

Volume 3: Appendices

Town of Needham, MA 2014 Facilities Master Plan



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1. PROGRAM SUMMARIES

Schools and School Administration



Programming Questionnaire
Administrative Areas

School Department

Please provide as much information as possible for each section of the following questionnaire. You may not have an answer for every question but please do your best. The information will be used during the Master Planning programming effort for your department, division or group. Thank you for participating.

Name:

Anne Gulati

Department/Division/Group:

School Department, Emery Grover School Administration Building

Phone number and email address:

anne_gulati@needham.k12.ma.us 781-455-0400 x 206

Date of Completion

January 8, 2014

General Information

Function: Please describe the primary function of your department, division or group in as much detail as is possible.

N/A - REFER TO PREVIOUS STUDIES AS SUMMARIZED BELOW

Operation: Please provide information on the following: visitors to your offices, hours of operation, security concerns.

Public Business Hours:

8-4, M-F

Staff Hours:

8-4 M-F

Programming Questionnaire
Administrative Areas

School Department

Security/Safety Concerns:

Historic building in need of significant renovation/update. Building not sprinklered, water supply

contaminated by lead pipe, asbestos tile under carpeting, upper floor condemned, no air conditioning.

Issues such as noise, fumes, indoor temperature, natural daylight:

Building poorly configured for office

space, unsealed openings in building exterior, air quality poor.

Shared spaces and access by Community:

Building centrally located within Town, but not handicapped accessible.

Emergency Events: Please describe any special requirements or needs during emergency events (*Water, fuel or communication needs, outside assistance, changes to parking or queuing*).

Parking lot shared with St. Joseph's Elementary School and Parish.

Other Information: Please provide additional information that you believe would provide a more complete picture of your needs with a focus on intangible ideas as related to the final location of the Hillside and Mitchell Elementary Schools.

Desire for administration to be centrally-located to other school buildings and Town offices, however, there is a need for more appropriate office space for this function. With regard to Hillside & Mitchell Schools, the desired solution is to re-build the school at the existing site, if feasible and cost-effective, given site remediation issues at Hillside.

The long-term solution for both schools should incorporate additional space to provide full-day Kindergarten.

Additionally, both projects will require the construction of swing space, which optimally, could be utilized for both projects and potentially, converted to other Town uses after construction is over. The Hillside School has been selected for participation in the MSBA's capital funding process and four modular classrooms will be installed at the Mitchell School (opening September 2014) to address urgent space deficiencies on a temporary basis.

School Department

Staffing: Please provide an organizational chart for your department, division or group. Please include current staffing and possible projected staffing until the year 2033.

[illegible]

HKT Architects Inc.

Programming Questionnaire
Administrative Areas

School Department

Vehicles: Please provide as detailed of a list as you can. Parking counts are required by zoning and this list will help us confirm needs and special issues particularly as it relates to fire, police, school bus and DPW equipment. Please provide overall sizes (*Small = 8' x 10', Medium = 8' x 20' – typical car, Large = 12' x 30', X-large = 12' x 40' or larger*). Please note if vehicle must be stored indoors or in an uncovered parking lot and other unique feature (*electric vehicle, handicap van etc*).

Vehicle Type	Vehicle Projections				Size				Comments
	2014	2019	2024	2033	S	M	L	XL	
Hillside School:									
<i>Example: School Van</i>	<i>3</i>	<i>3</i>	<i>5</i>	<i>6</i>	<i>X</i>				<i>Parking lot</i>
<i>Ex: personal vehicles</i>	<i>25</i>	<i>30</i>	<i>35</i>	<i>35</i>	<i>x</i>				<i>Parking lot</i>
Staff vehicles	60	65	70	75					TL Spaces = 44 (2 HC)
Visitors	5	5	5	5					TL Staff = 60. Cars must be parked valet-style (in tandem), with keys left at office. All spaces size small.
Mitchell School:									
Staff Vehicles	68	73	78	83					TL Spaces = 87 (3 HC)
Visitors	5	5	5	5					TL Staff = 68 Spaces size Medium
Pollard School:									
Staff Spaces Lower Lot	36	36	36	36					Total Spaces = 118
Staff Spaces Back Lot	30	30	30	30					Total Staff = 123
Staff Spaces Harris Ave	47	47	47	47					Bike Area is Informal Lot
Staff Spaces Bike Area	5	5	5	5					Space Size: S-M
Street Parking (Staff)	5	10	15	20					
Street Parking (Visitors)	5	5	5	5					

School Department

Existing Space: Please provide a list of key spaces used by your department, division or group. This list should include individual spaces and shared spaces with another department, division or group. If you have an idea of how large that space is or any distinguishing features please note that. Existing conditions and floor plans will be provided by the Town.

[illegible]

School Department

Office or Workstation Requirements

Individual Needs: Please list any specific individual need for staff in your department, division or group.

Think about their work: *do they have multiple private conversations during the day, how long are they at their desk each day (only in the morning or they share space with another individual on another shift), could they work at a share work surface assigned for just that day.*

Note furniture or equipment they may need: *work surface with computer hookup only, work surface with file drawers, access to large work surface for collating or laying out projects, visual privacy for work surface as they deal with sensitive paperwork or screen work, quick access to printers and copiers etc.*

N/A - REFER TO PREVIOUS STUDIES AS SUMMARIZED BELOW

[illegible]

School Department

Storage Needs: Please list any specific storage needs for your department, division or group. Consider items currently stored on site and those that are stored elsewhere in Town. Consider whether current storage locations create any issues for access (*i.e. paper is stored in a locked room in an adjacent building or all equipment used in conference rooms needs to be moved from floor to floor x times a day/week*). Please list specific items stored. Please note if these items need special security (*assume all doors can be locked*).

[illegible]

Schools and School Administration Specific Programming

What are the major community concerns regarding the location and siting of these schools including access, playing fields, queuing of buses, access points, security? Also consider possible adjacencies to other town own facilities such as the DPW.

Hillside Elementary School: First Priority for replacement. Preliminary Planning underway

The most significant community concerns include: lack of sufficient space for the educational program, given existing and projected student population; lack of adequate parking and constrained vehicular access to the school; need for comprehensive building renovation/replacement due to the age of the building (50+ years), deficiencies and end-of-life conditions in most building systems; poor energy performance; handicapped inaccessible sections of the building, and site constraints (wetlands, steep hillside, environmental contamination of site.) The building is not equipped with an automatic sprinkler system, nor is the existing water line large enough to provide sprinklers. The two existing modular classrooms - installed in 1997 - will require replacement in the near future.

See attached Statement of Interest, submitted to MSBA, March 2013.

Mitchell Elementary School: Second Priority for replacement

The most significant community concerns include: lack of sufficient space for the educational program given, existing and projected student population; the need for comprehensive building renovation/replacement due to the age of the building (50+ years), deficiencies and end-of-life conditions in most building systems; poor energy performance, and handicapped inaccessible sections of the building. The building is not equipped with an automatic sprinkler system, and low floor to ceiling heights would likely constrain the installation of sprinklers.

See attached Statement of Interest, submitted to MSBA, March 2013.

Pollard Middle School: Third Priority for renovations

The most significant community concerns include: expanding and renovating core educational spaces that are not consistent with MSBA standards (particularly science classrooms, auditorium, gymnasium, locker rooms, fitness center, bathrooms); age of temporary modular classrooms (installed 2002); need for code-related upgrades including life safety, energy efficiency, accessibility improvements. See attached SOI, March 2013.

Programming Questionnaire
Administrative Areas

School Department

Describe concerns around temporary facilities or swing space during the construction and renovation of the Hillside and Mitchell Elementary Schools and the Pollard Middle School:

No space or facility currently available to function as swing space for the aforementioned projects. Swing space would need to be provided as part of the construction project(s.) Optimally, such swing space could be utilized for multiple projects and, if permanent in nature, converted to other Town uses after construction is over. The construction of swing space would not be reimbursable by MSBA.

Emery Grover Building - School Administration Building:

Please comment on the functionality of the existing school administration building and whether or not it is ideally located and suited for its purpose.

The existing Emery Grover building is poorly suited to office space. There are insufficient office and meeting spaces, limited parking, and a need for total renovation/replacement to address building deficiencies, lack of handicapped accessibility and life safety conditions. Despite the building deficiencies, the central location within the Town is ideal for administrative purposes.

Is there a better or more ideal location in town for the school administration to be situated?

Alternate locations could be considered, which offer a balance between building functionality and accessible location.

Programming Questionnaire
Administrative Areas

School Department

If the Grover Building was no longer used to house the school administration what do you see as its next and best use?

Given extensive deficiencies and high cost of upgrade/replacement, the building could be sold in lieu of renovation.

Re-purposing the building for other school or Town use would require extensive renovation.

Reference Resources:

The following documents relate to the overall planning for the Needham Public Schools and contain the most current programming data and projections.

School Administration Building - Emery Grover

School Administration Bldg. Study - DRAFT	July 2013
Emery Grover Bldg.	
Needham Senior Center Site Feasibility Study	August 2013
Meeting Notes	March 2013
Development Budget	March 2013
Needham School Admin. Bldg. Program + Diagrams	March 2013
Needham School Admin. Bldg. Floor Plans	March 2013
Needham Town Wide Comprehensive Facility Study	
Emery Grover Building	
Agenda Fact Sheet	July 2002 September 2009
History + Culture - National Register	2009
National Register File	July 2010
The Emery Grover article	March 1984

Schools

Space Needs Study	March 2009
Mitchell + Hillside Schools Pre-Feasibility Study	July 2012
Hillside School Pre-Feasibility Study	
Environmental Evaluation	October 2012
Comprehensive Facilities Assessment	
Pollard Middle School	August 2011
Comprehensive Facilities Assessment	
Mitchell + Hillside Schools	August 2011

Programming Questionnaire
Administrative Areas

School Department

Mitchell School Modular Classrooms
Feasibility Study
Guide to Operating + Maintaining
EnergySmart Schools

November
2013

Space	Room Data #	Occupants per Room	Visitors	Size proposed SF	Total GSF Subtotals	Notes
School Administration						
SHARED BUILDING SERVICES						
Entry Vestibule - Lobby	S-1	0	4	240		
Help Desk/Reception	S-2	1	0	100		
Large Conference Room	S-3	0	100	1200		
Medium Conference Rooms (2)	S-4	0	12	600		
Offices (4)	S-5	1	2	400		
Kitchenette	S-6	0	0	80		
Business Center (2)	S-7	0	0	240		
Restrooms, Male (2)	S-8	0	0	350		
Restrooms, Female (2)	S-9	0	0	350		
Break Room	S-10	0	25	400		
Janitorial Closet (2)	S-11	0	0	150		
Maintenance Office	S-12	1	2	120		
Compact Storage	S-13	0	0	400		
Building Storage	S-14	0	0	400		
Receiving Room	S-15	0	0	200		
SUBTOTAL					5,230	
Gross area adjustment 13%					680	
Circulation adjustment at 15%					886	
SUBTOTAL GSF					6,796	
SUPERINTENDENT SUITE						
Superintendent's Office	SS-1	1	6	250		
Assistant to Superintendent	SS-2	1	2	120		
Conference Room	SS-3	0	12	300		
Production Room	SS-4	0	0	100		
Waiting Room	SS-5	0	3	75		
Wash Room	SS-6	0	0	50		
Coat Closet	SS-7	0	0	10		
SUBTOTAL					905	
Gross area adjustment 13%					118	
Circulation adjustment at 15%					153	
SUBTOTAL GSF					1,176	
STUDENT DEVELOPMENT DEPT.						
STUDENT DEVELOPMENT						
Student Development Director Office	SD-1	1	4	140		
Student Development Assistant	SD-2	1	1	100		
Waiting Room	SD-3	0	6	75		
Autism Specialist	SD-4	1	1	100		
Special Education Director Office (2)	SD-5	1	1	280		
Special Education Secretary (2)	SD-6	1	1	150		
Business Center	SD-7	0	0	100		
Equipment Storage	SD-8	0	0	20		
Coat Closet	SD-9	0	0	10		
COMMUNITY EDUCATION						
Community Education Director Office	CE-1	1	4	140		
C E Accounting Office	CE-2	1	1	100		
C E Marketing/Registrar Office	CE-3	1	1	140		

SCHOOL ADMINISTRATION PROGRAMMING - FROM DESIGNLAB

Space	Room Data #	Occupants per Room	Visitors	Size proposed SF	Total GSF Subtotals	Notes
C E Marketing/Registrar Office Admin	CE-4	1	1	100		
C E Marketing/Registrar Graphic Design	CE-5	1	1	100		
C E Registrar Public Counter	CE-6	1	0	125		
Registration Waiting Room	CE-7	0	10	100		
Elementary/Summer Coordinator Office	CE-8	1	1	100		
Secondary/Adult Coordinator Office	CE-9	1	1	100		
Coat Closet	CE-10	0	0	10		
SUBTOTAL					1,990	
Gross area adjustment 13%					259	
Circulation adjustment at 15%					337	
SUBTOTAL GSF					2,586	
FINANCE OPERATIONS DEPT.						
HUMAN RESOURCES						
Human Resources Director's Office	HR-1	1	4	140		
Human Resources Generalist Office	HR-2	1	1	100		
Human Resources Staff Office (2)	HR-3	1	1	150		
Payroll Coordinators (2)	HR-4	1	1	150		
HR Interview Office (2)	HR-5	1	1	80		
HR Office/Workspace	HR-6	1	1	100		
HR Waiting Room	HR-7	0	6	75		
Student Registration Kiosk (2)	HR-8	0	0	50		
Production Room	HR-9	0	0	100		
Active File Storage	HR-10	0	0	100		
Dead File Storage - Shared	HR-11	0	0	0		
HR Office Supply Closet	HR-12	0	0	20		
HR Coat Closet	HR-13	0	0	10		
SUBTOTAL					1,075	
Gross area adjustment 13%					140	
Circulation adjustment at 15%					182	
SUBTOTAL GSF					1,397	
BUSINESS/ FINANCE OPERATIONS						
Finance Director's Office	F-1	1	4	140		
Assistant Finance Director Office	F-2	1	1	100		
Finance Secretary	F-3	1	1	100		
Lead Accountant	F-4	1	1	100		
Accounting Clerks (2)	F-5	2	1	150		
Finance Waiting Room	F-6	0	6	75		
Accounting Storage/Safe	F-7	0	0	20		
Finance Office/Workspace	F-8	0	0	100		
Production Room	F-9	0	0	100		
Active File Storage	F-10	0	0	300		
Finance Supply Closet	F-11	0	0	20		
Finance Coat Closet	F-12	0	0	10		
Payment Kiosk	F-13	0	0	25		

SCHOOL ADMINISTRATION PROGRAMMING - FROM DESIGNLAB

Space	Room Data #	Occupants per Room	Visitors	Size proposed SF	Total GSF Subtotals	Notes
SUBTOTAL					1,240	
Gross area adjustment 13%					161	
Circulation adjustment at 15%					210	
SUBTOTAL GSF					1,611	
TRANSPORTATION/FOOD SERVICE						
Transportation Director's Office	TR-1	1	4	140		
Transportation Bookkeeper	TR-2	1	1	100		
Transportation Office	TR-3	1	1	100		
Transportation/Food Service Waiting Room	TR-4	0	6	75		
Food Service Director's Office	FD-5	1	1	140		
Food Service Bookkeeper	FD-6	1	1	100		
Secretary - Counting/Receiving	FD-7	1	1	75		
Nutrition Outreach Coordinator	FD-8	1	1	75		
Food Service Storage - Shared	FD-9	0	0	0		
Food Service Supplies Closet	FD-10	0	0	20		
Mail Room/Production Cneter	FD-11	0	0	300		
Coat Closet	FD-12	0	0	10		
SUBTOTAL					1,135	
Gross area adjustment 13%					148	
Circulation adjustment at 15%					192	
SUBTOTAL GSF					1,475	
FINANCE SUBTOTAL GSF					4,483	
PROGRAM DEVELOPMENT DEPT.						
Program Development Director's Office	PD-1	1	4	140		
Program Development Assistant	PD-2	1	1	100		
Curriculum Leaders Office (2)	PD-3	1	1	200		
Curriculum Library	PD-4	0	0	150		
File/General Storage	PD-5	0	0	150		
Materials Library/Storage	PD-6	0	0	150		
Business/Production Cneter	PD-7	0	0	120		
Coat Closet	PD-8	0	0	10		
SUBTOTAL					1,020	
Gross area adjustment 13%					133	
Circulation adjustment at 15%					173	
SUBTOTAL GSF					1,325	
INNOVATIVE TECHNOLOGY						
IT Tech Staff (2)	IT-1	1	1	240		
Server Room	IT-2	0	0	200		
SUBTOTAL					440	
Gross area adjustment 13%					57	
Circulation adjustment at 15%					75	
SUBTOTAL GSF					572	

SCHOOL ADMINISTRATION PROGRAMMING - FROM DESIGNLAB

Space	Room Data #	Occupants per Room	Visitors	Size proposed SF	Total GSF Subtotals	Notes
GRAND TOTAL BUILDING W/O BUILDING SUPPORT					16,939	
<i>BUILDING SUPPORT: Mechanical, Electrical, Plumbing, Fire Protection, Elevator, Stairs (Assume 11% of GSF)</i>						
SUBTOTAL					1,863	
Gross area adjustment 0%					0	
Circulation adjustment at 0%					0	
SUBTOTAL GSF					1,863	
GRAND TOTAL BUILDING					18,802	
<i>OPTIONAL PROGRAM Not included</i>						
SUBTOTAL					3,800	
Gross area adjustment 13%					494	
Circulation adjustment at 15%					644	
SUBTOTAL GSF					4,938	

SCHOOL ADMINISTRATION PROGRAMMING - FROM DESIGNLAB

Land requirements for building, parking and loading spaces			
Component	Footprint	Square Footage	Total in acres
Building at 18,802 square feet	Assume two story building	70 x 135 = 9,450 SF or .22 acres	0.22
Parking for 102 cars including 4 accessible parking spaces	Assume 1 lots for 94 cars each at 62' x 426' including 4 accessible spaces	29,012 SF or .61 acres	0.67
Loading Requirement	Assume designated area 15' x 50'	750 sf or .03 acres	0.02
Landscaped areas	Assume 10% of parking area	26,412 x .10 = 2,641 SF or .06 acres	0.06
Snow Storage	Assume 10% of parking area	26,412 x .10 = 2,641 SF or .06 acres	0.06
TOTAL			1.03
Setback Requirements: Zoning dependent	Assume worse case = 35' front setback, 25' side setback, 25' rear setback	Possible site 242' x 329' = 79,618 SF or 1.83 acres	1.89
Max Floor Area Ratio (F.A.R.)	Maximum area ratio = .30.	Min site size = 62,673 SF or 1.44 acres	1.44

SCHOOL ADMINISTRATION - LAND REQUIREMENTS

	Emery Grover	Chestnut/School	St. FD/PSAB - Dedham Ave.	Nike Site	Hillside Existing Building/Site		
CATEGORY	Actual Value	Actual Value	Actual Value	Actual Value	Actual Value	Max Value	CRITERIA/COMMENTS
1. LOCATION	20	15	19	13	17	20	
1.1 Geographic location	5	5	4	1	4	5	Central to mission; moderate changes to operations; requires change to existing operations
1.2 Neighborhood	5	3	5	4	5	5	Minimal impact on residential neighborhood and community; moderate impact; significant impact
1.3 Current Use	4	3	4	3	3	4	Continued use; compatible use; currently undeveloped and used by others (recreational use open space)
1.4 Zoning By-laws	3	2	3	2	3	3	Allowed - complies with use, dimensional requirements and performance standards; Use allowed with moderate approval; Use will be difficult or costly to win approval (due to constraints such as historic preservation)
1.5 Public Facade/Screening	3	2	3	3	2	3	No private owner abutters, nothing special required; Abutters with adequate area for screening; Abutters with inadequate area for screening
2. ACCESSIBILITY	9	10	10	3	8	10	
2.1 Site Access	4	5	5	1	4	5	Ease of access through existing entry points and roadways; some impact on entry or roadway; significant impact including limited emergency access
2.2 Traffic	5	5	5	2	4	5	No impact on traffic patterns; some impact; significant impact
3. SITE FEATURES	8	12	17	20	14	20	
3.1 Adequate site size	3	4	5	6	4	6	Optimum size - allows for expansion; good size but no expansion capability; undersized for full program
3.2 Existing Structures/Historic Preservation	2	4	3	4	3	4	Existing structures will not impede development ; some impact on intended use; full impact
3.3 Operations - ease of use	3	3	4	4	4	4	Staff and Visitors use of site: Site easily split; site requires some overlap of uses; site uses overlap negatively
3.4 Flexibility/Circulation	0	1	5	6	3	6	Site can be reconfigured as needs change; site has limited reconfiguration options; site has no flexibility
4. ENVIRONMENTAL	15	15	14	7	13	15	
4.1 Wetlands	4	4	3	3	3	4	No wetlands or all work will occur outside of ConCom jurisdiction; indirect impact (work in buffer zones); direct impact on existing wetlands, flood plains, endangered species
4.2 Stormwater Management	5	5	5	1	4	5	Reasonable cost for stormwater management; moderate costs; excessive costs
4.3 Conservation/DEP Permitting	4	4	4	1	4	4	No work within designated vernal pool and/or rare species habitat; normal permitting process; work within vernal pool and/or rare species habitat
4.4 Existing Tree Cover	2	2	2	2	2	2	No major reduction; minimum to moderate clearing; major clearing
5. SITE DEVELOPMENT	14	17	19	11	16	20	
5.1 Utilities	4	4	4	2	4	4	Availability of gas, electricity, water, municipal sewage, storm drainage; some utilities need to be brought on site; most utilities need to be brought on site
5.2 Topography	3	4	4	4	4	4	Slopes range: % to %; appropriate for buildings parking - full access; some revisions to meet needs; significant access issues
5.3 Soils	3	4	4	2	4	4	Adequate for bearing capacity; non-standard foundations required
5.4 Hazardous Materials	3	4	4	2	1	4	Free of known contaminants; testing required; site history of contaminants
5.5 Costs of Development	1	1	3	1	3	4	Reasonable costs for development; moderate costs; excessive costs (cut/fill, clearing, blasting; renovation vs new)
6. AVAILABILITY	11	11	13	15	15	15	
6.1 Jurisdictional Control	5	4	4	5	5	5	Jurisdictional control remains same; trade of use acceptable and benefits both; highest and best use displaces traditional use in a less positive manner; change of jurisdictional control or use requires state legislative or agency approval
6.2 Displacement Required	1	3	4	5	5	5	Cost of relocation minimal; moderate; excessive
6.3 Acquisition	5	4	5	5	5	5	Cost, availability, time schedule, eminent domain: Reasonable costs, available for sale at this time; Costs high but available to meet schedule; Cost high with eminent domain
TOTAL	77	80	92	69	83	100	
7. SPECIAL CONSIDERATIONS							
7.1 Temporary buildings							Costs to temporarily house intended use minimal; moderate; excessive
7.2 Permanent changes to use							Change in use relatively simple; requires return to state for review, redistricting; loss of traditional use
7.3 Temporary use of site							Additions benefit traditional use; additions reduce traditional use; temporary elimination of traditional use
7.4 Time Schedule							Impact of Delay

SCHOOL ADMINISTRATION - CRITERIA MATRIX

1. PROGRAM SUMMARIES
Department of Public Works



Programming Questionnaire
Administrative Areas

Public Works

Please provide as much information as possible for each section of the following questionnaire. You may not have an answer for every question but please do your best. The information will be used during the Master Planning programming effort for your department, division or group. Thank you for participating.

Name: Aaron Lacher

Department/Division/Group: Department of Public Works

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Date of Completion: 1/21/14

ATTACHED:

1. VEHICLE & EQUIPMENT LIST
2. ORGANIZATIONAL CHART
3. EXPANDED RECYCLING AREA MAP
4. AERIAL MAP OF THE RTS

General Information

Function: Please describe the primary function of your department, division or group in as much detail as is possible.

The Department of Public Works is responsible for maintaining the physical non-building infrastructure of the Town. This infrastructure includes: roads, bridges, sewer systems, water systems, trash disposal, recycling, parks, sidewalks, etc. The Department promotes programs necessary for asset management and the preservation of infrastructure in order to provide for health, safety, welfare, and the convenience expected by the community for a high standard of living and good quality of life.

The Department of Public Works consists of multiple divisions: Administration, Garage, and Engineering which provide support services to the operating divisions: Highway, Parks & Forestry, Recycling & Solid Waste, Water, and Sewer & Drains.

- The Highway Division is responsible for:
 - Maintaining the roadway and traffic systems
 - Allowing transportation to operate in a safe and cost-effective manner
 - Planning, organizing, directing and monitoring roadways, parking lots, traffic system maintenance, and repair and construction improvements
 - Snow and ice operations
- The Parks & Forestry Division is responsible for:
 - Providing care and maintenance of public shade trees

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- Roadside brush control.
 - Conducting the annual tree planting and replacement program
 - Maintaining parks and athletic fields
 - Providing support for athletic and recreational programs
 - Maintaining grounds at Ridge Hill Reservation
- The Administration Division supports and helps manage all other Public Works division activities.
- The Needham Water, Sewer and Drains Division is primarily an operations and maintenance organization with the ability to perform limited construction projects. The yearly tasks of the division consist of:
 - Water - Operations and maintenance of the town's water system, which includes compliance with EPA's Safe Water Drinking Act. Operations and maintenance of the system includes supply, storage, treatment, and distribution.
 - Drains - Maintenance of the storm drain system, which includes compliance with EPA's National Pollutant Discharge Elimination System (NPDES) program designed to improve the quality of stormwater discharge into local rivers, lakes, *streams, and ponds*.
 - Sewer - *Maintenance and cleaning of the sewer collection system to minimize failures and blockages* to ensure an uninterrupted and productive sewer system.
- The Division of Recycling and Solid waste is responsible for management of waste and recyclable materials for the town. There are six/seven operations that occur at the Recycling and Transfer Station (RTS) area located at 1421 Central Ave. They are:
 - Recycling and transfer station (RTS). Accepts trash and reusable/recyclable materials from residents, contractors, and private haulers that purchase an annual subscription to the facility. Also from municipal facilities and schools.
 - Compost area. Collect leaves and yard waste from residents, commercial landscapers, DPW, as well as food waste from supermarkets. Process materials. Creates compost which is marketed to the commercial sector.
 - Materials processing area. Accepts catch basin cleaning, street sweeping, asphalt, and other DPW debris. When operating effectively either store materials until transported off-site or processes materials into usable product.
 - Capped landfill. Closed in 1997. Has vents and flares that must be monitored.
 - Salt Shed. The salt shed is located in the center of the facility. It houses salt, sand, and brine for snow operations. It also has storage capacity for snow equipment.
 - Snow Dump. Snow that is removed from municipal parking lots and retail district sidewalks is delivered to the RTS during midnight snow dumps and stored here until it melts.
 - Solar Array. Anticipated to be sited on top of capped landfill. Will generate tack, rent and discount on electricity for the town.
- The Engineering Division supports DPW and other town departments. It is the source of all town maps, drawings, plot plans, etc. available to public. Responsibilities include:
 - Archive engineering record information for the town
 - Provide engineering consultation and advice for the Department of Public Works and other town departments

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- Provide construction inspection on large or complicated projects
 - Review subdivision and site plan development applications
 - Provide technical support to all divisions of the Public Works Department, including field surveys, designs, studies, cost estimates, construction plans, contract documents, field supervision, and inspection
 - Maintain and archive records and drawings of all phases of Public Works activities, drain, sewer and water construction, highway improvements, bridges, traffic control, and solid waste disposal
 - Assist in preparation of department wide scheduling and coordination
 - Conduct neighborhood meetings related to DPW projects
 - Consult with contractors, developers, engineers, local, state, and federal officials in support of department activities
 - Assist the director of Public Works with capital planning activities
 - Develop and maintain a complete file of Assessor's plans, both in the Assessor's Department and in the Engineering Division, recording all land and building additions and alterations
 - Work closely with Assessors in furnishing technical information relating to land and structures
 - Receive and record information from Registry of Deeds and/or Land Court on Assessor's plans
 - Provide technical assistance and advice to Planning Board in all areas of land use and planning
 - Review and make recommendations on all subdivision plans, calculate construction costs, and provide field inspections to ensure compliance with Planning Board requirements
 - Review all plot plans and site development plans submitted to Building Department and check proposed and final construction for compliance with Public Works Department requirements
 - Provide assistance to Police Department on matters pertaining to traffic and parking
 - Provide testimony and certifications for Police drug arrests within 1,000 feet of school properties
 - Provide technical assistance to all town agencies as requested, within the limits of available time and resources
 - Provide athletic and recreations layouts for Park and Recreation and School departments
 - Prepare studies and cost estimates for proposed town projects
 - Perform property surveys for location of town-owned land, easements, and construction projects
- **Garage**
 - Services DPW vehicles and equipment. Services all town owned sedans.
 - Manages equipment replacement program.
 - Gas and diesel refueling on site 24/7 for all town vehicles, including fire department.

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Operation: Please provide information on the following: visitors to your offices, hours of operation, security concerns.

Visitors and Interaction with Community:

RTS: The town of Needham does not provide curbside trash/recycling collection. Instead it operates a two tier fee-based drop-off trash and recycling program. Residents and contractors pay an annual sticker fee plus a per bag fee or a per ton fee for large quantities. Town designated trash bags can be purchased at stores throughout town.

In FY13 the RTS sold annual subscription stickers to 6,400 residents and contractors (60% of town). The RTS averages about 6,500 vehicle visitors per week, approximately 2,500 are on Saturday. In FY13 the RTS took in about 8,000 tons of trash and 3,500 tons of recyclables.

Staff interacts with residents in five primary areas. 1) At the front entrance, 2) drop-off area walkways, 3) additional recycling areas, 4) yard waste drop-off area, 5) the main office where resident and contractors go to pay for disposing of bulky waste, large quantities of waste, or special recyclable items for which there is a fee.

RTS 7:30am – 4:00pm; all other Divisions 8:30am-5:00pm; frequent evening meetings

Public Business Hours: 8:30am-5:00pm (RTS 7:30am-4:00pm)

Staff Hours: Operational Divisions: 7:00am-3:30pm; Administration 8:30am-5:00pm

Security/Safety Concerns:

Water/Sewer/Drains: Public Water supply facilities are critical and require hardened security. Hardened security can be key code entry. All equipment stored outdoors that requires lay down space should also be secured with a fence and locked gate to prevent theft.

RTS: The RTS is not fully fenced in. There are locking gates at the street entrances but no way to restrict foot traffic. During hour of operation there are Lots of people and traffic.

Issues such as noise, fumes, indoor temperature, natural daylight:

RTS: Trash and compost can smell. Landfill flares can smell if the pilot goes out.

Shared spaces and access by Community:

Shared spaces include lunchroom, conference rooms, meeting rooms, lobbies, & restrooms. Outside community organizations frequently use the PSAB in the evening. Hikers and ice-skaters accessing the reservoir park in PSAB parking lots.

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Emergency Events: Please describe any special requirements or needs during emergency events (*Water, fuel or communication needs, outside assistance, changes to parking or queuing*).

The DPW responds to many emergency events including: snow and ice events, flooding, hurricanes, water main breaks, sewage backups, and hazardous spills.

The DPW Maintenance Complex serves as the Command Center for the Snow and Ice Program. Communications, both internal and external, are vital to this operation. The Command Center should be wired for multiple phone lines, cable television, internet, and have docking stations for two-way radios. The Town utilizes an internet application—SeeClickFix—to interact with the public and manage work requests. Two-way radios are used to communicate with DPW staff and Needham Police and Fire, while communications with private contractors and other agencies are done using telephones. News updates and weather forecasts are accessed on television.

Many emergency events require the extended use of vehicles and equipment. Adequate garage facilities are needed to make repairs throughout the event.

A backup power supply is necessary to provide power during outages. The DPW purchases fuel in bulk, thereby ensuring adequate supplies during emergencies when commercial gas stations are not operating. Needham Police, Fire, and School also rely on the DPW fuel dispensing facility for their operations.

On-site secure storage is needed for emergency supplies including: handheld two-way radios, first aid kits, flashlights, batteries, winter clothing, cots, etc.

Adequate break room space is necessary, as staff responding to emergencies often work extraordinarily long shifts.

The Water & Sewer Division responds to the following events:

- **Water:** Water main breaks, water service leaks, flooding, and water quality issues that affect public health. Main breaks cause flooding, sink holes in streets, property damage which may involve police, fire, highway personnel, neighboring communities. Water quality can be life threatening.
- **Sewer:** Sewer back-ups, forced sewer main Breaks, flooding, and any issues that affects quality of life and public health.
- **Drains:** Flooding, hazardous spills and water quality as well as anything within the municipal drain system that impacts the environment.

RTS: Access to RTS, composting area and landfill must be easily available for fire trucks and emergency personnel in the event of a fire on the tipping floor, in one of the roll-off containers, in the compost pile, or at any of the other locations.

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Other Information: Please provide additional information that you believe would provide a more complete picture of your needs with a focus on intangible ideas (such as, we want to provide an open atmosphere but our work is too sensitive because).

Of particular concern is the condition, layout, and relationship of the buildings and offices at the RTS.

The main office is the major concern. The main office, which provides both space for the public and two work stations, at 18 x 18 is too small to provide reasonable accommodations. In addition it is in poor condition in part because it floods regularly when the Transfer Station building fire suppression system trips, and the walls contain mold due to repeated flooding. The toilet in the 3 x 10 restroom sometimes freezes in the winter. For some reason there is a louvered vent into the office area (perhaps for odor control) that lets in very cold air on cold days. There is no storage for office supplies. The area for the public is only as wide as the doorway and is very cramped.

An additional concern is the location of the superintendent's office. The Superintendent's office is located over 300 feet away from the main office at the opposite end of the facility. This makes it virtually impossible for the superintendent to monitor day to day activities, supervise staff, or interact with the public on a regular basis.

The employees break area is a third concern. A few years back a used office trailer was donated to the RTS for use as the employee break room. While better than nothing, the trailer is in only fair condition, with side paneling coming off and is in a remote location.

Transfer Station Building is also of concern. The TS building is getting old and various systems are failing – overhead door motors, exhaust fans, lights all needed to be replaced this year, fire suppressant system is getting old, tipping floor is in need of repair. It may make sense to do a complete assessment of the structure with schedule for repair and/or replacement.

Lastly, the RTS does not provide a shower for staff working in a very dirty environment.

Providing one building that could address all these problems would ideal.

Staffing Requirements

Staffing: Please provide an organizational chart for your department, division or group. Please include current staffing and possible projected staffing until the year 2033.

Administration							
Position	Staffing Projections				FTE	PTE	Comments
	2014	2019	2024	2033			
Director of DPW	1	1	1	1	1		Private office
Asst. Director of DPW	1	1	1	1	1		Private office
Supervisor of Admin	1	1	1	1	1		Private office

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Senior Administrative Coordinator	1	1	1	1	1		Workstation
Department Specialist	1	1	1	1	1		Workstation
Department Assistant 2	1	1	1	1	1		Workstation
Total	6	6	6	6	6		

Engineering							
Position	Staffing Projections				FTE	PTE	Comments
	2014	2019	2024	2033			
Engineering Aide	1	1	1	1	1		Workstation
Town Engineer	1	1	1	1	1		Private office
Auto Cad Technician	2	2	2	2	2		Workstation
Survey Party Chief	2	2	2	2	2		Workstation
Civil Engineer	2	2	2	2	2		Workstation
Contract Administrator	1	1	1	1	1		Private office
Assistant Town Engineer	1	1	1	1	1		Private office
Total	10	10	10	10	10		

Garage							
Position	Staffing Projections				FTE	PTE	Comments
	2014	2019	2024	2033			
Superintendent	1	1	1	1	1		Private office
Master Mechanic	1	1	1	1	1		Workstation
Equipment Mechanic	3	3	3	3	3		
Total	5	5	5	5	5		

Highway							
Position	Staffing Projections				FTE	PTE	Comments
	2014	2019	2024	2033			
Superintendent	1	1	1	1	1		Private office
Asst. Supt.	1	1	1	1	1		Workstation

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Working Foreman	2	2	2	2	2		Workstation
HMEO	4	4	4	4	4		
Public Works Technician	1	1	1	1	1		Workstation
Public Works Craft Worker	1	1	1	1	1		
Laborer	2	2	2	2	2		
Total	12	12	12	12	12		

Water/Sewer/Drains							
Position	Staffing Projections				FTE	PTE	Comments
	2014	2019	2024	2033			
Superintendent	1	1	1	1	1		Private office
Asst. Supt.	1	1	1	1	1		Workstation
Water Treatment Plant Manager	1	1	1	1	1		Private office
Admin Analyst	1	1	1	1	1		Workstation
Billing Clerk	1	1	1	1	1		Workstation
Chief Pump Station Operator	1	1	1	1	1		Workstation
Foremen	3	3	3	3	3		Workstation
Public Works Inspectors	2	2	2	2	2		Workstation
Pump Station Operator	3	3	3	3	3		Workstation
Public Works Technician	1	1	1	1	1		Workstation
Craftsworker	9	9	9	9	9		
Laborer	4	4	4	4	4		
Total	28	28	28	28	28		

Parks & Forestry							
Position	Staffing Projections				FTE	PTE	Comments
	2014	2019	2024	2033			
Superintendent	1	1	1	1	1		Private office
Asst. Supt.	1	1	1	1	1		Workstation
Working Foreman	2	2	2	2	2		Workstation
PWCW	7	7	7	7	7		
HMEO	1	1	1	1	1		
Tree Climber	2	2	2	2	2		
Laborer	2	2	2	2	2		
Total	16	16	16	16	16		

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RTS							
Position	Staffing Projections				FTE	PTE	Comments
	2014	2019	2024	2033			
Superintendent	1	1	1	1	1		Private office
Asst. Supt.		1	1	1	1		Workstation
Working Foreman	1	1	1	1	1		Workstation
Public Works Specialist	1	1	1	1	1		Workstation
HMEO	4	4	4	4	4		Would like to have one additional work station to be shared by HMEO and laborers.
Laborer	2	2	2	2	2		
Total	9	10	10	10	10		

Parking: Personal vehicles, Town owned vehicles + equipment

Vehicles: Please provide as detailed of a list as you can. Parking counts are required by zoning and this list will help us confirm needs and special issues particularly as it relates to fire, police, school bus and DPW equipment. Please provide overall sizes (*Small = 8' x 10', Medium = 8' x 20' - typical car, Large = 12' x 30', X-large = 12' x 40' or larger*). Please note if vehicle must be stored indoors or in an uncovered parking lot and other unique feature (*electric vehicle, handicap van etc*).

Vehicle Type	Vehicle Projections				Size				Comments
	2014	2019	2024	2033	S	M	L	XL	
Approximately 105 personal staff-owned vehicles park at PSAB each day									
<i>SEE ATTACHED LIST OF TOWN OWNED VEHICLES & EQUIPMENT</i>									

Space Requirements

Existing Space: Please provide a list of key spaces used by your department, division or group. This list should include individual spaces and shared spaces with another department, division or group. If you have an idea of how large that space is or any distinguishing features please note that. Existing conditions and floor plans will be provided by the Town.

	Space	Size	Comments
Highway	Sign shop	360 SF	Heated
	Storm command	435 SF	Secure, phone, internet, cable, screen for

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			projector; ideally would be adjacent to kitchen, sleeping area, restrooms and showers.
	Meeting room	250 SF	Screen for projector
	Conference room	500 SF	
	Closet	10 SF	
	Salt Shed	9600 SF	
Garage			
	Bays	8000 SF	
	Closet	10 SF	
Admin	Public counter	120 SF	
	Lobby	120 SF	
	Closet	10 SF	
Parks & Forestry	Shop	750 SF	
	Closet	10 SF	
Water/Sewer/ Drains	Shop	400 SF	
	Closet	10 SF	
	Meeting room	836 SF	
	Locker room	565 SF	
Engineering	Technical library	135 SF	
	Closet	10 SF	
	Public counter	120 SF	
	Customer service	100 SF	
	Public Restrooms	75 SF	
Shared	Webster Room	250 SF	
	Charles River Room	680 SF	
	Lunch room	550 SF	
	Restrooms (4)	350 SF	
RTS	1. RTS Main Office and Transfer station		
	RTS Main office - staff	12 x 18	Too small, Isolated from Supt office
	RTS Main office - public	3 x 18	Too small, non-handicapped compliant
	RTS Main office - closet	2 x 2	Too small
	RTS Main office - restroom	3 x 10	Toilet freezes in winter, sink leaks, tiny
	Transfer Station Tipping floor	30 x 60	Needs to be repaired
	Transfer station	60 x 120	Drainage system doesn't work
	2. Storage Shed	12 x 12	Falling apart, will need to be

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			repaired/replaced soon.
	3. REX Garage	45 x 50	No heat, no ceiling, no insulation, poor lighting. Would be good to upgrade to provide better quality work sheltered space.
	4. Three-Bay garage	30 x 60	Needs minor repairs. Skylight is leaking, outside trim falling off but structurally sound.
	5. Superintendent Office (attached to REX building)	11 x 11	Isolated from other activity areas. Very difficult location from which to manager the operation. Condition is ok.
	6. Employee Trailer	12 x 55	Donated used trailer. Isolated. exterior paneling coming off, interior fair condition. Drafty, AC worn, heat uncontrolled.
	7. Paint Shed	12 x 24	OK condition
	8. Bottle and can shed	14 x 20	Deteriorating condition, floor walls beginning to fail.
	9. Storage trailer (yellow bag)	6 x 50	Isolated, rusting, roof leaks, old
	10. Waste Oil shed	8 x 10	Ok
	11. Universal waste storage shed	8 x 10	Ok

Office or Workstation Requirements

Individual Needs: Please list any specific individual need for staff in your department, division or group.

Think about their work: *do they have multiple private conversations during the day, how long are they at their desk each day (only in the morning or they share space with another individual on another shift), could they work at a share work surface assigned for just that day.*

Note furniture or equipment they may need: *work surface with computer hookup only, work surface with file drawers, access to large work surface for collating or laying out projects, visual privacy for work surface as they deal with sensitive paperwork or screen work, quick access to printers and copiers etc.*

Office (private) or Workstation (open)	Preferred Size (L x W)	Individual Needs for files, copiers etc.	Comments
Storm Command			Would like bunk space, kitchenette, and locker room facilities incorporated into future storm command building
Welding shop	500 SF		
Paint & body shop	1000 SF		

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Wash bay	1200 SF		
RTS Superintendent (maybe move to main DPW bldg.)	12 x 16 Private office	Files, book case, shelving, desk, computer, meeting table	Must be able to close door for private conversations
RTS Assistant Supt.	Not sure....	Files, book case, shelving, desk, computer,	Maybe it should be the above
RTS Working Foreman	12 x 22 Workstation in common area	Desk with computer.	
RTS Public Works Specialist	12 x 22 Workstation in common area	Desk with computer, computer and monitor for scale operations,	
RTS Other staff	12 x 22 Workstation in common area	Desk with computer	

Storage Requirements

Storage Needs: Please list any specific storage needs for your department, division or group. Consider items currently stored on site and those that are stored elsewhere in Town. Consider whether current storage locations create any issues for access (*i.e. paper is stored in a locked room in an adjacent building or all equipment used in conference rooms needs to be moved from floor to floor x times a day/week*). Please list specific items stored. Please note if these items need special security (*assume all doors can be locked*).

	Material - Item	Size or weight	Comments
Highway	Storage bay	2000 SF	Covered & secured
	Tool cage	400 SF	Covered & secured
	Lay down area	6000 SF	Fenced area for materials & seasonal equipment
	Meter repair	100 SF	Heated
	Material storage	250 SF	Covered & secured
	Barrels and Sawhorses	250 SF	Covered & secured
	File storage (current dead storage area 533SF)	40 SF	Heated & secured
Parks & Forestry	Lay down area	5625 SF	Fenced area
	Storage Bay	400 SF	Covered & secured
	Closet	10 SF	Heated & secured
	File storage	45 SF	Heated & secured

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Administration	File storage (current dead storage area 323SF)	120 SF	Heated & secured
	Supplies	20SF	Heated & secured
	Office equipment	60 SF	Heated & secured
Garage	Vehicle storage	20,000 SF	Covered & secured
	Parts storage	867 SF	Covered & secured
	File storage (current dead storage area 81SF)	45 SF	Heated & secured
	Battery storage	100 SF	Heated & secured
Engineering	Shed/Yard	1200 SF	Secured
	Survey equip	75 SF	Secured
	File storage (current dead storage area 600 SF)	155 SF	Heated & secured
	Plan file vault	150 SF	Heated & secured
	Office supplies	20 SF	Heated & secured
Water and Sewer	File storage (current dead storage area 326 SF)	50 SF	Heated & secured
	Office supplies	20 SF	Heated & secured
	Laydown area	8305 SF	
Shared	Office supplies	100 SF	
	Dead storage	600 SF	Current area 2004 SF
	Custodial storage	100 Sf	
RTS	Office supplies	Currently stored in employee trailer at opposite end of facility	Would like to have in same building as main and superintendent's office. Secured from public
	Work supplies	Stored in 12 x 12 deteriorating shed located near main office	Need larger area. Will need to replace soon. Secured from public
	Files and records	Currently stored in employee trailer	Would like to store near main and superintendent offices. Secured from public
	Tires for RTS vehicles	Currently stored outside	Would like to store inside. Secured from public

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	Recycling bins	Scattered in different storage locations around RTS	Single location, ideally near main office. Accessibly by fork lift. Secured from public
	Yellow PAYT bags	Currently in 6 x 55' used trailer in isolated area	High security.
	Storage for materials collected from residents		
	Paint	Stored in 3-bay	Secure from public. Adequate
	TVs/computers/electronics	On ground	Covered. Would prefer enclosed container
	Propane tanks	On ground	Designated area.
	Freon units	On ground	Designated area.
	Scrap metal	On ground	Would prefer Drop in container
	Tires	On ground	
	Auto batteries	On ground	Would prefer Covered unit
	Universal waste (fluorescent bulbs, mercury)	Inside shed	ok
	Medical sharps	In secure kiosk	ok
	100 yd tractor trailer for transport of trash and recycling	6	
	Extra roll-off containers	10	

DPW Specific Programming

Describe how the DPW functions out of several structures and sites.

DPW operations are conducted from several locations throughout the Town out of necessity. The locations of water and sewer pump stations and treatment plants are dictated by the requirements of the overall system of which they are a part. Likewise, locations of parks and other recreational facilities are determined by the general needs of the community as well as the natural contours and features of the landscape.

Some DPW functions, such as operating the RTS and the Water Treatment Facility, are primarily performed at DPW facilities. These "facility bound" operations rely on complex and

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bulky equipment—a tipping floor, trammel screener and various pieces of heavy equipment in the case of the RTS and a complex supervisory control and data acquisition (SCADA) filtration system at the Water Treatment Facility. Other functions are performed in the field (e.g. water and sewer pipe replacement, road and sidewalk repair, tree planting/pruning/removal).

Operations are coordinated through a hierarchical chain of command. An organizational chart is attached.

Phasing: If phasing of construction is required what are the major issues of concern?

Describe entry and egress issues from your existing site.

The PSAB location provides easy entry and exit. However, overflow parking at times can encroach on the driveway, resulting in minor issues. Contractors staging vehicles along the driveway can have a similar effect.

Describe the relationship between DPW functions and those of the DeFazio Park.

DeFazio Park provides areas for overflow parking. Allows potential for the PSAB building to accommodate some large crowd functions (e.g. hazardous waste day). Some equipment is stored around the periphery of the Defazio parking lot. Occasionally, contractors working for the Town will stock-pile materials on the perimeter of the parking lot.

Describe the impact of the building that is starting construction in December, 2013. Is the location ideal, what impacts will this location have on operations?

The building will provide for much needed covered storage, easy access for repairs, and supervisory oversight. Existing parking issues will be exacerbated by the building.

Garage Specific Programming

Maintenance: Do you maintain only DPW vehicles and equipment or are you responsible for other municipal vehicles and equipment. If so, which departments and equipment.

The Garage maintains all 450 +/- DPW vehicles, maintains Council on Aging vehicles and occasionally school transportation vehicles. A DPW Fleet inventory is attached.

Inspections: We do not perform State inspections. A mobile unit coordinates with us to do State inspections of CDL & specialized equipment on site.

Mechanic/Work Bays: Currently there are four mechanics, including the master mechanic, who work the regular shift. In addition, two mechanics are assigned to each salt shift. All four mechanics are on duty during a full plow operation. We currently have four bays but I feel that with the number of vehicles that we service, seven bays would be beneficial.

Vehicle lengths: We work on many large vehicles and pieces of equipment. Many of these are complex in varying ways. Some of the largest pieces we work on are the Vactor unit, the wood grinder, the Vermeer trammel screener, and the roll-off units.

Specialty Bays: Yes, I would prefer bays that are dedicated to specific work. I would like to see the overhead lift system be reconfigured so that it can be used in all bays. In addition I feel it would be beneficial to have an alignment machine. Currently we rely on outside vendors to align vehicles.

Equipment Lifts: Currently we have an in-ground lift that is nonfunctional. We are in the process of purchasing a four post lift that has the capacity to lift 70,000 pounds. We also have a two post lift that is undersized and will only allow us to lift a maximum of 7,000 pounds. I would like to see a four post lift that would lift 70,000 pounds, and two 2 post lifts that have the ability to lift 25,000 pounds.

Fluid Distribution: We do not have an overhead system. Right now, we have a system of six 55 gallon drums that hold two motor oils, antifreeze, two different hydraulic fluids, and transmission fluid. Each of these drums has a line attached and utilizes a gravity fed system. From there the mechanics have to fill quart size cans and take them back to their stations.

Waste Oil: Currently all of our waste oil is contained in a 500 gallon above ground tank. A private company pays the town and collects the used oil quarterly. I would like to see the implementation of a waste oil heater, though I'm not sure we generate enough waste oil to make this feasible.

Bridge Cranes/Monorails: A 3-ton monorail is installed in the garage bays.

Accessory Spaces:

Small equipment work shop: Needed

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Parts storage: Needed

Tire storage: Needed

Hose crimping: Needed

Tool storage: Needed

Paint booth: and sandblasting booth needed

Other:

Battery storage space is needed.

A self-contained vehicle wash bay is needed.

A fluid storage and dispensing area is needed.

Public Works

Recycling & Transfer Station Specific Programming

Describe the routine business conducted at this site: What are the hours/days of operation?

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Describe use of the site by the Community: What are the hours/days of operation, how will the newer uses of the site, salt storage and solar array affect the community use?

Recycling and Solid Waste Division

The Recycling and Solid Waste Division has 9 full time employees: Superintendent (1), Working Foreman (1), Public Works Specialist (1), Heavy Equipment Machine Operators (4) and Laborers (2). These employees are responsible for all operations at the RTS except loading at the salt shed. We are in the process of trying to arrange for an assistant superintendent position to be created to assist with overseeing operations but this position has not yet been approved.

Recycling and Transfer Station Area

The RTS is open to the public Tuesday – Saturday 7:30 – 4:00 and in November on Sundays from 12 -4.

The RTS is a very busy place. In FY13 6,250 residents/commercial subscribed to the program, and on average 6,500 cars visit the facility every week. Over 2,500 vehicles attend on Saturday, over 1,000 on Tuesday and Friday, and over 700 on Wednesday and Thursday.

In addition to residential/commercial subscribers there are four private haulers that provide back door or curbside collection service to Needham residents that bring residents' trash and recyclables to the RTS. These businesses make multiple trips to the RTS per day.

The RTS is designed to make it easy for residents to drop-off four separate categories of materials: 1) trash in town designated bags, 2) mixed paper, 3) cardboard, 4) glass, metal, plastic containers. In the main drop-off area there are six stations where residents can easily drop off these four categories of materials. Residents, contractors and haulers can also drop off bulky waste, and larger quantities of trash in the transfer station building. The facility also collects a significant number of other materials spread out throughout the property. This includes: household items and toys in the ReUseIt area, paint and related products, deposit bottles/cans, textiles and small appliances, motor oil and antifreeze, books, automobile batteries, scrap metal, appliances, computers, TVs and electronic waste, tires, propane tanks, mercury devices, specialty batteries, fluorescent bulbs, and medical sharps.

The RTS also operates a packer truck that picks up trash and recyclable materials from schools, municipal buildings and park barrels.

In FY 13 the RTS handled over 8,000 tons of trash and 3,000 tons of recyclable materials.

Compost Area

The compost area is also very busy, with residents bringing leaves, yard waste, and brush (including Christmas trees) throughout the year. The town also has a program that accepts 600 tons of food waste from supermarkets twice a week. The town manages these materials and turns them into compost or woodchips. Special equipment for the operation includes a wood grinder and a materials screener. The town contracts with a soil broker to market compost. Operating the facility takes approximately 25-30 hours per week.

The composting area is limited in size and currently utilizes all possible space. It is surrounded by wetlands to the south and west, the landfill to the north, and the transfer

station building and roadways to the east.

Materials Processing Area

The functioning of the materials processing area is currently under review. The area is limited and area for operations has been significantly reduced by the recent construction and operation of the salt shed. It accepts catch basin cleaning, street sweeping, asphalt, and other DPW debris. When operating effectively the program either stores materials until transported off-site or processes materials into usable product for DPW projects. The area is currently full of materials from projects collected over the past 5 years that have not been managed or moved as planned. Plans are underway to try to remove most of these materials. Once cleaned up should be able to function adequately on the existing space with limited staff hours.

Capped Landfill

Managing the landfill takes minimal time. There is no public access to the landfill. The seven flares and additional vents are checked once a month to make sure they are operating. Occasionally one of the flares will fail to ignite and the smell of landfill gas drifts into a neighborhood downwind of the landfill. When notified of this staff responds by checking flares and relighting if necessary. The landfill is mowed once a year by an outside contractor. The road and cap take minimal effort to maintain.

Solar Array

The town is in the process of contracting with a developer to site a solar array on the 10 acre top of the landfill. Construction of the array will have a temporary impact on the operations of the facility, as a laydown area will need to be created during construction. It is anticipated the laydown area will be located in the current materials processing area. It is hoped that the existing overflow of materials currently in the materials processing area will be utilized on the cap as part of the solar project.

Once the solar array is completed it is not anticipated that there will be much activity that will impact the operations of the RTS. The developer is expected to provide a kiosk to be sited someplace in a public area at the RTS that will provide real-time data on the electric generation of the solar array. The developer will be responsible for operations and maintenance, but we anticipate activity will be minimal and will have limited impact on the RTS.

Salt Shed

The new salt shed constructed during the summer of 2013 is located in the middle of the RTS facility. The unloading and loading of salt, sand, and related materials is intended to be conducted by Highway, not RTS staff. Highway will have keys to the RTS gates and will be able to have contractors deliver materials at any time that is convenient to them. They will also open the RTS gates during storms to allow salting/sanding vehicles access to the facility. The biggest impact at the moment, aside from space, is managing heavy equipment vehicle traffic and the impact this has on operations and road conditions. It is yet to be seen what the impact will be once the salt shed is fully operational and staff and contractors are accustomed to it. It is anticipated that on main RTS operations should be minimal.

Snow Dump

The RTS is the repository for snow removed from municipal parking lots and some sidewalks. Snow dumps take place usually between 10 PM and 6 AM. RTS staff prepare the area to receive the snow and oversee the operations. The snow dump area is shared with the leaf composting area.

Describe the constraints of the site and possible expansion ideas: Are expansion opportunities realistic?

1. Office Space

The RTS has grown organically over many years. The original landfill was capped in 1997 and the existing materials drop-off area was completed in the early 2000s. There are ten separate structures spread out across the 3 acre site. Many of the buildings are in poor condition and barely meet the needs of the facility. Should the town continue to operate a large-scale transfer station for years into the future renovation or replacement of many of the structures will be necessary.

Combining some of the current units together into a new single structure would make sense. The vision that has been put forth is a three story structure adjacent to the transfer station that would include the following:

Ground level (enter from the level of the trailer pit): 1) secure storage with garage door access for storage of yellow PAYT bags, recycling and compost bins, and other supplies. 2) Locker area with shower.

First floor (at level with current RTS main office): Main office for the public and staff. Private office for management.

Second floor: Conference room, kitchen/employee break room, restroom, file storage.

Alternatively, it is possible these rooms could be spread out horizontally over just two stories on just the ground level and first floor, but space is limited. The potential building area is constrained by the TS building on south side, the tractor trailer drive to the west, and traffic roads on the north and east sides.

A single new facility would address the following needs that are currently unmet:

- 1) Significantly improve the quality of the interior working environment.
 - 2) Bring office and other interior work and break areas up to code.
 - 3) Bring superintendent/management office into close proximity with daily operations, staff, and residents (superintendent office is currently located in separate building over 300 feet away from all other activity)
 - 4) Provide handicapped accessible office of adequate size for the public.
 - 5) Upgrade quality of employee break area and bring it into proximity with other operations
 - 6) Provide staff office area large enough for entire staff to meet for staff meetings
 - 7) Provide space for computer workstation for other staff for tracking and recordkeeping.
 - 8) Provide employee shower and locker area for staff that work in a dirty job.
 - 9) Provide storage of office supplies and files in same building as main office.
 - 10) Provide secure storage for files, PAYT bags, and other valuable supplies.
 - 11) Provide conference/meeting area.
 - 12) Convey a positive, respectful image of DPW operations to residents that come to
-

the RTS.

2. Expanded Additional Recycling Area

Collection of additional recycling materials is spread out around the RTS. The main area for collection of these items is to the north of the main drop-off area and is haphazard, storage is poor, appearance is unattractive, materials are difficult to manage and store, and there is insufficient space to add additional items such as reusable building materials, carpeting, construction and demolition materials, rigid plastics, Styrofoam, food waste, and more.

In order to enhance collection of additional recyclable/reuseable materials and reduce the amount of usable resources that are disposed of as trash we need to find a way to expand the additional recycling area. A model has been drafted that expands the existing additional recycling area to the north to provide the addition of a number of easily accessible and manageable containers for a variety of materials.

ATTACHED:

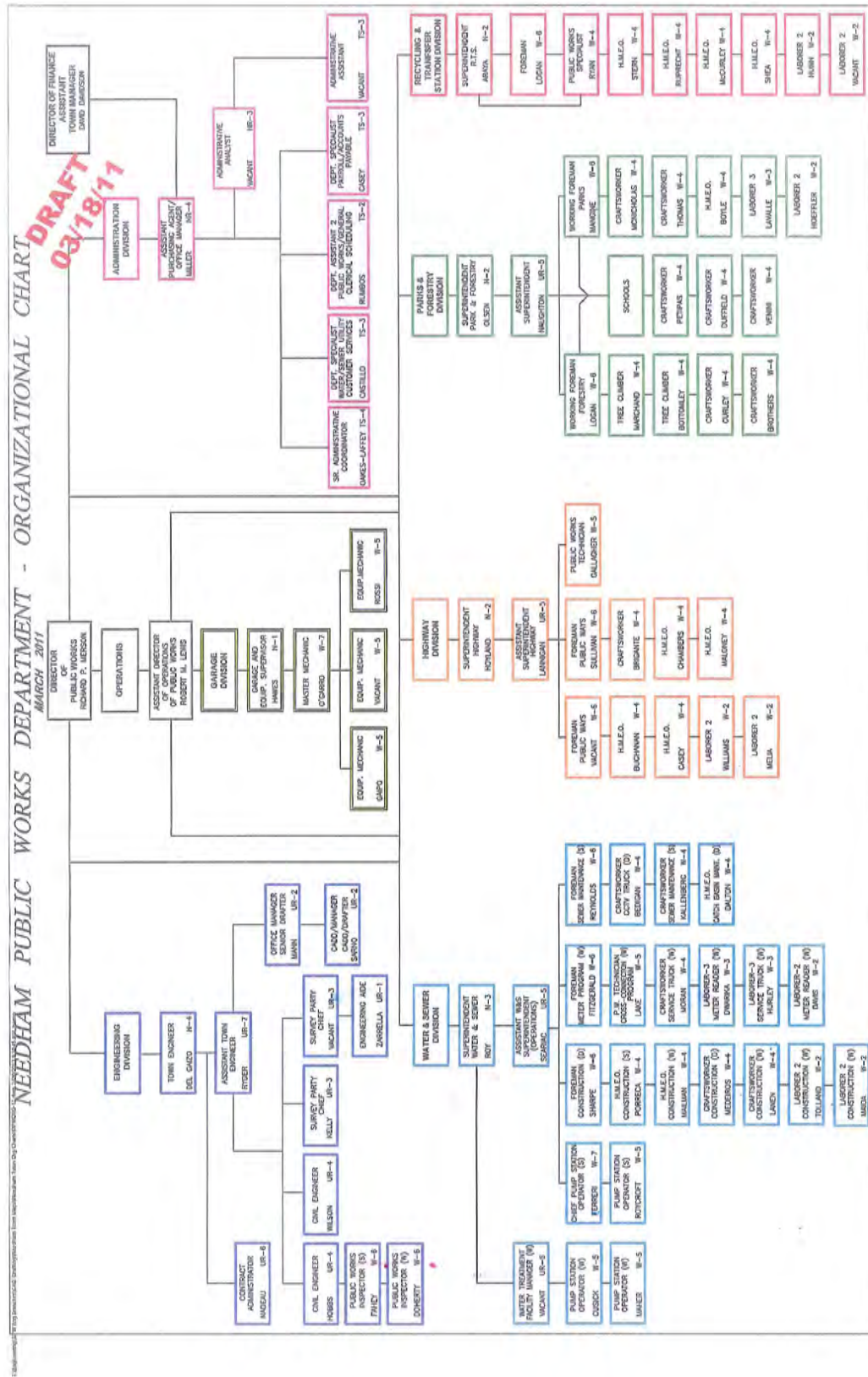
- 1. VEHICLE & EQUIPMENT LIST**
- 2. ORGANIZATIONAL CHART**
- 3. EXPANDED RECYCLING AREA MAP**
- 4. AERIAL MAP OF THE RTS**

Available Report:

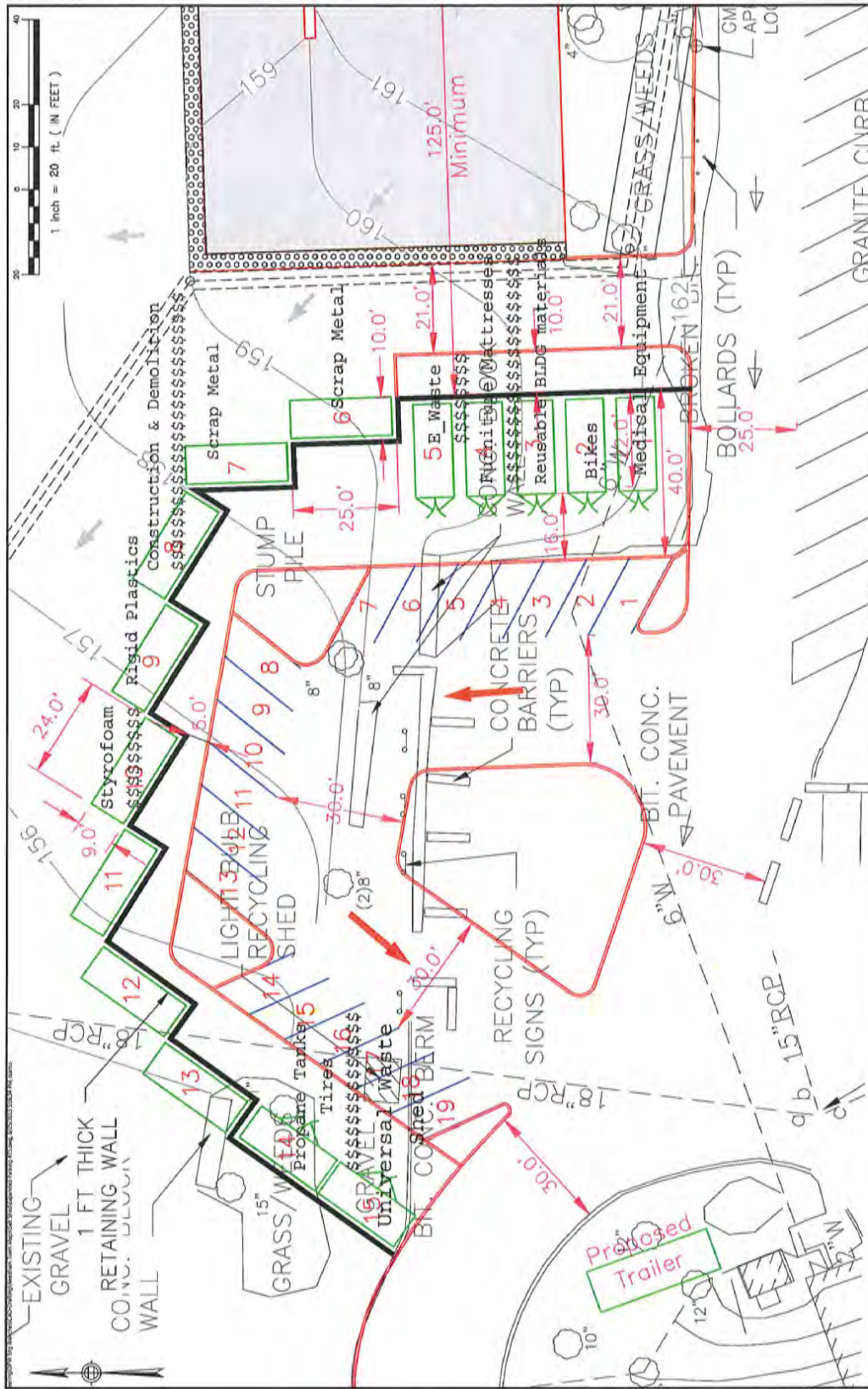
Vehicle Storage Garage Feasibility Study + Schematic Design Report
Weston + Sampson
March 2013

Unit #	Dept	Division	Make	Model	Year of Mfg	GVW
1	DPW	Administration	Ford	Escape Hybrid	2010	4,880
15	DPW	Administration	Ford	Taurus Sedan AWD	2008	N/A
92	DPW	Engineering	Ford	Explorer 4WD SUV	2012	5,000
44	DPW	Engineering	Ford	Escape Hybrid	2011	4,720
46	DPW	Engineering	Ford	Escape Hybrid	2011	4,720
2	DPW	Garage	Ford	F-150 XL 2WD Pick-Up Truck	2011	6,700
4	DPW	Garage	Ford	F-350 4WD Pick-Up Truck	2006	10,700
43	DPW	Highway	Ford	F-350 4WD Pick-Up	2012	10,800
181	DPW	Highway	Elgin	Pelican	2012	N/A
49A	DPW	Highway	Tarrant	Material Spreader	2008	N/A
108	DPW	Highway	Trackless	MT6	2011	N/A
32	DPW	Highway	Ford	F-350 4WD Pick-Up	2012	11,100
55	DPW	Highway	Ford	F-550 One Ton Dump Truck	2011	18,000
57	DPW	Highway	Ford F-350	F-350 4WD Pick-Up	2012	10,800
102	DPW	Highway	John Deere	5441 Front End Loader	2008	28,500
113	DPW	Highway	Camoplast	SW4S Sidewalk Tractor (Track)	2008	N/A
129	DPW	Highway	Custom	Trailer/Utility	2000	10,000
48	DPW	Highway	Ford	F-450 4WD Utility Body	2008	16,000
47	DPW	Highway	IH	7400 Six Wheel Dump Truck	2007	35,000
76	DPW	Highway	Bobcat	A300 Skid Steer Ldr.	2007	8,673
134	DPW	Highway	Wacker	Roller (Sidewalk)	2006	3,000
107	DPW	Highway	Camoplast	SW4S Sidewalk Tractor (Track)	2008	N/A
47A	DPW	Highway	Tarrant	Highlander Material Spreader	1994	N/A
121	DPW	Highway	Ver-mac	Message Board	2007	3,500
122	DPW	Highway	Ver-mac	Message Board	2007	3,500
182	DPW	Highway	Elgin	Crosswind Vacuum Sweeper	2010	33,000
49	DPW	Highway	Volvo	VHD64B Ten Wheel Dump Truck	2002	60,332
52	DPW	Highway	Ford	Escape Hybrid	2009	4,880
106	DPW	Highway	Trackless	MTV Sidewalk Tractor (Wheels)	2002	5,360
120	DPW	Highway	Solar	Message Board	2004	1,400
7	DPW	Highway	IH	S4900 Six Wheel Dump Truck	2000	35,000
6	DPW	Highway	IH	S4900 Six Wheel Dump Truck	2000	35,000
66	DPW	Highway	Ford	F-550 One Ton Dump Truck	2006	17,950
66A	DPW	Highway	Tarrant	1.86 CY Spreader Material Spreader	2006	N/A
6A	DPW	Highway	Tarrant	HLH2Y10 Material Spreader	2000	N/A
7A	DPW	Highway	Tarrant	HLH2Y10 Material Spreader	2000	N/A
117	DPW	Highway	Bombadier	SW4S-Sidewalk Tractor	2000	5,700
116	DPW	Highway	Bombadier	SW4S-Sidewalk Tractor	1998	5,490
350	DPW	Parks	John Deere	4720 Loader	2010	N/A
183	DPW	Parks & Forestry	Giant Vac	Leaf Collector	2007	N/A
253	DPW	Parks & Forestry	Vermeer	Stump Cutter	2010	N/A
337	DPW	Parks & Forestry	Ryan	Sod Cutter	1989	N/A
351	DPW	Parks & Forestry	John Deere	4410 Tractor	2002	N/A
328	DPW	Parks & Forestry	Cross Country	16' Trailer	1998	7,000
335	DPW	Parks & Forestry	Smithco	42-000Super Star Field Renovator	2010	N/A
70	DPW	Parks & Forestry	Ford	F-550 One Ton Dump Truck	2009	17,950
71	DPW	Parks & Forestry	Ford	F-550 One Ton Dump Truck	2009	17,950
301	DPW	Parks & Forestry	Ford	E-150 Van	2009	8,250
38	DPW	Parks & Forestry	IH	4300 50' Aerial Lift	2007	35,000
12	DPW	Parks & Forestry	Ford	Escape Hybrid	2009	4,880
74	DPW	Parks & Forestry	Ford	F-550 One Ton Dump	2008	17,950
75	DPW	Parks & Forestry	Ford	F-550 4WD Dump Truck	2008	17,950
133	DPW	Parks & Forestry	John Deere	3105G Backhoe Ldr.	2001	16,500
333	DPW	Parks & Forestry	Kubota	ZD331 Mower	2008	N/A
340	DPW	Parks & Forestry	Exmark	Tracer Mower	2008	N/A
65	DPW	Parks & Forestry	Ford	F-350 4WD Pick-Up	2008	10,600
50	DPW	Parks & Forestry	Ford	F-150 4WD Pick-Up	2008	6,800
41	DPW	Parks & Forestry	Ford	F-350 4WD Pick-Up	2009	10,600
73	DPW	Parks & Forestry	Ford	F-350 One Ton Dump Truck	2008	13,000
72	DPW	Parks & Forestry	Ford	F-550 One Ton Dump Truck	2007	17,950
352	DPW	Parks & Forestry	Kubota	ZD331 Mower	2008	N/A
356	DPW	Parks & Forestry	Scott	18-6 Aerator	1985	N/A
303	DPW	Parks & Forestry	Ford	1710 Tractor	1985	N/A
143	DPW	RTS	Case	721E Front End Ldr.	2010	N/A
104	DPW	RTS	Case	821E Front End Ldr.	2008	N/A
56	DPW	RTS	Ford	F-150 2WD Pick-Up	2010	6,700
91	DPW	RTS	Screen Machine	SCALPER107D	2000	N/A
67	DPW	RTS	Vermeer	HG365001 Wood Grinder	2004	N/A
93	DPW	RTS	McCloskey International	512R Screener	2004	21,000
11	DPW	Sewer	Ford	Explorer 4WD SUV	2009	6,160
17	DPW	Sewer	Ford	F-550 4WD Dump	2012	18,000
37	DPW	Sewer	International	Vactor	2010	66,000
23	DPW	Sewer	Ford	F-350 Cab & Chassis	2011	13,300
837	DPW	Sewer	IH	S4900	1999	35,000
837A	DPW	Sewer	Stedt	920T/13	1999	N/A
New	DPW	Sewer	N/A	N/A	N/A	N/A
14	DPW	Water	International	7600 Ten Wheel Dump Truck	2009	60,332
25	DPW	Water	Ford	F-450 4WD Utility Body	2012	16,500
324	DPW	Water	Tow Master	C10LS	2006	N/A
115	DPW	Water	Mauldin	1350WS Excavator	2008	18,400
26	DPW	Water	Ford	F-150 XL Pick-Up Truck	2010	7,050
27	DPW	Water	Ford	F-150 XL Pick-Up Truck	2010	7,050
31	DPW	Water	Ford	F-150 X 4WD Pick-Up	2010	7,200
20	DPW	Water	Ford	Escape Hybrid	2009	4,880
21	DPW	Water	Ford	F-150 2WD Pick-Up Truck	2010	6,700
22	DPW	Water	Ford	F-450 Utility Body	2009	16,500
24	DPW	Water	Ford	F-150 Pick-Up Truck	2009	6,700
128	Police?		PSC	SMTM Traffic Monitor	2002	1,060

DEPARTMENT OF PUBLIC WORKS - PROGRAM QUESTIONNAIRE



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UNIT#	YEAR	TYPE	MAKE	MODEL	DIV	Storage	Seasonal Use	Location	Size
001	2011	SUV / Hybrid	Ford	Escape Hybrid	Administration				
002	2010	Pickup Truck	Ford	F150	Garage				
003	2012	Utility Truck	Ford	F450 Utility	Garage				
004	2006	Pickup Truck	Ford	F350 4WD	Garage				
005	2011	Dump Truck	IH	7400	RTS.				
006	2000	Dump Truck 6 Wheel	IH	S4900	Highway	Indoor	All	DPW	12x26
007	2000	Dump Truck 6 Wheel	IH	S4900	Highway	Indoor	All	DPW	12x26
008	2014	Dump Truck 6 Wheel	IH	7400	Highway	Indoor	All	DPW	12x26
008A	0								
009	2012	Dump Truck 6 Wheel	IH	7400	Highway	Indoor	All	DPW	12x26
010	2010	Dump Truck 6 Wheel	IH	7400	Highway	Indoor	All	DPW	12x26
011	2013	SUV	Ford	Explorer 4WD	S.	Outdoor	All	DPW	9x16
012	2009	SUV / Hybrid	Ford	Escape Hybrid	Parks & Forestry	Outdoor	All	DPW	9x16
014	2009	Dump Truck 10 Wheel	IH	7600	Water	Indoor	All	DPW	14x30
015	2008	Sedan	Ford	Taurus Sedan	Administration	Outdoor	All	DPW	9x16
016	2013	Box Truck	Freightliner		S.	Indoor	All	DPW	10x32
017	2012	Dump Truck	Ford	F550 4WD Dump Truck	S	Indoor	All	DPW	10x18
018P	2000	Pickup Truck	Ford	F150	Garage				
019	2010	Dump Truck	IH	7400	S.	Indoor	All	DPW	12x22
020	2009	SUV / Hybrid	Ford	Escape Hybrid	S.	Outdoor	All	DPW	9x16
021	2010	Pickup Truck	Ford	F150	Water	Outdoor	All	DPW	9x18
022	2009	Utility Truck	Ford	F450	Water	Indoor	All	DPW	10x18
023	2011	Pickup/Utility	Ford	F350 Utility	S.	Outdoor	All	WSPS	10x18
024	2009	Pickup Truck	Ford	F150	Water	Outdoor	All	DPW	9x18
025	2012	Pickup Truck/Utility	Ford	F450 Utility	Water	Indoor	All	DPW	10x18
026	2011	Pickup Truck	Ford	F150	Water	Outdoor	All	CRWTF	9x18
027	2011	Pickup Truck	Ford	F150	Water	Outdoor	All	CRWTF	9x18
028	2001	Cab & Chassis	Ford	F350	S.	Indoor	All	DPW	10x22
029	2008	Sewer Jet Cl.	IH	7400	S.	Indoor	All	DPW	12x30
030	1999	Dump Truck	Ford	F350 4WD	Water	Indoor	All	DPW	10x18
031	2011	Pickup Truck	Ford	F150 4x4	Water	Outdoor	All	DPW	9x18
832	2005	Pickup Truck	Ford	F350	Highway	Covered	All	DPW	10x22
032	2012	Pickup Truck	Ford	F350 4WD Pickup	Highway	Indoor	All	DPW	10x22
034	2001	Tractor	Mack	CH613	RTS.				
037	2010	Vector Truck	IH	7500	D.	Indoor	All	DPW	12x40
038	2007	Cab & Chassis	IH	4300	Parks & Forestry	Indoor	All	DPW	12x40
039	2012	Dump Truck	Ford	F550 4WD	Highway	Indoor	All	DPW	10x22
040	2000	Pickup Truck/Utility	Ford	F350 Utility	Water	Indoor	All	DPW	10x18
041	2009	Pickup Truck	Ford	F350 4WD	Parks & Forestry	Indoor	All	DPW	9x20
042	1999	Rolloff	Mack	RD688S	RTS.				
042A	2010	16' Mat. Spread.	HI-WAY	E2020XT-16					
043	2012	Pickup Truck	Ford	F350 4WD	Highway	Indoor	All	DPW	10x22
044	2011	SUV / Hybrid	Ford	Escape Hybrid	E.	Outdoor	All	DPW	9x16
045	2006	Van	Ford	E150	E.	Indoor	All	DPW	10x18
046	2011	SUV / Hybrid	Ford	Escape Hybrid	E.	Outdoor	All	DPW	9x16
047	2007	Dump Truck 6 Wheel	IH	7400	Highway	Indoor	All	DPW	12x26
048	2008	Utility Truck	Ford	F450 Utility	Highway	Indoor	All	DPW	12x22
049	2002	Dump Truck 10 Wheel	Volvo	VH064B	Highway	Indoor	All	DPW	14x30
050	2008	Pickup Truck	Ford	F150	Parks & Forestry	Indoor	All	DPW	9x20
051	1996	Compressor Truck	Ford	F350 4WD	Highway	Indoor	All	DPW	10x22
052	2009	SUV / Hybrid	Ford	Escape Hybrid	Highway	Outdoor	All	DPW	9x16
053	1992	Rolloff	Mack	RD690SX	RTS.				
054	1987	Dozer	Komatsu	D83E-1	RTS.				
055	2011	Dump Truck	Ford	F550 4WD	Highway	Indoor	All	DPW	10x22
056	2010	Pickup Truck	Ford	F150	RTS.				
057	2012	Pickup Truck	Ford	F350 4WD	Highway	Indoor	All	DPW	10x22
058	2011	Refuse Trailer	Steco	SW04500	RTS.				
059	2009	Refuse Trailer	Steco	Utility	RTS.				
060	2005	Refuse Trailer	Steco	SW04502	RTS.				
061	1992	Skid Steer Ldr.	Bobcat	853H	RTS.				
062	1992	Trailer	Trail King	TK8U-1400	Parks & Forestry	Covered	All	DPW	10x16
063	2010	Refuse Trailer	Steco	SE04502	RTS.				
064	2007	Refuse Trailer	Manec	36245A00	RTS.				
065	2008	Pickup Truck	Ford	F350 4WD	Parks & Forestry	Indoor	All	DPW	9x20
066	2006	Dump Truck	Ford	F550 4WD	Highway	Indoor	All	DPW	10x26
067	2004	Tub Grinder	Vermeer	HG365001	RTS.				
070	2009	Dump Truck	Ford	F550 4WD	Parks & Forestry	Indoor	All	DPW	10x22
071	2009	Dump Truck	Ford	F550 4WD	Parks & Forestry	Indoor	All	DPW	10x22
072	2007	Dump Truck	Ford	F550 4WD	Parks & Forestry	Indoor	All	DPW	10x22
073	2008	Dump Truck	Ford	F350 4WD	Parks & Forestry	Indoor	All	DPW	10x22
074	2008	Dump Truck	Ford	F550 4WD	Parks & Forestry	Indoor	All	DPW	10x22
075	2008	Dump Truck	Ford	F550 4WD	Parks & Forestry	Indoor	All	DPW	10x22
076	2006	Skid Steer Ldr.	Bobcat	A300	Highway	Indoor	All	DPW	8x10
080	2010	Rubbish Packer	IH	4300	RTS.				
081	1997	Utility Truck	Ford	F450	RTS.				
090	2000	Refuse Trailer	SpecTec	SW045102102	RTS.				
091	2000	Material Screener	Screen Machine	SCALPER107D	RTS.				
092	2012	SUV 4WD	Ford	Explorer 4WD	E.	Indoor	All	DPW	9x16
093	2004	Trommel Screener	MCB	Screener 512R	RTS.				
094	2014	Pickup Truck/Utility	Ford	F250 4WD Utility	S.	Indoor	All	DPW	10x18
101	2010	Wheel Loader	Case	721EXT	S.	Indoor	All	DPW	12x26
102	2008	Tractor Loader	John Deere	544J	Highway	Indoor	All	DPW	14x30
103	2012	Backhoe	John Deere	3105J	S.	Indoor	All	DPW	12x24
104	2008	Tractor Loader	Case	821E	RTS.				
105	1998	Track Loader	Caterpillar	963B	RTS.				
106	2002	Sidewalk Tra.	Trackless	MTV	Highway	Indoor	All	DPW	4.5x15
107	2008	Sidewalk Tra.	Camoplast	SW4S	Highway	Indoor	All	DPW	4.5x15
108	2011	Sidewalk Tra.	Trackless	MT6	Highway	Indoor	All	DPW	4.5x15
109	1995	Sidewalk Tra.	Holder	C500	Highway	Indoor	All	DPW	4.5x15
111	1995	Sidewalk Tra.	Trackless	MTV	Highway	Indoor	All	DPW	4.5x15
112	1996	Sidewalk Tra.	Bombardier	SW48DA	Highway	Indoor	All	DPW	4.5x15
113	2008	Sidewalk Tra.	Camoplast	SW4S	Highway	Indoor	All	DPW	4.5x15
115	2008	Excavator	Kubota	KX080-3	Water	Indoor	All	DPW	12x26
116	1998	Sidewalk Tra.	Bombardier	SW48	Highway	Indoor	All	DPW	4.5x15
117	2000	Sidewalk Tra.	Bombardier	SW48	Highway	Indoor	All	DPW	4.5x15
120	2004	Message Board	Solar	MB33048		Covered	All	DPW	8x12
121	2007	Message Board	VER-MAC	1210QS	E.	Covered	All	DPW	8x12
122	2007	Message Board	VER-MAC	1210QS	E.	Covered	All	DPW	8x12
123	2009	Trailer	Car Mate	CM612EC	Highway	Covered	All	DPW	10x16
124	2009	Message Board	Matrix	MAG4X3H	E.	Covered	All	DPW	8x12
125	2012	Message Board				Covered	All	DPW	8x12
128	2002	Traffic Monitor	PSC	SMTM	Highway	Covered	All	DPW	4x6
129	2000	Trailer	Custom	5T162EDBTW	Highway	Covered	All	DPW	10x18
131	2000	Roller	Dynapac	CC122	Highway	Indoor	All	DPW	10x18
133	2001	Backhoe	John Deere	310SG	Parks & Forestry	Indoor	All	DPW	12x24
134	2006	Roller	Wacker	RD11A	Highway	Indoor	All	DPW	10x12
143	2010	Wheel Loader	Case	721E	RTS.				
144	2011	Compactor Crane	Grizzly		RTS.				
145	2011	7'x12' Open Trailer	Pace	Workspout					
150	1981	Welder/Trailer	Hobart	Mega-Arc	Water	Indoor	All	DPW	6x8
151	2008	Compressor/Trailer	Ingersoll Rand	P185WJD	Water	Indoor	All	DPW	6x8
152	2010	Compressor/Trailer	Atlas Copco	XAS185	S.	Indoor	All	DPW	6x8
153	2012	Portable Welder	Miller	Bobcat 907211021	G				
156	2011	10' Pump/Trailer	Baker / Robinson	1340	Water	Indoor	All	Res B. PS	8x12
157	2012	6' Pump/Trailer	PP & P		Water	Indoor	All	DPW	6x10

