

The Lincoln School Project is complex and involves balancing many community needs and priorities. The School Building Committee knew that it would benefit from the work and expertise of other Town boards, and so invited a number of them to share their knowledge and priorities. Over the course of two SBC meetings, the Committee gained the following insights from eight boards. The SBC will continue to work with these boards and with others including the Community Center Preliminary Planning & Design Committee (PPDC), the Finance Committee, the Capital Planning Committee, and the Board of Selectmen.

Water Commission

RuthAnn Hendrickson, presenter

- All the water in Lincoln flows out of its aquifer, none flows in. The Massachusetts Department of Environmental Protection (DEP) sets a limit on how much water we pump out of our reservoir, and we are always over,
- All the plumbing and appliances in the school should be “low-flow/WaterSense certified.”
- Currently the outside landscaping is not irrigated, and that should continue.
- Part of the DEP’s assessment of our water use has to do with how water is returned to the aquifer; that water must be clean.
- Paved surfaces should be permeable.

Parks and Recreation Department

Dan Pereira, Director, presenter

There are current aspects of the school campus Parks & Recreation wants to maintain:

- The current number and capacity of the playing fields.
- The swimming pool, 6 clay tennis courts, and multi-sport court.
- Access to the gymnasiums for school and community use.
- Access to the auditorium.
- The restroom at the back of the Smith School that can be accessed after 3:00pm.

There are additions to the recreational facilities that are on the PRD “wish list”:

- They could use one more playing field to accommodate capacity and provide the opportunity to rest fields.
- Alternately, could there be grass space that are not athletic fields that could be used for recess? This would cut down on the use of the playing fields.
- More rest-room facilities for after-hours use; hydration stations at convenient outdoor locations.
- A more cohesive sidewalk system would make it easier to move children and adults around campus, especially in the winter.
- Safe cycling routes onto campus; bike racks in convenient locations.
- If we maintain two gyms, they could use an all-purpose, “hardy-use” space that can take a lot of use and be separated from the school for community use.
- Controlled access to the auditorium for after-hours use.
- Kitchen spaces and cooking spaces that can be used by the community.
- A fitness center for equipment such as Nautilus machines that could be used before or after school; controlled access to separate community and school use.
- Sufficient, well-pace parking with safe walkways to the school.
- Good construction planning.

Lincoln Historical Commission (LHC)

Andrew Glass and Doug Adams, presenters

The SBC had asked the LHC to talk about whether there are parts of the campus that are “historically or architecturally significant,” and if so, why. The LHC considered three elements as having significance:

1. School Campus Layout: The Lincoln School grew organically around the center field, the historic baseball field that was donated to the Town. The arrangement of low, horizontal buildings defines a strong sense of place. The LHC thinks the Hartwell portion of the campus could have a building that augments the definition of the campus.
2. Smith School: Both Smith and Brooks are both modern buildings. Modernist architecture is important to the history of the Town, and helped shape the look of the Town and School; integration of natural and built environment; Over 300 modern residences throughout town, including Walter Gropius’s House and Marcel Breuer’s house;
 - Smith School was designed by Lincoln resident Lawrence Anderson, Dean of Architecture and Urban Planning at MIT. One of the first schools in the nation to use modern design principles. Many of these principles translate to today’s designs:
 - The connection to the outdoors through windows
 - Attention to how daylight enters the building; Anderson devised an innovative sun-break that separated the upper and lower windows. It helped mitigate the strong morning/afternoon sun that came into the classrooms due to north/south orientation of the building. The use of natural daylight reduced the reliance on electricity. The sun breaks were removed a number of years ago;
 - The gable roof, with the longer side towards field, creates an encompassing gesture that brings the scale of the building down
 - One-story classroom portions surrounded the 2-story volume of the gym, shielding the larger volume of the gym and bringing down the scale of the building.
 - In the 1940’s the Town chose to build a more costly pitched roof rather than the flat roof proposed by Anderson, and opted not to build a dedicated cafeteria/kitchen, a feature that the School complex still lacks today.
3. Brooks was designed by Lincoln resident Henry Hoover, who designed many residential and civic buildings in Lincoln. The building incorporates important modern principles:
 - The visible expression of the structure of the building, i.e. wood beams that show how the building works
 - The use of one story buildings to mitigate the volume of the two story Auditorium.
 - The LHC notes that the Brooks Auditorium has significance as a gathering place for Town functions.

Other Observations:

- The LHC notes the harmonious effect of the use of brick and wood throughout the school complex.
- The LHC does not believe the 1994 “link” building shares the same important architectural features as the Smith and Brooks buildings, and thus does not consider that portion of the building to be architecturally significant.
- Although the Hartwell Building and Pods share some of the features of the Smith and Brooks buildings, the LHC does not consider them to be as architecturally significant.
- The LHC hopes that the SBC and SMMA/EwingCole develop a plan for the school that is compelling, bold, visionary, and that creates new designs that take into account the best historic elements

Public Safety

Police Detective, Ian Spencer, presenter

High-level goals:

