ASSUMPTIONS

• LEAP and Maintenance (shop and storage) must continue to be accommodated on site in existing Pods or otherwise. Feedback was received from the community that it was important for the town to understand the cost for renovating any remaining Pods in conjunction with the cost for the community center building and other improvements on Hartwell. Therefore even though LEAP and Maintenance are not part of the community center project, their construction cost is included in all estimates as a separate line item.

• The Hartwell building will remain and continue to house Lincoln School functions, Magic Garden, and Lincoln School offices.

• 100-110 Parking spaces are needed on or near the Hartwell site to accommodate existing functions on Hartwell and the new community center. (See Parking Analysis on the following page)

• No parking should be located behind Hartwell in Strats Place (south side of Hartwell).

• Further study is necessary to discuss the feasibility of an additional campus vehicular entrance off of Lincoln Road. An additional entry could be accommodated in all schemes. The feasibility of this will need to be explored further before being evaluated with the Town, School and Community.
Current Lincoln COA parking at Bemis:

<table>
<thead>
<tr>
<th>Building</th>
<th>Participants</th>
<th>Spots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Church</td>
<td>36</td>
<td>55</td>
</tr>
</tbody>
</table>

Parking at COA facilities:

<table>
<thead>
<tr>
<th>COA</th>
<th>Avg Participants</th>
<th># Spots</th>
<th>Ratio: 1 spot / # Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belmont</td>
<td>250</td>
<td>64</td>
<td>1 spot / 3.91 participants</td>
</tr>
<tr>
<td>Wellesley</td>
<td>175</td>
<td>54</td>
<td>1 spot / 3.24 participants</td>
</tr>
<tr>
<td>Average</td>
<td>1 spot / 3.57 participants</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lincoln COA data and projected data:

Daily Participants Current: 40 participants/day
(20 in morning, 20 in afternoon)

Peak attendance programs a few times a year: 130 participants
Peak attendance programs weekly or bi-weekly: 40-60 participants

Daily Participants Projected with new building:

250% projected increase with new building: 100 participants/day
(50 in morning, 50 in afternoon)

Lincoln COA New building parking need:

100 participants/day × 1 spot / 3.57 participants = 28 parking spots

Parking projected need for programs on Hartwell site:

62 existing
28 additional for COA
10 to 20 to alleviate for existing crowding

100 to 110 spots needed on or near Hartwell site

Lincoln Community Center

Assumptions - Parking

Maryann Thompson Architects

741 Mount Auburn St, Watertown MA 02472 Telephone: 617 491 4144 Fax: 617 491 3844

January 30, 2018
GUIDING PRINCIPLES (what we have heard)

- Sustainability
- Natural light and views
- Connection between interior and exterior
- Parking must be adjacent and convenient to the COA entrance.
- Spaces should have a cozy-modern feel
- Casual gathering should be intimate and varied with nooks versus large open space
- Exterior gathering spaces in relationship to the building
- Acoustics and sound control important throughout
- Building should have a nexus or center of activity where paths cross
- COA needs casual gathering space that is not shared
- Improve the overall condition of the wetlands and
  river front within the Hartwell area
- Use of natural materials to humanize contemporary architecture
- Building and site in harmonious relationship.
- Parking is ideally located behind the building and not within a primary view.
Precedent: Connection Between Interior & Exterior

MaryAnn Thompson Architects

Lincoln Community Center
Precedent: Natural Light and Views
Precedent: Intimate Spaces with Nooks
Precedent: Exterior Gathering Spaces in Relationship to the Building
Precedent: Using Natural Materials to Humanize Contemporary Architecture
Precedent: Building and Site have Harmonious Relationship
SUPER-INSULATION
8-1/2” insulation in the walls and 9-1/2” insulation in the ceiling will give us R-40 in the walls and R-60 in the roof, which keeps the building warmer in the winter and cooler in the summer. Super insulation allows for a smaller heating and cooling plant for the building, and less energy use.

TRIPLE-PANED WINDOWS
Highly efficient triple-paned windows should be used throughout the building to create a more responsible building envelope. Triple-paned windows help to keep the heat inside in the winter and keep the heat outside in the summer.
SOUTH-FACING BUILDING

Large windows opening to the South allow for this is a “passive solar strategy.” A thermal mass inside the building is an added benefit for storing the sun’s heat. Packing the north side of the building with closets, storage, and smaller windows keeps the cold out.
OVERHANGS

Using large overhangs and tree canopies to help shade the south-facing glass helps prevent the building from overheating in the summer. Overhangs are sized to let light inside in the winter.
DAYLIGHTING STRATEGY
The use of large windows allows the building to be lit during the day by natural sunlight rather than artificial light.
LED LIGHTING
All lighting should be highly efficient LED lighting, which lowers the energy consumption of the building. We can now get LED lighting in warmer tones.
SUSTAINABLE WOOD

Forest Stewardship Certified (FSC)
All wood in the project should be FSC (Forest Stewardship Certified) or harvested from Massachusetts forests. FSC means the wood is not from the rainforest.

Heat-treated Wood
Local woods such as Ash and Maple can be heat-treated to perform like rainforest woods such as Mahogany and Teak. The heat treating gives the wood a “campfire smell.”

Re-use of Wood from Site
Furniture such as information desks, benches, and conference tables can be fabricated from trees removed for building and parking construction sites.
CROSS VENTILATION

The building should be designed to be cooled by natural summer breezes versus air conditioning to promote cross ventilation. Ceiling fans can help promote evaporative cooling and cross ventilation. The use of operable windows allow breezes to pull through the building (through the stack effect), decreasing the number of days requiring air conditioning.
SOLAR HOT WATER SYSTEM
(also known as a solar thermal system) A solar water system can provide the hot water needs for the building.
SOLAR PHOTO-VOLTAIC SYSTEM

A photo-voltaic array can cover parking areas, provide shade for parked cars in the summer months, and provide the electric needs of the building. It can also be located on a south-facing roof.

ALL ELECTRICAL

If solar photo-voltaic systems are used, then a building with an all-electric system can easily be net-zero energy. If not labeled “net-zero,” the building can also be considered “fossil-fuel free.”
HEAT PUMPS

Ground source geo-thermal heat pumps, or air-to-air heat pumps, should be used because they are so energy-efficient.