

Analysis of the School Committee's Latest Effort to Limit Our Options

At the School Committee meeting on February 26, 2013, Maureen Spada and Louis Salemy gave us a strange tag-team presentation about locations for the transportation facility, now called the "Bus Depot":

<http://www.concordpublicschools.net/schoolcommittee/pdfs/2013-02-26-presentation.pdf>

Although the title, "Why can't the bus depot be on the CCHS campus?" relates to much of the discussion that follows, the real intent appears on the very last page: to support the immediate use of the former Town Landfill for parking and maintaining the buses. That conclusion appears to be the correct one for us at the moment, and would have deserved more attention in the presentation, perhaps even in the title.

As it is, the first 39 pages of this presentation are merely an attempt to justify the School Committees' inappropriate motion last May 22, to rid the regional school property, forever, of the transportation facility that we have had there for many years. I have previously commented in detail about the poor reasoning behind that motion and in their later attempts to justify it:

<http://concord-trustingtheprocess.org/conc-list-store/files/11-nov 2 2012/BoS and FinCom Letter-Oct 31 2012.pdf>

What is new this time around is a concerted attempt to create additional excuses for that poor decision.

Much is made of a really fine goal, to make the campus as "green" as possible. But we are given no evidence that the transportation facility has ever been a problem for air quality or groundwater contamination.

After many pages of definitions, we encounter the first real issue. The Building Committee neglected to include the transportation facility in all their permit applications! That wasn't an accident. The Zoning Board of Appeals and the Public Works Commission actually asked them whether they hadn't forgotten something. The Building Committee declared that they didn't want that on the permits!

The presentation repeats the old excuses about wetlands on some areas of the site, hills and grade changes elsewhere, and planned use of the maximum allowable impermeable surface area. But surprise! Remediation of the old dump east of the present school, a topic carefully avoided throughout the construction planning, and missing from the Project Funding Agreement signed with the MSBA, will put some four acres of new impermeable surface on the regional property, about where the student parking lot is now. That is more than twice what is needed to hold the entire transportation facility, and it is downwind of the new school.

The School Committee has suddenly taken an interest in the hazards posed by even a little Diesel exhaust. Had they thought about this problem a few years ago, they

would not have put those expensive new Astroturf athletic fields right up against and downwind from Route 2. But now they consider it a really big problem to have the buses come onto the school grounds and park.

How big a problem? They told us about MA CHPS Points, a sort of scorecard by which the MSBA rates the “greenness” of the new construction. The Building Committee is aiming for 60 CHPS Points, in an effort to be sure they get at least the 50 required for about \$1.6 million of our potential reimbursement.

Putting the transportation facility back on the regional property, anywhere on the 94 acres of it, might cost us one of those points. That doesn’t sound like much of a risk, and surely isn’t worth the extra half million dollars or so that it will cost us to keep the transportation facility elsewhere. But just whose risk is it? It is the Towns that will absorb the continuing extra cost of having the transportation facility elsewhere, and a decision of this magnitude should not have been made behind closed doors by a small band of zealots determined to get rid of the buses. A trade-off like this must be made in a public meeting. Once again the School Committee has failed us.

The real whopper comes on Page 20, where we read that the MA CHPS program requires strict anti-idling measures to reduce diesel emissions, and no maintenance of buses during school hours. “These measures are CHPS prerequisite and must be achieved in order to qualify for any CHPS points.” As their authority they cite the 2009 Edition Criteria for New Construction, Major Constructions, MA CHPS, pages 9, 13, and 166. This entire 206 page document is available for free downloading at: <http://www.chps.net/dev/Drupal/node/34> if you sign up for a free account with them. For convenience, I’ve attached those three pages here, along with page 167.

I find no indication in the CHPS document that an absolute anti-idling requirement must be satisfied to get any CHPS Points. On Page 166 and Page 167 I find a much less stringent requirement on bus idling than the School Committee would have us believe. In the whole document I find no restriction of maintenance work during school hours, as is heavily asserted on the presentation’s pages 21-23, nor any mention at all of the “electric block heaters”. How do they make this stuff up?

