

TOOLS FOR SCHOOLS

Tools for Schools is program established by the federal Environmental Protection Agency (EPA) to help schools maintain a healthy school building environment. The program promotes healthy indoor air quality (IAQ) by identifying, correcting and preventing indoor air quality problems. It is well known that good IAQ contributes to favorable learning environment for students, increases productivity for teachers and staff and promotes a sense of comfort, health and well-being for all school occupants.

The Tolland school system has been participating in this program since the fall of 2002. Each of the four schools has established a Committee to implement the Tools for Schools Program. A Kit from the EPA is provided at no cost to schools to implement the program. This Kit contains easy-to-follow checklists, videos, sample memos, policies and a recommended management plan. In using the tools in the Kit, Committee members can educate staff students and parents about the importance of good IAQ and their roles in ensuring a healthy, comfortable learning environment. The Kit also suggests ways to improve the schools by preventing as many IAQ problems as possible and by quickly responding to any problems that may arise.

Each Committee is comprised of a school teacher, nurse, parent, custodian and principal. In Tolland, members of all four committees were trained by staff from the Connecticut Department of Public Health during the fall of 2002.

Attached are the Committee Summary Reports for each of the Tolland schools.

WDG:gma
attachments

**Tolland School System
TOOLS FOR SCHOOL
ANNUAL REPORT
2007**

SCHOOL: Birch Grove Primary

TEAM MEMBERS: Kelley Vatteroni RN, Coordinator Pat Wahlberg, Principal
Robert Palmer, Custodian Karen McGee, Teacher
Donna Boucher, Teacher Charles Nerhig, Parent

SCHOOL CENSUS: 790 students and 130 staff

YEAR OF CONSTRUCTION: Birch Grove Primary was constructed in 1999. New second grade addition completed September 2003.

GOAL ACHIEVEMENTS/ACCOMPLISHMENTS FOR YEAR 2006/ 2007:

Done: High frequency student complaints graphed monthly and compared to 05/06. Unable to compare complaints to 05/06 due to loss of data.

Done: Birch Grove Primary Teacher IAQ checklist sent December 2006.

Done: Radon Testing Completed February 2006 for Free.

Done: Monitor exterior air vents for plant debris as surrounding landscape matures.

Done: Leak in wall of Linda York's Office from bathroom. Leak from toilet fixed, sheet rock removed and replaced, room painted. Carpet removed and replaced with tile.

INTERIOR INSPECTION:

GENERAL CLEANLINESS: Survey results reported are those who selected "good" on checklist

35/40 no signs of mold or mildew, Classroom A9 carpet removed due to mold from leak in wall. Kitchen showing signs of mold on floor, testing for mold in August. Will monitor carpets for increase odor.

39/40 no signs of unresolved or on going water damage on ceiling tiles. Water stains on ceiling in Mr. Keithan's office.

12/40 area is free of dust (custodians vacuum, do not dust).

30/40 area is free of pests. Spiders noted. Mice and mice droppings noted. Bees and ants fall/spring. Outside agency used for pest control.

36/40 no condensation noted on windows and sills.

- **THERMAL COMFORT:**

12/40 Temperature and humidity within room are acceptable. Rooms A1, A2, A3, A7, A8, A11, B3, B4, B6, B7, B9, B10, B12, C1, C2, E7, E18, E22, E23, E24, 13, SPL room, OT/PT room, all have temperatures that are too cold in the winter, especially after a vacation. Room E20 is very dry. The AC does not always work in some of the upstairs rooms, with AC.

11/40 survey respondents noticed changes in health. This seems to be an increase since last year: headaches (5), congestion (6), eye problems (3), dry skin (3), bronchitis (4), pneumonia (2), and dry throat (2). One teacher did mention that there was a lot of illness with her class this year as well as herself.

Analysis of SNAP: School Nurse Assistance Program to track injury/illness allowed for statistical data collection, eye concerns (93), headaches (299), nosebleeds (161), chapped lips (274). Unable to compare to previous year due to loss of data from program last year.

