8. Spray buff as needed. Very effective, spray as you go.

#### **Wood Floors**

Always follow manufacturer's instructions.

##### Daily:

1. Pick up and dispose of debris
2. Remove chewing gum.
3. Dust mop floor with a clean and properly treated mop.
4. Wipe floor with bare hand to test if dust remains on the floor. If dust is detected, repeat step No. 3.
5. For normal soil removal, use a waterless cleaner suitable for wood surfaces and as recommended by the manufacturer.

##### Monthly:

1. Remove rubber burns and floor marks with a solvent-dampened cloth as recommended by the manufacturer.
2. Tack or damp mop floor with solvent cleaner.

##### Annually:

1. For lightly worn floors, a light "screening" may be required and one coat of floor finish. Consult manufacturer for approved finishes.

2. For badly worn or damaged floors, consult your installer to determine if heavy screening or sanding is needed.
3. Don't use an automatic scrubber on wood floor.
4. Don't allow water or liquids to stand on floor.
5. Most manufacturers recommend maintaining relative humidity between 35-50% year round if possible.

# GROUNDS MAINTENANCE

## Year Round

- Trash shall be picked up and trash containers emptied after every school event.

## Summer

- Grass shall be cut based on weather according to the schedule established by the Grounds Supervisor.
- All fields shall be tested, aerated, fertilized, and seeded as needed.
- All infields shall tilled, nail dragged, scarified, mat dragged, and conditioned as needed.
- Keep plantings weeded.
- Playgrounds and outdoor bleachers shall be inspected annually for general condition of components and tightness of connections. Every three years bleachers must be inspected by a licensed engineer, architect, or individual certified by the manufacturer as required by the Life Safety Code.

## Fall

- Grass cutting shall continue until the growing season has ended.
- All fields shall be tested, aerated, fertilized, and seeded as needed.
- All infields shall tilled, nail dragged, scarified, mat dragged, and conditioned as needed.
- Leaves shall be raked and removed as needed.

## Winter

- Snow and ice shall be removed from main entry ways prior to the start of school for the day. Remainder of entry ways and sidewalks as soon as possible.
- Sidewalks and entry ways shall be sanded or salted as necessary.
- When snow continues to fall after the start of the school day, the main entrance shall be cleared hourly. Other entrances and sidewalks shall be cleared at least every two hours.
- The snow plowing operator shall clear all parking lots and driveways at least one hour prior to the start of school. A decision to plow once school has started shall be made by the Grounds Supervisor.

## Spring

- All grass surfaces shall be raked and thatched as soon as weather conditions allow.
- All fields shall be tested, aerated, fertilized, and seeded as needed.
- All infields shall tilled, nail dragged, scarified, mat dragged, and conditioned as needed.
- All storm drains and culverts shall be cleared of debris.
- Mulch shall be placed around planted shrubs.

## Playground and Bleacher Maintenance

The purpose of the playground and bleacher inspection is to identify and correct problems with the impact material and to ensure safety and operation of play equipment. Two types of inspections will be utilized.

- Routine (monthly)
- Periodic (annual)

Routine inspections are conducted on a regular basis and typically can be by the facility or grounds manager. When conducting a routine inspection, the playground should first be inspected for any obvious hazards such as:

- Vandalism to equipment
- Normal wear and tear.
- Broken glass, trash, and animal feces.
- The need for raking surfacing material back under the fall zones of play equipment.
- Sweeping walkways of free of debris and loose surfacing that might create a slippery condition.

If any of the above items are found they should be cleaned up, removed or reported immediately and repaired before playground is put in use.

Periodic inspections shall be yearly. Periodic inspections are more in depth and will require more time than a routine inspection. The periodic inspection must be performed by a certified playground inspector. The following items shall be inspected on each playground and set of bleachers at the facility:

- Any vandalism noted in the area. (Broken equipment, glass, trash, etc.)
- Inspect all equipment for exposed screws or bolts, protruding end bolts, and loose or missing hardware.
- Inspect all equipment for rust, chipping paint, sharp edges, splinters or rough surfaces, and excessive wear.
- Inspect all equipment to ensure no components are missing.
- Inspect all structures to ensure it has not shifted or bent.
- Inspect all swing and chain climbers for any kinks, twists, open "S" hooks, or broken links.
- Inspect platforms and stairway guardrails to determine if they are secure.
- Inspect all swing seats for missing components, cracks, or cuts.
- Inspect the surfacing material for adequate depth (minimum 12") and coverage under equipment.
- Inspect playground surface for any tripping hazards such as rocks, roots, and exposed concrete footers.
- Inspect playground borders and landscaping for deterioration.
- Inspect landscaping in and around the playground environment, such as low hanging branches (less than 7') signs, bushes or trees that may cause eye injuries or limit the vision of users, supervisors.
- Inspect physical barriers such as fencing for damage.