On pages 23 and 24, and again on page 39, the School Committee tells us that “If a depot were located on campus and we do not follow the bus operation criteria, we would put at risk not only the MA CHPS Verified Leader designation and the +/- \$1.6 mm in additional MSBA reimbursement, but also the \$28 mm in MSBA reimbursement.” I haven’t found any support for this scare story in the MA CHPS document. Can the School Committee point me to the page and lines where this wild assertion can be found?

The presentation next looks at nine individual parts of the campus in their effort to rule them all out. But their discussion does not include the place where the transportation facility has stood for decades, until they destroyed it last week. I

have previously explained both here and in the Concord Journal, in August, why they never had to get rid of our existing facility, a facility that would not have required all those special permits because of the standard policy of “grandfathering” an ongoing operation.

They do admit that location “H”, over the old dump that is to be remediated by 2018, would not have a problem with its impermeable area. Their remaining objections to the use of it for parking and possibly maintaining or even refueling the buses are just made up. Increased interim transportation costs? We estimate that even using the nearby Town Landfill site will cost us \$35,000 to \$40,000 extra per year. That is enough to justify putting the facility back on the regional school property after the old dump is remediated, and after all the CHPS points have been counted, and after the MSBA has written their last check to us. And we will have five years to get the necessary permits.

One more interesting assertion appears on page 37: “No ability to create landscape buffer due to clay layer of landfill remediation (cannot be penetrated)” But a buffer to minimize sight and sound of the facility we need would go UP, not DOWN, and would not have to penetrate the cap over the dump.

The “summary” on page 40 instead introduces a new issue, an argument to build a depot now on the former Town Landfill. That is an excellent recommendation! It is even better when we consider the option of moving the bus services, some or all of them back onto the campus in 2018. Even if we move just the parking lot, we can reduce the extra costs by 80% or 90% by needing to go back and forth across Route 2 just one day a week, instead of twice a day. When we move back onto the campus our neighbors at Walden Woods and in Lincoln will also be pleased.

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Overview

MA-CHPS Criteria

The Commonwealth of Massachusetts recognizes the increasing demands on financial and natural resources to support the renovation and construction of its public schools. Therefore, the Commonwealth, with CHPS, has embarked on a program to encourage the design and construction of schools known as “high performance, green schools” to ease the energy, water, materials, and financial burden of building educational facilities for students.

The MA-CHPS Criteria explicitly defines a high performance school. The MA-CHPS Criteria was developed to take advantage of New England climates, school needs, state codes and regulations, and environmental priorities of the region by Massachusetts stakeholders. When first published in 2001, in California, the MA-CHPS Criteria established the nation’s first building rating program created to specifically facilitate the design of school learning environments that are healthy, comfortable, energy, resource, and water efficient, safe, secure, adaptable, and easy to operate and maintain. The MA-CHPS Criteria was first published in 2006 and will be updated every three years to take advantage of the latest strategies and tools for high performance schools.

Schools that meet the MA-CHPS Criteria are environmentally sustainable and healthy places of learning that demonstrate that while high performance technologies may be new, they need not be complicated, expensive or unreliable. CHPS schools are saving their school districts money through energy and water utility savings and increasing occupant health and productivity. Quite simply, a CHPS school belongs to the next generation of schools.

A high performance green school is designed to optimize the durability of the facility and to utilize high efficiency, “right sized” heating, ventilating, and air conditioning equipment and lighting systems. Where possible, glare-free daylight is brought into the school to enhance the learning environment. The building shell integrates the most effective combination of insulation, glazing, and thermal mass to ensure energy efficiency, and plumbing fixtures are specified to reduce water consumption. Together, these measures significantly reduce the operational costs of running the school building. It is reasonable to assume a 20%-40% cost savings in utility bills versus a non-green building of the same size and shape.

A high performance green school is thermally, visually, and acoustically comfortable. Thermal comfort means that teachers, students and administrators should neither be hot nor cold as they teach and learn. Visual comfort means that the quality of lighting makes visual tasks, such as reading and following classroom presentations, easier. Acoustic comfort is achieved when students and teachers can hear each other and are not impeded by loud ventilation systems or noise from adjoining spaces.