- **VENTILATION SYSTEM:**

20/40 air flow into and out of room as designed. Vents are off on 2nd floor due to noise level. Room C2 vent in this room does not come on until 9am and shuts off at 2pm.

39/40 room is free of objectionable odor (one reports odor of lunch cooking)

Fresh air ventilation system assessed in classroom, no fresh air make up in certain rooms unless windows opened, A1, A3, A4, A5, A6, A7, A8, B3, B5, B6, B7, B9, B10, B12.

EXTERIOR/OUTDOOR INSPECTION:

- **GROUND LEVEL:**

Birch Grove Primary School was built in 1999

Air intakes not blocked by vegetation, leaves, or birds.

School entry floor mats moveable. They are cleaned and air dried with seasonal moisture. Air blower used as needed.

**" No Idling " sign placed in front entry drop off area and rear loading dock area.
Minimal complaints of exhaust aroma.**

**ROOF: Roof constructed 1999, no leaks noted this year
Intake units free of debris/nest
Plumbing stacks 10 feet away from outdoor air intakes**

ATTIC: There is no attic

RECOMMENDATIONS:

SHORT TERM GOALS:

**Work order placed for heap filter in Kathy Schiaroli's (SPL) room.
Vents and rugs in Kathy Schiaroli's (SPL) room will be cleaned in August.
Mold and dust samples will be taken in various areas throughout the building in August. Test -kits will be supplied by Charles Nehrig.**

MEDIUM TERM GOALS:

If Kathy Schiaroli is not feeling better after the cleaning of vents and rug, the rug will be removed and replaced with tile Christmas vacation 2007.

LONG TERM GOALS:

Radon Testing February 2006;per Connecticut Department of Health School Radon Testing Guidance Connecticut General Statute Section 10-220 (d): ...and every five years thereafter...

**Change all vacuums to hepa filters as they are replaced.
Support Tolland Public Schools as they implement their goals.**

Tolland School System
TOOLS FOR SCHOOL
ANNUAL REPORT
2006-2007

SCHOOL: Parker School

TEAM MEMBERS: Gino LaRicca - principal Kathy Stoessel - nurse
Ray Misura - custodian
Debbie Rioux - Teacher

SCHOOL CENSUS: 509 students

YEAR OF CONSTRUCTION: 1963

GOAL ACHIEVEMENTS/ACCOMPLISHMENTS FOR YEAR 200 / 200 :

- 1.) Removal of 13 carpets in classrooms + offices.
- 2.) Replacement of stained ceiling tiles.
- 3.) Several roof patches

INTERIOR INSPECTION:

- GENERAL CLEANINESS: In general the building continues to be in good condition. Occasionally an area will get marked "Fair" on the "School Inspection checklist" but then these areas are address quickly.

- **THERMAL COMFORT:** We had two occasions when the Heat in several areas was not working but was addressed by maintenance. We had a 3 day period in the Spring where the heat would not shut off in places. It also was addressed through the maintenance Department
- **VENTILATION SYSTEM:** for their age, they are functional & in good working order.

MISC.

EXTERIOR/OUTDOOR INSPECTION:

- **GROUND LEVEL:** In good shape. There are two areas where brush has to be removed but this can be accomplished over the summer.

- ROOF: We have 4-5 different roofs, all of different form and age. This presents a challenge. We are constantly addressing leaks as they appear.

- ATTIC: _____

MISC. _____

SHORT TERM GOALS: 1.) Removal of all carpets from the building 2.) Removal of vegetation from outside of building 3.) Continual attention to Cleanliness.

LONG TERM GOALS: Total Roof replacement, Asbestos removal & ADA renovation (Capital 2009?)

RECOMMENDATIONS:

1.) Remove Carpets as Funding becomes

2.) Press to keep renovations in Capital for 2009.