Any component determined to be unsafe or other identified safety concern must be corrected as soon as possible. If for some reason the problem cannot be corrected immediately, then whatever measures necessary should be taken to render the equipment safe or unusable until other measures

can be taken. Do not fix with inferior or temporary parts/devices. Use only approved hardware or parts for that particular piece of equipment. Immediately upon notice of a problem or safety concern with any playground area or bleachers:

- Remove broken piece of equipment if possible. Rope or fence off structure. Have a technician stand guard over equipment or area until proper person is notified.
- Report hazardous conditions to the principal and Facilities Coordinator.
- Create a work order and report hazardous conditions to arrange for repair/ removal of equipment.
- Maintain watch, barrier, and signage until equipment is removed or repaired and deemed safe again.

## INTEGRATED PEST MANAGEMENT

Integrated pest management (IPM) is a decision-making process following a set of detailed procedures describing how particular pest problems will be avoided or managed. Such pest management tactics may involve the activities of all users of a school facility- teachers, students, administration, and parents- not just staff responsible for pest management. How a school is used has great bearing on the types of pest problems which may occur. Integrated Pest Management (IPM) maintains a high standard of pest control while reducing reliance on pesticides. IPM is:

1. Prevention of pest population.
2. Application of pesticides only as needed.
3. Selecting the least hazardous pesticides effective for control of targeted pests.
4. Precision targeting of pesticides to areas not contacted or accessible to the children, faculty or staff.

At this time the Londonderry School District has implemented an IPM system that includes a combination of our in-house licensed grounds techs and a monthly schedule of inspections and applications that are performed by an outside contractor.

## PREVENTIVE MAINTENANCE

The Londonderry School District is using a computerized Internet based program from School Dude, called PM Direct to manage its preventive maintenance program.

A main focus of the district's maintenance program shall be on preventive maintenance. Every part of the facility shall be inspected according to assigned schedules. Mechanical equipment shall be serviced according to the instructions from the manufacturer. Filters shall be changed and equipment shall be adjusted and lubricated according to the appropriate operations and maintenance instructions.

Servicing and adjustments shall be done during inspections unless parts need to be ordered. In the event parts are to be ordered, the person conducting the preventive maintenance inspection shall complete and submit a work order for parts and any necessary work that was not completed at the time of the inspection.

Deferred maintenance shall be avoided unless time, facility use, or funding prevents immediate completion of necessary maintenance or repairs. All deferred work orders shall be reviewed monthly and completed at the earliest possible time. Every effort will be made to eliminate all remaining deferred maintenance work orders during the summer months so that no deferred maintenance will remain at the beginning of every school year.

Every six months the Buildings & Grounds Director shall review the work order log for the previous 24 months to identify trends and equipment that fails or requires adjustment more frequently than the manufacturer's recommended maintenance schedule or more frequently than other equipment of the same type. Special attention will be given to equipment under warranty.

Equipment identified as requiring an unexpected level of attention will be considered for replacement at the earliest opportunity. If appropriate, technical assistance shall be requested from the manufacturer.

Preventive maintenance schedules will be established for the following:

- Bleachers
- Building structures and utilities
- Fire and safety systems and equipment
- Fleet maintenance
- Ground structures and utilities
- HVAC systems and equipment
- Playgrounds

## ROOFING

The roof is potentially the most costly and most abused area of the facility, as it is subject to a variety of weather conditions and temperature fluctuations. The early discovery and preventative maintenance of minor deficiencies extends its life and reduces the chance of premature failure and costly repairs.

Regular inspections should be conducted for all roofs, including newly installed ones. Adequate time will be allotted to properly perform the many tasks involved in the inspections. Each roof will be surveyed completely, either by carefully walking in its entirety where safe and accessible, or by visual inspection with binoculars where inaccessible.