DEPARTMENT OF PUBLIC WORKS - VEHICLE INVENTORY

159	2004	4" Pump/Trailer	Godwin		Water	Indoor	All	DPW	6x10
161	2006	Utility Vac/Trailer	Wachs	Trav-L-Vac	Water	Indoor	All	DPW	6x10
164	2008	Trailer Mtd Generator	Atlas Copco	QAS78 65KW	Water	Indoor	All	Res B. PS	8x12
168	2010	4" Pump	Gorman-Rupp	PA4A60	Parks & Forestry	Indoor	All	DPW	6x12
169	1998	6" Pump/Trailer	Godwin	CD150M	Water	Indoor	All	Res B. PS	6x10
170	2000	4" Pump/Trailer	Godwin	CD100MBS	S.	Indoor	All	Res B. PS	6x10
171	2011	6" Pump/Trailer	Gorman-Rupp		S.	Indoor	All	Res B. PS	6x10
181	2012	Sweeper	Elgin	Pelican	Highway	Indoor	All	DPW	12x22
182	2010	Sweeper	Elgin	Crosswind	Highway	Indoor	All	DPW	12x22
193	2011	Light Tower	Magnum	MLT3060K	Water	Indoor	All	DPW	6x10
198	1999	Light Tower	Wacker	LT4Z	Water	Indoor	All	DPW	6x10
199	2006	Startall	Goodall	11-620	Garage				
202	1982	Sprayer	Bean		Parks & Forestry	Indoor	All	DPW	8x16
206	2011	Snow Blower	RPM Tech	RPM217	Highway	Indoor	All	DPW	10x10
214	1966	Trailer	Surplus	M416	Garage				
233	2012	Blacktop Spred.	Salsco	TP-411	Highway	Indoor	All	DPW	10x10
259	2010	Trailer - Tilt Deck	Hudson	HD10	Highway	Covered	All	DPW	8x10
260	2009	Trailer	Felling	FT24T	Water	Covered	All	DPW	12x26
261	2009	Trailer - Enclosed	Hudson	HD10	Water	Covered	All	DPW	6x12
262	2009	Roller							
263	2009	Conveyor	HTC	1200L	Highway	Covered	All	DPW	8x10
301	2009	Van	Ford	E150	Parks & Forestry	Outdoor	All	DPW	9x18
306	1980	Mower	National	Triplex	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	4x8
309	1992	Sweeper	MB	WB36	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	4x8
321	2008	Trailer	Cross Country	14' Utility	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	8x18
322	2008	Trailer	Cross Country	16' Utility	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	8x20
323	2010	Trailer	Pace	JV612SA	Highway	Covered	All	DPW	10x16
324	2006	Trailer	Towmaster	C10LS	Water	Covered	All	DPW	12x26
328	1998	Trailer	Cross Country	16' Utility	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	8x20
329	1962	Trailer	Wise		Parks & Forestry	Covered	Spring, Summer, Fall	DPW	8x18
330	2000	Trailer	Contrail	C10	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	8x18
331	2004	Trailer	Cross Country	14' Utility	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	8x18
332	2009	Trailer	Cross Country	16' Utility	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	8x20
333	2008	Mower	Kubota	ZD331	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	4x8
334	2011	Mower	Toro	3500D	P	Indoor	Spring, Summer, Fall	DPW	8x14
335R	1999	Field Renovator	Smithco	13-550	Parks & Forestry	Indoor	Spring, Summer, Fall	DPW	4x8
336	2011	Mower	Toro	5900	Parks & Forestry	Indoor	Spring, Summer, Fall	DPW	8x14
336R	2000	Mower	Toro	580D	Parks & Forestry	Indoor	Spring, Summer, Fall	DPW	8x14
342	2009	TX Gator	John Deere	TX Gator	Parks & Forestry	Indoor	Spring, Summer, Fall	Memorial Park	6x8
343	2011	Debris Blower	Toro	44538 Pro Force	Parks & Forestry	Indoor	Spring, Summer, Fall	Memorial Park	6x6
350	2010	Tractor Loader	John Deere	4720	Parks & Forestry	Indoor	All	DPW	8x12
351	2002	Tractor	John Deere	4410	Parks & Forestry	Indoor	All	DPW	8x12
352	1998	Mower	Jacobsen	T428D	Parks & Forestry	Indoor	Spring, Summer, Fall	DPW	6x10
352	2008	Mower	Kubota	ZD331	Parks & Forestry	Indoor	Spring, Summer, Fall	DPW	6x10
353	1989	Sweeper	Smithco	75-500	Parks & Forestry	Indoor	Spring, Summer, Fall	DPW	6x10
354		Spreader	Lely	T15 W	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	6x6
355	1974	Sweeper	Jacobsen	154	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	6x6
356		Aerator	Scotts	18-6	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	6x8
400	2005	Sedan	Ford	Taurus Sedan	BH.				
402	2004	Van	Ford	E350	COA				
403	2006	Trailer	Haulmark	TS6X12DS2	BH.				
452	2005	Sedan	Ford	Taurus Sedan	ASR.				
453	2005	Sedan	Ford	Taurus Sedan	B.				
454	2005	Sedan	Ford	Taurus Sedan	B.				
455	2006	Sedan	Ford	Taurus Sedan	B.				
456	2002	Sedan	Ford	Taurus Sedan	B.				
457	2002	Van	Ford	E150	B.				
600	2004	School Bus	Freightliner		SCH				
601	2011	School Bus	Bluebird	BBCV	SCH				
602	2011	School Bus	Bluebird	BBCV	SCH				
603	2011	School Bus/Van	Ford	E150	SCH				
604	2011	School Bus/Van	Ford	E150	SCH				
605	2011	School Bus/Van	Ford	E150	SCH				
606	2011	School Bus/Van	Ford	E150	SCH				
607	2011	School Bus/Van	Ford	E150	SCH				
608	2011	School Bus/Van	Ford	E150	SCH				
700	2012	Van	Ford	E250	PFD				
700R	1996	Van	Ford	E250	PFD				
701	1998	Van	Ford	E250	PFD				
702	2001	Pickup Truck	Ford	F250	PFD				
703	2001	Rack Truck	Ford	F450	PFD				
704	2005	Van	Ford	E250	PFD				
705	2006	Van	Ford	E250	PFD				
706	2006	Van	Ford	E250	PFD				
707	2008	Van	Ford	E250	PFD				
708	2008	Van	Ford	E250	PFD				
709	2002	Pickup Truck	Ford	F150	PFD				
710	2008	Leaf Vac	Fradan	TLV-31	PFD				
712	2011	Van	Ford	E250	PFD				
756	2010	Pickup Truck	Ford	F150	PFD				
802	2005	Pickup Truck	Ford	Ranger	CC.	Outdoor	All	DPW	
805	1995	Dump Truck	IH	S4900	RTS.				
808	1996	Dump Truck 6 Wheel	IH	S4900	Highway	Covered	All	DPW	12x26
837	1999	Catch Bas. Truck	IH	S4900	S	Indoor	All	DPW	12x20
A001	2010	Tiller	Land Pride	RTA2072	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	4x4
A002	2010	Aerator/Corer	John Deere	AERCORE 1000	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	6x8
A003	2010	Broadcast Spreader	Land Pride	FSP500	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	6x6
A004	2008		Kubota	Digging Bucket					
A005	2008		Kubota	Digging Bucket					
A006	2008		Werkbrau	Grading Bucket					
A009	1989		Trackless	Sickle Bar					
A010	1989		Trackless	72" Mower Deck					
A011	1989		Trackless	Flail Mower					
A012	2008	4.5 YDGP BUCKET		4.5 YDGP BUCKET					
A014	2010	3.5 YD BUCKET	JRB	3.5 YD BUCKET					
A101	2010	10' Hyd. Angle Broom	Sweepster	21321MH-0913	S.	Covered	All	DPW	10x4
A105	2009	Infield Groomer	Rahn	GL650	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	6x8
A106	2009	Fertilizer Spreader	Land Pride	FSP700	Parks & Forestry	Covered	Spring, Summer, Fall	DPW	6x6
A143	2010	10' Hyd. Angle Broom	Sweepster	21321MH-0913	L.				
P001	1999		Root	TPRI0TE					
P002	1999		Viking	CTE934					
P003	1999		Viking	CTE934					
P004	1998		Fisher						
P005	1995		Root	TPET.11					
P006	1996		Root	TPET.10.97					
P007	1990		Viking	R1136MTE					
P008A	0		Fisher						
P009	0		Baker	372A					
P010	1990		Viking	R1136MTE					
P011	0		Baker / Flink	459S					
P012	0		Baker						
P013	0		Baker	372A					
P014	0		Baker	372A					
P015	0		Baker						
P016	0		Baker	372A					
P017	0		Baker						

DEPARTMENT OF PUBLIC WORKS - VEHICLE INVENTORY

EXISTING STORAGE ON OTHER SITES	SF
Defazio Storage Area A	9,652
Defazio Storage Area B	2,200
Defazio Salt Shed	4,063
Daley Building	10,425
Alden Road Pump Station	620
Charles River WTP	160
Reservoir B Pump Station Garage	1,000
St. Mary's Pump Station	415
Winter Rental	1,500
Cricket Field	1,500
Claxton Field	1,000
Cage at Defazio	5,899
Memorial Field *	+3,000
Ridge Hill Reservation Garages and Barn *	+3,000
Material Bins at Dedham Ave *	+3,000
TOTAL	47,434

* Actual SF to be confirmed

DEPARTMENT OF PUBLIC WORKS - EXISTING STORAGE ON OTHER SITES

	Space	Room Data #	Occupants	Visitors	Size proposed SF	Total GSF Subtotals	Total GSF per division	Notes
Department of Public Works								
	Entry Vestibule - Lobby	S-1	0	0	240			
	Lunchroom	S-2		0	425			
	Shared Office Equipment-Copy-Supply	S-3	0	0	250			
	Office Supplies	S-4	0	0	135			
	(5) Coat Closet	S-5	0	0	90			
	(2 Sets) Staff Toilet	S-6	0	0	675			
	Training/DPW Storm Command: Dispatch, Office and Conference Room	S-7	8	0	1240			
	Training Storage	S-8	0	0	250			
	SUBTOTAL					3,305		
	Gross area adjustment 15%					496		
	Circulation adjustment at 25%					950		
	SUBTOTAL GSF					4,751		
	SHARED SUBTOTAL GSF						4,751	
Administration								
	DPW Director Office	A-1	1	4	216			
	Assistant DPW Director Office	A-2	1	2	192			
	Administrative Supervisor	A-3	1	2	144			
	Administrative Area	A-4	4	0	900			
	Conference	A-5	10	0	216			
	SUBTOTAL					1,668		
	Gross area adjustment 15%					250		
	Circulation adjustment at 25%					480		
	SUBTOTAL GSF					2,398		
Administration - Operations								
	Highway Superintendent Office	AO-1	1	1	144			
	Assistant Highway Superintendent	AO-2	1	0	100			
	Park and Forestry Superintendent Office	AO-3	1	1	144			
	Assistant Park and Forestry Superintendent	AO-4	1	0	100			
	Sewer and Water Superintendent Office	AO-5	1	1	144			
	Assistant Sewer and Water Superintendent	AO-6	1	0	100			

DEPARTMENT OF PUBLIC WORKS - FULL PROGRAM

	Space	Room Data #	Occupants	Visitors	Size proposed SF	Total GSF Subtotals	Total GSF per division	Notes
	Work Areas for 11	AO-7	6	0	560			
	Active Records Storage	AO-8	0	0	150			
	SUBTOTAL					1,442		
	Gross area adjustment 15%					216		
	Circulation adjustment at 25%					415		
	SUBTOTAL GSF					2,073		
	Administration - Engineering							
	Town Engineer Office	E-1	1	4	192			
	Assistant Town Engineer Office	E-2	1	1	144			
	Contract Administrator	E-3	1	1	144			
	Survey	E-4	2	0	250			
	Traffic Engineer	E-5	1	0	120			
	Clerk - Office Manager	E-6	1	0	120			
	CAD Manager + Drafter	E-7	3	0	260			
	Inspectors	E-8	3	0	320			
	Engineering Assistant	E-9	1	0	100			
	Library	E-10	0	0	240			
	Service desk; large format copy equipment; light table and files	E-11	0	0	440			
	Vault Storage	E-12	0	0	750			
	Survey Equipment Storage	E-13	0	0	100			
	SUBTOTAL					3,180		
	Gross area adjustment 15%					477		
	Circulation adjustment at 25%					914		
	SUBTOTAL GSF					4,571		
	ADMINISTRATION SUBTOTAL						9,042	
	Operations - Employee Support							
	Locker/Shower/Toilet Room - Male	O-1			1350			
	Locker/Shower/Toilet - Female	O-2			546			
	Lunchroom with Kitchen	O-3			600			
	Laundry	O-4			156			
	SUBTOTAL					2,652		
	Gross area adjustment 15%					398		
	Circulation adjustment at 25%					762		
	SUBTOTAL GSF					3,812		
	Operations - Garage/Maintenance							

DEPARTMENT OF PUBLIC WORKS - FULL PROGRAM

Space	Room Data #	Occupants	Visitors	Size proposed SF	Total GSF Subtotals	Total GSF per division	Notes
Fleet Supervisor	O-5			200			
Garage Maintenance Bays	O-6			6988			
Fluid Storage	O-7			400			
Tire Storage	O-8			400			
Parts & Supply Storage	O-9			900			
Maintenance Workshop	O-10			1850			
SUBTOTAL					10,738		
Gross area adjustment 15%					1,611		
Circulation adjustment at 20%					2,470		
SUBTOTAL GSF					14,818		
Operations - Shops							
Shared Vehicle Bay	O-11			1485			
Parks and Forestry Storage Bay	O-12			400			
Water Storage	O-13			800			
Sewer + Drains Storage	O-14			400			
Highway Storage	O-15			400			
Highway Tool Cage	O-16			400			
Highway Sign and Meter Shop	O-17			460			
SUBTOTAL					4,345		
Gross area adjustment 15%					652		
Circulation adjustment at 15%					750		
SUBTOTAL GSF					5,746		
Operations - Wash Bay/Vehicle Storage and Prep							
Wash Bay & Equipment Room	O-18			1538			
Vehicle Staging & Prep	O-19			38500			
SUBTOTAL					40,038		
Gross area adjustment 10%					4,004		
Circulation adjustment at 5%					2,202		
SUBTOTAL GSF					46,244		
OPERATIONS SUBTOTAL GSF						70,621	
Building Support							
Janitor Closet	B-1			136			
Plumbing/Fire Protection Room	B-2			144			
Mechanical Closet	B-3			144			
Main Electric Room	B-4			100			
Emergency Electrical Room	B-5			100			

DEPARTMENT OF PUBLIC WORKS - FULL PROGRAM

Space	Room Data #	Occupants	Visitors	Size proposed SF	Total GSF Subtotals	Total GSF per division	Notes
Computer and IT	B-6			225			
IT Office	B-7			75			
Elevator and Machine Room	B-8			192			
Egress Stairs	B-9			544			
SUBTOTAL					1,660		
Gross area adjustment 15%					249		
Circulation adjustment at 20%					382		
SUBTOTAL GSF					2,291		
BUILDING SUPPORT SUBTOTAL GSF						2,291	
GRAND TOTAL DPW						86,704	
Building Inspector Suite							
SUBTOTAL					2,055		
Gross area adjustment 15%					308		
Circulation adjustment at 25%					591		
SUBTOTAL GSF					2,954		
Public Facilities Department Suite							
SUBTOTAL					1,175		
Gross area adjustment 15%					176		
Circulation adjustment at 25%					338		
SUBTOTAL GSF					1,689		
Planning, Community Development, Conservation Commission, ZBA Suite							
SUBTOTAL					1,765		
Gross area adjustment 15%					265		
Circulation adjustment at 25%					507		
SUBTOTAL GSF					2,537		
Park and Recreation Suite							
SUBTOTAL					1,200		
Gross area adjustment 15%					180		
Circulation adjustment at 25%					345		
SUBTOTAL GSF					1,725		
Other Departments SUBTOTAL GSF						8,905	
CONSOLIDATED GSF						95,610	

DEPARTMENT OF PUBLIC WORKS - FULL PROGRAM

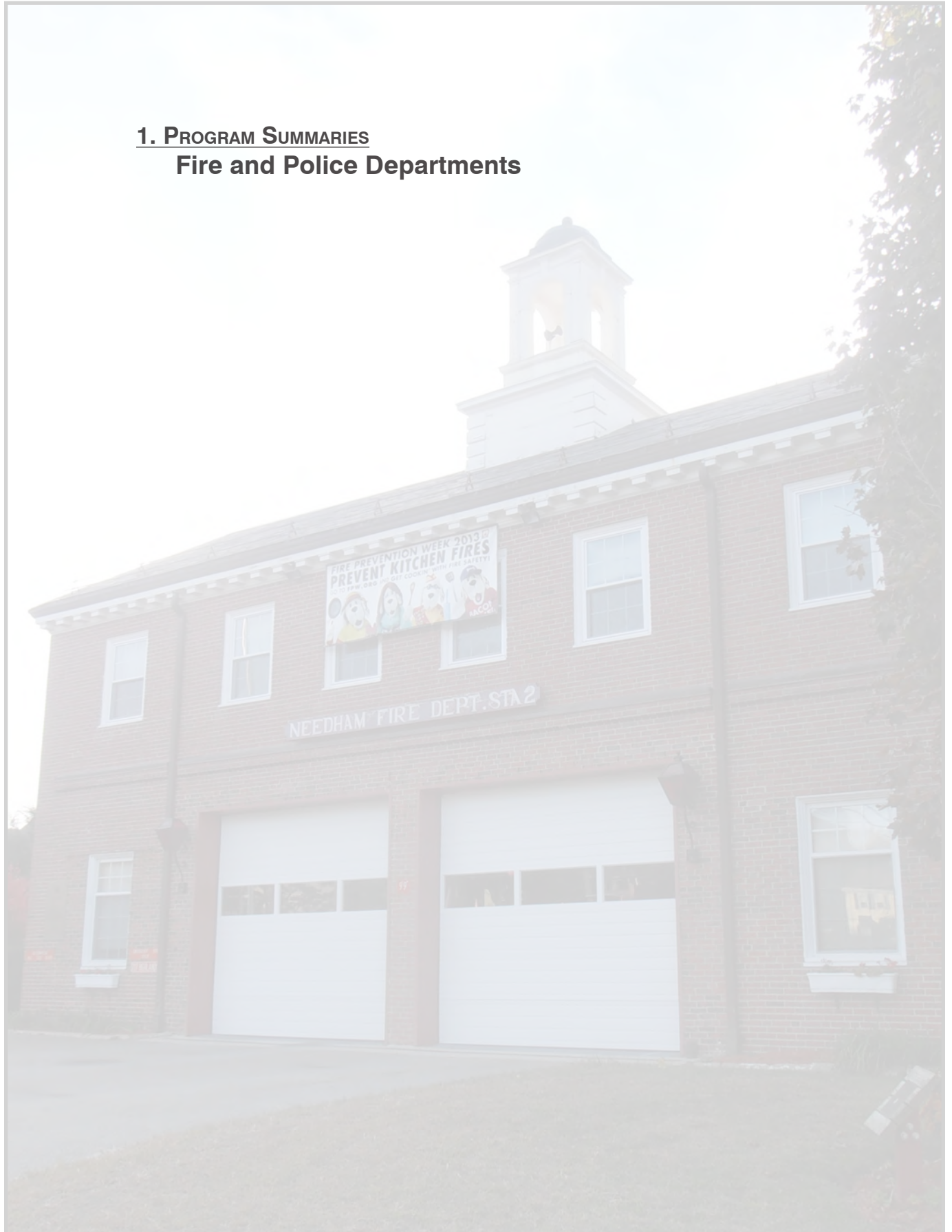
		Room Data #	Occupants	Visitors	Size proposed SF	Total GSF Subtotals	Total GSF per division	Notes
	Covered Parking for DPW Equipment							36 Vehicles
	Parking							72 employees plus 10 visitors
	Fuel Island							
	Bin Storage							6: Patch, gravel x 2, rock, sand, mulch
	Sanders							x - 6 yd; x - 2 yd.
	Exterior Storage							Cold storage for plows + misc parts and pieces
	Spreaders							Hung
	Dumpster							1
	Recycling dumpster							1

DEPARTMENT OF PUBLIC WORKS - FULL PROGRAM

	470 Dedham Ave	RTS	Greendale Ave. Parcel 74	Town Forest	Nike Site		
CATEGORY	Actual Value	Actual Value	Actual Value	Actual Value	Actual Value	Max Value	CRITERIA/COMMENTS
1. LOCATION	18	14	12	8	14	20	
1.1 Geographic location	5	3	5	4	2	5	Central to mission; moderate changes to operations; requires change to existing operations
1.2 Neighborhood	5	4	3	1	4	5	Minimal impact on residential neighborhood and community; moderate impact; significant impact
1.3 Current Use	4	3	0	0	3	4	Continued use; compatible use; currently undeveloped and used by others (recreational use open space)
1.4 Zoning By-laws	2	2	2	2	2	3	Allowed - complies with use, dimensional requirements and performance standards; Use allowed with moderate approval; Use will be difficult or costly to win approval (due to constraints such as historic preservation)
1.5 Public Facade/Screening	2	2	2	1	3	3	No private owner abutters, nothing special required; Abutters with adequate area for screening; Abutters with inadequate area for screening
2. ACCESSIBILITY	4	2	7	5	2	10	
2.1 Site Access	3	1	4	3	1	5	Ease of access through existing entry points and roadways; some impact on entry or roadway; significant impact including limited emergency access
2.2 Traffic	1	1	3	2	1	5	No impact on traffic patterns; some impact; significant impact
3. SITE FEATURES	3	11	19	15	19	20	
3.1 Adequate site size	0	2	6	4	6	6	Optimum size - allows for expansion; good size but no expansion capability; undersized for full program
3.2 Existing Structures/Historic Preservation	1	4	4	1	3	4	Existing structures will not impede development ; some impact on intended use; full impact
3.3 Operations - ease of use	2	2	4	4	4	4	Staff and Visitors use of site: Site easily split; site requires some overlap of uses; site uses overlap negatively
3.4 Flexibility/Circulation	0	3	5	6	6	6	Site can be reconfigured as needs change; site has limited reconfiguration options; site has no flexibility
4. ENVIRONMENTAL	9	8	12	7	7	15	
4.1 Wetlands	1	1	4	3	3	4	No wetlands or all work will occur outside of ConCom jurisdiction; indirect impact (work in buffer zones); direct impact on existing wetlands, flood plains, endangered species
4.2 Stormwater Management	2	2	4	3	1	5	Reasonable cost for stormwater management; moderate costs; excessive costs
4.3 Conservation/DEP Permitting	4	4	4	1	1	4	No work within designated vernal pool and/or rare species habitat; normal permitting process; work within vernal pool and/or rare species habitat
4.4 Existing Tree Cover	2	1	0	0	2	2	No major reduction; minimum to moderate clearing; major clearing
5. SITE DEVELOPMENT	10	7	16	17	12	20	
5.1 Utilities	4	2	4	4	2	4	Availability of gas, electricity, water, municipal sewage, storm drainage; some utilities need to be brought on site; most utilities need to be brought on site
5.2 Topography	4	2	2	3	4	4	Slopes range: % to %: appropriate for buildings parking - full access; some revisions to meet needs; significant access issues
5.3 Soils	0	2	4	3	2	4	Adequate for bearing capacity; non-standard foundations required
5.4 Hazardous Materials	1	1	4	4	3	4	Free of known contaminants; testing required; site history of contaminants
5.5 Costs of Development	1	0	2	3	1	4	Reasonable costs for development; moderate costs; excessive costs (cut/fill, clearing, blasting; renovation vs new)
6. AVAILABILITY	10	11	8	8	11	15	
6.1 Jurisdictional Control	4	4	1	1	3	5	Jurisdictional control remains same; trade of use acceptable and benefits both; highest and best use displaces traditional use in a less positive manner; change of jurisdictional control or use requires state legislative or agency approval
6.2 Displacement Required	1	2	4	4	3	5	Cost of relocation minimal; moderate; excessive
6.3 Acquisition	5	5	3	3	5	5	Cost, availability, time schedule, eminent domain: Reasonable costs, available for sale at this time; Costs high but available to meet schedule; Cost high with eminent domain
TOTAL	54	53	74	60	65	100	
7. SPECIAL CONSIDERATIONS							
7.1 Temporary buildings							Costs to temporarily house intended use minimal; moderate; excessive
7.2 Permanent changes to use							Change in use relatively simple; requires return to state for review, redistricting; loss of traditional use
7.3 Temporary use of site							Additions benefit traditional use; additions reduce traditional use; temporary elimination of traditional use
7.4 Time Schedule							Impact of Delay

DEPARTMENT OF PUBLIC WORKS - CRITERIA MATRIX

1. PROGRAM SUMMARIES
Fire and Police Departments



Programming Questionnaire
Administrative Areas

Police Department

Please provide as much information as possible for each section of the following questionnaire. You may not have an answer for every question but please do your best. The information will be used during the Master Planning programming effort for your department, division or group. Thank you for participating.

Name: **Chris Baker**

Department/Division/Group: **Police Department**

Phone number and email address: **781-455-7570 x223**

Date of Completion **1/9/14**

General Information

Function: Please describe the primary function of your department, division or group in as much detail as is possible.

We provide 24 hour public safety, enforcement, and services to the Town of
Needham. We have a lobby with constant walk-in service for our clientele. The
services include but are not limited to; car-seat installation, finger print services,
Firearms licensing, child custody exchanges and a secure medication return vault.
We arrest and process offenders at any time of the day, and have numerous victims
and suspects into the station to report a crime or answer questions related to a crime.
We also provide full animal control full animal control functions including temporary
boarding

Operation: Please provide information on the following: visitors to your offices, hours of operation, security concerns.

*Visitors and Interaction with Community: We have constant visitor traffic related to the
Services mentioned above from 7am to 10pm or later.*

Public Business Hours: The public is welcome 24 hours a day

*Staff Hours: Administration hours are from 7am to 5pm and patrol and dispatch personnel
Are staffed 24 hours a day*

Programming Questionnaire
Administrative Areas

Police Department

Security/Safety Concerns: A high level of security is needed for obvious reasons.

Issues such as noise, fumes, indoor temperature, natural daylight: The emergency Generator makes loud noise when it is running as does the heating compressor for the heater in the Fire Vehicle bays.

Shared spaces and access by Community: The training room and conference room are are on the second floor which presents an obvious safety concern. It would be a better option if the a community/training room was accessed from the front lobby and had no other access to the building.

Emergency Events: Please describe any special requirements or needs during emergency events (*Water, fuel or communication needs, outside assistance, changes to parking or queuing*).

We need a back-up generator for lights, the public safety computer system, the radio console and the cell block.

Other Information: Please provide additional information that you believe would provide a more complete picture of your needs with a focus on intangible ideas (*such as, we want to provide an open atmosphere but our work is too sensitive because*).

We are planning on combining Police and Fire Dispatch as this position has become very Technical and we need people to be quality trained and using the equipment daily. Our Cell block areas are all outdated and out of code. We need controls in dispatch for flushing toilets, and one click video surveillance. We lack space for interview/interrogation areas that meet current law enforcement standards. Our booking area does not meet the National Law Enforcement standards and could be configured is a more safe way. We do Not have a Sallyport for safe prisoner handling here at headquarters. Our evidence and Records storage areas are too small to meet our needs as well as State required guidelines. The Detective's Office has too many people in it and not enough space. We lack adequate useful space in the basement and the female locker room is too small.

Police Department

Staffing: Please provide an organizational chart for your department, division or group. Please include current staffing and possible projected staffing until the year 2033.

Needham Master Plan

Police Department

Vehicles: Please provide as detailed of a list as you can. Parking counts are required by zoning and this list will help us confirm needs and special issues particularly as it relates to fire, police, school bus and DPW equipment. Please provide overall sizes (*Small = 8' x 10', Medium = 8' x 20' – typical car, Large = 12' x 30', X-large = 12' x 40' or larger*). Please note if vehicle must be stored indoors or in an uncovered parking lot and other unique feature (*electric vehicle, handicap van etc*).

[illegible]

Programming Questionnaire
Administrative Areas

Police Department

Space Requirements

Existing Space: Please provide a list of key spaces used by your department, division or group. This list should include individual spaces and shared spaces with another department, division or group. If you have an idea of how large that space is or any distinguishing features please note that. Existing conditions and floor plans will be provided by the Town.

Space	Size (L x W)	Count	Comments
<i>Example: Office</i>	<i>10 x 12</i>	<i>8</i>	<i>Needs to be close to lobby</i>
<i>Example: Conference Rm</i>	<i>14 x 18</i>	<i>2</i>	<i>Needs to be dark with screen, projector</i>
<i>Example: Lobby</i>	<i>?</i>	<i>1</i>	<i>Shared by 3 departments, seating, toilets</i>
Lobby	15 x 17	1	
Public Restroom/Hall	14 x 15	1	Off Lobby
Dispatch	21 x 15	1	Off Lobby (too small for Joint Dispatch)
Server Room	12 x 8	1	Needs own climate control
Kitchen/Report Writing	15 x 9	1	Too many functions
Booking	9 x 14	1	Too small, poor configuration
Cell Block- Male	29 x 11	1	Out dated-Out of Compliance
Cell Block- Female	11 x 9	1	Out dated-Out of Compliance
Cell Block- Juvenile	18 x 20	1	Out dated-Out of Compliance
Lunch Room	19' Diameter	1	Circular Room
Office	12 x 12	1	Community Service/Animal Control
Office	8 x 10	1	Patrol Sergeants with Shared WS
Garage- Main Bays	44 x 40	1	Vehicle/Mountain Bike/Storage
Garage- Maintenance	35 x 33	1	Lift/Washbay/Storage
Detectives Office	22 x 13	1	Too many people/not enough space
Office	9 x 9	1	Detective Sergeant/ No closet
Male Locker Room	19 x 36	1	
Locker Room-Bathroom	15 x 12	1	
Conference Room	22 x 12	1	
Kitchen (2 nd Floor)	12 x 12	1	
Training	27 x 32	1	Shared with Fire
Exercise Room	13 x 15	1	Shared with Fire
Office	16 x 9	1	Admin Sergeant/Copier/File Storage/
Office	9 x 9	1	2 Records Admin Staff workstations
Office	12 x 12	4	Lieutenants offices
Office	16 x 12	1	Chiefs Office
Office	11 x 8	1	Chiefs Reception/Open Area
Female Locker Room	14 x 14	1	Not enough space for female officers
This sheet was filled out based on our current configuration			

Police Department

Individual Needs: Please list any specific individual need for staff in your department, division or group.

Note furniture or equipment they may need: *work surface with computer hookup only, work surface with file drawers, access to large work surface for collating or laying out projects, visual privacy for work surface as they deal with sensitive paperwork or screen work, quick access to printers and copiers etc.*

HKT Architects Inc.

Programming Questionnaire

Administrative Areas

Police Department

Storage Requirements

Storage Needs: Please list any specific storage needs for your department, division or group. Consider items currently stored on site and those that are stored elsewhere in Town. Consider whether current storage locations create any issues for access (*i.e. paper is stored in a locked room in an adjacent building or all equipment used in conference rooms needs to be moved from floor to floor x times a day/week*). Please list specific items stored. Please note if these items need special security (*assume all doors can be locked*).

[illegible]

Police Department Specific Programming

Police Vehicles: In the vehicle portion of this questionnaire you have listed your vehicles and equipment, both existing and projected. What other issues should we understand about these vehicles: *do you perform light maintenance in-house, do you have a preferred layout of first response equipment, do you provide an ambulance service in-house?*

We have a maintenance bay that needs a lift due to the fact that we have a mechanic.

The mechanic changes oil, brakes, rotates and changes tires, among other things. We Also have a wash bay. We do need a sallyport for safe handling of prisoners.

Dispatch and Communications: Describe current situation and preferred placement of this function?

We currently have split dispatch and are hoping to combine dispatch. The area should Have separate climate control as well as a restroom located directly adjacent to it. It Should also be located off the lobby and would house a desk police officer as well. All door Controls, cell controls should be there as well as a bank on LCD monitors for video feeds

Describe archived and secure storage needs: How many years of records do you maintain?

We follow the Massachusetts retention schedule and therefore have a high need of keeping Records on site for a number of years. Some of those records have to be held Permanently. We need access to recent records on 2nd floor with archive in the basement.

Phasing: If phasing of construction is required what are the major issues of concern?

We would have prisoner location concerns, dispatch concerns, records and evidence Storage concerns, vehicle parking and work station concerns.

Available Master Plan Programming; see attached



Town of Needham Fire Department Headquarters

88 Chestnut St.

Needham, MA 02492
(781) 455-7580 (781)444-2174 fax

Chief of Department
Paul F. Buckley

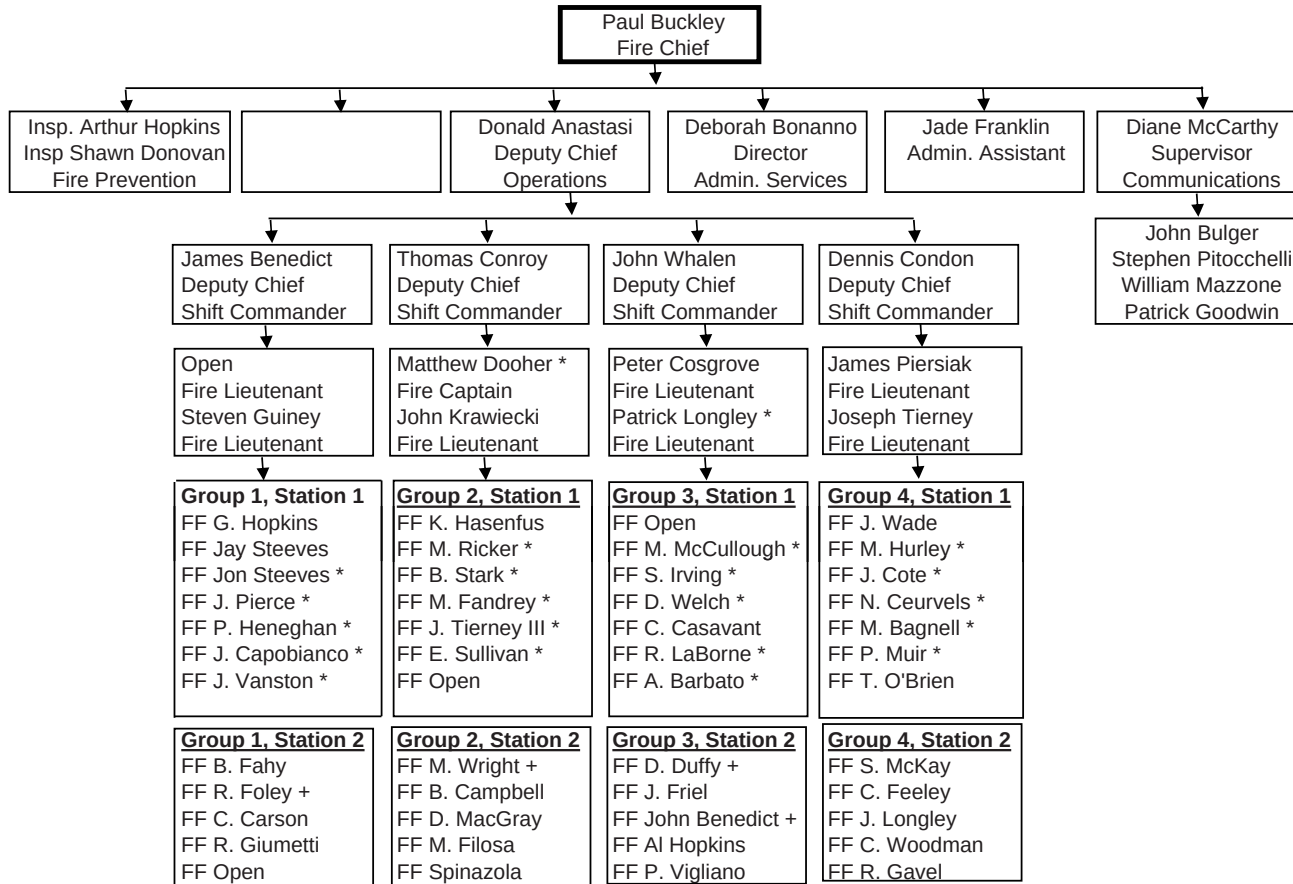
Deputy Chief of
Operations
Benedict
Donald E. Anastasi

Deputy Chiefs
Thomas Conroy
John F. Whalen
Barry J. Carloni
James A.

VEHICLE LISTINGS

C3 – 2008 Ford Explorer #MF5948 VIN#-1FMEU73858UA16862
C2 – 2010 Ford Expedition #MF9748 VIN# - 1FMJU1G50AEB48648
C1 – 2013 Ford Explorer #MF40 VIN#-1FM5KD89DGA42321
C42 – 2011 Ford Taurus #MF9085 VIN# - 1FAHP2HW6BG118685
C5 – 2001 – Ford F450 #2106 VIN# - 1FDFX46FX1EB46390
C6 – 2004 – Ford F350pu Brush #2108 VIN# - 1FDSF31P64ED45025
C43 -2007– Ford 500 #7673 VIN# - 1FAHP27127G127669
E1 – 2013- KME Predator/Panther #A618 VIN# 1K9AF4289DN058427
E2 – 1999 Emg.Cyclone #2099 VIN# 4ENGAAA88X1000368
E3 – 1994 Quint # 2109 VIN# 4ENDAAA87R1003011
E4 –2005- E1 2005 #2098 VIN# 4ENGAAA8X51009327
L1 – 2004 Sutphen Quint # 2100 # VIN 1S9A3LLE832003068
R1 – 2008 Ford Econoline Amb. # 37-944 #VIN 1FDXE45P38DA32762
R2 – 2006 Ford Rescue Amb. #5496 VIN# - 1FDXE45PX6HA04110
*New C-42 2011 Ford Taurus #9085 VIN# 1FAHP2HW6BG118685
*New C-2 2010 Ford Explorer # 9748 VIN# 1FMJU1G50AEB48648
HAZ/MAT TRAILER –1996 #M54-976 –VIN# 1UK500D16T1018747
FIRE ALARM TRAILER – 1969 #3703
RESCUE BOAT TRAILER– 1967 # M28-396 VIN# 4-1254
DE-CON TRAILER – 2002 # 7258 VIN #1UK500E2231043815
FOAM TRAILER-2010 #MFA706 VIN #1S9FT192600407033

Needham Fire Department Organizational Chart



	Space	Room Data #	Occupants	Visitors	Size proposed SF	Total GSF Subtotals	Total GSF per division	Notes
Police and Fire Department								
	PUBLIC AREAS - SHARED							
	Entry Vestibule - Lobby	S-1	0	4	338			
	Meeting Room	S-2	2	2	120			
	SUBTOTAL					458		
	Gross area adjustment 15%					69		
	Circulation adjustment at 25%					132		
	SUBTOTAL GSF					658		
Police and Fire Department								
	SHARED							
	Joint Dispatch	S-3	2	0	450			House officer at front near window with dispatch behind
	Training and Emergency Operations Center (EOC)	S-4	30	0	725			
	Training and EOC Storage	S-5	0	0	144			
	Conference Room	S-6	10	0	216			
	Fitness/Wellness Area	S-7	6	0	600			Could be in Basement
	SUBTOTAL					2,135		
	Gross area adjustment 15%					320		
	Circulation adjustment at 25%					614		
	SUBTOTAL GSF					3,069		
Police and Fire Department								
	SHARED SUBTOTAL GSF						3,727	
Police								
	OPERATIONS + SUPPORT							
	Roll Call / Squad Room	P-1	12	0	414			
	Report Writing	P-2	4	0	112			
	Sergeants	P-3	5	2	320			
	Evidence	P-4	1	0	400			Could be in Basement Could be in Basement
	Narcotics / Valuable Evidence	P-5	0	0	100			
	Armory	P-6	0	0	100			Could be in Basement
	Vehicle Storage	P-7	0	0	2400			
	Maintenance	P-8	1	0	1044			
	Wash Bay	P-9	0	0	900			
	Bulk Evidence	P-10	0	0	100			
	Crime Lab	P-11	1	0	256			Near Detectives
	Toilet / Shower / Locker Room Male	P12	50	0	1200			
	Toilet / Shower / Locker Room Female	P-13	12	0	450			
	Lunch / Break Room	P-14	10	0	280			
	Shooting Range Simulator	P-15	2	0	360			
	SUBTOTAL					8,436		
	Gross area adjustment 15%					1,265		
	Circulation adjustment at 25%					2,425		
	SUBTOTAL GSF					12,127		

FIRE AND POLICE DEPARTMENTS - FULL PROGRAM

	Space	Room Data #	Occupants	Visitors	Size proposed SF	Total GSF Subtotals	Total GSF per division	Notes
	OPERATIONS - DETENTION							
	Sallyport	P-16	0	0	560			
	Holding	P-17	1	0	72			
	Booking	P-18	1	1	300			
	Detainee Shower	P-19	1	0	48			
	Janitor in Booking area	P-20	0	0	30			
	Detention Cell - Male	P-21	4	0	308			
	Detention Cell - Female	P-22	1	0	77			
	Detention Cell - Juvenile	P-23	1	0	77			
	Juvenile Supervision	P-24	1	0	70			
	SUBTOTAL					1,542		
	Gross area adjustment 15%					231		
	Circulation adjustment at 25%					443		
	SUBTOTAL GSF					2,217		
	ADMINISTRATION							
	Police Chief Office	P-25	1	5	192			
	Administrative Assistant - Chief	P-26	1	1	168			
	Conference Room	P-27	10	0	216			
	Administrative Assistants	P-28	2	1	160			
	Lieutenant Office - 4	P-29	4	8	480			
	Detectives Office for 4 + Detective Sergeant	P-30	6	2	470			
	Interview Room	P-31	4	0	120			Prefer first floor close to cell block
	Juvenile Probation/Prosecutor Office / Court Officer	P-32	2	2	120			
	Shared Work Area	P-33	7	0	432			Prefer first floor
	Administrative Sergeant	P-34	1	2	120			
	Active Records Storage	P-35	0	0	100			
	Archival Document Storage	P-36	0	0	300			Could be in Basement
	Office Equipment / Copy	P-37	0	0	64			
	Server Room	P-38	0	0	80			
	Office Supplies	P-39	0	0	32			
	Coat Closet	P-40	0	0	57			
	Toilet Rooms	P-41	1	0	360			
	SUBTOTAL					3,471		
	Gross area adjustment 15%					521		
	Circulation adjustment at 25%					998		
	SUBTOTAL GSF					4,990		
	Police Department							
	GRAND SUBTOTAL GSF						19,333	
	Fire							
	OPERATIONS							
	Apparatus Bays	F-1	0	0	6036			Prefer 4 bay wide, 6 bay wide is OK; 3 bay wide last choice

FIRE AND POLICE DEPARTMENTS - FULL PROGRAM

	Space	Room Data #	Occupants	Visitors	Size proposed SF	Total GSF Subtotals	Total GSF per division	Notes
	Hose Storage	F-2	0	0	80			
	Gear Storage	F-3	12	0	650			
	Laundry	F-4	0	0	120			
	Maintenance Workshop	F-5	0	0	120			
	Medical Cleaning	F-6	0	0	120			
	SCBA Fill Room/OxygenStorage	F-7	0	0	160			
	Air Compressor	F-8	0	0	40			
	Radio Room	F-9	0	0	120			
	Haz Mat Supply Storage	F-10	0	0	80			
	Medical Supply Storage	F-11	0	0	100			
	Bulk Storage	F-12	0	0	144			
	SUBTOTAL					7,770		
	Gross area adjustment 15%					1,166		
	Circulation adjustment at 15%					1,340		
	SUBTOTAL GSF					10,276		
	ADMINISTRATION							
	Fire Chief Office	F-13	1	3	192			
	Administrative Assistant	F-14	1	2	120			
	Conference Room	F-15	10	0	216			
	Deputy Chief of Operations	F-16	1	4	120			
	Deputy Chief - Shift Commander Office/Dorm	F-17	1	2	200			
	Shared Lieutenant or Captain Office/Dorm	F-18	1	2	200			
	Fire Prevention/Inspector Office	F-19	2	2	144			
	Plan Storage	F-20	0	0	100			Prefer first floor
	Director of Administrative Services	F-21	2	1	120			
	EMS/Communications	F-22	3	0	200			Prefer first floor
	Active Records Storage	F-23	0	0	168			
	Archival Document Storage	F-24	0	0	200			Could be in Basement
	Office Equipment / Copy / Supplies	F-25	0	0	64			
	Coat Closet	F-26	0	0	13			
	Staff Toilet	F-27	0	0	170			
	SUBTOTAL					2,227		
	Gross area adjustment 15%					334		
	Circulation adjustment at 25%					640		
	SUBTOTAL GSF					3,201		
	STAFF SUPPORT							
	Dorm Rooms for 7 Firefighters per shift	F-28	7	0	900			
	Dorm Study Room	F-29	1	0	100			
	Toilet / Shower Room Male	F-30		0	250			
	Toilet / Shower Room Female	F-31		0	165			
	Rec Room	F-32	9	0	360			
	Kitchen	F-33	3	0	250			

FIRE AND POLICE DEPARTMENTS - FULL PROGRAM

Space	Room Data #	Occupants	Visitors	Size proposed SF	Total GSF Subtotals	Total GSF per division	Notes
SUBTOTAL					2,025		
Gross area adjustment 15%					304		
Circulation adjustment at 25%					582		
SUBTOTAL GSF					2,911		
GRAND SUBTOTAL GSF						16,388	
BUILDING SUPPORT							
Tel/Data	B-1	0	0	100			
Mechanical Room	B-2	0	0	350			
Electrical Room	B-3	0	0	200			
Emergency Electrical	B-4	0	0	100			
Plumbing Fire Protection	B-5	0	0	200			
Janitor	B-6	0	0	96			
Elevator and Machine Room	B-7	0	0	128			
Egress Stairs	B-8	0	0	720			
SUBTOTAL					1,894		
Gross area adjustment 15%					284		
Circulation adjustment at 15%					327		
SUBTOTAL GSF					2,505		
GRAND SUBTOTAL GSF						2,505	
GRAND TOTAL BUILDING						41,953	
Site Elements							
Exterior Storage				200			
Parking							
Daily Staff Spaces				60			
Other Municipal Official Parking				10			
Public				5			
Total Parking				75			

FIRE AND POLICE DEPARTMENTS - FULL PROGRAM

	Chestnut School St		
CATEGORY	Actual Value	Max Value	CRITERIA/COMMENTS
1. LOCATION	19	20	
1.1 Geographic location	5	5	Central to mission; moderate changes to operations; requires change to existing operations
1.2 Neighborhood	5	5	Minimal impact on residential neighborhood and community; moderate impact; significant impact
1.3 Current Use	4	4	Continued use; compatible use; currently undeveloped and used by others (recreational use open space)
1.4 Zoning By-laws	3	3	Allowed - complies with use, dimensional requirements and performance standards; Use allowed with moderate approval; Use will be difficult or costly to win approval (due to constraints such as historic preservation)
1.5 Public Facade/Screening	2	3	No private owner abutters, nothing special required; Abutters with adequate area for screening; Abutters with inadequate area for screening
2. ACCESSIBILITY	10	10	
2.1 Site Access	5	5	Ease of access through existing entry points and roadways; some impact on entry or roadway; significant impact including limited emergency access
2.2 Traffic	5	5	No impact on traffic patterns; some impact; significant impact
3. SITE FEATURES	15	20	
3.1 Adequate site size	6	6	Optimum size - allows for expansion; good size but no expansion capability; undersized for full program
3.2 Existing Structures/Historic Preservation	1	4	Existing structures will not impede development ; some impact on intended use; full impact
3.3 Operations - ease of use	4	4	Staff and Visitors use of site: Site easily split; site requires some overlap of uses; site uses overlap negatively
3.4 Flexibility/Circulation	4	6	Site can be reconfigured as needs change; site has limited reconfiguration options; site has no flexibility
4. ENVIRONMENTAL	15	15	
4.1 Wetlands	4	4	No wetlands or all work will occur outside of ConCom jurisdiction; indirect impact (work in buffer zones); direct impact on existing wetlands, flood plains, endangered species
4.2 Stormwater Management	5	5	Reasonable cost for stormwater management; moderate costs; excessive costs
4.3 Conservation/DEP Permitting	4	4	No work within designated vernal pool and/or rare species habitat; normal permitting process; work within vernal pool and/or rare species habitat
4.4 Existing Tree Cover	2	2	No major reduction; minimum to moderate clearing; major clearing
5. SITE DEVELOPMENT	20	20	
5.1 Utilities	4	4	Availability of gas, electricity, water, municipal sewage, storm drainage; some utilities need to be brought on site; most utilities need to be brought on site
5.2 Topography	4	4	Slopes range: % to %; appropriate for buildings parking - full access; some revisions to meet needs; significant access issues
5.3 Soils	4	4	Adequate for bearing capacity; non-standard foundations required
5.4 Hazardous Materials	4	4	Free of known contaminants; testing required; site history of contaminants
5.5 Costs of Development	4	4	Reasonable costs for development; moderate costs; excessive costs (cut/fill, clearing, blasting; renovation vs new)
6. AVAILABILITY	13	15	
6.1 Jurisdictional Control	5	5	Jurisdictional control remains same; trade of use acceptable and benefits both; highest and best use displaces traditional use in a less positive manner; change of jurisdictional control or use requires state legislative or agency approval
6.2 Displacement Required	3	5	Cost of relocation minimal; moderate; excessive
6.3 Acquisition	5	5	Cost, availability, time schedule, eminent domain: Reasonable costs, available for sale at this time; Costs high but available to meet schedule; Cost high with eminent domain

POLICE AND FIRE DEPARTMENTS - CRITERIA MATRIX

TO: STEVE POPPER
FROM: DENNIS CONDON
SUBJECT: NEEDHAM FIRE STATION ONE FACILITIES MASTER PLAN
DATE: JANUARY 29, 2015
CC: HANK HAFF, DONALD ANASTASI, DEBORAH BONANNO

Having reviewed the proposed new Police/Fire Station plans outlined in the Facilities Master Plan Study, as well as the hard copy of the same that Hank Haff so graciously explained to me and my staff last week, I would have the following comments to make.

It would be desirous if the administration offices were located on the first floor somewhat apart from both the public entrance way and the line personnel living quarters. In our current location, administration efficiencies are compromised if not hindered completely by the near constant interruptions resulting from the high human traffic flow through the area. In the current plan, administrative public interactions can be expected to diminish with a new second floor location, but the close proximity to the line personnel living quarters may negate any benefit gained. If it is at all possible to separate fire administration from the line personnel quarters and the public vestibule it would be highly advantageous in creating a more business like atmosphere for administrative purposes.

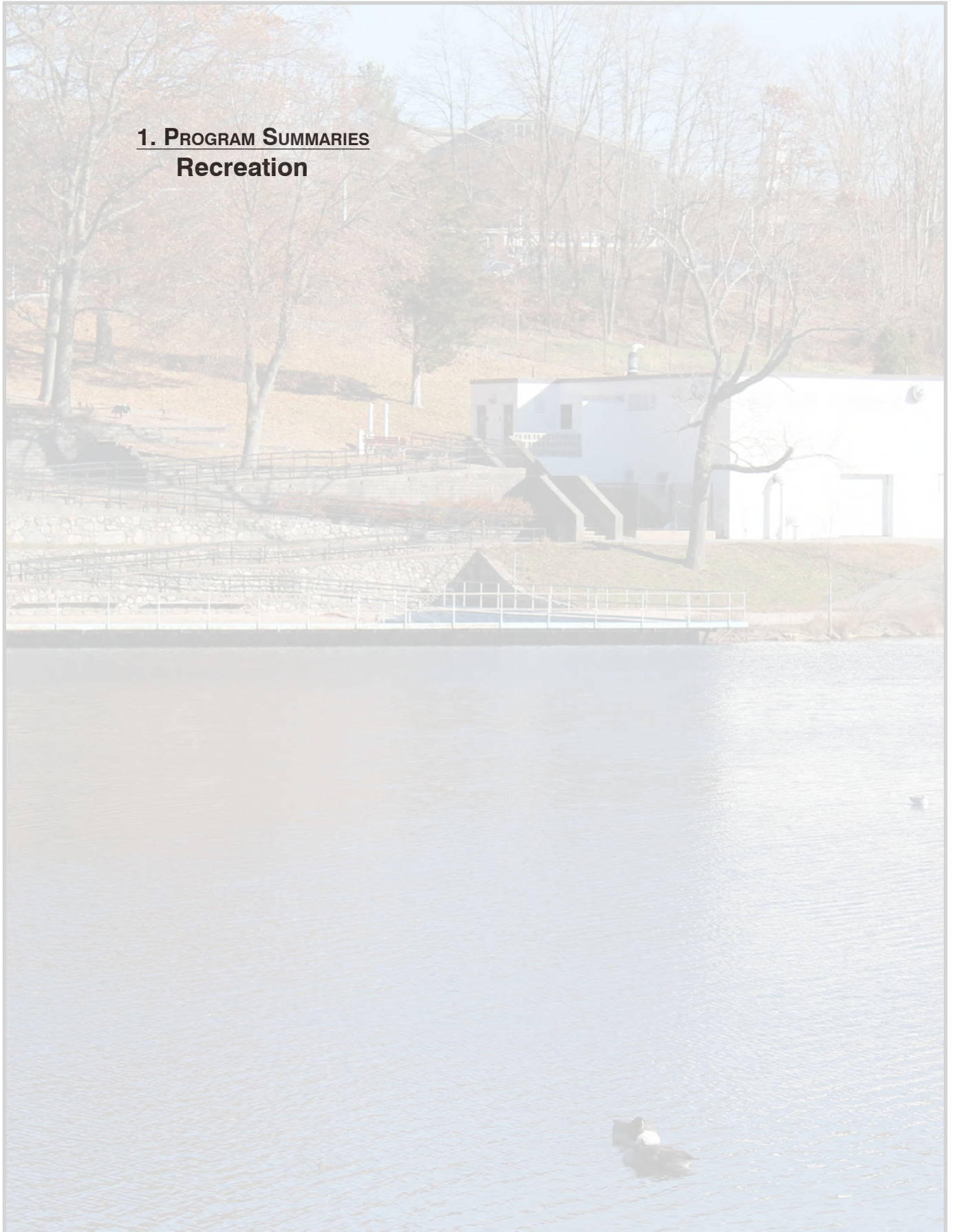
In addition to the location of administrative offices, the allocated space is of concern. It is highly conceivable, if not inevitable that the number of administrative/fire prevention staff personnel is likely to grow over the 10 years as a function of community development and code complexities. Already a need for an additional Fire Prevention/Inspector/Supervisor is clear and would be proposed if not for the mere lack of office space currently available. Therefore, an eye towards future administrative expansion and associated additional office space is critical in regards to any new building plans. It should also be highlighted that a need for increased administrative storage space cannot be overstated.

Regarding the apparatus garage area, it is an overwhelming belief within the department that four drive-thru bays are essential. While drive-thru bays may be held captive to the acquisition of one additional parcel on Lincoln Street their benefits should not be dismissed entirely. First and most importantly is safety. Drive-thru bays by their definition reduce the number of times fire apparatus will need to back up. Backing up fire apparatus requires personnel to exit the vehicle and enter oncoming traffic to make sure the area is clear, thereby putting them in harm's way. Further, safely driving forward greatly reduces the number of blind spots and associated accidents. To that point apparatus and building damage would be greatly reduced by consistent forward driving as to the current proposal of a single entrance and exit point to the garage facility.

The addition of a fourth apparatus bay would allow for more efficient positioning of emergency equipment negating the need to move vehicles for certain calls thereby reducing response times. A fourth bay would also allow for an area where the department mechanic could work on vehicles resulting in reduced repair costs to the Town for years to come.

I realize as Mr. Haff explained, it may not be possible to reconfigure the plans to accommodate these ideas at this time. However, my staff and I felt it important to make known our thoughts so they may be included in the planning process going forward.

1. PROGRAM SUMMARIES
Recreation



Programming Questionnaire
Administrative Areas

Park & Recreation

Please provide as much information as possible for each section of the following questionnaire. You may not have an answer for every question but please do your best. The information will be used during the Master Planning programming effort for your department, division or group. Thank you for participating.

Name: Patricia Carey, Director (with Matt Varrell for Ridge Hill/Conservation)

Department/Division/Group: Park and Recreation

Phone number and email address: (781) 455-7550 x 230 pcarey@needhamma.gov

Date of Completion January 28, 2014

General Information

Function: Please describe the primary function of your department, division or group in as much detail as is possible.

The Park and Recreation Department is located on the first floor at the Public Services Administration Building – 500 Dedham Avenue.

The department oversees other buildings: Rosemary Pool and Bathhouse/storage; Camp Property shelter and two latrines; Claxton restrooms with DPW working garage; Carleton Pavilion at DeFazio Park with restrooms, storage and concession; Cricket Field program space/storage/restrooms and underground DPW storage; Mills Field concession building and separate restroom building (not in useable condition); Riverside Park restroom building

In addition to buildings, Park and Recreation oversees all Town playgrounds located on Park and Recreation, Selectmen and School properties, as well as outdoor tennis courts (Schools: High School, Newman School) (Park and Recreation: Mills)

The department operates more than 50 programs and special events each year. The only program sites under Park and Recreation's jurisdiction are Rosemary Pool and Cricket – both summer-only sites for programming; and the shelter at the Camp Property (difficult access to site, no electricity or operational restrooms). Space is borrowed from School Department, Center at the Heights, Library, Ridge Hill (summers, only) St. Sebastian's School (ice rink), and Needham Housing Authority, and at times, from other local private organizations.

The Park and Recreation Commission is a 5 member elected board that sets policies – but also has jurisdiction over approximately 300 acres of Town-owned land. The other boards with jurisdiction over land are the Board of Selectmen, School Committee, Conservation Commission and Trustees of Memorial Park.

Operation: Please provide information on the following: visitors to your offices, hours of operation, security concerns.

Programming Questionnaire

Administrative Areas

Park & Recreation

Visitors and Interaction with Community: Park and Recreation is located at the front entrance to PSAB, along with the Building Department, due to the volume of visitors and seasonal staff to the office.

Public Business Hours: Office hours are 8:30 AM – 5:00 PM, but with on-line registration, residents can interact with our department 24 hours/day.

Staff Hours: The office is covered 8:30 AM – 5:00 PM. The Director, Assistant Director and Recreation Supervisor work other hours, including weekends, depending on programs, special events, and meetings.

+ *Security/Safety Concerns:* Our department used to be at Town Hall. When it was clear that all offices couldn't fit in Town Hall's limited space, I offered for Park and Recreation to move to PSAB, as our department has synergy with the departments located in this building. It is important that our department not be put in a building by ourselves for safety – and sanity!

Issues such as noise, fumes, indoor temperature, natural daylight:

Shared spaces and access by Community: All Park and Recreation facilities are used by the community.

Emergency Events: Please describe any special requirements or needs during emergency events (*Water, fuel or communication needs, outside assistance, changes to parking or queuing*).

+ Our department needs parking for customers to our office – and at program sites.

Other Information: Please provide additional information that you believe would provide a more complete picture of your needs with a focus on intangible ideas (*such as, we want to provide an open atmosphere but our work is too sensitive because*).

Programming Questionnaire
Administrative Areas

Park & Recreation

Most of these questions have related to the office functions of the department, but those were handled during the move to PSAB. The one area that hasn't has been resolved is long-term storage – the area put aside for our department at 470 Dedham Avenue was used by another department, so we still need to create a space in that building, but as it is upstairs, it will be difficult to access with heavy items.

- + What the department needs is programming space that provides storage but is also flexible, whether for a crafts program for the young, or a dance program.
- + For many decades, Park and Recreation has offered programs at school sites, particularly in the summer. In recent years, Needham Public Schools has expanded their use of the schools in the summers, making it difficult for Park and Recreation to get the space that it needs.

STAFFING, BELOW: Only the current staffing is listed below. The future will depend on the type of facilities that the Town chooses to invest in – not something that can be predicted at this time.

Staffing Requirements

Staffing: Please provide an organizational chart for your department, division or group. Please include current staffing and possible projected staffing until the year 2033.

Position	Staffing Projections				FTE	PTE	Comments
	2014	2019	2024	2033			
<i>Example: Director</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>X</i>		<i>Private office</i>
<i>Staff: Title</i>	<i>1</i>	<i>2</i>	<i>2</i>	<i>3</i>	<i>x</i>		<i>Workstation</i>
Director	1						Private office
Assistant Director	1						Private Office
Recreation Supervisor	1						Work station
Administrative Specialist	1						Work station
Summer Supervisor	1						Shared work station
CPC staff person (pt)	1						Shared work station
Playground Maintenance (pt)	1						Supply storage space (currently at Rosemary Pool)

Park & Recreation

[illegible]

Vehicles: Please provide as detailed of a list as you can. Parking counts are required by zoning and this list will help us confirm needs and special issues particularly as it relates to fire, police, school bus and DPW equipment. Please provide overall sizes (*Small = 8' x 10', Medium = 8' x 20' – typical car, Large = 12' x 30', X-large = 12' x 40' or larger*). Please note if vehicle must be stored indoors or in an uncovered parking lot and other unique feature (*electric vehicle, handicap van etc*).

[illegible]

Park & Recreation

[illegible]

Existing Space: Please provide a list of key spaces used by your department, division or group. This list should include individual spaces and shared spaces with another department, division or group. If you have an idea of how large that space is or any distinguishing features please note that. Existing conditions and floor plans will be provided by the Town.

[illegible]

Park & Recreation

[illegible]

Individual Needs: Please list any specific individual need for staff in your department, division or group.

Note furniture or equipment they may need: *work surface with computer hookup only, work surface with file drawers, access to large work surface for collating or laying out projects, visual privacy for work surface as they deal with sensitive paperwork or screen work, quick access to printers and copiers etc.*

Office (private) or Workstation (open)	Preferred Size (L x W)	Individual Needs for files, copiers etc.	Comments
Example: All private Offices	10 x 12	Lateral files, bookcase, whiteboard	

Park & Recreation

[illegible]

Storage Needs: Please list any specific storage needs for your department, division or group. Consider items currently stored on site and those that are stored elsewhere in Town. Consider whether current storage locations create any issues for access (*i.e. paper is stored in a locked room in an adjacent building or all equipment used in conference rooms needs to be moved from floor to floor x times a day/week*). Please list specific items stored. Please note if these items need special security (*assume all doors can be locked*).

Material - Item	Size or weight	Security Needs Secure (S) Unsecured (US)	Comments
<i>Example: Office Supplies</i>	<i>Currently stored in 3 8 x 8 rooms</i>	<i>S</i>	<i>Would like to be near admin office</i>
Office supplies	Currently in walk-in closet	US	
Personnel documents	Current 7 years in office; historical can be off-site	S	

Administrative Areas

Park & Recreation

[illegible]

Park and Recreation Specific Programming

Rosemary Pool and Building: Describe preliminary concerns about Feasibility Study findings.

Concerns?

+ The study has provided the information that was requested, and gives details to help the Park and Recreation Commission make a decision on which option to move forward with.

Programming Questionnaire
Administrative Areas

Park & Recreation

A recent survey of residents on the community showed support for investments in Rosemary Pool.



Cricket Field Building: Describe preliminary concerns about Feasibility Study findings.

No concerns about the findings.

The Park and Recreation Commission has chosen its option for renovation of the existing building, keeping it a seasonal use building plus year-round storage. It is ready to move forward for design funding.

Community Center: Full programming required

This has been a discussion for decades. The original study committee from the 1990's led the effort for the Town to consider doing master plans to review all facility needs together, rather than having each department/board work on their needs separately.

+ There is a non-profit group developed in Needham who is advocating for more recreation space for the community. Their original concept was for a very large building and outdoor space, similar to what is found in other parts of the country that are less developed.

I've worked with them to see the benefit of a "campus style" with opportunities spread throughout buildings.

Because we have worked as whole to set the master plan for the Town's facility needs, some of the original needs put forward by the original Community Center group have been met. The renovations of the Eliot and Broadmeadow Schools came with full-size gyms

- provide additional gym space for community groups. The renovations of the Library and
- Town Hall, and the creation of PSAB added accessible meeting and activity space. Powers
- Hall at Town Hall provides a large venue for meetings and community events, along with a
- small stage for performances. The Center at the Heights provides a variety of activity and meeting spaces, including a fitness center. Outdoor areas have also been improved, and many parks have places for passive recreation as well as active recreation.

Currently, the Town has two public pools. Park and Recreation oversees Rosemary Pool, which accomplishes a lot but is tired and in need of updates and improvements. The YMCA operates an indoor pool, but continues to work hard, as Park and Recreation does, to make a small pool in need of updates and improvements work. Decisions need to be made by both organizations on how to move forward. Decisions also need to be made on whether to prioritize recreation swimming vs. competitive swimming. There are some High School parents who believe that having a Town pool for the NHS swim teams will save the programs money – but renting space for the short-term vs. operating a year-round pool

Programming Questionnaire

Administrative Areas

Park & Recreation

have very different costs which need to be taken under consideration.

The final need is for teens. Like all age groups, their needs and interests vary greatly, so there is no "one stop shopping" solution, though often adults try to create one solution for all. Needham High School provides many opportunities for teens outside of school hours, from drama/theater/music activities, to athletics, to clubs for robotics/engineering, fishing, skiing, skateboarding, chess, Habitat for Humanity...I believe the current number of clubs exceeds 100. Some clubs have difficulty finding space within the High School or other schools – or at outdoor parks. An additional full-size gym could provide some flexibility. Many religious organizations in Needham also provide activities and space for teens.

Because many children are raised – for good reasons and not so good – in overly programmed lives, it is difficult for many of them to understand how to best use a "drop-in" space or program.

Ridge Hill Buildings: Full programming required

See attached report

The Conservation Commission needs to be included throughout any discussions about the future use of Ridge Hill, so that the use coordinates with the preservation of all of the surrounding Ridge Hill property.

Available Reports:

Feasibility Study for the Future of Rosemary Pool - DRAFT
Weston & Sampson
November, 2013

Cricket Building Feasibility Study – BHA
March, 2012

Ridge Hill Working Group Report – August, 2012

Additional studies of Rosemary Pool and Ridge Hill – looking at how to best use sites

Space	Room Data #	Occupants per Room	Visitors	Size proposed SF	Total GSF Subtotals	Notes
Community Building						
SHARED BUILDING SERVICES						
Entry Vestibule - Lobby	S-1			800		
Help Desk/Reception	S-2			200		
Office	S-3			100		
Restrooms, Male	S-4			61		Single accessible off lobby
Restrooms, Female	S-5			61		Single accessible off lobby
Janitorial Closet (2)	S-6			150		
Maintenance Office	S-7			120		
Building Storage	S-8			400		
Child Watch	S-9			800		Includes 175 Sf of toilets and 100 SF office
SUBTOTAL					2,692	
Gross area adjustment 13%					350	
Circulation adjustment at 15%					456	
SUBTOTAL GSF					3,498	
OFFICE SUITE						
Office (5)	O-1			500		
Open office area	O-2			750		Approximately 8 workstations
Conference Room	O-3			288		
Restrooms, Male/Female	O-4			125		
SUBTOTAL					1,663	
Gross area adjustment 13%					216	
Circulation adjustment at 15%					282	
SUBTOTAL GSF					2,161	
NATATORIUM						
Swimming Pool with Bleachers and Therapy Pool						
Swimming Pool Area with Bleachers	N-1			8640		25 yard x 50 meter: Includes 75' -1" wide x 162'-0" long pool and 15' clear around pool for deck. Bleachers - assume 6sf per person x 200 persons = 1200 SF. Includes (2) 400 SF visitor locker rooms.
Therapy Pool Area	N-2			2604		Includes exterior dim 24' w x 50' long pool with 1'-6" deck edge. Includes 6' clear around pool, three sides, and 12' clear at one long side to include stair to pool and walking surface.
Equipment Storage	N-3			750		Includes pool equipment/storage and pool heating/filtration equipment
Natatorium Offices (3)	N-4			120		Aquatics Director, Lifeguards and Meet Management
SUBTOTAL					12,114	
Gross area adjustment 13%					1,575	
Circulation adjustment at 15%					2,053	
SUBTOTAL GSF					15,742	

COMMUNITY BUILDING - FULL PROGRAMMING

Space	Room Data #	Occupants per Room	Visitors	Size proposed SF	Total GSF Subtotals	Notes
LOCKER ROOMS						
Men's Locker Room	L-1			1,200		
Boy's Locker Room	L-2			600		
Women's Locker Room	L-3			1,200		
Girl's Locker Room	L-4			600		
Private Locker Room	L-5			400		
SUBTOTAL					4,000	
Gross area adjustment 13%					520	
Circulation adjustment at 15%					678	
SUBTOTAL GSF					5,198	
WORKOUT FACILITIES						
Studio 1	W-1			540		18' x 30'
Studio 2	W-2			414		18' x 23'
Studio 3	W-3			840		28' x 30'
Cardio Fitness	W-4			840		28' x 30'
Fitness	W-5			4000		50' x 80'
Toilets Male/Female	W-6			600		
SUBTOTAL					7,234	
Gross area adjustment 13%					940	
Circulation adjustment at 15%					1,226	
SUBTOTAL GSF					9,401	
BASKETBALL GYMNASIUM						
Basketball Gymnasium	B-1			9990		Assumes 90' x 108'. Full court or two smaller courts plus storage for equipment assumes 90' x 108'. Possible running track above is not counted as a separate space. (High School court is 50' x 84' court plus min 10' all sides = 70' x 104'). Assumes bleachers for 420
Toilets Male/Female	B-2			250		2 sets of male/female toilets
Janitors	B-3			64		
SUBTOTAL					10,304	
Gross area adjustment 13%					1,340	
Circulation adjustment at 15%					1,747	
SUBTOTAL GSF					13,390	
COMMUNITY ROOMS						
Multi Use: Education/Community (2)	C-1			600		Assumes 20' x 30'. Assumes 40 persons at tables and chairs or 80 persons at seats. Provide moveable partition to subdivide
3.3*50	C-2			600		
Kitchen	C-3			350		
SUBTOTAL					1,550	
Gross area adjustment 13%					202	

COMMUNITY BUILDING - FULL PROGRAMMING

Space	Room Data #	Occupants per Room	Visitors	Size proposed SF	Total GSF Subtotals	Notes
Circulation adjustment at 15%					263	
SUBTOTAL GSF					2,014	
GRAND TOTAL BUILDING W/O BUILDING SUPPORT					51,404	
<i>BUILDING SUPPORT: Mechanical, Electrical, Plumbing, Fire Protection, Elevator, Stairs (Assume 20% of GSF)</i>						
SUBTOTAL					7,711	
Gross area adjustment 0%					0	
Circulation adjustment at 0%					0	
SUBTOTAL GSF					7,711	
GRAND TOTAL BUILDING					59,115	

COMMUNITY BUILDING - FULL PROGRAMMING

Land requirements for building, parking and loading spaces and field(s)			
Component	Footprint	Square Footage	Total in acres
Building at 59,115 square feet	Assume two story building except at swimming pool; gymnasium located on upper level	100 x 371 = 37,100 SF or .85 acres	0.85
Parking for +309 cars including 8 accessible parking spaces	Assume 6 lots for 50 cars each at 62' x 225' plus one lot for accessible spaces at 62' x 65'	87,730 SF or 2.01 acres	2.01
Loading Requirement	Assume designated area 30' x 50'	1,500 sf or .03 acres	0.03
Landscaped areas	Assume 10% of parking area	87,730 x .10 = 8,773 SF or .2 acres	0.2
Snow Storage	Assume 10% of parking area	87,730 x .10 = 8,773 SF or .06 acres	0.2
SUBTOTAL			3.29
Fields	Assume 225' x 360 regulation size soccer field = 81,000 SF	81,000 x 2 = 162,000 SF or 3.7 acres	3.7
TOTAL			6.99
Max Floor Area Ratio (F.A.R.)	Maximum area ratio = .30.	Min site size = 197,050 SF or 4.52 acres	4.52

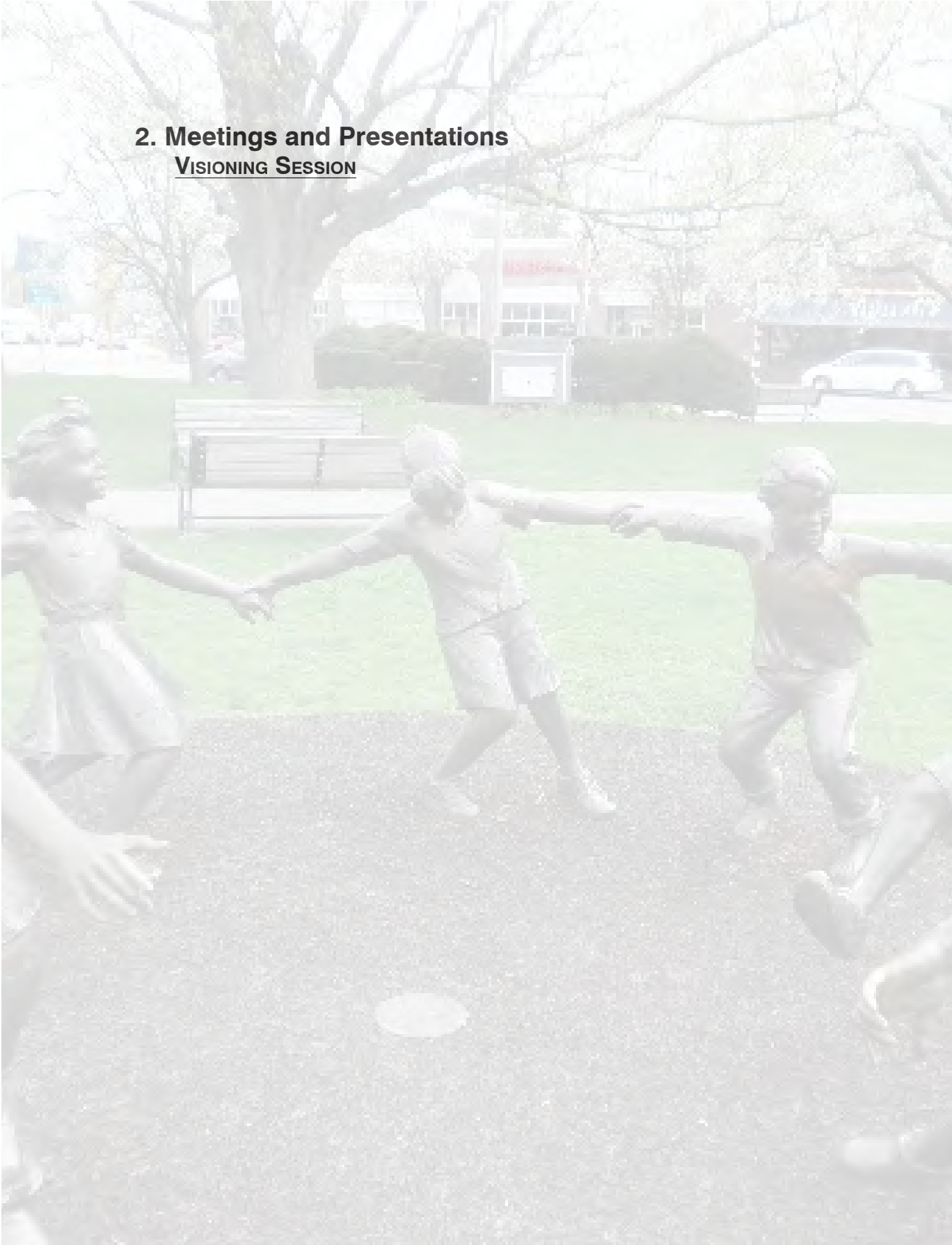
COMMUNITY BUILDING - LAND REQUIREMENTS

	Greendal Ave Parcel 74	Town Forest	Nike	470 Dedham Ave.	Hillside	Ridge Hill		
CATEGORY	Actual Value	Actual Value	Actual Value	Actual Value	Actual Value	Actual Value	Max Value	CRITERIA/COMMENTS
1. LOCATION	11	9	11	14	14	11	20	
1.1 Geographic location	4	4	3	5	5	3	5	Central to mission; moderate changes to operations; requires change to existing operations
1.2 Neighborhood	3	2	3	4	4	3	5	Minimal impact on residential neighborhood and community; moderate impact; significant impact
1.3 Current Use	1	1	1	2	2	1	4	Continued use; compatible use; currently undeveloped and used by others (recreational use open space)
1.4 Zoning By-laws	1	1	1	1	1	1	3	Allowed - complies with use, dimensional requirements and performance standards; Use allowed with moderate approval; Use will be difficult or costly to win approval (due to constraints such as historic preservation)
1.5 Public Facade/Screening	2	1	3	2	2	3	3	No private owner abutters, nothing special required; Abutters with adequate area for screening; Abutters with inadequate area for screening
2. ACCESSIBILITY	7	7	2	7	7	4	10	
2.1 Site Access	4	4	1	3	3	2	5	Ease of access through existing entry points and roadways; some impact on entry or roadway; significant impact including limited emergency access
2.2 Traffic	3	3	1	4	4	2	5	No impact on traffic patterns; some impact; significant impact
3. SITE FEATURES	13	19	19	6	12	17	20	
3.1 Adequate site size	2	6	6	1	2	6	6	Optimum size - allows for expansion; good size but no expansion capability; undersized for full program
3.2 Existing Structures/Historic Preservation	4	4	3	2	3	1	4	Existing structures will not impede development ; some impact on intended use; full impact
3.3 Operations - ease of use	4	4	4	3	4	4	4	Staff and Visitors use of site: Site easily split; site requires some overlap of uses; site uses overlap negatively
3.4 Flexibility/Circulation	3	5	6	0	3	6	6	Site can be reconfigured as needs change; site has limited reconfiguration options; site has no flexibility
4. ENVIRONMENTAL	12	7	7	9	8	5	15	
4.1 Wetlands	4	3	3	1	1	3	4	No wetlands or all work will occur outside of ConCom jurisdiction; indirect impact (work in buffer zones); direct impact on existing wetlands, flood plains, endangered species
4.2 Stormwater Management	4	3	1	2	1	1	5	Reasonable cost for stormwater management; moderate costs; excessive costs
4.3 Conservation/DEP Permitting	4	1	1	4	4	1	4	No work within designated vernal pool and/or rare species habitat; normal permitting process; work within vernal pool and/or rare species habitat
4.4 Existing Tree Cover	0	0	2	2	2	0	2	No major reduction; minimum to moderate clearing; major clearing
5. SITE DEVELOPMENT	14	17	14	9	10	14	20	
5.1 Utilities	4	4	2	4	4	2	4	Availability of gas, electricity, water, municipal sewage, storm drainage; some utilities need to be brought on site; most utilities need to be brought on site
5.2 Topography	1	3	4	3	3	3	4	Slopes range: % to %: appropriate for buildings parking - full access; some revisions to meet needs; significant access issues
5.3 Soils	4	3	3	0	2	2	4	Adequate for bearing capacity; non-standard foundations required
5.4 Hazardous Materials	4	4	3	1	0	4	4	Free of known contaminants; testing required; site history of contaminants
5.5 Costs of Development	1	3	2	1	1	3	4	Reasonable costs for development; moderate costs; excessive costs (cut/fill, clearing, blasting; renovation vs new)
6. AVAILABILITY	8	8	11	9	8	8	15	
6.1 Jurisdictional Control	1	1	3	3	3	1	5	Jurisdictional control remains same; trade of use acceptable and benefits both; highest and best use displaces traditional use in a less positive manner; change of jurisdictional control or use requires state legislative or agency approval
6.2 Displacement Required	4	4	3	1	1	4	5	Cost of relocation minimal; moderate; excessive
6.3 Acquisition	3	3	5	5	4	3	5	Cost, availability, time schedule, eminent domain: Reasonable costs, available for sale at this time; Costs high but available to meet schedule; Cost high with eminent domain
TOTAL	65	67	64	54	59	59	100	
7. SPECIAL CONSIDERATIONS								
7.1 Temporary buildings								Costs to temporarily house intended use minimal; moderate; excessive
7.2 Permanent changes to use								Change in use relatively simple; requires return to state for review, redistricting; loss of traditional use
7.3 Temporary use of site								Additions benefit traditional use; additions reduce traditional use; temporary elimination of traditional use
7.4 Time Schedule								Impact of Delay

COMMUNITY BUILDING - CRITERIA MATRIX

Space	Room Data #	Size proposed SF	Total GSF Subtotals	Notes
FIELD LEVEL				
Entry Vestibule - Lobby - Control Point	L-1	170		
Concession Stand	L-2	220		
Restrooms, Male	L-3	63		For concession stand or garage staff
Restrooms, Female	L-4	63		For concession stand or garage staff
Home Team Room	L-5	600		Open room with benches
Visiting Team Room	L-6	400		Open room with benches
Team Restroom #1	L-7	63		
Team Restroom #2	L-8	63		
Garage Bay	L-9	1500		Equipment for field maintenance
Public Restroom Male	L-10	190		Outside access with privacy corridor
Public Restroom Female	L-11	190		Outside access with privacy corridor
Building Storage	L-12	1200		Football, soccer + baseball
Janitorial Closet	L-13	80		
SUBTOTAL			4,802	
Gross area adjustment 13%			624	
Circulation adjustment at 15%			814	
SUBTOTAL GSF			6,240	
MID LEVEL				
Teen Center	M-1	800		Tables + Chairs = 54
Teen Room 2 with Kitchen	M-2	1200		Kitchen at 250sf; Tables + Chairs = 64
Teen Director Office	M-3	144		
Restrooms, Male	M-4	126		
Restrooms, Female	M-5	126		
Janitorial Closet	M-6	80		
SUBTOTAL			2,476	
Gross area adjustment 13%			322	
Circulation adjustment at 15%			420	
SUBTOTAL GSF			3,218	
UPPER LEVEL				
Large Meeting Room	U-1	850		Tables + Chairs = 56
Small Meeting Room	U-2	480		Tables + Chairs = 32
Table Chair Storage	U-3	50		
Trustees of Memorial Park Office	U-4	144		
Sport Office (3)	U-5	300		Football, soccer + baseball
Restrooms, Male	U-6	63		
Restrooms, Female	U-7	128		
Janitorial Closet	U-8	80		
SUBTOTAL			2,095	
Gross area adjustment 13%			272	
Circulation adjustment at 15%			355	
SUBTOTAL GSF			2,722	
TOTAL BLDG W/O BLDG SUPPORT			12,180	
BUILDING SUPPORT				
Mechanical, Electrical, Data, Plumbing, Fire Protection, Elevator, Stairs: Assume 25% of GSf				
SUBTOTAL GSF			3,045	
GRAND TOTAL BUILDING			15,225	

MEMORIAL PARK BUILDING - FULL PROGRAMMING



2. Meetings and Presentations

VISIONING SESSION



35 Medford Street
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MEMORANDUM

To: Facilities Working
Group

Date: January 10, 2014

From: Janet M. Slemenda

Project: Needham Facilities Master Plan

Job No: 21314

Subject: Visioning Session
Monday, January 27, 2014
5:30 – 7:30 pm
Powers Hall, Needham Town Hall

Needham Facilities Master Plan Study: Visioning

The purpose of this session is to provide an opportunity for everyone to articulate their own vision and expectations for this master planning effort. Various individuals, even within the same boards, commissions and departments, will look at this planning study from their own vantage point and this session gives us an opportunity to engage with you very early in the process. Issues, questions and concerns that are brought up during this session provide the design team with additional information that we might not hear about during the course of normal programming. With this information in hand we can make sure that during the programming and design process these items can be addressed. The more information we gather at the beginning, especially information that might be considered intangible, the better able we will be to address the issues that you are concerned about in the future facilities.