3.) Full year Implementation of Daily custodial
Checklist sheet, to improve cleanliness,

**Tolland School System
TOOLS FOR SCHOOL
2006/2007 ANNUAL REPORT**

SCHOOL: Tolland Middle School

TEAM MEMBERS:	Christine C. Grulke, M.S., R.N.- Coordinator	Walt Willett, Principal
	Tim Flaherty, Head Custodian	Carolyn Dione, Teacher
	Deborah Hancock, Teacher	Carol Booth, Parent
	Tony Spangle – Assistant Principal	Chris White – Energy Technology
	John Carroll – Maintenance	

SCHOOL CENSUS: 5th grade: 245 6th grade: 266 7th grade: 251 8th grade: 239 134 adults

YEAR OF CONSTRUCTION: 1971

GOAL ACHIEVEMENTS/ACCOMPLISHMENTS FOR YEAR 2006/2007 :

Tools for Schools Team met:	October 18, 2006	December 15, 2006 (cancelled, nurse at Parker)
	December 06-Jan 07 Survey Conducted	
	February 1, 2007	March 29, 2007
	April 13, 2007 School Walk Around	
	May 3, 2007	June 14, 2007

- **Maintain cleanliness of school:**

Replaced damaged ceiling tiles	clean stage lighting and ceiling
Vacuumed stage curtains in the front	Broken window room 128 fixed
Rafters in Gym cleaned	mouse issue addressed
Loose screen repair 1/07	214 dripping sink repaired 11/06
Cold lecture hall 1/07	Metal door replaced 5/07
Locker door 520 replaced 5/07	fire extinguisher x2 repair
- Survey to assess needs December 2006-January 2007: 70 of 70 survey areas returned results

Recommendations:

Short Term Goals:

1. Determine destination for rabbit in 128 and bird in 118
2. Monitor sewer aroma in 2nd floor girls restroom
3. Monitor mice in portables, and near 115, 227 and 229
4. Improve on cleanliness of school regarding dust/floor dirt - Continue rapid response to indoor air quality concerns voiced by staff - monitor for patterns
5. Follow up on black material outside 137 along the wall

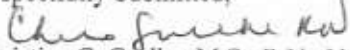
Medium Term Goals:

1. Monitor Exterior air vents for plant debris
2. "Green School": Explore possibility to converting to "Green School" for Tolland District given budget restraints
Evaluate current cleaning products ; Educate building occupants and custodial staff to Indoor Air Quality recommendation to move toward environmentally friendly products for cleaning .
3. Continue to monitor foundation crack near 229 for leaks on interior walls
4. Continue to monitor roof I-beam shift

Long Term Goals:

1. Radon Testing due 2011. passed February 2006: per Connecticut Department of Health School Radon Testing Guidance Connecticut General Statute Section 10-220 (d):...and every five years thereafter...

Respectfully Submitted,


Christine C. Grulke, M.S., R.N., N.C.S.N.
Tolland Middle School

INTERIOR INSPECTION:

General Cleanliness: Survey % results reported "good or Fair" on check list: 70:70 returned

100% found no mold/mildew
99% found no condensation on windows – large window in front of school condenses
98% found no sign of water damage – tiles in mini gym need replaced
88% found free of pests *****mice in portables – noted below

71% found rooms generally clean and dust under control (custodians vacuum, do not dust)

Staff comments: dust "out of control"
Can't wear contacts due to irritation
Carpets not vacuumed regularly
Art rooms "unacceptable"

Student issues: 181/1,000 students with asthma - 66 have inhaler in HR 06/07

Walk Around Observations:

Visible paper/debris and dust noted to hallways, dark material noted to floor of bathroom stalls
Room 128 Rabbit
Room 118 Bird
Sky light leak near 137 ? water leak on checklist – none observed inside or outside
Mini gym: 4 ceiling tiles need replaced
Mini gym: return vents dusty
Mold: Server Room (across from 251) to air vents – area self contained
235, 236, 237: Art rooms, debris on floor, dusty
Noise to hallway corridor second floor outside Lecture – AHU on roof directly above
Mice reported in 115, 227, 229, and 6 of 8 portables – pest control remediated – no mice or remnants seen