The Londonderry School District will contract with an independent roofing consultant to perform annual inspections on all roofs, and report findings with recommendations for repairs. These repairs should be completed as quickly as possible, either by in house staff or with the help of professional roofing contractors. All requests for repairs should be logged into the computerized work order maintenance system to provide a history of issues and completed repairs. The consultant will work with the Director of Buildings & Grounds to develop and update a current and ongoing plan for roof refurbishment and replacement. This information will be used to justify requests for funding through the school district Maintenance Trust Fund / Capital Reserve Fund. There will be 2 main types types of roofing projects:

### **Refurbishment**

Roofs that have been properly maintained, but are out of warranty and approaching the end of expected life, should be considered candidates for refurbishment. This process will consist of the inspection, cleaning, and replacement (if necessary) of seam welds, and mechanical and edge flashing. The entire roof will then be treated with 2 coats of *Durapax*, *Andek*, or a similar coating to refurbish the roof and provide a 10 year warranty. Whenever possible, attempts should be made to refurbish, rather than replace a roof, as the cost is considerably less. The consultant should play a major role in the bidding, selection of an award, and oversight of the actual work as it is performed.

### **Replacement**

When a roof is nearing or at its expected end of life term, and refurbishment is not an option, plans should be made to replace the roof. It is important to anticipate and properly plan for this, to avoid spending large sums of money to repair a roof that should be replaced. In addition, roof leaks can lead to building and equipment damages and possible environmental problems with indoor air quality. Funding for roof replacements should be planned and funded through the Maintenance Trust Fund / Capital Reserve Fund. The consultant should help to develop the specifications, assist with the bidding and award, and act as the owner's representative through the construction and until the completion of the roof replacement.

## Roof Inspections

Buildings & Grounds maintenance staff and building custodians should work together to perform semi-annual roof inspections to ensure that potential problems are identified and responded to quickly.

The following checklist should be used:

- \_\_\_\_\_ Check for deficiencies in the supporting structural integrity – cracks, moisture stains, etc.
- \_\_\_\_\_ Flashing - water penetration, oxidation, excessive stretching, peeling, delamination, and tearing
- \_\_\_\_\_ Surface conditions – contaminants, debris, exhaust or vegetation buildup
- \_\_\_\_\_ Subsurface conditions (including insulation) for signs of moisture penetration
- \_\_\_\_\_ Membrane condition
- \_\_\_\_\_ Chimneys and flashing
- \_\_\_\_\_ Plumbing stacks and flashing
- \_\_\_\_\_ Mechanical system and ductwork penetrations and flashing
- \_\_\_\_\_ Parapet Integrity
- \_\_\_\_\_ Roof ventilation
- \_\_\_\_\_ Skylights – broken glass; flashing; corrosion; rust
- \_\_\_\_\_ Structural Conditions – Deck settling; membrane splits; cracks in walls
- \_\_\_\_\_ Roof Edging – deterioration; flashing; loose fasteners
- \_\_\_\_\_ Asphalt Roofs & Shingles – brittle or missing shingles; cracking; curled edges; erosion
- \_\_\_\_\_ Flat Roof – Bare areas; blisters; cracks; curling; exposed nail heads; ponding
- \_\_\_\_\_ Overall Condition

## **BUILDING MAINTENANCE OVERVIEW**

Maintenance is the upkeep of, and work performed to, property, machinery, fixed systems, and facilities, including buildings, building service equipment, utility infrastructure, for the purpose of maintain quality and function. Maintenance consists of those activities necessary to keep facilities and systems operational and in good working order. In order to provide a safe, healthful and secure environment, the Buildings & Grounds Department uses four types of maintenance: planned, preventative, unplanned / reactive, and emergency.

### **Planned Maintenance**

Planned maintenance, also referred to as “programmed” or “scheduled” maintenance, is the upkeep of property, machinery and facilities. The B&G department will maintain the Londonderry School Districts’ physical facilities so that they are functional, healthy and safe. Substantial efficiencies will result from using planned and scheduled maintenance rather than unplanned / reactive procedures.