We hope to hear about big-picture objectives of boards, commissions and departments as well as the individual concern of one person. We know from experience that there are individuals who will speak less "loudly" than others and this process gives them a voice.

The meeting includes the following parts:

- 1) A brief overview of the process will be presented. Following that discussion the designers will ask a series of open ended questions covering a variety of issues. Each person will be asked to respond to these questions in writing only. All responses are anonymous.
- 2) After the question period is completed these responses will be collected, sorted and shared as time permits. Some of the responses will be straight-forward and expected and will need little processing time while others may require further discussion during this session or will be answered during the study process.
- 3) Open discussion as time permits.



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The results of this meeting will be recorded and will be incorporated into the final study document.

The Needham Facilities Master Plan will focus on the following:

Fire + Police:

Public Safety Building (Police + Station #1)

Fire Station #2

DPW:

470 Dedham Ave – Vehicle storage and maintenance

486 Dedham Ave. – Former water pumping station

Recycling and Transfer Station

Schools + Administration:

Hillside + Mitchell Elementary Schools

Pollard Middle School

Needham High School

Emery Grover Building

Daley Building

Nike Site

Park + Recreation:

Rosemary Pool and Building

Cricket Field Building

Community Center

Ridge Hill Buildings

MEETING MINUTES

Project: Needham Town Master Plan

Meeting Date: January 8, 2014

Time: 7:30 AM

Meeting Location: Powers Hall,
Needham Town
Hall

Job No: 21314

Meeting

Number: 01

Report By: BH, JS

Attending:

- | | |
|---|---|
| ☒ Moe Handel, BOS (MH) | ☒ Dan Gutekanst, School Dept. (DG) |
| ☒ George Kent, PPBC (GK) | ☒ Philip Droney, Police Dept. (PD) |
| ☒ Jeanne McKnight, Planning BD (JM) | ☒ Paul Buckley, Fire Dept. (PB) |
| ☒ Joe Barnes, School Committee (JB) | ☒ Chip Laffey, PF-Operations, CL) |
| ☐ Matt Toolen, Park & Rec. (MT) | ☒ Patty Carey, Park & Rec. Dept. (PC) |
| ☐ John Connelly, Fin Com, (JC) | ☒ Chris Coleman, Ass't Town Mgr. (CC) |
| ☒ Artie Crocker, Con Com, (AC) | ☒ Dave Davison, Ass't Town Mgr. (DD) |
| ☒ Kate Fitzpatrick, Town Mgr. (KF) | ☒ Matt Varrell, Conservation Dept. (MV) |
| ☒ Steve Popper, PF-Construction (SP) | ☒ Chris Baker, Police Dept. (CB) |
| ☒ Hank Haff, PF-Construction (HH) | ☐ Eric Kluz, HKT (EK) |
| ☒ Rick Merson, DPW, (RM) | ☒ Janet Slemenda, HKT (JS) |
| ☒ Tony DelGaizo, Engineering Dept. (TD) | ☒ Bill Hammer, HKT (BH) |
| ☒ Lee Newman, Planning & CD, (LN) | |

Item		Action
1.01	After introductions were made, JS made PowerPoint presentation to explain our approach and our schedule for the coming year. After the presentation, the discussion focused on the visioning session. JS asked who should be invited, and what date and time would be best. It was noted that the visioning session will be a public meeting and therefore it would automatically be open to the public, although they would not necessarily be permitted to speak. GK, pointed out that the PPBC is the vehicle for open public debate. After much discussion it was decided to have the visioning session on January 27 th at 5:30 PM. It will be located in Powers Hall.	FWG
1.02	It was further agreed that the Facility Working Group will make the decision as to who will attend and participate in the visioning session.	FWG
1.03	JS reviewed the general format. HKT will pose several questions and those who are participating will be asked for to write at least three written responses on a post-it	HKT

	note. The purpose is to review the responses and to generate a lively discussion so that all points of view can be expressed. After the visioning session, HKT will organize all of the comments into similar groupings and will summarize the general comments and points of view. A list of all comments will be attached to the summary.	
1.04	It was asked if there should be a public presentation prior to Town Meeting. It was agreed that this would be possible and we may wish to hold other public presentations as the planning process concludes specific stages. It was also agreed that interim documents could be posted on line for anyone in town to review. GK stated that it is important to get early public input. He further suggested that the PPBC would schedule the public presentations.	GK/SP/HH
1.05	It was suggested that the monthly FWG meetings be scheduled after the Council of Economic Advisors, which occurs on the first Wednesday of each month. It was further agreed that the FWG meetings should be scheduled for the second Wednesday of each month. Therefore, the next meeting will be on February 12 th .	FWG
1.06	A member of the FWG asked if the planning process will include infrastructure planning as well. Although that is not part of the scope of work, BH suggested that we should know about the infrastructure planning to determine if it will affect the overall planning effort.	
1.07	The discussion turned to the programming phase. JS explained that the projected schedule as to identify two days per week for each of the building categories (i.e. fire and police, DPW, Parks and Recreation, schools, etc.). This was done to provide a degree of flexibility inasmuch as everyone will have some conflict in their schedule. JS reiterated that the program questionnaires and data sheets were sent out in mid December. Those who are in charge of filling out these forms were urged to return them to HKT as soon as possible. JS reiterated that HKT will use all existing programmatic data whenever possible.	HKT RM,TD PD,CB PB PC,MV DG, AG
1.08	HH explained that the plan is to look out over a five to ten year period and that several projects will cross jurisdictions, such as Parks and Recreation and the Conservation Commission. Consequently, there will need to be joint discussions regarding projects that will affect more than one jurisdiction, such as the DPW planning. The Community Center is another project that will require some combined discussions even though it is thought to be scheduled in the most distant future.	
1.09	HH asked that HKT prepare a summary that explains what the visioning session will be and what we hope to accomplish.	HKT
1.10	The questions for the visioning session are critical. They will be crafted by HH and JS	JS HH
	Next Meeting: February 12, 2014	

NEEDHAM FACILITIES MASTER PLAN STUDY

AGENDA: VISIONING – MEETING #1

- Outline purpose and process for Visioning Session
- Questions
- Collect and sort responses
- Share responses as time permits
- Open discussion

VISIONING 1

NEEDHAM FACILITIES MASTER PLAN STUDY

HKT architects inc.

Municipal Resources, Inc.

PARE CORPORATION

samites

TCI

VISIONING 1

NEEDHAM FACILITIES MASTER PLAN STUDY

PROJECTS IN SCOPE

VISIONING 1

NEEDHAM FACILITIES MASTER PLAN STUDY

PROCESS

- We are in the midst of programming and touring existing buildings and their respective sites
- Documenting existing operations and learning about future needs
- Focusing on keeping all departments on their existing sites
- Opportunity for the design team to learn more about the your individual vision for this planning effort
- Opportunity for you to share issues, questions and concerns

VISIONING 1

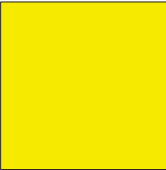
NEEDHAM FACILITIES MASTER PLAN STUDY QUESTION #2 What do you see as obstacles as this Master Plan Update begins?  VISIONING 1	NEEDHAM FACILITIES MASTER PLAN STUDY QUESTION #1 Previous Master Plan: What surprised or concerned you about the way items were addressed?  VISIONING 1
NEEDHAM FACILITIES MASTER PLAN STUDY QUESTION #4 What do you think the citizens of Needham believe should be the highest priority of the new Master Plan?  VISIONING 1	NEEDHAM FACILITIES MASTER PLAN STUDY QUESTION #3 If programming needs or site limitations suggest simple or radical changes to some aspect of existing public facilities or land uses as you know it what would you consider "sacred"? What could change?  VISIONING 1

NEEDHAM FACILITIES MASTER PLAN STUDY

HKT
architects inc.

QUESTION # 5

- What is your view on the following:
 - School Projects:** Renovation/addition or replacement of Hillside, Mitchell, Pollard and School Administration is a part of the Master Plan. Do these school projects have any potential synergies with other master plan projects? If School Administration were to be relocated to another site with another department unrelated to schools where might it be located?





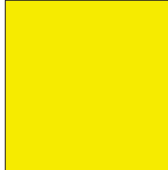
VISIONING 1

NEEDHAM FACILITIES MASTER PLAN STUDY

HKT
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QUESTION # 5

- What is your view on the following:
 - Rosemary:** The Town is completing a study on how to resolve the pending pool issues at Rosemary Lake and the town must select an option for action. Are there alternative sites in town that should be considered for an outdoor or indoor pool?





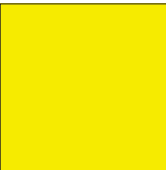
VISIONING 1

NEEDHAM FACILITIES MASTER PLAN STUDY

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QUESTION # 5

- What is your view on the following:
 - Department of Public Works:** The existing DPW site at 470 Dedham Ave has many constraints. The prior Master Plan looked at alternate locations. If DPW moves where could it be located? If operating the RTS site is not the most cost effective, safest or energy efficient way of managing trash and recyclables should the master plan explore the highest and best use of this site? If DPW moves what would be the best use for the Dedham Ave Site?





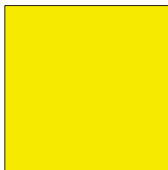
VISIONING 1

NEEDHAM FACILITIES MASTER PLAN STUDY

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QUESTION # 5

- What is your view on the following:
 - Police/Fire:** The Town has made strategic purchases to maintain Police/Fire at their current location and expand downtown area parking. If the expanded site is large enough to accommodate other public facilities, which uses could share this site?

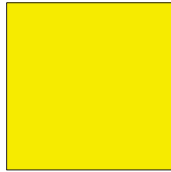




VISIONING 1

QUESTION # 5

- What is your view on the following:
 - **Ridge Hill and Nike Sites:** What is your vision for the future use(s) of the Ridge Hill Buildings and the land areas of Ridge Hill and the adjacent Nike site



VISIONING 1

OPEN DISCUSSION

- Other Town efforts underway that may affect or influence the Master Plan
- Other constraints; perhaps intangible in nature
- Keeping all possible options open vs limiting plausible options that are too uncertain to consider
- Domino affects of potential options



VISIONING 1



THANK YOU

VISIONING 1



2. MEETINGS AND PRESENTATIONS

FWG Meeting Presentations

MEETING AGENDA

To: Facility Working Group**Date:** December 6, 2013**From: HKT Architects, Inc****Project:** Needham Facilities
Master Plan**Job No:** 21314**Subject: FWG: Initial Meeting**

AGENDA

The object of this first meeting is to collect all existing documentation and discuss that work, develop a work plan, develop a schedule, review programming document and discuss PPBC Visioning Session #1.

1. Introduction of key members from Town of Needham, FWG and PPBC in order to create a roster.
2. Collect existing documentation
 - a. Discuss highlights of most recent Master Plan
 - i. What worked best, what would you improve
 - b. Discuss status and highlights of each current specialized study
3. Develop Work Plan
 - a. Draft available for review
4. Develop Schedule
 - a. FWG Meetings
 - b. PPBC Meetings
 - c. Town Meetings
5. Review Programming document
 - a. Expectation for document
 - b. Process for response
6. Discuss Kick Off Meeting with FWG
 - a. Expectations for meeting
7. Discuss PPBC Visioning Session
 - a. What are the goals of this session
 - b. Who will attend
 - c. Where and when

MEETING AGENDA

To: Facility Working Group**Date:** January 8, 2014**From: HKT Architects, Inc****Project:** Needham Facilities
Master Plan**Job No:** 21314**Subject: FWG Meeting 1**

AGENDA

The object of Meeting 1 is to provide an outline of the overall process, develop a schedule, discuss format for programming sessions and site investigation and discuss PPBC Visioning Session #1.

1. Introduction of the design team
 - a. Project team
 - b. Consultants
2. Outline process and timeline
 - a. Primary categories of work
 - b. Distribution of materials
 - c. Communications
3. Programming process
 - a. Expectation for document
 - b. Process after response
 - c. Programming sessions
 - i. Site/building investigation
4. Schedule of meetings for FWG
 - a. Monthly
 - i. February Session 1A Objective: Summary of programming and site investigation process
 - ii. March and April Sessions 1B + 1C Objective: Update of design options + assessments
 - iii. May Session 1D Objective: Present final design concepts before plan refinement process begins
 - iv. June, July and August Sessions 1E, F & G Objectives: Updates of plan refinements phase

- v. September Session 1H Objective: Start of presentations to committees + plan for Town Meeting
 - b. Time of Day
 - c. Visioning Session #1: January 15, 2014
 - d. Other Meetings
5. Visioning Session
- a. What are the goals of this session
 - b. Who will attend
 - c. Where and when
 - d. Questions
 - i. What are some critical details that you think we should know about or are concerned we might overlook during the process
 - ii. Previous Master Plans: what surprised or concerned you about the way items were addressed
 - iii. What do you see as obstacles as this Master Plan Update begins
6. Discuss highlights of most recent Master Plan
- a. What worked best, what would you improve
 - b. Discuss status and highlights of current projects
 - c. Discuss status and highlights of each current specialized study

MEETING MINUTES

Project: Needham Town Master Plan

Meeting Date: January 8, 2014

Time: 7:30 AM

Meeting Location: Powers Hall,
Needham Town
Hall

Job No: 21314

Meeting

Number: 01

Report By: BH, JS

Attending:

- | | |
|---|---|
| ☒ Moe Handel, BOS (MH) | ☒ Dan Gutekanst, School Dept. (DG) |
| ☒ George Kent, PPBC (GK) | ☒ Philip Droney, Police Dept. (PD) |
| ☒ Jeanne McKnight, Planning BD (JM) | ☒ Paul Buckley, Fire Dept. (PB) |
| ☒ Joe Barnes, School Committee (JB) | ☒ Chip Laffey, PF-Operations, CL) |
| ☐ Matt Toolen, Park & Rec. (MT) | ☒ Patty Carey, Park & Rec. Dept. (PC) |
| ☐ John Connelly, Fin Com, (JC) | ☒ Chris Coleman, Ass't Town Mgr. (CC) |
| ☒ Artie Crocker, Con Com, (AC) | ☒ Dave Davison, Ass't Town Mgr. (DD) |
| ☒ Kate Fitzpatrick, Town Mgr. (KF) | ☒ Matt Varrell, Conservation Dept. (MV) |
| ☒ Steve Popper, PF-Construction (SP) | ☒ Chris Baker, Police Dept. (CB) |
| ☒ Hank Haff, PF-Construction (HH) | ☐ Eric Kluz, HKT (EK) |
| ☒ Rick Merson, DPW, (RM) | ☒ Janet Slemenda, HKT (JS) |
| ☒ Tony DelGaizo, Engineering Dept. (TD) | ☒ Bill Hammer, HKT (BH) |
| ☒ Lee Newman, Planning & CD, (LN) | |

Item		Action
1.01	After introductions were made, JS made PowerPoint presentation to explain our approach and our schedule for the coming year. After the presentation, the discussion focused on the visioning session. JS asked who should be invited, and what date and time would be best. It was noted that the visioning session will be a public meeting and therefore it would automatically be open to the public, although they would not necessarily be permitted to speak. GK, pointed out that the PPBC is the vehicle for open public debate. After much discussion it was decided to have the visioning session on January 27 th at 5:30 PM. It will be located in Powers Hall.	FWG
1.02	It was further agreed that the Facility Working Group will make the decision as to who will attend and participate in the visioning session.	FWG
1.03	JS reviewed the general format. HKT will pose several questions and those who are participating will be asked for to write at least three written responses on a post-it	HKT

	note. The purpose is to review the responses and to generate a lively discussion so that all points of view can be expressed. After the visioning session, HKT will organize all of the comments into similar groupings and will summarize the general comments and points of view. A list of all comments will be attached to the summary.	
1.04	It was asked if there should be a public presentation prior to Town Meeting. It was agreed that this would be possible and we may wish to hold other public presentations as the planning process concludes specific stages. It was also agreed that interim documents could be posted on line for anyone in town to review. GK stated that it is important to get early public input. He further suggested that the PPBC would schedule the public presentations.	GK/SP/HH
1.05	It was suggested that the monthly FWG meetings be scheduled after the Council of Economic Advisors, which occurs on the first Wednesday of each month. It was further agreed that the FWG meetings should be scheduled for the second Wednesday of each month. Therefore, the next meeting will be on February 12 th .	FWG
1.06	A member of the FWG asked if the planning process will include infrastructure planning as well. Although that is not part of the scope of work, BH suggested that we should know about the infrastructure planning to determine if it will affect the overall planning effort.	
1.07	The discussion turned to the programming phase. JS explained that the projected schedule as to identify two days per week for each of the building categories (i.e. fire and police, DPW, Parks and Recreation, schools, etc.). This was done to provide a degree of flexibility inasmuch as everyone will have some conflict in their schedule. JS reiterated that the program questionnaires and data sheets were sent out in mid December. Those who are in charge of filling out these forms were urged to return them to HKT as soon as possible. JS reiterated that HKT will use all existing programmatic data whenever possible.	HKT RM,TD PD,CB PB PC,MV DG, AG
1.08	HH explained that the plan is to look out over a five to ten year period and that several projects will cross jurisdictions, such as Parks and Recreation and the Conservation Commission. Consequently, there will need to be joint discussions regarding projects that will affect more than one jurisdiction, such as the DPW planning. The Community Center is another project that will require some combined discussions even though it is thought to be scheduled in the most distant future.	
1.09	HH asked that HKT prepare a summary that explains what the visioning session will be and what we hope to accomplish.	HKT
1.10	The questions for the visioning session are critical. They will be crafted by HH and JS	JS HH
	Next Meeting: February 12, 2014	

NEEDHAM FACILITIES MASTER PLAN STUDY

AGENDA: FACILITY WORKING GROUP – MEETING #1

- Outline Process for Master Plan
- Finalize Schedule
- Discuss Programming Sessions and Site Investigation
- Visioning Session #1 Format and Questions



January 8, 2014

SLIDE 1

MTG 1



January 8, 2014

NEEDHAM FACILITIES MASTER PLAN STUDY

HKT architects inc.

Municipal Resources, Inc.

PARE CORPORATION

samiotes

ICI

MTG 1

NEEDHAM FACILITIES MASTER PLAN STUDY

TEAM INTRODUCTION

- Principal involvement in their individual area of expertise
- Programming and option development
- Review with individual users
- Develop matrix of options and priorities
- MRI and other consultant involvement
- Review and confirm operations and best practices
- Confirm programmatic needs; building + site assessments
- Review/comment on matrix of options and priorities



January 8, 2014

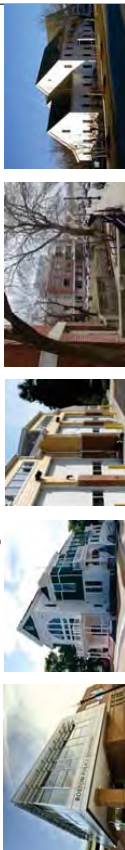
SLIDE 3

MTG 1

NEEDHAM FACILITIES MASTER PLAN STUDY

TEAM INTRODUCTION

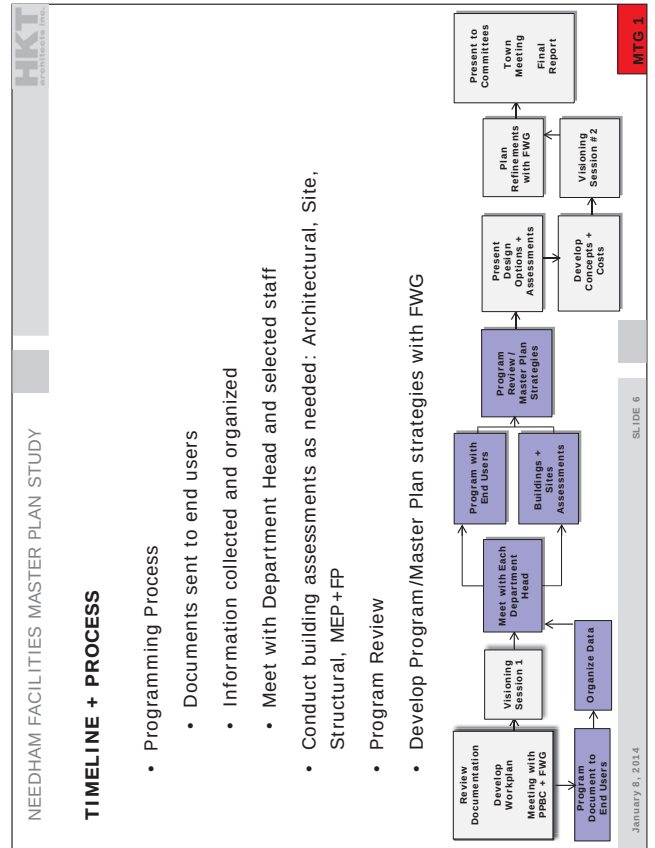
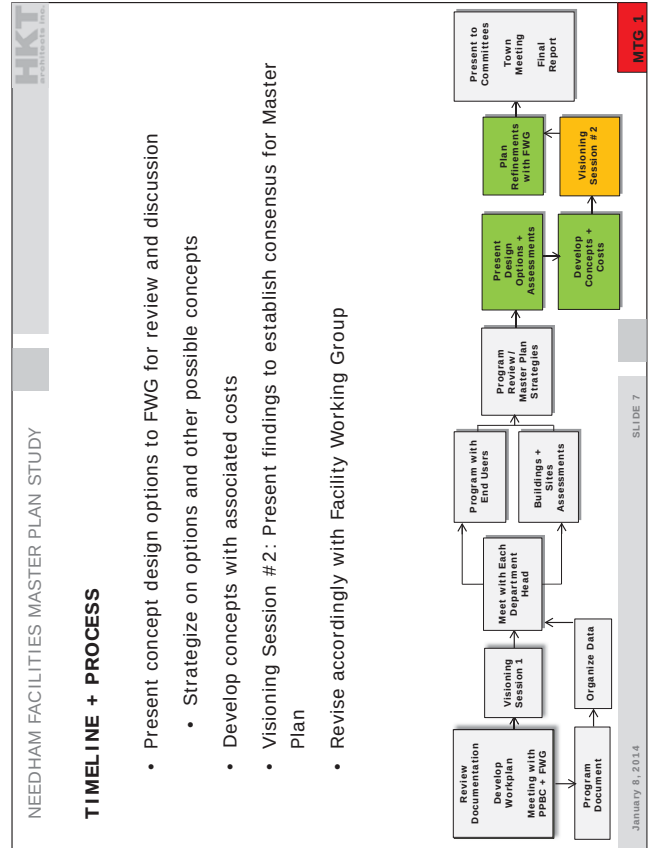
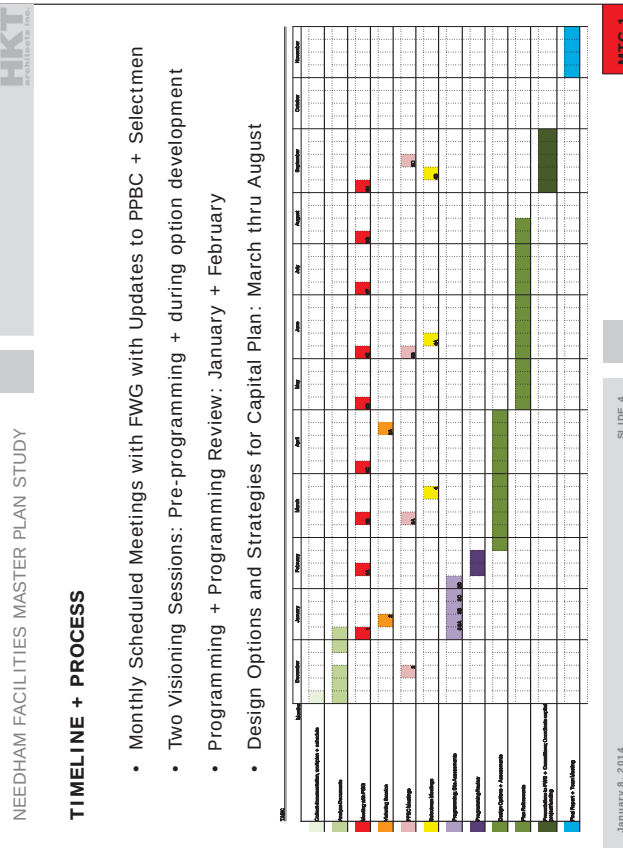
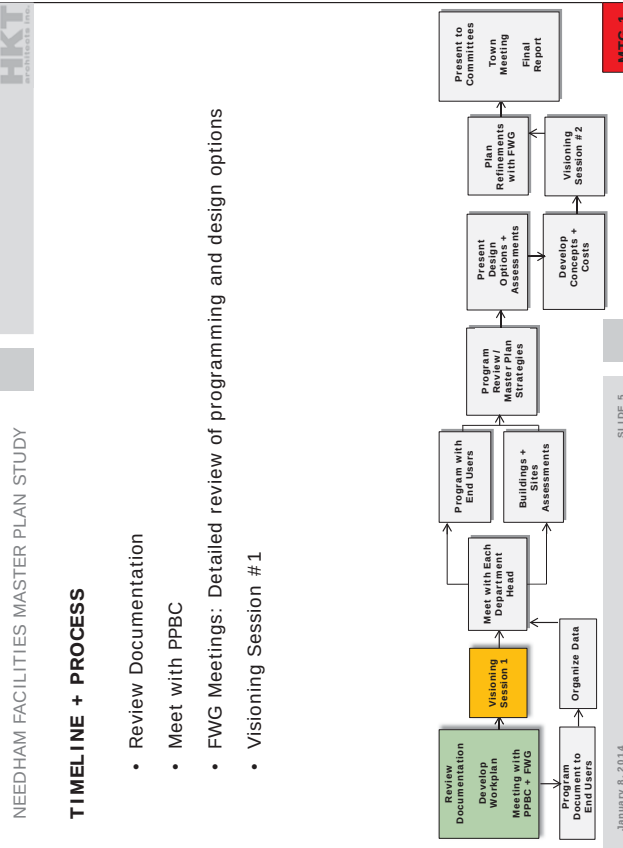
- HKT utilizes a Co-Principal model; Bill Hammer and Janet Siemenda will be the primary facilitators; Eric Kluz will lend expertise on schools
- Public project experience: municipal offices, public works facilities, fire and police stations, schools, recreation buildings and other buildings
- Team Members:
 - Municipal Resources – *Municipal*
 - Samiotes Consulting – *Civil*
 - Pare Corp. – *Structural*
 - Garcia Galuska DeSousa – *MEP/FP*
 - Tortora Consulting – *Cost Consultant*



January 8, 2014

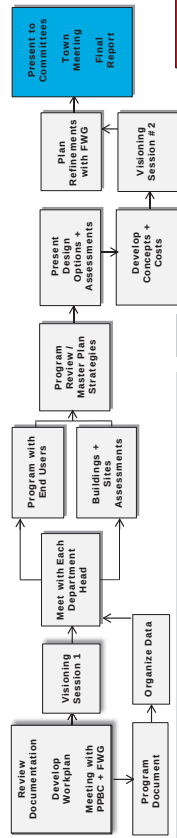
SLIDE 2

MTG 1



TIMELINE + PROCESS

- Present Draft Report to Facility Working Group and Town Committees
- Coordination of capital funding needs into Capital Plan
- Final Report
- Presentation at Town Meeting



January 8, 2014

SLIDE 8

MTG 1

TIMELINE + PROCESS

January 8, 2014

SLIDE 10

MTG 1

TIMELINE + PROCESS

- 5 Primary Categories of work – 16 buildings/sites
 - **Fire + Police:** Public Safety Building (Police + Station #1) Fire Station #2
 - **DPW:** 470 Dedham Ave – Vehicle storage and Maintenance; 486 Dedham Ave. – Former Water Pumping Station; Recycling and Transfer Station
 - **Schools + Administration:** Hillside + Mitchell Elementary Schools; Pollard Middle School; Needham High School; Emery Grover Building; Daley Building; Nike Site
 - **Park + Recreation:** Rosemary Pool and Building; Cricket Field Building; Community Center
 - **Ridge Hill Buildings**

January 8, 2014

SLIDE 9

MTG 1

TIMELINE + PROCESS

- Distribution of Materials
 - Electronic distribution of Meeting Minutes
 - Public Information to Town Web Site
- All Communications should go through Public Facilities Department
 - Email to the architect to be copied to Steve Popper and Hank Hafl
 - Email to architect should be sent to Janet Slemenda at jslemenda@hktarchitects.com Bill Hammer at whammer@hktarchitects.com
- Existing documentation + reports: HKT has received + reviewed
- Public Facilities Department has already sent out Programming Questionnaire to each of the end users

January 8, 2014

SLIDE 11

MTG 1

NEEDHAM FACILITIES MASTER PLAN STUDY

FWG SCHEDULE + OBJECTIVES

- February [Mtg. 1A](#): Programming/site investigation process
 - Summary of findings with proposed square footages
 - FWG comments and finalizes proposed programs
- March + April [Mtg. 1B + 1C](#): Update of design options + assessments
 - FWG comments on plans and approach

January 8, 2014

SLIDE 13

MTG 1

NEEDHAM FACILITIES MASTER PLAN STUDY

PROGRAMMING PROCESS

- Programming Questionnaire sent to each department
 - Results will be collected and sorted prior to start of programming
 - Information will help us understand needs of departments prior to individual programming sessions
 - Individual programming sessions and site investigation will take place over the course of 5 weeks
- During programming sessions and site investigation more detail will be collected so that programming summaries reflect the needs and expectations of each department
- Information will be reviewed by Town, edited by HKT to reflect comments and then formally accepted by Town so that as design option phase begins programs will be set

January 8, 2014

SLIDE 12

MTG 1

NEEDHAM FACILITIES MASTER PLAN STUDY

FWG SCHEDULE + OBJECTIVES OF MEETINGS

- September [Mtg. 1H](#): Start Presentations to committees + plan for Town Meeting

January 8, 2014

SLIDE 15

MTG 1

NEEDHAM FACILITIES MASTER PLAN STUDY

FWG SCHEDULE + OBJECTIVES OF MEETINGS

- May [Mtg. 1D](#): Presentation of Final Design Concepts
 - FWG agrees on preferred option so that plans can be developed
- June, July + August [Mtg. 1E, F + G](#): Update of Plan Refinements
 - FWG comments on plan refinements
 - FWG begins discussions on prioritizing options
 - FWG reviews Cost Benefit Analysis for each option

January 8, 2014

SLIDE 14

MTG 1

VISIONING SESSION

-

MTC 1

VISIONING SESSION

-

MTG 1

HIGHLIGHTS OF MOST RECENT MASTER PLAN - 2006

-

MTC 1

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HIGHLIGHTS OF MOST RECENT MASTER PLAN - 2006

-
- A vertical strip of six photographs showing various views of the University of North Carolina at Chapel Hill campus. From top to bottom: 1. A blue building with a white roofline. 2. A white building with a balcony and a sign that says 'UNC'. 3. A view of a building through trees with a green roof. 4. A building with a fountain in the foreground. 5. A building with a red roof and a sign that says 'UNC'. 6. A building with a red roof and a sign that says 'UNC' surrounded by trees.

MTC 1



January 8, 2014

THANK YOU

MTG 1



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Somerville, MA 02143
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www.hktarchitects.com

MEETING AGENDA

To: Facility Working Group

Date: February 12, 2014

From: HKT Architects, Inc

Project: Needham Facilities
Master Plan

Job No: 21314

Subject: FWG Meeting 1A

AGENDA

The object of Meeting 2 is to update the Facility Working Group on the work completed to date and to discuss next steps as the process moves from the programming phase into the design options and assessments phase.

1. Overview of Department Programs
 - a. DPW
 - b. Police and Fire
 - c. Schools
 - d. Park & Recreation/Conservation
2. Overview of Visioning Session Comments
3. Update of Schedule
4. Next Steps

MEETING MINUTES

Project: Needham Town Master Plan

Meeting Date: February 12, 2014

Time: 7:30 AM

Meeting Location: Powers Hall,
Needham Town
Hall

Job No: 21314

Meeting Facility Working Group 1A

Number:

Report By: BH, JS

Attending:

- | | |
|--|---|
| ☒ Moe Handel, BOS (MH) | ☒ Anne Gulati, School Dept. (AG) |
| ☐ George Kent, PPBC (GK) | ☐ Philip Droney, Police Dept. (PD) |
| ☒ Jeanne McKnight, Planning BD (JM) | ☒ Paul Buckley, Fire Dept. (PB) |
| ☒ Joe Barnes, School Committee (JB) | ☒ Chip Laffey, PF-Operations, CL) |
| ☐ Matt Toolen, Park & Rec. (MT) | ☒ Patty Carey, Park & Rec. Dept. (PC) |
| ☐ John Connelly, Fin Com, (JC) | ☐ Chris Coleman, Ass't Town Mgr. (CC) |
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| ☒ Kate Fitzpatrick, Town Mgr. (KF) | ☒ Matt Varrell, Conservation Dept. (MV) |
| ☒ Steve Popper, PF-Construction (SP) | ☒ Chris Baker, Police Dept. (CB) |
| ☒ Hank Haff, PF-Construction (HH) | ☐ Eric Kluz, HKT (EK) |
| ☒ Rick Merson, DPW, (RM) | ☒ Janet Slemenda, HKT (JS) |
| ☐ Tony DelGaizo, Engineering Dept. (TD) | ☒ Bill Hammer, HKT (BH) |
| ☒ Lee Newman, Planning & CD, (LN) | ☒ David Roche, Building Dept. (DR) |
| ☒ Dan Gutekanst, School Dept. (DG) | |

Item		Action
2.01	JS presented the HKT progress to date and where the study is in terms of content and the schedule that was presented at the previous meeting. In general, progress on the various components were discussed: DPW: Programming is in progress. Tours of facilities are complete. Preliminary meetings were held with most division heads. Worksheets were received from the DPW group and a follow-up meeting has been scheduled with Rick Merson and team to finalize programming. Fire + Police: Preliminary programming is complete. Tours of the facilities are complete and meetings were held with Chiefs Buckley, Droney and Lt. Baker. HKT will forward documents for review. Schools + Administration: Meetings were held with Superintendent Gutekanst and Anne Gulati to discuss overall school planning and Principals Chen and Pizzi to discuss middle school and high school issues. Studies related to planning efforts for the Hillside and Pollard Schools have been reviewed. We are in the process of	

	reviewing potential options and how they relate to the Master Plan. Parks & Recreation/Conservation: Meetings with Patty Carey and Matt Varrell outlined issues related to jurisdictions, Rosemary Lake, Ridge Hill, Nike site and various other Town owned properties. MV discussed specific issues related to the current DPW site and DeFazio Park. MV will assist on conservation related issues as schemes are developed. Ridge Hill Buildings: PC and MV discussed the many options that have been considered for this site and the adjacent Nike site which is under the jurisdiction of the School department. Community Center discussion noted that some of the spaces that citizens had been asking for had been included in other Town projects and that the remaining programming pieces were not yet defined.	
2.02	JS also presented HKT's initial observations for the various buildings and sites: DPW: Existing DPW facility is undersized, lacks headroom for modern vehicles and is neither code compliant nor energy efficient. The current site is small and has many environmental restrictions thus constraining expansion to accommodate most of the Town equipment, vehicles and personnel. There are currently 3 bays for maintenance and given the number of mechanics employed to service the numerous vehicles there should be 6 or 7 bays. Materials handling and cold storage areas need to be defined and secured.	
2.03	Fire + Police: Current building is undersized for vehicles and equipment. Shared police/fire resources are not well located. There is no sally port so that prisoners are escorted in a public parking area into the police station. Personnel support spaces are undersized and inadequate. Visitor and employees parking is lacking and overall site circulation is poor. Land acquisition should support future needs.	
2.04	Schools: Transition space is essential for school growth and expansion. DeFazio appears to be one solution for temporary classes. There are many possible scenarios for interim growth, but neighborhood schools are important, as is re-building on existing sites. Hillside and Mitchell issues include permanent versus temporary location and reuse of the Hillside School site. Pollard School issues include short term space shortages and long term replacement of modular classrooms. High School issues revolve around the increase in student population and the need for additional classrooms, cafeteria and other support space. The Emery Grover and Dailey buildings were also toured and discussed as to how they support the school department. There are many moving parts to the planning of schools and the PowerPoint covers many of the possibilities. (See item 2.06 below).	
2.05	Parks and Recreation/Conservation: These two jurisdictions control more public land in Needham than any other entity. Most of their buildings/sites are used for summer programs and the DPW stores vehicles and equipment in many of these facilities. While many community programs occur in multiple locations, some feel the need for a dedicated community center. Conservation would like to improve sites that have been environmentally degraded such as the DPW site.	
2.06	Project Matrix: Given that the town master plan has so many sites, needs and potential options, HKT felt that it would be helpful to present these many inter-related components in the form of a matrix. A preliminary matrix was presented for discussion. On one axis were each potential site and the other axis listed all of the potential uses. Each cell could be evaluated by developing criteria and using a numerical scale to score each. This generated a lively discussion and it was suggested that each site should indicate the corresponding jurisdiction. HKT will work with the Town to develop the criteria and scoring scale.	Town and HKT

2.07 The open discussion that followed generated the following comments: A. The Stephen Palmer building, Greene's Field, the golf course, Needham Historic, Senior Center and Town Hall should be added to the list of buildings/sites in the matrix. Even sites that would not be considered need to be listed so that the due diligence is seen as complete and comprehensive. B. Kate Fitzpatrick asked what acreage would be ideally required for the DPW. HKT has not finished program so the size is not confirmed at this time. C. Hank Haff asked if it was possible to develop transitional growth without having to use temporary facilities. D. Could Ridge Hill Buildings be moved to another site? E. HH asked if a goal of the study could define the highest and best use for each site. F. It was observed that community program elements seem to take place regardless of the master plan. G. Historic buildings such as Emery Grover and Ridge Hill were discussed in the context of renovation versus replacement.	Town and HKT
2.08 Visioning Session #2: There was discussion as to how and when to have the next visioning session. There was general discussion about this meeting being more of a public informational session in which the Community could be updated and feedback could be heard. Discussion focused on the level of public input and that it should not present a plan where most if not everything was already decided upon. It was suggested that the public meeting might be best at the end of April and would be a presentation with comments from the public, but not a visioning session.	Town and HKT
2.09 Building Assessments: HKT and Pare will be visiting the DPW and Fire/Police sites to review existing building conditions.	HKT
Next Meeting: March 12, 2014	

5 PRIMARY CATEGORIES OF WORK

- **Fire + Police:** Public Safety Building (Police + Station #1); Fire Station #2
- **DPW:** 470 Dedham Ave – Vehicle storage and Maintenance, 486 Dedham Ave. – Former Water Pumping Station; Recycling and Transfer Station
- **Schools + Administration:** Hillside + Mitchell Elementary Schools; Pollard Middle School; Needham High School; Emery Grover Building; Daley Building; Nike Site
- **Park + Recreation:** Rosemary Pool and Building; Cricket Field Building; Community Center
- **Ridge Hill Buildings**



February 12, 2014

SLIDE 1

MTG 1A

AGENDA: FACILITY WORKING GROUP - MEETING #1A

- Process and Schedule
- Overview of Department Programs
 - Department of Public Works
 - Police and Fire
 - Schools
 - Parks + Recreation/Conservation
- Overview of Visioning Session Comments
- Update of Schedule
- Next Steps



February 12, 2014

SLIDE 3

MTG 1A



February 12, 2014

NEEDHAM FACILITIES MASTER PLAN STUDY



MTG 1A

PROJECT SITES



February 12, 2014

SLIDE 2

MTG 1A

NEEDHAM FACILITIES MASTER PLAN STUDY

FWG SCHEDULE + OBJECTIVES

- February **Mtg. 1A**: Programming/site investigation process
 - Summary of findings with observations
 - FWG comments and finalizes proposed programs
- March + April **Mtgs. 1B + 1C**: Update of design options + assessments
 - FWG comments on plans and approach

February 12, 2014

SLIDE 5

MTG 1A

NEEDHAM FACILITIES MASTER PLAN STUDY

PROGRAMMING PROCESS

- Programming Process
 - Documents sent to end users; information being collected + organized
 - Met with Department Head and selected staff
- Pending - Building assessments as needed: Arch, Site, Struct, MEP + FP
- Pending – Meeting with Commission Heads and Town Manager
- Detailed Program Review with End Users
- Develop Program/Master Plan strategies with FWG

February 12, 2014

SLIDE 4

MTG 1A

NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS

- Current existing structures
 - Hollis Building: 38,224 GSF; buildings, sheds + cold storage
 - New vehicle building: 4,998 GSF
 - PSAB building = 21,777 GSF
 - RTS, Claxton Field, Memorial Field, Cricket Field, Ridge Hill storage
- Programming Needs: Dependent on storage of vehicles + equipment
 - Consolidation versus distributed
- Operations and Administration are on same site but not together
 - Any changes will likely trigger full upgrade

February 12, 2014

SLIDE 7

MTG 1A

NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS: Manage and preserve infrastructure

- Highway maintenance + construction: 123 miles of roadway, 23 signalized intersections
- Sidewalks maintenance: 162 miles
- Removing snow
- Supplying + distributing water: water main breaks or leaks, replaced water meters + water lines
- Constructing + maintaining sewer and storm water
- Solid waste disposal + recycling
- Parks + Forestry maintenance: tree removal, pruning + brush removal
- Athletic Fields: fertilized, aerated, seeded, mowed + lined
- Administration, engineering and maintenance divisions: 30 project reviews for Planning, 725 project reviews for building department, intersection and road repairs

February 12, 2014

SLIDE 6

MTG 1A

NEEDHAM FACILITIES MASTER PLAN STUDY DEPARTMENT OF PUBLIC WORKS • Observations • Existing DPW facility is undersized for your fleet + personnel • Garage is 60' width vs 98'; height should be minimally 17' clear of structure or systems, Hollis is 18' to top of building • Building is not accessible; all spaces must be accessible • Systems not current; employee facilities lacking • Maintenance + Shops: Should have minimum 6-7 bays (current at 3), storage for fluids, tires and parts and supplies; shops per department • Existing Hollis building is not energy efficient  February 12, 2014 SLIDE 8 MTG 1A	NEEDHAM FACILITIES MASTER PLAN STUDY DEPARTMENT OF PUBLIC WORKS • Observations • Storage of vehicles, equipment + materials is located throughout Town; some are co-located with other departments at Ridge Hill, Memorial Field, Claxton and Cricket Fields + RTS • Vehicles stored indoors protect this valuable asset and help improve localized site conditions • Explore the benefit of consolidation of personnel and equipment • Feasible at existing site; feasible at alternate site • Domino affect of building projects • Town archival storage needs are scattered throughout buildings  February 12, 2014 SLIDE 9 MTG 1A
NEEDHAM FACILITIES MASTER PLAN STUDY DEPARTMENT OF PUBLIC WORKS • Observations • Materials handling areas: storage of stock materials such as sand + gravel and areas to store materials removed during street sweeping, catch basin cleanout or asphalt repairs and from Town construction sites needs should be defined and controlled • Currently stored at DPW site near original salt shed + RTS • Should Town building projects be included in this area • Areas of cold storage, sander bodies + spreaders, pipes + manhole covers etc. should be located to secure + maintain stock + to be nearby other equipment needed to complete the project  February 12, 2014 SLIDE 10 MTG 1A	NEEDHAM FACILITIES MASTER PLAN STUDY POLICE AND FIRE DEPARTMENTS • Current Station #1: +/- 31,145 SF • Police: +/- 13,095 SF • Fire: +/- 11,634 SF • Shared: +/- 6,416 SF • Station #2: +/- 9,630 SF • Preliminary Programming Needs at Police + Fire: 43,966 SF • Shared spaces and building support: +/- 6,019 SF • Police: +/- 21,609 SF • Fire: +/- 16,339 SF  February 12, 2014 SLIDE 11 MTG 1A

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS

- Site requirements
 - Visitor Parking: 24 hrs; prime 7am to 10pm
 - Personnel Parking: overlapping shifts for both departments
 - Dumpster
 - Impound area (currently in wash bay)
 - Emergency generator
- Movement of emergency vehicles: Fire and Police Vehicles must be able to move quickly and effortlessly from site







February 12, 2014

SLIDE 13

MTG 1A

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS

- Observations
 - Current building is undersized for current vehicles and equipment
 - Organization of spaces does not reflect current police and fire operational needs
 - Shared resources: FD + PD dispatch, waiting area, conference and EOC are not well located
 - No sallyport; no holding area; booking area too small and too much prisoner access to personnel and equipment
 - Support spaces for apparatus inadequate; height and width do not meet current standards







February 12, 2014

SLIDE 12

MTG 1A

NEEDHAM FACILITIES MASTER PLAN STUDY

SCHOOLS

- Transition spaces key to successful development of schools + other Town buildings: Defazio is key
- Neighborhood schools are very important – some possibilities are non-neighborhood, require redistricting or additional busing
- Preference is to re-build on existing sites – what are the issues that might affect that preference (access, wetlands)
- Full day kindergarten at all elementary schools
- Other scenarios: convert schools from elementary to middle or middle to elementary, or new 6th grade option







February 12, 2014

SLIDE 15

MTG 1A

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS

- Observations
 - Visitor and employee parking is inadequate with no obvious separation of visitors and department vehicles
 - No sallyport so prisoners escorted across open parking area
 - Overall site circulation is poor
 - Acquisition of land should support the needs of these departments







February 12, 2014

SLIDE 14

MTG 1A

NEEDHAM FACILITIES MASTER PLAN STUDY SCHOOLS - Hillside and Mitchell Schools - Permanent versus temporary location - Impact on Defazio Field and DPW of either all temporary or combination temporary + permanent construction - Site circulation issues - Materials handling area - Hillside School: contaminated soils – how does this affect rebuilding project - Pollard School: long term versus short term needs - Science classrooms and cafeteria - New permanent facilities: Replace modular with modular or stick-built  February 12, 2014 SLIDE 16 MTG 1A	NEEDHAM FACILITIES MASTER PLAN STUDY SCHOOLS - High School - Designed for 1,400 students, at 1,600 projected to 1,800 - Permanent Modular's/Pre-fab with expanded cafeteria - Other support spaces to handle students and staff: gymnasium, auditorium, office and conference space - Other office functions that could move out of high school - Other changes to support "bubble" of students - Year to year rearrangement of spaces to accommodate needs  February 12, 2014 SLIDE 17 MTG 1A
NEEDHAM FACILITIES MASTER PLAN STUDY SCHOOLS - Emery Grover Building - Not accessible for staff or visitors - Undersized Meeting Rooms + Offices - Physical condition is poor - Unused space - Daley Building - Supports all Town Buildings not just school buildings - Is this building at its full potential - Nike Site: use versus location  February 12, 2014 SLIDE 18 MTG 1A	NEEDHAM FACILITIES MASTER PLAN STUDY PARKS AND RECREATION / CONSERVATION - Parks + Rec and Conservation are largest controllers of land in town - Current buildings primarily used during summer - Many buildings include storage component used by DPW - Ridge Hill site has restricted use - Some other community building needs have been met in other buildings but there are some that remain; we need to define those and see how they can be accommodated in the long term - What sites should be planned for low impact development and usage? - Nike and Ridge Hill  February 12, 2014 SLIDE 19 MTG 1A

PARKS AND RECREATION / CONSERVATION

- Conservation would like to improve degraded site conditions but recognizes current uses
- Conservation will work with us on challenging sites like the existing DPW
 - Preferable to do mitigation on a previously disturbed area
 - Can water be allowed to move in a more natural manner or can improvements be made in other areas or on other sites
- Should wildlife, including the appearance of coyotes and an expanding bear population, reduce potential use of any site. What are reasonable mitigation measures?



February 12, 2014

SLIDE 20

MTG 1A

MATRIX DISCUSSION

- Projects in Master Plan
- Other sites discussed during programming or visioning
- Metrics
 - Site: location, shape, topography and size; jurisdictional boundaries; zoning factors; wetlands buffers; stormwater management; history; other restrictions
 - Sociopolitical: neighborhood; abutters; remote site; cost to purchase
 - Constructability
 - Building (existing): code compliance; systems deficiencies; accessibility; internal planning
 - Building (new): can site support interior and exterior needs
 - Operations: vehicular traffic patterns; parking; easy access; safety for children, staff or employees

February 12, 2014

SLIDE 21

MTG 1A

OVERVIEW OF VISIONING

- **Q1 Previous Master Plan: Surprises or concerns**
 - Cost estimates – how well they tracked to the actual projects
 - Importance of swing or temporary space
 - Limited alternative sites available in Town
 - Should programming be focused on how needs should be handled or how they most probably will be handled
 - Need for Public input
 - Establish priorities; how flexible should/must plan be
 - Projects were balanced and constituents were pleased

February 12, 2014

SLIDE 22

MTG 1A

OVERVIEW OF VISIONING

- **Q2 What do you see as obstacles**
 - Financial: ability to finance projects
 - Town wanting more than we can afford; realistic expectations
 - Lack of available land and facilities
 - Capacity of sites
 - Lack of available land to relocate or expand
 - Value of current open spaces
 - Maintaining an open minded approach
 - Territorial attitudes
 - Improve communications
 - Building agreement and consensus
 - Setting Priorities
 - Order by urgency
 - How will needs be balanced

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SLIDE 23

MTG 1A

OVERVIEW OF VISIONING

- February 12, 2014

OVERVIEW OF VISIONING

- February 12, 2014

OVERVIEW OF VISIONING

- February 12, 2014

OVERVIEW OF VISIONING

- February 12, 2014

OVERVIEW OF VISIONING

- **Q5C View of Police and Fire / shared site**
 - Stand alone
 - School administration
 - Other Public Facilities
 - Community Center
 - Parking lot

February 12, 2014

SLIDE 28

MTG 1A

OVERVIEW OF VISIONING

- **Q5D View of Rosemary Lake alternate sites**
 - Current site
 - Ridge Hill/Nike
 - Private
 - DeFazio
 - Claxton Field
 - School Property
 - Millis Field
 - Town Forest
 - Other

February 12, 2014

SLIDE 29

MTG 1A

OVERVIEW OF VISIONING

- **Q5E View of Nike and Ridge Hill Sites**
 - Swap land
 - Keep as open space
 - Community or Recreational Center/pool
 - Passive recreation
 - School administration
 - Other

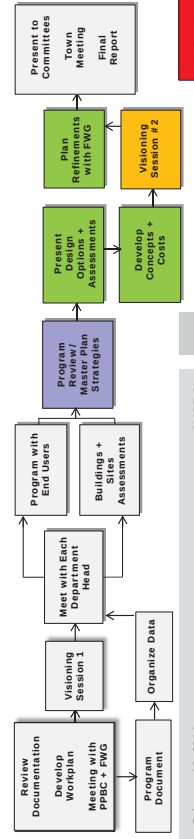
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SLIDE 30

MTG 1A

NEXT STEPS

- Finalize program documents and review with "end users"
- Present concept design options to FWG for review and discussion
 - Strategize on options and other possible concepts
- Develop concepts with associated costs
- Visioning Session #2: Present findings to establish consensus for Master Plan
- Revise accordingly with Facility Working Group



February 12, 2014

SLIDE 31

MTG 1A



THANK YOU

February 12, 2014

MTG 1A



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MEETING AGENDA

To: Facility Working Group

Date: March 7, 2014

From: HKT Architects, Inc

Project: Needham Facilities
Master Plan

Job No: 21314

Subject: FWG Meeting 1B

AGENDA

The object of Meeting 1B is to update the Facility Working Group on the Police and Fire Departments and the Department of Public Works programming work and site assessment.

1. Update of Schedule
2. Discussion of Visioning Session: FWG Meeting 1A concluded prior to review of this session
3. Overview of Department Programs
 - a. Police and Fire Departments
 - i. Programming
 - ii. Site Review
 - iii. Building Assessment
 - b. Department of Public Works
 - i. Programming
 - ii. Site Review
 - iii. Building Assessment
4. Next Steps

MEETING MINUTES

Project: Needham Town Master Plan

Meeting Date: March 12, 2014

Time: 7:30 AM

Meeting Location: Powers Hall,
Needham Town
Hall

Job No: 21314

Meeting Facility Working Group 1B

Number:

Report By: BH, JS

Attending:

- ☒ Moe Handel, BOS (MH)
- ☒ George Kent, PPBC (GK)
- ☒ Jeanne McKnight, Planning BD (JM)
- ☒ Joe Barnes, School Committee (JB)
- ☒ Matt Toolen, Park & Rec. (MT)
- ☐ John Connelly, Fin Com, (JC)
- ☐ Artie Crocker, Con Com, (AC)
- ☒ Kate Fitzpatrick, Town Mgr. (KF)
- ☒ Steve Popper, PF-Construction (SP)
- ☒ Hank Haff, PF-Construction (HH)
- ☒ Rick Merson, DPW, (RM)
- ☒ Tony DelGaizo, Engineering Dept. (TD)
- ☐ Lee Newman, Planning & CD, (LN)
- ☒ Dan Gutekanst, School Dept. (DG)

- ☒ Anne Gulati, School Dept. (AG)
- ☒ Philip Droney, Police Dept. (PD)
- ☒ Paul Buckley, Fire Dept. (PB)
- ☒ Chip Laffey, PF-Operations, (CL)
- ☒ Patty Carey, Park & Rec. Dept. (PC)
- ☐ Chris Coleman, Ass't Town Mgr. (CC)
- ☐ Dave Davison, Ass't Town Mgr. (DD)
- ☒ Matt Varrell, Conservation Dept. (MV)
- ☐ Chris Baker, Police Dept. (CB)
- ☐ Eric Kluz, HKT (EK)
- ☒ Janet Slemenda, HKT (JS)
- ☒ Bill Hammer, HKT (BH)
- ☒ David Roche, Building Dept. (DR)
- ☒ Bob Lewis, DPW (BL)

Item		Action
3.01	Janet Slemenda started the meeting by reviewing our progress to date. At this point, HKT has done most of the programming for the fire and police station and work has started on the DPW, but with the severe weather so far this winter, more time is needed to complete their program.	
3.02	JS also gave an overview of the Visioning Session that was held on January 27th. The specific responses are listed in the attached PowerPoint presentation. Some of the more important responses included: • The importance of swing space/temporary space • Limited alternative sites available in Town • Need for public input • Maintaining an open-minded approach • Development of a sound plan	

- 3.03 Following the Visioning review, JS summarized where HKT was with programming for the Department of Public Works, the size and existing conditions of 470 Dedham Avenue, overall deficiencies in space and building height to store and maintain current equipment and vehicles, etc. Four conceptual plans were presented that illustrated different strategies to demonstrate the difficulty of locating the programmed facilities on the current Dedham Avenue site.

Bob Lewis presented the case for housing vehicles and pieces of equipment in an enclosed and minimally heated space. As part of Needham's first response effort during weather related events, or other emergencies such as a water main break, these vehicles and pieces of equipment need to be easily accessible and ready to move quickly. In addition, indoor storage protects and extends the life of these very expensive Town-owned vehicles, which include many exposed working parts, from inclement weather and UV rays that cause accelerated deterioration. Initial programming proposes housing at least 80 front-line vehicles and towed equipment, out of 343 pieces, in an enclosed and heated space. 36 pieces require covered storage without heat and others can be stored outdoors.

Finally, newer mandates as to how vehicles are stored and washed must be dealt with on a site such as that at Dedham Avenue. Vehicles need to be covered or run-off must be treated as per the NPDES requirements.

- 3.04 JS summarized the programming analysis for the Police and Fire Department facilities. The existing buildings presently house most of the programming noted, except for an appropriate sallyport, holding, booking and cell block area and apparatus bays that support current fire department vehicles. The process of programming included the need to right size spaces and account for changes to operations that have occurred without appropriate space to house these critical functions.

It was agreed that the Police and Fire Headquarters would remain on the current Chestnut Street location. Two possible strategies were presented using the Chestnut Street site, including the adjacent parcels recently acquired by the Town.

The first option reuses the existing building in some manner, acknowledging that a new apparatus bay building with fire staff workspaces and living quarters would need to be built directly adjacent to the existing structure. Initial efforts suggest that this is possible but that many compromises would need to be reviewed including inefficiencies in circulation patterns.

The second option showed a conceptual scheme for a new more efficient building at the corner with a shared entry point and the demolition of the existing building.

- 3.05 The presentation concluded by outlining the next steps on the master planning process:
- Developing options for the sites and Town uses under consideration. These include new construction versus renovations and repurposing; fine tuning the DPW program; fine tuning the fire and police programming; considering alternate sites for the DPW and options for the FD/PD site.
 - The next steps will include the development of concepts for review; presentation of these options and associated costs to the FWG; finalizing the preferred options with the FWG; another visioning session to discuss these options with the community and making revisions with the FWG that result from the public visioning session.



March 12, 2014

NEEDHAM FACILITIES MASTER PLAN STUDY

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PARE
CORPORATION

samitotes

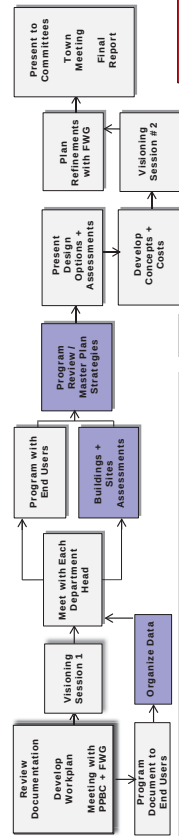
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MTG 1B

NEEDHAM FACILITIES MASTER PLAN STUDY

PROGRAMMING PROCESS: POLICE + FIRE, PUBLIC WORKS

- Programming Process continues
 - Met with department head and selected staff
 - Detailed program review is ongoing
 - Room Data are continually being revised to reflect comments
- Building assessments: Architectural and Structural
- Pending – Meeting with Commission Heads and Town Manager
- Develop Program/Master Plan strategies with FWG



March 12, 2014

SLIDE 2

MTG 1B

NEEDHAM FACILITIES MASTER PLAN STUDY

AGENDA: FACILITY WORKING GROUP – MEETING #1B

- Schedule
- Overview of Visioning Session Comments
- Overview of Department Programs
 - Department of Public Works
 - Police and Fire
- Next Steps



March 12, 2014

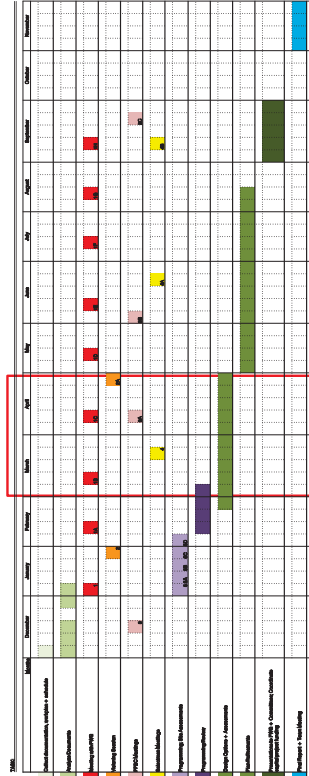
SLIDE 1

MTG 1B

NEEDHAM FACILITIES MASTER PLAN STUDY

FWG SCHEDULE + OBJECTIVES

- March + April Mtgs. 1B + 1C: Update of programming + assessments
 - Summary of structural and architectural findings
 - Programming details for Public Works, Fire and Police Departments
 - FWG comments on programming, concepts and approach

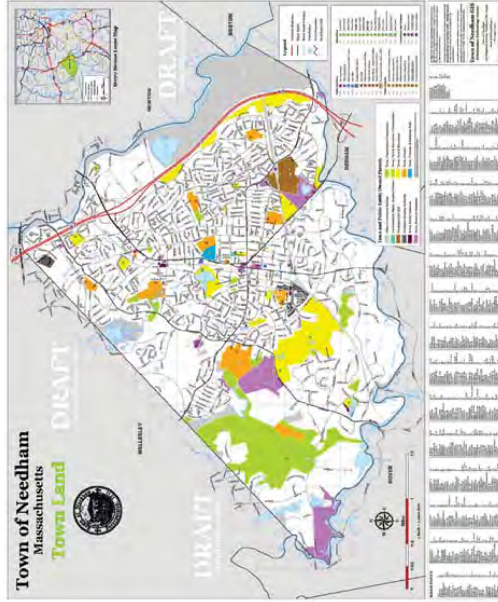


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SLIDE 3

MTG 1B

TOWN LAND MAP

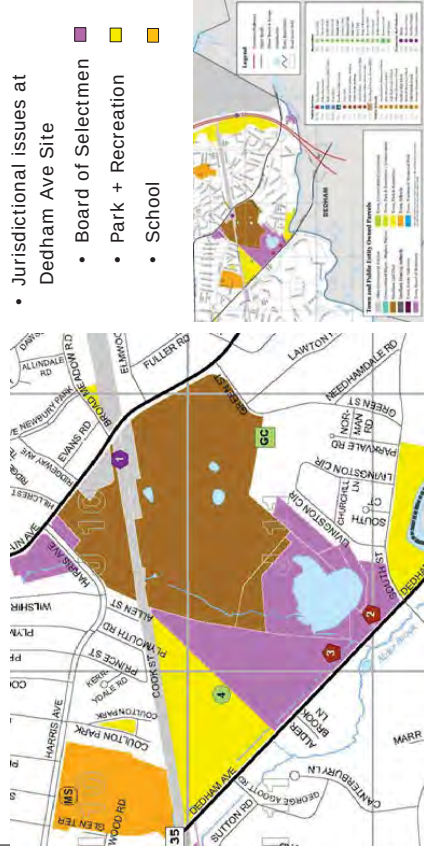


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SLIDE 4

MTG 1B

TOWN LAND MAP: DETAIL AT DEDHAM AVENUE SITE



- Jurisdictional issues at Dedham Ave Site
- Board of Selectmen
- Park + Recreation
- School

March 12, 2014

SLIDE 5

MTG 1B

OVERVIEW OF VISIONING

- What have we learned from the responses and what are some broad conclusions that we have reached
- Will the responses be reflected in the concepts
- How do we describe and articulate the challenges of a Master Plan to the Community at large
 - The Master Plan is a framework for future decisions
 - The Master Plan needs to have built in flexibility
 - The Master Plan is not absolute
 - The Master Plan must be responsive when something changes

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SLIDE 6

MTG 1B

OVERVIEW OF VISIONING

- **Q1 Previous Master Plan: Surprises or concerns**
 - Cost estimates – how well they tracked to the actual projects
 - Importance of swing or temporary space
 - Limited alternative sites available in Town
 - Should programming be focused on how needs should be handled or how they most probably will be handled
 - Need for Public input
 - Establish priorities; how flexible should / must plan be
 - Projects were balanced and constituents were pleased

March 12, 2014

SLIDE 7

MTG 1B

OVERVIEW OF VISIONING

- **Q2 What do you see as obstacles**
 - Financial: to finance projects
 - Town wanting more than we can afford; realistic expectations
 - **Lack of available land and facilities**
 - Capacity of sites
 - Lack of available land to relocate or expand
 - Value of current open spaces
 - **Maintaining an open minded approach**
 - Territorial attitudes
 - Improve communications
 - Building agreement and consensus
 - **Setting Priorities**
 - Order by urgency
 - How will needs be balanced

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SLIDE 8

MTG 1B

OVERVIEW OF VISIONING

- Q3 Needs or limitations suggest simple or radical changes: what are the “sacred” land or buildings
 - Open minded approach
 - **Look at everything**
 - **Public should be heard**
 - Safety of citizens
 - Fire and Police in the downtown
 - Playing fields and green spaces
 - Spaces that define a neighborhood
 - Town forest, Ridge Hill, Rosemary Lake
 - Neighborhood schools
 - Historic Buildings and land
 - DPW
 - No sacred sites

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SLIDE 9

MTG 1 B

OVERVIEW OF VISIONING

- **Q4 What do think the citizens believe should be highest priority**
 - Schools: upgrade, renovate, replace, relocate
 - DPW: solve this issue
 - Police and Fire
 - Land, fields and roads
 - Preserve open space; Environmental planning
 - Financial
 - Affordable solutions; Value for tax dollar expended
 - **Development of a sound plan**
 - Community: communication and inclusion of all age groups
 - Sustainability
 - No priority
 - Recreation

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SLIDE 10

MTC 1B

OVERVIEW OF VISIONING

- ***Q5A.1 View of location of DPW***
 - **RTS**
 - **Stay at present location**
 - **Hillside**
 - Other sites: Greendale, Nike, Claxton Field
- ***Q5A.2 Use of RTS***
 - Not in scope
 - Best use should be explored
- ***Q5A.3 Use of Dedham Ave***
 - School
 - Recreation
 - Natural resources

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SLIDE 11

MTC-1 B

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NEEDHAM FACILITIES MASTER PLAN STUDY

SLIDE 12

MTG 1B

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OVERVIEW OF VISIONING

- **Q5B.1 View of School Projects Synergies**
 - Synergies: combine schools
 - Recreation and school complex
 - Build large enough schools for other programming
- **Q5B.2 View of School Projects Location of Administration**
 - At Emery Grover
 - With other schools
 - New land acquisitions
 - Executive offices
 - Ridge Hill
 - DeFazio
 - Police and Fire
 - Other

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NEEDHAM FACILITIES MASTER PLAN STUDY

SLIDE 13

MTG 1B

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OVERVIEW OF VISIONING

- **Q5C View of Police and Fire /shared site**
 - Stand alone
 - School administration
 - Other Public Facilities
 - Community Center
 - Parking lot

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NEEDHAM FACILITIES MASTER PLAN STUDY

SLIDE 14

MTG 1B

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OVERVIEW OF VISIONING

- **Q5D View of Rosemary Lake alternate sites**
 - Current site
 - Ridge Hill / Nike
 - Private
 - DeFazio
 - Claxton Field
 - School Property
 - Millis Field
 - Town Forest
 - Other

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NEEDHAM FACILITIES MASTER PLAN STUDY

SLIDE 15

MTG 1B

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OVERVIEW OF VISIONING

- **Q5E View of Nike and Ridge Hill Sites**
 - Swap land
 - Keep as open space
 - Community or Recreational Center/pool
 - Passive recreation
 - School administration
 - Other
- **Open Discussion**

DEPARTMENT OF PUBLIC WORKS

- Existing structures: +/- 45,400 GSF not including PSAB Building
 - Hollis Building: +/- 38,000 GSF: buildings, enclosed and open sheds
 - New vehicle building under construction: 4,998 GSF
 - 486 Dedham (Former Water Pumping Station) = 2,400 GSF on main floor
- PSAB Building = 21,777 GSF



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SLIDE 16

MTG 1B

DEPARTMENT OF PUBLIC WORKS

- Storage of vehicles, equipment + materials is located throughout Town; some are co-located with other departments at Ridge Hill, Memorial Field, Claxton and Cricket Fields. There is storage at the RTS. The DPW would prefer to maintain space at some facilities such as at fields and parks because this is where the equipment/materials are primarily used. Some remote storage is difficult to access.
 - Vehicles and equipment stored indoors protect these valuable assets and help improve localized site conditions
 - Some storage areas are under the control of other departments and are subject to change as Towns needs change



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SLIDE 17

MTG 1B

DEPARTMENT OF PUBLIC WORKS: Other Storage examples



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SLIDE 19

MTG 1B

DEPARTMENT OF PUBLIC WORKS

- Vehicles, equipment + materials stored for regular use by DPW

OTHER EXISTING STORAGE LOCATIONS	SF
Defazio Storage Area A	9,652
Defazio Storage Area B	2,200
Defazio Salt Shed	4,063
Daley Building	10,425
Alden Road Pump Station	620
Charles River WTP	160
Reservoir B Pump Station Garage	1,000
St. Mary's Pump Station	415
Winter Rental	1,500
Cricket Field	1,500
Claxton Field	1,000
Cage at Defazio	5,899
Memorial Field *Estimate	+3,000
Ridge Hill Reservation Garages and Barn *Estimate	+3,000
Material Bins at Dedham Ave *Estimate	+3,000
TOTAL	47,434

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SLIDE 18

MTG 1B

DEPARTMENT OF PUBLIC WORKS: Other Storage examples



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SLIDE 20

MTG 1B

DEPARTMENT OF PUBLIC WORKS

- Materials handling areas: storage of stock materials such as sand + gravel and areas to store materials removed during street sweeping, catch basin cleanout or asphalt repairs and from Town construction sites needs should be defined and controlled
- Currently stored at DPW site near original salt shed + RTS
- Areas of cold storage, sander bodies + spreaders, pipes + manhole covers etc. should be located to secure and maintain stock and to be nearby other equipment needed to complete the project



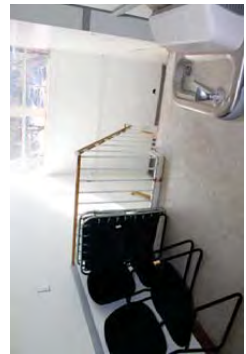
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SLIDE 20

MTG 1B

DEPARTMENT OF PUBLIC WORKS: ARCHITECTURAL EXISTING CONDITIONS

- Open stair as means of egress from the second floor does not meet code
- Interior stair from second floor is not enclosed



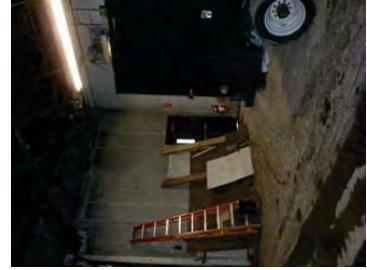
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SLIDE 21

MTG 1B

DEPARTMENT OF PUBLIC WORKS: ARCHITECTURAL EXISTING CONDITIONS

- Egress doors are unmarked
- Egress door in maintenance shop is blocked by equipment



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SLIDE 22

MTG 1B

NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS: ARCHITECTURAL EXISTING CONDITIONS

- Vehicle Storage and Maintenance bay clear heights are inadequate
- Garage is 60' width vs 98', height should be minimally 17' clear of structure or systems, 470 Dedham is 18' to top of building
- Maintenance : Should have minimum 6-7 bays (current at 3), storage for fluids, tires and parts and supplies
- Shops: Should provide adequate work and consolidated storage areas




MTG 1B

March 12, 2014

SLIDE 24

NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS: ARCHITECTURAL EXISTING CONDITIONS

- No fire suppression system
- The building envelope does not meet current energy code
- No accessible means to the second floor
- No accessible toilets





MTG 1B

March 12, 2014

SLIDE 23

NEEDHAM FACILITIES MASTER PLAN STUDY

DPW at 470 DEDHAM: STRUCTURAL EXISTING CONDITIONS

- DPW Building: original structure circa 1960, 2nd floor addition circa 1965
- High watertable
- Covered shed structure is located to the west. It has a CMU bearing wall + concrete foundation along its rear + steel framing along front




MTG 1B

March 12, 2014

SLIDE 26

NEEDHAM FACILITIES MASTER PLAN STUDY

DPW at 470 DEDHAM: STRUCTURAL EXISTING CONDITIONS

- DPW Building: original structure circa 1960, 2nd floor addition circa 1965
- The building consists of a 1-story vehicle storage area (60'x191') + a 2-story vehicle maintenance/locker room/office area (60'x191' + 60'x148')
- A perennial stream/channel is located against the building foundation along the south side
- First floor is slab on grade
- Masonry bearing walls supporting steel roof on vehicle storage bay. Two-storey portion is steel frame, with masonry infill walls
- No seismic restraints in the structural system




MTG 1B

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SLIDE 25

DPW at 470 DEDHAM: STRUCTURAL

- Renovation or Rebuilding Issues:
 - Existing CMU bearing walls within the vehicle storage area appear unreinforced based upon a review of existing plans
 - If the building is renovated it will require that masonry walls be analyzed for code-prescribed seismic loads. It is unlikely these walls will be able to resist these loads without some level of retrofit
 - To meet code, it would likely be more cost-effective to remove and replace these walls with a reinforced CMU wall system or steel framing
 - This will modify more than 30% of the total building structure thus creating a "substantial structural alteration" triggering the entire building to be reviewed for wind and seismic loads
 - This will likely require replacement/strengthening of CMU walls, installation of new steel bracing and foundations, and strengthening of existing floor and roof decks

March 12, 2014

SLIDE 27

MTG 1B

DEPARTMENT OF PUBLIC WORKS: DRAFT Results of Programming Sessions

- Consolidated Program assumes complete relocation from Dedham Avenue

DIVISION	GSF	TOTAL GSF
Administration - Shared	4,668	
Administration	2,398	
Administration - Operations	2,099	
Administration - Engineering	4,629	
Operations - Employee Support	3,812	
Operations - Garage/Maintenance	16,767	
Operations - Shops	6,778	
Operations - Wash Bay/ Vehicle Storage + Prep	36,426	
Building Support	2,291	
SUBTOTAL		79,867
Other Departments in PSAB		8,905
TOTAL		88,772

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MTG 1B

DPW at 470 DEDHAM: STRUCTURAL

- Renovation or Rebuilding Issues:
 - Raising the roof of the existing maintenance bay is impractical and would trigger other expensive retrofits
 - Due to high groundwater, the Town should raise the vehicle storage slab elevation
 - Foundation walls are not suitable for bearing plates that would be required from a new structure
 - Foundation would not support the thrust of a pre-engineered building
 - New foundations could be built, but the south wall next to the stream channel must stay in place. A new wall could be poured next to the existing; it must go to the bottom of existing footings (8' or 9')
 - If a new building is built next to the existing, it must be physically separated and if it is higher than the existing, the existing must be reinforced for snow drifts

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MTG 1B

DEPARTMENT OF PUBLIC WORKS: DRAFT Results of Programming Sessions

- Non-Consolidated Program assumes remaining at Dedham Avenue

DIVISION	GSF	TOTAL GSF
Administration - Shared	359	
Administration	0	
Administration - Operations	1,647	
Administration - Engineering	0	
Operations - Employee Support	4,028	
Operations - Garage/Maintenance	16,767	
Operations - Shops	6,778	
Operations - Wash Bay/ Vehicle Storage + Prep	36,426	
Building Support	1,758	
SUBTOTAL		67,764
Other Departments in PSAB		0
TOTAL		67,764

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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS



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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS



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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS: PRELIMINARY OPTIONS



Existing Vehicle Storage

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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS: PRELIMINARY OPTIONS



- Existing Site
- Wetlands and Setbacks

March 12, 2014

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MTG 1B

DEPARTMENT OF PUBLIC WORKS: PRELIMINARY – OPTION 1

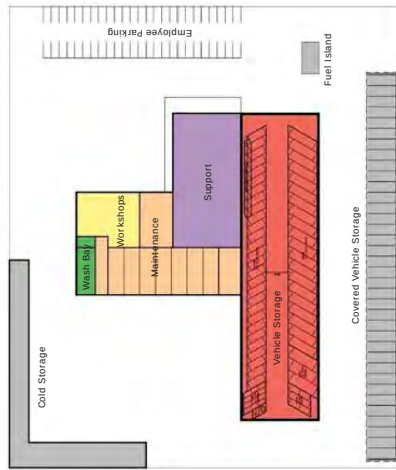


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DEPARTMENT OF PUBLIC WORKS: PRELIMINARY – OPTION 'NEW'

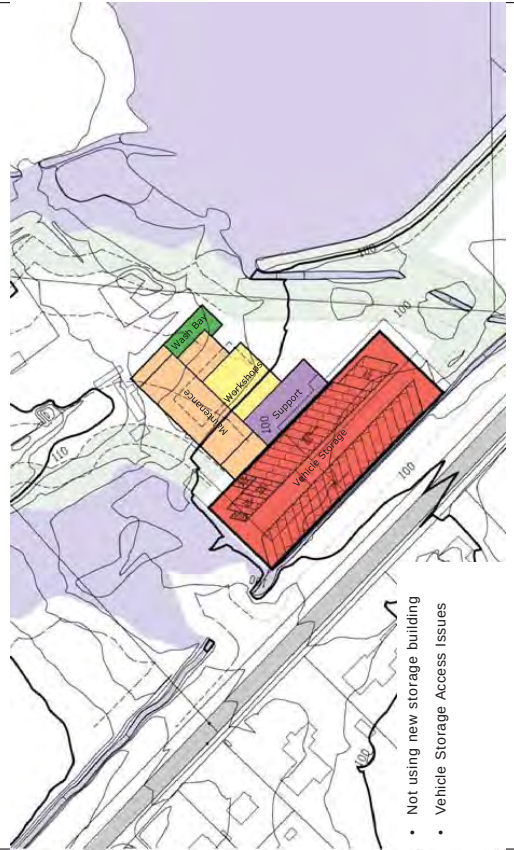


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DEPARTMENT OF PUBLIC WORKS: PRELIMINARY – OPTION 3



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DEPARTMENT OF PUBLIC WORKS: PRELIMINARY – OPTION 2



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DEPARTMENT OF PUBLIC WORKS: PRELIMINARY - OPTION 4



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MTG 1 B

DEPARTMENT OF PUBLIC WORKS: PRELIMINARY - OPTION 5



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MTG 1 B

POLICE AND FIRE DEPARTMENTS

- Current Station #1: +/- 31,145 SF
 - Police: +/- 13,095 SF
 - Fire: +/- 11,634 SF
 - Shared: +/- 6,416 SF
- Station #2: +/- 9,630 SF
- Programming Needs: Dependent on storage of vehicles + equipment
- Changes may trigger full upgrade



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MTG 1B

POLICE AND FIRE DEPARTMENTS: ARCHITECTURAL EXISTING CONDITIONS

- Current building is undersized for current vehicles and equipment
 - Organization of spaces does not reflect current police and fire operational needs
 - Shared resources: Departments prefer a joint FD + PD dispatch, waiting area and EOC
 - No sallyport - persons under arrest must be brought across open parking area; no holding area; booking area too small and too much prisoner access to personnel and equipment



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MTG 1 B

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS: ARCHITECTURAL EXISTING CONDITIONS

- Apparatus bay is too low, Openings are too low
- Accessible entry does not meet current AAB regulations
- Spaces are generally too small to fit current programmatic needs



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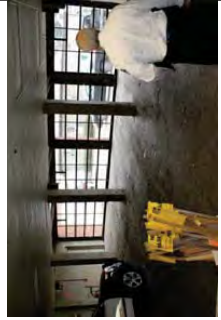
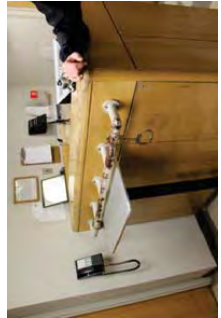
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MTG 1B

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS: ARCHITECTURAL EXISTING CONDITIONS

- Inadequate booking area
- Inadequate evidence area
- Potential salty port but steps to access to booking
- Suspect entry is very public



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MTG 1B

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS: ARCHITECTURAL EXISTING CONDITIONS

- Inadequate Storage
- Inadequate parking
- Building is inaccessible to second floor (no elevator)



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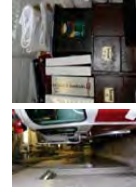
SLIDE 44

MTG 1B

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS: SITE

- Site requirements
 - Visitor Parking: 24 hrs; prime 7am to 10pm
 - Personnel Parking: overlapping shifts for both departments
 - Dumpster
 - Impound area (currently in wash bay)
 - Emergency generator
- Movement of emergency vehicles: Fire and Police Vehicles must be able to move quickly and effortlessly from site
- Overall site circulation is poor



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MTG 1B

POLICE AND FIRE DEPARTMENTS: STRUCTURAL EXISTING CONDITIONS

- Police/Fire Building: original structure circa 1930, additions circa 1989
- The majority of structural systems were covered by finishes
- Based upon a review of existing plans:
 - 1930 structures: The original structures are 2-story with a mixture of load-bearing brick masonry and steel columns. The 2nd floor structure within the fire station is concrete waffle-slab. The roofs are framed with a mixture of steel and wood. The structures have at least partial basements with concrete foundation walls



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MTG 1B

POLICE AND FIRE DEPARTMENTS: STRUCTURAL EXISTING CONDITIONS

- Police/Fire Building: original structure circa 1930, additions circa 1989
- Based upon a review of existing plans:
 - Additions: generally 2-stories with loading-bearing reinforced CMU and brick veneer or steel columns; second floor structure is steel joist with concrete-on-metal deck; roofs are framed with steel joists supporting metal roof deck
 - The additions have at least partial basements with concrete foundation walls
 - The original building was designed prior to seismic code requirements. The additions were designed after seismic requirements were added to the code.
 - It is unknown if the original building was upgraded for lateral loading when the addition was done

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MTG 1B

POLICE AND FIRE DEPARTMENTS: STRUCTURAL

- Renovation or Rebuilding Issues:
 - If a new building is built next to the existing, it must be physically separated and if it is higher than the existing, the existing must be reinforced for snow drifts
 - Confirm that upgrade for lateral loading was completed when the addition was done
 - Some review of existing conditions to confirm assumptions

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MTG 1B

POLICE + FIRE DEPARTMENTS: Results of Programming Sessions

- Program assumes remaining on site

DIVISION	GSF	TOTAL GSF
Public Areas - Shared	658	
PD + FD Shared	3,069	
	SUBTOTAL	3,727
PD: Operations + Support	13,478	
PD: Operations - Detention	2,217	
PD: Administration	5202	
	SUBTOTAL	20,897
FD: Operations	10,723	
FD: Administration	3,201	
FD: Staff Support	2,911	
	SUBTOTAL	16,835
Building Support		2,614
	TOTAL	44,073

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NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS



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MTG 1B

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS



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MTG 1B

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS: PRELIMINARY OPTIONS



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NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS: PRELIMINARY OPTIONS



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NEXT STEPS FOR OPTION DEVELOPMENT and REFINEMENT

- Consider renovation versus new construction – define premium for both
- Fine tune programming documents for DPW
 - Vehicles, Maintenance, Materials Storage
- Fine tune programming documents for FD/PD
 - Vehicle Storage
- Options for DPW Site:
 - Smaller Program – where does remainder of program relocate to
 - New Site
- Options for FD/PD Site:
 - Reuse versus new construction
 - New construction with no phasing versus new construction with phasing
 - Other building options for use of site (plan for future)

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MTG 1B



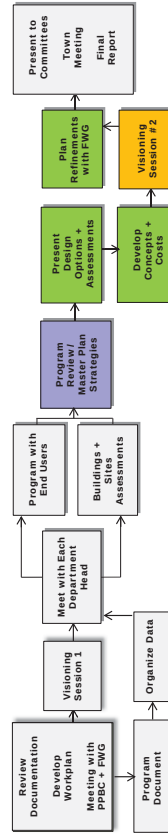
March 12, 2014

THANK YOU

MTG 1B

NEXT STEPS

- Development of concepts for review with end users and Town personnel
- Present concept design options to FWG for further review and discussion
 - Strategize on options and other possible concepts
- Finalized concepts and develop associated costs
- Visioning Session #2: Town to determine focus of this meeting
- Revise accordingly with Facility Working Group



March 12, 2014

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MTG 1B



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Somerville, MA 02143
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www.hktarchitects.com

MEETING AGENDA

To: Facility Working Group

Date: April 9, 2014

From: HKT Architects, Inc

Project: Needham Facilities
Master Plan

Job No: 21314

Subject: FWG Meeting 1C

AGENDA

The object of Meeting 1C is to update the Facility Working Group on the progress of the various study components.