- Public Safety's first priority is that we maintain the campus as a safe space for all users.
- The first priority of the school building is education.
- The campus serves as a town center that is used day and night by the community; about 16 hours/day.
- There is a delicate balance between different aspects of the building and campus.
 - Currently there is easy access to the outdoors, as each classroom has a door to the outside; It is possible to empty the building in 2.5 minutes. The flip side of having all those doors, is being able to keep the perimeter of the building secure for those on the inside.
- This is a long-term project, so it is important to "bake in" as many of our security measures as possible:
 - Ensure clear sight lines so that police can monitor entrances as they drive by; currently bushes obscure the view.
 - The lack of vestibules at entrances makes it very difficult to control entry to the school.
 - Parking: currently there is no clear way to direct people from parking to the entrances.
 - There is no connection between the Brooks school and the gym.
 - Emergency access to the back of the school is limited. It is possible to take police cars around the building when the ground is dry, but that is not possible year-round. Also, there is no way for an ambulance or a fire truck to gain access to the back.
 - Separation of "public" and classroom spaces; i.e. once the public gains access to the auditorium, they have access to whole school. There should be a way to shut off the auditorium from the classrooms.
 - Could there be natural barriers and/or signage that would tell the public they are entering a school campus?

Planning Board

Gary Taylor, presenter

Important to develop a master plan that accommodates all the uses of the site, even if it is a plan that is carried out over time.

The Planning Board believes that the following principles are key to the campus projects:

- Flexibility of the Site: Accommodate multiple uses including academic, recreation, and community oriented uses.
- Flexibility of Facilities; Try to anticipate for flexibility for the next 50 years; educational principles have changed significantly since 1947, and at times the school has served over 700 students. How do we plan for fluctuations?
- Amenities: Provide easily maintainable amenities such as bike racks, benches, play space, and tennis courts.
- Connectivity: Provide safe vehicle, pedestrian and bike routes for adults and children; year-round connections so that children don't have to walk through parking lots; traffic and parking safety are key.
- Efficient use of town sites: Could there be parking for the school buses? This could free up other Town spaces for redevelopment.
- Energy efficiency: Sustainability and energy efficiency are Lincoln priorities; in 2008 the Town voted for a warrant article that set aggressive energy reduction targets. If a proposed building project isn't meeting them, they must explain why to the BOS and get approval to move forward.

- Encourage Low Impact Development (LID): Use rain gardens and native plantings to control drainage from buildings and parking lots.

Green Energy Committee

Ed Lang, presenter

This is an opportunity for Lincoln to set an example and do something bold. The goal is a project that is achievable and affordable; which will require a lot of attention to detail.

The Green Energy Committee (GEC) has the following priorities and recommendations:

- Independent Energy Expert: Hire an independent energy expert with experience achieving very low energy use to: expand and evaluate energy design alternatives; verify energy and financial ROI calculations; assess along the way; analyze energy model results and track expected reduction.
- Energy Reduction: Reduce the total energy needed to operate the buildings. This means aiming for the lowest possible Energy Use Intensity (EUI) for both the school and the community center.
 - $EUI = \text{Total energy consumed for the year} / \text{square footage}$
 - Create the best possible building envelope: This means proper solar orientation, maximum insulation, high quality windows, and ensuring good ventilation (windows can be operable).
- Active Energy Use: After establishing the building envelope, focus on reducing active energy, i.e. HVAC equipment and plug-in equipment.
- Generate Electricity: Add solar PV to generate electricity.

Conservation Commission

Peter von Mertens, presenter

Conservation, along with the Planning Board, has a permitting role later on in the project.

The Conservation Commission agreed on the following set of considerations:

- There is a perennial stream that runs north/south on the eastern side of the site and an intermittent stream that runs east/west that is located north of the school building.
- A 2-story buildings would free up more open space and be more efficient.
- Solar on roofs and over parking lots.
- Create dedicated garden spaces that are at visible from the classrooms.
- Utilize bio swales, rain gardens and cisterns to control the flow of water; the school is close to many wetland areas and streams. Because the land on the campus is already disturbed, Conservation is less concerned about set-backs, and more concerned about how the water flows off of hard surfaces. This water goes into our own drinking water and the Cambridge reservoir, so it is important to improve water quality.
- Continue the current practice of minimal pesticide use.
- Capture rain-water, and do it visibly so that it's possible to see the cycle and how it's used.
- Improve access to the north side of the campus; could this be outdoor classroom space
- View-scapes are important.
- Control invasive plants, i.e. poison ivy
- Consider geothermal or air-sourced heat pumps.
- Provide areas for composting.
- Create a park-like area for quiet socializing; shaded areas for summer activities.
- Consider landscaping/roadway solutions for the area between Hartwell and the Center Field.
- Make the wetlands walkway into a full circuit that allows students and others to experience the wetlands, fields and woods all in one walk.
- Good pathways around the campus.

- Make this an exciting building!

Commission on Disabilities

John Ritz, presenter

The state originally enabled the creation of Disabilities Commissions to help Towns to implement the Americans with Disabilities Act and state accessibility laws. The laws are written as civil rights laws, which means that there is no enforcement at the time of building, but that there is considerable risk and liability if people choose to make a claim after something is built/renovated.

- Brooks has always been out of compliance, as were most buildings built at the time. For example, to retrofit Brooks, every door would have to be removed and the openings widened.
- A compliant school is not just about the students, but about faculty, families, and the community.
- The Massachusetts Office on Disabilities will send someone out to audit a building after it is done, and provide feedback on whether or not it is in full compliance.
- "Doing it right" is much less expensive than law suits.
- A variety of issues should be considered. For example, lighting needs change at different times of life, so different types of outdoor lighting may be needed to ensure safety.
- It is important to consider ease of long-term maintenance.