Thermal Comfort:

89% found Temperature and humidity acceptable – areas of concern checked during walk around

Walk Around Observations:

On walk around: comfortable to group walking around
153, 154 and 255 report temperature. These classrooms on same AHU monitor
157 cold – Ernie to order parts
Foyer/hall cold during winter – Foyer and upstairs fire doors found propped open daily
9/07 outdoor temp 23; feels like 10 with wind chill foyer temp 47 degrees
3/07 outdoor temp 8; feels like (-10) degrees with wind chill- foyer temp 44 degrees

Ventilation System:

96% found supply and exhaust fans free of obstruction
92% found air flowing acceptable -
96% found rooms free of odor – 4% report student hygiene issues cause offensive aromas
Sewer aroma in Girl's restroom near room 250
1/07 2 leaking toilets fixed
2/07 4 buckets water to both floor drains weekly; less aroma noted
3/07 aroma returns; air vents not moving air – belt replaced on roof AHU
4/07 aroma remains- floor drains remain dry; aroma Right floor drain >Left floor drain

Walk Around Observations:

Sewer aroma Girl's Restroom Near room 250- history reviewed - 5/07 1 gallon vegetable oil installed
Central Office AHU3 dated 4/06 filters partially collapsed and dirty
some units looked just changed yet data sheet reflects 2006 date
Attic AHU observed 12/06, change date 12/05 yet fresh open boxes on the floor

Miscellaneous:

Carpet Front office
Carpet in Library

EXTERIOR/OUTDOOR INSPECTION:

Ground Level

Tolland Middle School was built in 1971 on a bog.

There are 6 foot footings outside and 4 foot footings holding retaining wall along furthest wall away from Old Post Road.

Air intakes are not blocked by vegetation, leaves, or birds

School entry floor mats removable and are cleaned and air-dried with season m moisture.

"No Idling" signs are placed along front, rear and loading dock areas.

Walk Around Observations:

Foundation separation near 229 – no leaking noted (photo A,B,C,D included)

Water ponds approx 20 foot x 20 foot area between portables and TMS (photo E, F, G included)

Water flow concern from Library ? mold on building outside room 137 (photo H, I, J)

Rear walkway: walkway hazard and semicircle bricks missing

Front Walkway: walkway hazard (photo N included) – one employee CorpCare visit for ankle sprain 1/07

Front Semicircle brick missing (photo O)

Front courtyard and steps: hazard (photo L,M,N)

Roof:

Walk Around Observations:

No roof leaks noted on walk around

Leak 2nd floor flyer area repaired 5/07 – voids in flashing noted and repaired

Intakes free of debris – one thumb size inactive bee nest removed

Plumbing stacks 10 feet away from outdoor air intakes

No ponding noted

Exposed I-beam – overhang shifted ¼ inch –monitor

Attic

Walk Around Observations:

No visible evidence of roof or plumbing leaks

No bird or animal nests visible

No aroma noted

Miscellaneous:

Walk Around Observations:

Dumpster lids open on daily basis (photo K)



THIS

(A)



0



C



B

6



7



E



F



I



H



K



J



L



M



N



- **THERMAL COMFORT:** This has been an ongoing issue in the school throughout the year. Many of the rooms have been difficult to maintain constant comfortable temperature. The company that installed the heating/cooling system has been working throughout the year to rectify this problem. At this time it is still not completely rectified.

- **VENTILATION SYSTEM :** There has been no major issue with the ventilation system it has been able to exchange the air in the rooms as noted in the current building codes.

MISC. Web site checklists were developed for teachers in the district to use in assessing their rooms but were not instituted this year.