1. Update of Schedule
2. Overview of Chairs Meeting
3. Alternate sites for future buildings
 - a. DPW
 - b. Schools
 - c. School Administration
4. Criteria for evaluating sites: reuse opportunities and constraints
5. Overview of Department Programs
 - a. Police and Fire Departments
 - i. Final Programming
 - ii. Site Options
 - b. Department of Public Works
 - i. Final Programming
 - ii. Site Options
6. Community Meeting: April 22, 2014
7. Next Steps

MEETING MINUTES

Project: Needham Town Master Plan

Meeting Date: April 9, 2014

Time: 7:30 AM

Meeting Location: Powers Hall,
Needham Town
Hall

Job No: 21314

Meeting Facility Working Group 1C

Number:

Report By: BH, JS

Attending:

- ☒ Moe Handel, BOS (MH)
- ☒ George Kent, PPBC (GK)
- ☒ Jeanne McKnight, Planning BD (JM)
- ☒ Joe Barnes, School Committee (JB)
- ☒ Matt Toolen, Park & Rec. (MT)
- ☐ John Connelly, Fin Com, (JC)
- ☒ Artie Crocker, Con Com, (AC)
- ☒ Kate Fitzpatrick, Town Mgr. (KF)
- ☒ Steve Popper, PF-Construction (SP)
- ☒ Hank Haff, PF-Construction (HH)
- ☒ Rick Merson, DPW, (RM)
- ☒ Tony DelGaizo, Engineering Dept. (TD)
- ☒ Lee Newman, Planning & CD, (LN)
- ☒ Dan Gutekanst, School Dept. (DG)

- ☒ Anne Gulati, School Dept. (AG)
- ☐ Philip Droney, Police Dept. (PD)
- ☐ Paul Buckley, Fire Dept. (PB)
- ☐ Chip Laffey, PF-Operations, (CL)
- ☒ Patty Carey, Park & Rec. Dept. (PC)
- ☐ Chris Coleman, Ass't Town Mgr. (CC)
- ☐ Dave Davison, Ass't Town Mgr. (DD)
- ☒ Matt Varrell, Conservation Dept. (MV)
- ☐ Chris Baker, Police Dept. (CB)
- ☐ Eric Kluz, HKT (EK)
- ☒ Janet Slemenda, HKT (JS)
- ☒ Bill Hammer, HKT (BH)
- ☒ David Roche, Building Dept. (DR)
- ☒ Bob Lewis, DPW (BL)

Item	Action
4.01 Schedule: JS updated HKT's progress to date: - Most of the programming has been completed. - The DPW needs some additional refining, but the general needs are covered. - Starting to assess options. Two more weeks were added to the schedule for this process. - Matrix has been developed for review so that initial results can be discussed at next meeting.	
4.02 Overview of Chairs Meeting: Temporary location(s) for school projects, neighborhood schools and MSBA involvement. Many of these issues cannot be resolved until there is	

	clear direction from MSBA. • Ridge Hill and Nike Sites: Passive versus active uses, long-term possibilities; could a land swap make these sites more functional. • HKT was directed to look at the best use for the various sites regardless of who has jurisdictional control. What are the best sites to construct buildings (Town Forrest, Parcel 74, Nike, DeFazio Park)?	
4.03	Matrices: HKT has produced three matrices to be used to evaluate each option in an objective manor. There is one matrix for overall observations, another for evaluation criteria for sites and the third is the criteria to score each option. JS explained that HKT needs an objective way to rate each option. It was suggested that more sites be added so that the master plan addresses every potential site. Sites to be added include: • Add High Rock, Town Hall, the second site on Greendale • Include Town-owned land, but leased to others such as the golf course, Stephen Palmer, Historic Society at Newman • Dwight Field • Gould St, River Park, Parcel next to Boat Launch (South Street) • Potential Land acquisitions near current town owned properties Potential Property Swap: The YMCA on Warren Street	Town - HKT
4.04	The DPW program was reviewed. Currently, the DPW occupies approximately 64,900 square feet not including the departments currently located on the first floor of the PSAB building. The DPW requires approximately 92,000+ square feet to accommodate current and immediate future needs, plus additional space for outdoor storage. Most of the additional square footage has been added to Vehicle Storage and Maintenance in order to provide adequate short and long term maintenance bays and storage of vehicles and equipment. If related departments, currently located in PSAB, but not technically related to the DPW are included, then 100,000 square feet would be required. In response, HKT has started to investigate a number of possible site options.	
4.05	JS reviewed several options for the DPW: • The Dedham Ave. Site: This option demolishes all structures except for the metal building currently under construction. The proposed Maintenance building and partial Vehicle Storage building, with operations offices and personnel support spaces located above, would occupy a similar footprint to what exists now. Canopy storage for vehicles would be located opposite the maintenance bays. The metal building would be converted to a shared shop with caged areas for each division; a new covered storage building could expand the footprint of that block. In order to provide for the remainder of the vehicles a second building would be constructed in the upper part of the site, at the approximate location of the present salt shed. A wash bay, fuel island and bin storage would also be constructed at this upper site. All current PSAB building occupants would remain and the Water Pumping Station building would continue to be used by the DPW or repurposed for Town use.	HKT

This option requires a temporary building for a swing phase to house the operations portion of the DPW including maintenance.

- **RTS Site:** Two options were shown for this site. The first is a courtyard scheme with buildings that house administration, maintenance, shared shop with caged areas for each division and vehicle storage. Most parking is provided at this location. A second vehicle storage building housing the remainder of the vehicles would be located behind the new salt shed. A Wash Bay with Fuel Island and cold storage would be located across Central Avenue next to the Claxton Field building along with additional parking. This portion could be gated and available 24/7 for all Town vehicles.

The second option reconfigures the administration/maintenance and shops as a singular block building with canopy storage and parking. This scheme assumes that wetlands requirements would restrict use of this site in some manner. The remainder of vehicles, the Wash Bay and Fueling Island and cold storage are handled the same as in the courtyard option.

No swing space is required.

- **Town Forest:** This conceptual plan is located off of High Rock St. and was planned to work on the level ground, moving back onto the site towards "High Rock". The lay-down area shown at the rear of the site would encroach on the actual "High Rock" (significance of this was not understood as the design was being developed), but these areas and buildings could be reconfigured and moved further east on the site. This plan formed an open ended courtyard with all vehicles entering the site and immediately moving into a courtyard or into the Vehicle Storage Building. This building and the Administration building were placed to shield the neighbors from a direct view into the working yard. Parking was configured for off hours use by users of the trails.

No swing space is required.

- **Greendale Avenue (Parcel 74):** This plan was developed to make best use of the site grades that drop quite dramatically towards Route 128. This change in grade offers the opportunity to recess a significant portion of the operational area of the DPW buildings so that there would be minimal to no visual impact on the immediate residential neighborhood. The major visual view of this complex from the neighborhood would be the administration building and rooftops which could be bermed and/ or designed as a green roof. The site already has easements for utilities and has two access points located off of Greendale Ave and Cheney St.

No swing space is required.

- 4.06 The Police and Fire Departments were reviewed. The current station is a total area of approximately 31,145 square feet with the Police Department occupying approximately 13,095, the Fire Department occupying approximately 11,634 square feet and approximately 6,416 square feet of shared space. The new program will require almost 42,000 square feet.

HKT

JS reviewed several options for the site on Chestnut Street: • Renovation and Addition: This option would renovate the existing building and add a new building for the Fire Department to the north side with apparatus exiting onto Chestnut Street. This option assumes that the apparatus bays and support space for fire personnel would be constructed first so that response would not change from this location. Once this portion was completed the existing structure would be renovated, therefore requiring temporary swing space. • New Building Phased: This option is similar to the previous one in that the apparatus bays would be constructed first as to not affect response from this site. However, in this option once that portion was completed, the existing structure would be demolished and the remainder of the work completed. The building would continue to occupy a prominent location on the corner of Chestnut and School Streets. This option would require temporary swing space. • New Building: This option would be a new building sited to the north of the existing building along Chestnut Street. When complete, the original building would be demolished or re-purposed for other Town use. This option would not require any temporary space.	
4.07 Next Steps: • Consider the pros and cons of renovation, repurposing and new construction. • Finalize the DPW and the Fire and Police Departments options. • Develop the Criteria Matrix , with input from Town personnel, to test various scenarios. • Add new sites to the matrix as per this meeting. • Review and test other sites for the School Administration, Community Center, Schools, etc. • Review options for Nike and Ridge Hill sites.	Town - HKT
4.08 Community Meeting: It was decided to have the community-wide open meeting as part of the PPBC meeting on May 19th. Presentation of Master Plan goals, objectives and the process will be explained as well as providing detailed information on the concepts under development. The meeting will be held at the Needham Public Library starting at 7:30pm.	Town - HKT
4.09 JS asked if everyone could review the Criteria Matrix categories and point system to be used in scoring each site/option and make suggestions. It was agreed that everyone would return their comments to HH by Friday, April 18th.	Town - HKT
Next Meeting: May 14, 2014	



April 9, 2014

NEEDHAM FACILITIES MASTER PLAN STUDY

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architects inc.

Municipal Resources, Inc.

PARE
CORPORATION

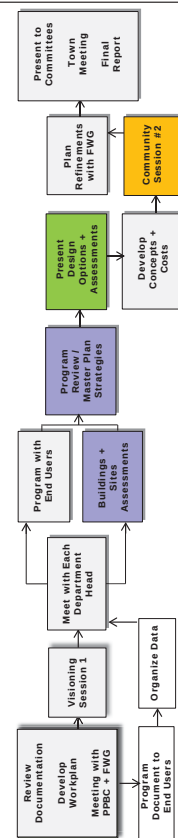


MTG 1C

NEEDHAM FACILITIES MASTER PLAN STUDY

PROGRAMMING/DESIGN OPTION PROCESS

- Programming Process nears completion
- Design Options for Fire/Police and DPW are ongoing
- Matrix for assessing sites is being developed
 - Committees to review initial criteria and assessment
- Develop Program/Master Plan strategies with FWG
- Community Session: April 22, 2014



April 9, 2014

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MTG 1C

NEEDHAM FACILITIES MASTER PLAN STUDY

AGENDA: FACILITY WORKING GROUP – MEETING #1C

- Schedule
- Overview of Chairs Meeting
- Alternate Sites for Future Buildings
- Criteria for Evaluating Sites
- Overview of Department Programs
 - Police and Fire Departments
 - Department of Public Works
- Community Meeting
- Next Steps



April 9, 2014

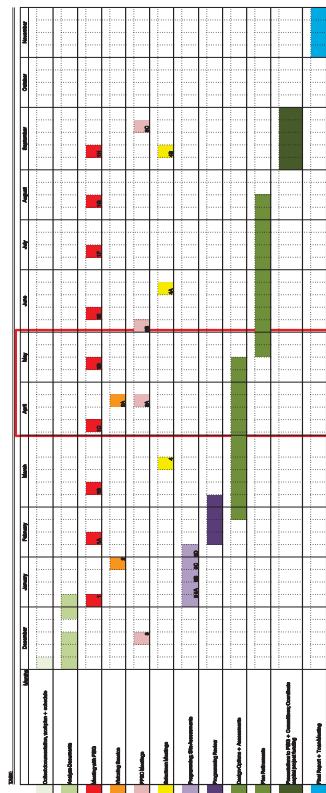
SLIDE 1

MTG 1C

NEEDHAM FACILITIES MASTER PLAN STUDY

FWG SCHEDULE + OBJECTIVES

- April + May Mtgs. 1C + 1D: Final programming, design options + Site Matrix
 - Programming finalized; Design Options Developed
 - Matrix assessed and finalized
 - FWG comments on programming, concepts and approach



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SLIDE 3

MTG 1C

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architects inc.

- April 9, 2014

HKT
architects inc.

- April 9, 2014

April 5, 2014

MATRIX: Overall Options

Needham Facilities Master Plan

[illegible]

April 9, 2014

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MTG 1C

MATRIX: Details of Site

[illegible]

April 9, 2014

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MTG 1C

CRITERIA MATRIX
DRAFT

[illegible]

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MTA

DEPARTMENT OF PUBLIC WORKS

Division	Existing GSF	Existing Total GSF	Proposed GSF	Proposed Total GSF
Administration - Shared	12,872 ★		4,751	
Administration	Included above		2,398	
Administration - Operations	Included above		2,073	
Administration - Engineering	Included above		4,571	
Operations – Employee Support	3,918		3,812	
Operations – Garage/Maintenance	5,200		14,818	
Operations - Shops	4,620		5,746	
Operations – Wash Bay/ Vehicle Storage + Prep	18,022		46,244	
Building Support (Other storage included)	9,100		2,291	
SUBTOTAL		53,732		86,704
Other Buildings (Not including RTS)	11,200		Est. 5,000	
SUBTOTAL		64,932		91,704
Bin Storage Estimated	3,000		Est. 5,000	
Outdoor Areas (Including covered storage)	32,800		Max available	
Other Departments in PSAB	8,905 ★		8,905	
TOTAL INCLUDING ALL OF PSAB		73,837		100,609

April 9, 2014

100

CONTACT

NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS

- Vehicles, equipment + materials are located throughout Town:
 - Dedham Ave., RTS, Daley Bldg., Alden Road Pump Station, Charles River WTP, Reservoir B, St. Mary's Pump Station, Ridge Hill, Memorial Field, DeFazio, Claxton and Cricket Fields. The DPW would prefer to maintain space at some facilities, fields and parks, because this is where the equipment/materials are primarily used
 - Vehicles and equipment stored indoors protect these valuable assets and help improve localized site conditions
 - Some storage areas are under the control of other departments and are subject to change as Towns needs change



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MTG 1C

NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS: Other Storage examples



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MTG 1C

NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS

- Materials handling areas: storage of stock materials such as sand + gravel and areas to store materials removed during street sweeping, catch basin cleanout or asphalt repairs and from Town construction sites needs should be defined and controlled
 - Currently stored at DPW site near original salt shed + RTS
 - Areas of cold storage, sander bodies + spreaders, pipes + manhole covers etc. should be located to secure and maintain stock and to be nearby other equipment needed to complete the project



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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS: Other Storage examples



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DEPARTMENT OF PUBLIC WORKS

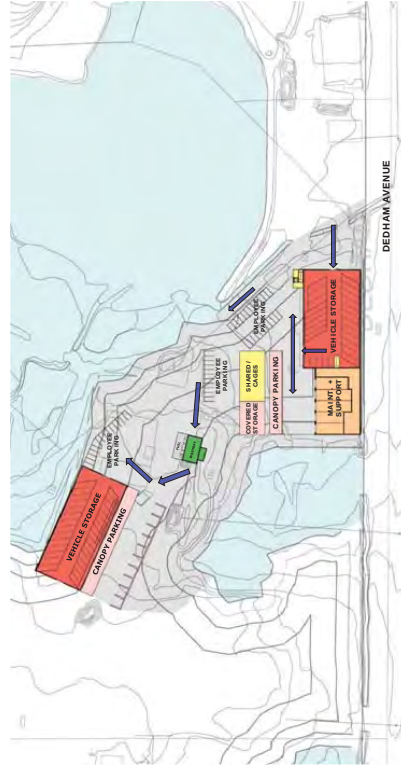


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MTG 1C

DEPARTMENT OF PUBLIC WORKS: DEDHAM AVENUE OPTION



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MTG 1C

DEPARTMENT OF PUBLIC WORKS: EXISTING SITE

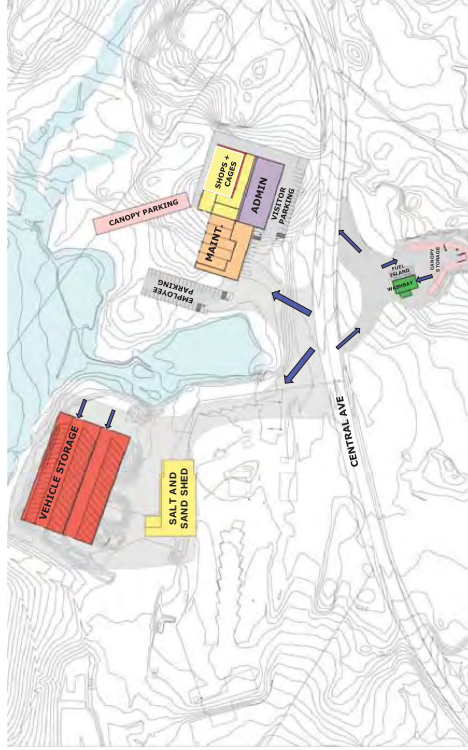


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DEPARTMENT OF PUBLIC WORKS: RTS OPTION 2

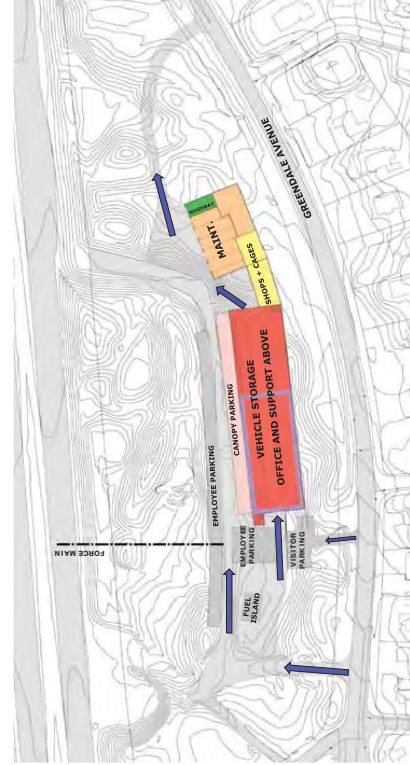


MTG 1C

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DEPARTMENT OF PUBLIC WORKS: PARCEL 74 OPTION

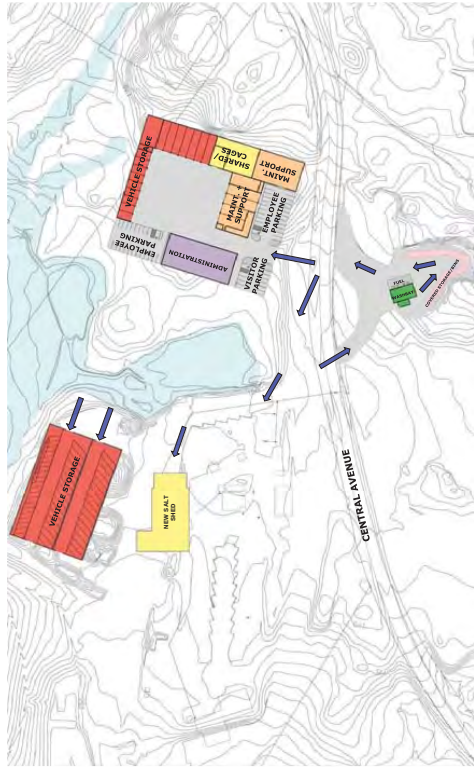


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DEPARTMENT OF PUBLIC WORKS: RTS OPTION 1

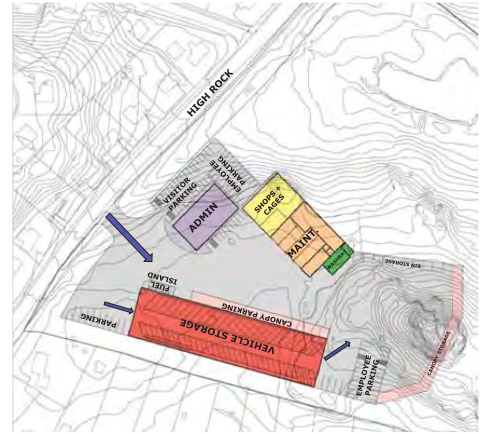


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DEPARTMENT OF PUBLIC WORKS: TOWN FOREST OPTION



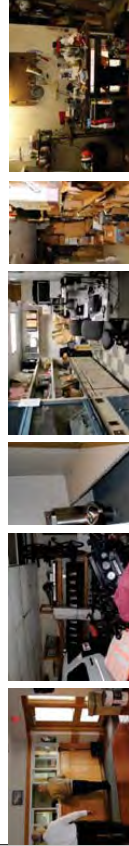
MTG 1C

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POLICE AND FIRE DEPARTMENTS

- Current Station #1: +/- 31,145 SF
 - Police: +/- 13,095 SF
 - Fire: +/- 11,634 SF
 - Shared: +/- 6,416 SF
- Station #2: +/- 9,630 SF
- Programming Needs: Dependent on storage of vehicles + equipment
- Changes may trigger full upgrade



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MTG 1C

POLICE AND FIRE DEPARTMENTS: SITE

- Site requirements
 - Visitor Parking: 24 hrs; prime 7am to 10pm
 - Personnel Parking: overlapping shifts for both departments
 - Dumpster
 - Impound area (currently in wash bay)
 - Emergency generator
- Movement of emergency vehicles: Fire and Police Vehicles must be able to move quickly and effortlessly from site
- Overall site circulation is poor



April 9, 2014

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MTG 1C

POLICE AND FIRE DEPARTMENTS

- Program assumes remaining on site

DIVISION	GSF	TOTAL GSF
Public Areas - Shared	658	
PD + FD Shared	3,069	
SUBTOTAL		3,727
PD: Operations + Support	12,127	
PD: Operations - Detention	2,217	
PD: Administration	4,990	
SUBTOTAL		19,333
FD: Operations	10,276	
FD: Administration	2,217	
FD: Staff Support	2,911	
SUBTOTAL		16,388
Building Support		2,505
TOTAL		41,953

April 9, 2014

SLIDE 26

MTG 1C

POLICE AND FIRE DEPARTMENTS



April 9, 2014

SLIDE 27

MTG 1C



POLICE AND FIRE DEPARTMENTS



April 9, 2014

SLIDE 28

MTG 1C

POLICE AND FIRE DEPARTMENTS: RENOVATION + ADDITION

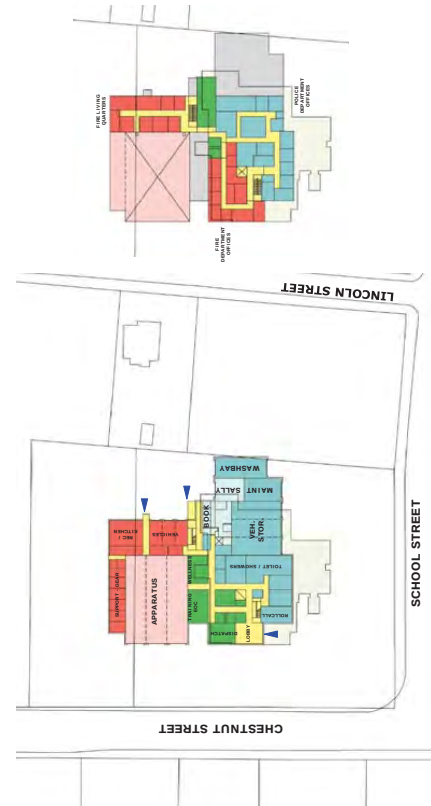


April 9, 2014

SLIDE 29

MTG 1C

POLICE AND FIRE DEPARTMENTS: NEW BUILDING PHASED



April 9, 2014

SLIDE 30

MTG 1C

POLICE AND FIRE DEPARTMENTS: NEW BUILDING



April 9, 2014

SLIDE 31

MTG 1C

COMMUNITY MEETING: APRIL 22, 2014

- April 9, 2014

COMMUNITY MEETING: APRIL 22, 2014

- April 9, 2014

NEXT STEPS

- April 9, 2014



THANK YOU



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MEETING AGENDA

To: Facility Working Group

Date: May 14, 2014

From: HKT Architects, Inc

Project: Needham Facilities
Master Plan

Job No: 21314

Subject: FWG Meeting 1D

AGENDA

The object of Meeting 1D is to update the Facility Working Group on the progress of the study components.

1. Update of Schedule
2. Overview of Department Programs and Land Requirements
 - a. School Administration
 - b. Community Building
 - c. Police and Fire Departments
 - d. Department of Public Works
3. Criteria for evaluating sites: Revisions to criteria and test cases
 - a. Department of Public Works
 - b. School Administration
 - c. Community Building
4. Discussion of Possible Scenarios: Test cases
 - a. DPW:
 - i. Remains at Dedham Ave
 - ii. Moves to Parcel 74
 - iii. Moves to RTS
 - iv. Moves to Town Forest
 - b. School Administration
 - i. Remains at Emery Grover
 - ii. Moves to Dedham Ave.
 - iii. Moves to PD/FD Site
 - iv. Moves to "other" site
5. Community Meeting: May 19, 2014
6. Next Steps

MEETING MINUTES

Project: Needham Town Master Plan

Meeting Date: May 14, 2014

Time: 7:30 AM

Meeting Location: Powers Hall,
Needham Town
Hall

Job No: 21314

Meeting Facility Working Group 1D

Number:

Report By:
BH, JS

Attending:

- | | |
|---|---|
| ☒ Moe Handel, BOS (MH) | ☐ Anne Gulati, School Dept. (AG) |
| ☒ George Kent, PPBC (GK) | ☒ Philip Droney, Police Dept. (PD) |
| ☒ Jeanne McKnight, Planning BD (JM) | ☒ Paul Buckley, Fire Dept. (PB) |
| ☒ Joe Barnes, School Committee (JB) | ☒ Chip Laffey, PF-Operations, CL) |
| ☒ Matt Toolen, Park & Rec. (MT) | ☒ Patty Carey, Park & Rec. Dept. (PC) |
| ☐ John Connelly, Fin Com, (JC) | ☐ Chris Coleman, Ass't Town Mgr. (CC) |
| ☒ Artie Crocker, Con Com, (AC) | ☐ Dave Davison, Ass't Town Mgr. (DD) |
| ☒ Kate Fitzpatrick, Town Mgr. (KF) | ☒ Matt Varrell, Conservation Dept. (MV) |
| ☒ Steve Popper, PF-Construction (SP) | ☒ Bill Gallo, YMCA Board (BG) |
| ☒ Hank Haff, PF-Construction (HH) | ☒ Janet Jankowiak, YMCA (JJ) |
| ☒ Rick Merson, DPW, (RM) | ☒ Janet Slemenda, HKT (JS) |
| ☒ Tony DelGaizo, Engineering Dept. (TD) | ☒ Bill Hammer, HKT (BH) |
| ☒ Lee Newman, Planning & CD, (LN) | ☐ David Roche, Building Dept. (DR) |
| ☒ Dan Gutekanst, School Dept. (DG) | ☒ Bob Lewis, DPW (BL) |

Item	Action
5.01 JS opened the meeting with an update on the Design Team's progress. In general, the study has achieved the following levels of progress: - The programming is complete with the exception of the Community Center. During the coming two weeks, HKT will be meeting with the various departments to review conceptual plans. - Evaluation criteria from the members of the FWG have been received and will be addressed later in the meeting. HKT continues to work on criteria. - The accompanying PowerPoint presentation illustrates where the study is in terms of the overall process.	

	Final programming numbers for DPW, FD/PD and School Administration were reviewed. General land requirements for the school building were reviewed and suggest a site between 1.44 and 1.83 acres.	
5.2	DPW at Dedham Avenue-Full Program: JS reviewed the design potential for keeping the DPW at Dedham Avenue. Putting the full program onto the Dedham Avenue site would require maintaining a portion of DeFazio site for vehicle storage, bin storage, wash bay and fueling. This option would require that vehicle storage be split between a new structure on DeFazio Field and rebuilding in the current vehicle storage location. The PSAB could continue to be used for the DPW administrative offices. This option would preclude using the adjacent portion of DeFazio Field for School Department use. Another disadvantage is that the DPW operations would need some form of swing space while the site is being developed.	
5.3	DPW at Dedham Avenue-Partial Program: This option would only house a portion of the DPW vehicles, keep the administrative offices in the PSAB Building and allow for the adjacent area of DeFazio to be available for the School Department. The disadvantage to this option is that similar to the previous scheme inasmuch as swing space will be required while the current facility is in construction. Other disadvantages include lack of oversight by senior staff for operations and that the access to the school site must pass through the DPW facility.	
5.04	DPW Relocates, School is Built on DeFazio: This option for the Dedham Avenue site has many advantages. The new school would still be accessed from Dedham Avenue, but instead of circulating through the DPW site, the area would be used for school parking and green space. In addition, other uses such as the School Administration could relocate to the PSAB building and the old Water Pumping Station building could be converted to meeting space for use by the School department primarily and other groups as available.	
5.05	DPW Relocates, School is Built on DeFazio and Community Center is built on former DPW Site: This option requires that the parking for the school would likely be located on a portion of DeFazio as the Community Center would need to occupy the former DPW site. The PSAB is still available for the School Administration. Detailed analysis of shared parking would be required.	
5.06	DPW Moves to the RTS Site: There are several options that were shown on this site. The available areas to build are restricted due to wetlands and site would require significant ledge removal. There are traffic issues at certain times of day on Central Avenue which might require some sort of mitigation. A limited traffic study will be undertaken to evaluate the impact. HKT will assess whether the entire program can be accommodated on the RTS site including all employee parking and program uses	

AGENDA: FACILITY WORKING GROUP – MEETING #1D

- Schedule
- Overview of Department Programs and Land Requirements
- Discussion of Possible Scenarios
- Criteria for Evaluating Sites
- Community Meeting
- Next Steps



May 14, 2014

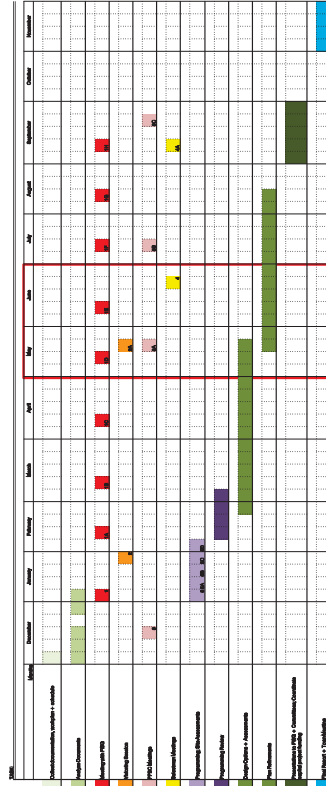
SLIDE 1

MTG 1

NEEDHAM FACILITIES MASTER PLAN STUDY

FWG SCHEDULE + OBJECTIVES

- May + June Mtgs. 1D + 1E: Finalize design options + matrices
 - Design Options Developed + Refined
 - Matrix assessed and finalized
 - FWG comments on programming, concepts and approach



May 14, 2014

SLIDE 3

MTG 1



May 14, 2014

NEEDHAM FACILITIES MASTER PLAN STUDY

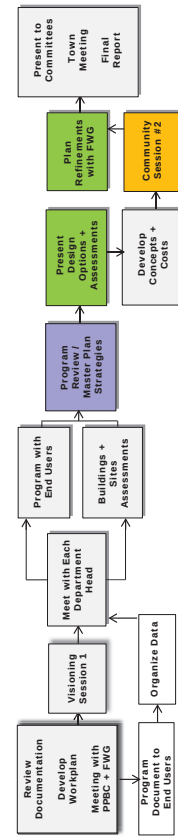


MTC 1 D

NEEDHAM FACILITIES MASTER PLAN STUDY

PROGRAMMING/DESIGN OPTION PROCESS

- Programming Process nears completion
 - Design Options for Fire/Police, DPW, School Administration and Community Building are ongoing
 - Matrices for assessing sites is being completed
 - Committee to comment on initial results
 - Develop Program/Master Plan strategies with FWG
- Community Session: May 19, 2014



May 14, 2014

SLIDE 2

MTG 1D

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE + FIRE DEPARTMENTS

- Program assumes remaining on site

DIVISION	GSF	TOTAL GSF
Public Areas - Shared	658	
PD + FD Shared	3,069	
SUBTOTAL		3,727
PD: Operations + Support	12,127	
PD: Operations - Detention	2,217	
PD: Administration	4,990	
SUBTOTAL		19,333
FD: Operations	10,276	
FD: Administration	2,217	
FD: Staff Support	2,911	
SUBTOTAL		16,388
Building Support		2,505
TOTAL		41,953

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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS

Division	Existing GSF	Existing Total GSF	Proposed GSF	Proposed Total GSF
Administration - Shared	12,872★		4,751	
Administration	Included above		2,398	
Administration - Operations	Included above		2,073	
Administration - Engineering	Included above		4,571	
Operations - Employee Support	3,918		3,812	
Operations - Garage/Maintenance	5,200		14,818	
Operations - Shops	4,620		5,746	
Operations - Wash Bay/ Vehicle Storage + Prep	18,022		46,244	
Building Support (Other storage included)	9,100		2,291	
SUBTOTAL		53,732		86,704
Other Buildings (Net including RTS)	11,200		Est 5,000	
SUBTOTAL		64,932		91,704
Bin Storage Estimated	3,000		Est 5,000	
Outdoor Areas (including covered storage)	32,800		Max available	
Other Departments in PSAB	8,905■		8,905	
TOTAL INCLUDING ALL OF PSAB		73,837		100,609

May 14, 2014 SLIDE 4 MTG 1D

NEEDHAM FACILITIES MASTER PLAN STUDY

SCHOOL ADMINISTRATION BUILDING: Land Requirements

Component	Footprint	Square Footage	Total in acres
Building at 18,802 SF	Assume two story building	70 x 135 = 9,450 SF or .22 acres	0.22
Parking for 93 cars including 4 accessible parking spaces	Assume 1 lots for 94 cars each at 62' x 426' including 4 accessible spaces	26,412 SF or .61 acres	0.61
Loading Requirement	Assume designated area 15' x 50'	750 sf or .03 acres	0.02
Landscaped areas	Assume 10% of parking area	26,412 x .10 = 2,641 SF or .06 acres	0.06
Snow Storage	Assume 10% of parking area	26,412 x .10 = 2,641 SF or .06 acres	0.06
TOTAL			0.97
Setback Requirements: Zoning dependent	Assume worse case = 35' front setback, 25' side setback, 25' rear setback	Possible site 242' x 329' = 79,618 SF or 1.83 acres	1.83
Max Floor Area Ratio (F.A.R.)	Maximum area ratio = .30.	Min site size = 62,673 SF or 1.44 acres	1.44

May 14, 2014 SLIDE 7 MTG 1D

NEEDHAM FACILITIES MASTER PLAN STUDY

SCHOOL ADMINISTRATION: July 2013 Programming designLAB Architects

DEPARTMENTS	GSF	TOTAL GSF
Shared Building Services	6,796	
Superintendent Suite	1,176	
Student Development Department	2,586	
Finance Operations Department	4,483	
Program Development Department	1,325	
Innovative Technology	572	
SUBTOTAL w/o Building Support		16,939
Building Support	1,863	
SUBTOTAL		1,863
TOTAL		18,802

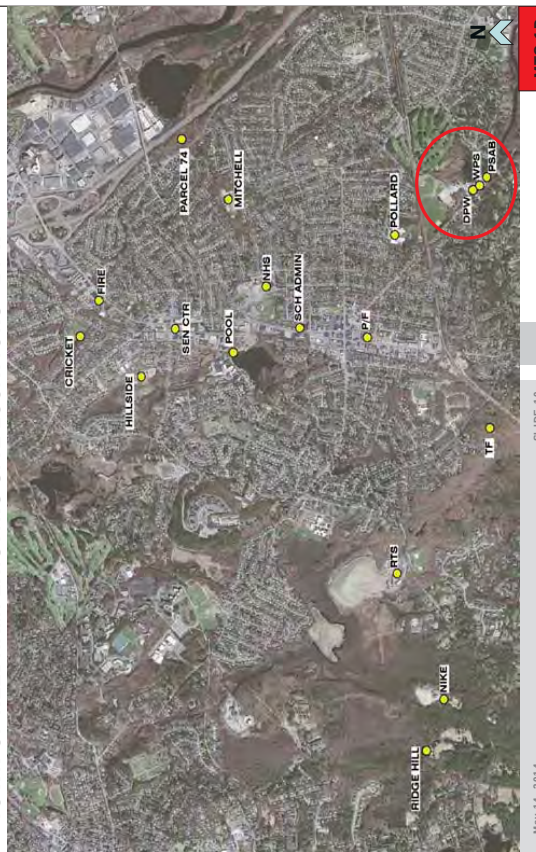
May 14, 2014 SLIDE 6 MTG 1D

COMMUNITY CENTER: Land Requirements For +/- 60,000 SF

- Preliminary programming suggests a building between 60,000 SF and 89,000 SF depending on the type of natatorium and numbers of studio and wellness spaces provided
- Site needs may include outdoor spaces such as soccer fields or other multi-purpose outdoor spaces
- Parking requirements depend on the use of the venues: competition pools and gymnasiums require significant parking counts
- Siting building will require a careful review of zoning to determine if building type is permitted, requires a Special Permit or a zoning change

MTG 1D

DEPARTMENT OF PUBLIC WORKS: DEDHAM AVE OPTION - EXISITNG



MTG 1D

COMMUNITY CENTER: Land Requirements For +/- 60,000 SF

Component	Footprint	Square Footage	Total in acres
Building at 59,115 square feet	Assume two story building except at swimming pool; gymnasium located on upper level	100 x 371 = 37,100 SF or .85 acres	0.85
Parking for +309 cars including 8 accessible parking spaces	Assume 6 lots for 50 cars each at 62' x 225' plus one lot for accessible spaces at 62' x 65'	87,730 SF or 2.01 acres	2.01
Loading Requirement	Assume designated area 30' x 50'	1,500 sf or .03 acres	0.03
Landscaped areas	Assume 10% of parking area	87,730 x .10 = 8,773 SF or .2 acres	0.2
Snow Storage	Assume 10% of parking area	87,730 x .10 = 8,773 SF or .06 acres	0.2
SUBTOTAL			3.29
Fields	Assume 225' x 360' regulation size soccer field = 81,000 SF	81,000 x 2 = 162,000 SF or 3.7 acres	3.7
TOTAL			6.99
Max Floor Area Ratio (F.A.R.)	Maximum area ratio = .30.	Min site = 197,050 SF or 4.52 Acre	4.52

MTG 1D



MTG 1D

TEMPORARY / PERMANENT ELEMENTARY SCHOOL SITE: Per Dore & Whittier 2012



DEPARTMENT OF PUBLIC WORKS: DEDHAM AVE OPTION - FULL PROGRAM



DEPARTMENT OF PUBLIC WORKS: DEDHAM AVE OPTION - PARTIAL PROGRAM



IF DPW MOVES OFFSITE: SCHOOL ADMIN MOVES TO DEDHAM AVE



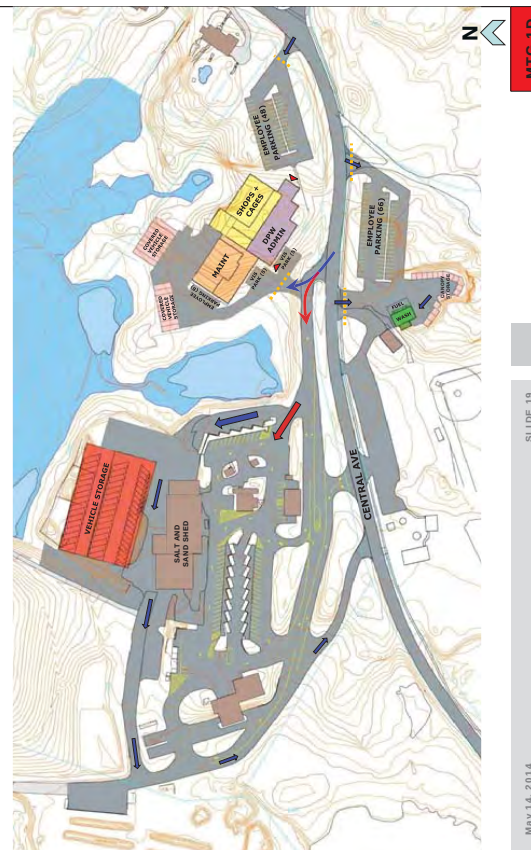
IF DPW MOVES: COMMUNITY CENTER OPTION AT DEDHAM AVE



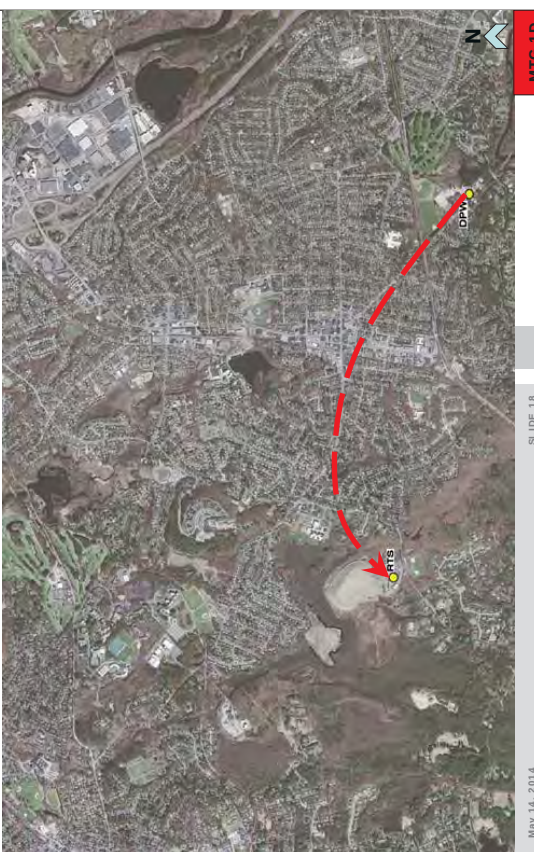
**IF DPW MOVES: SCHOOL ADMIN, PARKING + SCHOOL ACTIVITIES
OPTION AT DEDHAM AVE**

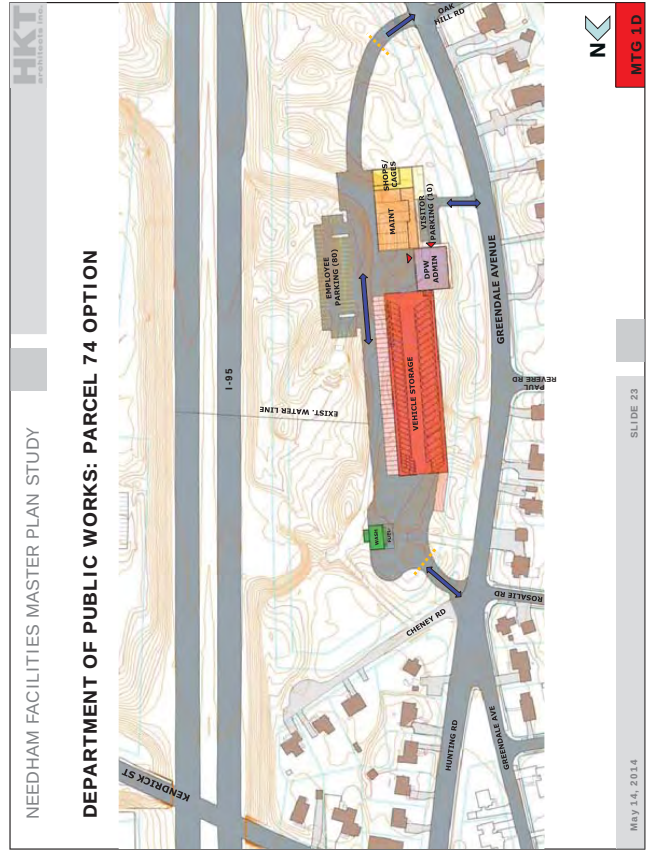
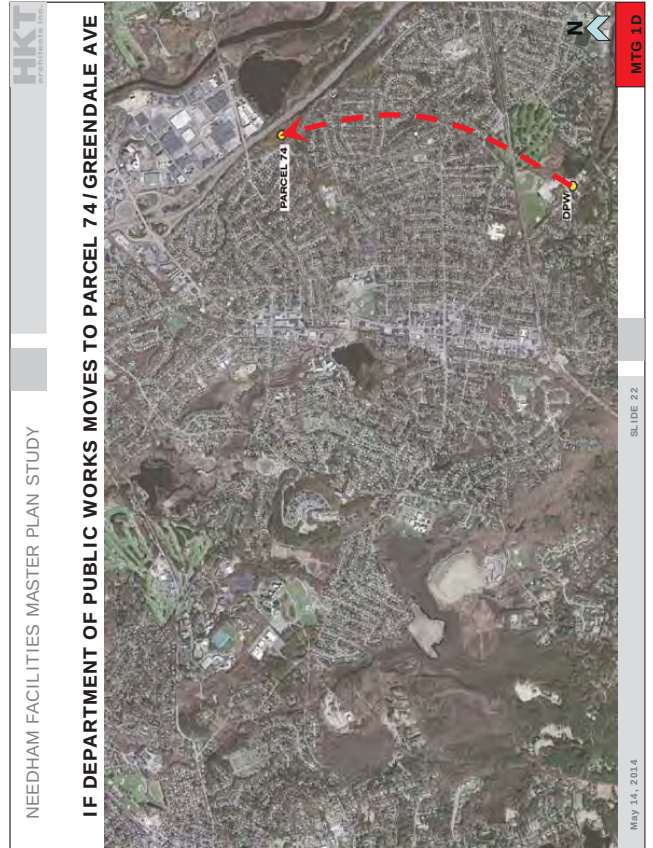
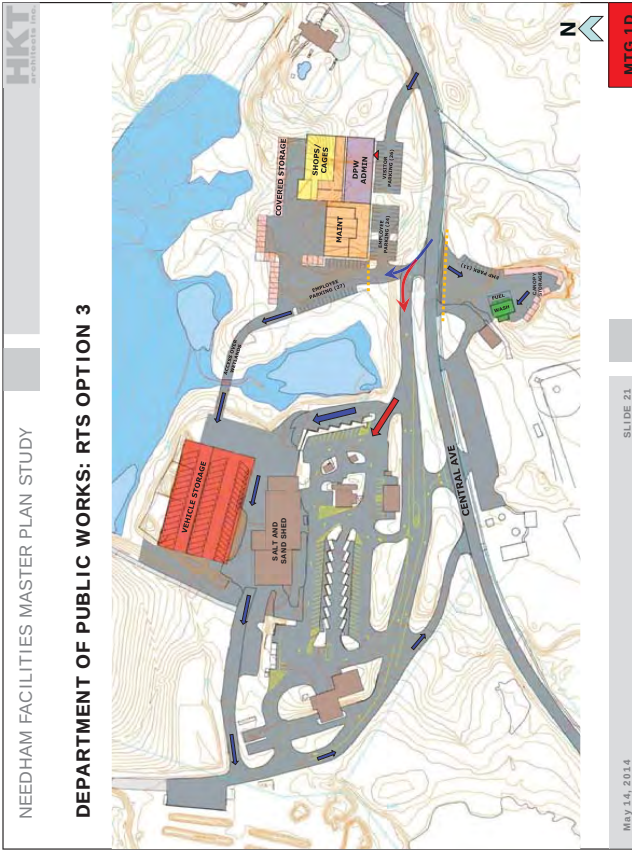
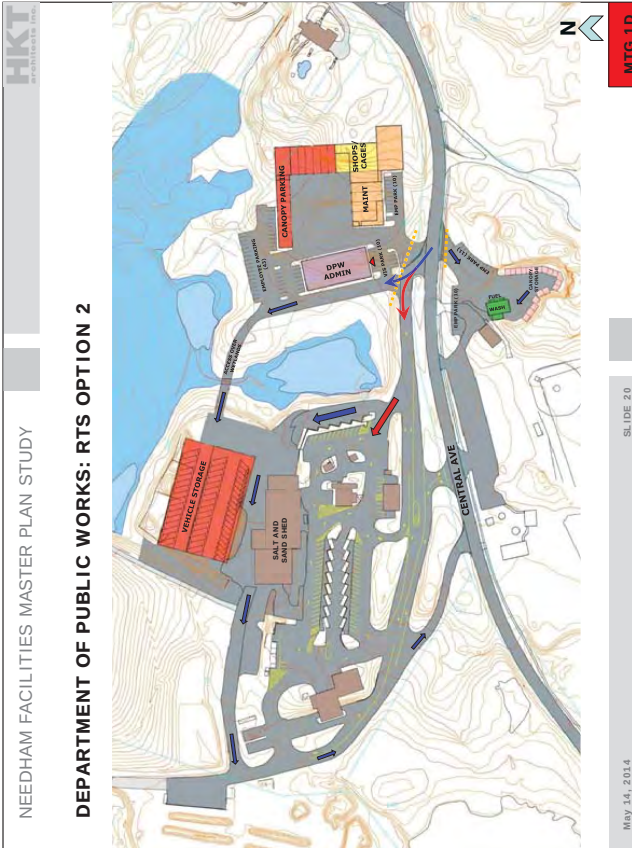


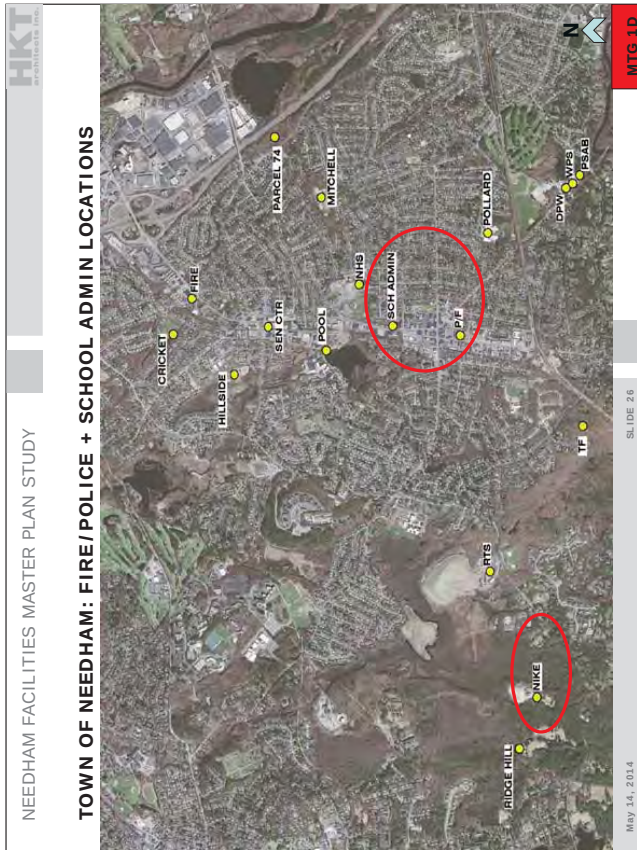
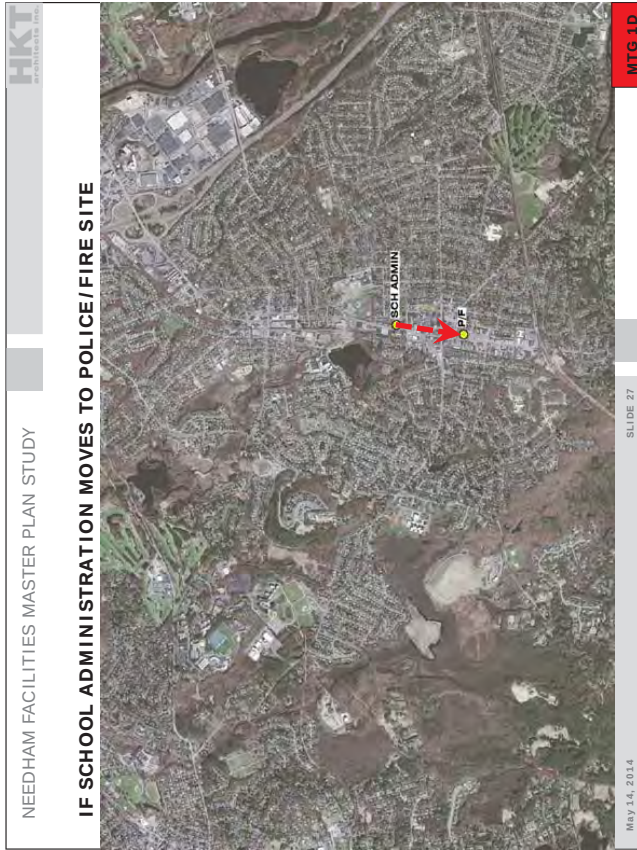
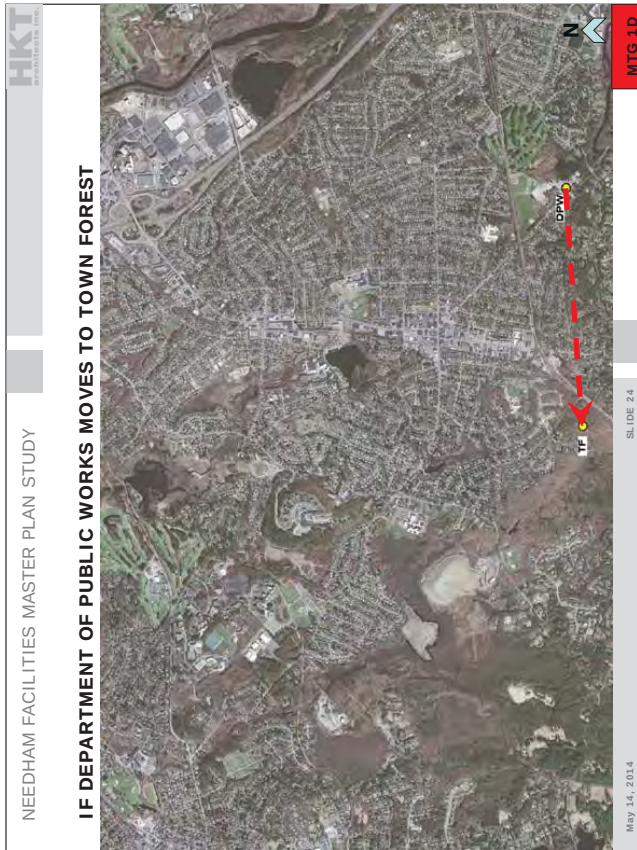
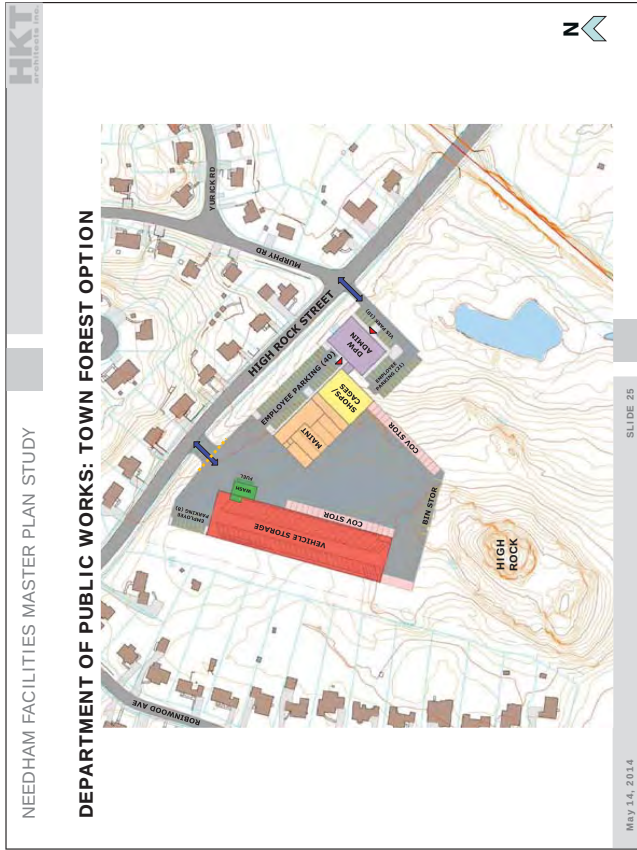
DEPARTMENT OF PUBLIC WORKS: RTS OPTION 1



IF DEPARTMENT OF PUBLIC WORKS MOVES TO RTS







ALTERNATIVE SITES FOR BUILDING PROJECTS: Look at the best way of using land resources regardless of Jurisdictional Control

- 3 matrices: Overall Options, Detail Site, Evaluation Criteria
- Which sites are reasonable to explore
- What are the general characteristics of the sites
- **What is the final suggested criteria for assessing a site**
- How will Matrix influence or define Master Plan:
- Evaluation Criteria suggests that multiple sites can meet needs; how does matrix help when recommending best possible site for each program
- Do land swaps, "Trading" Jurisdictional Control provide benefits to Community
- If re-organization occurs, how does it affect neighborhood schools, emergency response, conversion of a passive recreation site, historical use of property, neighborhoods in general, operations of department, reuse of property
- Ideal operations: can needs be met on one site, in the best possible location, in order to meet the request of each department

May 14, 2014

SLIDE 36

MTG 1D

NEXT STEPS FOR OPTION DEVELOPMENT and REFINEMENT

- Options for DPW:
 - Refine preferred options: Dedham Ave., RTS, Greendale Ave, Town Forest
- Options for FD/PD:
 - Renovation/Addition versus new construction – define premium
 - Refine preferred options
 - Confirm new program component on site
 - Test parking requirements with or without parking structure
- Options for School Administration + School Buildings
 - Refine preferred options for Administration building
 - Review temporary or permanent school project on DeFazio Site
- Define + finalize programming documents for Community Center

May 14, 2014

SLIDE 38

MTG 1D

CRITERIA MATRIX
Suggested

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May 14, 2014

SLIDE 37

MTG 1D

COMMUNITY MEETING: MAY 19, 2014

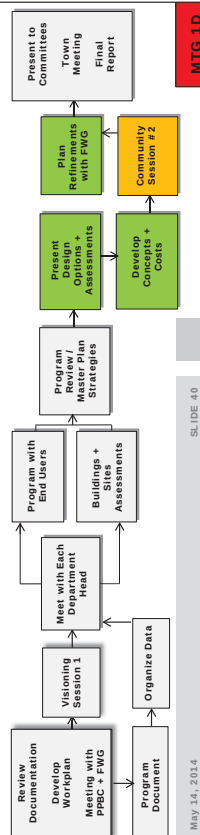
- Presentation of Master Plan Goals, Objectives and Process
 - Overview of Sites and Buildings Involved
 - Detailed Information used to develop options
 - Full programming of DPW + FD/PD
 - Incorporation of other studies underway or completed
 - Elementary and High Schools
 - Rosemary Pool
 - Other Issues
- Questions and Comments

May 14, 2014

SLIDE 39

MTG 1D

- Community Meeting
- Development of preferred concepts for review with end users and Town personnel
- Present concept design options to FWG for further review and discussion
 - Strategize on options
- Finalized concepts and develop associated costs
- Revise accordingly with Facility Working Group



SLIDE 40

MTC 1 D



THANK YOU

MTC 1 D



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MEETING AGENDA

To: Facility Working Group

Date: June 11, 2014

From: HKT Architects, Inc

Project: Needham Facilities
Master Plan

Job No: 21314

Subject: FWG Meeting 1E

AGENDA

The object of Meeting 1E is to complete the work on matrices and to update the Facility Working Group on the progress of other study components.

1. Update of Schedule
2. Matrix: Department of Public Works: Review work completed during May 20, 2014 FWG Meeting
3. Matrices: Working session to complete and review remaining matrices
 - a. School Administration
 - b. Community Building
 - c. Fire and Police Station
4. Decision Tree and review of test cases:
 - a. Schools
 - b. DPW
 - c. Police and Fire
 - d. School Administration
5. Next Steps

MEETING MINUTES

Project: Needham Town Master Plan

Meeting Date: June 11, 2014

Time: 7:30 AM

Meeting Location: Powers Hall,
Needham Town
Hall

Job No: 21314

Meeting Facility Working Group 1E

Number:

Report By:
BH, JS

Attending: ☒ Moe Handel, BOS (MH) ☒ George Kent, PPBC (GK) ☒ Jeanne McKnight, Planning BD (JM) ☒ Joe Barnes, School Committee (JB) ☒ Matt Toolan, Park & Rec. (MT) ☐ John Connelly, Fin Com, (JC) ☒ Artie Crocker, Con Com, (AC) ☐ Kate Fitzpatrick, Town Mgr. (KF) ☒ Steve Popper, PF-Construction (SP) ☒ Hank Haff, PF-Construction (HH) ☒ Rick Merson, DPW, (RM) ☒ Tony DelGaizo, Engineering Dept. (TD) ☒ Lee Newman, Planning & CD, (LN) ☒ Dan Gutekanst, School Dept. (DG) ☒ Anne Gulati, School Dept. (AG)	☒ Philip Droney, Police Dept. (PD) ☒ Chris Baker, Police Dept. (CB) ☒ Paul Buckley, Fire Dept. (PB) ☒ Chip Laffey, PF-Operations, CL) ☒ Patty Carey, Park & Rec. Dept. (PC) ☒ Cynthia Chaston, Park & Rec. Dept. (CC) ☒ Chris Coleman, Ass't Town Mgr. (CC) ☐ Dave Davison, Ass't Town Mgr. (DD) ☒ Matt Varrell, Conservation Dept. (MV) ☒ Bill Gallo, YMCA Board (BG) ☒ Janet Jankowiak, YMCA (JJ) ☒ Charles Nelson, YMCA (CN) ☒ Janet Slemenda, HKT (JS) ☒ Bill Hammer, HKT (BH) ☒ David Roche, Building Dept. (DR) ☒ Bob Lewis, DPW (BL)
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Item

Action

6.01 JS started the meeting with an overview of the agenda and what progress had been made since the last meeting. There was an additional meeting on May 20th that focused on the matrices. During that meeting, the DPW matrix was completed, leaving the Fire/Police Station, the School Administration and the Community Building to be completed. HKT, with review by SP and HH, populated those remaining matrices based on information agreed to during the May 20th meeting, and those populated matrices were sent out in advance of this meeting.

	The remaining programming includes work for the Memorial Field Storage Building which will be added into the analysis.	
6.2	School Administration: The matrix was reviewed in detail with a robust discussion regarding the point scores for various categories. Consequently, a number of point scores were modified to reflect several issues that had not been previously considered. In the final analysis, however, the total scores for each site were hardly affected and the final ranking remained unchanged.	
6.3	During the School Administration discussion, it was decided to add the Hillside School building and site as one of the options, should that site become available. One of the negatives mentioned at the Hillside is that parking is limited.	
6.04	Several of the other comments regarding potential School Administration sites are summarized below.	
6.05	Emery Grover: - Needs a larger meeting space to accommodate the 100 persons programmed for a large meeting/training room. - SP commented that upgrading the present site would require an interim swing space which is a cost that must be considered. - Parking is limited. Current parking includes accommodations for a neighboring school. - This centralized site works well for visitors and professionals alike and does support local neighborhood businesses.	
6.06	Chestnut/School Street: - Of all of the potential sites for the School Administration, the Chestnut/School Street site adjacent to the fire and police station was perhaps the most discussed. The primary issue was whether this location would enhance or conflict with the business district and/or how it would impact the residential properties on Lincoln Street. Although one option included a parking garage to service the school administration during weekdays, with the expectation that it would be available for commercial shopping on weekends and evenings, it was felt that the complementary parking uses would still conflict at certain times. - The centralized site would support local businesses. - HH expressed the notion that regardless of how the Chestnut/School Street site is developed, that the Town will ultimately need to purchase the single residential property on Lincoln Street that is abutted by Town-owned property. - JS noted that conceptual plans for the PD/FD had been reviewed with the Town to make certain that the option that included a new school administration building on this site could work from a PD/FD operational point of view.	

6.07 Public Services Administration Building (PSAB): • DG felt that location is important and ideally the School Administration should be centralized in Town and therefore the score for location should be downgraded. • If the DeFazio site is used for a school, however, most of the working group felt that relocating the School Administration to the PSAB would be logical. • There was some discussion as to how many parking spaces exist currently on site and how many more would be provided. If the DPW is demolished, there certainly would be adequate parking. However if the Community Center were to be located on the present DPW building site, the parking problem becomes more acute. • The requirement for a large meeting space could be accomplished by repurposing the Water Pump Station to be used by the school department as a primary meeting space and for the Community after hours. The building would be self sufficient with toilets and kitchenette. DG felt that this was less than ideal inasmuch as the two buildings are not physically connected.	
6.08 Nike Site: Though this site is currently under the jurisdictional control of the school department the results of the matrix population continues to show that this site is not ideal: • Site location is not centralized in Town. • Site access and environmental issues are complicated. • Costs of development are high.	
6.09 As the discussion moved to the Decision Tree, MH asked if there was consensus on eliminating a number of options that were clearly not good solutions. For example, most members of the FWG feel that the DPW facility should move from the present Dedham Ave. site. It was felt that while removing an option might make sense, there is another layer of criteria, mainly jurisdictional, that will affect the ultimate resolution. For example, if the DPW were to move to the Greendale Avenue site, a swap for that parcel, now controlled by Parks & Recreation would be required. In some cases, there could be state approvals required. After a brief discussion it was decided not to remove any options yet so that anyone viewing the process now or in the future can see what was discussed over the course of the study. One suggestion for the Decision Tree would be to graphically bold the preferred pathway to the best suited option once that decision is made. Another was to find a way to indicate the “current” jurisdictional control versus the “future” control.	
6.10 After JS reviewed the structure and rationale for the Decision Tree some of the following changes were agreed to:	

- Under the DPW, the second tier option labeled “DPW Relocates” should be expanded to include all of the departments currently located at “PSAB”.
- Under the School/School Administration, the bubble labeled “Redistrict” should be changed to read “Redistrict and/or Repurpose”.
- Under the Redistrict and/or Repurpose bubble, add another option to read “Elementary School”.

- 6.11 Since there was not enough time to complete the matrices for the Fire and Police Building and the Community Center, it was decided that at the next FWG meeting, scheduled for July 9th, the time for the meeting should be extended from 7:30 to 9:30 AM.

