Citizen School Transportation Committee

To search diligently for ways to maintain the existing bus transportation department.

Public Hearing

August 16, 2012
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<th>Email</th>
</tr>
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<tbody>
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</tbody>
</table>
Presentation Agenda

- CTC charge
- Five Areas of Research
  - Safety
  - Social Factors & Intangibles
  - Level of Service
  - Cost Analysis
  - Potential Sites
- Next Steps
- Citizen Comments
CTC Charge

To search diligently for ways to maintain the existing bus transportation department.
Areas of Research

- Safety
- Social Factors and Intangibles
- Level of Service
- Cost Analysis
- Potential Sites
FACT: School buses are the safest mode of transportation for getting children back and forth to school.

SOURCE: U.S. DEPARTMENT OF TRANSPORTATION

STUDENT FATALITIES
ANNUAL AVERAGE DURING NORMAL SCHOOL TRAVEL HOURS

TRAVELING BY
TEEN DRIVER (58%) (23%) TRAVELING BY
ADULT DRIVER

TRAVELING BY SCHOOL BUS (1%)

NHTSA FARS 2001-2008 (FINAL), 2009 (ARF)
Bus Safety

- Driver Training
- Bus Inspection
- Accidents
- Driver Turnover
- Level-of-Service
Bus Safety

Driver Training

- 8 hours required
- 12+ hours offered provided
  - Bus Evacuation
  - First Aid
  - Bullying
  - Maneuvering
## Bus Safety

### Bus Inspections

<table>
<thead>
<tr>
<th>Location</th>
<th>% Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS, CCHS</td>
<td>18</td>
</tr>
<tr>
<td>Fitchburg, First Student</td>
<td>62</td>
</tr>
<tr>
<td>Sudbury, First Student</td>
<td>40</td>
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</table>
# Bus Safety

## Bus Accidents

<table>
<thead>
<tr>
<th>Location</th>
<th>Proportion Caused by School Bus Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concord</td>
<td>0.31</td>
</tr>
<tr>
<td>Lincoln</td>
<td>0.50</td>
</tr>
<tr>
<td>Sudbury</td>
<td>0.21</td>
</tr>
<tr>
<td>Carlisle</td>
<td>0.50</td>
</tr>
<tr>
<td>Bedford</td>
<td>0.56</td>
</tr>
<tr>
<td>Lexington</td>
<td>0.47</td>
</tr>
<tr>
<td>State Total</td>
<td>0.24</td>
</tr>
</tbody>
</table>

Massachusetts Registry of Motor Vehicles records of school bus accidents 2002-2010
Bus Safety

Annual Turnover

- **In-house bus services:**
  - Concord 8% (4% prior to 2010)
  - Foxboro 4%
  - Cohasset 2%

- **Private bus service:**
  - First Student 10%
<table>
<thead>
<tr>
<th>District</th>
<th>Enrollment</th>
<th>Routes</th>
<th>Stops</th>
<th>Students per stop</th>
<th>Stops per route</th>
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</thead>
<tbody>
<tr>
<td>CCHS</td>
<td>1209</td>
<td>43</td>
<td>600</td>
<td>2.02</td>
<td>13.95</td>
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<tr>
<td>Concord k-8</td>
<td>1991</td>
<td>95</td>
<td>1595</td>
<td>1.25</td>
<td>16.79</td>
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<tr>
<td>LSRHS</td>
<td>1601</td>
<td>34</td>
<td>563</td>
<td>2.84</td>
<td>16.56</td>
</tr>
<tr>
<td>Sudbury k-8</td>
<td>3102</td>
<td>59</td>
<td>1332</td>
<td>2.33</td>
<td>22.58</td>
</tr>
<tr>
<td>Lincoln k-8</td>
<td>1149</td>
<td>14</td>
<td>266</td>
<td>1.90</td>
<td>19.00</td>
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</tbody>
</table>
Social Factors

What makes the Concord School Bus System work?

Personnel
Location
Ownership
Service
Social Factors

Personnel

- Bus drivers
- Mechanics
- Manager
- Support Staff
- Students
Social Factors

Location on School Property

• Site is secure.
• There is adequate work space for drivers and staff.
• Extra travel time and fuel is minimized.
• Maintenance can be done on site.
• Buses are readily available in case of emergency.
Social Factors

Ownership

• Buses are owned by the school districts.
• Drivers take pride in ‘their’ buses.
• As part of the school community the staff is responsible for and takes pride in the quality of the bus system.
Social Factors

Service

- Drivers and managers know the roads and set the routes.
- Safety is a major factor in setting the routes.
- Maintenance is done on site and is less expensive.
- Support staff are quick to respond to parental concerns.
Social Factors

The Question Before Us
As the district considers other options, how important are the following?