High quality indoor air is another important feature of a green school. Air intakes are located away from potential sources of contamination and ventilation systems are designed to optimize fresh air. Architects and engineers incorporate best design practices to prevent water intrusion into wall and roof assemblies. This, in turn, prevents the accumulation of moisture in materials that could support mold growth or lead to premature replacement of indoor finishes and even structural elements.

A high performance green school has an environmentally responsive site. To the extent possible, the school's site conserves existing natural areas and incorporates them into the curriculum. Stormwater runoff is minimized and/or captured on site for irrigation or flushing water closets. The site is accessible to bicycle and pedestrian traffic and is conveniently located for community activities.

While operational savings, environmental stewardship, and community-building are attractive benefits, it is important to emphasize that, above all, a high performance green school provides an environment that enhances the primary mission of public schools: education of future citizens.



Overview

50 points can earn as many as 14. The more credits a building earns, the better it is, but the MA-CHPS Criteria is a pass/fail system requiring a minimum score of 40.

A new school may be recognized as a MA-CHPS Verified Leader, a higher level of recognition for school projects that perform well beyond minimum eligibility requirements. MA-CHPS Verified Leaders should be MA-CHPS Verified, and have inspirational designs that incorporate their high performance features into architectural expression. The school should be an image of environmental and social responsibility, and must be balanced in providing benefits to the environment, student health and student performance. A MA-CHPS Verified Leader must meet all of the prerequisites and earn at least 50 points. To ensure the school is balanced across high performance priorities the project must at minimum:

- Claim two (2) points in the Integration and Innovation (II) categories,
- Claim five (5) points in each of the Site (SS), Water (WE), Materials and Waste Management (ME) and Indoor Environmental Quality (EQ) categories,
- Claim ten (10) points in the Energy (EE) category, and

New replacement campuses are subject to “New School Construction” requirements. A replacement campus project is defined as the replacement of all buildings on an existing school site, with completely all new buildings.

Renovations (with or without additions to existing buildings)

Renovations are defined by a substantial improvement to a school in at least two of the following: lighting, HVAC, building envelope systems and/or interior surfaces. A substantial improvement is when more than half the system or surfaces are being replaced or upgraded.

There are two levels in which a renovation may qualify as a high performance school.

In order to qualify as a high performance school, a major renovation may be recognized as MA-CHPS Verified if it meets all of the prerequisites based on the scope of the project, and earns at least 35 points, with a minimum of 2 points from the Energy (EE) category, and no more than 4 points from the Integration and Innovation (II) category. A project may earn more than 4 points from the Integration and Innovation (II) category once it has reached the 35 point minimum. For example, a project that earns 35 points can only receive 4 of them from Integration and Innovation (II) category, however a project that earns 45 points can earn as many as 14. The more credits a building earns, the better it is, but the MA-CHPS Criteria is a pass/fail system requiring a minimum score of 35. The prerequisites required for major renovations are outlined in *Table 2. Prerequisite Applicability for Major Renovation Projects*.

A major renovation may be recognized as a MA-CHPS Verified Leader, a higher level of recognition for school projects that perform well beyond minimum eligibility requirements. MA-CHPS Verified Leaders should be MA-CHPS Verified, and have inspirational designs that incorporate their high performance features into architectural expression. The school should be an image of environmental and social responsibility, and must be balanced in providing benefits to the environment, student health and student performance. In order to be a MA-CHPS Verified Leader, a Renovation/Addition project must meet all of the prerequisites and earn at least 45 points. To ensure the school is balanced across high performance priorities the project must at minimum:

- Claim one (1) points in the Integration and Innovation (II) categories,
- Claim three (3) points in each of the Site (SS), Water (WE), Materials and Waste Management (ME) categories and Indoor Environmental Quality (EQ) category,



Operations and Maintenance

OM.P2: Anti-Idling Measures

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Intent: Prevent idling that pollutes the air, wastes fuel, and causes excess engine wear.