AGENDA: FACILITY WORKING GROUP – MEETING 1E

- Schedule
- Matrices: Review of DPW
 - Working Session:
 - School Administration Building
 - Community Building
 - Police and Fire Building
- Decision Tree and review of test cases
- Next Steps



June 11, 2014

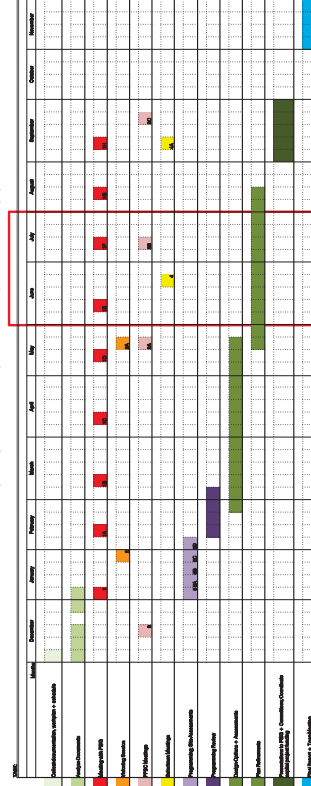
SLIDE 1

MTG

NEEDHAM FACILITIES MASTER PLAN STUDY

FWG SCHEDULE + OBJECTIVES

- June + July Mtgs. 1E + 1F: Finalize design options + matrices
 - Design Options Developed + Refined
 - Matrix assessed and finalized
 - FWG comments on programming, concepts and approach



June 11, 2014

SLIDE 3

MTG



June 11, 2014

NEEDHAM FACILITIES MASTER PLAN STUDY

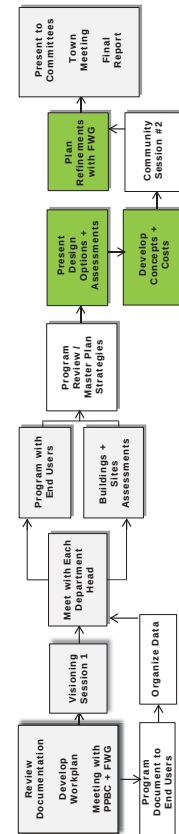


LEADER

NEEDHAM FACILITIES MASTER PLAN STUDY

PROGRAMMING / DESIGN OPTION PROCESS

- Programming process nears completion
- Design Options are ongoing
- Matrices for assessing sites will be completed today
- Develop Program/Master Plan strategies with FWG



June 11, 2014

SLIDE 2

MTG 1E

NEEDHAM FACILITIES MASTER PLAN STUDY

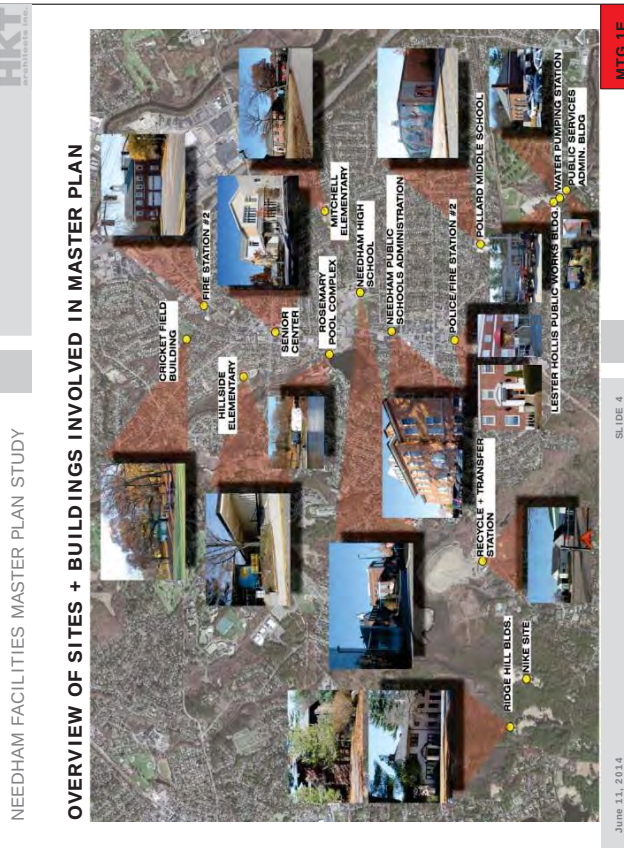
MATRIX OF SITES

	Police + Fire #1	Fire Station #2	DPW/470-485-RTS-Vehicles	Hillside Perm	Mitchell Perm	Pollard Perm	Pollard Temp	6th Grade Center	High School	School Admin-Emergency	Daily Building	Nike Site (New Program)	Rosemary Pool + Building	Cricken Field Building	Community Center/YMCA	Bridge Hill (New Program)	Claxton Field	Parcel 74/Greenfield Site	Memorial Field + Building	Town Hall
Police + Fire #1 Site	•																			
Fire #2 Site		•																		
Public Works Admin Bldg			•																	
Senior Center																				
Public Service Admin Bldg			•																	
MTS - new site																				
MTS - existing site																				
Hillside Elementary Site																				
Mitchell Elementary Site																				
Pollard Middle School																				
High School																				
Public Schools Admin - Emory Gower Building																				
Daily Building Site																				
Rosemary Pool + Building Site																				
Cricken Field Building																				
Claxton Field Site																				
Additional land already acquired at 170/172																				
Harris, Great Hill Ave. Site																				
Down Forest																				
Future Acquired Land/Other																				
Primary location	•																			
Primary location - No change	•																			
Possible new sites	•																			
Possible suggested site/not tested	•																			

June 11, 2014

SLIDE 5

MTG 1E



NEEDHAM FACILITIES MASTER PLAN STUDY

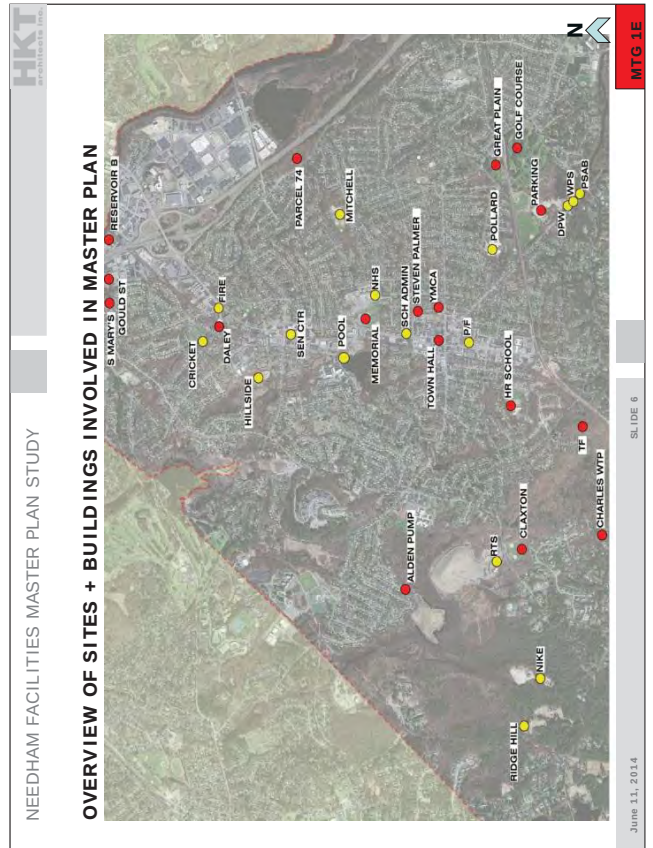
ALTERNATIVE SITES FOR BUILDING PROJECTS: Look at the best way of using land resources regardless of Jurisdictional Control

- 3 matrices: Overall Options, Detail Site, Evaluation Criteria
 - Which sites are reasonable to explore
 - What are the general characteristics of the sites
 - What are the final criteria for assessing each site
- How will Matrix influence or define Master Plan:**
 - Evaluation Criteria suggests that multiple sites can meet needs, how does matrix help when recommending best possible site for each program
 - Do land swaps. "Trading" Jurisdictional Control provide benefits to Community
 - If re-organization occurs, how does it affect neighborhood schools, emergency response, conversion of a passive recreation site, historical use of property, neighborhoods in general, operations of department, reuse of property
 - Ideal operations: can needs be met on one site, in the best possible location, in order to meet the request of each department

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SLIDE 7

MTG 1E



CRITERIA MATRIX

[illegible]

June 11, 2014

SLIDE 8

MTG 1E

DECISION TREE

- 5 Major Categories:
 - Fire/Police Department
 - Schools/School Administration
 - Department of Public Works
 - Parks + Recreation
 - Ridge Hill
- Issues to consider
 - Which potential projects can stand independently
 - Which potential projects require major reconfiguration of site and operations
 - Which projects require temporary swing space
 - Which projects must be completed at the same time

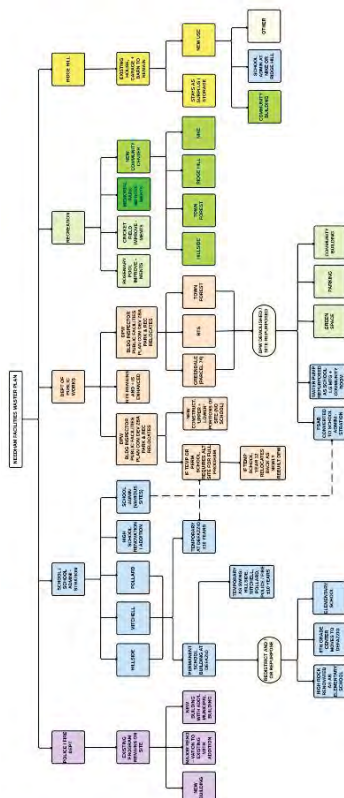
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SLIDE 9

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NEEDHAM FACILITIES MASTER PLAN STUDY

DECISION TREE



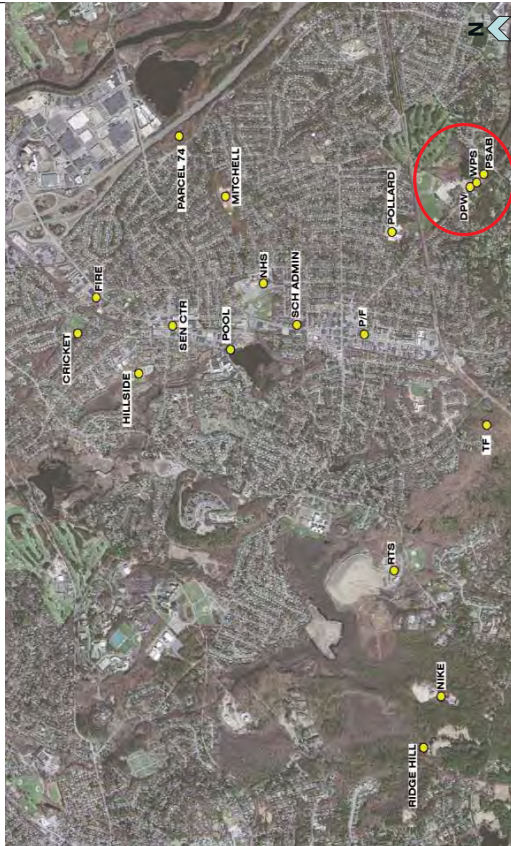
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SLIDE 10

MTC 1 E

NEEDHAM FACILITIES MASTER PLAN STUDY

TOWN OF NEEDHAM: EXISTING SITE LOCATIONS - DPW



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SLIDE 11

MTC 1E

TEMPORARY / PERMANENT ELEMENTARY SCHOOL SITE: Per Dore & Whittier 2012



MTC 1 E

DEPARTMENT OF PUBLIC WORKS: DEDHAM AVE OPTION - PARTIAL PROGRAM



UCC

NEEDHAM FACILITIES MASTER PLAN STUDY

IF DPW MOVES OFFSITE: SCHOOL ADMIN MOVES TO DEDHAM AVE

MTG 1E

SLIDE 10

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NEEDHAM FACILITIES MASTER PLAN STUDY

IF DPW MOVES: SCHOOL ADMIN, PARKING + SCHOOL ACTIVITIES OPTION AT DEDHAM AVE

MTG 1E

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NEEDHAM FACILITIES MASTER PLAN STUDY

IF DPW MOVES: COMMUNITY CENTER OPTION AT DEDHAM AVE

MTG 1E

SLIDE 10

June 11, 2014

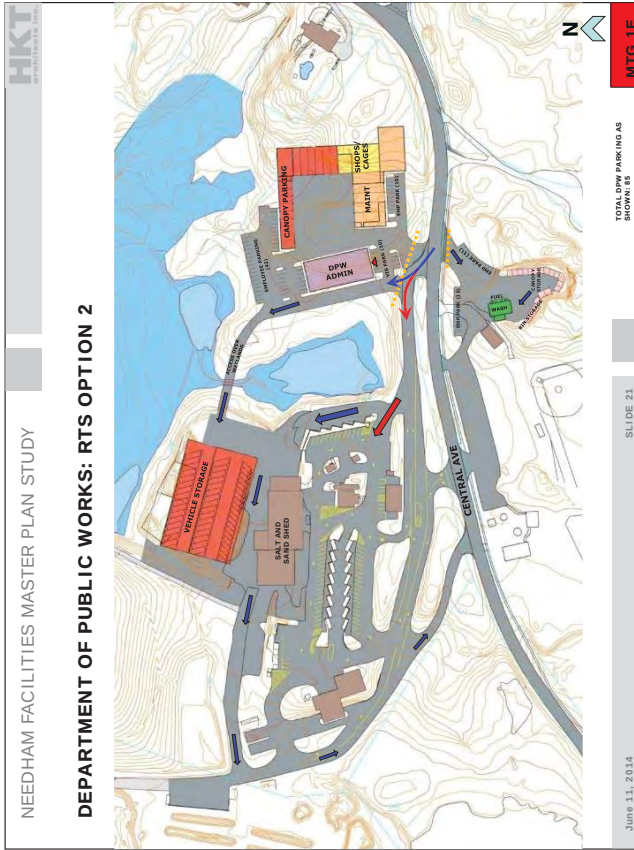
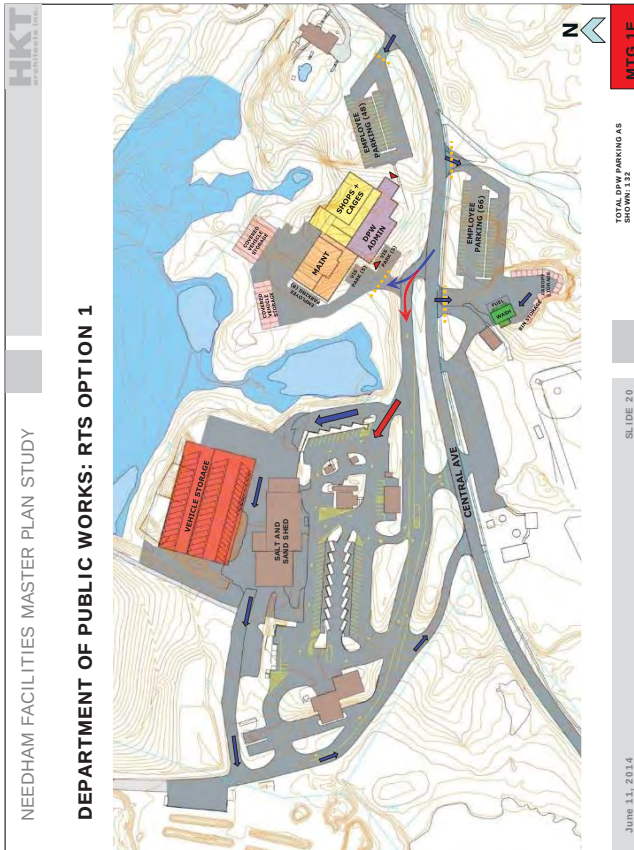
NEEDHAM FACILITIES MASTER PLAN STUDY

IF DEPARTMENT OF PUBLIC WORKS MOVES TO RTS

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TOTAL DPW PARKING AS SHOWN: 86

MTG 1E



June 11, 2014 SLIDE 25 MTG 1E

June 11, 2014

SLIDE 26

TOTAL DPW PARKING AS SHOWN: 79

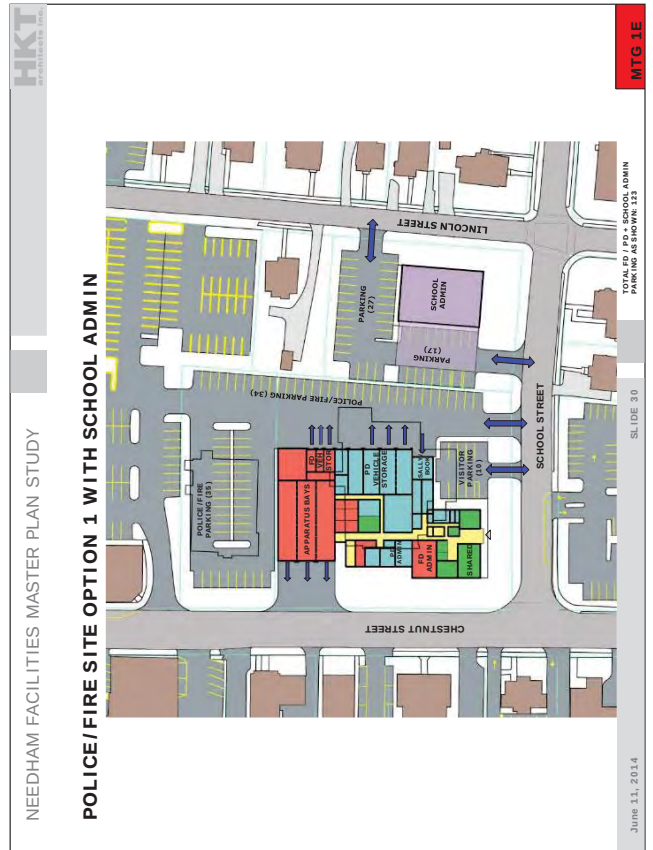
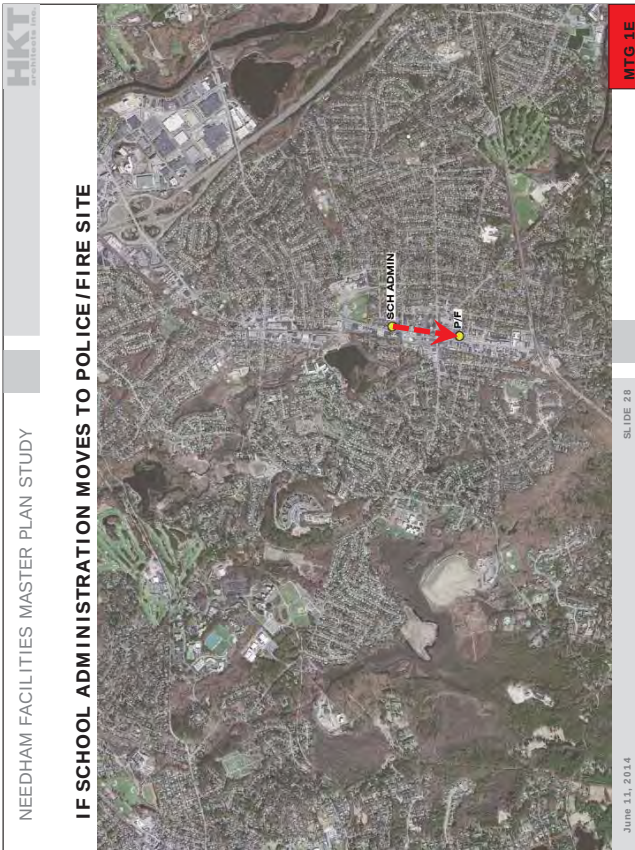
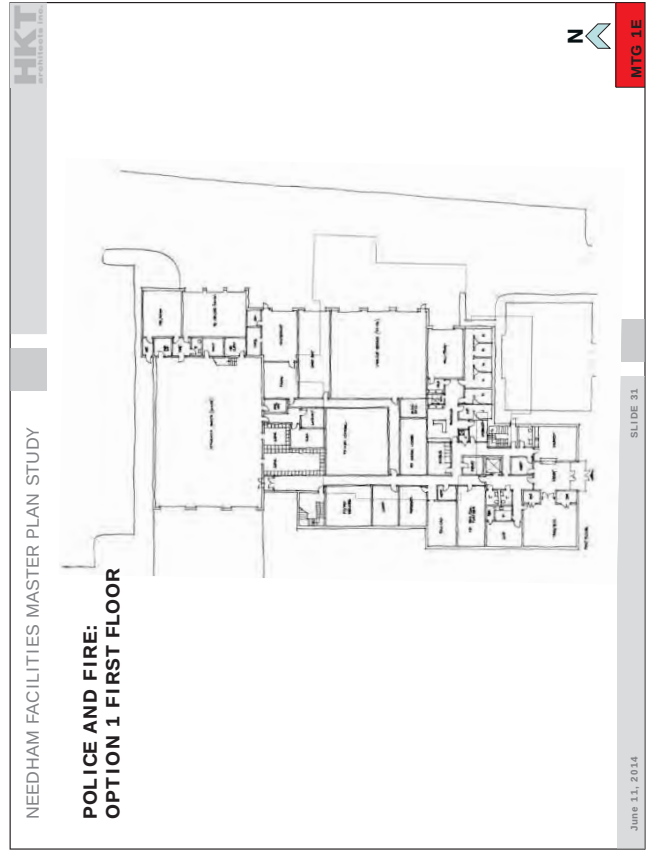
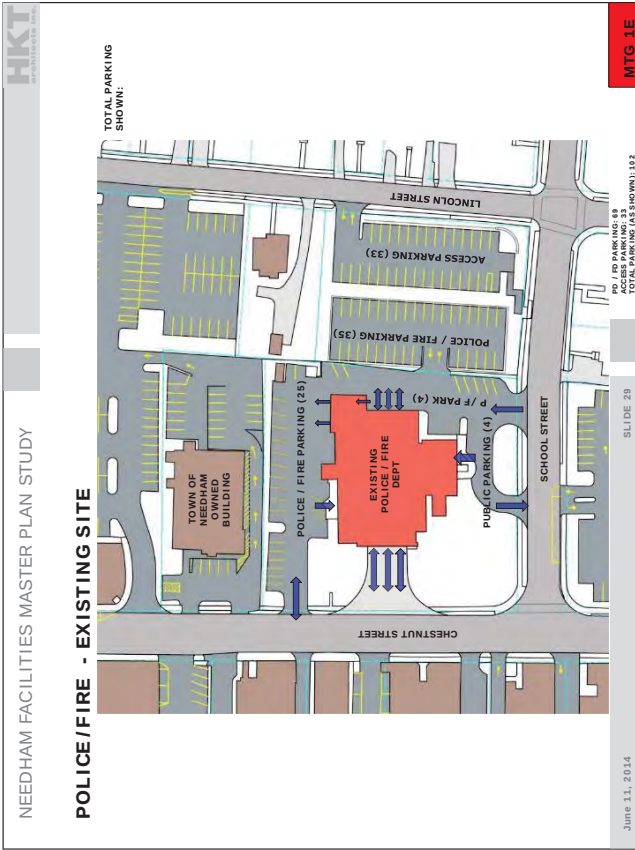
MTG 1E

An aerial photograph of the University of Utah campus. A red circle is drawn around the 'SCH ADMIN' building. Another red circle is drawn around the 'NIKE' building. Various other locations are labeled with yellow dots and text: CRICKET, FIRE, HILLSIDE, SEN CTR, POOL, MITCHELL, PARCEL 7A, NHS, POLLARD, DPM, WPS, PFAB, TF, RTS, and RIDGE HILL. A north arrow is in the top right corner.

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MTG 1E



NEEDHAM FACILITIES MASTER PLAN STUDY

**POLICE AND FIRE:
OPTION 1 SECOND FLOOR**

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MTG 1E

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE/FIRE SITE OPTION 2 WITH SCHOOL ADMIN

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MTG 1E

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE: OPTION 2 FIRST FLOOR

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MTG 1E

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE: OPTION 2 SECOND FLOOR

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MTG 1E

POLICE AND FIRE: OPTION 3 FIRST FLOOR



FD / PD PARKING: 02
ACCESS PARKING: 32
TOTAL PARKING (AS SHOWN): 114

MTC-1E

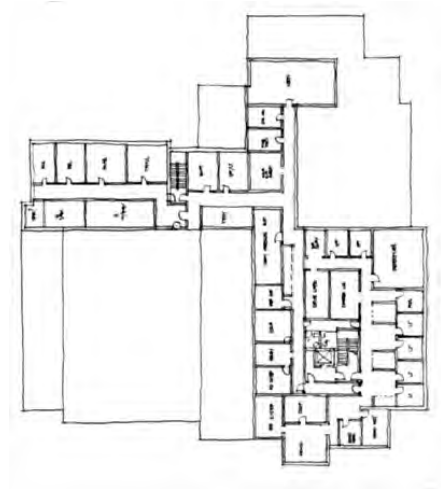


SLIDE 37

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SCHOOL ADMINISTRATION: RENOVATION AT EXISTING SITE



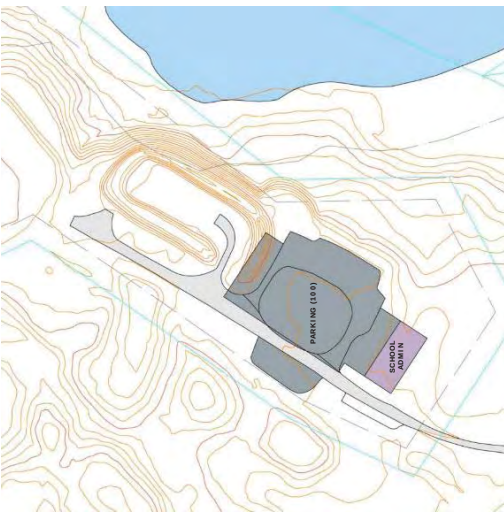
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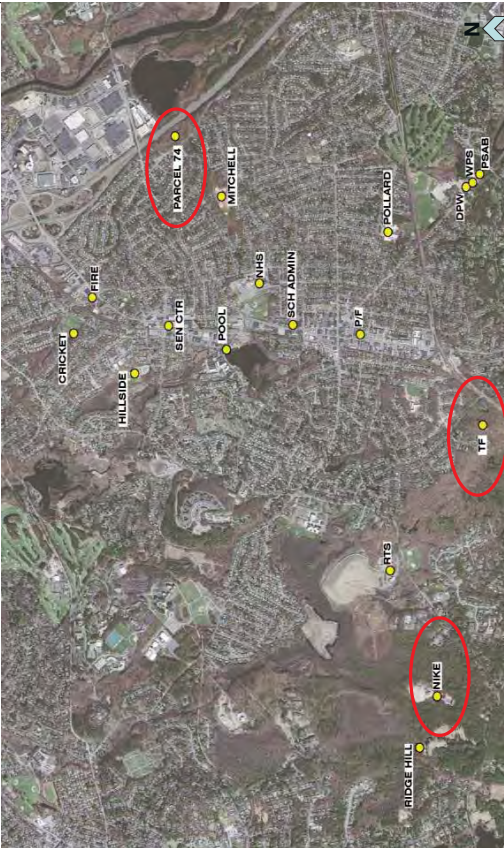
SLIDE 39

June 11, 2014

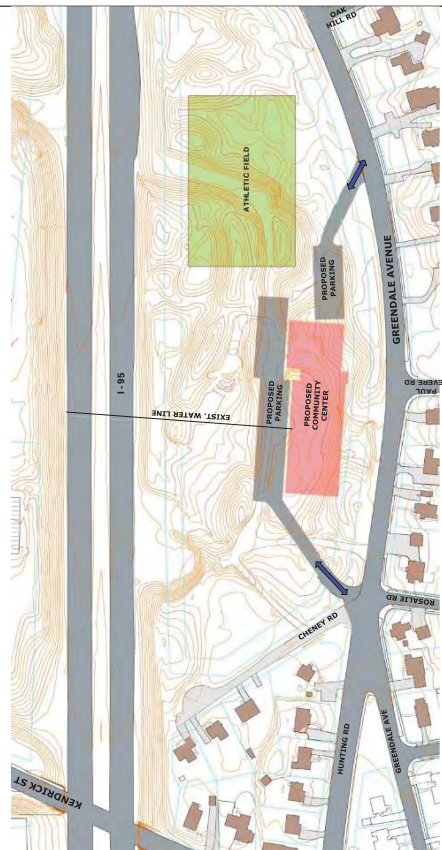




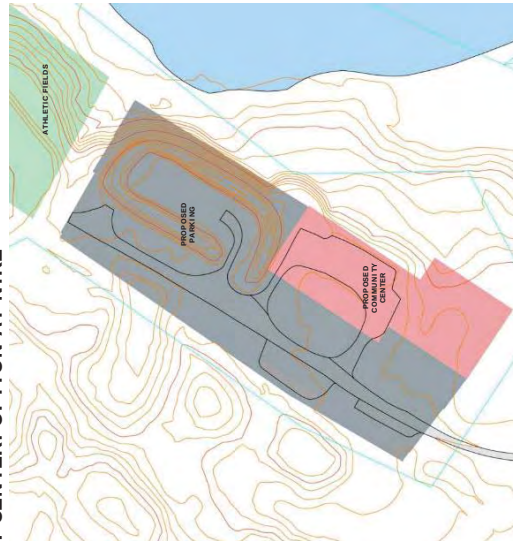
MTG 1E



MTG 1E



MTG 1E



MTG 1E

COMMUNITY CENTER: OPTION AT TOWN FOREST



June 11, 2014

SLIDE 44

MTG 1E

NEXT STEPS FOR OPTION DEVELOPMENT and REFINEMENT

- Options for DPW:
 - Refine preferred option: Dedham Ave., RTS, Greendale Ave, Town Forest
- Options for School Administration + School Buildings
 - Refine preferred option for Administration building
 - Review temporary or permanent school project on DeFazio Site
- Define + finalize programming documents for Community Center

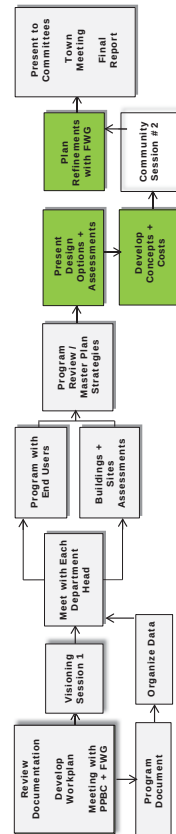
June 11, 2014

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MTG 1E

NEXT STEPS

- Update Meeting for BoS or PPBC
- Development of preferred concepts for review with end users and Town personnel
- Present preferred concept design options to FWG for final review and discussion
 - Strategize on options
- Develop associated costs
- Revise accordingly with Facility Working Group



June 11, 2014

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MTG 1E



June 11, 2014

THANK YOU

MTG 1E

MEETING AGENDA

To: Facility Working Group**Date:** July 8, 2014**From: HKT Architects, Inc****Project:** Needham Facilities
Master Plan**Job No:** 21314**Subject: FWG Meeting 1F**

AGENDA

The object of Meeting 1F is to complete the work on matrices and to update the Facility Working Group on the progress of other study components.

1. Update of Schedule
2. Matrices: Working session to complete and review remaining matrices
 - a. Fire and Police Station
 - b. Community Building
3. Decision Tree
 - a. Schools
 - b. Fire and Police
 - c. DPW
 - d. School Administration
 - e. Community Building
4. Preferred Schemes Selection
 - a. Schools
 - b. Fire and Police
 - c. DPW
 - d. School Administration
 - e. Community Building
5. Next Steps

MEETING MINUTES

Project: Needham Town Master Plan

Meeting Date: July 9, 2014

Time: 7:30 AM

Meeting Location: Powers Hall,
Needham Town
Hall

Job No: 21314

Meeting Facility Working Group 1F

Number:

Report By: BH, JS

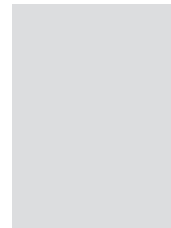
Attending:

☒ Moe Handel, BOS (MH)	☒ Philip Droney, Police Dept. (PD)
☒ George Kent, PPBC (GK)	☐ Chris Baker, Police Dept. (CB)
☒ Jeanne McKnight, Planning BD (JM)	☒ Paul Buckley, Fire Dept. (PB)
☒ Joe Barnes, School Committee (JB)	☒ Chip Laffey, PF-Operations, CL)
☒ Matt Toolan, Park & Rec. (MT)	☒ Patty Carey, Park & Rec. Dept. (PC)
☐ John Connelly, Fin Com, (JC)	☒ Cynthia Chaston, Park & Rec. Dept. (CC)
☒ Artie Crocker, Con Com, (AC)	☒ Chris Coleman, Ass't Town Mgr. (CC)
☒ Kate Fitzpatrick, Town Mgr. (KF)	☐ Dave Davison, Ass't Town Mgr. (DD)
☒ Steve Popper, PF-Construction (SP)	☒ Matt Varrell, Conservation Dept. (MV)
☒ Hank Haff, PF-Construction (HH)	☒ John Gallo, YMCA Board (BG)
☒ Rick Merson, DPW, (RM)	☒ Janet Jankowiak, YMCA (JJ)
☒ Tony DelGaizo, Engineering Dept. (TD)	☒ Charles Nelson, YMCA (CN)
☒ Lee Newman, Planning & CD, (LN)	☒ Janet Slemenda, HKT (JS)
☐ Dan Gutekanst, School Dept. (DG)	☒ Bill Hammer, HKT (BH)
☒ Anne Gulati, School Dept. (AG)	☒ David Roche, Building Dept. (DR)
	☒ Bob Lewis, DPW (BL)

Item

Action

- 7.01 The agenda for this meeting was to complete the matrices for the fire and police station and for the community building. The second item was to review the updated version of the decision tree to assess the impact of what might happen as a result of a plan for the schools and the subsequent effect on the Fire/Police station, the DPW, the School Administration and the Community Building. Finally, the FWG would make initial selections for the siting and design of these projects.



- 7.02 The first matrix to be reviewed was for the Fire/Police Station. The review of this matrix generated no discussion about the points assigned to the categories.
- 7.03 The second matrix to be reviewed was the Community Building. The review of this matrix generated a great deal of discussion about the points assigned to many of the categories. Some of the more significant issues are enumerated below.
- 7.04 Zoning: the question was whether this is a municipal building or a private building in a public/private partnership. If considered a private building, a change to current zoning would be required. It was agreed that the public/private would be the most conservative approach. It was questioned as to whether a public/private partnership could occur on publically owned land. This might be a legal issue that would require a review of all of the current rankings for the Community Building. There was much discussion regarding what would be accommodated in the center. Many participants wanted to address public needs i.e. hockey and indoor swimming.
- 7.05 Geographic Location: One question that was raised was whether or not the site needed to be centrally located. Some felt that it was a destination site and therefore it is assumed that most people would drive to the site. Furthermore, if outside fields were part of the facility, it would be hard to locate centrally inasmuch as there isn't enough land to accommodate playing fields in or near the town center. Others felt that there was more impact on dense areas versus more remote locations such as the Nike and Ridge Hill sites. If a school was located (even a temporary facility) on the DPW site, and the DPW was relocated, HKT pointed out that this site would probably not have enough parking for the school and a community building.
- 7.06 Many of the other issues that were discussed and ratings adjusted included:
- Current Uses. Does reduction or impact on green space make a site incompatible?
 - Access, particularly at Nike and Ridge Hill.
 - Traffic impact on neighborhoods.
 - Existing Structures. Ridge Hill might require demolishing some of the existing structures.
 - Optimum Size. Greendale is large enough to accommodate a community center, although the topography would make the inclusion of playing fields a very expensive solution beyond a reasonable expense.
 - Stormwater Management.
 - Tree Cover. (MV) raised the issue of protecting "just trees" versus habitat.
 - Jurisdictional Control.
- 7.07 The DPW criteria was discussed briefly. It was decided to upgrade 2. *Accessibility 2.1 Site Access* at 470 Dedham Avenue from a zero to a 3 inasmuch as it has been functioning and accessible for many years.

In the 6. *Availability* 6.2 *The Displacement Required* ratings for Greendale and the Town Forrest were down-graded from 5's to 4's, the Nike Site was downgraded from 4 to 3 and the 6.3 *Acquisition* category for both sites were down-graded from 4's to 3's.

- 7.08 The columns marked "Comments" on the matrices were retitled "Comments/Criteria"
- 7.09 The Decision Tree was the next topic. The goal was make some preliminary site selections. Some of the comments included:
- (KF) felt that Parks and Recreation might stay at the PSAB if the DPW and the Planning and Engineering departments were to relocate.
 - (HH) stated that the first project most likely will be Hillside and that it will impact most of the subsequent decisions. The DPW might be the second project.
 - (KF) did not necessarily agree that the DPW would be the second priority.
 - (SP) felt that the Design Team needed to develop cost models to help facilitate and prioritize the decision-making process. (JS) explained that HKT is working on the cost models
 - (MH) felt that the Police/Fire decision was a "stand-alone" inasmuch as it had no direct impact on other site decisions.
 - (GK) suggested that the process will generate multiple decision tree models over time.
 - All agreed that the next step will be to develop the cost models particularly since the Finance Committee will have the final say on priorities.

Next Meeting: August 13, 2014 @ 7:30 AM, Powers Hall, Needham Town Hall



July 9, 2014

NEEDHAM FACILITIES MASTER PLAN STUDY

HKT
architects inc.

Municipal Resources, Inc.

PARE
CORPORATION

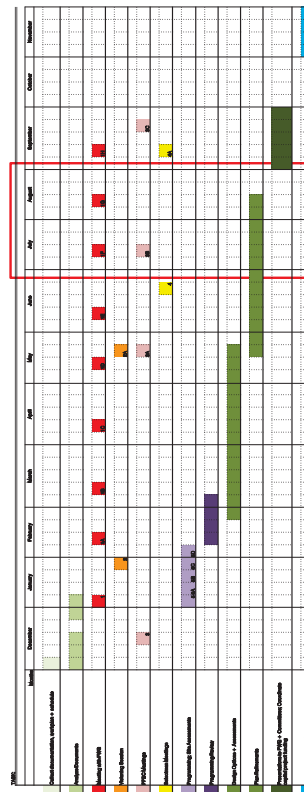


MTG 1F

NEEDHAM FACILITIES MASTER PLAN STUDY

FWG SCHEDULE + OBJECTIVES

- July + August Mtgs. 1F + 1G:
 - Finalize Matrices + Decision Tree
 - Present Initial Costs
 - FWG Initial Recommendations



July 9, 2014

SLIDE 2

MTG 1F

NEEDHAM FACILITIES MASTER PLAN STUDY

AGENDA: FACILITY WORKING GROUP – MEETING 1F

- Schedule
- Matrices: DPW + School Administration Building Completed
 - Working Session:
 - Community Building
 - Police and Fire Building
- Decision Tree
- Preferred Scheme Selection
- Next Steps



July 9, 2014

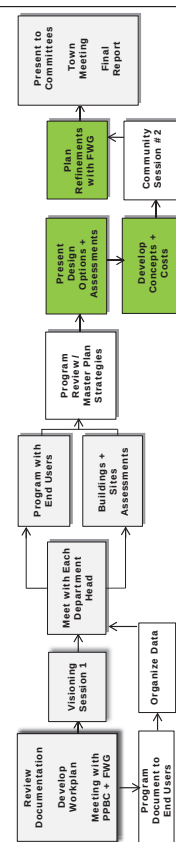
SLIDE 1

MTG 1F

NEEDHAM FACILITIES MASTER PLAN STUDY

PROGRAMMING/DESIGN OPTION PROCESS

- Discuss Special Considerations portion of Matrices
- Programming process: Memorial Field Meeting + Community Building
- Final refinements of Design Options



July 9, 2014

SLIDE 3

MTG 1F

OVERVIEW OF SITES + BUILDINGS INVOLVED IN MASTER PLAN



July 9, 2014

SLIDE 4

MTC 1E

MATRIX OF SITES

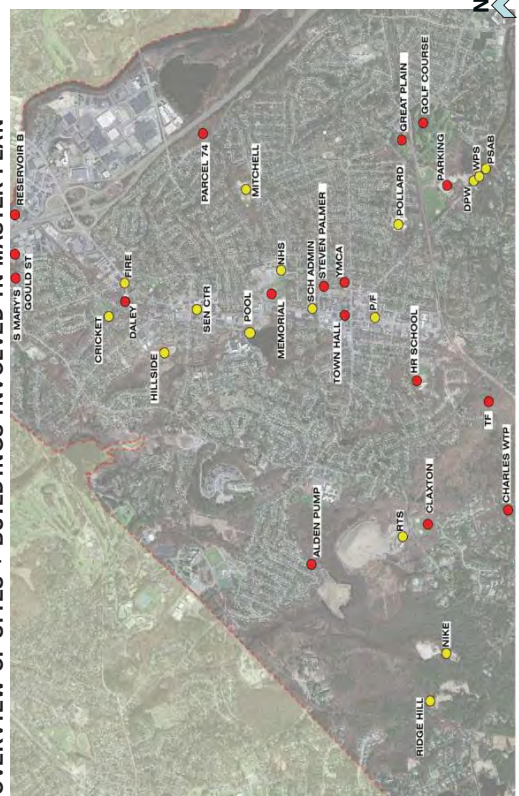
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July 9, 2014

SLIDE 5

MTC 1E

OVERVIEW OF SITES + BUILDINGS INVOLVED IN MASTER PLAN



July 9, 2014

SLIDE 6

MTG 1F

ALTERNATIVE SITES FOR BUILDING PROJECTS: Look at the best way of using land resources regardless of Jurisdictional Control

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- **How will Matrix influence or define Master Plan:**
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 - Ideal operations: can needs be met on one site, in the best possible location, in order to meet the request of each department

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MTG 1F

TEMPORARY / PERMANENT ELEMENTARY SCHOOL SITE: Per Dore & Whittier 2012



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TEMPORARY / PERMANENT ELEMENTARY SCHOOL SITE: Per Dore & Whittier 2012



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SLIDE 13

DEPARTMENT OF PUBLIC WORKS: DEDHAM AVE OPTION - PARTIAL PROGRAM



SLIDE 14

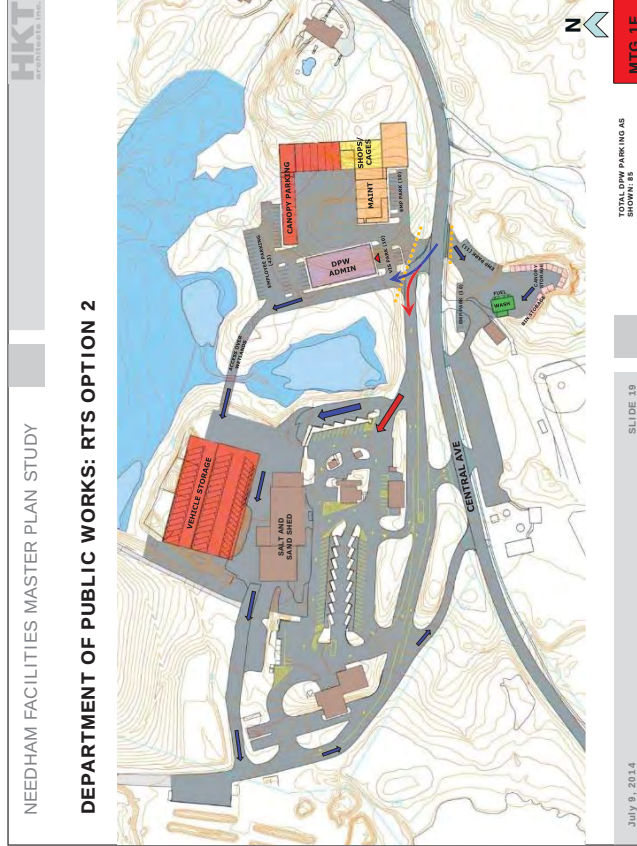
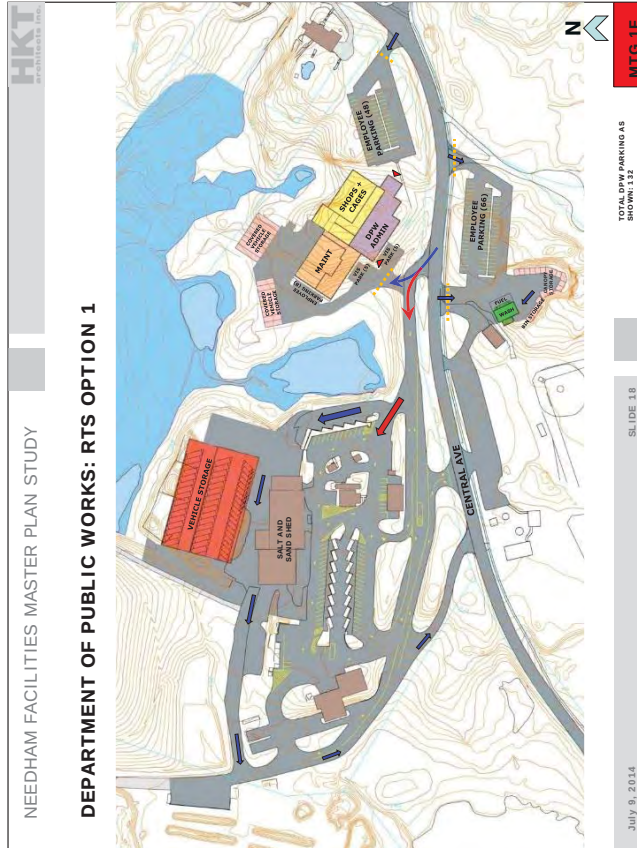
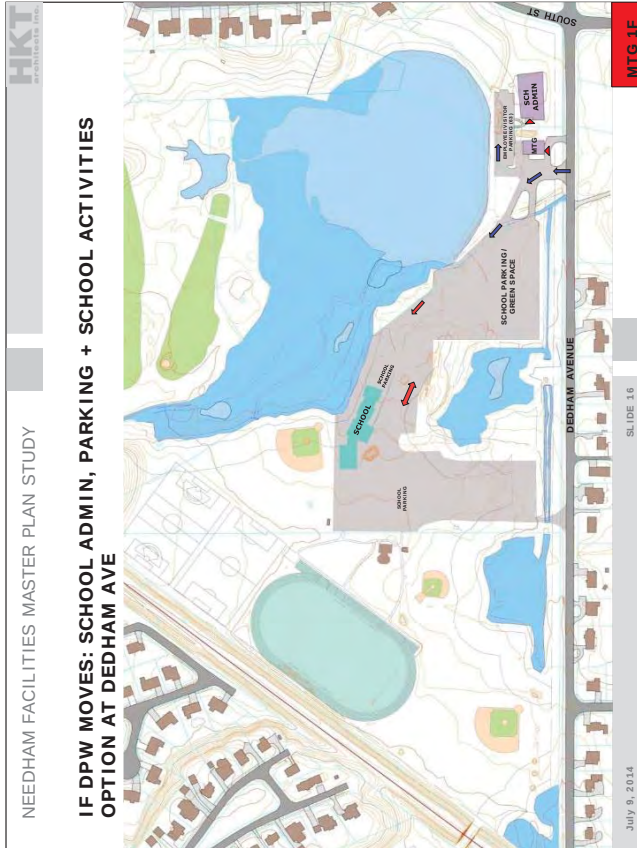
July 9, 2014

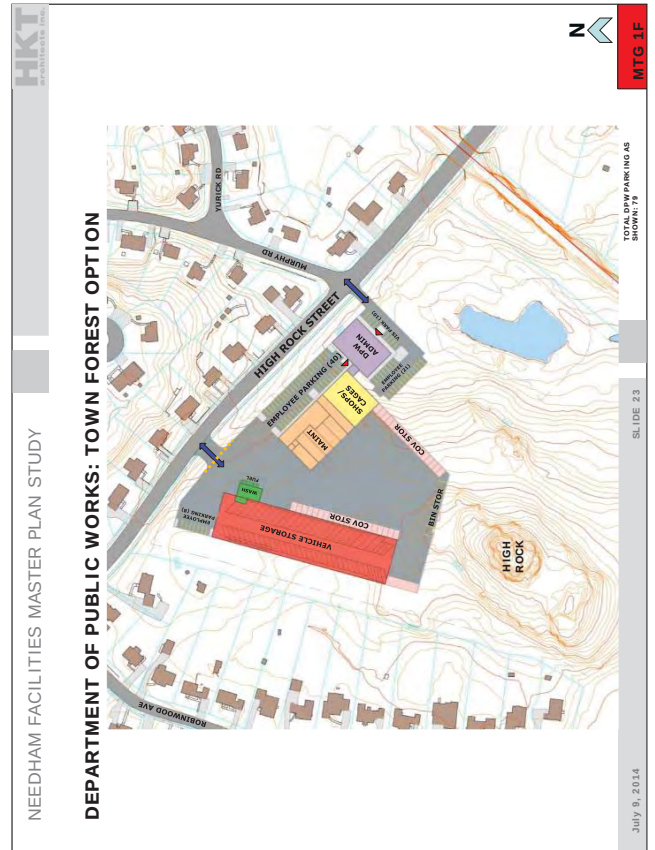
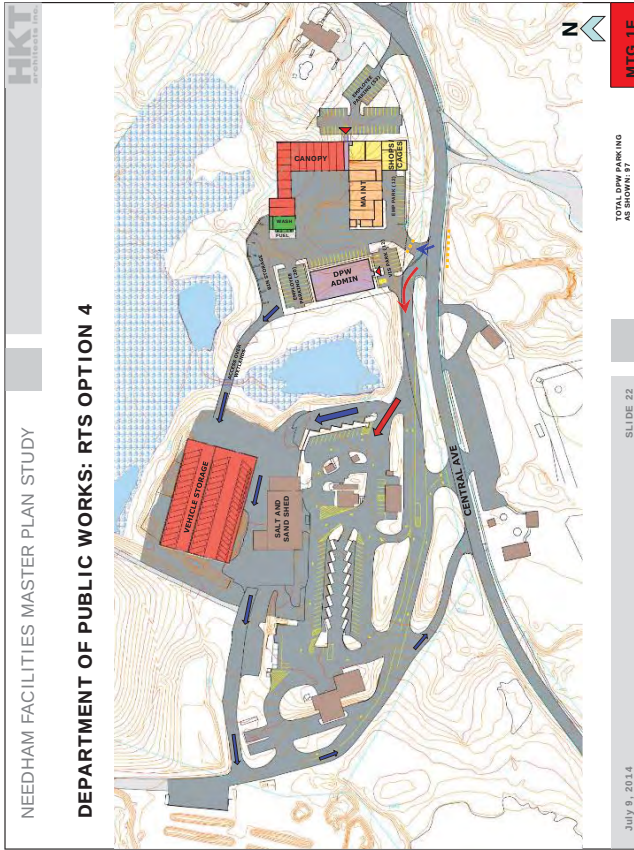
DEPARTMENT OF PUBLIC WORKS: DEDHAM AVE OPTION - PARTIAL PROGRAM

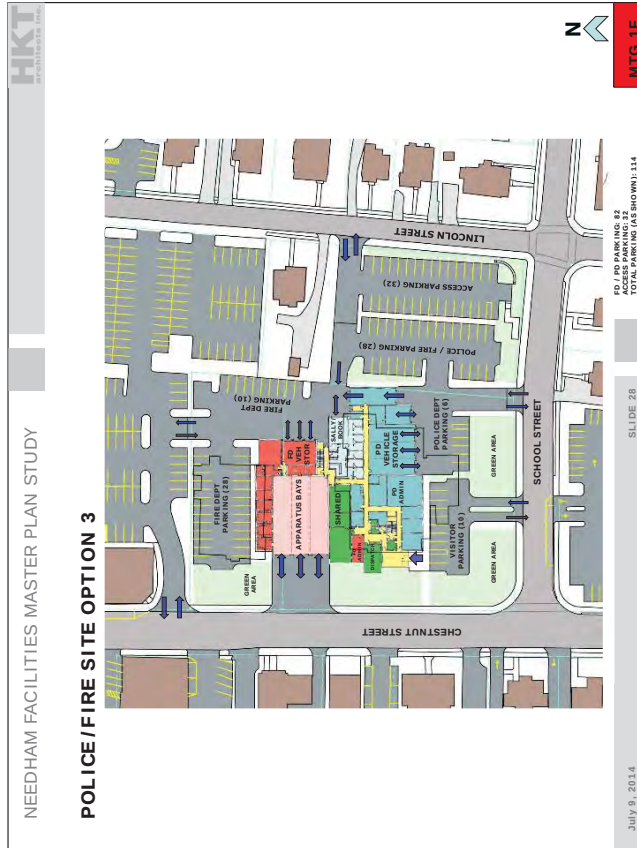
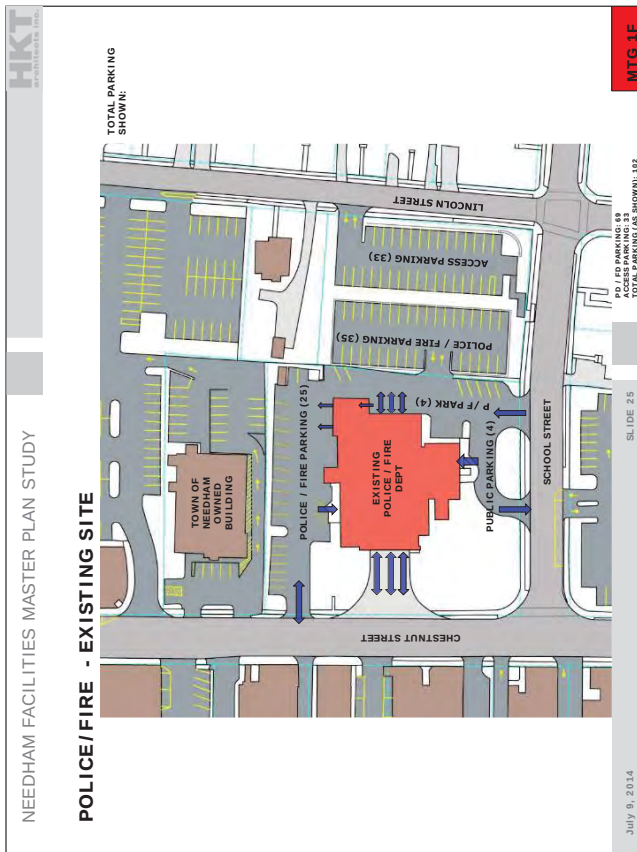


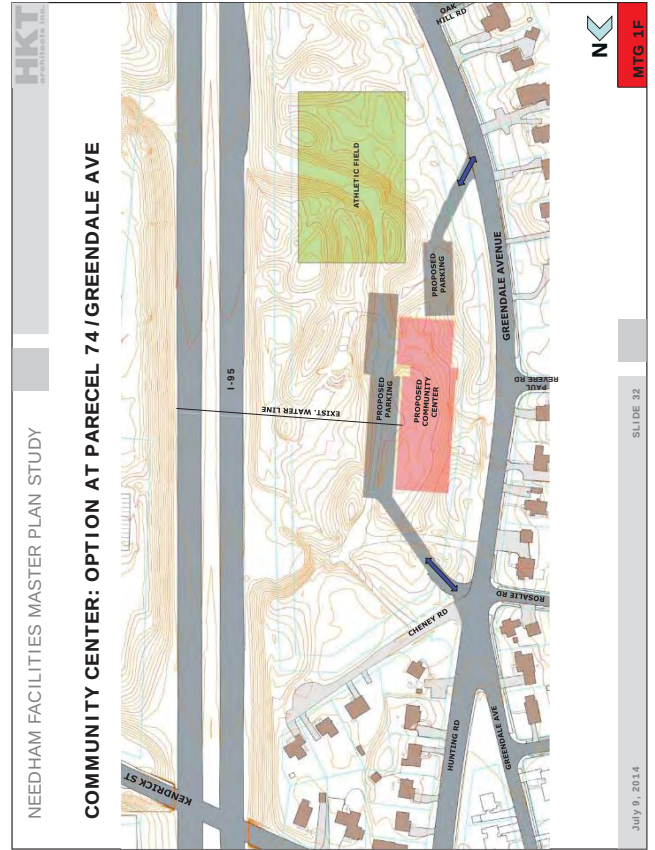
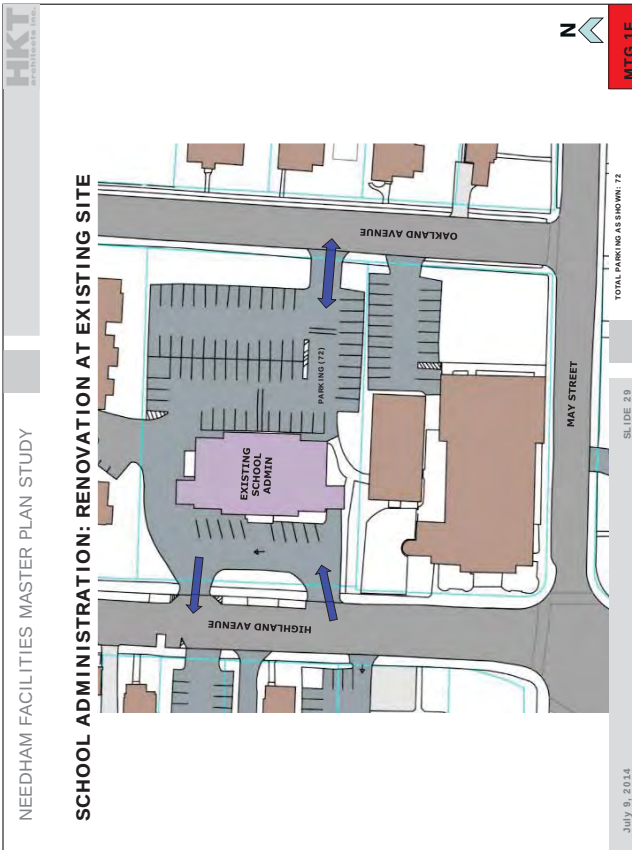
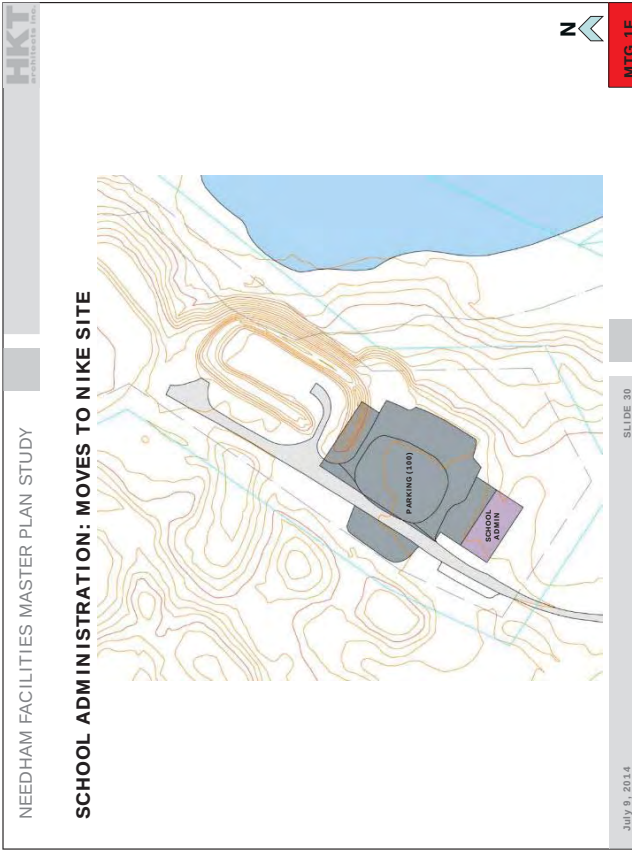
July 9, 2014

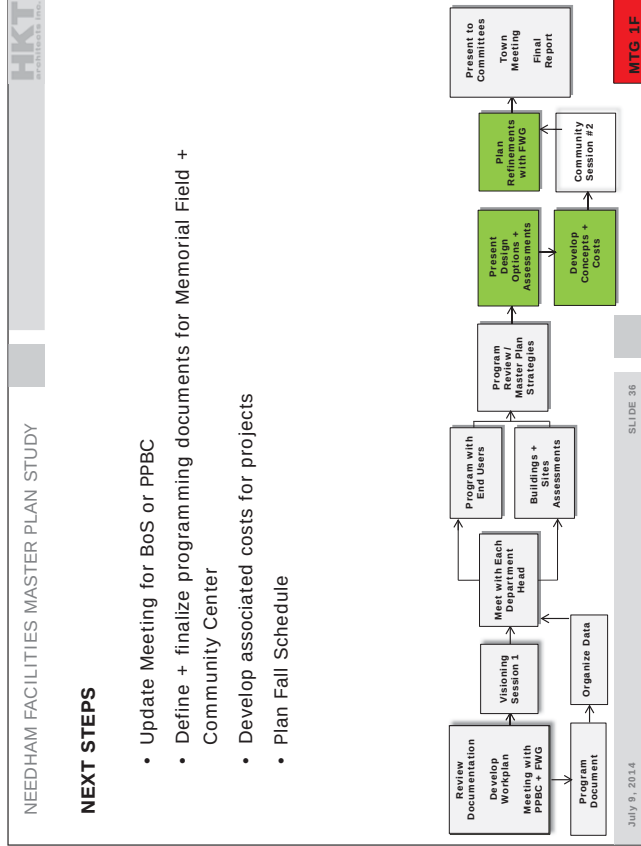
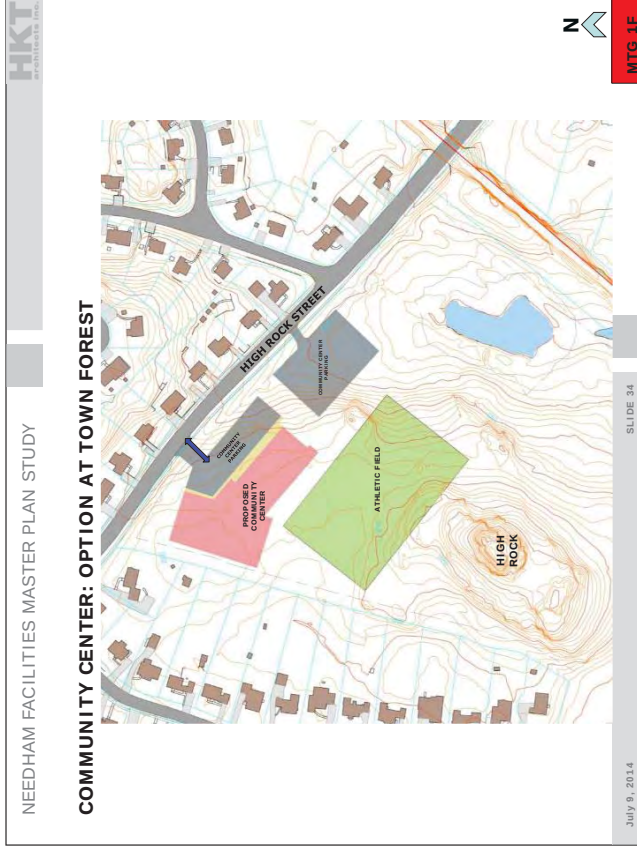
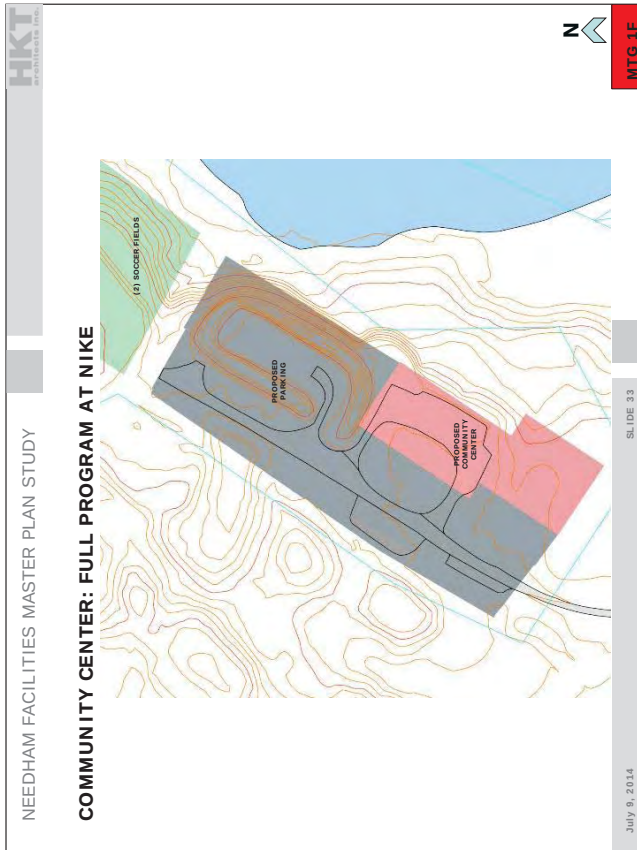
SLIDE 15













July 9, 2014

THANK YOU

MTG IF



35 Medford Street
Somerville, MA 02143
T: 617.776.6545
F: 617.776.6678
www.hktarchitects.com

MEETING AGENDA

To: Facility Working Group

Date: August 13, 2014

From: HKT Architects, Inc

Project: Needham Facilities
Master Plan

Job No: 21314

Subject: FWG Meeting 1G

AGENDA

The object of Meeting 1G is to update the Facility Working Group on the status of the estimate process, meetings with the Trustees of Memorial Park and the YMCA and the Decision Tree pathways and Timeline.

1. Update of Schedule
2. Process for Development of Probable Costs
3. Memorial Park Building
 - a. Overview of Needs
 - b. Options
4. YMCA
 - a. Overview of Needs
 - b. Options
5. Decision Tree Pathways
 - a. Schools
 - b. DPW
 - c. Parks and Recreation
 - d. Fire and Police
 - e. Community Buildings
6. Timeline
7. Next Steps

MEETING MINUTES

Project: Needham Town Master Plan

Meeting Date: August 13, 2014

Time: 7:30 AM

Meeting Location: Powers Hall,
Needham Town
Hall

Job No: 21314

Meeting Facility Working Group 1G

Number:

Report By: DH, JS

Attending: ☒ Moe Handel, BOS (MH) ☒ George Kent, PPBC (GK) ☒ Jeanne McKnight, Planning BD (JM) ☒ Joe Barnes, School Committee (JB) ☒ Matt Toolan, Park & Rec. (MT) ☐ John Connelly, Fin Com, (JC) ☒ Artie Crocker, Con Com, (AC) ☒ Kate Fitzpatrick, Town Mgr. (KF) ☒ Steve Popper, PF-Construction (SP) ☒ Hank Haff, PF-Construction (HH) ☒ Rick Merson, DPW, (RM) ☒ Tony DelGaizo, Engineering Dept. (TD) ☒ Lee Newman, Planning & CD, (LN) ☐ Dan Gutekanst, School Dept. (DG) ☒ Anne Gulati, School Dept. (AG) ☒ Doug Hartig, HKT (DH)	☒ Philip Droney, Police Dept. (PD) ☒ Chris Baker, Police Dept. (CB) ☒ Paul Buckley, Fire Dept. (PB) ☒ Chip Laffey, PF-Operations, CL) ☒ Patty Carey, Park & Rec. Dept. (PC) ☒ Cynthia Chaston, Park & Rec. Dept. (CC) ☒ Chris Coleman, Ass't Town Mgr. (CC) ☐ Dave Davison, Ass't Town Mgr. (DD) ☒ Matt Varrell, Conservation Dept. (MV) ☒ John Gallo, YMCA Board (BG) ☒ Janet Jankowiak, YMCA (JJ) ☒ Charles Nelson, YMCA (CN) ☒ Janet Slemenda, HKT (JS) ☒ Bill Hammer, HKT (BH) ☒ David Roche, Building Dept. (DR) ☒ Bob Lewis, DPW (BL)
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Item

Action

- 8.01 The agenda for this meeting was to update the Facility Working Group on the status of the cost estimate process, meetings with the Trustees of Memorial Park and the YMCA and the Decision Tree pathways and Timeline.
- The first item was to discuss the Memorial Park building needs and options. The second item was to discuss options for a Community Building on Nike/Ridge Hill site, along with community Ice Rink location. The third item introduced two possible Decision Tree Pathways and a draft Master Plan timeline showing design



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MEETING AGENDA

To: Facility Working Group

Date: August 13, 2014

From: HKT Architects, Inc

Project: Needham Facilities
Master Plan

Job No: 21314

Subject: FWG Meeting 1G

AGENDA

The object of Meeting 1G is to update the Facility Working Group on the status of the estimate process, meetings with the Trustees of Memorial Park and the YMCA and the Decision Tree pathways and Timeline.

1. Update of Schedule
2. Process for Development of Probable Costs
3. Memorial Park Building
 - a. Overview of Needs
 - b. Options
4. YMCA
 - a. Overview of Needs
 - b. Options
5. Decision Tree Pathways
 - a. Schools
 - b. DPW
 - c. Parks and Recreation
 - d. Fire and Police
 - e. Community Buildings
6. Timeline
7. Next Steps

we do need to observe the setbacks for the building, perhaps not in the parking.

- (KF) about how many acres are viable to build on in the Nike site, and within setback, along with how many acres is the total Nike site. (HKT's post meeting response is that the Nike site is 18.1 acres, comprised of 2.25 acres of wetlands and 15.85 acres from wetlands edge to property line.)
- (SP) noted that the parking numbers are not exact for Ridge Hill.
- It was stated (MT) that it's a ten minute walk between the two sites. A question was raised that the dual sites may work better if there was a complete loop, with both upper and lower connectors.
- A question of the Nike easement being too narrow was brought up, with the answer being that it's imperative to find out if the easement is at fifty feet.
- Fire Chief Buckley noted that if a loop road is constructed, we should consider whether it should be one-way or two-way, due to traffic.
- (MT) asked if all of the land is jurisdictionally owned, shouldn't only one area be impacted and the rest restored. The response was that restoring Nike to a meadow is too expensive, and that the high value of land is a determining factor to develop multiple areas.
- (TG) noted that there is not a provisional area for drainage, and that soil is not good at Nike and Ridge Hill. A detention basin and/or detention structure would be necessary, and the size would be approximately half the size of the community building.

Another larger question was raised (SP) -- is this theoretically feasible? The issues are policy, jurisdiction, and timing. More detailed discussion is required with the jurisdictional committees to establish a preferred option.

- 8.05 (JS) presented a generic scheme for a standard sized Ice Rink. One question raised was if it were possible to put the rink at Nike. (JS) responded that it would be possible, but one or more fields would have to be eliminated.

- 8.06 HKT (JS) presented two potential Decision Tree pathways, containing the main paths of construction sequencing for Police / Fire Department, School and/or School Administration, Department of Public Works, Recreation, and Ridge Hill.

Decision Tree A focused on construction of a temporary school at DeFazio Park and the ramifications to the DPW remaining on site, work at Rosemary Pool and a new Police/Fire building.

Decision Tree B focused on construction of a permanent school at DeFazio Park, relocating the DPW off site, Dedham Ave. site repurposing, work at Rosemary Pool a new Police/Fire building and some decision on the Ridge Hill site.

- 8.07 There were questions and responses to the decision tree pathways:
- (HH) noted that a school at DeFazio would not allow for any DPW expansion on the Dedham Ave site, and require relocation of current DPW laydown areas and consolidation of parking.

- (KF) was asked about the Police/Fire. What is their relation to the order? (JS) noted that they are just positioned in the slides after the school, DPW and pool projects but could be done before, or at the same time, as any other project. The Police/Fire project needs to be accounted for, when analyzing project workload, cost, and need to be considered along with others.
- If Hillside moves to temporary school at DeFazio, what is the timing of the DPW moving? Is it significant? All of the DPW areas at the upper part of the site would have to be relocated prior to the beginning of construction. Other considerations will be if any part of the site would be used for vehicular circulation to the school particularly school bus traffic through the DPW yard.
- (SP) mentioned that the FWG has already noted the impact the school relocation has on the DPW.
- It was noted that a temporary situation where both the DPW and school were at DeFazio would cause traffic conflicts and congestion for 10-12 years, with safety concerns.
- (KF) asked if Hillside School could be used as an administration building. The Hillside building could be used as a swing space for all the other schools, possibly FD/PD and then renovated for administration.
- (JS) noted that there are other possible decision trees options.

8.08 HKT (JS) presented the draft Timeline. This timeline includes information on projected occupancy, design to occupancy timeframes and costs. The questions (Q) and (A) answers that followed are:

- Q: Are we saying that we'd start the design process this fall for a school at DeFazio Park? A: (SP) Designer Selection with the MSBA will start this fall. The Feasibility and Schematic design process for the Hillside School would start in early 2015. The determination of building a temporary school or a permanent school at DeFazio will likely be known by spring 2015.
- Q: (MT) when will DeFazio Park be available for reuse - in a few years? A: (KF) said that it is up to MSBA if they want to partner with us for a permanent school building. A: (HH) A "temporary school" could be used for swing space on multiple projects and remain in place for 10-12 years for interim use in the Hillside, Mitchell, Pollard and other town renovation projects.
- Q: (KF) asked what is the timeframe be for seeking feasibility funds for both the school and DPW projects if the design/construction for the school were to begin in the fall of 2016. When is the vote for the DPW moving? A: (SP) said that design process takes three years, so in nine months.
- Q: (MH) does the DPW have to be gone while the school is being constructed? A: (JS) responded no, but they could be planned to be constructed simultaneously.
- Q: Can Emery Grover be used as a possible swing space? A: This building is not accessible and therefore could not be used as swing space.
- Q: (KF) asked if PSAB can accommodate school administration. A: (JS) noted the similarity in square footage required and use and felt that it was feasible but would need to be reviewed in depth.

- 8.09 HKT (BH) presented the process for development of Probable Costs with a singular look at Parcel 74 for the DPW.

The estimated cost of construction this year, including 25% soft cost and 10% project contingency was \$27,237,000. Parcel 74 considers site premiums such as retaining walls, brick-faced walls and decorative fencing for community presence. The methodology described by HKT (BH) included identifying base cost for building types and adding premiums for unique site conditions. HKT is generating probable costs for the other sites with their civil and cost consultants.

- 8.10 The following questions or comments were made:

- Q: (KF) Does this estimated cost include design? A: (BH) Yes.
- (BH) HKT will provide cost estimation numbers for as many projects as possible at the next FWG meeting.
- (JS) Parcel 74 was chosen as a mid-range price.
- (SP) noted Parcel 74 is the most favorable site for a relocated DPW.
- HKT (JS) will be doing more work on Memorial Field, with associated costs included.
- (SP) This information will be presented to the Selectmen, and other boards and committees and also needs to be integrated with the town fiscal plan.

Next Meeting: September 10, 2014 @ 7:30 AM, Powers Hall, Needham Town Hall



August 13, 2014

NEEDHAM FACILITIES MASTER PLAN STUDY

HKT
architects inc.

Municipal Resources, Inc.

PARE
CORPORATION

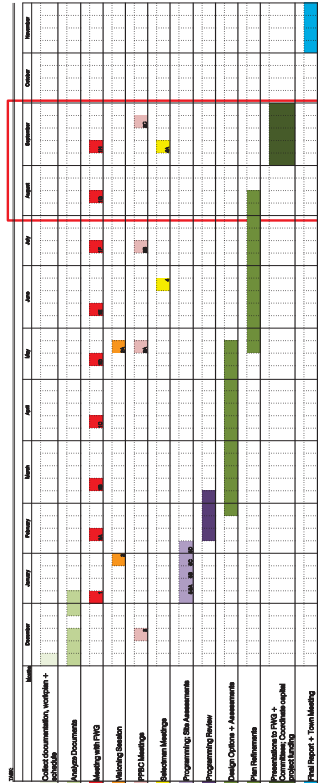


MTG 1G

NEEDHAM FACILITIES MASTER PLAN STUDY

FWG SCHEDULE + OBJECTIVES

- August + September Mtgs. 1G + 1H:
 - Focus will be on the development of Probable Costs
 - FWG Review and Initial Recommendations



August 13, 2014

SLIDE 2

MTG 1G

NEEDHAM FACILITIES MASTER PLAN STUDY

AGENDA: FACILITY WORKING GROUP – MEETING 1G

- Schedule
- Summary of Meeting about Memorial Park
- Summary of Meeting for Community Building
- Decision Tree Pathways
- Timeline
- Process for Development of Cost Estimates
- Next Steps



August 13, 2014

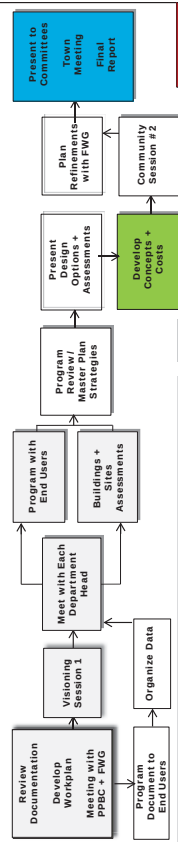
SLIDE 1

MTG 1G

NEEDHAM FACILITIES MASTER PLAN STUDY

PROGRAMMING/DESIGN OPTION PROCESS

- Memorial Field Program + Plan Options
- Development of Costs
- Begin Process of Presentation to committees prior to Town meeting



August 13, 2014

SLIDE 3

MTG 1G



SEPTEMBER 10, 2014

NEEDHAM FACILITIES MASTER PLAN STUDY



HKT
architects inc.



Municipal Resources, Inc.



PARE
CORPORATION



samiotest



TCI

MTG 1H

NEEDHAM FACILITIES MASTER PLAN STUDY

AGENDA: FACILITY WORKING GROUP – MEETING 1H

- Schedule
- Process for Development of Cost Estimates
- Timeline
- Outline of Report
- Next Steps








MTG 1H

NEEDHAM FACILITIES MASTER PLAN STUDY

FWG SCHEDULE + OBJECTIVES

- September Mtg.1H: *Additional FWG Scheduled for October 8, 2014*
 - Probable Costs Discussion + FWG Comments and Recommendations
- October Mtgs. With Town Personnel:
 - Financial Impact

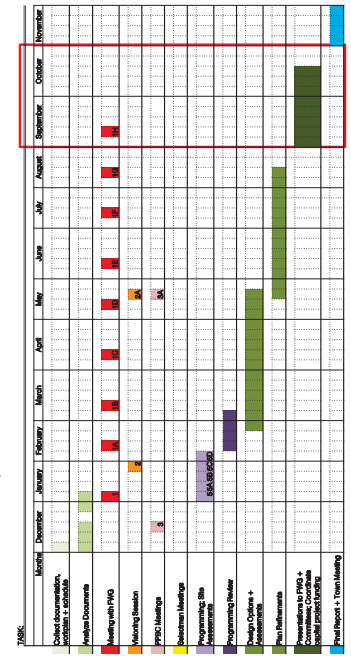
MTG 1H

NEEDHAM FACILITIES MASTER PLAN STUDY

PRESENTATION OF COSTS + TIMELINE

- Development of Cost Estimates
- Timeline
- Outline of Report

MTG 1H



NEW STAIR / ELEVATOR

20' SETBACK

EXISTING PATHWAY

RENOVATED TO BE EGRESS STAIR

20' SETBACK

ROSS AVE

HIGHLAND AVE

SLIDE 8

MTG 3

The image displays two architectural floor plans. The top plan is labeled 'SECOND FLOOR' and the bottom plan is labeled 'FIRST FLOOR'. Both plans show a central corridor system with multiple rooms. The second floor includes rooms labeled 'MEETING', 'STOR', 'OFF', and 'CONFERENCE'. The first floor includes rooms labeled 'PUBLIC TOILET', 'STOR', 'GALLERY', 'OFF', and 'CONFERENCE'. Red lines and boxes highlight specific areas of interest, such as stairwells and elevators, which are likely the focus of the security analysis described in the text.

SLIDE 9

MTG 1G

Site plan for the proposed 100-unit residential development. The plan shows a large parking lot with yellow stalls, a green building footprint, and a red line indicating a 20-foot setback. An existing pathway is also shown. The plan is oriented with Rosemary St on the left and Highland Ave at the bottom.

SLIDE 10

MTG

[illegible]

SLIDE 11

MTG 1G

OVERVIEW OF MEETING FOR COMMUNITY BUILDING

- Visited Ridge Hill and Nike Sites
- Discussed Program Needs
 - Approximate program of 60,000 SF including indoor pool, gymnasium, teen center, exercise rooms, community room, child watch, locker rooms and support spaces
 - 2 soccer size fields
 - Parking for approximately 300 vehicles
- Reviewed possible options
 - Program all on one site
 - Program split between sites

August 13, 2014

SLIDE 12

MTG 1G

EXISTING CONDITIONS AT NIKE AND RIDGE HILL



August 13, 2014

SLIDE 13

MTG 1G

COMMUNITY BUILDING: OPTION 1 – Full Program at Nike Site

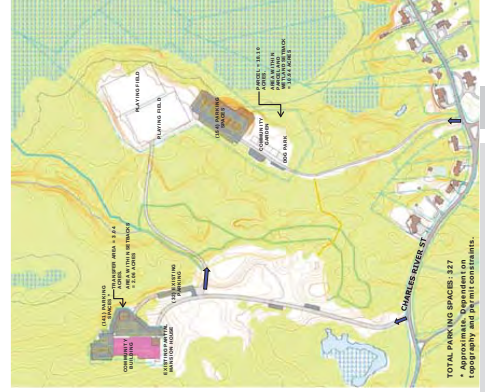


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SLIDE 14

MTG 1G

COMMUNITY BUILDING: OPTION 2A – Mansion/Facilities + Parking at Ridge Hill; Upper Connector; 2 Fields, Remaining Parking, Dog Park + Community Gardens at Nike

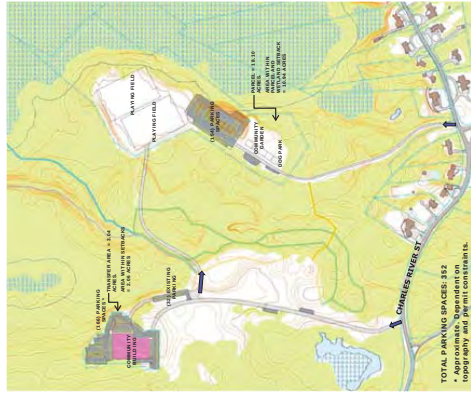


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SLIDE 15

MTG 1G

COMMUNITY BUILDING: OPTION 2B – New Facilities and Partial Parking at Ridge Hill; Upper Connector; 2 Fields, Remaining Parking, Dog Park + Community Gardens at Nike



TOTAL PARKING SPACES: 352
• Approximate, dependent on topography and permit constraints.

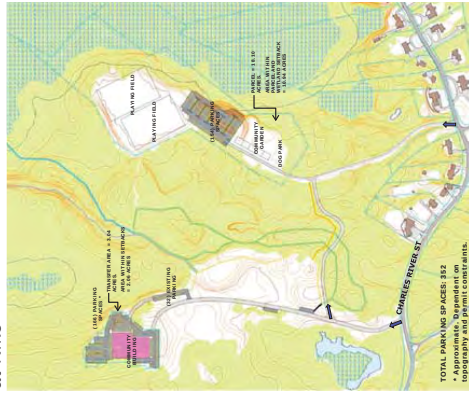
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SLIDE 16

MTG 1G



COMMUNITY BUILDING: OPTION 3A – New Facilities and Partial Parking at Ridge Hill; Lower Connector Road; 2 Fields, Remaining Parking, Dog Park + Community Gardens at Nike



TOTAL PARKING SPACES: 352
• Approximate, dependent on topography and permit constraints.

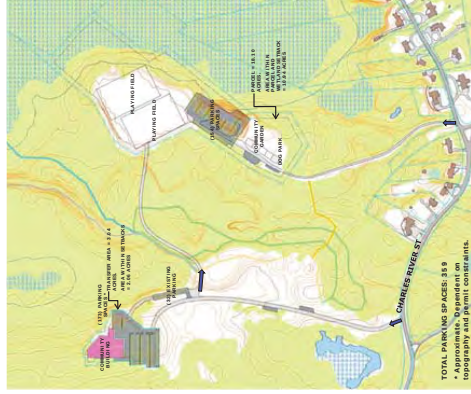
August 13, 2014

SLIDE 16

MTG 1G



COMMUNITY BUILDING: OPTION 2C – New Facilities and Partial Parking at Ridge Hill; Upper Connector; 2 Fields, Remaining Parking, Dog Park + Community Gardens at Nike



TOTAL PARKING SPACES: 359
• Approximate, dependent on topography and permit constraints.

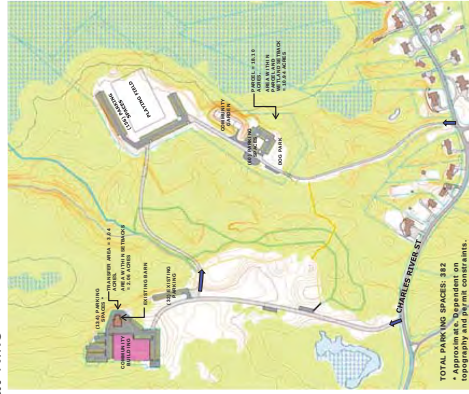
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SLIDE 17

MTG 1G



COMMUNITY BUILDING: OPTION 3B – Barn/New Facilities and Partial Parking at Ridge Hill; Upper Connector Road, 1 Field, Remaining Parking, Dog Park + Community Gardens at Nike



TOTAL PARKING SPACES: 352
• Approximate, dependent on topography and permit constraints.