### **Preventative Maintenance**

Preventative maintenance is that portion of the overall program that provides the periodic inspection, adjustment, minor repairs, etc. necessary to minimize building equipment and utility breakdowns and maximize system and equipment efficiency. Preventative maintenance:

- Utilizes planned services, inspections, adjustments, and replacements designed to ensure maximum utilization of equipment at minimum cost.
- Is a program in which wear, tear, and change is anticipated, and continuous corrective action is taken to ensure peak efficiency and minimum deterioration.
- Includes cleaning, adjustment, lubrication, minor repairs, and parts replacement.

### **Unplanned Reactive Maintenance**

Unplanned reactive maintenance is the unplanned response to maintenance requests, which are not considered emergencies. B&G maintenance will respond to situations impacting safety immediately. The response to other requests will be as quickly as possible.

### **Emergency Maintenance**

Emergency maintenance is the repair, upkeep, or replacement of facility components and equipment requiring immediate attention because the functioning of a critical system is impaired or because health, safety or security of life is endangered. Emergency maintenance supersedes all other categories of maintenance.

## **WORK ORDER SYSTEM**

The Londonderry School District is using a computerized Internet based program from School Dude, called Maintenance Direct for its maintenance work order system.

Any school staff member may submit a work order for facility maintenance or an event support request using the School Dude Maintenance Direct software. The school's administrative assistant is responsible for entering into Maintenance Direct any work orders required to fulfill approved building use forms. In the event of an emergency such as a broken pipe, the requester shall notify the facility manager or ground manager by the fastest possible means. A work order for emergency work shall be completed after the fact by the requestor into Maintenance Direct.

The Building & Grounds Coordinator shall initiate work orders for preventive maintenance (PM) according to the PM schedule.

Irrespective of the priority selected in the work order request, the facility manager or grounds manager shall review the request and assign one of the following priorities:

EMERGENCY - Work requires immediate attention to prevent further damage to property.

SAFETY – Work order is placed to correct only a safety issue and must be completed as soon as possible to prevent personal injury.

HIGH - Work order is placed to correct an issue that impacts the flow of daily school or work schedule.

MEDIUM – Work must be completed in a reasonable time period, but the problem is not expected to adversely affect school or work operations.

LOW – Work may be scheduled as time permits as it is not a priority.

SCHEDULED – Work order is placed in advance of work needing to be performed on a specific date such as pre-scheduled activities (e.g. building use or athletic events).

The B&G Director or assistant shall assign the work to a staff member or outside contractor and schedule the work for completion.

The staff member or outside contractor shall complete the assigned work or indicate that parts need to be ordered. If parts need to be ordered the facility manager shall enter the necessary information on the work order. If parts do not need to be ordered, the facility manager shall complete the work and indicate completion on the work order.

If parts are to be ordered, the facility manager shall review and approve the parts request and forward the requisition request to the appropriate administrative assistant who will order the parts. When the parts are received, the administrative assistant shall notify the facility manager who shall assign and schedule the work for completion.

The B&G assistant shall log and close all completed work orders. Maintenance Direct will notify the requestor that the work has been completed.

## SECURITY

The Londonderry School District has invested hundreds of thousands of dollars in equipment and building upgrades to help improve the security for our students and staff. It is important to properly maintain the equipment and operating systems and also plan for additional upgrades to continue to provide safe learning environments.

**Security Systems Manager** – A member of the Buildings and Grounds Department – the Security Systems Technician – will serve as the Security Systems Manager and will maintain the security systems and provide training to district wide school staff. The Security Systems Manager will work closely with the Director of B&G to oversee the security systems and plan for adequate funding for maintenance and repairs. The following equipment and/or systems have been purchased and implemented for use throughout the district

**District Wide Radios** – 12 channel hand held walkie talkie type radios have been purchased and distributed so that each school and the district office can communicate privately or as “all call” depending on the situation. The radios use the school district data lines and repeater stations. The Security Systems Manager will conduct weekly tests to each school to be sure the system is operating properly.

**Panic Buttons** – Each school is equipped with Panic Buttons in several key locations throughout the building. Once the button has been activated the following sequence takes place: A school-wide pre-recorded announcement is made on the public address system which will inform the students and staff that there is an emergency, and everyone should follow the established lock down procedure. This announcement will repeat 5 times. A call is electronically placed to a monitoring company to give the school and room location where the button has been pressed. The monitoring company will notify the police department and the school district office of the emergency. All buttons should be tested annually.