- Service.
- Continuing to own our buses.
- Doing our own maintenance.
- Location within Concord.
- Retaining staff as employees.
- Keeping the divisions of the transportation staff together.
The Inconvenient Truths

- September will come year after year.
- There will always be students.
- There must be school buses.
- Fuel costs money and drivers expect to be paid.
- The taxpayer will pay for transportation whether it is run by the schools or contracted to a private company.
Other Uses of Transportation System

- Buses NOT just for getting to school
- Extra-curricular activities
  - field trips;
  - athletics;
  - late buses;
  - private schools; and
  - Concord Recreation summer camp
- Local Emergency Preparedness
Social Factors

Local Emergency Preparedness

- Overseen by the Local Emergency Planning Committee and the Fire Department

- Procedure manual
  - Event
  - Building (location)
Social Factors

Local Emergency Preparedness

- Need to move people
  - Ambulance
  - Vans
  - CPS and the CCHS buses (also shelter in place)
- Procedures in place
- An example
## Social Factors

### Local Emergency Preparedness comparison

<table>
<thead>
<tr>
<th>Town</th>
<th>Bus</th>
<th>LEP Plan</th>
<th>Uses Buses</th>
<th>Buses Located</th>
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</thead>
<tbody>
<tr>
<td>Concord</td>
<td>Town</td>
<td>Yes</td>
<td>Yes</td>
<td>Concord</td>
</tr>
<tr>
<td>Carlisle</td>
<td>Bedford Charter</td>
<td>No</td>
<td></td>
<td>Bedford</td>
</tr>
<tr>
<td>Acton</td>
<td>Town</td>
<td>Yes</td>
<td>Yes</td>
<td>Acton</td>
</tr>
<tr>
<td>Bedford</td>
<td>Bedford Charter</td>
<td>Yes</td>
<td></td>
<td>Bedford</td>
</tr>
<tr>
<td>Lexington</td>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
School Transportation

- Our approach is to ensure an “apples-to-apples” comparison of in-district vs outsourcing costs
- In-district Expenses and Projections through 2015
- Invitation For Bid data from November and April
- Published school administration cost analysis
Initial Conclusions

- Significant cost drivers in administration projections for in-district cost include:
  - Personnel benefits
  - Bus replacement
    - 8 buses are included in both 2014 and 2015, at a cost of $760,000 each year
  - Transportation facility replacement
    - Worst-case estimate of $2,000,000 is included
Cost Analysis

Bus Replacement

- Current fleet consists of 36 buses purchased between 2000 and 2010
  - Average mileage per bus is 66,000 miles
  - Expected useful life is 200,000 miles
- Current projections assume bus replacement of 16 buses in 2014 and 2015
Current new high school building plans eliminate existing bus depot

Cost estimates by school administration of $2M to replace transportation infrastructure on an alternate site
- Purchasing land and replacing 2 buildings and fuel depot as well as bus parking and security
Cost Analysis

Next Steps

- Additional questions for administration
- Attempt to project 10 year costs for in-district service
- Attempt to develop range of cost estimates for vendor-provided service based on third-party studies
Cost Analysis

Current Facility

- Approximately 2 acres
- 60 x 65 three bay maintenance building
- 24 x 60 modular office building includes:
  - day room/training room
  - 2 offices
  - reception area
Cost Analysis

Current Facility

- 5000 gallon fuel tank and pumping station
- Safety fencing and lighting
- Additional buildings

Kate Damon
Cost Analysis

Facility Replacement

Single Building Solution for maintenance and administration
Approximately 4,800 square feet (60x80)

- 2/3 bays
- office space
- day room/training room
- reception area
- restroom facilities
- storage area

Rough estimate cost for above structure:
$480,000-$600,000 start to finish (foundation thru building completion)
Cost Analysis

Facility Replacement

Additional costs and variables that are site dependent

- Land costs
- Site preparation (cleaning, draining)
- Utility hook-up
- Septic work
- Security (lighting, fencing)
- Paving - rough estimates of $185k - $250k for 2 acre lot grading and paving only
Potential Sites

Current ‘Best’ Options

Concord-Carlisle Regional High School

Current location:
pro: no replacement costs
con: new high school siting

Elsewhere on property:
pro: no land costs
con: replacement costs

*RSC 5/22/12 vote to exclude site from consideration by TAC
Potential Sites

Current ‘Best’ Options

Town of Concord old Landfill

pros: no land purchase costs
location is excellent
not in water conservancy district

cons: site prep costs
replacement costs
Potential Sites

Other Option?

Concord Public Schools, Sanborn property

pros: no land costs
      large enough to accommodate 2 acre depot

cons: in a water conservancy district
      location not optimal for routes
      impact on school and neighbors
      site preparation costs
      replacement costs
Potential Sites

Other Option?

W R Grace land *
*not a possibility until/unless purchased by Town

pros: no residential neighbors
large enough to accommodate 2 acre depot

cons: location not optimal for routes
site preparation costs
environmental issues
Incorporate what we learn this evening into our work.
Finalize research.
Prepare next Public Hearing presentation.
Write a report with recommendations.
Present to the School Committee on October 2\textsuperscript{nd}.
Citizen School Transportation Committee

Schedule

Committee Meetings
August 30, 7-9:30pm Harvey Wheeler Center
Two additional meetings in September, to be scheduled

Public Hearing
September 13, 7-9:00pm, Concord Town House

Presentation to School Committee
October 2, 6:30pm, CCHS Library
Citizen School Transportation Committee

Thank you!

Rick Anderson
Ray Bruttomesso
Louise Haldeman
Kate Damon

Lisa Bergen
Abe Fisher
Mark Hanson
We welcome your comments on our work as shared in this presentation. As a reminder, the areas of research presented are:

- Safety
- Social Factors and Intangibles
- Level of Service
- Cost Analysis
- Potential Sites