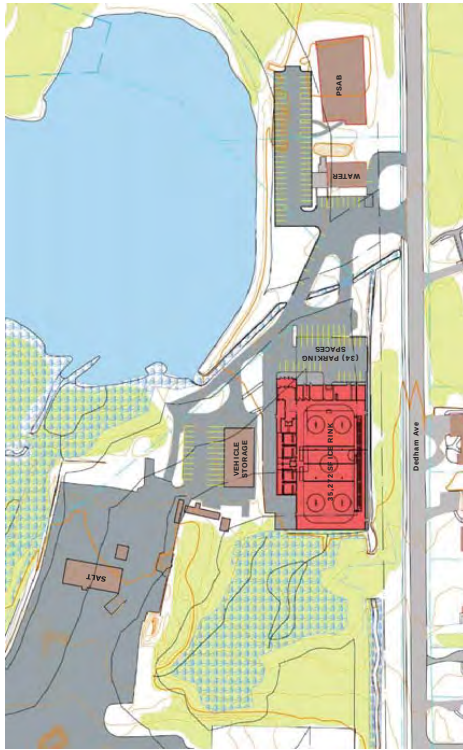
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SLIDE 19

MTG 1G



ICE RINK AT 470 DEDHAM AVE



August 13, 2014

SLIDE 20

MTG 1G

DECISION TREE

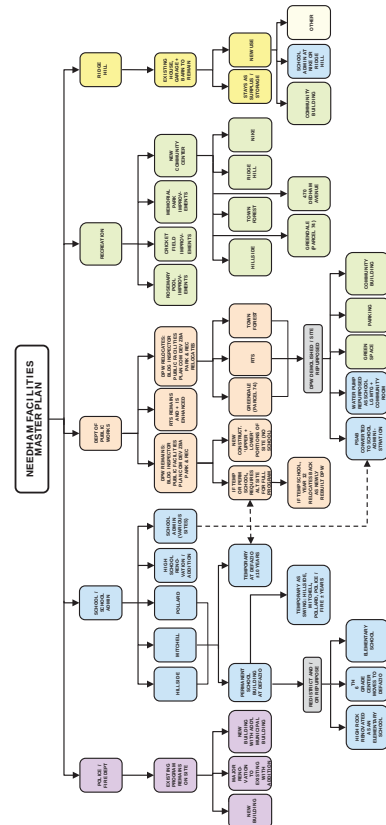
- 5 Major Categories:
 - Fire/Police Department
 - Schools/School Administration
 - Department of Public Works
 - Parks + Recreation
 - Ridge Hill
- Issues to consider
 - Which potential projects can stand independently
 - Which potential projects require major reconfiguration of site and operations
 - Which projects require temporary swing space
 - Which projects must be completed at the same time
- Decision Trees A + B

August 13, 2014

SLIDE 21

MTG 1G

DECISION TREE - A

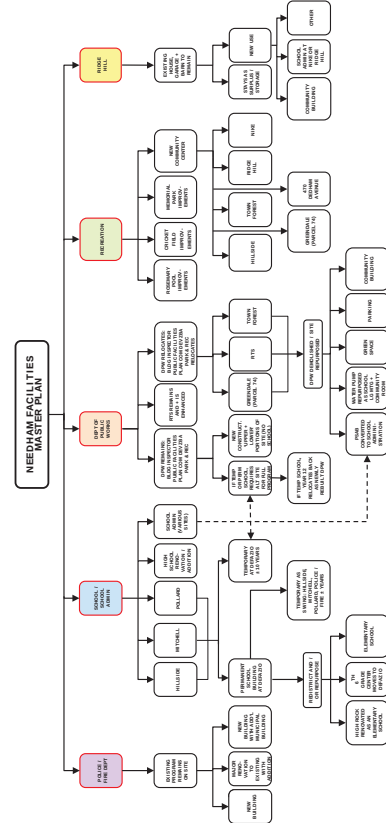


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MTG 1G

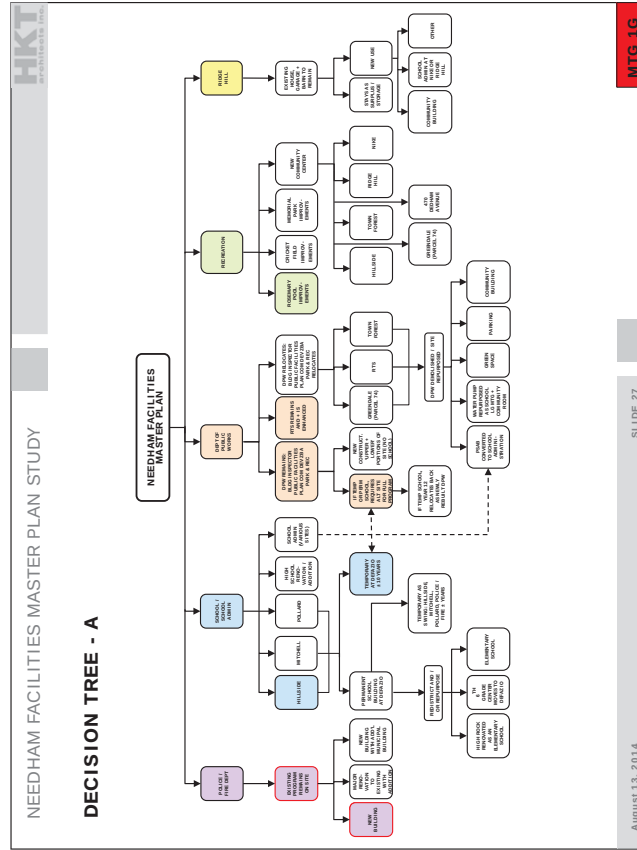
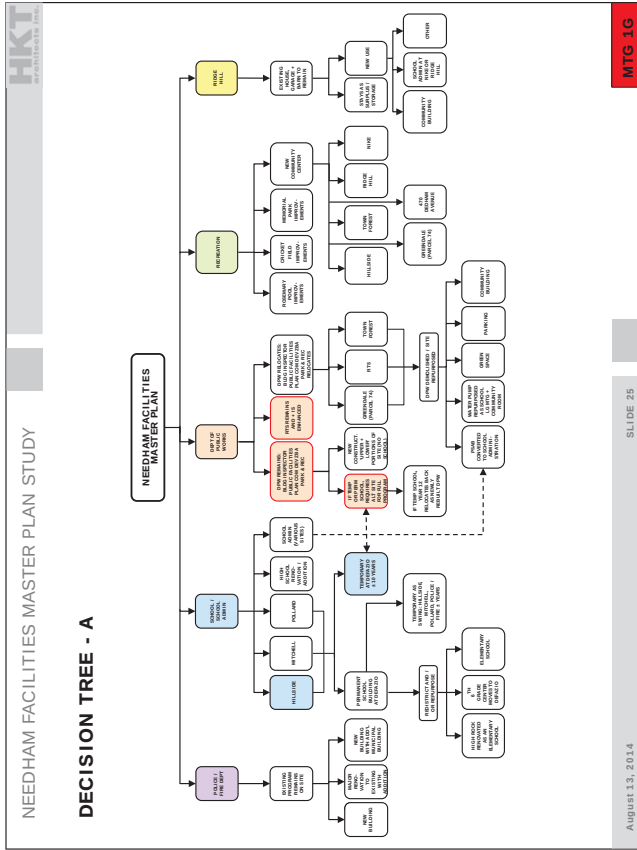
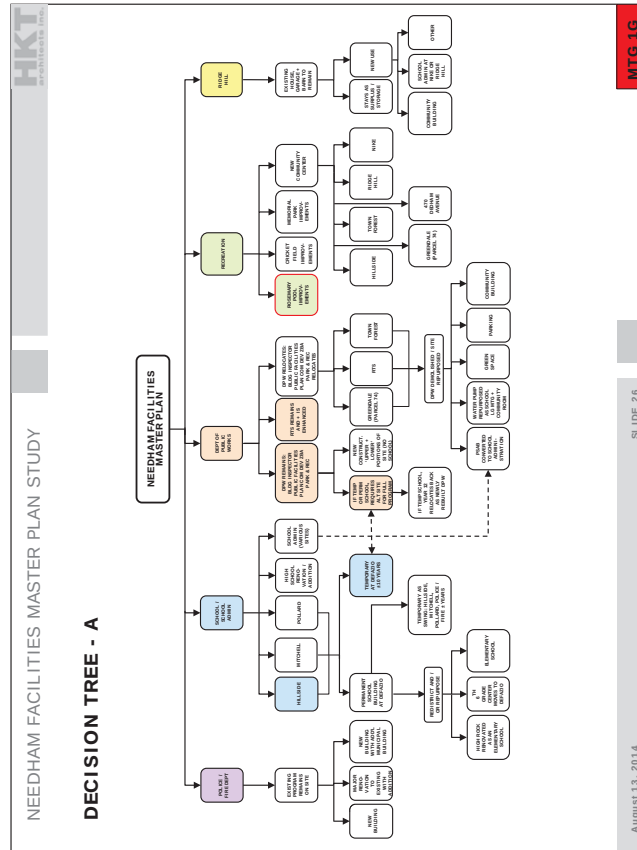
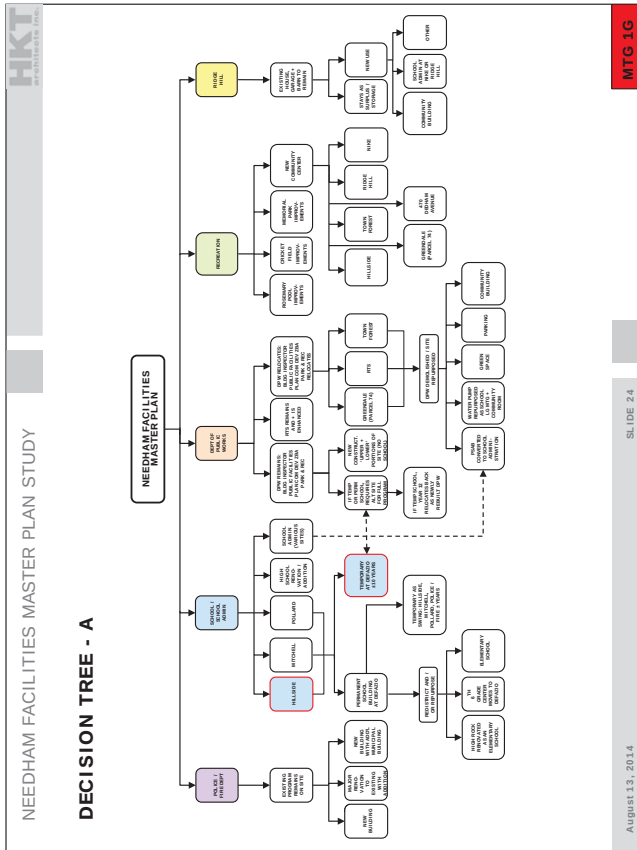
DECISION TREE - A



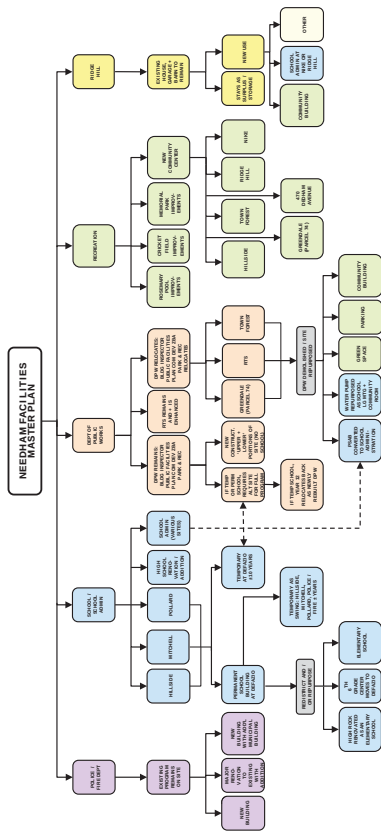
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MTG 1G



DECISION TREE - B

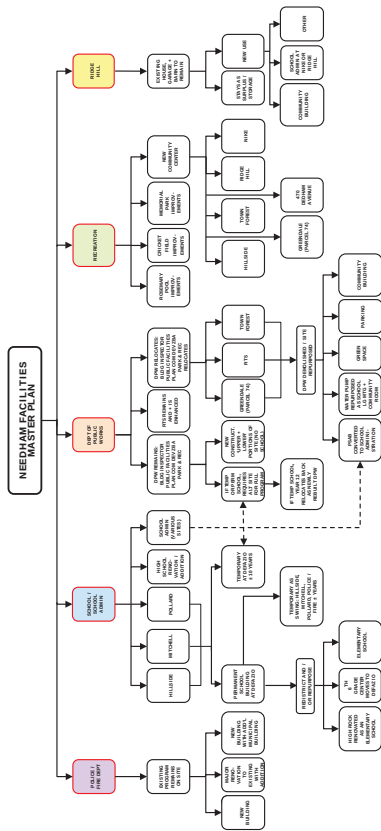


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MTG 1G

DECISION TREE - B

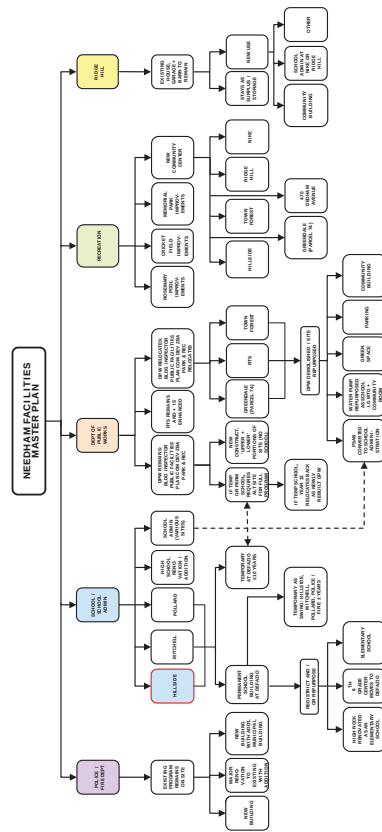


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MTG 1G

DECISION TREE - B

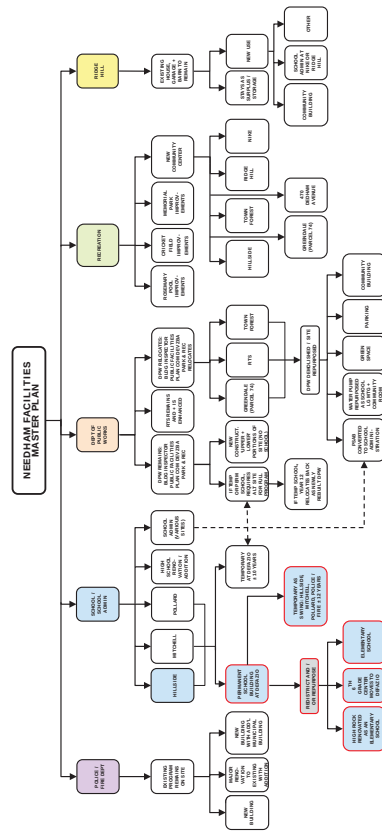


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MTG 1G

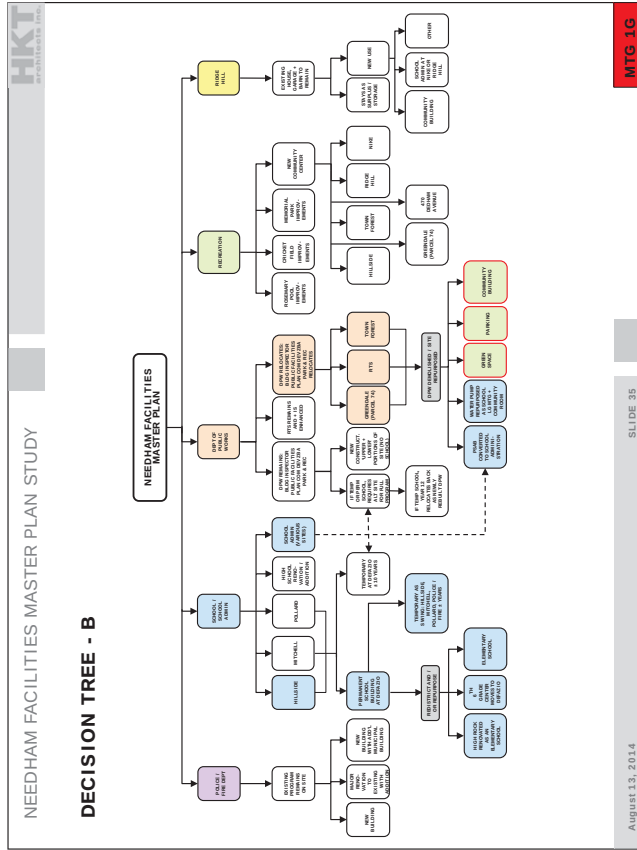
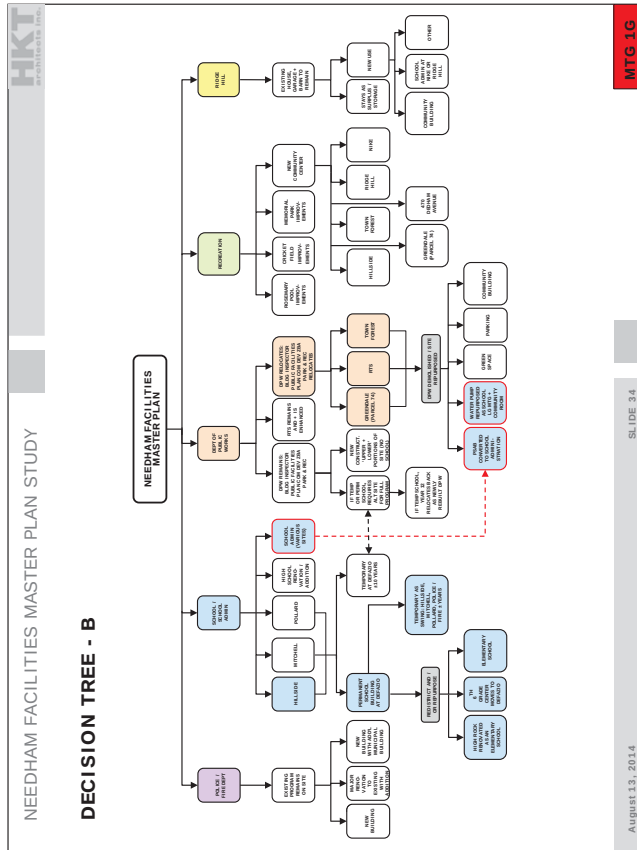
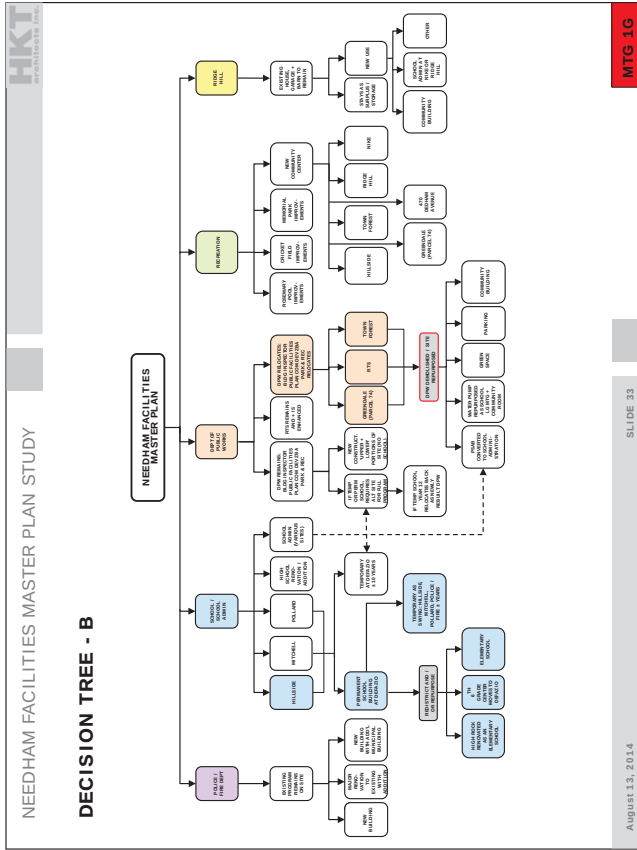
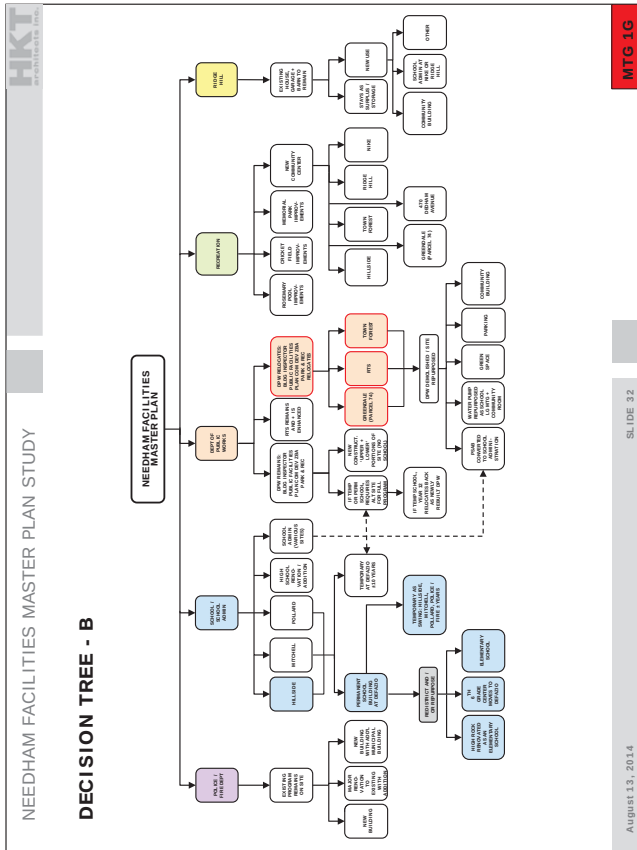
DECISION TREE - B



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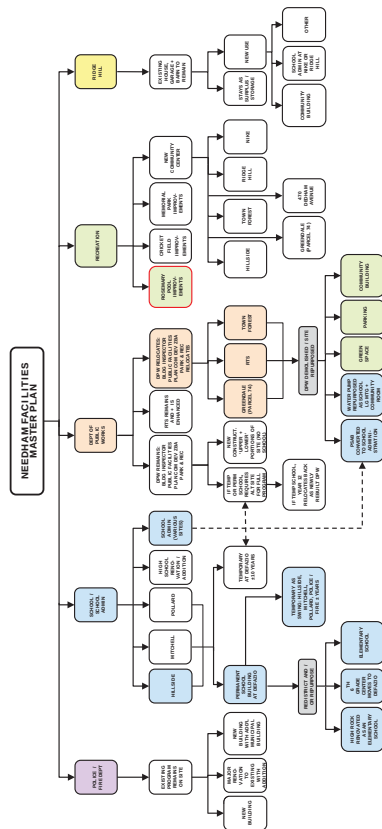
SLIDE 31

MTG 1G



NEEDHAM FACILITIES MASTER PLAN STUDY

DECISION TREE - B



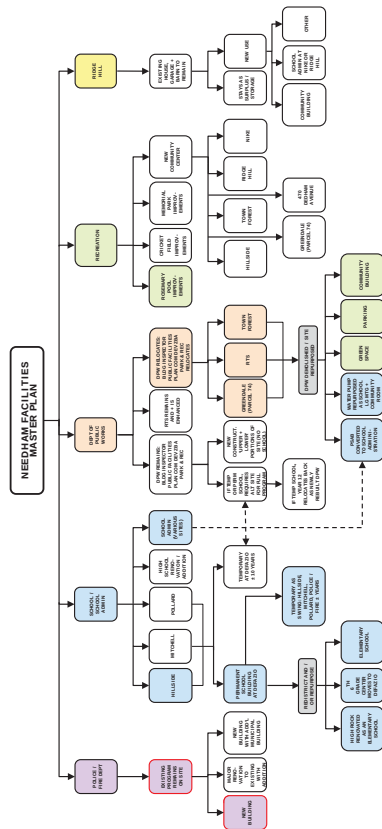
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MTG 1G

NEEDHAM FACILITIES MASTER PLAN STUDY

DECISION TREE - B



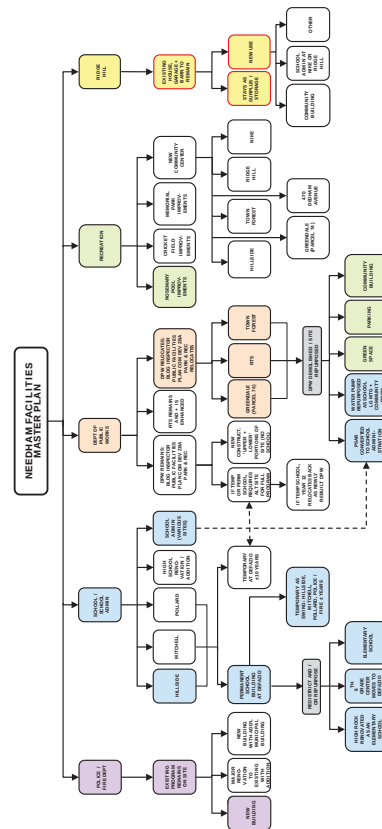
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MTG 1G

NEEDHAM FACILITIES MASTER PLAN STUDY

DECISION TREE - B



August 13, 2014

SLIDE 38

MIG 10

NEEDHAM FACILITIES MASTER PLAN STUDY

TIMELINE

[illegible]

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SLIDE 39

MTG 1G

NEEDHAM FACILITIES MASTER PLAN STUDY

DEVELOPMENT OF PROBABLE COSTS

- All sites/programs will be estimated on a Square Foot basis
- Buildings
- Sites
- Total Project Cost: Construction + 25% Soft Costs + 10% Project Contingency
- DPW at Greendale Ave's site-specific premium costs:
 - Four-story Administration Building, brick exterior
 - Perimeter wrought iron fence at Administration Building
 - Existing water line relocation
 - Brick-face retaining wall at Vehicle Storage

MTG 1G

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SLIDE 40

NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS: PARCEL 74 OPTION

MTG 1G

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NEEDHAM FACILITIES MASTER PLAN STUDY

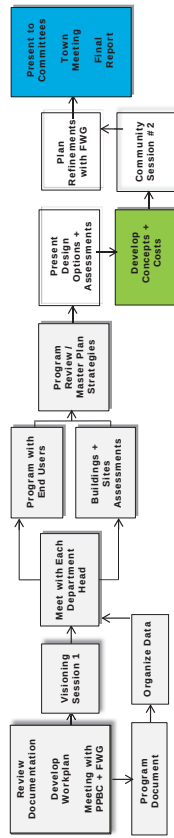
DEVELOPMENT OF PROBABLE COSTS FOR PARCEL 74

Needham Facilities Master Plan Cost Study
Town of Needham, MA
8/7/2014 DRAFT

Item #	Category	Area	Unit	Cost/Unit	Area	Unit	Cost/Unit	Area	Unit	Cost/Unit	Total Cost
1	Administration	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
2	Perimeter Wrought Iron Fence	14,659	LF	1.00	14,659	LF	1.00	14,659	LF	1.00	14,659
3	Water Line Relocation	14,659	LF	1.00	14,659	LF	1.00	14,659	LF	1.00	14,659
4	Brick Face Retaining Wall	14,659	LF	1.00	14,659	LF	1.00	14,659	LF	1.00	14,659
5	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
6	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
7	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
8	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
9	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
10	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
11	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
12	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
13	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
14	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
15	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
16	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
17	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
18	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
19	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
20	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
21	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
22	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
23	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
24	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
25	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
26	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
27	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
28	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
29	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
30	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
31	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
32	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
33	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
34	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
35	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
36	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
37	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
38	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
39	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
40	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
41	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
42	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
43	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
44	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
45	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
46	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
47	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
48	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
49	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
50	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
51	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
52	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
53	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
54	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
55	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
56	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
57	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
58	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
59	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
60	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
61	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
62	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
63	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
64	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
65	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
66	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
67	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
68	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
69	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
70	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
71	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
72	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
73	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
74	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
75	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
76	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
77	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
78	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
79	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
80	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
81	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
82	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
83	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
84	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
85	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
86	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
87	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
88	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
89	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
90	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
91	Vehicle Storage	14,659	SF	22.00	14,659	SF	22.00	14,659	SF	22.00	322,500
92	DPW Admin	14,659	SF	22.00	14,659	SF	22.00	14,65			

NEXT STEPS

- Define + finalize programming documents for Memorial Field + Community Center
- Develop associated costs for projects
- Plan Fall Schedule



August 13, 2014

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MTG 1G



August 13, 2014

THANK YOU

MTG 1G



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Somerville, MA 02143
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MEETING AGENDA

To: Facility Working Group

Date: September 10, 2014

From: HKT Architects, Inc

Project: Needham Facilities
Master Plan

Job No: 21314

Subject: FWG Meeting 1H

AGENDA

The object of Meeting 1H is to update the Facility Working Group on the status of the probable costs, the timeline and the outline of the final report.

1. Update of Schedule
2. Development of Probable Costs
 - a. Individual Project Costs
 - b. Escalation
3. Timeline
4. Outline of Report
5. Next Steps

MEETING MINUTES

Project: Needham Town Master Plan

Meeting Date: September 10, 2014

Time: 7:30 AM

Meeting Location: Powers Hall, Needham Town Hall

Job No: 21314

Meeting Number: Facility Working Group 1H

Report By:

DH, JS

Attending:

- | | |
|---|---|
| ☒ Moe Handel, BOS (MH) | ☐ Philip Droney, Police Dept. (PD) |
| ☒ George Kent, PPBC (GK) | ☒ Chris Baker, Police Dept. (CB) |
| ☒ Jeanne McKnight, Planning BD (JM) | ☐ Paul Buckley, Fire Dept. (PB) |
| ☒ Joe Barnes, School Committee (JB) | ☒ Chip Laffey, PF-Operations, CL) |
| ☒ Matt Toolan, Park & Rec. (MT) | ☒ Patty Carey, Park & Rec. Dept. (PC) |
| ☐ John Connelly, Fin Com, (JC) | ☒ Cynthia Chaston, Park & Rec. Dept. (CC) |
| ☒ Artie Crocker, Con Com, (AC) | ☒ Chris Coleman, Ass't Town Mgr. (CC) |
| ☒ Kate Fitzpatrick, Town Mgr. (KF) | ☐ Dave Davison, Ass't Town Mgr. (DD) |
| ☒ Steve Popper, PF-Construction (SP) | ☒ Matt Varrell, Conservation Dept. (MV) |
| ☒ Hank Haff, PF-Construction (HH) | ☐ John Gallo, YMCA Board (BG) |
| ☒ Rick Merson, DPW, (RM) | ☒ Janet Jankowiak, YMCA (JJ) |
| ☒ Tony DelGaizo, Engineering Dept. (TD) | ☒ Charles Nelson, YMCA (CN) |
| ☒ Lee Newman, Planning & CD, (LN) | ☒ Janet Slemenda, HKT (JS) |
| ☒ Dan Gutekanst, School Dept. (DG) | ☐ Bill Hammer, HKT (BH) |
| ☒ Anne Gulati, School Dept. (AG) | ☒ David Roche, Building Dept. (DR) |
| ☒ Doug Hartig, HKT (DH) | ☒ Bob Lewis, DPW (BL) |
| | ☒ Katy Dirks, Community Center (KL) |

Item		Action
9.01	The agenda for this meeting was to update the Facility Working Group on the status of the nearly complete probable cost estimate, the correlated timeline, as well as a presentation of an outline of the final report. The first item discussed was the probable cost estimates. HKT (JS) in introduction, noted that most estimates are included. Those not included (Memorial Field, RTS Renovations, Fire Station 2 Renovation/Addition) had scopes only recently resolved and will be completed by the estimator. Escalation values are still being finalized.	
9.02	HKT (JS) re-introduced format for the development of probable costs: all sites/programs were estimated using a square foot basis for buildings, a percentage	

for respective sites based on the complexity of that site, premiums for building/site when necessary for clarity, 25% for soft costs and 10% for Project Contingency. (JS) presented overview matrix of sites with total project costs and escalation value from 2015 through 2025.

HKT also provided an updated Master Plan Timeline that now includes projected occupancy dates for some projects, costs for some projects to the mid-point of construction and notes.

(JS) presented each project using the conceptual site plan followed by costs in 2014 dollars. The escalation tables were also presented and highlighted if there was clear idea of when the project might be bid. Bidding costs were selected based on the projected mid-point of construction. Projected costs for the new or temporary schools and Rosemary Pool were supplied by Town based on studies underway.

9.03 School Projects questions:

- (CC) asked: Do the cost for the schools include renovating this swing space between various occupancies? (SP) answered that the costs do not include this amount of detail, and the added costs would be addressed later. (HH) added that the modular schools could have triple use during the rebuilding of Hillside, Mitchell and Pollard Schools. (GK) noted that a premium could be put in the report for this renovation cost. (KF) noted that there is continued cost associated with the spaces. (HH) added that the transition between some types of schools, such as between elementary and middle schools, will require work to add science rooms. A question of priority of use will determine how the swing space is used.
- (DG) asked if School Scenario 1, which is a permanent school, assumes an elementary school only. (KF) answered that there are three types of schools. (SP) noted that for the Master Plan, this level of detail is adequate. (SP) added that the actual school assigned would be defined by a feasibility study. (KF) asked that a note be added that at the High Rock School that reads "Not necessary if not permanent school" in the scenario.
- (KF) noted that the focus should be on the next five years.
- (KF) asked if the existing Vehicle Storage at the current DPW could stay if the DPW moves. (JS) answered yes, and HKT will discuss re-purposing options.
- (AC) asked if there is a price to sell Emery Grover should School Administration be relocated. (HH) responded that there is a \$1.5-2M market estimate and added that and potential buyer would be faced with significant renovation costs.

9.04 DPW project - full and partial DPW at Dedham Ave., at RTS and at Town Forest, questions:

- (SP) asked why the water pump station renovation / connector to PSAB was included. (JS) responded that his space would need to be renovated in either scheme should that DPW remain at Dedham Ave. and that the division that currently resides in that space would be relocated to the new building. One future use of that building that has been identified is as a Meeting Room for

HKT + Town

the Community. (KF) noted that the DPW workers use the space currently as a break and storage room, but there is a need for a real meeting space.

- Discussion of whether all DPW schemes (the same would hold true for each project type) should be presented if the FWG believes they are not viable options. (HH) (KF) et al requested that some of these explored schemes presented which are not viable should go to an appendix. (SP) explained that eventually recommendations will be defined with reasons why the schemes work and why others would not work.
- (HH) asked (JS) if the lay-down area shown on the RTS Renovation / Works plan would fit on Parcel 74. (JS) answered that it is assumed to fit. (KF) added that a lay-down area at RTS could be built even if DPW is moved to Parcel 74, and that work is required at the RTS regardless of where the DPW ends up.

HKT will work with Town to determine which project concepts will appear as viable options in the Executive Summary and in Public Presentation and which concepts will be moved to the section of the report that shows what other options were considered and why they were not recommended.

9.05 Fire and Police Department questions:

- (KF) noted that for each PD/FD option the highlighted portion of the escalation is for 2019, but the projected costs are for 2018. (HH) concurred that 2019 escalation should be used.
- (KF) questioned the graphic depiction of the entire site into break-out projects but not showing a Total Project Cost. (JS) stated that showing a Total Project Cost could be misleading should sites with three buildings be built in phases or not built at all. (MT) suggested assigning break-outs consistent labels such as "1A."
- There were questions on parking counts. (KF) suggested noting net loss of parking when School Admin Building is on the site. (HH) requested that HKT show a number of spaces for parking if/when adjacent land is acquired. (JM) asked if a scheme should show parking on the potential future acquired land. (SP) pointed out that further studies would define the parking in greater detail.
- (DG) suggested clarifying graphics for public review, such as removing arrows and simplifying color schemes.

9.06 Rosemary Pool questions:

- (KF) asked why is the cost shown is \$10M. (HH) answered that the larger cost of two studies was supplied to HKT Architects.
- (JM) asked why there is such a long study time listed for Rosemary Pool, when studies have already been completed. (HH) answered that the permitting process will likely take up this time. HKT to alter Rosemary Pool listed "Study" phase to "Schematic and Permitting".

9.07 Ice Rink scheme question:

- Was clean-up of this site included in the estimate? (JS) answered that \$0.5M was included for clean-up as a placeholder. HKT is working with DPW to determine if any hard number exists for potential work.

- 9.08 In closing remarks, (JS) asked that participants review and offer additional suggestions or additions. Some final thoughts and suggestions included:
- (MT) suggested including land swap areas and costs to HKT report, in preparation for October 22nd meeting. (KF) added that defined land swaps are important to the presentation of the recommendations. All agreed that the narrative is important to convey reasoning.
 - (JB) suggested calling the direction a “recommended pathway.” (SP) and (HH) to work on land swap information for the Master Plan so that this information can be included in future presentations.
- 9.09 HKT (JS) presented a draft outline of the final report / Master Plan. The report will be in three parts. Volume 1 includes the Executive Summary, Needs Assessment and Programming, Matrix, Decision Tree, Timeline and Probable Cost Development and Final Planning Options and Recommendations. Volume 2 will include Supplemental Drawings and Charts. Volume 3 will be an Appendices and will include copies of all documents produced during the study and the Debt Analysis Summary. (JS) requested comment to be relayed though (SP) and (HH).
- 9.10 An additional FWG Meeting has been scheduled: October 8, 2014 – 7:30 – 9:00am
Schedule of other future meetings:
- All Boards: October 22, 2014 - 7:00pm
 - PPBC/Community Meeting #2: Either November 10th or 24th, 2014 – 7:30pm



SEPTEMBER 10, 2014

NEEDHAM FACILITIES MASTER PLAN STUDY



HKT
architects inc.



Municipal Resources, Inc.



PARE
CORPORATION



samiotest



TCI

MTG 1H

NEEDHAM FACILITIES MASTER PLAN STUDY

AGENDA: FACILITY WORKING GROUP – MEETING 1H

- Schedule
- Process for Development of Cost Estimates
- Timeline
- Outline of Report
- Next Steps








MTG 1H

NEEDHAM FACILITIES MASTER PLAN STUDY

FWG SCHEDULE + OBJECTIVES

- September Mtg.1H: *Additional FWG Scheduled for October 8, 2014*
 - Probable Costs Discussion + FWG Comments and Recommendations
- October Mtgs. With Town Personnel:
 - Financial Impact

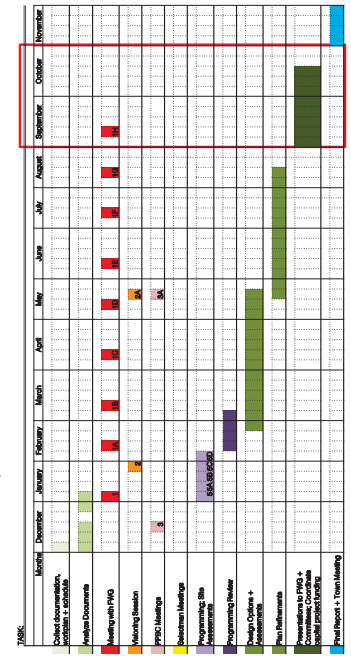
MTG 1H

NEEDHAM FACILITIES MASTER PLAN STUDY

PRESENTATION OF COSTS + TIMELINE

- Development of Cost Estimates
- Timeline
- Outline of Report

MTG 1H



NEEDHAM FACILITIES MASTER PLAN STUDY

DEVELOPMENT OF PROBABLE COSTS: PERMANENT SCHOOL AT DEFAZIO PARK: Estimate to Mid-Point of Construction - 2018

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	PERMANENT SCHOOL AT DEFAZIO PARK	83,200			\$48,003,000	\$577

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$50,883,180	\$53,036,171	\$55,985,745	\$58,113,204	\$60,321,505	\$62,613,723	\$64,993,044	\$67,462,780	\$70,026,365	\$72,687,367	\$75,449,487

SEPTEMBER 10, 2014

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MTG 1H

NEEDHAM FACILITIES MASTER PLAN STUDY

DEVELOPMENT OF PROBABLE COSTS: NEW SCHOOL AT HILLSIDE: Estimate to Mid-Point of Construction - 2018

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	NEW SCHOOL AT HILLSIDE	80,650			\$43,687,000	\$542

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$46,308,220	\$49,086,713	\$50,952,008	\$52,888,185	\$54,897,936	\$56,984,057	\$59,149,451	\$61,397,131	\$63,730,221	\$66,151,970	\$68,665,745

SEPTEMBER 10, 2014

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MTG 1H

NEEDHAM FACILITIES MASTER PLAN STUDY

TEMPORARY SCHOOL AT DEFAZIO PARK

DEVELOPMENT OF PROBABLE COSTS: TEMPORARY SCHOOL AT DEFAZIO PARK: Estimate to Mid-Point of Construction - 2017

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	TEMPORARY SCHOOL AT DEFAZIO PARK				\$17,234,908	

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$18,269,002	\$19,385,143	\$20,101,018	\$20,864,857	\$21,657,721	\$22,480,715	\$23,334,982	\$24,221,711	\$25,142,136	\$26,097,537	\$27,089,244

SEPTEMBER 10, 2014

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MTG 1H

NEEDHAM FACILITIES MASTER PLAN STUDY

TEMPORARY SCHOOL AT DEFAZIO PARK

DEVELOPMENT OF PROBABLE COSTS: TEMPORARY SCHOOL AT DEFAZIO PARK: Estimate to Mid-Point of Construction - 2017

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	TEMPORARY SCHOOL AT DEFAZIO PARK				\$17,234,908	

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$18,269,002	\$19,385,143	\$20,101,018	\$20,864,857	\$21,657,721	\$22,480,715	\$23,334,982	\$24,221,711	\$25,142,136	\$26,097,537	\$27,089,244

SEPTEMBER 10, 2014

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MTG 1H

NEEDHAM FACILITIES MASTER PLAN STUDY										HKT architects inc.	
DEVELOPMENT OF PROBABLE COSTS: HIGH SCHOOL: Estimate to Mid-Point of Construction - 2016										HKT architects inc.	
Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF	Total Project Cost YR 2014		
RENOVATIONS AT HIGH SCHOOL										\$4,000,000	
10 Year Escalated Costs											
2015	2016	2017	2018	2019	2020	2021	2022	2023	2025		
\$4,240,000	\$4,494,400	\$4,661,187	\$4,842,464	\$5,026,478	\$5,217,484	\$5,415,749	\$5,621,547	\$5,835,166	\$6,056,902	\$6,287,064	
SEPTEMBER 10, 2014										DRAFT	
MTG 1H											

NEEDHAM FACILITIES MASTER PLAN STUDY										HKT architects inc.	
DEVELOPMENT OF PROBABLE COSTS: HIGH ROCK RENOVATION / ADDITION: Project not necessary if a Permanent School is not constructed; Estimate to Mid-Point of Construction – 2019										HKT architects inc.	
Item #	Project	SF Estimated	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF	Total Project Cost YR 2014		
RENOVATION/ADDITION AT HIGH ROCK SCHOOL										\$429	
10 Year Escalated Costs											
2015	2016	2017	2018	2019	2020	2021	2022	2023	2025		
\$3,180,000	\$3,370,600	\$3,498,690	\$3,631,848	\$3,769,656	\$3,913,113	\$4,061,611	\$4,216,160	\$4,376,374	\$4,542,676	\$4,715,298	
SEPTEMBER 10, 2014										DRAFT	
MTG 1H											

NEEDHAM FACILITIES MASTER PLAN STUDY										HKT architects inc.	
DEVELOPMENT OF PROBABLE COSTS: RELOCATION OF SCHOOL ADMINISTRATION TO PSAB; Renovation of Pump Station Building + Additional Parking: 2014 Costs; Construction Date to be Determined										HKT architects inc.	
Items #6 + 7	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF	Total Project Cost YR 2014		
PSAB + PUMP BLDG RENO + PARKING										\$5,202,023	
LIGHT RENOVATIONS AT PSAB										\$50	
PUMP STATION MEETING ROOM / CONNECTOR										\$280	
DEMOLISH DPW + SITE CLEANUP										\$1,373,625	
ADDITIONAL PARKING										\$1,035,450	
10 Year Escalated Costs											
2015	2016	2017	2018	2019	2020	2021	2022	2023	2025		
\$5,534,145	\$5,844,993	\$6,067,103	\$6,297,653	\$6,536,963	\$6,785,368	\$7,043,212	\$7,310,854	\$7,586,667	\$7,877,036	\$8,176,363	
\$1,558,145	\$1,651,634	\$1,714,396	\$1,779,543	\$1,847,165	\$1,917,358	\$1,990,217	\$2,065,845	\$2,144,348	\$2,225,833	\$2,310,414	
\$1,402,380	\$1,486,523	\$1,543,011	\$1,601,645	\$1,662,508	\$1,725,683	\$1,791,259	\$1,859,327	\$1,929,981	\$2,003,320	\$2,079,446	
\$1,456,643	\$1,543,405	\$1,602,054	\$1,662,932	\$1,726,124	\$1,791,717	\$1,859,802	\$1,930,474	\$2,003,832	\$2,079,978	\$2,159,017	
\$1,097,677	\$1,163,432	\$1,207,642	\$1,253,532	\$1,301,166	\$1,350,610	\$1,401,933	\$1,455,206	\$1,510,604	\$1,567,903	\$1,627,483	
SEPTEMBER 10, 2014										DRAFT	
MTG 1H											

NEEDHAM FACILITIES MASTER PLAN STUDY										HKT architects inc.	
RELOCATION OF SCHOOL ADMINISTRATION TO PSAB; Renovation of Pump Station Building + Additional Parking										HKT architects inc.	
											
SEPTEMBER 10, 2014										DRAFT	
MTG 1H											

NEEDHAM FACILITIES MASTER PLAN STUDY

EMERY GROVER SCHOOL ADMINISTRATION RENOVATION

SEPTMBER 10, 2014

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TOTAL PARKING AS SHOWN: 72

MTG 1H

NEEDHAM FACILITIES MASTER PLAN STUDY

DEVELOPMENT OF PROBABLE COSTS: EMERY GROVER SCHOOL ADMINISTRATION RENOVATION: 2014 Costs; Construction Date to be Determined

Item #16	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	EMERY GROVER RENOVATION	21,235	\$7,920,000	\$373	\$10,692,000	\$504

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$11,333,520	\$12,013,631	\$12,470,045	\$12,943,907	\$13,435,775	\$13,946,334	\$14,476,295	\$15,026,394	\$15,597,397	\$16,190,098	\$16,805,322

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NEEDHAM FACILITIES MASTER PLAN STUDY

SCHOOL ADMINISTRATION AT NIKE SITE

SEPTMBER 10, 2014

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MTG 1H

NEEDHAM FACILITIES MASTER PLAN STUDY

DEVELOPMENT OF PROBABLE COSTS: SCHOOL ADMINISTRATION AT NIKE SITE: 2014 Costs; Construction Date to be Determined

Item #12	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	SCHOOL ADMINISTRATION RELOCATES TO NIKE SITE	20,000	\$7,680,000	\$384	\$10,368,000	\$518

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$10,990,080	\$11,649,485	\$12,092,165	\$12,551,667	\$13,028,630	\$13,523,718	\$14,037,619	\$14,571,049	\$15,124,749	\$15,699,489	\$16,296,070

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DEPARTMENT OF PUBLIC WORKS: NEW CONSTRUCTION FOR FULL PROGRAM AT DEDHAM AVE



SEPTEMBER 10, 2014

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TOTAL DPW PARKING AS SHOWN IN PROGRAM - 113

MTG 1H

DEPARTMENT OF PUBLIC WORKS: NEW CONSTRUCTION OF PARTIAL PROGRAM AT DEDHAM AVE: Does not include development costs for remainder of program that would need to be constructed in another location. Will require additional site access requirement considerations/cost with school development at Defazio.



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TOTAL DPW PARKING AS SHOWN IN PROGRAM - 113

MTG 1H

DEVELOPMENT OF PROBABLE COSTS: DEPARTMENT OF PUBLIC WORKS: NEW CONSTRUCTION FOR FULL PROGRAM AT DEDHAM AVE: 2014 Costs:
Construction Date to be Determined

Item #4	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	DEDHAM AVE - DPW FULL PROGRAM	85,332	\$24,589,587	\$288	\$33,195,942	\$389

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$35,187,699	\$37,298,981	\$38,716,322	\$40,187,542	\$41,714,689	\$43,299,826	\$44,945,219	\$46,653,137	\$48,425,956	\$50,266,142	\$52,176,255

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DEVELOPMENT OF PROBABLE COSTS: DEPARTMENT OF PUBLIC WORKS: NEW CONSTRUCTION OF PARTIAL PROGRAM AT DEDHAM AVE: 2014 Costs:
Construction Date to be Determined

Item #5	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	DEDHAM AVE - DPW PARTIAL PROGRAM		\$18,893,335 total		\$25,506,002 total	
	DPW	57,534	\$17,913,335	\$311	\$24,183,002	\$420
	PUMP STATION MEETING ROOM / CONNECTOR	3,500	\$980,000	\$280	\$1,323,000	\$378

Does not include development costs for remainder of program that would need to be constructed in another location. Will require additional site access requirement considerations/cost with school development at Defazio.

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$27,035,382	\$28,560,544	\$29,747,569	\$30,877,576	\$32,051,339	\$33,269,290	\$34,533,523	\$35,845,797	\$37,207,937	\$38,621,839	\$40,089,469
	\$25,633,982	\$27,172,021	\$28,204,558	\$29,276,331	\$30,386,832	\$31,543,608	\$32,742,805	\$33,986,471	\$35,277,957	\$36,618,519	\$38,010,923
	\$1,402,880	\$1,486,523	\$1,543,011	\$1,601,645	\$1,662,508	\$1,725,683	\$1,791,219	\$1,859,327	\$1,929,981	\$2,003,320	\$2,079,446

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NEEDHAM FACILITIES MASTER PLAN STUDY

DEVELOPMENT OF PROBABLE COSTS: DEPARTMENT OF PUBLIC WORKS AT PARCEL 74 / GREENDALE AVE.: Estimate to Mid-Point of Construction dependent on decision to build Temporary (2017) or Permanent (2018) School

Item #1	SF	Project	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
DPW AT PARCEL 74 / GREENDALE AVE	92,442		\$29,163,506	\$315	\$39,370,733	\$426

10 Year Escalated Costs

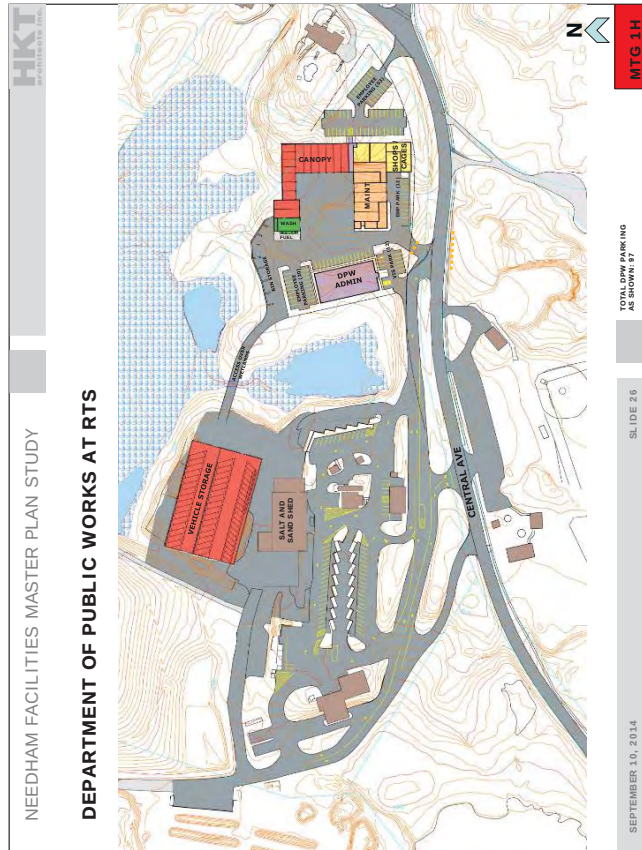
2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$41,732,977	\$44,236,956	\$46,917,960	\$47,602,842	\$49,474,030	\$51,354,043	\$53,305,497	\$55,331,106	\$57,433,688	\$59,616,188	\$61,881,582

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NEEDHAM FACILITIES MASTER PLAN STUDY

DEVELOPMENT OF PROBABLE COSTS: DEPARTMENT OF PUBLIC WORKS: WORK AT RTS: Estimate to Mid-Point of Construction dependent on decision to build Temporary (2017) or Permanent (2018) School

Item #2	SF	Project	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
DPW RTS OPTION 4	91,229		\$29,490,484	\$323	\$39,812,153	\$436

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$42,200,882	\$44,732,935	\$46,432,787	\$48,197,233	\$50,028,728	\$51,929,820	\$53,903,153	\$55,951,473	\$58,077,629	\$60,284,579	\$62,575,393

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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PROBABLE COSTS: DEPARTMENT OF PUBLIC WORKS
AT TOWN FOREST: Estimate to Mid-Point of Construction dependent on decision
to build Temporary (2017) Permanent (2018) School

Item #3	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	DPW TOWN AT FOREST	89,831	\$29,433,696	\$328	\$39,735,490	\$442

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$42,119,619	\$44,646,796	\$46,343,374	\$48,104,422	\$49,932,390	\$51,829,821	\$53,799,354	\$55,843,729	\$57,965,791	\$60,168,491	\$62,454,894

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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS AT TOWN FOREST

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NEEDHAM FACILITIES MASTER PLAN STUDY

NEW POLICE/FIRE OPTION 1 + RELOCATED SCHOOL ADMINISTRATION

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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS AT RTS - RENOVATIONS: Estimate in process

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DEVELOPMENT OF PROBABLE COSTS: NEW POLICE/FIRE OPTION 1 + RELOCATED SCHOOL ADMINISTRATION: Estimate to Mid-Point of Construction for FD/PPD only - 2019

Item #6	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	POLICE/FIRE SITE OPTION 1 WITH SCHOOL ADMIN		\$30,221,175		\$40,798,586	
	POLICE / FIRE STATION	53,238	\$22,476,475	\$422	\$30,343,241	\$570
	SCHOOL ADMIN	23,000	\$7,744,700	\$337	\$10,455,345	\$455

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$43,246,501	\$45,841,201	\$47,583,260	\$49,301,424	\$51,268,298	\$53,216,494	\$55,238,720	\$57,337,792	\$59,516,628	\$61,778,260	\$64,125,834
	\$32,163,835	\$34,093,665	\$35,389,224	\$36,734,015	\$38,129,808	\$39,578,845	\$41,082,841	\$42,643,989	\$44,264,401	\$45,946,511	\$47,692,476
	\$11,082,666	\$11,747,626	\$12,194,036	\$12,657,409	\$13,138,391	\$13,637,650	\$14,155,881	\$14,693,804	\$15,252,189	\$15,831,751	\$16,433,358

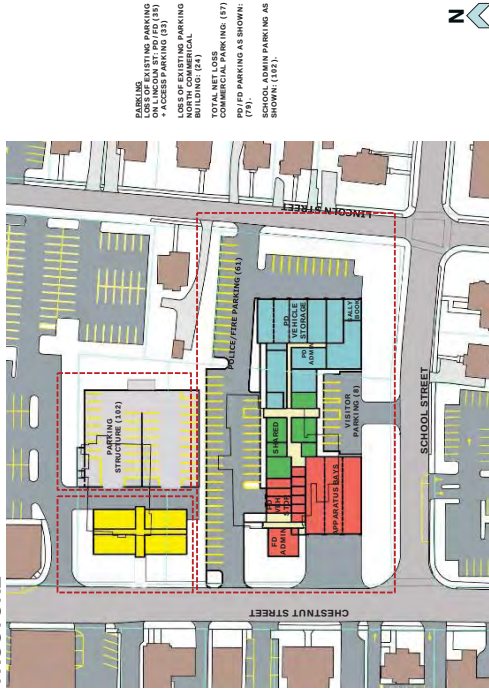
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NEW POLICE/FIRE OPTION 2 + RELOCATED SCHOOL ADMINISTRATION + PARKING STRUCTURE



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DEVELOPMENT OF PROBABLE COSTS: NEW POLICE/FIRE OPTION 2 + RELOCATED SCHOOL ADMINISTRATION + PARKING STRUCTURE: Estimate to Mid-Point of Construction for FD/PPD only - 2019

Item #9	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	POLICE/FIRE SITE OPTION 2 WITH SCHOOL ADMIN & PARKING STRUCTURE	71,675	\$30,183,938	\$421	\$40,748,316	\$569
	POLICE / FIRE STATION	50,875	\$21,588,638	\$424	\$29,144,661	\$573
	SCHOOL ADMIN	20,800	\$6,988,800	\$336	\$9,434,880	\$454
	PARKING STRUCTURE		\$1,606,500		\$2,168,775	

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$43,193,215	\$45,784,808	\$47,524,631	\$49,300,667	\$51,205,128	\$53,150,923	\$55,170,658	\$57,267,143	\$59,443,294	\$61,702,140	\$64,046,821
	\$30,893,341	\$32,746,941	\$33,991,325	\$35,282,095	\$36,623,749	\$38,015,451	\$39,460,038	\$40,959,519	\$42,515,981	\$44,131,588	\$45,808,588
	\$10,000,973	\$10,601,031	\$11,093,270	\$11,422,017	\$11,656,054	\$12,066,584	\$12,774,234	\$13,259,655	\$13,763,522	\$14,286,536	\$14,828,424
	\$2,398,902	\$2,436,836	\$2,529,436	\$2,625,555	\$2,725,326	\$2,828,888	\$2,936,386	\$3,047,969	\$3,163,792	\$3,284,016	\$3,408,809

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NEW POLICE/FIRE: OPTION 3 - STAND ALONE



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DEVELOPMENT OF PROBABLE COSTS: NEW POLICE/FIRE OPTION 3 - STAND ALONE: Estimate to Mid-Point of Construction - 2019

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	POLICE/FIRE SITE OPTION 3 – STAND ALONE	51,604	\$21,960,150	\$426	\$29,646,203	\$574

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$31,424,475	\$33,310,474	\$34,576,272	\$35,890,170	<u>\$37,253,986</u>	\$38,669,648	\$40,139,095	\$41,664,381	\$43,247,627	\$44,891,037	\$46,596,996

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NEEDHAM FACILITIES MASTER PLAN STUDY

**DEVELOPMENT OF PROBABLE COSTS: POLICE/FIRE OPTION 4
RENOVATION/ADDITION: Estimate to Mid-Point of Construction - 2019**

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	POLICE/FIRE SITE OPTION 4 - RENO/ADDITION	46,844	\$14,097,738	\$301	\$19,031,946	\$406

10 Year Escalated Costs

20 Year Expected Costs											
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$20,173,863	\$21,384,295	\$22,146,896	\$23,040,380	<u>\$23,915,914</u>	\$24,624,719	\$25,768,058	\$26,747,244	\$27,765,639	\$28,818,657	\$29,913,766

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POLICE/FIRE OPTION 4 RENOVATION / ADDITION



PARKING
LOS OF EXISTING PARKING
NORTH COMMERCIAL
BUILDING: (24)

TOTAL NET LOSS
COMMERCIAL PARKING: (24)

PO/ FD PARKING AS SHOWN:
(82)

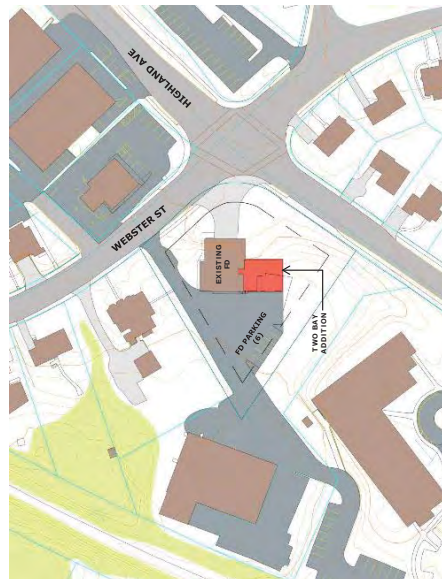
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NEEDHAM FACILITIES MASTER PLAN STUDY

FIRE STATION 2 RENOVATIONS + ADDITION: Estimate in process



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NEEDHAM FACILITIES MASTER PLAN STUDY

DEVELOPMENT OF PROBABLE COSTS: ROSEMARY POOL: Estimate to Mid-Point of Construction - 2017

Item #	Project	SF	Construction Cost	\$ / SF	Total Project Cost YR 2014	\$ / SF
	ROSEMARY POOL				\$8,778,869	

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$9,305,601	\$9,863,937	\$10,238,787	\$10,627,840	\$11,031,698	\$11,450,902	\$11,886,037	\$12,337,706	\$12,806,539	\$13,293,187	\$13,798,329

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NEEDHAM FACILITIES MASTER PLAN STUDY

ROSEMARY POOL

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NEEDHAM FACILITIES MASTER PLAN STUDY

NEW BUILDING AT MEMORIAL PARK: Estimate in process

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NEEDHAM FACILITIES MASTER PLAN STUDY

RENOVATION OF MEMORIAL PARK BUILDING: Estimate in process

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COMMUNITY CENTER AT NIKE SITE



SEPTEMBER 10, 2014

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MTG 1H

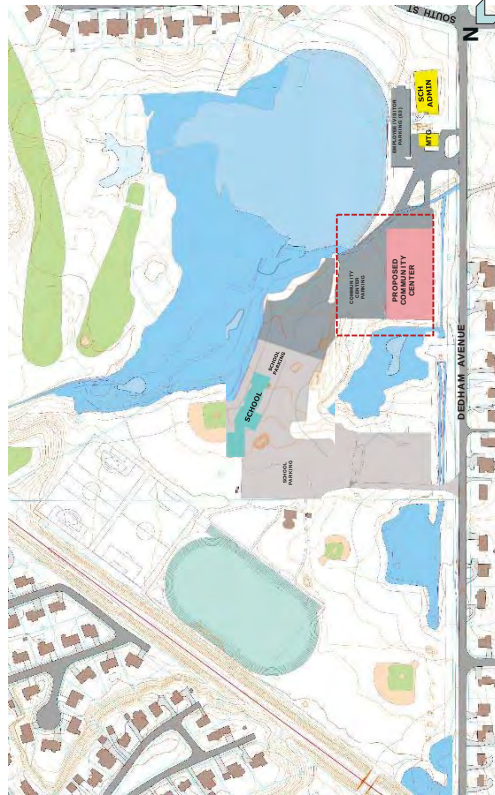
DEVELOPMENT OF PROBABLE COSTS: COMMUNITY CENTER AT NIKE SITE:
2014 Costs; Construction Date to be Determined

Item #14	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	COMMUNITY CENTER AT NIKE SITE	62,000	\$26,053,750	\$420	\$35,172,563	\$567

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$37,282,917	\$39,519,892	\$41,021,648	\$42,560,471	\$44,198,529	\$45,878,073	\$47,621,440	\$49,431,055	\$51,309,435	\$53,259,194	\$55,283,043

COMMUNITY CENTER AT DEDHAM AVE



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DEVELOPMENT OF PROBABLE COSTS: COMMUNITY CENTER AT DEDHAM
AVE: 2014 Costs; Construction Date to be Determined

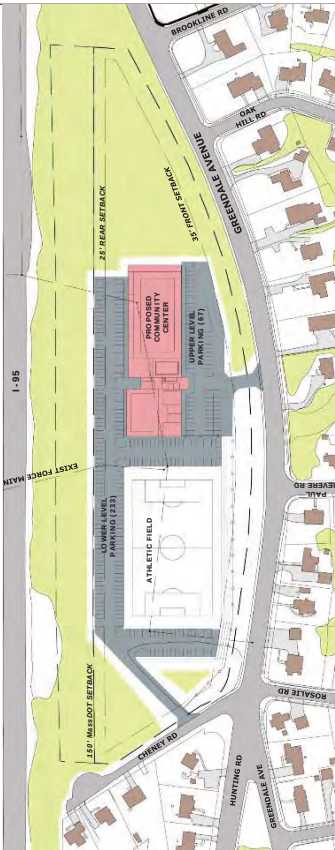
Item #6	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	COMMUNITY CENTER AT DEDHAM AVE.	60,000	\$23,730,000	\$396	\$32,035,500	\$534

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$33,957,630	\$35,995,088	\$37,362,901	\$38,782,691	\$40,256,433	\$41,786,177	\$43,374,052	\$45,022,266	\$46,733,112	\$48,508,970	\$50,352,311

NEEDHAM FACILITIES MASTER PLAN STUDY

COMMUNITY CENTER AT PARCEL 74 / GREENDALE AVE



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NEEDHAM FACILITIES MASTER PLAN STUDY

DEVELOPMENT OF PROBABLE COSTS: COMMUNITY CENTER AT PARCEL 74 / GREENDALE AVE: 2014 Costs; Construction Date to be Determined

Item #13	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	COMMUNITY CENTER AT PARCEL 74 / GREENDALE AVE	62,000	\$25,530,000	\$412	\$34,465,500	\$556

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$36,533,430	\$38,725,436	\$40,197,003	\$41,724,489	\$43,310,020	\$44,955,601	\$46,664,121	\$48,437,358	\$50,277,978	\$52,188,541	\$54,171,706

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NEEDHAM FACILITIES MASTER PLAN STUDY

ICE RINK AT 470 DEDHAM AVE



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NEEDHAM FACILITIES MASTER PLAN STUDY

DEVELOPMENT OF PROBABLE COSTS: ICE RINK AT 470 DEDHAM AVE: 2014 Costs; Construction Date to be Determined

Item #15	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	DEDHAM AVE ICE RINK	35,272	\$9,170,060	\$260	\$12,379,581	\$351

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$13,122,356	\$13,909,697	\$14,438,265	\$14,986,919	\$15,556,422	\$16,147,566	\$16,761,174	\$17,398,099	\$18,059,227	\$18,745,478	\$19,457,806

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NEEDHAM FACILITIES MASTER PLAN STUDY

DEVELOPMENT OF PROBABLE COSTS: ICE RINK AT TOWN FOREST: 2014
Costs; Construction Date to be Determined

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	TOWN FOREST ICE RINK	35,272	\$9,182,780	\$260	\$12,396,753	\$351

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$13,140,558	\$13,928,992	\$14,458,293	\$14,986,919	\$15,007,709	\$15,578,001	\$16,169,985	\$16,784,424	\$17,422,232	\$18,084,277	\$18,771,480

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NEEDHAM FACILITIES MASTER PLAN STUDY

ICE RINK AT TOWN FOREST

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NEEDHAM FACILITIES MASTER PLAN STUDY

DRAFT TIMELINE

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	TOWN FOREST ICE RINK	35,272	\$9,182,780	\$260	\$12,396,753	\$351

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$13,140,558	\$13,928,992	\$14,458,293	\$14,986,919	\$15,007,709	\$15,578,001	\$16,169,985	\$16,784,424	\$17,422,232	\$18,084,277	\$18,771,480

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NEEDHAM FACILITIES MASTER PLAN STUDY

DRAFT TIMELINE

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	TOWN FOREST ICE RINK	35,272	\$9,182,780	\$260	\$12,396,753	\$351

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$13,140,558	\$13,928,992	\$14,458,293	\$14,986,919	\$15,007,709	\$15,578,001	\$16,169,985	\$16,784,424	\$17,422,232	\$18,084,277	\$18,771,480

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Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
1	School Summary 1: Construction of Primary School at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
2	School Summary 2: Construction of Intermediate School at Belmont Park	20,000	\$2,000,000	\$100	\$2,000,000	\$100
3	School Summary 3: Construction of High School at Belmont Park	30,000	\$3,000,000	\$100	\$3,000,000	\$100
4	School Summary 4: Construction of Community Center at Belmont Park	15,000	\$1,500,000	\$100	\$1,500,000	\$100
5	School Summary 5: Construction of Library at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
6	School Summary 6: Construction of Gymnasium at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
7	School Summary 7: Construction of Art Studio at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
8	School Summary 8: Construction of Music Room at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
9	School Summary 9: Construction of Computer Lab at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
10	School Summary 10: Construction of Cafeteria at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
11	School Summary 11: Construction of Restroom at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
12	School Summary 12: Construction of Storage Room at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
13	School Summary 13: Construction of Office at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
14	School Summary 14: Construction of Maintenance Shop at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
15	School Summary 15: Construction of Janitor's Closet at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
16	School Summary 16: Construction of Entry at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
17	School Summary 17: Construction of Lobby at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
18	School Summary 18: Construction of Reception at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
19	School Summary 19: Construction of Waiting Area at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
20	School Summary 20: Construction of Ticket Booth at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
21	School Summary 21: Construction of Concessions at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
22	School Summary 22: Construction of Merchandise Booth at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
23	School Summary 23: Construction of Gift Shop at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
24	School Summary 24: Construction of Bookstore at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
25	School Summary 25: Construction of Cafe at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
26	School Summary 26: Construction of Restaurant at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
27	School Summary 27: Construction of Bar at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
28	School Summary 28: Construction of Lounge at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
29	School Summary 29: Construction of Game Room at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
30	School Summary 30: Construction of Arcade at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
31	School Summary 31: Construction of Billiard Room at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
32	School Summary 32: Construction of Bowling Alley at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
33	School Summary 33: Construction of Pool Hall at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
34	School Summary 34: Construction of Dance Studio at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
35	School Summary 35: Construction of Theater at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
36	School Summary 36: Construction of Auditorium at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
37	School Summary 37: Construction of Concert Hall at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
38	School Summary 38: Construction of Music Theater at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
39	School Summary 39: Construction of Opera House at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
40	School Summary 40: Construction of Grand Theater at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
41	School Summary 41: Construction of Ballroom at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
42	School Summary 42: Construction of Banquet Hall at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
43	School Summary 43: Construction of Reception Hall at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
44	School Summary 44: Construction of Wedding Chapel at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
45	School Summary 45: Construction of Chapel at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
46	School Summary 46: Construction of Church at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
47	School Summary 47: Construction of Synagogue at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
48	School Summary 48: Construction of Mosque at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
49	School Summary 49: Construction of Temple at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
50	School Summary 50: Construction of Shrine at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
51	School Summary 51: Construction of Monastery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
52	School Summary 52: Construction of Convent at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
53	School Summary 53: Construction of Nunnery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
54	School Summary 54: Construction of Abbey at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
55	School Summary 55: Construction of Priory at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
56	School Summary 56: Construction of Monastery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
57	School Summary 57: Construction of Convent at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
58	School Summary 58: Construction of Nunnery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
59	School Summary 59: Construction of Abbey at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
60	School Summary 60: Construction of Priory at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
61	School Summary 61: Construction of Monastery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
62	School Summary 62: Construction of Convent at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
63	School Summary 63: Construction of Nunnery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
64	School Summary 64: Construction of Abbey at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
65	School Summary 65: Construction of Priory at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
66	School Summary 66: Construction of Monastery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
67	School Summary 67: Construction of Convent at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
68	School Summary 68: Construction of Nunnery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
69	School Summary 69: Construction of Abbey at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
70	School Summary 70: Construction of Priory at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
71	School Summary 71: Construction of Monastery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
72	School Summary 72: Construction of Convent at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
73	School Summary 73: Construction of Nunnery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
74	School Summary 74: Construction of Abbey at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
75	School Summary 75: Construction of Priory at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
76	School Summary 76: Construction of Monastery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
77	School Summary 77: Construction of Convent at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
78	School Summary 78: Construction of Nunnery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
79	School Summary 79: Construction of Abbey at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
80	School Summary 80: Construction of Priory at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
81	School Summary 81: Construction of Monastery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
82	School Summary 82: Construction of Convent at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
83	School Summary 83: Construction of Nunnery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
84	School Summary 84: Construction of Abbey at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
85	School Summary 85: Construction of Priory at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
86	School Summary 86: Construction of Monastery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
87	School Summary 87: Construction of Convent at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
88	School Summary 88: Construction of Nunnery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
89	School Summary 89: Construction of Abbey at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
90	School Summary 90: Construction of Priory at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
91	School Summary 91: Construction of Monastery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
92	School Summary 92: Construction of Convent at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
93	School Summary 93: Construction of Nunnery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
94	School Summary 94: Construction of Abbey at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
95	School Summary 95: Construction of Priory at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
96	School Summary 96: Construction of Monastery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
97	School Summary 97: Construction of Convent at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
98	School Summary 98: Construction of Nunnery at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
99	School Summary 99: Construction of Abbey at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100
100	School Summary 100: Construction of Priory at Belmont Park	10,000	\$1,000,000	\$100	\$1,000,000	\$100

DRAFT TIMELINE

[illegible]

SEPTEMBER 10, 2014

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MTG 1H

DRAFT OUTLINE OF REPORT

- **Volume 1**
 - Executive Summary
 - Introduction
 - Planning Meetings to establish process, methodology and schedule
 - Review of Previous Master Plans
 - Review of Current Studies for Town Projects
 - Goals and Objectives
 - Visioning with Facilities Working Group
 - Discussion of issues, possibilities, concerns and limitations
 - Establish potential sites

SEPTEMBER 10, 2014

SLIDE 58

MTG 1H

DRAFT OUTLINE OF REPORT

- **Volume 1**
 - Needs Assessment and Programming
 - Evaluation of Existing Building and Sites
 - Review of existing conditions: Architectural, Structural + Site
 - Observe operations
 - Departmental Programming to quantify needs
 - Collect data on personnel and equipment
 - Interview users and establish square footage requirements
 - Establish site requirements
 - Planning Options based on final program for building + site

SEPTEMBER 10, 2014

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MTG 1H

DRAFT TIMELINE

[illegible]

Image 2: Costs proposed to municipality of construction.
Image 3: Costs shown in 2014 design.
Image 4: Costs shown in 2014 design.

SEPTEMBER 10, 2014

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MTG 1H

DRAFT OUTLINE OF REPORT

- **Volume 1**
 - Needs Assessment and Programming
 - Evaluation of Existing Building and Sites
 - Review of existing conditions: Architectural, Structural + Site
 - Observe operations
 - Departmental Programming to quantify needs
 - Collect data on personnel and equipment
 - Interview users and establish square footage requirements
 - Establish site requirements
 - Planning Options based on final program for building + site

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MTG 1H

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- **Volume 1**
 - Matrix Development: Assess sites against established criteria
 - Probable Costs Development: Summaries of individual projects using 2014 dollars and escalation for 10 years
 - Final Planning Options and Recommendations

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MTG 1 H

SEPTEMBER 10, 2014

- **Volume 2: Supplemental Drawings and Charts**
 - Needs Assessment and Programming
 - Existing Site and Building Evaluations
 - Decision Tree Development: Develop potential pathways for planning
 - Timeline Development: Establish Design to Occupation for Projects
 - Planning Options

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MTG 1H

SEPTEMBER 10, 2014

- **Volume 3: Appendices**
 - Meeting Reports and Presentations
 - Programming Details
 - Decision Trees
 - Timelines
 - Probable Cost Estimates Details
 - Inventory of Previous Studies
 - Debt Analysis Summary

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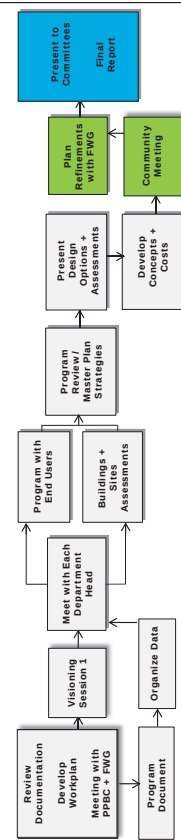
MTG 1H

SEPTEMBER 10, 2014

- Finalize Probable Costs + Timelines
- Meetings with Boards and Committees
- Community Meeting
- Draft and Final Report

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MTG 1H





SEPTEMBER 10, 2014

THANK YOU

MTG 1H



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www.hktarchitects.com

MEETING AGENDA

To: Facility Working Group

Date: October 8, 2014

From: HKT Architects, Inc

Project: Needham Facilities
Master Plan

Job No: 21314

Subject: FWG Meeting 11

AGENDA

The object of Meeting 11 is to update the Facility Working Group on the final status of the probable costs, timeline, All Boards Meeting and outline of the final report.

1. Update of Schedule
2. Development of Probable Costs
 - a. Individual Project Costs
 - b. Escalation
3. Timeline
4. All Boards Meeting
5. Outline of Report: Executive Summary
6. Next Steps

MEETING MINUTES

Project: Needham Town Master Plan

Meeting Date: October 8, 2014

Time: 7:30 AM

Meeting Location: Powers Hall, Needham Town Hall

Job No: 21314

Meeting Number: Facility Working Group 11

Report By:
WRH, JS

Attending:

- | | |
|---|---|
| ☒ Moe Handel, BOS (MH) | ☒ Philip Droney, Police Dept. (PD) |
| ☒ George Kent, PPBC (GK) | ☐ Chris Baker, Police Dept. (CB) |
| ☐ Jeanne McKnight, Planning BD (JM) | ☒ Paul Buckley, Fire Dept. (PB) |
| ☒ Joe Barnes, School Committee (JB) | ☐ Chip Laffey, PF-Operations, CL) |
| ☒ Matt Toolan, Park & Rec. (MT) | ☒ Patty Carey, Park & Rec. Dept. (PC) |
| ☐ John Connelly, Fin Com, (JC) | ☐ Cynthia Chaston, Park & Rec. Dept. (CC) |
| ☐ Artie Crocker, Con Com, (AC) | ☒ Chris Coleman, Ass't Town Mgr. (ChC) |
| ☒ Kate Fitzpatrick, Town Mgr. (KF) | ☐ Dave Davison, Ass't Town Mgr. (DD) |
| ☒ Steve Popper, PF-Construction (SP) | ☒ Matt Varrell, Conservation Dept. (MV) |
| ☒ Hank Haff, PF-Construction (HH) | ☐ John Gallo, YMCA Board (BG) |
| ☒ Rick Merson, DPW, (RM) | ☒ Janet Jankowiak, YMCA (JJ) |
| ☒ Tony DelGaizo, Engineering Dept. (TD) | ☒ Charles Nelson, YMCA (CN) |
| ☐ Lee Newman, Planning & CD, (LN) | ☐ David Roche, Building Dept. (DR) |
| ☒ Dan Gutekanst, School Dept. (DG) | ☐ Katy Dirks, Community Center (KL) |
| ☒ Anne Gulati, School Dept. (AG) | ☒ Janet Slemenda, HKT (JS) |
| ☒ Bob Lewis, DPW (BL) | ☒ Bill Hammer, HKT (BH) |
| ☒ Roger MacDonald, Dir. IT, (RM) | ☒ Doug Hartig, HKT (DH) |

Item		Action
10.01	This is the final regular meeting of the Facilities Working Group and the main purpose was to review projected costs for each project and to discuss the approach to establishing the recommended timeline for the 10 year plan. The next major public presentation will be with the Board of Selectmen and all other Boards on October 22, 2014. The feedback from this meeting will inform our presentation at the November 24, 2014 PPBC Meeting.	
10.02	In general, there was a broad discussion that focused primarily on the finances and the total cost. Cost are shown in 2014 dollars with escalation factors added for each subsequent year. Escalation was estimated at 6% for the first two years (2015	

and 2016) with 3.8% thereafter. Escalation is based on the approximate mid-point of construction date. Total project costs were estimated by adding square foot costs for buildings, site costs based on the complexity of the site and premium costs which included items unique to a site or program. Total Project Costs included those construction costs plus 25% for Soft Costs plus 10% for as Project Contingency.

- 10.03 A matrix was presented that summarizes probable costs for each project on possible sites that were considered for the study through 2025. In addition, a draft of the timeline for these projects was presented. It is clear that all of the potential projects cannot be built over the next 10 year period and that the financing plan and priorities will have to be approved by the Board of Selectman. (SP) felt that it was the mandate of the FWG to make recommendation to the BOS, although it is critical that the Finance Committee weigh in as well.
- 10.04 The DPW is linked to what is constructed at the DeFazio Park site. If DeFazio Park is used for a temporary school or a permanent facility, it is agreed by the FWG that the DPW must move to another location(s). (GK) pointed out there are other projects that are linked to a specific sequence and there are projects that can “float” meaning that their development is independent of other projects. GK asked if we could reflect the interdependencies (versus the floating projects) on a timeline.
- 10.05 The schools will depend on what the Massachusetts School Building Authority (MSBA) will permit and their approvals will affect the timeline.
- 10.06 Each of the projects were briefly reviewed. The committee felt that we should only present the viable options in the Facilities Master Plan and list all of the other alternatives that were studied in the appendix.
- 10.07 A draft of a Master Timeline was presented that illustrated what projects would be undertaken in each year. Projects were shown in the year that the project would be completed (Projected Occupancy) and the projected cost to mid-point of construction. Others were shown with a TBD (To be Determined) note as the Projected Occupancy with Costs shown in 2014 dollars.

A second Master Plan Timeline was presented that simplified the detailed Timeline and included just projects with a projected occupancy date and costs to mid-point of construction. (KF) pointed out that this particular sequence was not practical from a financial point of view and that the four projects shown for 2018 could not be administratively sustained by the Town’s staff. (JS) explained that this was simply an illustration and everyone agreed that it needs to be looked at in terms of practicality. (MH) felt that the plan needed to differentiate between “needs” and “wants”. Furthermore, it was suggested that the graph show 2014 costs as well as the escalated cost. It was further agreed that the simplicity of this second graphic should be used in the public presentation.

- 10.08 Another point that was agreed to was distinguishing those projects that are funded by the Town and others that would be a public/private partnership. These projects do not have to appear on the timeline and they could be shown below as projects to be in the “want” category.
- 10.09 The FWG was given a copy of the draft of the Executive Summary for the report. (JS) asked that comments be forwarded on to (HH).
- 10.10 Selectmen’s (All Board) Meeting:
- The presentation will summarize the FWG’s recommendations.
 - Prepare handouts to be sent to Selectmen prior to October 22, 2014.
 - (HH) will send handouts to department heads and board chairs prior to October 22, 2014.
 - Documents will be too large to e-mail directly. We will send a link to access the documents.
 - (GK) has asked that a simplified decision tree be created. He provided a sample sketch to (HH) and (SP) to review content and format. (HH) forwarded to HKT as a guide to graphically present the information.
 - (PC) suggests consideration be given to provide access of the handouts to the media beforehand as well.
 - It was also suggested to invite Town Meeting members as well.
- 10.10 The open community-wide presentation is now scheduled for the November 24, 2014 PPBC Meeting.

NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: HIGH SCHOOL RENOVATIONS + MODULARS: Estimate to Mid-Point of Construction - 2016

Item #5	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	HIGH SCHOOL RENOVATIONS + MODULARS	8,062	\$3,453,220	\$428	\$4,144,964	\$514

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$4,393,662	\$4,657,282	\$4,834,259	\$5,017,961	\$5,208,644	\$5,406,572	\$5,612,022	\$5,825,279	\$6,046,640	\$6,276,412	\$6,514,916

OCTOBER 8, 2014

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: POLLARD ADDITION + RENOVATIONS: Estimate to Mid-Point of Construction – 2024

Item #7	Project	SF Estimated	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	POLLARD ADDITION + RENOVATIONS		\$21,650,570		\$29,228,270	

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$30,981,966	\$32,840,884	\$34,088,838	\$35,384,214	\$36,728,814	\$38,124,509	\$39,573,240	\$41,077,023	\$42,637,950	\$44,258,192	\$45,940,003

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: MITCHELL REBUILD: Estimate to Mid-Point of Construction – 2021

Item #6	Project	SF Estimated	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	MITCHELL REBUILD	82,227	\$30,244,640	\$368	\$43,550,000	\$530

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$46,163,000	\$48,932,780	\$50,792,226	\$52,722,331	\$54,725,780	\$56,805,360	\$58,963,964	\$61,204,595	\$63,530,370	\$65,944,524	\$68,450,416

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NEEDHAM FACILITIES MASTER PLAN STUDY

RELOCATION OF SCHOOL ADMINISTRATION TO PSAB; Renovation of Pump Station Building + Additional Parking

OCTOBER 8, 2014

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MTG 11

An aerial map of the school site. The existing school building is highlighted in yellow and labeled "EXISTING SCHOOL ADMIN". To its north is a parking lot labeled "PARKING (72)". The site is bounded by "OAKLAND AVENUE" to the north, "MAY STREET" to the east, and "HIGHLAND AVENUE" to the south. A north arrow is located near the center of the parking lot.

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MTC 11

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
#10	EMERY GROVER RENOVATION	21,235	\$7,920,000	\$373	\$10,692,000	\$504

Year Founded	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Year Founded	\$1,333,520	\$12,013,531	\$12,470,045	\$12,943,907	\$13,435,775	\$13,946,334	\$14,476,295	\$15,026,394	\$15,597,397	\$16,190,098	\$16,805,322

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MEMBERSHIP

Item #9	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	PSAB + PUMP BLDG RENO + PARKING		\$3,794,850 <i>total</i>		\$5,123,048 <i>total</i>	
	LIGHT RENOVATIONS AT PSAB	21,777	\$1,088,850	\$50	\$1,469,948	\$68
	PUMP STATION MEETING ROOM / CONNECTOR WITH SITE	3,500	\$1,078,000	\$308	\$1,455,300	\$416
	DEMOLISH DPW + SITE CLEANUP		\$1,057,500		\$1,427,625	
	ADDITIONAL PARKING		\$670,500		\$770,175	

Year	20 Year Location Costs					2021	2022	2023	2024	2025
	2015	2016	2017	2018	2019					
	\$5,430,431 total	\$5,756,257 total	\$5,574,994 total	\$6,202,044 total	\$6,437,722 total	\$6,936,285 total	\$7,199,864 total	\$7,473,459 total	\$7,757,450 total	\$8,052,233 total
	\$1,558,145	\$1,665,634	\$1,714,396	\$1,779,543	\$1,847,165	\$1,990,217	\$2,065,845	\$2,144,348	\$2,225,833	\$2,310,414
	\$1,542,618	\$1,635,175	\$1,697,312	\$1,761,810	\$1,828,758	\$1,970,385	\$2,045,259	\$2,122,979	\$2,203,652	\$2,287,391
	\$1,513,283	\$1,604,079	\$1,665,034	\$1,728,306	\$1,793,981	\$1,932,914	\$2,006,365	\$2,082,607	\$2,161,746	\$2,243,893
	\$816,386	\$865,369	\$898,253	\$932,386	\$967,817	\$1,042,769	\$1,082,394	\$1,123,525	\$1,166,219	\$1,210,535

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	Total Typical Building - \$/sf	25.377	-sf	81.25	2,068,950
Scenario 1					
1 Typical Stewon - (low) 10% of building costs (garage, work, utilities, fencing and all site (incurs)	1	16		56,000.00	56,000
2 Retaining wall	260	if		225.00	58,500
3 Acid Surface paving	165	sf		3,500.00	577,500
	Total Typical Site - \$/sf	25.377	-sf	26.76	777,000
	Total Typical Building and Site - \$/sf	25.377	-sf	110.61	2,795,950
Discussion cost related to the location					
1 Demos meeting building	34,500	sf		15.00	\$17,500
2 Recreational storage building in new location	5,000	sf		125.00	625,000
3 Demos self-storage building	4,000	sf		10.00	40,000
					1,82,500

- Sitework costs do not assume unsuitable soil, replacement or hazardous soil remediation.
- Sitework costs, assumptions are as follows:
(low) TDG - Sites formally developed with existing utilities and no known site complications such as (M) (U) (H) (L) 15% - Sites with moderate slopes, some cut/fill
(Med) (H) 20% - Sites with no site and extensive site complications, shallow soil, replacement

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PROJECT DETAILS: SCHOOL ADMINISTRATION AT NIKE SITE

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
BUILDINGS							
1	2 story end basement School Administration	20,000	SF	300.00	6,000,000		6,000,000
Total Typical Building - 31/2		20,000	SF	300.00	6,000,000		
STEWARDS							
1	Typical stewart - 15% of building costs (earthwork, utilities and all site finishes)	1	IS	900,000.00	900,000		900,000
Total Typical Site - 31/2		20,000	SF	45.00	900,000		
Total Typical Buildings and Site - 31/2		20,000	SF	345.00	6,900,000		
Premium cost related to site location & Building							
1	Widened existing road	1,400	LF	200.00	280,000		280,000
2	Allowance for utilities and connections 1/4 mile distance	1	IS	500,000.00	500,000		780,000
CURRENT 2014 CONSTRUCTION COSTS							\$7,680,000

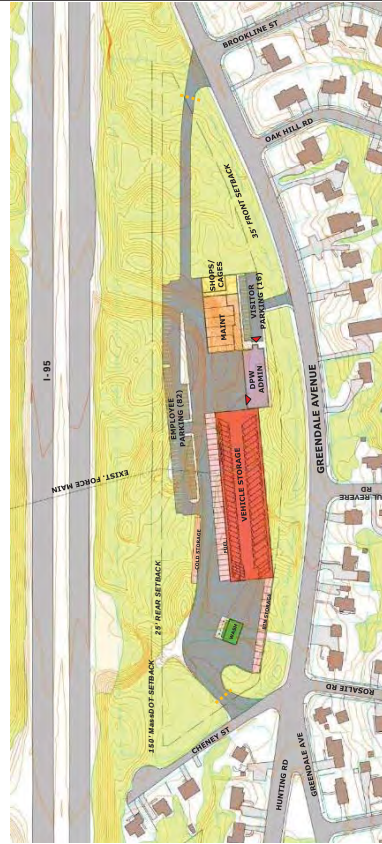
- Notes:**
- Stewart costs do not assume large quantities of ledge blasting, unstable soil replacement or hazardous soil remediation
 - Stewart costs assumptions are as follows:
 - (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 - (Medium) 15% - Sites with moderate slopes, some cut/fill
 - (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

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DEPARTMENT OF PUBLIC WORKS AT PARCEL 74/GREENDALE AVE.