**Secured Vestibules** - The main entrance to each school has been renovated to provide a secured vestibule for the public to use to enter the building. There is an exterior buzzer and camera, and a staff member in each main office can operate the electronic latch to unlock the door. Once inside the vestibule, the visitor will show identification, sign in, receive a visitor badge, and another door will be unlocked to allow access into the school.

**Exterior Door Monitoring** – All exterior doors are equipped with sensor devices that will send an alarm to the main office if the door is opened for more than 30 seconds, and no motion is detected. This will alert the main office staff to a door that has intentionally or not, been left unsecured. The main office staff will then alert a custodian to investigate .

**ID Badges** – Every staff member and every student has been issued a picture ID badge that lists their name and their school. ID badges should be worn by staff at all times when school is in session.

**Card Access** – At each school several heavy use exterior doors have been equipped with card readers that will electronically unlock the door for 5 seconds when a valid access fob is used. Every employee has been issued an access fob and each one is individually programmed to allow the employee access at appropriate times. The Security Manager and the Director of B&G will maintain the computerized access program and the inventory of employee fobs.

**Security Cameras and Video Servers** - Each building is equipped with a video server and an appropriate number of interior and exterior cameras to provide a minimum amount of coverage throughout the school and grounds. The servers have a storage capacity to provide at least 14 days of archived video footage. The servers have been linked using the district's data and fiber optic system so that video images can be viewed by an authorized desktop computer, or remotely for emergency use. The Security Manager will maintain a supply of spare cameras and will quickly replace those that do not work properly.

**Lockdown Warning System** – Flashing amber lights have been installed by each outside entrance door that unlocks through the card access system. In case of a lockdown, the flashing lights will be activated to advise employees and visitors to NOT enter the building. Instructional signage has also been installed by each flashing light.

#### **Future Security Improvements**

As funds become available, the School District will continue to improve and enhance its security levels by purchasing new equipment and/or investing in new technology. Some areas that could be addressed include:

Additional Panic Buttons

Additional Indoor and Exterior security cameras

Replace older style analog cameras with digital cameras

Additional card readers on exterior doors

Install specially activated cameras at each entrance that is equipped with a card reader to provide a video record whenever a fob is used to unlock a door

Install motion activated interior security lighting for after hours use

Install interior door locks to help quickly secure classroom and office doors without the use of a key

Continue to update our procedures and equipment to stay current with new ideas, trends and technology

## CONTRACTORS – SERVICE CONTRACTS - SUPPLIERS

### Air Quality/Industrial Hygiene:

The Lawson Group Ltd.  
20 Chenell Drive  
Concord, NH 03301-8537  
(603) 228-3610

### Catch Basin Cleaning:

Larry Blanchette Trucking & Excavating  
2 Mulberry Street  
Windham, NH 03087  
(603) 432-0365

### Electrician:

Gemini Electric  
8 Priscilla Lane  
Auburn, NH 03032  
(603) 644-7170

Interstate Electrical Services  
15 Cote Lane  
Bedford, NH 03110  
Tel: 603.627.3230

### Emergency Generators:

Power-Up Generator Co.  
8 Priscilla Lane  
Auburn, NH 03032  
(603) 657-9080

### Fire & Water Cleanup

Servpro of Manchester  
187 Londonderry Tpk.  
Hooksett, NH 03106  
(603) 669-7733

### Elevator Service:

Stanley Elevator (LMS & MT)  
9 Henry Clay Drive  
Merrimack, NH 03054  
(603) 546-0240

### Otis Elevator (LHS)

915 Holt Ave.  
Manchester, NH 03109  
(603) 622-2101

### Fire Protection/Alarm Systems:

BK Systems (fire alarms)  
27 Sheep Davis Road  
Pembroke, NH 03275  
(603) 647-8775

### Pelmac Industries (security)

12 Commercial Ct.  
Auburn, NH 03037  
(800) 244-5916

### A.S.A.P. (fire sprinklers)

6 progress Ave.  
Tyngsboro, MA 01879  
(978) 649-4945

### Hazardous Materials Disposal:

Clean Harbors  
20 Dunklee Road  
Bow, NH 03304  
(603) 224-6626

### HVAC Controls:

Siemens Corp.  
66 Mussey Road  
Scarborough, ME 04074  
(207) 767-1955

Kitchen/Refrigeration:

Affiliated HVAC Services, LLC  
5 Pine St. Ext. # D  
Nashua, NH 03060  
(603) 882-3200