According to the U.S. Environmental Protection Agency (U.S. EPA), exposure to diesel exhaust, even at low levels, is a serious health hazard and can cause respiratory problems such as asthma and bronchitis. Diesel emissions are well-documented asthma triggers and may increase the severity of asthma attacks. Asthma is currently the leading cause of missed school days for American children, and asthma affects more than 1 in 9 children in New England. (Source: Asthma Regional Council):

www.asthmaregionalcouncil.org/about/documents/SchoolBusNoIdlingPolicy7.29.04.doc.

Requirement

1 point

OM.P2.1 Adopt a no idling policy that applies to all school buses operating in the school district and all vehicles operating in the school zone. The policy must include the following provisions:

- School bus drivers will shut off bus engines upon reaching destination, and buses will not idle for more than five minutes while waiting for passengers. This rule applies to all bus use including daily route travel, field trips, and transportation to and from athletic events. School buses should not be restarted until they are ready to depart and there is a clear path to exit the pick-up area.
- Post signage expressly prohibiting the idling of all vehicles for more than five minutes in the school zone.
- Transportation operations staff will evaluate and shorten bus routes whenever possible, particularly for older buses with the least effective emissions control.
- All school district bus drivers will complete a “no idling” training session at least once. All bus drivers will receive a copy of the school district’s No Idling Policy at the beginning of every school year.

Implementation

The complete compliance requirements are listed in the MA-CHPS Verified Application Templates.

Massachusetts’s law prohibits vehicle idling for longer than five minutes with certain restrictions.

See M.G.L. Chapter 90, Section 16B, Stopped Motor Vehicles as written below:

Section 16B. (a) For the purposes of this section, the term “school grounds” shall mean in, on or within 100 feet of the real property comprising a public or private accredited preschool, accredited Head Start facility, elementary, vocational or secondary school whether or not in session, and shall include any athletic field or facility and any playground used for school purposes or functions which are owned by a municipality or school district, regardless of proximity to a school building, as well as any parking lot appurtenant to such school, athletic field, facility or playground.

(b) No person shall cause, suffer, allow or permit the prolonged idling of a motor vehicle engine on school property in violation of registry of motor vehicles regulations relative thereto, adopted pursuant to subsection (c). An operator or owner of a motor vehicle who violates this section shall be subject to a civil assessment of \$100 for the first violation and

Operations and Maintenance

OM.P2: Anti-Idling Measures

\$500 for a second or subsequent violation. This subsection shall be enforced by law enforcement agencies.

(c) ~~The registrar of motor vehicles, in consultation with the department of education, the department of environmental protection, the executive office of public safety and the executive office of health and human services, shall adopt regulations to implement this section. Such regulations shall include, but not be limited to, establishing the length of time an operator on school grounds may idle an engine before such idling becomes prolonged, and the limited circumstances under which the prolonged idling of an engine shall be permitted, including periods necessary to operate defrosting, heating or cooling equipment to ensure the health or safety of a driver or passengers or to operate auxiliary equipment and to undergo inspection or during maintenance.~~

~~Such regulations shall prohibit an operator of a school bus from idling a school bus engine while waiting for children to board or exit a bus on school grounds and from starting a school bus engine for any unnecessary period of time in advance of leaving the school grounds, unless the registrar determines that a school bus engine must be fully engaged in order to operate safety devices or that such idling prohibition would otherwise compromise the safety of children boarding or exiting a bus. Such regulations shall further prescribe templates for "no idling" signage to be posted by schools.~~

Applicability

This credit applies to all projects.

Resources

The Asthma Regional Council offers a number of tools for the school district to use for its anti-idling program, including a model policy: www.asthmaregionalcouncil.org/indoor-and-ambient-air-quality

The Massachusetts Department of Environmental Protection offers training to help school bus drivers and municipal employees eliminate unnecessary idling. See the following link for more information: <http://www.mass.gov/dep/air/community/schbusir.htm> DEP also has a variety of tools for school districts, including fact sheets, sample language for signage, sample newsletters, policy statements, and information on bus routing software