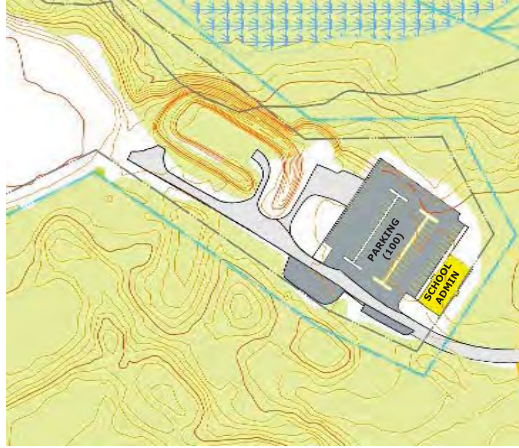
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TOTAL DWP PARKING AS SHOWN: 50

SCHOOL ADMINISTRATION AT NIKE SITE



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PROBABLE COSTS: SCHOOL ADMINISTRATION AT NIKE SITE: 2014 Costs;
Construction Date to be Determined

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
# 11	SCHOOL ADMINISTRATION RELOCATES TO NIKE SITE	20,000	\$7,680,000	\$384	\$10,368,000	\$518

10 Year Escalated Costs

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Escalated Cost	\$10,990,080	\$11,649,485	\$12,092,165	\$12,551,667	\$13,028,630	\$13,523,718	\$14,037,619	\$14,571,049	\$15,124,749	\$15,699,489	\$16,296,070

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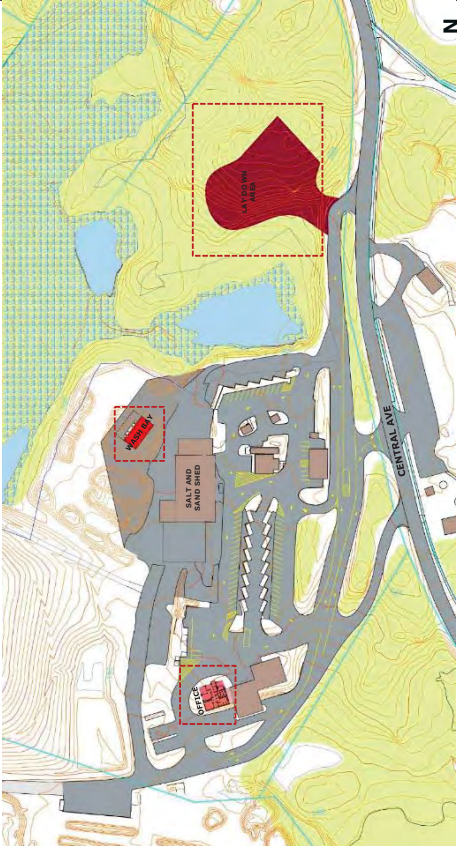
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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS AT RTS - RENOVATIONS:



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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: DEPARTMENT OF PUBLIC WORKS RELOCATES TO PARCEL 74/GREENDALE AVE.: Estimate to Mid-Point of Construction dependent on decision to build Temporary (2017) or Permanent (2018) School

Item #14	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
DPW REBUILD AT PARCEL 74 / GREENDALE AVE		92,442	\$30,591,734	\$331	\$41,298,841	\$447

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$43,776,771	\$46,403,377	\$48,166,705	\$49,997,040	\$51,896,928	\$53,869,011	\$55,916,033	\$58,040,842	\$60,246,394	\$62,535,757	\$64,912,116

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: RTS RENOVATIONS: 2014 Costs; Construction Date to be Determined

Item #15	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
RTS RENOVATIONS		4,320	\$1,623,000	\$376	\$2,191,050	\$507

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$2,322,513	\$2,461,864	\$2,555,415	\$2,652,521	\$2,753,317	\$2,857,943	\$2,966,545	\$3,079,274	\$3,196,286	\$3,317,745	\$3,443,819

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROJECT DETAILS: DEPARTMENT OF PUBLIC WORKS RELOCATES TO PARCEL 74/GREENDALE AVE.

Item #	PROJECT	AREA	UNIT	COST/UNIT	QTY	COST	SUB TOTAL	TOTAL COST
1	DPW Administration	80,000	SF	100.00		8,000,000		
2	DPW Shop	10,000	SF	100.00		1,000,000		
3	DPW Maintenance	10,000	SF	100.00		1,000,000		
4	DPW Shop	10,000	SF	100.00		1,000,000		
5	DPW Shop	10,000	SF	100.00		1,000,000		
6	DPW Shop	10,000	SF	100.00		1,000,000		
	Total Typical Building - 500' x 100'					\$5,000,000		\$5,000,000
7	DPW Shop	10,000	SF	100.00		1,000,000		
8	DPW Shop	10,000	SF	100.00		1,000,000		
9	DPW Shop	10,000	SF	100.00		1,000,000		
10	DPW Shop	10,000	SF	100.00		1,000,000		
11	DPW Shop	10,000	SF	100.00		1,000,000		
12	DPW Shop	10,000	SF	100.00		1,000,000		
13	DPW Shop	10,000	SF	100.00		1,000,000		
14	DPW Shop	10,000	SF	100.00		1,000,000		
15	DPW Shop	10,000	SF	100.00		1,000,000		
16	DPW Shop	10,000	SF	100.00		1,000,000		
17	DPW Shop	10,000	SF	100.00		1,000,000		
18	DPW Shop	10,000	SF	100.00		1,000,000		
19	DPW Shop	10,000	SF	100.00		1,000,000		
20	DPW Shop	10,000	SF	100.00		1,000,000		
21	DPW Shop	10,000	SF	100.00		1,000,000		
22	DPW Shop	10,000	SF	100.00		1,000,000		
23	DPW Shop	10,000	SF	100.00		1,000,000		
24	DPW Shop	10,000	SF	100.00		1,000,000		
25	DPW Shop	10,000	SF	100.00		1,000,000		
26	DPW Shop	10,000	SF	100.00		1,000,000		
27	DPW Shop	10,000	SF	100.00		1,000,000		
28	DPW Shop	10,000	SF	100.00		1,000,000		
29	DPW Shop	10,000	SF	100.00		1,000,000		
30	DPW Shop	10,000	SF	100.00		1,000,000		
31	DPW Shop	10,000	SF	100.00		1,000,000		
32	DPW Shop	10,000	SF	100.00		1,000,000		
33	DPW Shop	10,000	SF	100.00		1,000,000		
34	DPW Shop	10,000	SF	100.00		1,000,000		
35	DPW Shop	10,000	SF	100.00		1,000,000		
36	DPW Shop	10,000	SF	100.00		1,000,000		
37	DPW Shop	10,000	SF	100.00		1,000,000		
38	DPW Shop	10,000	SF	100.00		1,000,000		
39	DPW Shop	10,000	SF	100.00		1,000,000		
40	DPW Shop	10,000	SF	100.00		1,000,000		
41	DPW Shop	10,000	SF	100.00		1,000,000		
42	DPW Shop	10,000	SF	100.00		1,000,000		
43	DPW Shop	10,000	SF	100.00		1,000,000		
44	DPW Shop	10,000	SF	100.00		1,000,000		
45	DPW Shop	10,000	SF	100.00		1,000,000		
46	DPW Shop	10,000	SF	100.00		1,000,000		
47	DPW Shop	10,000	SF	100.00		1,000,000		
48	DPW Shop	10,000	SF	100.00		1,000,000		
49	DPW Shop	10,000	SF	100.00		1,000,000		
50	DPW Shop	10,000	SF	100.00		1,000,000		
51	DPW Shop	10,000	SF	100.00		1,000,000		
52	DPW Shop	10,000	SF	100.00		1,000,000		
53	DPW Shop	10,000	SF	100.00		1,000,000		
54	DPW Shop	10,000	SF	100.00		1,000,000		
55	DPW Shop	10,000	SF	100.00		1,000,000		
56	DPW Shop	10,000	SF	100.00		1,000,000		
57	DPW Shop	10,000	SF	100.00		1,000,000		
58	DPW Shop	10,000	SF	100.00		1,000,000		
59	DPW Shop	10,000	SF	100.00		1,000,000		
60	DPW Shop	10,000	SF	100.00		1,000,000		
61	DPW Shop	10,000	SF	100.00		1,000,000		
62	DPW Shop	10,000	SF	100.00		1,000,000		
63	DPW Shop	10,000	SF	100.00		1,000,000		
64	DPW Shop	10,000	SF	100.00		1,000,000		
65	DPW Shop	10,000	SF	100.00		1,000,000		
66	DPW Shop	10,000	SF	100.00		1,000,000		
67	DPW Shop	10,000	SF	100.00		1,000,000		
68	DPW Shop	10,000	SF	100.00		1,000,000		
69	DPW Shop	10,000	SF	100.00		1,000,000		
70	DPW Shop	10,000	SF	100.00		1,000,000		
71	DPW Shop	10,000	SF	100.00		1,000,000		
72	DPW Shop	10,000	SF	100.00		1,000,000		
73	DPW Shop	10,000	SF	100.00		1,000,000		
74	DPW Shop	10,000	SF	100.00		1,000,000		
75	DPW Shop	10,000	SF	100.00		1,000,000		
76	DPW Shop	10,000	SF	100.00		1,000,000		
77	DPW Shop	10,000	SF	100.00		1,000,000		
78	DPW Shop	10,000	SF	100.00		1,000,000		
79	DPW Shop	10,000	SF	100.00		1,000,000		
80	DPW Shop	10,000	SF	100.00		1,000,000		
81	DPW Shop	10,000	SF	100.00		1,000,000		
82	DPW Shop	10,000	SF	100.00		1,000,000		
83	DPW Shop	10,000	SF	100.00		1,000,000		
84	DPW Shop	10,000	SF	100.00		1,000,000		
85	DPW Shop	10,000	SF	100.00		1,000,000		
86	DPW Shop	10,000	SF	100.00		1,000,000		
87	DPW Shop	10,000	SF	100.00		1,000,000		
88	DPW Shop	10,000	SF	100.00		1,000,000		
89	DPW Shop	10,000	SF	100.00		1,000,000		
90	DPW Shop	10,000	SF	100.00		1,000,000		
91	DPW Shop	10,000	SF	100.00		1,000,000		
92	DPW Shop	10,000	SF	100.00		1,000,000		
93	DPW Shop	10,000	SF	100.00		1,000,000		
94	DPW Shop	10,000	SF	100.00		1,000,000		
95	DPW Shop	10,000	SF	100.00		1,000,000		
96	DPW Shop	10,000	SF	100.00		1,000,000		
97	DPW Shop	10,000	SF	100.00		1,000,000		
98	DPW Shop	10,000	SF	100.00		1,000,000		
99	DPW Shop	10,000	SF	100.00		1,000,000		
100	DPW Shop	10,000	SF	100.00		1,000,000		

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROJECT DETAILS: RTS RENOVATIONS

Item #	PROJECT	AREA	UNIT	COST/SF	ESTD COST	SUB TOTAL	TOTAL COST
Buildings							
1	Wayville Unit Bay	1,820	SF	450.00	819,000		
2	Single story office building	2,500	SF	250.00	625,000		1,444,000
Total Typical Building - \$/sf				334.26		1,444,000	
Siteworks							
1	Typical site works (medium) 15% of building costs (earthwork, utilities, retaining wall at site (medium))	1	lk	216,600.00	216,600		
Total Typical Site - \$/sf				59.14		216,600	
Total Typical Buildings and Site - \$/sf				394.40		1,660,600	
Notes:							
a. Building square foot costs are based on recent DPW project bid results escalated to 2014. Project bid ranges were within the \$220 - \$290/sf depending on building size.							
Recent bid results:							
Wayville DPW (January 2014 bid)							
Wayville DPW (March 2013 bid)							
Artesian DPW (September 2013 bid)							
Site works costs assumed are as follows:							
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as large or significant cut/fill							
(Med) 15% - Sites with moderate slopes, some cut/fill							
(High) 20% - Sites with no utilities and excessive site complications, baring and soil replacement							
c. Additional streams premium other than those are not assumed (utilities, traffic, lights or work to public roads)							

Current 2014 Construction Costs: \$1,623,000

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: DEPARTMENT OF PUBLIC WORKS RELOCATES TO RTS:
2014 Costs: Construction Date to be Determined

Item #16	Project	SF	Construction Cost YR 2014	Total Project Cost YR 2014	\$ / SF
DPW RTS OPTION 4		91,229	\$30,290,484	\$40,892,153	\$448

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$43,345,682	\$45,946,423	\$47,692,387	\$49,504,698	\$51,385,877	\$53,338,540	\$55,365,405	\$57,469,290	\$59,653,123	\$61,919,942	\$64,272,900

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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS RELOCATES TO RTS

MTG 1.1

NEEDHAM FACILITIES MASTER PLAN STUDY

PROJECT DETAILS: DEPARTMENT OF PUBLIC WORKS RELOCATES TO RTS

Item #	PROJECT	AREA	UNIT	COST/SF	ESTD COST	SUB TOTAL	TOTAL COST
Buildings							
1	DPW Administration	29,081	SF	800.00	23,264,800		
2	Vehicle Storage	11,850	SF	250.00	2,962,500		
3	Garage	1,200	SF	250.00	300,000		
4	Wayville Unit Bay	1,820	SF	450.00	819,000		
5	Canopy Storage	14,904	SF	166.00	2,474,004		2,805,504
Total Typical Building - \$/sf				258.79		21,600,304	
Siteworks							
1	Typical site works (medium) 15% of building costs (earthwork, utilities, retaining wall at site (medium))	1	lk	4,720,000.00	4,720,000		
2	Typical site works (low) 10% of building costs (earthwork, utilities, retaining wall at site (low))	1	lk	2,200,000.00	2,200,000		
Total Typical Site - \$/sf				83.88		6,920,000	
Total Typical Buildings and Site - \$/sf				342.67		28,520,304	
Notes:							
a. Building square foot costs are based on recent DPW project bid results escalated to 2014. Project bid ranges were within the \$220 - \$290/sf depending on building size.							
Recent bid results:							
Wayville DPW (January 2014 bid)							
Wayville DPW (March 2013 bid)							
Artesian DPW (September 2013 bid)							
Site works costs assumed are as follows:							
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as large or significant cut/fill							
(Med) 15% - Sites with moderate slopes, some cut/fill							
(High) 20% - Sites with no utilities and excessive site complications, baring and soil replacement							
c. Additional streams premium other than those are not assumed (utilities, traffic, lights or work to public roads)							

Current 2014 Construction Costs: \$28,520,304

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NEEDHAM FACILITIES MASTER PLAN STUDY

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NEEDHAM FACILITIES MASTER PLAN STUDY

10 Year Escalated Costs

SLIDE 35TOTAL DPW PARKING AS
SHOWN: 107

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PROBABLE COSTS: NEW POLICE/FIRE OPTION 3 – STAND ALONE:
Estimate to Mid-Point of Construction - 2019

Item #22	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	POLICE/FIRE SITE OPTION 3 – STAND ALONE	51,604	\$22,277,490	\$432	\$30,074,612	\$583

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$31,879,089	\$33,791,834	\$35,075,924	\$36,408,808	\$37,793,344	\$39,228,453	\$40,719,134	\$42,266,461	\$43,872,587	\$45,539,745	\$47,270,255

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROJECT DETAILS: NEW POLICE/FIRE: OPTION 3 - STAND ALONE

Item #	PROJECT	AREA	UNIT	COST/SF	GRTD COST	SUB TOTAL	TOTAL COST
1	BUILDINGS 2 story and basement Police/Fire Station	51,604	SF	375.00	19,351,500	19,351,500	
	Total Typical Building - 5/sf	51,604	SF	375.00	19,351,500		
1	Sitework - 10% of building costs (earthwork, utilities and all site finishes)	1	LS	1,935,150.00	1,935,150	1,935,150	
	Total Typical Site - 5/sf	51,604	SF	37.50	1,935,150		
	Total Typical Buildings and Site - 5/sf	51,604	SF	412.50	21,286,650		
	PREMIUM COST RELATED TO SITE LOCATION						
1	Perimeter fence (decorative wrought iron)	745	LF	300.00	225,500		
2	Demolition of existing buildings	1	SF	15,000	467,340		
3	Phasing & relocation	1	LS	300,000.00	300,000	990,840	

Notes:

- a. Site work costs do not assume large quantities of lodge blasting, unstable soil replacement or hazardous soil remediation
- b. Site work costs assumptions are as follows:
 (Low) 100% Sites formally developed with existing utilities and no known site complications such as lodge or significant cut/fill (Medium) 15% Sites with moderate slopes, some cut/fill
 (High) 20% Sites with no utilities and excessive site complications, blasting and soil replacement
- c. 911 memorial NIC

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROJECT DETAILS: DEPARTMENT OF PUBLIC WORKS: REBUILD OF PARTIAL PROGRAM AT DEDHAM AVE

Month	Project	Phase	Start	Complete	End	Actual Cost	Est. Cost	Actual Cost	Est. Cost
Jan	Project A	Phase 1	1/1/2020	3/31/2020	3/31/2020	10,000.00	10,000.00	10,000.00	10,000.00
Feb	Project A	Phase 2	4/1/2020	6/30/2020	6/30/2020	20,000.00	20,000.00	20,000.00	20,000.00
Mar	Project A	Phase 3	7/1/2020	9/30/2020	9/30/2020	30,000.00	30,000.00	30,000.00	30,000.00
Apr	Project A	Phase 4	10/1/2020	12/31/2020	12/31/2020	40,000.00	40,000.00	40,000.00	40,000.00
May	Project A	Phase 5	1/1/2021	3/31/2021	3/31/2021	50,000.00	50,000.00	50,000.00	50,000.00
Jun	Project A	Phase 6	4/1/2021	6/30/2021	6/30/2021	60,000.00	60,000.00	60,000.00	60,000.00
Jul	Project A	Phase 7	7/1/2021	9/30/2021	9/30/2021	70,000.00	70,000.00	70,000.00	70,000.00
Aug	Project A	Phase 8	10/1/2021	12/31/2021	12/31/2021	80,000.00	80,000.00	80,000.00	80,000.00
Sep	Project A	Phase 9	1/1/2022	3/31/2022	3/31/2022	90,000.00	90,000.00	90,000.00	90,000.00
Oct	Project A	Phase 10	4/1/2022	6/30/2022	6/30/2022	100,000.00	100,000.00	100,000.00	100,000.00
Nov	Project A	Phase 11	7/1/2022	9/30/2022	9/30/2022	110,000.00	110,000.00	110,000.00	110,000.00
Dec	Project A	Phase 12	10/1/2022	12/31/2022	12/31/2022	120,000.00	120,000.00	120,000.00	120,000.00
Jan	Project B	Phase 1	1/1/2020	3/31/2020	3/31/2020	15,000.00	15,000.00	15,000.00	15,000.00
Feb	Project B	Phase 2	4/1/2020	6/30/2020	6/30/2020	30,000.00	30,000.00	30,000.00	30,000.00
Mar	Project B	Phase 3	7/1/2020	9/30/2020	9/30/2020	45,000.00	45,000.00	45,000.00	45,000.00
Apr	Project B	Phase 4	10/1/2020	12/31/2020	12/31/2020	60,000.00	60,000.00	60,000.00	60,000.00
May	Project B	Phase 5	1/1/2021	3/31/2021	3/31/2021	75,000.00	75,000.00	75,000.00	75,000.00
Jun	Project B	Phase 6	4/1/2021	6/30/2021	6/30/2021	90,000.00	90,000.00	90,000.00	90,000.00
Jul	Project B	Phase 7	7/1/2021	9/30/2021	9/30/2021	105,000.00	105,000.00	105,000.00	105,000.00
Aug	Project B	Phase 8	10/1/2021	12/31/2021	12/31/2021	120,000.00	120,000.00	120,000.00	120,000.00
Sep	Project B	Phase 9	1/1/2022	3/31/2022	3/31/2022	135,000.00	135,000.00	135,000.00	135,000.00
Oct	Project B	Phase 10	4/1/2022	6/30/2022	6/30/2022	150,000.00	150,000.00	150,000.00	150,000.00
Nov	Project B	Phase 11	7/1/2022	9/30/2022	9/30/2022	165,000.00	165,000.00	165,000.00	165,000.00
Dec	Project B	Phase 12	10/1/2022	12/31/2022	12/31/2022	180,000.00	180,000.00	180,000.00	180,000.00
Jan	Project C	Phase 1	1/1/2020	3/31/2020	3/31/2020	20,000.00	20,000.00	20,000.00	20,000.00
Feb	Project C	Phase 2	4/1/2020	6/30/2020	6/30/2020	40,000.00	40,000.00	40,000.00	40,000.00
Mar	Project C	Phase 3	7/1/2020	9/30/2020	9/30/2020	60,000.00	60,000.00	60,000.00	60,000.00
Apr	Project C	Phase 4	10/1/2020	12/31/2020	12/31/2020	80,000.00	80,000.00	80,000.00	80,000.00
May	Project C	Phase 5	1/1/2021	3/31/2021	3/31/2021	100,000.00	100,000.00	100,000.00	100,000.00
Jun	Project C	Phase 6	4/1/2021	6/30/2021	6/30/2021	120,000.00	120,000.00	120,000.00	120,000.00
Jul	Project C	Phase 7	7/1/2021	9/30/2021	9/30/2021	140,000.00	140,000.00	140,000.00	140,000.00
Aug	Project C	Phase 8	10/1/2021	12/31/2021	12/31/2021	160,000.00	160,000.00	160,000.00	160,000.00
Sep	Project C	Phase 9	1/1/2022	3/31/2022	3/31/2022	180,000.00	180,000.00	180,000.00	180,000.00
Oct	Project C	Phase 10	4/1/2022	6/30/2022	6/30/2022	200,000.00	200,000.00	200,000.00	200,000.00
Nov	Project C	Phase 11	7/1/2022	9/30/2022	9/30/2022	220,000.00	220,000.00	220,000.00	220,000.00
Dec	Project C	Phase 12	10/1/2022	12/31/2022	12/31/2022	240,000.00	240,000.00	240,000.00	240,000.00

Project A: Total Actual Cost: 1,200,000.00, Total Estimated Cost: 1,200,000.00

Project B: Total Actual Cost: 1,800,000.00, Total Estimated Cost: 1,800,000.00

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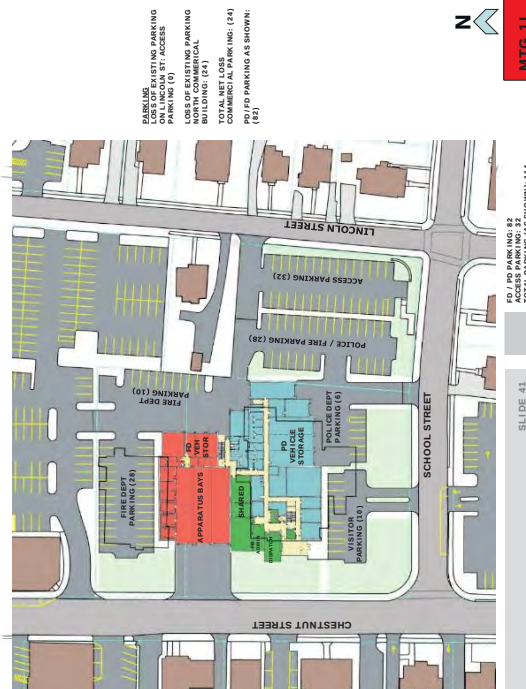
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NEEDHAM FACILITIES MASTER PLAN STUDY

NEW POLICE/FIRE: OPTION 3 – STAND ALONE



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NEEDHAM FACILITIES MASTER PLAN STUDY

PROJECT DETAILS: NEW POLICE/FIRE OPTION 1 + SHARED SITE WITH SCHOOL ADMINISTRATION

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
School Admin							
1	3 story School Administration	23,000	SF	300.00	6,900,000		
2	Typical site work - (low) 10% of building costs (earthwork, utilities, fencing and all site fixtures)	1	Ls	690,000.00	690,000	7,590,000	
SCHOOL ADMIN - CURRENT 2014 CONSTRUCTION COSTS 7,590,000							
Police/Fire							
1	2 story and basement Police/Fire Station	53,238	SF	375.00	19,964,250		
1	Typical site work - 10% of building costs (earthwork, utilities and all site fixtures)	1	Ls	1,996,425.00	1,996,425	21,960,675	
Total Typical Buildings and Site - \$/sf 412.50 21,960,675							
Premium cost related to site location							
1	Permitted fees (decorative wrought iron)	735	Ls	300.00	230,500		
2	Permitted fees (decorative wrought iron)	31,155	SF	35.00	4,227,340		
3	Phasing & relocation	1	Ls	300,000.00	300,000	\$87,840	
POLICE/FIRE - CURRENT 2014 CONSTRUCTION COSTS 22,946,515							

- Notes:**
- Site work costs do not assume large quantities of ledge blasting, unsuitable soil replacement or hazardous soil remediation
 - Site work costs assumptions are as follows:
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
(Medium) 15% - Sites with moderate slopes, some cut/fill
(High) 20% - Sites with no utilities and extensive site complications, blasting and soil replacement
 - 911 memorial NIC.

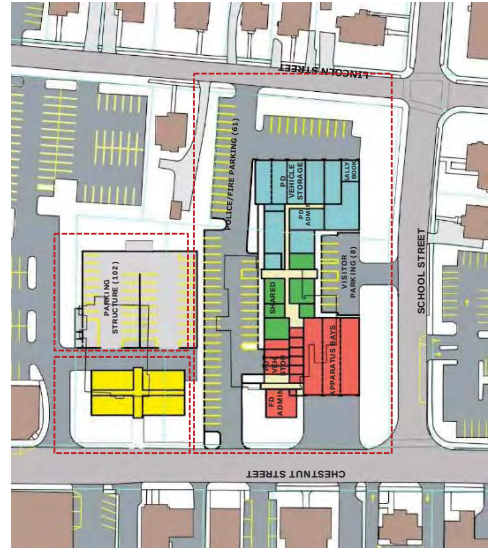
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NEEDHAM FACILITIES MASTER PLAN STUDY

NEW POLICE/FIRE OPTION 2 + SHARED SITE WITH SCHOOL ADMINISTRATION + PARKING STRUCTURE



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NEEDHAM FACILITIES MASTER PLAN STUDY

NEW POLICE/FIRE OPTION 1 + SHARED SITE WITH SCHOOL ADMINISTRATION



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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: NEW POLICE/FIRE OPTION 1 + SHARED SITE WITH SCHOOL ADMINISTRATION: 2014 Costs; Construction Date to be Determined

Item #	20 + 12	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
POLICE/FIRE SITE OPTION 1 WITH SCHOOL ADMIN							
			53,238	\$30,538,515		\$41,226,995	
				<i>total</i>		<i>total</i>	
		POLICE / FIRE STATION		\$22,948,515	\$431	\$30,980,495	\$582
		SCHOOL ADMIN	23,000	\$7,590,000	\$330	\$10,246,500	\$446

10 Year Escalated Costs

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
POLICE/FIRE SITE OPTION 1 WITH SCHOOL ADMIN											
	\$43,700,615	\$46,322,652	\$48,082,912	\$49,910,003	\$51,806,645	\$53,775,298	\$55,818,759	\$57,939,872	\$60,141,587	\$62,426,968	\$64,799,192
	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>
	\$32,839,325	\$34,809,888	\$36,132,453	\$37,505,486	\$38,930,694	\$40,410,060	\$41,945,642	\$43,539,576	\$45,194,060	\$46,911,455	\$48,694,090
	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>
	\$11,512,967	\$11,950,460	\$12,404,577	\$12,875,951	\$13,365,237	\$13,873,116	\$14,400,294	\$14,947,505	\$15,515,510	\$16,105,099	\$16,715,297

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NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE/FIRE OPTION 4 RENOVATION /ADDITION



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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: POLICE/FIRE OPTION 4 RENOVATION /ADDITION:
 2014 Costs; Construction Date to be Determined

Item #23	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	POLICE/FIRE SITE OPTION 4 - RENO/ADDITION	46,844	\$14,457,078	\$309	\$19,517,055	\$417

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$20,688,078	\$21,929,363	\$22,782,679	\$23,627,661	\$24,525,512	\$25,457,491	\$26,424,865	\$27,429,010	\$28,471,312	\$29,552,222	\$30,676,244	

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NEEDHAM FACILITIES MASTER PLAN STUDY

**PROBABLE COSTS: NEW POLICE/FIRE OPTION 2 + SHARED SITE WITH
SCHOOL ADMINISTRATION + PARKING STRUCTURE:** 2014 Costs; Construction
Date to be Determined

Item #21+13	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	POLICE/FIRE SITE OPTION 2 WITH SCHOOL ADMIN + PARK STRUCTURE	71,675	\$30,501,278	\$426	\$41,176,725	\$575
	POLICE / FIRE STATION	50,875	\$21,954,278	\$424	\$29,144,661	\$573
	SCHOOL ADMIN	20,800	\$6,864,000	\$330	\$9,266,400	\$446
	PARKING STRUCTURE		\$1,683,000		\$2,272,050	

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$43,647,329	\$46,266,168	\$48,024,283	\$49,840,205	\$51,743,475	\$53,709,727	\$55,750,697	\$57,869,223	\$60,068,284	\$62,350,847	\$64,720,180	
\$50,893,341	\$52,746,941	\$54,691,325	\$56,723,749	\$58,841,451	\$61,044,339	\$63,332,876	\$65,707,213	\$68,168,590	\$70,717,745	\$73,356,613	
\$9,822,384	\$10,411,727	\$11,007,373	\$11,610,053	\$12,228,824	\$12,854,612	\$13,488,419	\$14,130,256	\$14,781,133	\$15,441,061	\$16,110,040	
\$2,408,373	\$2,452,076	\$2,496,885	\$2,542,800	\$2,589,821	\$2,637,950	\$2,686,188	\$2,735,535	\$2,785,000	\$2,834,583	\$2,884,285	

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NEEDHAM FACILITIES MASTER PLAN STUDY

**PROJECT DETAILS: NEW POLICE/FIRE OPTION 2 + SHARED SITE WITH
SCHOOL ADMINISTRATION + PARKING STRUCTURE**

Item # / PROJECT	AREA	UNIT	COST/SF	ESTD COST	SUB TOTAL	TOTAL COST
School Admin						
1 3 story School Administration	20,800	sf	300.00	6,240,000		
2 Typical Stewwork - (low) 10% of building costs (earthwork, utilities, fencing, and all site finishes)	1	%	624,000.00	624,000	6,864,000	

Item # / PROJECT	AREA	UNIT	COST/SF	ESTD COST	SUB TOTAL	TOTAL COST
Police/Fire						
1 2 story and basement Police/Fire Station	50,875	sf	375.00	19,078,125		
2 Parking structure	102	space	15,000.00	1,530,000		
3 Typical Stewwork - (low) 10% of building costs (earthwork, utilities and all site finishes)	1	%	2,060,812.50	2,060,813	22,668,938	
Total Typical Buildings and Site - 5/1						22,668,938

Item # / PROJECT	AREA	UNIT	COST/SF	ESTD COST	SUB TOTAL	TOTAL COST
Perimeter fence (decorative wrought-iron)	670	lf	300.00	201,000		
2 Demolition of existing buildings	31,156	sf	15.00	467,340		
3 Paving & relocation	1	%	300,000.00	300,000	968,340	
Total Typical Buildings and Site - 5/1						968,340

- Notes:
- Stewwork costs do not assume large quantities of ledge blasting, unsuitable soil replacement or hazardous soil remediation.
 - Stewwork cost assumptions are as follows:
 (low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 (medium) 20% - Sites with moderate slopes, some cut/fill
 (high) 20% - Sites with no cut/fill and moderate site complications, blasting and soil replacement
 - 911 memorial NIC

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROJECT DETAILS: POLICE/FIRE OPTION 4 RENOVATION/ADDITION

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
Buildings							
1	3 story and basement Police/Fire Station - Renovation	31,145	SF	200.00	6,229,000		
2	2 story Apparatus Bay - Addition	15,699	SF	375.00	5,867,125	12,116,125	
Total Typical Building - \$/sf		46,844	SF	258.65	12,116,125		
Site/Other							
1	Typical Sitework - 10% of building costs (earthwork, utilities and all site finishes)	1	IS	1,211,612.50	1,211,613	1,211,613	
Total Typical Site - \$/sf		46,844	SF	25.96	1,211,613		
Total Typical Buildings and Site - \$/sf		46,844	SF	284.51	13,327,738		
Exclusion cost related to site location & buildings							
1	Perimeter fence (decorative wrought iron)	540	LF	300.00	162,000		
2	Add elevator addition	1	IS	300,000.00	300,000		
3	Painting & relocation	1	IS	200,000.00	200,000		
4	Demolition of existing buildings	31,156	SF	15.00	467,340	1,129,340	
Current 2014 Construction Costs							\$14,457,078

Notes:

- Sitework costs do not assume large quantities of ledge blasting, undesirable soil replacement or hazardous soil remediation.
- Sitework costs assumptions are as follows:
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
(Medium) 15% - Sites with moderate slopes, some cut/fill
(High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement
- 911 memorial MC

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NEEDHAM FACILITIES MASTER PLAN STUDY

FIRE STATION 2 RENOVATIONS + ADDITION:

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: FIRE STATION 2 RENOVATIONS + ADDITION: 2014
Costs; Construction Date to be Determined

Item #24	Project	SF	Construction Cost YR 2014	Total Project Cost YR 2014	\$ / SF
	FIRE STATION 2 RENOVATIONS + ADDITION		\$1,472,550	\$1,987,943	

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$2,107,220	\$2,233,653	\$2,319,532	\$2,406,636	\$2,498,088	\$2,593,015	\$2,691,550	\$2,793,829	\$2,899,995	\$3,010,195	\$3,124,682

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROJECT DETAILS: FIRE STATION 2 RENOVATIONS + ADDITION

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
Buildings							
1	New vehicle storage	2,114	SF	250.00	528,500		
2	Truck/hoisting of air and water facade	6,095	SF	20.00	120,700		
3	Replace existing windows	680	SF	150.00	102,000		
4	Replace existing doors	325	SF	100.00	32,500		
5	Replace trim and door soffits and fascias	1	IS	125,000.00	125,000		
6	Curbra replacement	1	IS	45,000.00	45,000		
7	Water damage	1	IS	100,000.00	100,000		
8	Make fills, repair and painting	4,500	SF	100.00	450,000	1,324,700	
Total Typical Building					1,324,700		
Site/Other							
1	Retaining wall premium at new addition	1	IS	25,000.00	25,000		
2	Curbra stone and red brick wall drainage	1	IS	50,000.00	50,000		
3	Earth retaining wall	700	SF	30.00	21,000	148,350	
4	Typical Sitework - 10% of building new addition cost	1	IS	52,850.00	52,850		
Total Site					52,850		
Total Typical Buildings and Site					1,376,550		
Current 2014 Construction Costs							\$1,472,550

Notes:

- Sitework costs do not assume large quantities of ledge blasting, undesirable soil replacement or hazardous soil remediation.
- Sitework costs assumptions are as follows:
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
(Medium) 15% - Sites with moderate slopes, some cut/fill
(High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement
- 911 memorial MC

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ROSEMARY POOL



W A S Shady 2013/2014

PROBABLE COSTS: CRICKET FIELD: Estimate to Mid-Point of Construction - 2016

Item #26	Project	SF	Construction Cost \$ / SF	Total Project Cost YR 2014	\$ / SF
CRICKET FIELD			\$801,366	\$1,089,858	

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$1,155,249	\$1,224,564	\$1,271,097	\$1,310,399	\$1,369,536	\$1,421,578	\$1,475,596	\$1,531,671	\$1,589,874	\$1,650,289	\$1,713,000

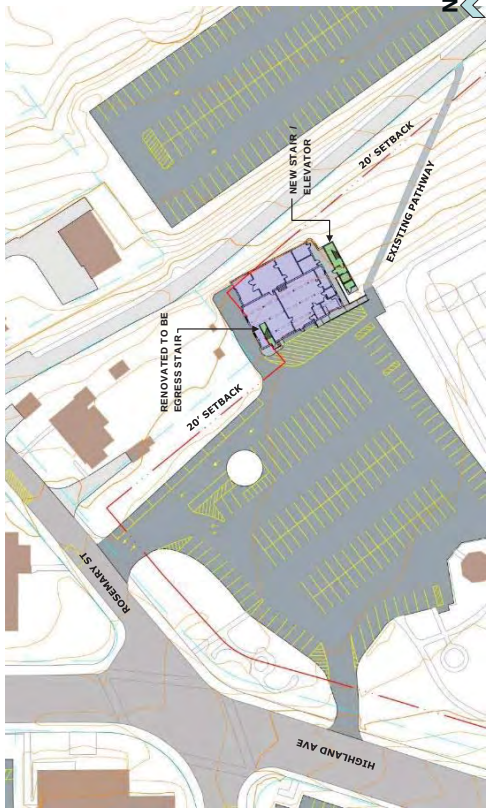
PROBABLE COSTS: ROSEMARY POOL: Estimate to Mid-Point of Construction - 2018

Item #25	Project	SF	Construction Cost \$ / SF	Total Project Cost YR 2014	\$ / SF
ROSEMARY POOL			\$6,382,775	\$8,778,869	

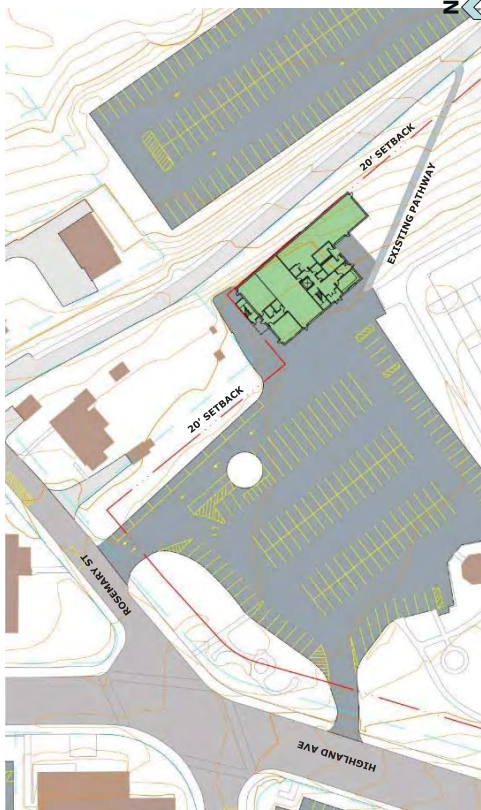
10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$9,305,601	\$9,863,937	\$10,238,767	\$10,627,840	\$11,031,698	\$11,450,903	\$11,886,037	\$12,337,706	\$12,806,539	\$13,293,187	\$13,798,328

RENOVATION OF MEMORIAL PARK BUILDING:



NEW BUILDING AT MEMORIAL PARK



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PROBABLE COSTS: RENOVATED BUILDING AT MEMORIAL PARK: 2014 Costs; Construction Date to be Determined

Item #27	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	MEMORIAL PARK BUILDING - RENOVATION	7,260	\$745,960	\$103	\$1,007,046	\$139

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$1,087,469	\$1,131,517	\$1,174,515	\$1,219,147	\$1,265,475	\$1,313,563	\$1,363,478	\$1,415,290	\$1,469,071	\$1,524,896	\$1,582,842

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PROBABLE COSTS: NEW BUILDING AT MEMORIAL PARK: 2014 Costs; Construction Date to be Determined

Item #28	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	MEMORIAL PARK - NEW BUILDING	14,584	\$4,372,236	\$300	\$5,902,519	\$405

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$6,256,670	\$6,632,070	\$6,884,089	\$7,145,684	\$7,417,220	\$7,699,074	\$7,991,639	\$8,296,321	\$8,610,543	\$8,937,744	\$9,277,378

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PROJECT DETAILS: RENOVATION OF MEMORIAL PARK BUILDING

Item#	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
BUILDINGS							
1	Star/Henry Bridge/Heater addition	860	SF	650.00	559,000		
2	Upgrade toilet and concessions	1	IN	30,000.00	30,000		
3	Upgrade toilet and kitchen	1	IN	50,000.00	50,000		
4	Paint existing interior	3,200	SF	3.00	9,600		
5	Replace exterior stair	1	IN	13,000.00	13,000		663,600
Total Typical Building - \$/sf					7,260	91.40	663,600
SEWER/CS							
1	Typical sewer - 10% of building costs (earthwork, utilities, fencing and all site finishes)	1	IN	65,360.00	65,360		66,960
Total Typical Sewer - \$/sf					7,260	9.14	66,960
Total Typical Building and Sewer - \$/sf					7,260	100.55	729,960
PAVEMENT COST ADJUSTED TO SITE LOCATION							
1	Design existing area	1	IN	3,000.00	3,000		
2	Design new area	1	IN	3,000.00	3,000		
3	Monthly ramp and entry	1	IN	10,000.00	10,000		16,000
CURRENT 2014 CONSTRUCTION COSTS							\$745,960

Notes:

- Starwork costs do not assume undesirable soil replacement or hazardous soil remediation
- Starwork costs assumptions are as follows:
(Low) 10% - Sites formally developed with existing utilities and no known site complications (such as ledge or significant cut/fill)
(Medium) 15% - Sites with moderate slopes, some cut/fill
(High) 20% - Sites with no utilities and excessive site complications, bedding and soil replacement

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NEEDHAM FACILITIES MASTER PLAN STUDY

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PROBABLE COSTS: COMMUNITY CENTER AT NIKE SITE: 2014 Costs;
Construction Date to be Determined

Item #29	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	COMMUNITY CENTER AT NIKE SITE	62,000	\$21,419,250	\$345	\$28,915,988	\$466

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$30,650,947	\$32,480,004	\$33,724,624	\$35,006,160	\$36,336,394	\$37,717,177	\$39,150,430	\$40,638,146	\$42,182,396	\$43,785,327	\$45,449,169

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NEEDHAM FACILITIES MASTER PLAN STUDY

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PROJECT DETAILS: NEW BUILDING AT MEMORIAL PARK

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
1	Buildings New building	14,584	SF	265.00	3,864,760	3,864,760	
Total Typical Building - \$/sf							3,864,760
2	Stewwork Typical Stewwork - 10% of building costs (earthworks, utilities, fencing and all site finishes)	14,584	SF	255.00	3,864,760		
Total Typical Site - \$/sf							386,476
Total Typical Building and Site - \$/sf							386,476
1	Premium cost related to site location Foundation retaining wall	1	ls	25,000.00	25,000		
2	Demo existing building	6,400	SF	15.00	96,000		
CURRENT 2014 CONSTRUCTION COSTS							\$4,372,236

Notes:

a. Stewwork costs do not assume unsuitable soil replacement or hazardous soil remediation

b. Stewwork costs assumptions are as follows:
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
(Medium) 15% - Sites with moderate slopes, some cut/fill
(High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

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NEEDHAM FACILITIES MASTER PLAN STUDY

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PROJECT DETAILS: COMMUNITY CENTER AT NIKE SITE

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
1	Buildings 2 story Community Center	62,000	SF	285.00	17,670,000	17,670,000	
Total Typical Building - \$/sf							17,670,000
2	Stewwork Typical Stewwork - 15% of building costs (fields, earthwork, utilities and all site finishes)	62,000	SF	265.00	16,430,000		
Total Typical Building and Site - \$/sf							16,430,000
3	Premium cost related to site location & building Widened existing road	1,400	SF	200.00	280,000		
4	Widened existing road	1,400	SF	200.00	280,000		
5	Upgrade of road from Charles to lower level connector	475	SF	250.00	118,750		
6	Allowance for utilities and connections 1/4 mile distance	1	ls	500,000.00	500,000		
CURRENT 2014 CONSTRUCTION COSTS							\$21,419,250

Notes:

a. Stewwork costs do not assume large quantities of ledge blasting, unsuitable soil replacement or hazardous soil remediation

b. Stewwork costs assumptions are as follows:
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
(Medium) 15% - Sites with moderate slopes, some cut/fill
(High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

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COMMUNITY CENTER AT NIKE SITE

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PROBABLE COSTS: COMMUNITY CENTER AT PARCEL 74 / GREENDALE AVE: 2014 Costs; Construction Date to be Determined

Item #31	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	COMMUNITY CENTER AT PARCEL 74 / GREENDALE AVE	62,000	\$21,879,000	\$353	\$29,536,650	\$476

10 Year Escalated Costs

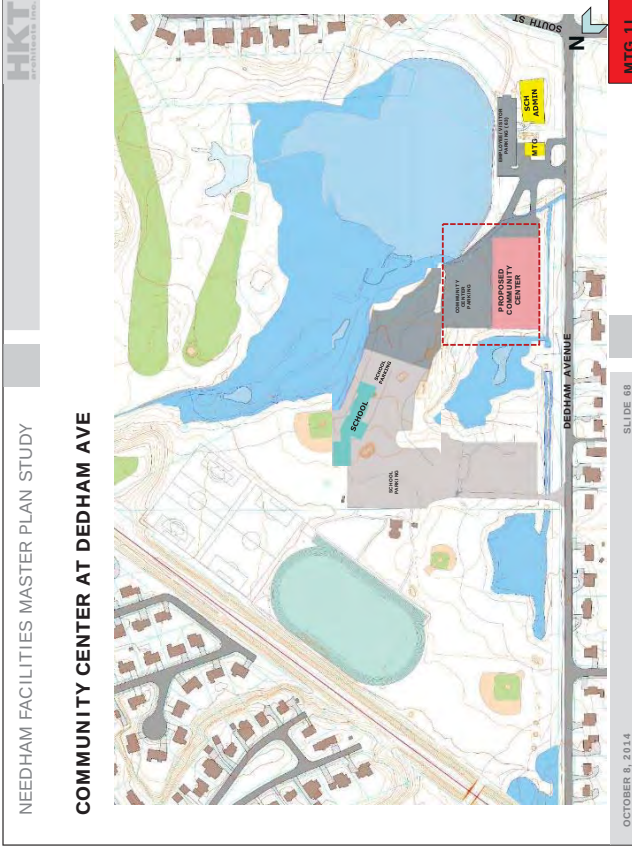
2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$31,308,849	\$33,187,380	\$34,448,500	\$35,757,543	\$37,116,330	\$38,526,791	\$39,980,767	\$41,510,416	\$43,087,812	\$44,725,149	\$46,424,705

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: COMMUNITY CENTER AT DEDHAM AVE: 2014 Costs; Construction Date to be Determined

Item #30	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	COMMUNITY CENTER AT DEDHAM AVE	60,000	\$22,717,850	\$379	\$30,669,098	\$511

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$32,509,244	\$34,459,799	\$35,769,271	\$37,125,503	\$38,539,386	\$40,003,883	\$41,524,030	\$43,101,944	\$44,739,818	\$46,439,931	\$48,204,648

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NEEDHAM FACILITIES MASTER PLAN STUDY											
PROBABLE COSTS: ICE RINK AT 470 DEDHAM AVE: 2014 Costs; Construction Date to be Determined											
Item #32	Project	SF	Construction Cost YR 2014	\$ / SF		Total Project Cost YR 2014	\$ / SF				
	DEDHAM AVE ICE RINK	35,272	\$8,817,340	\$250		\$11,903,409	\$337				

10 Year Escalated Costs											
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$12,617,614	\$13,374,671	\$13,882,908	\$14,410,459	\$14,958,056	\$15,526,462	\$16,116,468	\$16,728,894	\$17,364,592	\$18,024,446	\$18,709,375	

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NEEDHAM FACILITIES MASTER PLAN STUDY

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ARCHITECTS INC.

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PROJECT DETAILS: ICE RINK AT 470 DEDHAM AVE

Item #	PROJECT	AREA	UNIT	COST/SF	ESTD COST	SUB TOTAL	TOTAL COST
Buildings							
1	1 story ice Rink	35,272	SF	200.00	7,054,400		7,054,400
Total Typical Building - \$/sf		35,272	SF	200.00	7,054,400		
Sitework							
1	Typical sitework - 10% of building costs (earthwork, utilities, fencing and all site finishes)	1	ls	705,440.00	705,440		705,440
Total Typical Site - \$/sf		35,272	SF	20.00	705,440		
Total Typical Buildings and Site - \$/sf		35,272	SF	220.00	7,759,840		
Premium cost related to site location							
1	Demo existing building	34,500	SF	15.00	517,500		
2	Demo sub/sand building	4,000	SF	10.00	40,000		
3	Clean-up/remediation - \$780	1	ls	500,000.00	500,000		1,057,500
CURRENT 2024 CONSTRUCTION COSTS							\$8,817,340

Notes:

- 1. Sitework costs do not assume unsuitable soil replacement or hazardous soil remediation
- 2. Sitework cost assumptions are as follows:
 - (Low) 10% - Sites formerly developed with existing utilities and no known site complications such as barge or significant cut/fill
 - (Medium) 15% - Sites with moderate slopes, some cut/fill
 - (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROJECT DETAILS: COMMUNITY CENTER AT PARCEL 74 / GREENDALE AVE

Item #	PROJECT	AREA	UNIT	COST/SF	ESTD COST	SUB TOTAL	TOTAL COST
Buildings							
1	2 story Community Center	62,000	SF	285.00	17,670,000		17,670,000
Total Typical Building - \$/sf		62,000	SF	285.00	17,670,000		
Sitework							
1	Typical sitework - 20% of building costs (fields, earthwork, utilities and all site finishes)	1	LS	3,534,000.00	3,534,000		3,534,000
Total Typical Site - \$/sf		62,000	SF	57.00	3,534,000		
Total Typical Buildings and Site - \$/sf		62,000	SF	342.00	21,204,000		
Premium cost related to site location							
1	Retaining wall at west portion of building	1	LS	250,000.00	250,000		
1	Perimeter fence (decorative wrought iron)	750	LF	300.00	225,000		
2	Existing force main line replaced/relocation within site - allowance	1	LS	200,000.00	200,000		675,000
Total Typical Finishing - \$/sf							
Current 2014 Construction Costs							\$21,879,000

Notes:

- a. Sitework costs do not assume large quantities of large blasting, unreliable soil replacement or hazardous soil remediation
- b. Sitework cost assumptions are as follows:
(low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
(medium) 15% - Sites with moderate slopes, some cut/fill
(high) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

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NEEDHAM FACILITIES MASTER PLAN STUDY											
PROJECT DETAILS: ICE RINK AT 470 DEDHAM AVE											

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ICE RINK AT TOWN FOREST



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PROJECT DETAILS: ICE RINK AT TOWN FOREST

Item #	PROJECT	AREA	UNIT	COST/SF	SUB TOTAL	TOTAL COST
1	Buildings					
1	1 story Ice Rink	36,839	SF	200.00	7,367,800	7,367,800
Total Typical Building - 5/SF						7,367,800
2	Sitework					
1	Typical sitework - 20% of building costs (earthwork, utilities, fencing and all site finishes)	1	LS	1,473,560.00	1,473,560	1,473,560
Total Typical Site - 5/SF						1,473,560
Total Typical Buildings and Site - 5/SF						8,841,360
3	Premium costs related to site location					
1	Perimeter fence (decorative wrought iron)	725	LF	300.00	217,500	217,500
2	Additional clearing and blasting for raw site conditions	1	LS	500,000.00	500,000	500,000
3	Retaining / masonry walls additional to building costs	1	LS	200,000.00	200,000	200,000
CURRENT 2014 CONSTRUCTION COSTS						\$9,756,860

Notes:

- Sitework costs do not assume unsuitable soil replacement or hazardous soil remediation
- Sitework costs assumptions are as follows:
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
(Medium) 15% - Sites with moderate slopes, some cut/fill
(High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

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PROBABLE COSTS: ICE RINK AT TOWN FOREST: 2014 Costs; Construction Date to be Determined

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
33	TOWN FOREST ICE RINK	36,839	\$9,756,860	\$265	\$13,174,461	\$358

10 Year Escalated Costs

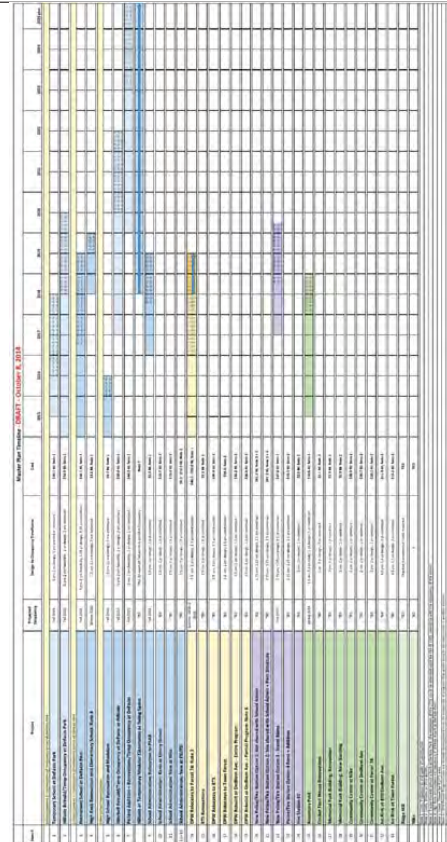
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Escalated Cost	\$13,964,929	\$14,802,825	\$15,365,332	\$15,940,215	\$16,555,285	\$17,184,386	\$17,827,393	\$18,515,214	\$19,210,792	\$19,949,106	\$20,707,172

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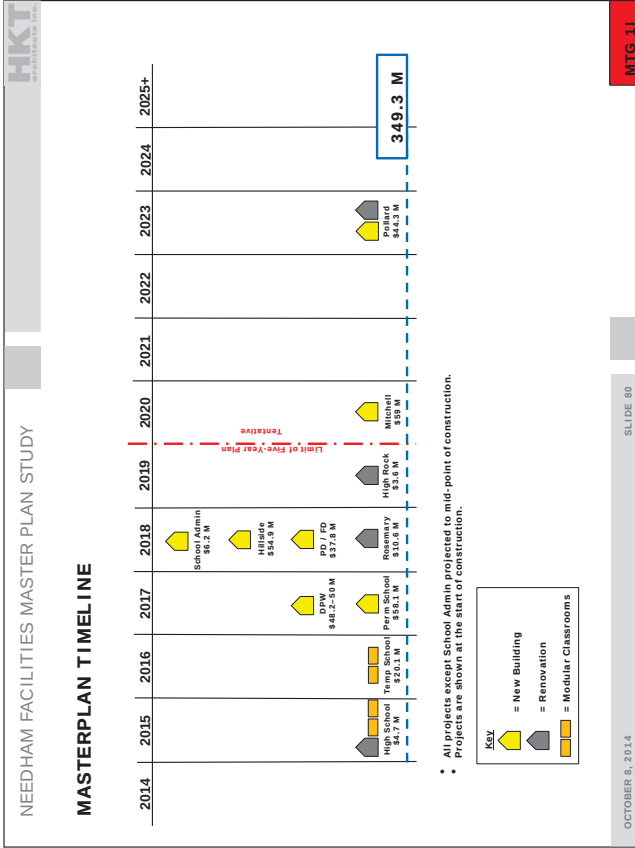
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NEEDHAM FACILITIES MASTER PLAN STUDY

DRAFT OUTLINE OF REPORT

- **Volume 1**
 - Needs Assessment and Programming
 - Evaluation of Existing Building and Sites
 - Review of existing conditions: Architectural, Structural + Site
 - Observe operations
 - Departmental Programming to quantify needs
 - Collect data on personnel and equipment
 - Interview users and establish square footage requirements
 - Establish site requirements
 - Planning Options based on final program for building + site

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NEEDHAM FACILITIES MASTER PLAN STUDY

DRAFT OUTLINE OF REPORT

- **Volume 1**
 - Executive Summary
 - Introduction
 - Outcome for Master Plan
 - Space Needs and Evaluation of Current Facilities
 - Planning Options
 - Implementation Plan
 - Embracing the Master Plan
 - Goals and Objectives

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NEEDHAM FACILITIES MASTER PLAN STUDY

DRAFT OUTLINE OF REPORT

- **Volume 1**
 - Matrix Development: Assess sites against established criteria
 - Probable Costs Development: Summaries of individual projects using 2014 dollars and escalation for 10 years
 - Final Planning Options and Recommendations

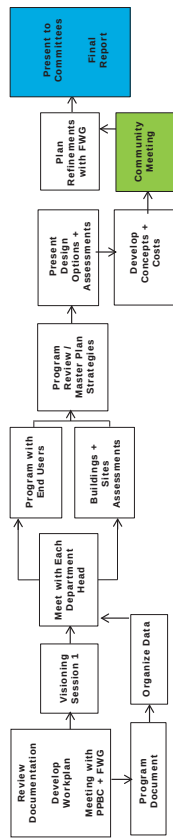
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NEXT STEPS

- All Boards and Community Meeting
- Draft and Final Report



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DRAFT OUTLINE OF REPORT

- **Volume 2: Supplemental Drawings and Charts**
 - Needs Assessment and Programming
 - Existing Site and Building Evaluations
 - Decision Tree Development: Develop potential pathways for planning
 - Timeline Development: Establish Design to Occupation for Projects
 - Planning Options

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DRAFT OUTLINE OF REPORT

- **Volume 3: Appendices**
 - Meeting Reports and Presentations
 - Programming Details
 - Decision Trees
 - Timelines
 - Probable Cost Estimates Details
 - Inventory of Previous Studies
 - Debt Analysis Summary

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THANK YOU

MTG 11

2. MEETINGS AND PRESENTATIONS

All Boards Meeting





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MEETING AGENDA

To: Town of Needham

Date: October 22, 2014

From: HKT Architects, Inc

Project: Needham Facilities
Master Plan

Job No: 21314

Subject: Board of Selectmen – All Boards Meeting

AGENDA

The object of this meeting is to update the Board of Selectmen and all members of other Town Boards on the status of the Facilities Master Plan.

1. Facilities Master Plan Process
 - a. Programming; Building and Site Assessments
 - b. Possible Sites; Review and Consideration
 - c. Option Development
2. Development of Probable Costs
3. Timelines
4. Next Steps

MEETING MINUTES

Project: Needham Town Master Plan

Meeting Date: October 22, 2014

Time: 7:00 PM

Meeting Location: Powers Hall, Needham Town I

Job No: 21314

Meeting Number: All Boards Meeting

Report By: WRH, JMS, DH

Attending: Board of Selectmen

- ☒ Marianne Cooley
- ☒ Matthew Borrelli
- ☒ John Bulian (moderator)
- ☒ Moe Handel, FWG
- ☒ Daniel Matthews

Finance Committee

- ☒ John Connelly, FWG
- ☒ Louise Mizgerd
- ☒ Rick Zimbone
- ☒ Lisa Zappala
- ☒ Dick Reilly
- ☒ Rick Lunetta
- ☒ Louise Miller

Conservation Commission

- ☒ Cory Rhoades
- ☒ Janet Carter Bernardo
- ☒ Artie Crocker, FWG
- ☒ Paul Albert
- ☒ Peter Oehlkers

Planning Board

- ☒ Sam Bass Warner
- ☒ Marty Jacobs

School Committee

- ☒ Aaron Pressman
- ☒ Heidi Black
- ☒ Susan Neckes
- ☒ Joe Barnes, FWG
- ☒ Michael Greis

Parks and Recreation Commission

- ☒ Tom Jacobs
- ☒ Matt Toolan, FWG
- ☒ Cynthia Chaston,
- ☒ Mike Retzky

Permanent Public Building Committee

- ☒ Stuart Chandler
- ☒ Irwin Silverstein
- ☒ John Keene
- ☒ Natasha Espada

Needham Staff

- ☒ Kate Fitzpatrick, Town Mgr., FWG
- ☒ Chris Coleman, Ass't Town Mgr., FWG
- ☒ Paul Buckley, Fire Dept., FWG
- ☒ Philip Droney, Police Dept., FWG
- ☒ Tony DelGaizo, DPW, FWG
- ☒ Bob Lewis, DPW, FWG
- ☒ Rick Merson, DPW, FWG
- ☒ Steve Popper, Public Facilities, FWG
- ☒ Hank Haff (HH), Public Facilities, FWG
- ☒ Dave Davison, Ass't Town Mgr., FWG
- ☒ Lee Newman, Planning + Com Dev, FWG
- ☒ Alexandra Clee, Planning + Com Dev
- ☒ Patty Carey, Park & Recreation
- ☒ Dan Gutekanst, School Supt, FWG
- ☒ Anne Gulati, School Fin. Dir., FWG
- ☒ David Roche, Building Dept.

Others

- ☒ Steven Rosenstock, Precinct B
- ☒ Holly Clarke, Precinct B
- ☒ Gloria Greis, Historical Commission
- ☒ Richard Hardy, Historical Commission
- ☒ Charles Nelson, YMCA
- ☒ Paul Good, YMCA
- ☒ Janet Jankowiak, YMCA
- ☒ John Gallo, Mitchell Area Resident
- ☒ Vasso Mathes, Hillside Parent
- ☒ Molly Pretorius Holme, Hillside Parent
- ☒ Sophia Buckley, Hillside Parent
- ☒ Lesley Murray, Hillside Parent
- ☒ Jen Leonard-Schaffstein, Hillside Parent
- ☒ Kristin Bold, Hillside Parent
- ☒ Jodi Rooney, Resident
- ☒ Anna Lubarsky, Resident
- ☒ Allison C., Resident
- ☒ Emily Roach, Parent Talk
- ☒ Jeffrey Heller, Solid Waste & Recycling Com.
- ☒ Carol Thomas, Library Trustee

HKT Architects

- ☒ Janet M. Slemenda, FWG
- ☒ Bill Hammer, FWG
- ☒ Doug Hartig, FWG

Item		Action
1.01	The object of this meeting was to update the Board of Selectmen and all members of other Town Boards on the status of the Facilities Master Plan. Janet Slemenda of HKT summarized the project sites, five primary categories of work, and the overview of the process: Workplan + Visioning, Programming, Site + Building Assessments + Master Plan Strategies, Site and Criteria Matrix (used to define which sites were most suitable), Option Development (preferred site based on the criteria), Development of Probable Costs (along with a timeline for the sequencing of the projects with budget and logistics for a five year plan and beyond), Presentations to Boards + Community and Final Report.	
1.02	Janet Slemenda introduced project schemes and probable costs: School and School Administration, Department of Public Works, Police / Fire Departments and Parks and Recreation and Conservation. Next, an expenditure forecast, timeline scenarios, and project interconnections were presented. This concluded the presentation from HKT Architects. The slide show is posted on the town web site.	
1.03	The Board of Selectmen opened the floor to questions or comments from board members.	

- 1.04 **Question** — Sam Bass Warner: A parking garage at the current police/fire station #1 would be sensible. SBW commented that a scheme with a garage was shown at an early Facility Working Group (FWG) meeting. It is possible to design such a structure in a modern way and one that is not visible from the street. A 4-5 story parking garage, 2-3 levels above grade, and community building (with pool) could wrap around the site.

Answer — Janet Slemenda: Other options for the Police / Fire Station included a parking garage and an office building, and these were priced and will be included in the appendix of the report.

- 1.05 **Question** - Janet Bernardo: DPW at Greendale Avenue seems like a logical first step. What does the property owner think?

Answer — Kate Fitzpatrick: The boards agreed at the outset that all property would be discussed, and that discussion would not imply that the board having jurisdiction was in agreement.

- 1.06 **Question** — John Connelly: Was there a logic to the order of presentation?

Answer — Janet Slemenda: There was no predetermined order. Because the town has been accepted by the MSBA to start a feasibility study a decision on the schools is an appropriate place to start.

Question — John Connelly: Why is the midpoint of construction is used for construction cost?

Answer — Janet Slemenda: Mid-Point of Construction is used because contractors do not look at costs in the year that the project is bid but look further into the project timeline of construction, the mid-point, so that they can account for cost increases in materials or labor. Each project shown was estimated in 2014 dollars and the next ten years was projected. Then each project was looked at for the timeline of design and construction to determine what year the project might be built and the mid-point of that was selected. Bill Hammer added: Contractors themselves always estimate to the midpoint of construction in their bids to account for union contracts. These estimates are conservative and should be. This is standard practice.

Question — John Connelly: What role has priority played? Pricing and financing are incomplete without debt analysis.

Answer — Steve Popper, addressed later in meeting: The intention of the report is to provide physical and costs aspects that affect direction. Debt ratios are a long-term discussion. The financial information contained in this report will not address debt ratios or ability to pay.

Question — John Connelly: Kate said that all property is on the table. Why is Cricket Field not on the list as a possible school site?

Answer — John Bulian: Not all sites are on the table. The Park and Recreation Commission and the Board of Selectmen took it off the table. Cricket Field is not being considered.

Answer — Cynthia Chaston: We have many playing fields, and cannot look at every playing field as a potential school site.

- 1.07 **Question** — Rick Lunetta: Why do we not have a project that consolidates community needs into a single source facility? Why not combined use? Was that considered?

Answer — Janet Slemenda: Projects included in this Master Plan, by nature, are stand-alone projects. The DPW and Police & Fire most probably should be singular. The FD / PD is best located in the center of Town and a DPW is less compatible with this siting in this study. School administration was considered as a singular structure but on the same site shared with the PD / FD.

- 1.08 **Question** — Louise Miller: In reference to the temporary school, what other options or sites have been explored?

Answer — Janet Slemenda: We are using the information documented in the school studies completed by Dore & Whittier. DeFazio parking lot is the only site large enough to accommodate this program.

- 1.09 **Question** — Irwin Silverstein: Where is the proposed footprint of the Hillside School footprint to go?

Answer — Steve Popper: We relied on the Dore and Whittier report using essentially the same footprint if the school is located at Hillside. DeFazio is the only logical place for a potential relocation of the Hillside School.

Question — Irwin Silverstein: Will the new school be a 6th grade school? What happens to the Hillside population?

Answer — Janet Slemenda: The school population will be redistricted.

Answer — Michael Greis: A 6th grade school is one option. Redistricting is necessary either way.

- 1.10 **Question** — Rick Zimbone: If we put the middle school at DeFazio Park, we would not use Hillside?

Answer - Michael Greis: Yes, just as a swing space.

Question — Rick Zimbone: How do we factor in prioritization of projects?

Answer - John Bulian: We will work with the boards and committees once the financing plan is drafted.

Question — Rick Zimbone: What about reuse of the Steven Palmer building

Answer — John Bulian: The board has not taken any action with this property. The owner of Steven Palmer Senior Center has not volunteered to sell. Its lease is getting shorter each time we explore it as an option.

Answer — Kate Fitzpatrick: The current lease will not expire until 2027. Because there is over a decade on that lease it was not explored in the report.

1.11 **Question** — Cindy Chaston: What decisions come first?

Answer — Janet Slemenda: The next five years includes deciding whether a temporary or permanent school is to be built at DeFazio, and the timeline scenarios presented suggest what could happen after that.

Answer — Kate Fitzpatrick: Needham has already appropriated funds for school feasibility. The Hillside School decision will determine future plans, and have a domino effect on many subsequent projects.

1.12 **Question** — Louise Miller: Will the school cost at DeFazio Park include paving?

Answer — Steve Popper: Yes, the feasibility study cost includes paving at DeFazio Park.

1.13 **Question** — Sam Bass Warner: What processes were used for considering locations for a new pool?

Answer — Steve Popper: Previous reports explored these options. We are not going to open up the conclusions of these studies unless circumstances dictate. They stand on their own merits.

1.14 Tom Jacobs commented: The temporary school at DeFazio Park has the benefit of a permanent gym, paving, and swing space. For the record, \$20 M for a temporary school is not throwing money out the window.

Question — Tom Jacobs: There seems to be an advantage at the RTS site for a DPW. Years from now, we may look back and say why we did not put the DPW there?

Answer — Moe Handel: There are traffic, topographic and site limitations reasons that made RTS not as desirable for the full DPW.

1.15 Matt Toolan commented: In the actual feasibility studies that will be carried out later where more sites can be explored. These may not be the final sites, and this is a high-level analysis.

1.16 **Question** — Stuart Chandler: Is there a critical path for these projects in relation to regulatory, federal or state government stipulations that we have not addressed?

Answer — Steve Popper: Several jurisdictions are involved. State legislative approval is necessary for building at some sites including Parcel 74. The final report will identify these.

Answer — Kate Fitzpatrick: Environmental rules are becoming stricter and may impact the operation of the DPW at its current site.

- 1.17 **Question** — Matthew Borrelli: Is there an additional cost associated with re-appropriating temporary schools for different uses?

Answer — Janet Slemenda: There are no specific cost amounts noted at this time, but adjustments for some spaces, such as science labs, would require additional funding.

Question — Matthew Borrelli: Is there a phasing plan for the DPW?

Answer — Janet Slemenda: We have begun to discuss this with Rick Merson, Steve Popper and Hank Haff. Preliminary phasing plans would suggest that the early phase would address problem areas for the DPW: fueling, wash bay and vehicle storage.

- 1.18 **Question** — Dick Reilly: How do decisions get made going forward?

Answer — Kate Fitzpatrick: The report will include alternatives, and a financing plan will be developed. If costs and debt ratios are too high, then the people will help decide what is important. Final financing carries on through the first couple of projects.

Answer — Marianne Cooley: The first few projects will happen, and then other projects will arise. The report is for guidance.

- 1.19 **Question** — Marty Jacobs: With the DPW, is there an operational cost savings or impact on the neighborhood being included in the studies?

Answer — Janet Slemenda: No, that would occur in a future phase; neighborhood concerns and operational impacts were part of the criteria, and premiums costs for items such as fencing and heavy planting to buffer the neighborhood were included as part of the cost estimate.

Question — Marty Jacobs: Why is 6% the factor for escalation for the first two years, then 3.8%? Where did these numbers come from?

Answer — Janet Slemenda: A professional estimator developed this Opinion of Probable Costs and based their opinion on experience, qualifications and best judgment. Looking at market trends and after discussion with Facilities staff members the 6% and 3.8% numbers were agreed to. It is possible that these numbers could go higher, especially this year.

- 1.20 **Question** — Matthew Borrelli: Is the Pollard School square foot estimate number from a previous study?

Answer — Janet Slemenda: Yes, and it has been escalated. (The Final Report of the Comprehensive Facilities Assessment for the Pollard Middle School – 8/22/2011).

Questions — Has Park & Recreation discussed a public/private partnership in the context of the community center?

Answer - Matt Toolan: There is the possibility of a public/private partnership but the biggest issue is the amount of available land.

- 1.21 Daniel Matthews commented: The first five years typically go as planned. People should not assume they will be asked to vote on a 15 year plan. Each project will have feasibility studies, voting, and consider orders of magnitude. We need to be mindful that early decisions limit what we can do later on. This is a framework and each project will have its own process. There is a logical progression. We will be asking, 'does it make sense to build a school at DeFazio Park, and if so, temporary or permanent? Then what if anything will we do with the DPW?'

- 1.22 **Question** — Aaron Pressmen: Do we have a partner for a public private partnership? How did Nike come up as a possible site?

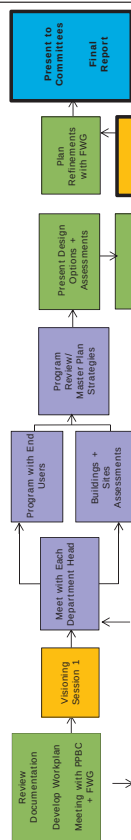
Answer — Janet Slemenda: The Nike site, which is under the jurisdiction of the School Department, was a designated site to be studied during this effort. Nike was not looked at for schools, as previous studies determined that it was not the best place for a school. The Nike site was looked at for a School Administration Building the DPW and a Community Center.



NEEDHAM FACILITIES MASTER PLAN STUDY

FACILITIES MASTER PLAN: PROCESS

- Workplan + Visioning
 - Programming, Site + Building Assessments + Master Plan Strategies
 - Site and Criteria Matrix
 - Option Development
 - Development of Probable Costs
 - Presentations to Boards + Community
- Final Report



NEEDHAM FACILITIES MASTER PLAN STUDY

CRITERIA MATRIX

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NEEDHAM FACILITIES MASTER PLAN STUDY

SCHOOLS

- High School
 - Designed for 1,450 students with ability to accommodate 1,600; now projected to exceed 1,700 for an extended period of time
 - Massachusetts School Building Authority – dictated original program
 - Town student population has exceeded projections during past decade
 - Permanent Modulars/Pre-fab classrooms with expanded cafeteria are being considered
- Emery Grover Building
 - Not accessible for staff or visitors
 - Undersized Meeting Rooms + Offices
 - Physical condition is poor
 - Historic Building
 - Unusable attic
 - Daley Building
- Supports all Town Buildings not just school buildings
- Nike Site: too remote for school, alternate uses?



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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: TEMPORARY SCHOOL AT DEFAZIO PARK: Estimate to Mid-Point of Construction - 2017

Item #1	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	TEMPORARY SCHOOL AT DEFAZIO PARK	56,296	\$12,766,598	\$227	\$17,234,908	\$306

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$18,269,002	\$19,395,142	\$20,151,017	\$20,864,811	\$21,557,721	\$22,240,714	\$22,934,981	\$24,221,710	\$25,142,135	\$26,097,556	\$27,089,242

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NEEDHAM FACILITIES MASTER PLAN STUDY

SCHOOLS

- High School
 - Designed for 1,450 students with ability to accommodate 1,600; now projected to exceed 1,700 for an extended period of time
 - Massachusetts School Building Authority – dictated original program
 - Town student population has exceeded projections during past decade
 - Permanent Modulars/Pre-fab classrooms with expanded cafeteria are being considered



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NEEDHAM FACILITIES MASTER PLAN STUDY

TEMPORARY SCHOOL AT DEFAZIO PARK



O & W Preliminary Study 2012

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2014 NEEDHAM FACILITIES MASTER PLAN STUDY

HKT
architects inc.

NEEDHAM FACILITIES MASTER PLAN STUDY

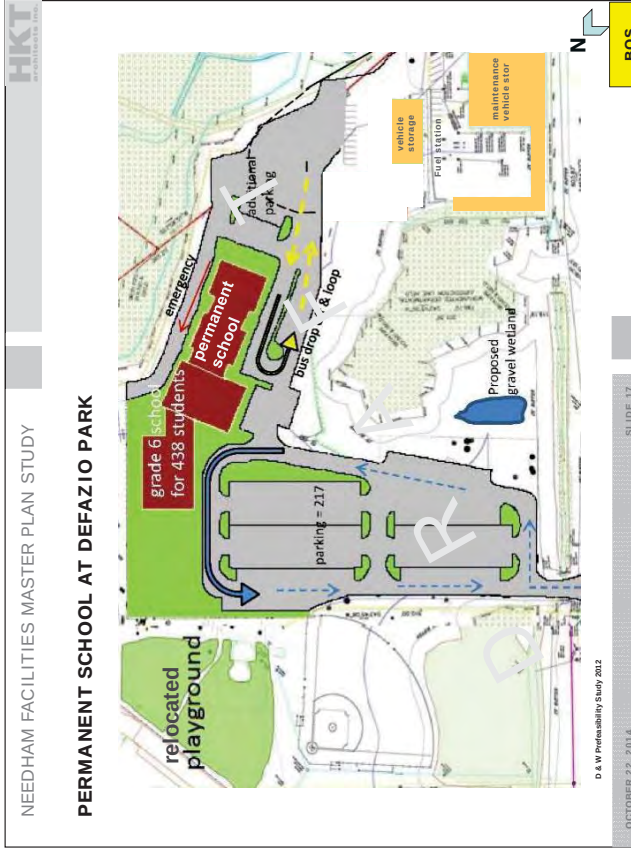
PROBABLE COSTS: HILLSIDE REBUILD: Estimate to Mid-Point of Construction - 2019

Item #2	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	HILLSIDE REBUILD	80,650	\$30,370,400	\$377	\$43,687,000	\$542

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$46,308,220	\$49,086,713	\$50,992,008	\$52,748,184	\$54,897,935	\$56,884,057	\$58,148,451	\$61,397,130	\$63,730,221	\$66,151,969	\$68,665,744

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: PERMANENT SCHOOL AT DEFAZIO PARK: Estimate to Mid-Point of Construction - 2018

Item #3	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	PERMANENT SCHOOL AT DEFAZIO PARK	83,200	\$31,301,000	\$376	\$48,003,000	\$577

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$50,883,180	\$53,036,171	\$55,985,745	\$58,113,203	\$60,321,505	\$62,613,722	\$64,993,043	\$67,482,778	\$70,026,365	\$72,687,367	\$75,448,487

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: HIGH ROCK RENOVATION/ADDITION: Project not necessary if a Permanent School is not constructed; Estimate to Mid-Point of Construction - 2019

Item #4	Project	SF Estimated	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	RENOVATION/ADDITION AT HIGH ROCK SCHOOL	7,000	\$2,100,000	\$300	\$2,835,000	\$405

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$3,005,100	\$3,105,406	\$3,306,451	\$3,432,096	\$3,562,516	\$3,697,892	\$3,838,412	\$3,984,272	\$4,135,674	\$4,292,830	\$4,455,058

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NEEDHAM FACILITIES MASTER PLAN STUDY

HKT

PROBABLE COSTS: MITCHELL REBUILD: Estimate to Mid-Point of Construction – 2021

Item #6	Project	SF Estimated	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	MITCHELL REBUILD	82,227	\$30,244,640	\$368	\$43,550,000	\$530

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$46,165,000	\$48,932,760	\$50,792,226	\$52,722,331	\$54,725,760	\$56,805,360	\$58,963,964	\$61,204,595	\$63,530,370	\$65,944,524	\$68,450,416

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NEEDHAM FACILITIES MASTER PLAN STUDY

HKT

RELOCATION OF SCHOOL ADMINISTRATION TO PSAB; Renovation of PSAB, Pump Station Building + Additional Parking

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NEEDHAM FACILITIES MASTER PLAN STUDY

HKT

PROBABLE COSTS: HIGH SCHOOL RENOVATIONS + MODULARS: Estimate to Mid-Point of Construction - 2016

Item #5	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	HIGH SCHOOL RENOVATIONS + MODULARS	8,062	\$3,453,220	\$428	\$4,144,964	\$514

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$4,395,682	\$4,657,282	\$4,834,259	\$5,017,961	\$5,208,644	\$5,406,572	\$5,612,022	\$5,825,279	\$6,046,640	\$6,276,412	\$6,514,916

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NEEDHAM FACILITIES MASTER PLAN STUDY

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PROBABLE COSTS: POLLARD ADDITION + RENOVATIONS: Estimate to Mid-Point of Construction – 2024

Item #7	Project	SF Estimated	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	POLLARD ADDITION + RENOVATIONS		\$21,650,570		\$29,228,270	

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$30,981,966	\$32,840,884	\$34,088,838	\$35,384,214	\$36,728,814	\$38,124,509	\$39,573,240	\$41,077,023	\$42,637,950	\$44,258,192	\$45,940,003

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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS

- Current existing structures + outdoor sites
- Hollis Building, Sheds + Cold Storage: 38,224 GSF
- New vehicle storage building: 4,998 GSF
- PSAB building = 21,777 GSF
- Water Pumping Station = 2,400 GSF
- Other Sites: DeFazio, Daley, Alden Road Pump Station, Charles River WTP, Reservoir B, St Mary's Pump Station, Cricket Field, Claxton Field, Memorial Field, Ridge Hill = +/- 47,434 GSF
- Recycle and Transfer Station

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: RELOCATION OF SCHOOL ADMINISTRATION TO PSAB;
Renovation of PSAB, Pump Station Building + Additional Parking: Estimate to Mid-Point of Construction – 2018 or 2019

Item #9	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	PSAB + PUMP BLDG RENO + PARKING		\$3,794,850		\$5,123,048	
			<i>total</i>		<i>total</i>	
	LIGHT RENOVATIONS AT PSAB	21,777	\$1,200,850	\$50	\$1,469,948	\$68
	PUMP STATION MEETING ROOM / CONNECTOR with SITE	3,500	\$1,078,100	\$308	\$1,455,300	\$416
	DEMOLISH DPW + SITE CLEANUP		\$1,057,500		\$1,427,625	
	ADDITIONAL PARKING		\$570,500		\$770,175	

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$5,430,431 total	\$5,976,257 total	\$6,202,044 total	\$6,437,722 total	\$6,673,409 total	\$6,909,096 total	\$7,144,783 total	\$7,380,469 total	\$7,616,156 total	\$7,851,842 total	\$8,087,528 total	\$8,323,214 total
\$1,558,145	\$1,651,634	\$1,745,123	\$1,838,612	\$1,932,101	\$2,025,590	\$2,119,079	\$2,212,568	\$2,306,057	\$2,399,546	\$2,493,035	\$2,586,524
\$1,542,18	\$1,635,175	\$1,728,164	\$1,821,153	\$1,914,142	\$2,007,131	\$2,100,120	\$2,193,109	\$2,286,098	\$2,379,087	\$2,472,076	\$2,565,065
\$1,513,283	\$1,604,079	\$1,694,875	\$1,785,671	\$1,876,467	\$1,967,263	\$2,058,059	\$2,148,855	\$2,239,651	\$2,330,447	\$2,421,243	\$2,512,039
\$816,386	\$865,369	\$914,352	\$963,335	\$1,012,318	\$1,061,301	\$1,110,284	\$1,159,267	\$1,208,250	\$1,257,233	\$1,306,216	\$1,355,199

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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS: OBSERVATIONS

- Existing site: high water table, perennial stream / channel, DEP concerns
- Storage of vehicles, equipment + materials is located throughout Town
 - Some equipment + materials should remain dispersed at sites
- Materials handling areas at DPW site + RTS: storage of stock materials such as sand + gravel and areas to store materials removed during street sweeping, catch basin cleanup or asphalt repairs or from Town construction sites should be defined and controlled
- Areas of cold storage, sander bodies + spreaders, pipes + manhole covers etc. should be located to secure and maintain stock and to be nearby other equipment needed to complete a typical or emergency project

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NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS: OBSERVATIONS

- Operations and Administration are on same site but not together
- Existing DPW facility is undersized for the fleet + personnel
 - Building is not accessible; Stairs and egress paths must meet code
- Building Systems neither current nor energy efficient
- Employee facilities lacking
- Garage is 60' width vs 98'; height should be minimally 17' clear of structure or systems, Hollis is 18' to top of building
- Maintenance + Shops: Should have minimum 6-7 bays (current at 3), storage for fluids, tires and parts and supplies; shops per department

OCTOBER 22, 2014 SLIDE 26 BOS

NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS: PROGRAMMING NEEDS

- Insufficient space to consolidate and build modern facility at Dedham Avenue
- Benefits to consolidation of personnel + equipment
- Vehicles stored indoors protect these valuable assets and help improve localized site conditions
- Total area required to store vehicles + equipment dependent on decision to build a consolidated facility versus a distributed one
- Program : Administrative and operations offices, operations area including employee support, garage/maintenance, shops, wash bay, fuel, vehicle staging and prep and building and site support



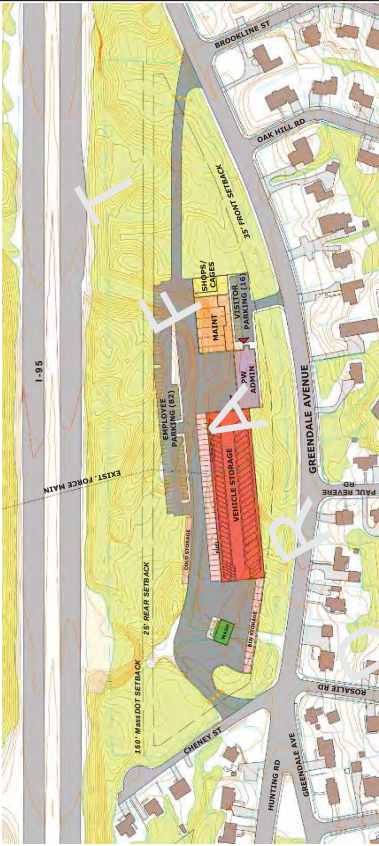
OCTOBER 22, 2014

SLIDE 28

BOS

NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS AT PARCEL 74/GREENDALE AVE.