Casco Food Equipment Service Inc  
8025 S Willow St Ste 102  
Manchester, NH 03103  
(800) 660-2058

Mowing:

Shady Hill  
1 Adams Road  
Londonderry, NH 03053  
(603) 434-2063

Trimmers

3 Aviation park Drive  
Londonderry, NH 03053  
(603) 882-8888

Pest Control:

J P Pest Services  
101 Emerson Rd  
Milford, NH 03055  
(800) 222-2908

Plumber:

Mainline Plumbing & Heating  
71 Mammoth Road  
Londonderry, NH 03053  
(603) 437-9114

Portable Classrooms:

Williams-Scotsman  
48 Dick Tracy Dr.  
Pelham, NH 03076  
(603) 882-2823

Power Sweeping:

F. B. Hale Inc.  
5 Teloian Drive  
Hudson, NH 03051  
(603) 883-6615

Recycling:

MLI Maine Labpak  
15 Holly Street  
Scarborough, ME 04074  
(207) 767-1933

Refuse Removal:

Waste Management of NH  
26 Liberty Drive  
Londonderry, NH 03053  
(800) 443-5515

Dumpster Depot

8051 So. Willow Street  
Manchester, NH 03103  
(603) 222-9066

Roofing:

Therrien Roofing  
199 Hayward Street  
Manchester, NH 03102  
(603) 669-3344

Septic System:

Felix Septic Services, Inc.  
40 Winter Street  
Manchester, NH 03102  
(603) 623-7907

Snow Removal:

Northern New England Excavation  
14 Wilson Road  
Londonderry, NH 03053  
(603) 548-0038

Telephone Systems:

Signet Group  
90 Longwater Drive  
Norwell, MA 02061  
(781) 871-5888

Consolidated Communications  
770 Elm Street  
Manchester, NH 03101  
(603) 222-4500

Track:

Cape & Island Track  
28 Commerce Park Road  
Pocasset, MA 02559  
(508) 759-5636

Utilities:

Energy North Propane  
75 Regional Drive  
Concord, NH 03301  
(603) 225-6660

Eversource Energy (electricity)  
780 N. Commercial Street  
Manchester, NH 03101  
(603) 669-4000

Liberty Utilities (natural gas)  
15 Buttrick Road  
Londonderry, NH 03053  
(800) 833-4200

Manchester Water Works (North School & SAU Office)  
281 Lincoln Street  
Manchester, NH 03103  
(603) 624-6494

Pennichuck Water Co.  
25 Manchester Street  
Merrimack, NH 03054  
(603) 882-5191

Rymes Oil  
257 Sheep Davis Road  
Concord, NH 03301  
(603) 228-2224

# ENERGY MANAGEMENT

## Energy Management Guidelines

Wise energy management is good for everyone. It contributes to the national goal of energy conservation, therefore extending the life of our available natural fuel reserves. It helps preserve our environment. Reducing the demand for electricity will reduce the amounts of emissions that power plants add to the air. This will also reduce the number of new power plants that will need to be built. Whatever we can do to modify our behavior and become more conscious of how electricity is used and wasted will benefit us all.

## Energy Saving Strategies (Behavior Modification)

In our school district electricity costs are second only to salaries and benefits, exceeding the cost of textbooks or supplies or diesel fuel for the school buses. The U.S. Department of Energy estimates that at least a quarter of the dollars spent could be saved through better energy management. While it is true that much of these savings would require equipment or systems changes to achieve, just modifying the way we use our building will help tremendously. If each school will reduce energy consumption even a small percentage a considerable amount of money will be available to reinforce our other budgetary needs.

Keep the doors closed when A/C is running. Air conditioning is very costly. We have the capability of monitoring and controlling most of our systems from a central point and of adjusting run-time schedules that will keep the buildings comfortable and clean and still be efficient.

Turn the lights off when the room is unoccupied, even for only a few minutes. As much as 40% of the energy consumed is for lighting. Some rooms have wall switches that allow for partial lighting. Some have occupancy sensors. Both of these strategies can help reduce lighting costs. But, the biggest savings will be achieved by turning the lights OFF when the room is unoccupied. While it is true the life of a bulb can be shortened by turning it on and off, the balance point between turning a light on and off many times versus the energy savings gained by turning lights off when not needed is usually ten minutes or less. So, the rule of thumb should be: If a room is unoccupied for ten minutes or longer the lights should be turned off. This rule applies to either incandescent or fluorescent lights. Modern fluorescent lights use little starting energy contrary to the myth that operating fluorescent lights is cheaper than turning them on and off for brief periods. Turning them off helps them last longer and lower energy costs.