EXTERIOR/OUTDOOR INSPECTION:

- **GROUND LEVEL:** Walk around the building was conducted on 1/11/07. Numerous cracks were noted along the outside of the building in the cement blocks. Several areas of moisture was also noted on the cement blocks along the East side of the building. All areas were reported to building contractors and repairs were done. A report of the walk around is attached to this report. Several vent pipes were noted to not have mesh coverings over the top, this was a concern in regards to rodents and insects ability to enter.

- **ROOF:** One roof leak was reported in an auditorium maintenance area. It has been repaired.

- **ATTIC:** There is no attic.

MISC. There is no foliage surrounding the wall of the school building to prevent any air flow coming into building.

Walk around report is attached to this report.

SHORT TERM GOALS: To continue monitoring and implementing IAQ guidelines to this new facility in the next year.

- Maintain cleanliness of building and attention to any concerns brought up by facility.

LONG TERM GOALS: To maintain proper care of this brand new facility and be able to foresee any problems before they turn into any major repairs.

- To conduct radon testing in 5 years (2012) per Connecticut Dept. of Health School

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- Radon Testing guidance. (Ct. Statute Section 10-220 – every five years).

RECOMMENDATIONS:

-To secure a parent on the team. _____

-To have staff fill out checklists on the web site at least twice per year or as needed. _____

- To conduct more meetings of the team throughout the school year. _____

-To convert to an all green cleaning products in the school system. _____

-To increase custodial staff for the new larger high school in order to maintain its present
condition. _____

Tools for School
Walk around outside of School
1/11/07

A walk around the Tolland High School was conducted on 1/11/07. Those who were involved with this walk around were: Joseph Bacewicz, Susan Fontaine, Barbara Morey

Overall the area immediately around the school was free from any vent blockage, all trash bins are stored in areas away from air intake vents. No evidence of chemicals stored near the building

There is evidence of slight cracks in grout throughout the building, this may be due to weather conditions

WEST SIDE

- Numerous cracks in blocks in the following defined areas
 - Under window of principal office
 - Under 2nd window of conference area
 - Stairway C right corner lower door
 - Under window Room 105
 - Under room 79 (textile room)
 - Under window room 85

- Multiple cracks noted along cement throughout length of academic wing
- Multiple cracks in grout under windows Room 109
- Corner of textile room 79 – mesh from blocks is not flush with the stone but protruding outward.

SOUTH SIDE

- Windows at end of hallway numerous cracks in grout
- Cracks in blocks
 - Under windows Room 109
 - Under window Room 111
 - Under windows in greenhouse
- Moisture noted top of cement under greenhouse
- Open pipe noted - ? availability for small rodents to enter into building

EAST SIDE

- Cracks in blocks noted
 - Under windows Room 129
 - Under window Room 133
 - Under window Room 135
 - Under window in Chorus room – 1st window
- Cracks in grout
 - Under windows Room 57
 - Under window Room 45 (weight room)

- Noted open pipe on this side along tech wing, ? entrance for rodents
- Numerous blocks noted with moisture along all of east side. Wetness noted above the first row of blocks

NORTH SIDE

- Cracks in blocks
 - Under window Room 79
 - Two cracks noted under windows in Room 65
- Cracks in grout noted
 - Under Room 79

COURTYARD

- Noted were cracks throughout the courtyard in the grout around all the windows with some being 1cm wide in corners of windows, especially in workroom right side of window, 3rd window right corner Room 124, large crack 1st window right and left side Room 118.
 - Grout cracked along 2nd window Room 146, this crack goes all the way to the ground
- Cracks in blocks noted in the following areas
 - Under the windows in Room 108 & 106
 - 2nd and 4th window Room 148
 - 1st and 2nd window Room 146
 - 1st window Room 142
 - 2nd & 3rd window Room 126
- Old bee hive noted on fire alarm at back of courtyard
- Noted vent on 2nd floor lever right hand side of courtyard crack in corner that looks like it was redone but noted crack still in it.