Turn off televisions, VCRs, DVDs and digital projectors when not in use. Like the lights, leaving equipment running when not in use wastes energy. The savings realized by turning off each TV, VCR or DVD might seem insignificant, but not when you multiply it by the number of machines in your school or the entire district.

Turn off computers at night and on weekends. The computer hard drive will use about 15.2 KWH per month if turned on/off each day and about 77.1 KWH if left on for 24 hours. By turning the computer and the monitor off at the end of each day and in the summer, we will save utility costs.

Unplug appliances such as televisions and DVDs over the summer. Appliances like these draw a small amount of power even when turned off. Although the savings on each appliance is small, the number of TVs and DVDs in the building magnifies it.

## **Energy Conservation Program**

Since 2001, the Londonderry School District has partnered with a company originally named Energy Education – now known as Cynergistics to monitor and reduce the amount of energy used in our buildings. As compared to the annual baseline before the program began, we now use 30% less energy and the cumulative savings through 2020 is nearly 8 million dollars.

As part of the program we have a district wide Energy Manager who collects data, inspects the buildings on nights and weekends, and also participates in helping to provide information and reduction strategy guidance to out staff and students. In 2010 we received Energy Star awards from thje U.S. Department of Energy for all of our schools (except Moose Hill School which did not qualify due to program requirements) in recognition of our conservation efforts.

Many school district can achieve quick, temporary energy reductions and savings and then slide off as interest is lost and efforts are reduced. It is the goal of the Londonderry School District to remain focused on our program and continue to educate our staff so that we can continue to enjoy significant cost savings in the present and future.

## Energy Management Checklist

To reduce energy consumption for air conditioning:

- A. Reset or set back thermostats to maintain specified settings for cooling and heating.
- B. Minimize conditioning of seldom-used spaces, such as storerooms or unoccupied classrooms.
- C. Where possible, such as in portable classrooms, turn the air conditioning off on weekends, holidays and off-shift hours.
- D. Turn off ventilating and exhaust equipment when not in use, such as in bathrooms and storerooms.
- E. Check for good fitting doors and windows.
- F. Block out morning and afternoon sun from shining through windows.
- G. Be sure the thermostat is working and the fan is set in the "Auto" mode.

To reduce energy consumption for lighting:

- A. Turn lights off in areas when they are not occupied.
- B. Reduce lighting levels where safety and performance would not be adversely affected, for example in hallways.
- C. Check the level of outdoor security lighting and make sure it is turned off during daylight hours.
- D. Turn off sport fields, parking lot and gymnasium lights when not in use.

To reduce energy consumption for equipment:

- A. Turn off computers, overhead projectors, DVD's, TV's and copiers when not in use.
- B. Turn off water coolers and vending machines during vacation periods.
- C. Disconnect AV equipment during vacation periods.
- D. If possible stagger the start times on major equipment, such as air handlers and exhaust fans.

## **Mechanical Systems & Building Safety**

### **HVAC Systems**

Regular preventative maintenance of HVAC (heating, ventilation and air conditioning) systems is crucial to the quality of air and comfort levels within school facilities. HVAC systems should be able to sufficiently control temperatures, distribute outside air, and remove odors and pollutants. Improper functioning and maintenance can cause indoor air issues by allowing stale or contaminated air to remain in the building. As there are many areas that house activities with unique ventilation requirements – such as art, shops, culinary and laboratory classrooms – it is essential that the HVAC systems have fully functional and regularly inspected air handling control, air filtration, and exhaust modes that work together.

For all types of HVAC systems, air filters should be changed a minimum of twice per year and the information should be logged as a preventative maintenance work order. Use MERV 13 or greater air filters. At the same time, the units should be inspected to check and/or service fan belts, bearings, dampers, wiring and controls.

### **Boilers & Circulator Pumps**

All school are heated by the use of gas or oil fired hot water boilers and main & zone circulator pumps. Boilers should be cleaned, inspected and tuned annually by an outside contractor. Every other year the boilers must be inspected by an authorized State of NH boiler inspector. Any deficiencies should be corrected immediately and the permits should be posted in the boiler rooms.

Londonderry School District employees who perform maintenance or repairs on boilers must hold a State of NH Gas License, or must work under the guidance of a licensed contractor.

Boilers and circulator pumps should be monitored daily through the Siemens Building Controls System and should be inspected at least weekly to check water temperatures, system pressures and operating controls.

### **Electrical Systems**

Electrical systems and closets shall be inspected annually. Maintenance personnel and custodians will be familiar with the locations of all electrical equipment, including circuit breakers, fuses, main feeders, sub feeders, panel boards and transformers. All wiring shall be in compliance with the National Electric Code. The safety of workers should always be the highest priority. Staff shall ensure that power is shut off and/or lines are de-energized where work is being performed and that the LOCK-OUT TAG-OUT system is used. Electrical equipment will only be serviced by in-house licensed electricians or by a licensed contractor

### **Plumbing**

Electric and gas fired water heaters should be inspected and serviced annually. Tanks should be drained, flushed and refilled; water piping and electrical or gas connections should be inspected.

Backflow devices are located at the water main service entrance in each school. These devices prevent the flow of water or other liquids into the distributing pipes of a potable supply of water from any source other than intended. All backflow devices should be inspected and tested semi-annually by a licensed contractor.

## **Emergency Generators**

The emergency generator in each school is covered by a service contract with a school district approved contractor and will be serviced twice per year. The School District electrician or his designee will perform monthly checks on the fuel level, battery, charger, cleanliness and wiring connections. A load test should be performed annually. The school district currently has a maintenance contract with Power-Up Generator Co. in Auburn, NH.

## **Fire Protection**

Comprehensive certification and testing of the entire fire alarm system should be performed annually and the report should be kept on file with a copy provided to the local fire department. A licensed contractor must perform the work. The school district currently has a full service contract with BK Systems in Pembroke NH.

Fire Sprinkler systems should be tested annually by a licensed contractor with copies of the inspection and test reports kept on file and forwarded to the local fire department. The school district currently has a contract with A.S.A.P Fire & Safety in Tyngsboro MA.

Fire extinguishers should be inspected and tested annually by a licensed contractor and a copy of the inspection report kept on file. In addition, fire extinguishers should be checked monthly by building custodians. The tag on the fire extinguisher should be dated and initialed at the time of each monthly inspection. The school District currently has a contract with A.S.A.P. Fire & safety.

## **Asbestos**

As required by federal law, all identified asbestos contained building materials (ACBM) must be inspected every six months by a trained school staff member. Physically look at each area identified in the school's asbestos management plan to ensure that any ACBM have not been damaged or deteriorated so as to become friable. In the event any ACBM must be removed, the school district LEA (Local Education Authority – the Asbestos Plan Manager) should be contacted immediately to handle the issue.

Every three years an inspection of all ACBM's must be performed by a licensed asbestos contractor as required by State and federal law. The inspection reports will become part of the management plan.

## **UST's – Underground Storage Tanks**

There are 2 fiberglass underground oil storage tanks in the District. A 10,000 gallon tank at South School and a 15,000 gallon tank at the Middle School. Oil is moved by a licensed transport tanker company from the Middle School to South School as needed. Both tanks are filled and topped off in late spring when oil prices are typically lower.

The tanks are inspected monthly by a school district employee who has been certified by NH DES to perform the inspections. State law also requires annual inspections by a licensed contractor and 3-year inspections by a NH DES representative.

## **Ductwork**

The B&G department is developing a plan to inspect and clean ductwork per recommendations from NH Dept. of Education. Once completed, the plan and procedures should become a part of this document.

## **PANDEMIC RESPONSE**

During a Pandemic, or other declared health emergency, the Buildings & Grounds Department employees will act as support staff to help to implement protocols, guidelines and other actions determined to be necessary to protect the safety and health of the students, staff and community.

### **Covid-19**

All B&G employees have received additional training to provide safety precautions and procedures to protect themselves and the students and staff in the schools. Cleaning procedures have been changed and enhanced to conform to guidance from the CDC, the NH Governor's office, and local officials. Specialized cleaning and disinfecting products and equipment have been purchased and are necessary to carry out these functions.