OCTOBER 22, 2014

SLIDE 29

BOS

NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: DEPARTMENT OF PUBLIC WORKS RELOCATES TO PARCEL 74/GREENDALE AVE.: Estimate to Mid-Point of Construction dependent on decision to build Temporary (2017) or Permanent (2018) School

Item #14	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	DPW REBUILD AT PARCEL 74 / GREENDALE AVE	92,442	\$30,591,734	\$331	\$41,298,841	\$447

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$43,776,771	\$46,403,377	\$48,166,705	\$49,997,040	\$51,800,000	\$53,669,011	\$55,516,033	\$57,404,842	\$59,246,394	\$62,535,757	\$64,912,116

OCTOBER 22, 2014

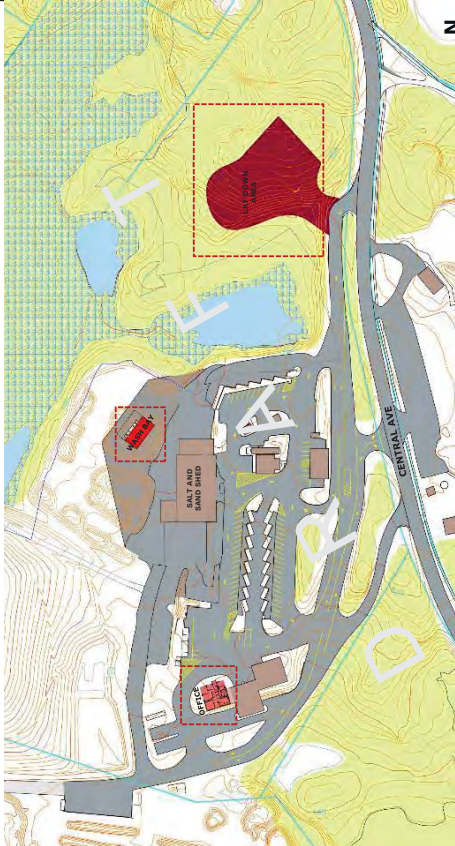
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DRAFT

BOS

NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS AT RTS - RENOVATIONS



OCTOBER 22, 2014

SLIDE 31

BOS

NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: RTS RENOVATIONS: Estimate in Year 2014

Item #15	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	RTS RENOVATIONS	4,320	\$1,623,000	\$376	\$2,191,050	\$507

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$2,322,513	\$2,461,864	\$2,555,415	\$2,652,521	\$2,753,317	\$2,857,943	\$2,966,545	\$3,078,274	\$3,196,286	\$3,317,745	\$3,443,819

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NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS

- Current Station #1: +/- 31,145 SF
 - Police: +/- 13,095 SF
 - Fire: +/- 11,634 SF
 - Shared: +/- 6,416 SF
- Current Station #2: +/- 9,630 SF
- Programming Needs at Police + Fire Station #1: 43,966 SF
 - Shared spaces and building support: +/- 6,019 SF
 - Police: +/- 21,609 SF
 - Fire: +/- 16,339 SF

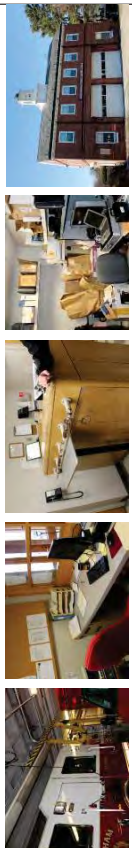


OCTOBER 22, 2014 SLIDE 33 BOS

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS: OBSERVATIONS

- Current building is undersized for current vehicles and equipment
- Organization of spaces does not reflect police + fire operational needs
- Building is not accessible
- Shared resources: FD + PD dispatch, waiting area, conference and EOC are not well located
- No sallyport – detainees are escorted across open parking lot; No holding area; Booking area too small and too much prisoner access to personnel and equipment; Evidence area lacking
- Support spaces for apparatus inadequate; height and width do not meet current standards



OCTOBER 22, 2014 SLIDE 34 BOS

NEEDHAM FACILITIES MASTER PLAN STUDY

POLICE AND FIRE DEPARTMENTS

- Site requirements
 - Visitor Parking: 24 hrs; prime 7am to 10pm
 - Personnel Parking: overlapping shifts for both departments
 - Dumpster
 - Impound area (currently in wash bay)
 - Emergency generator
- Movement of emergency vehicles: Fire and Police Vehicles must be able to move quickly and effortlessly from site



OCTOBER 22, 2014 SLIDE 35 BOS

NEW POLICE/FIRE: OPTION 3 – STAND ALONE

- [illegible]

BOS



PARKS AND RECREATION / CONSERVATION

- Parks + Rec and Conservation are largest controllers of land in town
- Current buildings primarily used during summer
- Many buildings include storage component used by DPW
- Ridge Hill site has restricted use
- Many community programming needs have been met in other buildings but there are some that remain. Some can be accommodated in:

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	POLICE/FIRE SITE OPTION 3 – STAND ALONE	51,604	\$22,277,490	\$432	\$30,074,612	\$583

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Revenue	\$31,879,089	\$33,791,324	\$35,075,924	\$38,408,089	\$37,922,444	\$39,228,453	\$40,119,134	\$42,266,461	\$43,872,587	\$45,539,745	\$47,770,285



BOS

PARKS AND RECREATION /CONSERVATION

- Conservation would like to improve degraded site conditions but recognize current uses
- How can work be accomplished on challenging sites like the existing DPW?
 - Preferable to do mitigation on previously disturbed areas
 - Allow water to move in a more natural manner
 - Provide improvements in another area of the site or on other sites
- Should wildlife, including the appearance of coyotes and an expanding bear population, reduce potential use of any site. What are reasonable mitigation measures?

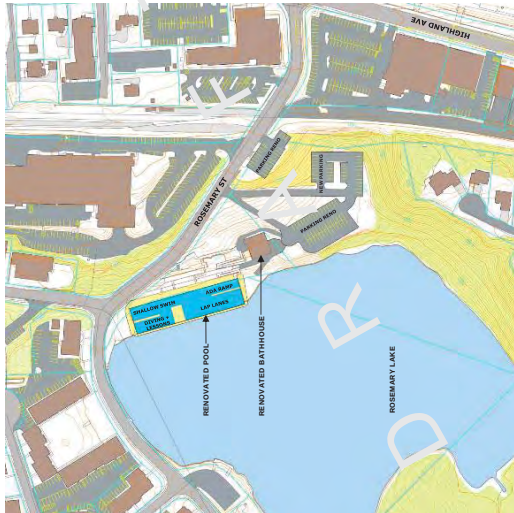


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BOS

ROSEMARY POOL – PROPOSED RENOVATION (OPTION 3B)



W & S Study 2013/2014

SLIDE 41

BOS

PROBABLE COSTS: ROSEMARY POOL: Estimate to Mid-Point of Construction - 2018

Item #25	Project	SF	Construction Cost	\$ / SF	Total Project Cost YR 2014	\$ / SF
ROSEMARY POOL			\$6,382,775		\$8,778,869	

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$9,305,601	\$9,063,937	\$10,238,767	\$10,627,640	\$11,031,698	\$11,450,903	\$11,886,037	\$12,337,706	\$12,806,539	\$13,293,187	\$13,798,328	

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BOS

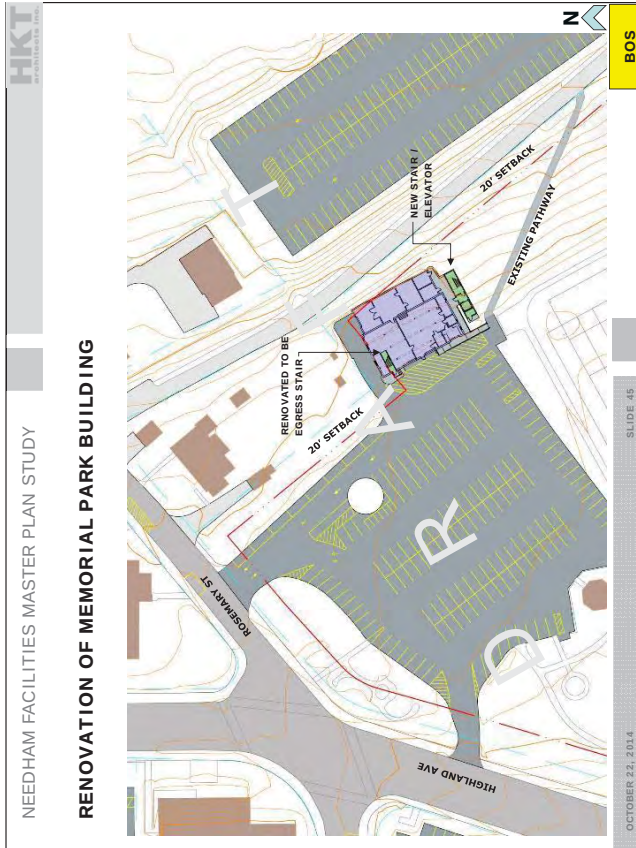
CRICKET FIELD– PROPOSED RENOVATION – 3 SEASON OPTION



BMA Feasibility Study 12/98

SLIDE 43

BOS



NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: CRICKET FIELD BUILDING: Estimate to Mid-Point of Construction - 2015

Item #26	Project	SF	Construction Cost	\$ / SF	Total Project Cost YR 2014	\$ / SF
	CRICKET FIELD BUILDING: 3 SEASON		\$700,566		\$945,764	

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$1,002,510	\$1,062,660	\$1,103,042	\$1,144,957	\$1,188,465	\$1,233,627	\$1,280,505	\$1,329,164	\$1,379,672	\$1,432,100	\$1,486,520

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BOS



NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: RENOVATED BUILDING AT MEMORIAL PARK: Estimate in Year 2014

Item #27	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	MEMORIAL PARK BUILDING - RENOVATION	7,260	\$745,960	\$103	\$1,007,046	\$139

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$1,067,469	\$1,131,517	\$1,174,515	\$1,219,147	\$1,265,475	\$1,313,563	\$1,363,478	\$1,415,290	\$1,469,071	\$1,524,896	\$1,582,842

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BOS

NEEDHAM FACILITIES MASTER PLAN STUDY

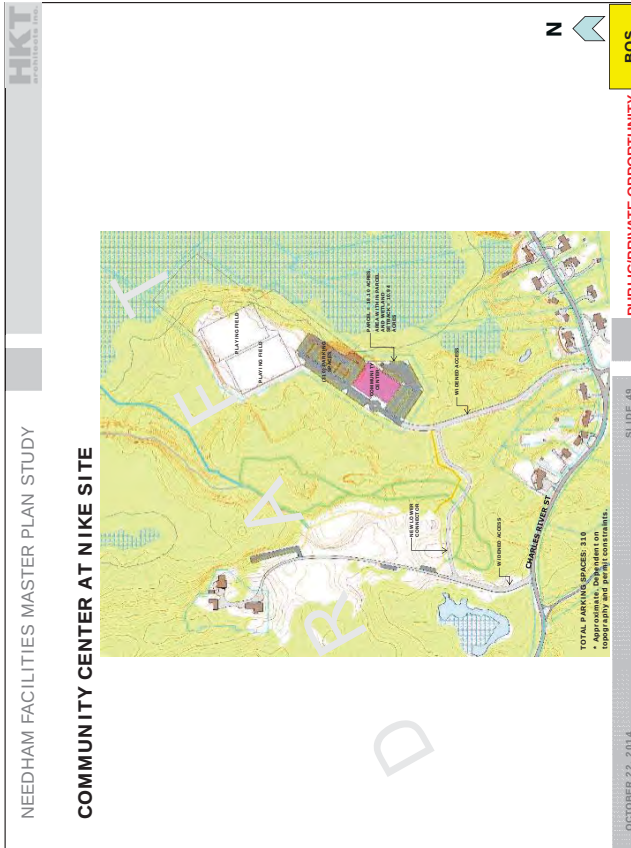
PROBABLE COSTS: NEW BUILDING AT MEMORIAL PARK: Estimate in Year 2014

Item #28	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	MEMORIAL PARK – NEW BUILDING	14,584	\$4,372,236	\$300	\$5,902,519	\$405

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$6,256,670	\$6,632,070	\$6,884,989	\$7,145,684	\$7,417,220	\$7,699,074	\$7,991,639	\$8,295,321	\$8,610,543	\$8,937,744	\$9,277,378

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NEEDHAM FACILITIES MASTER PLAN STUDY

COMMUNITY BUILDING AT RIDGE HILL + SHARED USE OF NIKE SITE

OCTOBER 22, 2014 SLIDE 50 PUBLIC/PRIVATE OPPORTUNITY BOS

NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: COMMUNITY CENTER AT NIKE SITE: Estimate in Year 2014

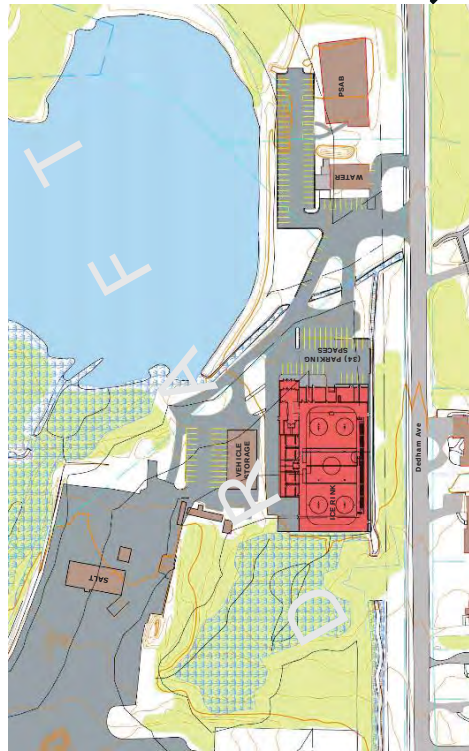
Item #29	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	COMMUNITY CENTER AT NIKE SITE	62,000	\$21,419,250	\$345	\$28,915,988	\$466

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$20,550,947	\$21,490,004	\$22,424,624	\$23,354,624	\$24,284,624	\$25,214,624	\$26,144,624	\$27,074,624	\$28,004,624	\$28,934,624	\$29,864,624

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ICE RINK AT 470 DEDHAM AVE



OCTOBER 22, 2014

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PUBLIC/PRIVATE OPPORTUNITY

BOS

ICE RINK AT TOWN FOREST



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PUBLIC/PRIVATE OPPORTUNITY

BOS

PROBABLE COSTS: ICE RINK AT 470 DEDHAM AVE: Estimate in Year 2014

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
32	DEDHAM AVE ICE RINK	35,272	\$8,817,340	\$250	\$11,903,409	\$337

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$12,617,616	\$13,374,671	\$13,882,908	\$14,410,450	14,958,056	\$15,526,462	\$16,116,468	\$16,728,894	\$17,364,592	\$18,024,446	\$18,709,375

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BOS

PROBABLE COSTS: ICE RINK AT TOWN FOREST: Estimate in Year 2014

Item #	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	TOWN FOREST ICE RINK	36,839	\$9,758,860	\$265	\$13,174,451	\$358

10 Year Escalated Costs

	10 Year Escorted Costs										
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Escorted Costs	\$13,864,929	\$14,802,025	\$15,365,332	\$15,449,215	\$16,555,285	\$17,184,386	\$17,837,393	\$18,515,214	\$19,218,792	\$19,940,106	\$20,707,172

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BOS

MASTER PLAN TIMELINE: EXPENDITURE FORECAST

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025+
1. Capital Expenditure											
2. Operating Expenditure											
3. Total Expenditure											
4. Total Expenditure (Millions)											
5. Total Expenditure (Thousands)											
6. Total Expenditure (Hundreds of Thousands)											
7. Total Expenditure (Tens of Thousands)											
8. Total Expenditure (Thousands of Dollars)											
9. Total Expenditure (Millions of Dollars)											
10. Total Expenditure (Billions of Dollars)											
11. Total Expenditure (Trillions of Dollars)											
12. Total Expenditure (Quadrillions of Dollars)											
13. Total Expenditure (Quintillions of Dollars)											
14. Total Expenditure (Sextillions of Dollars)											
15. Total Expenditure (Septillions of Dollars)											
16. Total Expenditure (Octillions of Dollars)											
17. Total Expenditure (Nonillions of Dollars)											
18. Total Expenditure (Decillions of Dollars)											
19. Total Expenditure (Undecillions of Dollars)											
20. Total Expenditure (Duodecillions of Dollars)											
21. Total Expenditure (Tridecillions of Dollars)											
22. Total Expenditure (Quadrdecillions of Dollars)											
23. Total Expenditure (Quintdecillions of Dollars)											
24. Total Expenditure (Sextdecillions of Dollars)											
25. Total Expenditure (Septdecillions of Dollars)											
26. Total Expenditure (Octodecillions of Dollars)											
27. Total Expenditure (Nonacillions of Dollars)											
28. Total Expenditure (Decillions of Dollars)											
29. Total Expenditure (Undecillions of Dollars)											
30. Total Expenditure (Duodecillions of Dollars)											
31. Total Expenditure (Tridecillions of Dollars)											
32. Total Expenditure (Quadrdecillions of Dollars)											
33. Total Expenditure (Quintdecillions of Dollars)											
34. Total Expenditure (Sextdecillions of Dollars)											
35. Total Expenditure (Septdecillions of Dollars)											
36. Total Expenditure (Octodecillions of Dollars)											
37. Total Expenditure (Nonacillions of Dollars)											
38. Total Expenditure (Decillions of Dollars)											
39. Total Expenditure (Undecillions of Dollars)											
40. Total Expenditure (Duodecillions of Dollars)											
41. Total Expenditure (Tridecillions of Dollars)											
42. Total Expenditure (Quadrdecillions of Dollars)											
43. Total Expenditure (Quintdecillions of Dollars)											
44. Total Expenditure (Sextdecillions of Dollars)											
45. Total Expenditure (Septdecillions of Dollars)											
46. Total Expenditure (Octodecillions of Dollars)											
47. Total Expenditure (Nonacillions of Dollars)											
48. Total Expenditure (Decillions of Dollars)											
49. Total Expenditure (Undecillions of Dollars)											
50. Total Expenditure (Duodecillions of Dollars)											

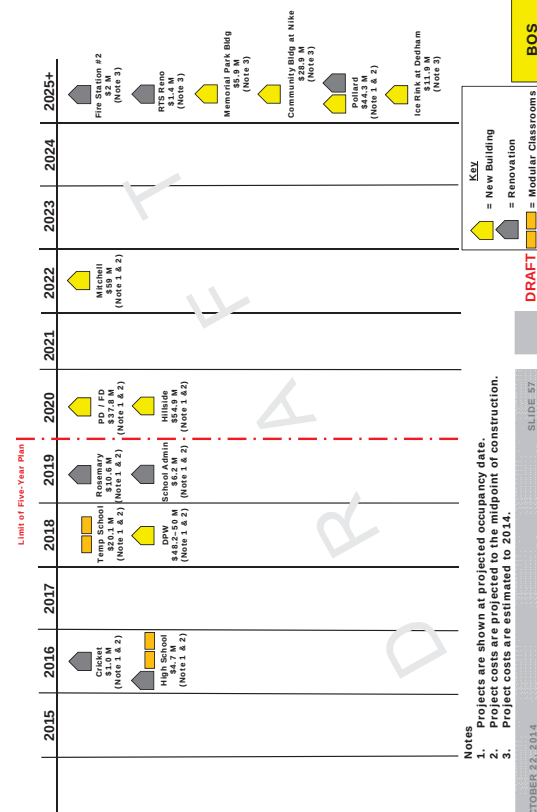
OCTOBER 22, 2014

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DRAFT OF EXPENDITURE FORECAST

BOS

MASTERPLAN TIMELINE: SCENARIO 1 - Temporary School at DeFazio Park



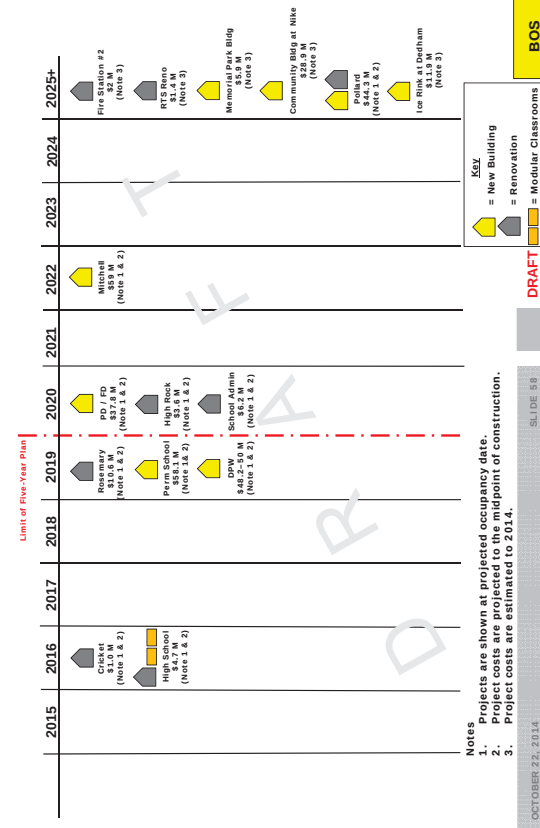
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BOS

MASTERPLAN TIMELINE: SCENARIO 2 - Permanent School at DeFazio Park



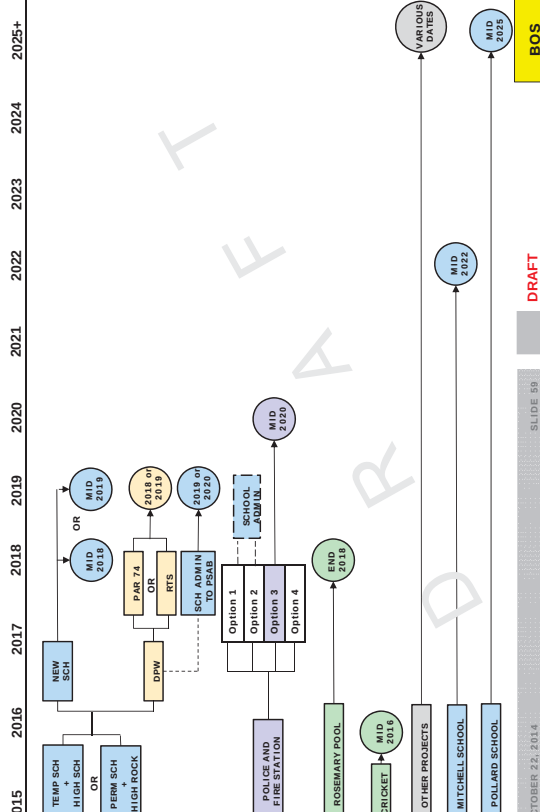
OCTOBER 22, 2014

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BOS

MASTERPLAN TIMELINE: INTERCONNECTIONS



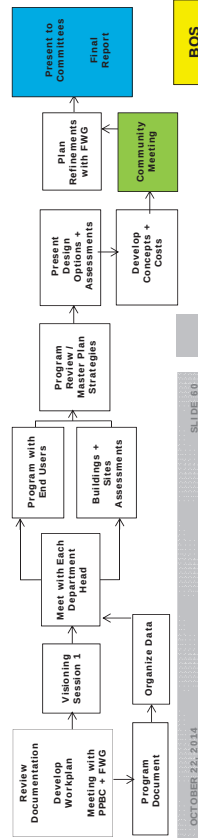
OCTOBER 22, 2014

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DRAFT

BOS

- Community/PPBC Meeting on November 24, 2014 at 7:00 PM
- Final Report



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BOS



THANK YOU

BOS

2. MEETINGS AND PRESENTATIONS

PPBC Meetings





NEEDHAM FACILITIES MASTER PLAN STUDY







NEEDHAM FACILITIES MASTER PLAN STUDY

AGENDA

- Master Plan Goals and Objectives
- Master Plan Process
 - Facility Working Group Charge
 - Scope and Timeline
- Overview of sites and buildings involved in Master Plan
- Review of program and potential options for :
 - Department of Public Works
 - Fire and Police Department
 - Schools and School Administration
 - Rosemary Pool, Nike and Ridge Hill sites
- Where to look for additional information on Master Plan
- Questions and Comments



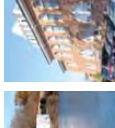
NEEDHAM FACILITIES MASTER PLAN STUDY

MASTER PLAN GOALS AND OBJECTIVES

- Complete Town wide assessment of municipal structures and sites with focus on projects anticipated for design and construction over the next 10-20 years
- Analyze Town priorities for providing additional space to support the needs of all Town departments including repairs, renovations and new construction
- Establish capital project priorities and a realistic schedule for that work









NEEDHAM FACILITIES MASTER PLAN STUDY

MASTER PLAN PROCESS: Facility Working Group Charge

- Provide advice and input to the PPBC and BoS in the development of an updated Master Plan
- Assist the PPBC in its evaluation of current and future needs of identified capital facilities
- Evaluate and make recommendations relative to timing and financing of future capital projects
- Evaluate the Town's existing and potential land use inventory and make recommendations as to any beneficial alteration in the location of capital facilities









NEEDHAM FACILITIES MASTER PLAN STUDY

[illegible]

- Work includes:
 - Programming and assessment
 - Studying design options for Town held properties
 - Exploring alternative sites
 - Meeting with Town representatives and making public presentations
 - Assisting in establishing capital project priorities and schedules
- Timeline:
 - Work began mid December 2013 and Master Plan report will be completed prior to Fall 2014 Town Meeting

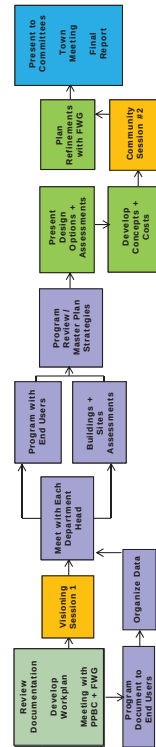


Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	

NEEDHAM FACILITIES MASTER PLAN STUDY

[illegible]

- Police and Fire Buildings
- Department of Public Works Buildings
- School/School Administration Buildings
- Park and Recreation Buildings
- Ridge Hill Buildings
- Various other sites owned by Town

[illegible]

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: DPW

- DPW Building: original structure circa 1960, 2nd floor addition circa 1965
- The building consists of a 1-story vehicle storage area (60'x191') + a 2-story vehicle maintenance/locker room/office area (60'x191' + 60'x148')
- A perennial stream/channel is located against the building foundation along the south side
- First floor is slab on grade
- Masonry bearing walls supporting steel roof on vehicle storage bay. Two-storey portion is steel frame, with masonry infill walls
- No seismic restraints in the structural system



Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: DPW

- Vehicle Storage and Maintenance bay clear heights are inadequate
- Garage is 60' width vs 98' height should be minimally 17' clear of structure or systems, 470 Dedham is 18' to top of building
- Maintenance : Should have minimum 6-7 bays (current at 3), storage for fluids, tires and parts and supplies
- Shops: Should provide adequate work and consolidated storage areas



Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: DPW

- Open exterior stair as means of egress from the second floor does not meet code; Interior stair from second floor is not enclosed
- Egress doors are unmarked or blocked by equipment



Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: DPW

- No fire suppression system
- The building envelope does not meet current energy code
- No accessible means to the second floor
- No accessible toilets



Community Meeting

NEEDHAM FACILITIES MASTER PLAN STUDY

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: DPW

- Vehicles, equipment + materials are located throughout Town:
 - Dedham Ave., RTS, Daley Bldg., Alden Road Pump Station, Charles River WTP, Reservoir B, St. Mary's Pump Station, Ridge Hill, Memorial Field, Defazio, Claxton and Cricket Fields. The DPW would prefer to maintain space at some facilities, fields and parks, because this is where the equipment/materials are primarily used
- Vehicles and equipment stored indoors protect these valuable assets and help improve localized site conditions
- Some storage areas are under the control of other departments and are subject to change as Towns needs change



Community Meeting

NEEDHAM FACILITIES MASTER PLAN STUDY

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: DPW



Community Meeting

NEEDHAM FACILITIES MASTER PLAN STUDY

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: DPW

- Materials handling areas: storage of stock materials such as sand + gravel and areas to store materials removed during street sweeping, catch basin cleanout or asphalt repairs and from Town construction sites needs should be defined and controlled
- Currently stored at DPW site near original salt shed + RTS
- Areas of cold storage, sander bodies + spreaders, pipes + manhole covers etc. should be located to secure and maintain stock and to be nearby other equipment needed to complete the project



Community Meeting

NEEDHAM FACILITIES MASTER PLAN STUDY

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: DPW

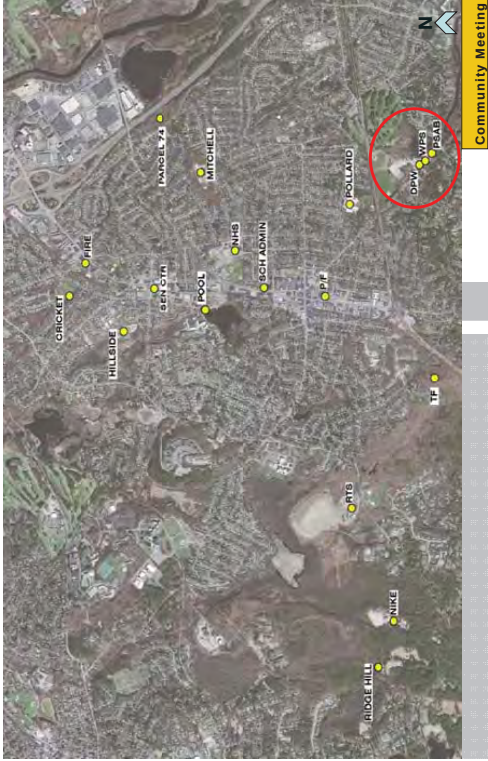


Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: DPW

Division	Existing GSF	Existing Total GSF	Proposed GSF	Proposed Total GSF
Administration - Shared	12,872★		4,751	
Administration	Included above		2,398	
Administration - Engineering	Included above		2,073	
Operations - Employee Support	3,918		4,571	
Operations - Garage/Maintenance	5,200		14,818	
Operations - Shops	4,620		5,746	
Operations - Wash Bay/ Vehicle Storage + Prep	18,022		46,244	
Building Support (Other storage included)	9,100		2,291	
SUBTOTAL		53,732		86,704
Other Buildings (Not including RTS)	11,200		Est 5,000	
SUBTOTAL		64,932		91,704
Bin Storage Estimated	3,000		Est 5,000	
Outdoor Areas (Including covered storage)	32,800		Max available	
Other Departments in PSAB	8,905★		8,905	
TOTAL INCLUDING ALL OF PSAB		73,837		100,609

Community Meeting



Community Meeting

DEPARTMENT OF PUBLIC WORKS: DEDHAM AVE OPTION - EXISTING



Community Meeting

DEPARTMENT OF PUBLIC WORKS: DEDHAM AVE OPTION - FULL PROGRAM



Community Meeting

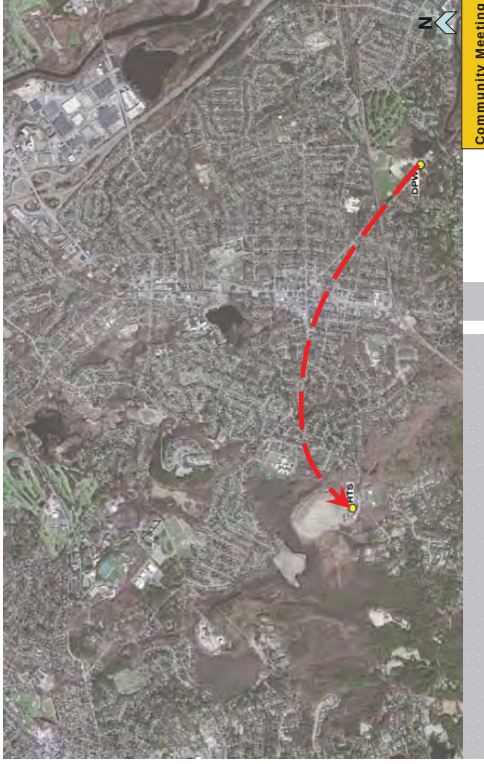
NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS: DEDHAM AVE OPTION - PARTIAL PROGRAM



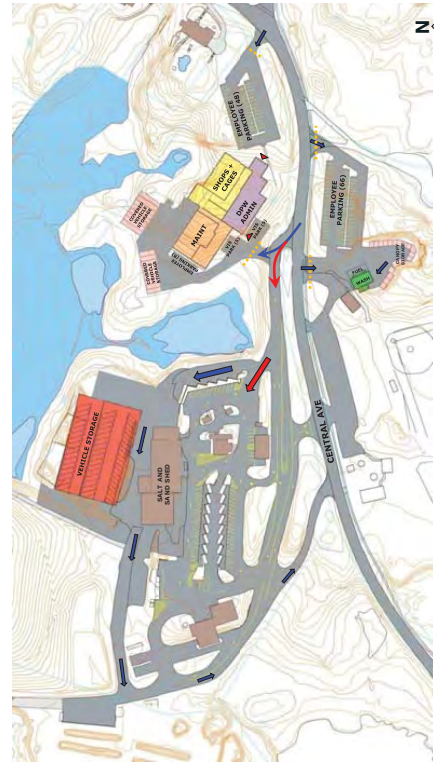
NEEDHAM FACILITIES MASTER PLAN STUDY

IF DEPARTMENT OF PUBLIC WORKS MOVES TO RTS



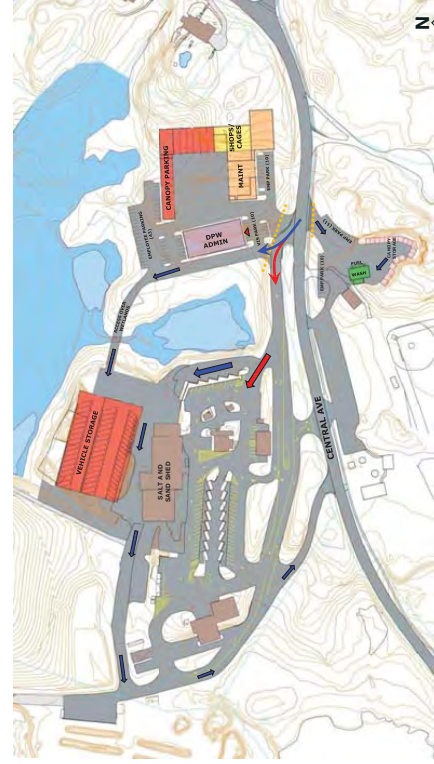
NEEDHAM FACILITIES MASTER PLAN STUDY

DEPARTMENT OF PUBLIC WORKS: RTS OPTION 1

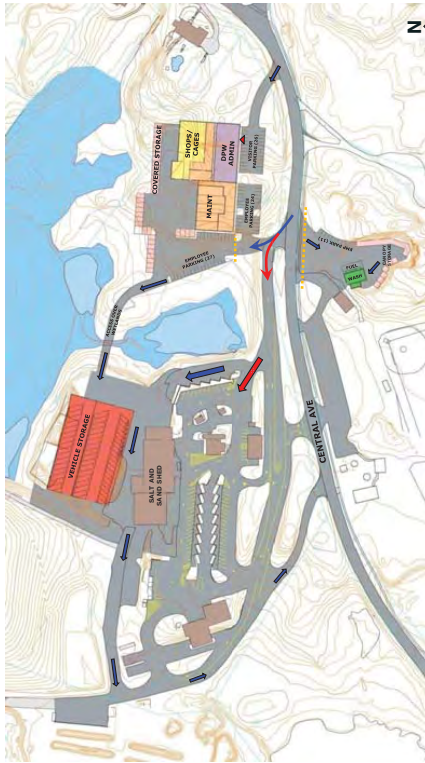


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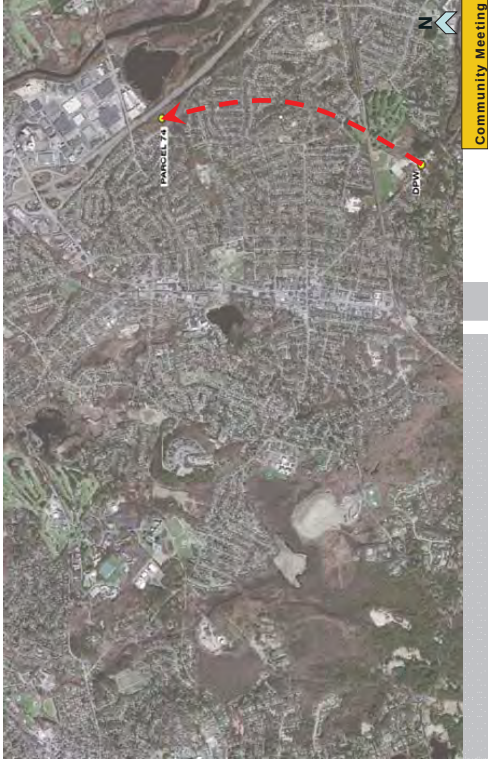
DEPARTMENT OF PUBLIC WORKS: RTS OPTION 2



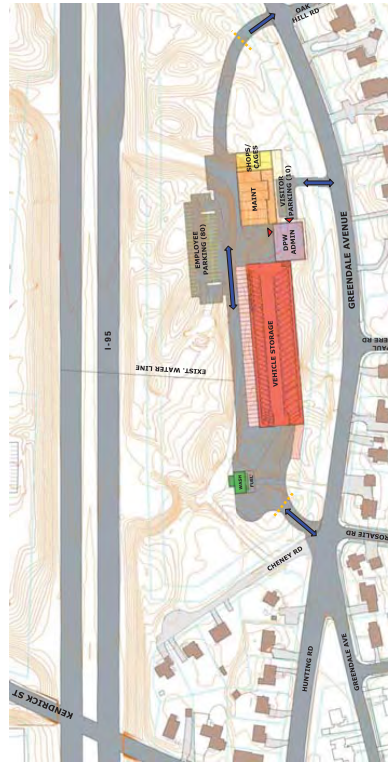
DEPARTMENT OF PUBLIC WORKS: RTS OPTION 3



IF DEPARTMENT OF PUBLIC WORKS MOVES TO PARCEL 74 / GREENDALE AVE



DEPARTMENT OF PUBLIC WORKS: PARCEL 74 OPTION



IF DEPARTMENT OF PUBLIC WORKS MOVES TO TOWN FOREST



DEPARTMENT OF PUBLIC WORKS: TOWN FOREST OPTION



Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: FIRE + POLICE



Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: FIRE + POLICE



Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: FIRE + POLICE

- Current building is undersized for current vehicles and equipment
- Organization of spaces does not reflect current police and fire operational needs
- Shared resources: FD + PD dispatch, waiting area, conference and EOC are not well located
- No sallyport; no holding area; booking area too small and too much prisoner access to personnel and equipment
- Support spaces for apparatus inadequate; height and width do not meet current standards



Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: FIRE + POLICE

- Site requirements
 - Visitor Parking: 24 hrs; prime 7am to 10pm
 - Personnel Parking: overlapping shifts for both departments
 - Dumpster
 - Impound area (currently in wash bay)
 - Emergency generator
- Movement of emergency vehicles: Fire and Police Vehicles must be able to move quickly and effortlessly from site



Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: FIRE + POLICE

- Police/Fire Building: original structure circa 1930, additions circa 1989
- Based upon a review of existing plans:
 - Additions: generally 2-stories with loading-bearing reinforced CMU and brick veneer or steel columns; second floor structure is steel joist with concrete-on-metal deck; roofs are framed with steel joists supporting metal roof deck
 - The additions have at least partial basements with concrete foundation walls
- The original building was designed prior to seismic code requirements. The additions were designed after seismic requirements were added to the code.
- It is unknown if the original building was upgraded for lateral loading when the addition was done

Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: FIRE + POLICE

- Apparatus bay is too low
- Accessible entry does not meet current AAB regulations; inaccessible second floor (no elevator)
- Spaces are generally too small to fit current programmatic needs
- Inadequate Storage



Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: FIRE + POLICE

- Inadequate booking area
- Inadequate evidence area
- Potential safety port but steps to access to booking
- Suspect entry is very public



Community Meeting

NEEDHAM FACILITIES MASTER PLAN STUDY

REVIEW OF PROGRAM AND POTENTIAL OPTIONS:
FIRE + POLICE

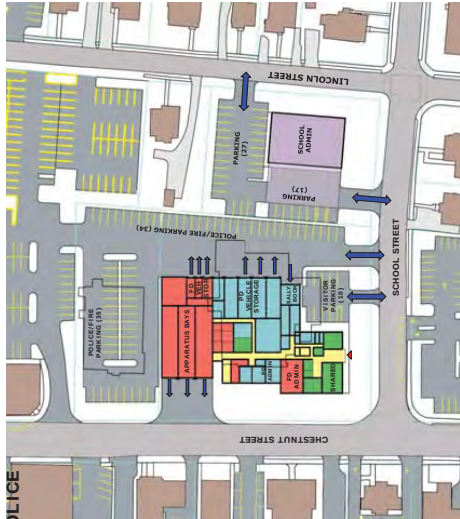
- Program assumes remaining on site

DIVISION	GSF	TOTAL GSF
Public Areas - Shared	658	
PD + FD Shared	3,069	
SUBTOTAL		3,727
PD: Operations + Support	12,127	
PD: Operations - Detention	2,217	
PD: Administration	4,990	
SUBTOTAL		19,333
FD: Operations	10,276	
FD: Administration	2,217	
FD: Staff Support	2,911	
SUBTOTAL		16,388
Building Support		2,505
TOTAL		41,953

Community Meeting

NEEDHAM FACILITIES MASTER PLAN STUDY

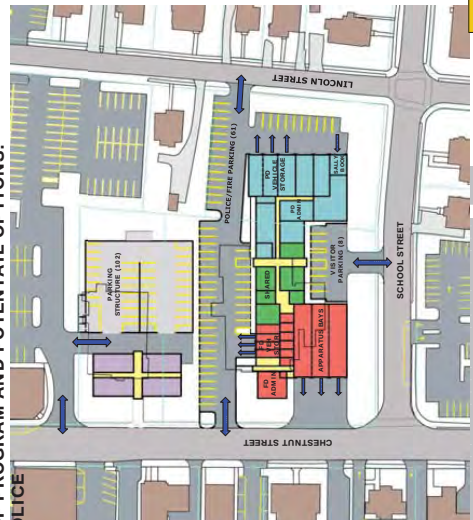
REVIEW OF PROGRAM AND POTENTIAL OPTIONS:
FIRE + POLICE



Community Meeting

NEEDHAM FACILITIES MASTER PLAN STUDY

REVIEW OF PROGRAM AND POTENTIAL OPTIONS:
FIRE + POLICE



Community Meeting

NEEDHAM FACILITIES MASTER PLAN STUDY

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: SCHOOLS + SCHOOL ADMINISTRATION

- Transition spaces key to successful development of schools + other Town buildings: Defazio is key
- Neighborhood schools are very important – some possibilities are non-neighborhood, require redistricting or additional busing
- Preference is to re-build on existing sites – what are the issues that might affect that preference (access, wetlands)
- Full day kindergarten at all elementary schools
- Other scenarios: convert schools from elementary to middle or middle to elementary, or new 6th grade option



Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: SCHOOLS + SCHOOL ADMINISTRATION

- Hillside and Mitchell Schools - Permanent versus temporary location
- Impact on Defazio Field and DPW of either all temporary or combination temporary + permanent construction
 - Site circulation issues
 - Materials handling area
- Hillside School: contaminated soils – how does this affect rebuilding project
- Pollard School: long term versus short term needs
 - Science classrooms and cafeteria
 - New permanent facilities: Replace modular with modular or stick-built



Community Meeting

TEMPORARY / PERMANENT ELEMENTARY SCHOOL SITE: Per Dore & Whittier 2012

Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: SCHOOLS + SCHOOL ADMINISTRATION

- High School
 - Designed for 1,400 students, at 1,600 projected to 1,800
 - Permanent Modular's/Pre-fab with expanded cafeteria
 - Other support spaces to handle students and staff: gymnasium, auditorium, office and conference space
 - Other office functions that could move out of high school
 - Other changes to support "bubble" of students
 - Year to year rearrangement of spaces to accommodate needs



Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: SCHOOLS + SCHOOL ADMINISTRATION

- Emery Grover Building
 - Not accessible for staff or visitors
 - Undersized Meeting Rooms + Offices
 - Physical condition is poor
 - Unused space
- Daley Building
 - Supports all Town Buildings not just school buildings
 - Is this building at its full potential
- Nike Site: use versus location



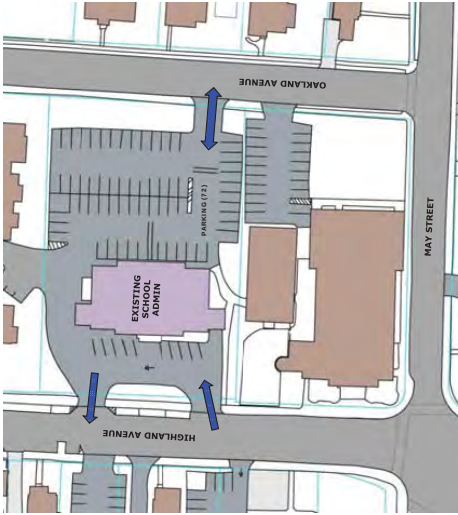
Community Meeting

REVIEW OF PROGRAM AND POTENTIAL OPTIONS: SCHOOLS + SCHOOL ADMINISTRATION

DEPARTMENTS	GSF	TOTAL GSF
Shared Building Services	6,796	
Superintendent Suite	1,176	
Student Development Department	2,586	
Finance Operations Department	4,483	
Program Development Department	1,325	
Innovative Technology	572	
SUBTOTAL w/o Building Support		16,939
Building Support	1,863	
SUBTOTAL		1,863
TOTAL		18,802

Community Meeting

SCHOOL ADMINISTRATION: RENOVATION AT EXISTING SITE



Community Meeting

IF DPW MOVES OFFSITE: SCHOOL ADMIN MOVES TO DEDHAM AVE



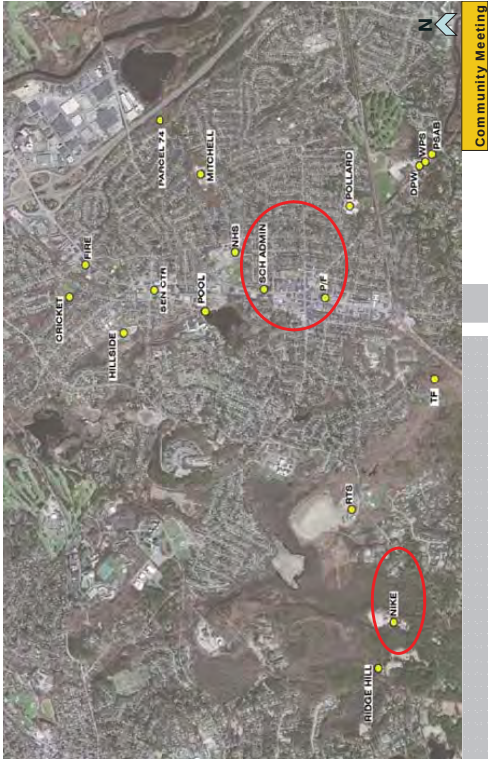
Community Meeting

IF DPW MOVES: SCHOOL ADMIN, PARKING + SCHOOL ACTIVITIES OPTION AT DEDHAM AVE



Community Meeting

TOWN OF NEEDHAM: FIRE / POLICE + SCHOOL ADMIN LOCATIONS

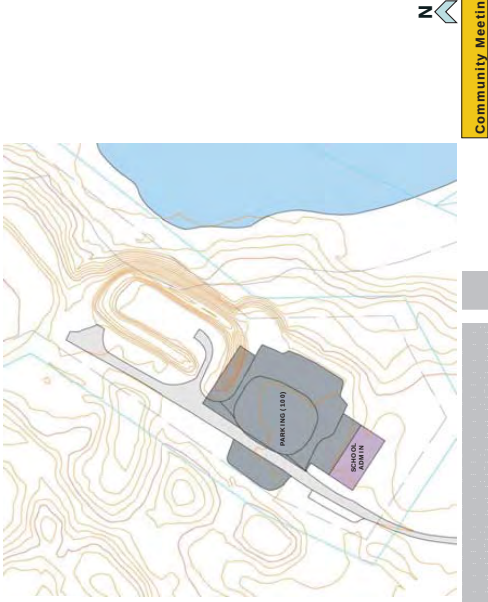


REVIEW OF PROGRAM AND POTENTIAL OPTIONS: PARKS + RECREATION

- Parks + Rec and Conservation are largest controllers of land in town
- Current buildings primarily used during summer
- Many buildings include storage component used by DPW
- Ridge Hill site has restricted use
- Some other community building needs have been met in other buildings but there are some that remain; we will define those and see how they can be accommodated in the long term
- What sites should be planned for low impact development and usage?
 - Nike and Ridge Hill



SCHOOL ADMINISTRATION: MOVES TO NIKE SITE



REVIEW OF PROGRAM AND POTENTIAL OPTIONS: PARKS + RECREATION

- Preliminary programming suggests a community building between 60,000 SF and 89,000 SF depending what features it includes. Possible amenities include a natatorium, studios and wellness spaces, gymnasium, teen center and various classroom spaces
- Site needs may include outdoor spaces such as soccer fields or other multi-purpose outdoor spaces
- Parking requirements depend on the use of the venues: competition pools and gymnasiums require significant parking counts
- Siting building will require a careful review of zoning to determine if building type is permitted, requires a Special Permit or a zoning change

REVIEW OF PROGRAM AND POTENTIAL OPTIONS

- Conservation would like to improve degraded site conditions but recognizes current uses
- Conservation will work with us on challenging sites like the existing DPW
 - Preferable to do mitigation on a previously disturbed area
 - Can water be allowed to move in a more natural manner or can improvements be made in other areas or on other sites
- Should wildlife, including the appearance of coyotes and an expanding bear population, reduce potential use of any site. What are reasonable mitigation measures?



Community Meeting

WHERE TO LOOK FOR ADDITIONAL INFORMATION ON MASTER PLAN

The Facilities Working Group has a page on the Town of Needham web site that notes the Meetings, Agendas & Meeting Notes, Members and Committee Charge with a link to the Status/updates and Resources.

- The following link will take you to this web page:
 - [Needham, MA - Facility Working Group](http://www.needham.ma.gov/FacilityWorkingGroup)
- There are imbedded links to the Town Calendar, agendas and meeting notes, resources (with slide shows) and a Sign up to receive notifications of changes and updates. If navigating you can use the following sequence:
 - <http://www.needhamma.gov/> go to the button for Town Government>Boards, Commissions & Committees> Facilities Working Group

Community Meeting

QUESTIONS AND COMMENTS



THANK YOU

Community Meeting

Community Meeting

MEETING MINUTES

Project: Needham Town Master Plan

Meeting Date: November 24, 2014

Time: 7:00 - 9:00 PM, broadcast on CC television

Meeting Location: Needham Public Library

Job No: 21314

Meeting Number: PPBC Community Meeting

Report By: BH, JS, DH

Attending: ☒ George Kent, PPBC Chair, FWG
☒ Irwin Silverstein, PPBC
☒ Stuart Chandler, PPBC
☒ Paul Salamone, PPBC
☒ John Keene, PPBC
☒ Roy Schifilliti, PPBC
☒ Matthew Borrelli, BoS
☒ John Bulian, BoS
☒ Marianne Cooley, BoS
☒ Moe Handel, BoS, FWG
☒ Kate Fitzpatrick, Town Mgr., FWG
☒ Steve Popper, Public Facilities, FWG
☒ Hank Haff, Public Facilities, FWG
☒ Rick Merson, DPW, FWG
☒ Kathryn Copley, Public Facilities
☒ Matt Toolan, Parks and Rec, FWG
☒ John Connelly, Fin Com, FWG
☒ Louise Mizgerd, Fin Com
☒ Rick Zimbone, Fin Com
☒ Lisa Zappala, Fin Com
☒ Joe Barnes, School Com, FWG
☒ Aaron Pressman, School Com
☒ Heidi Black, School Com
☒ Susan Neckes, School Com
☒ Michael Greis, School Com
☒ Janet Slemenda, HKT
☒ Bill Hammer, HKT
☒ Doug Hartig, HKT

Community

☒ Jodi Rooney
☒ Debbie Berger, Mitchell PTA
☒ Jemy Soloman

☒ Sarah Mesnik
☒ Eric Bailey, Precinct A
☒ Sophia Buckley, Hillside Parent
☒ Van Spiros, Precinct A
☒ Gretchen Plotner
☒ Josep Codina
☒ Walton Woo
☒ Alison Leschinski
☒ Megan Gothie
☒ Marielle Baker
☒ Rhonda Spector
☒ Sharon Serinsky
☒ Sara Rosin
☒ Joe Vivaldi
☒ Mary Hunt
☒ Andrew Kiely
☒ Michelle B. Limaj
☒ Sneha Campanella
☒ Liz Lee
☒ Elizabeth Bloom
☒ John Bullian
☒ Mark Osborne
☒ Sam Bookston
☒ Dave Bookston
☒ Jonathan Davis
☒ Margaret Gray
☒ Brian Palm
☒ Holly Clarke
☒ Evan Rauch
☒ Tricia Sherman
☒ Alexander Szewczale
☒ Daniel P Dain
☒ Amy Hurley
☒ Patty Morrison
☒ Laura Pere

Item	Action
1.01	These meeting notes are a summary of the presentation and discussion and not a transcription. This meeting was broadcast by the Needham Cable Channel; the 90 minute tape can be viewed on the web site. The slide show that accompanied this presentation can be accessed on the Town Web Site under the Facilities Working Group page.
1.02	George Kent, moderator and chair of PPBC, spoke about the purpose of the Facilities Master Plan. The aim of this Master Facilities Planning effort is to identify probable municipal projects that will be underway in the next 5-10 years, their approximate cost, what projects will be prioritized based on logistics, finances, and preferences, and how each of these projects are connected. George Kent stated that the FWG has been meeting for a year, and that all meeting information is posted on the Town website. Also, he stated that the Town generates a Master Facilities Plan every decade, with the previous versions in 1998 and 2006 informing this current plan. He also mentioned that the PPBC responsibility is to identify future projects and costs but it is the Town leadership who will vote on a capital plan.
1.03	Janet Slemenda of HKT Architects presented a concise version of the findings of the FWG over the past year. She explained what was expected of this study: review and build upon prior feasibility studies and plans, analyze department needs and develop programs, study of 18 existing buildings and sites, review alternate locations if existing sites fell short, prepare probable cost estimates and establish capital project priorities, meet with the FWG and professional staff to establish priorities and schedules, and prepare a final report. This Facilities Master Plan focuses on upcoming projects with an emphasis on the highest priority projects. The process provides a forum for the Town to analyze priorities and balance needs with a capital plan. It also is meant to inform citizens about the projects that will need to be completed to maintain and enhance the community. All potential projects are viewed at once and expenditure timelines and possible scenarios are developed so that a comprehensive and reasonable capital plan is established. As part of the process two important tasks were completed that aided in the process in a significant way. The first was the development of site matrices which included a set of standard criteria around which each site was assessed. The matrix results suggested that multiple sites could meet the needs of a program, that land swaps may provide benefits to a project, and how the re-organization of a department could affect everything from emergency response to historic use of property to the operations of a department. In addition, the matrix suggested which site best supported the needs of the department based on size location or configuration and how costs associated with development could be considered. The second task was development of probable costs for identified projects. Each project was estimated using current costs (2014 dollars) and then escalated for ten

years. Escalation values were 6% for the upcoming two years and 3.8% each year following.

HKT then introduced the recommended options for each project, reiterating that multiple sites can meet the needs. The project types presented (in order selected by the Town due to perceived priority) include: schools and school administration, department of public works, police and fire, recreation, and Ridge Hill Buildings. The introductions to each project type included information on the status of the feasibility process if a study was completed by others, what that study outlined and specific issues that have been identified. In the case of the DPW and Fire /Police Departments the introduction included information on existing building and site conditions and the proposed program needs. Each project type was accompanied by a diagram, if available, and the costs in both 2014 dollars with the projected mid-point of construction estimate highlighted.

Finally, two possible Scenarios were indicated with possible timelines of occupancy noted as well as probable costs.

- 1.04 George Kent opened the floor to questions or comments from the PPBC. There were no questions. George Kent stated that community members should remember that there are no preferred scenarios, that each project is dependent on certain situations, and that all of the information is available to the committee and the Selectmen for their decision-making. The dates were somewhat arbitrary and used for identifying costs. George Kent then opened the floor to questions or comments from the community. The following community members spoke individually:

- 1.05 **Question** - Sophia Buckley: If Hillside Elementary is rebuilt on its existing site does the cost include access and soil remediation, and if so, how much would it cost to do this work?

Answer - George Kent: The information presented is only at pre-feasibility stage and is therefore not complete. There is a potential to remediate the soil, but there haven't been any decisions made. The \$54 M includes an approximate \$2 M for this work.

Question - Sophia Buckley: Will the DPW move only if there is a temporary school at DeFazio?

Answer - Steve Popper: It is not necessarily set that the DPW would move.

Answer - George Kent: There are access issues associated with having a school and DPW on the DeFazio site.

Question - Sophia Buckley: There are minimal DPW costs associated if a school is built at DeFazio. What are they?

Answer - Steve Popper: Moving the cold and bin storage and demolishing the old salt shed as a minimum.

- 1.06 **Question** - Steven McKnight: I am concerned with preserving open spaces. I support the DPW at Parcel 74. Why put an ice rink at High Rock? Building at this site seems like an awful intrusion at this open space?
- Answer** - George Kent: These are only hypothetical situations. Physically, we now know that an ice rink could fit at High Rock or at DeFazio. This does not mean that it is the most desirable site.
- 1.07 **Question** - Holly Clarke: Is this report not setting a definitive timeline?
- Answer** - George Kent: That is correct.
- Question** - Holly Clarke: It is really important to prioritize the project both financially and programmatically. Hillside School should be the first priority. In this timeline Hillside School would not be complete until 2020, and \$150 M would be spent before then. The movement of DPW staff and vehicles between its sites is not a problem in my opinion. Consolidation is not required. We need to ask what would be better for the Town. In addition, in my professional experience, not every police station has a sallyport.
- Answer** - George Kent: Decisions will be made by the Selectmen.
- 1.08 **Question** - Elizabeth Bloom: Is Cricket Field building a first priority? Cricket Field building renovation, at this time, is absurd if it is meant to keep the field from being looked at as a possible school site.
- Answer** - George Kent: This is Park and Recreation property and not under the jurisdiction of the school department to develop.
- Answer** - Kate Fitzpatrick: Park and Recreation Commission is requesting CPA funding for several projects and their priority is not yet established.
- 1.09 **Question** - Amy Hurley: Do any of the schools or buildings planned have an option for an indoor pool?
- Answer** - Janet Slemenda: Only the Community Building has plans for an indoor pool.
- Answer** - George Kent: The Hillside School site is too constrained. Mitchell School probably does not have an option of getting an indoor pool either. A pool is not a high priority for the school department.
- 1.10 **Question** - Margaret Gray: Will the Nike site still have a dog park and community garden if the site is developed into a Community Center?
- Answer** - Janet Slemenda: There were two options presented and the dog park and community garden are included if the option selected is the one that splits the program spaces between Nike and Ridge Hill.
- 1.11 **Question** - Sophia Buckley: Cricket Field is not being looked at as a site for an elementary school. Why? It does not make sense to spend money on temporary facilities and relocate DPW when a less expensive option is available at Cricket

Field.

Answer - George Kent: It is not an available site, the site is under the jurisdiction of Parks and Recreation.

- 1.12 **Question** - Debbie Berger: High Rock could be an elementary school, but we've already put money into turning it into a 6th grade center only to turn it back into an elementary school. Does this not seem like a waste of resources?

Answer - George Kent: This is not necessarily what is going to happen. These are potential scenarios. The money spent converting High Rock into a 6th grade center was well spent. The decisions and money spent will not be arbitrary; the correct decisions were made previously and correct decisions will be made in the future for the schools.

Answer - John Bulian: No decisions have been made. This is a very complex matrix of projects being considered. Not all projects will likely be completed. Not all projects can be afforded. The Board of Selectman and the Finance Committee will work hard to make the right decisions. The Board of Selectmen acknowledges the good people volunteering for these boards and we welcome your comments.

- 1.13 **Question** - Person not identified: If one jurisdictional group does not give permission for use of their land by another jurisdictional group, the Owner says "No", is there any other way that a site can become available?

Answer - John Bulian: Jurisdiction over certain parcels is quite involved. All boards and committees are still in discussion on sites. Parcels which produce the best results will be selected. Costs are the "elephant in the room". We want to maintain an even and low debt load.

- 1.14 **Statement** – Marianne Cooley: "This is just a statement." (In reference to the High Rock school change.) The cost to change into an elementary school includes more than just smaller furniture for kids, but includes more classrooms.

- 1.15 **Question** - Michelle Limaj: As a newly elected Town Meeting Member, I was nominated by my husband, I am trying to stay informed. Is the availability of parcels fluid for schools, or is this just a starting point?

Answer - George Kent: The Hillside School project has certain sites that will be looked at with the Massachusetts School Building Authority (MSBA) during the feasibility phase. We are not looking at sites outside of those identified in the Facilities Master Plan, nor are we looking for sites outside of jurisdictional control. It is possible that a parcel becomes available that we are not aware of and may be suitable, but this is not likely.

NEEDHAM FACILITIES MASTER PLAN STUDY

AGENDA: PPBC – COMMUNITY MEETING

- Facilities Master Plan: Purpose and Process
 - Why develop a Facilities Master Plan?
 - How does this plan support the work of Town officials + committees?
 - Summary of work completed during this year-long effort:
 - Review other studies; Programming; Building + Site Assessments
 - Option Development: Existing + potential sites
 - Development of Probable Costs + Timelines
 - Meetings with Facility Working Group
 - What Happens Next

NOVEMBER 24, 2014

SLIDE 1

PPBC



NOVEMBER 24, 2014

NEEDHAM FACILITIES MASTER PLAN STUDY

HKT architects inc.

Municipal Resources, Inc.

PARE CORPORATION

samioles

TCi

PPBC



NEEDHAM FACILITIES MASTER PLAN STUDY

FACILITIES MASTER PLAN: WHY DEVELOP ONE?

- Town updates the Facilities Master Plan once a decade; this is the third plan following those of 1998 and 2006
- The study focuses on projects anticipated during the coming two decades with a focus on the highest priority projects identified
- The planning process provides a forum for the Town to analyze Town wide priorities and balance jurisdictional needs to develop a capital plan looking into the future
- All citizens of Needham are informed about projects that will need to be done to maintain and enhance their community

NOVEMBER 24, 2014

SLIDE 3

PPBC



NEEDHAM FACILITIES MASTER PLAN STUDY

FACILITIES MASTER PLAN: WHAT WAS EXPECTED OF THIS STUDY

- Review and build upon prior feasibility studies and plans
- Analyze department + building needs; Develop program requirements
- Study building design options for Town held properties
- Explore alternate locations when current buildings or sites fell short of satisfying a defined programmatic need
- Prepare probable cost estimates + establish capital project priorities
- Meet with Facility Working Group, with representatives from all Town boards and committees, plus professional staff
- Establish priorities and a schedule for future capital projects
- Prepare a Facilities Master Plan report

NOVEMBER 24, 2014

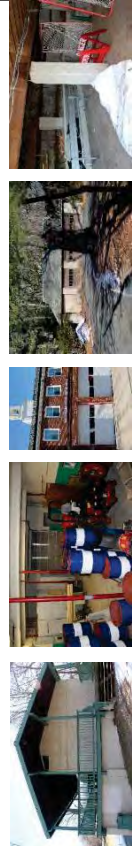
SLIDE 2

PPBC



FACILITIES MASTER PLAN: HOW DOES THIS PLAN SUPPORT THE WORK OF TOWN OFFICIALS AND PROFESSIONAL STAFF?

- All potential projects are viewed at once
- Groups representing different needs of the Town sit together to analyze Town wide priorities and balance needs
- Highest priority projects were identified by the Selectmen and other boards and committees
- Expenditure Timelines and Scenarios are developed so that a comprehensive and reasonable capital plan is established



NOVEMBER 24, 2014

SLIDE 4

PPBC

FACILITIES MASTER PLAN: WHAT WORK IS COMPLETED?

- Prior feasibility studies and plans have been reviewed and that work has been incorporated into this Facilities Master Plan
- Department building and site needs + programs have been established
- Buildings and sites have been assessed
- Options on existing and other sites have been developed
- Probable cost estimates have been prepared + preliminarily capital project priorities have been mapped
- Committee Meetings, Visioning Sessions + Public Dialogues have been held
- Draft report is underway

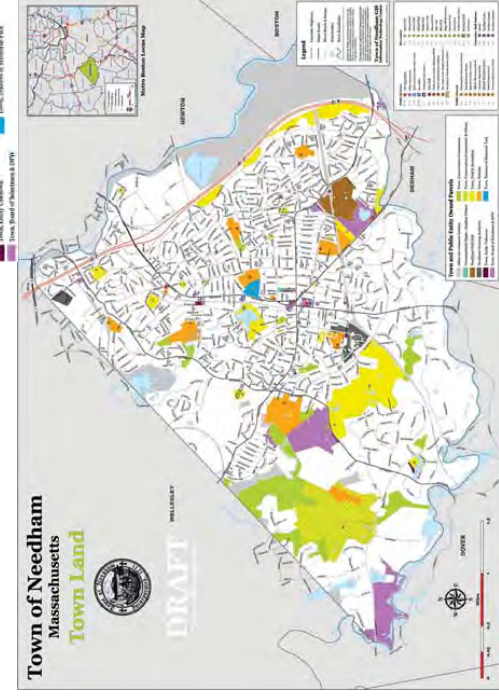


NOVEMBER 24, 2014

SLIDE 5

PPBC

TOWN LAND MAP



NOVEMBER 24, 2014

SLIDE 6

PPBC

PROJECT SITES



NOVEMBER 24, 2014

SLIDE 7

PPBC

5 PRIMARY CATEGORIES OF WORK

- **Schools + Administration:** Hillside + Mitchell Elementary Schools; Pollard Middle School; Needham High School; Emery Grover Building; Nike Site
- **Department of Public Works:** 470 Dedham Ave – Vehicle storage and Maintenance; 486 Dedham Ave. – Former Water Pumping Station; Recycling and Transfer Station
- **Fire + Police:** Public Safety Building (Police + Station #1); Fire Station #2
- **Recreation:** Rosemary Pool and Building; Cricket Field Building; Community Center; Memorial Park Building
- **Ridge Hill Buildings**



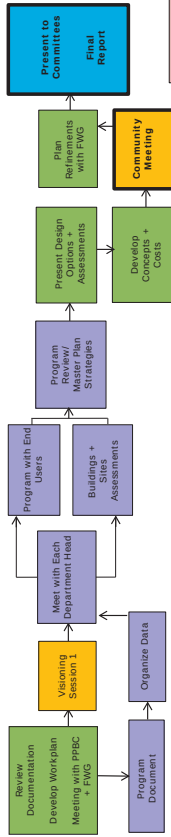
NOVEMBER 24, 2014

SLIDE 8

PPBC

FACILITIES MASTER PLAN: PROCESS

- Workplan + Visioning
- Programming, Site + Building Assessments + Master Plan Strategies
- Site and Criteria Matrix
- Option Development
- Development of Probable Costs
- Presentations to Boards + Community
- Final Report



NOVEMBER 24, 2014

SLIDE 9

PPBC

HOW WERE SITE MATRICES DEVELOPED AND WHAT DID THEY INCLUDE

- Preliminary criteria developed with the FWG: 100 point scale
- Individuals proposed, reviewed + finalized the 7 categories and the numerical value attached to each category
 - Location
 - Accessibility
 - Site features
 - Environmental
 - Site development
 - Availability
 - Special Considerations
- Individuals proposed and agreed on sites to be included based on realistic possibilities
- FWG completed a draft of the matrices then met to review, debate and finalize each potential project on each potential site

NOVEMBER 24, 2014

SLIDE 10

PPBC

HOW MIGHT MATRIX RESULTS INFLUENCE THE MASTER PLAN

- Multiple sites can meet needs
- Land swaps, "Trading" Jurisdictional Control, may provide benefits
- That if re-organization is suggested, the matrix suggests how the change could affect neighborhood schools, emergency response, conversion of a passive recreation site, historical use of property, neighborhoods in general, operations of department, reuse of property
- Will ideal operations be achieved: can needs be met on one site, in the best possible location, in order to meet the operational goals of each department
- Are some sites better able to meet the needs of the department based on size, location or configuration
- Are some costs associated with development considered extreme

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CRITERIA MATRIX

CATEGORY	Actual Value	Max Value	COMMENTS
1. LOCATION	0	20	
1.1 Geographic location	5		Central location relative to changes in operations, require impact on existing neighborhood and community.
1.2 Geographic location	5		Central location relative to changes in operations, require impact on existing neighborhood and community.
1.3 Current Use	4		Current use is compatible with future use and does not require relocation of existing use.
1.4 Zoning By-laws	3		Current use is compatible with future use and does not require relocation of existing use.
1.5 Public Facility Zoning	3		Current use is compatible with future use and does not require relocation of existing use.
2. ACCESSIBILITY	0	20	
2.1 Access	5		Access to site is adequate for existing and future use.
2.2 Traffic	5		Access to site is adequate for existing and future use.
3. SITE FEATURES	0	20	
3.1 Existing Conditions/Restrictions	5		Existing conditions are compatible with future use.
3.2 Existing Conditions/Restrictions	5		Existing conditions are compatible with future use.
3.3 Operation - cost of use	4		Operation cost is compatible with future use.
3.4 Feasibility/Compatibility	4		Operation cost is compatible with future use.

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SITES INCLUDED IN MATRICES

- School Administration**
 - Emery Grover (existing site), Chestnut Street (shared site with PD/FD), PSAB Building, Nike Site
- Department of Public Works**
 - 470 Dedham (existing site), Recycling and Transfer Station, Claxton Field Building and Quarry, Greendale Ave / Parcel 74, Town Forest, Nike Site
- Fire Department / Police Department**
 - Chestnut Street
- Community Center**
 - Greendale Avenue / Parcel 74, Town Forest, Nike / Ridge Hill, 470 Dedham Avenue

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CRITERIA MATRIX

CATEGORY	Actual Value	Max Value	COMMENTS
1. LOCATION	0	20	
1.1 Geographic location	5		Central location relative to changes in operations, require impact on existing neighborhood and community.
1.2 Geographic location	5		Central location relative to changes in operations, require impact on existing neighborhood and community.
1.3 Current Use	4		Current use is compatible with future use and does not require relocation of existing use.
1.4 Zoning By-laws	3		Current use is compatible with future use and does not require relocation of existing use.
1.5 Public Facility Zoning	3		Current use is compatible with future use and does not require relocation of existing use.
2. ACCESSIBILITY	0	20	
2.1 Access	5		Access to site is adequate for existing and future use.
2.2 Traffic	5		Access to site is adequate for existing and future use.
3. SITE FEATURES	0	20	
3.1 Existing Conditions/Restrictions	5		Existing conditions are compatible with future use.
3.2 Existing Conditions/Restrictions	5		Existing conditions are compatible with future use.
3.3 Operation - cost of use	4		Operation cost is compatible with future use.
3.4 Feasibility/Compatibility	4		Operation cost is compatible with future use.

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SITES INCLUDED IN MATRICES

- School Administration**
 - Emery Grover (existing site), Chestnut Street (shared site with PD/FD), PSAB Building, Nike Site
- Department of Public Works**
 - 470 Dedham (existing site), Recycling and Transfer Station, Claxton Field Building and Quarry, Greendale Ave / Parcel 74, Town Forest, Nike Site
- Fire Department / Police Department**
 - Chestnut Street
- Community Center**
 - Greendale Avenue / Parcel 74, Town Forest, Nike / Ridge Hill, 470 Dedham Avenue

CRITERIA MATRIX DETAIL

CATEGORY	Actual Value	Max Value	COMMENTS
1. LOCATION	0	20	
1.1 Geographic location	5		Central to mission; moderate changes to operations; requires change to existing operations
1.2 Neighborhood	5		Minimal impact on residential neighborhood and community; moderate impact; significant impact
1.3 Current Use	4		Continued use; compatible use; currently undeveloped and used by others (recreational use open space)
1.4 Zoning By-laws	3		Allowed - complies with use, dimensional requirements and performance standards; Use allowed with moderate approval; Use will be difficult or costly to win approval (due to constraints such as historic preservation)
1.5 Public Facade/Screening	3		No private owner abutters, nothing special required; Abutters with adequate area for screening; Abutters with inadequate area for screening

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DEVELOPMENT OF PROBABLE COSTS FOR IDENTIFIED PROJECTS

- Current Costs: Shown in 2014 dollars**
 - Buildings: estimated on a square foot basis
 - Sites: estimated as a percentage of construction
 - Premium costs: items specified as unique to the site or program such as specialty materials, site improvements or allowances for masonry construction, special fencing or green roofs
 - Total Project Cost: Construction + 25% Soft Costs + 10% Project Contingency
- Escalated Costs: Projected for 10 years**
 - Costs projections are based on Total Project Costs
 - Escalation: 6% first two years, 3.8% all remaining years
 - Based these percentages on experience, qualifications and best judgment and in consultation with Town professionals
 - Constant review of market trends

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architects inc.

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NEEDHAM FACILITIES MASTER PLAN STUDY

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Item #1	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	TEMPORARY SCHOOL AT DEFAZIO PARK	56,296	\$12,766,598	\$227	\$17,234,908	\$306

10 Year Location Costs	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$18,269,002	\$19,395,142	\$20,101,017	\$20,864,856	\$21,657,721	\$22,480,714	\$23,334,981	\$24,221,710	\$25,142,135	\$26,097,536	\$27,089,242

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: HILLSIDE REBUILD: Estimate to Mid-Point of Construction - 2019

Item #2	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	HILLSIDE REBUILD	80,650	\$30,370,400	\$377	\$43,687,000	\$542

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$46,308,220	\$49,086,713	\$50,992,008	\$52,889,184	\$54,897,935	\$56,984,057	\$59,149,451	\$61,397,130	\$63,730,221	\$66,151,969	\$68,665,744

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NEEDHAM FACILITIES MASTER PLAN STUDY

PERMANENT SCHOOL AT DEFAZIO PARK

relocated playground
permanent school
additional parking
bus drop off & loop
proposed gravel wetland
vehicle storage
maintenance vehicle storage

D & W Preliminary Study 2012

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: PERMANENT SCHOOL AT DEFAZIO PARK: Estimate to Mid-Point of Construction - 2018

Item #3	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	PERMANENT SCHOOL AT DEFAZIO PARK	83,200	\$31,301,000	\$376	\$48,003,000	\$577

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$50,883,180	\$53,036,171	\$55,985,745	\$59,113,203	\$60,321,505	\$62,513,722	\$64,993,043	\$67,482,779	\$70,026,365	\$72,687,367	\$75,449,487

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: HIGH ROCK RENOVATION / ADDITION: Project not necessary if a Permanent School is not constructed; Estimate to Mid-Point of Construction - 2019

Item #4	Project	SF Estimated	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	RENOVATION / ADDITION AT HIGH ROCK SCHOOL	7,000	\$2,100,000	\$300	\$2,835,000	\$405

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$3,005,100	\$3,165,406	\$3,306,451	\$3,432,096	\$3,562,516	\$3,697,892	\$3,838,412	\$3,984,272	\$4,135,674	\$4,292,830	\$4,455,958

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NEEDHAM FACILITIES MASTER PLAN STUDY									
PROBABLE COSTS: HIGH SCHOOL RENOVATIONS + PRE-FAB CLASSROOMS: Estimate to Mid-Point of Construction - 2016									
Item #5	Project	SF Estimated	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF	2015	2016	2017
	HIGH SCHOOL RENOVATIONS + PRE-FAB CLASSROOMS	8,062	\$3,453,220	\$428	\$4,144,964	\$514	\$4,395,682	\$4,657,282	\$4,834,259
							\$5,017,961	\$5,208,644	\$5,406,572
							\$5,612,022	\$5,825,279	\$6,046,640
							\$6,276,412	\$6,514,916	\$6,766,412

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NEEDHAM FACILITIES MASTER PLAN STUDY									
PROBABLE COSTS: MITCHELL REBUILD: Estimate to Mid-Point of Construction - 2021									
Item #6	Project	SF Estimated	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF	2015	2016	2017
	MITCHELL REBUILD	82,227	\$30,244,640	\$368	\$43,550,000	\$530	\$46,165,000	\$48,932,760	\$50,792,226
							\$52,722,331	\$54,725,760	\$56,895,360
							\$58,903,964	\$61,204,595	\$63,530,370
							\$65,944,524	\$68,450,416	\$70,956,308

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NEEDHAM FACILITIES MASTER PLAN STUDY									
PROBABLE COSTS: POLLARD ADDITION + RENOVATIONS: Estimate to Mid-Point of Construction - 2024									
Item #7	Project	SF Estimated	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF	2015	2016	2017
	POLLARD ADDITION + RENOVATIONS		\$21,650,570		\$29,228,270		\$30,981,966	\$32,840,884	\$34,088,838
							\$36,728,814	\$38,124,509	\$39,573,240
							\$41,077,023	\$42,637,950	\$44,258,192
							\$45,940,003	\$48,450,416	\$50,956,308

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NEEDHAM FACILITIES MASTER PLAN STUDY									
RELOCATION OF SCHOOL ADMINISTRATION TO PSAB; Renovation of PSAB, Pump Station Building + Additional Parking									



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PROBABLE COSTS: RELOCATION OF SCHOOL ADMINISTRATION TO PSAB;
Renovation of PSAB, Pump Station Building + Additional Parking: Estimate to Mid-Point of Construction – 2018 or 2019

Item #9	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	PSAB + PUMP BLDG RENO + PARKING		\$3,794,850		\$5,123,048	
			<i>total</i>		<i>total</i>	
	LIGHT RENOVATIONS AT PSAB	21,777	\$1,088,850	\$50	\$1,469,948	\$68
	PUMP STATION MEETING ROOM / CONNECTOR WITH SITE	3,500	\$1,078,000	\$308	\$1,455,300	\$416
	DEMOLISH DPW + SITE CLEANUP		\$1,057,500		\$1,427,625	
	ADDITIONAL PARKING		\$570,500		\$770,175	

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$5,430,431	\$5,756,257	\$5,974,994	\$6,202,044	\$6,437,722	\$6,682,355	\$6,936,285	\$7,199,864	\$7,473,459	\$7,757,450	\$8,052,233
	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>
	\$1,558,145	\$1,651,634	\$1,714,396	\$1,779,543	\$1,847,165	\$1,917,358	\$1,990,217	\$2,065,845	\$2,144,348	\$2,225,833	\$2,310,414
	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>
	\$1,542,618	\$1,635,175	\$1,697,312	\$1,764,810	\$1,828,758	\$1,898,251	\$1,970,385	\$2,045,259	\$2,122,979	\$2,203,652	\$2,287,391
	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>
	\$1,513,283	\$1,604,079	\$1,665,034	\$1,728,306	\$1,793,981	\$1,862,153	\$1,932,914	\$2,006,365	\$2,082,607	\$2,161,746	\$2,243,893
	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>
	\$816,386	\$865,369	\$898,253	\$932,386	\$967,817	\$1,004,594	\$1,042,769	\$1,082,394	\$1,123,525	\$1,166,219	\$1,210,535
	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>	<i>total</i>

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DEPARTMENT OF PUBLIC WORKS

- Current existing structures + outdoor sites
- Hollis Building, Sheds + Cold Storage: 38,224 GSF
- New vehicle storage building: 4,998 GSF
- PSAB building = 21,777 GSF
- Water Pumping Station = 2,400 GSF
- Other Sites: DeFazio, Daley, Alden Road Pump Station, Charles River WTP, Reservoir B, St Mary's Pump Station, Cricket Field, Claxton Field, Memorial Field, Ridge Hill = +/- 47,434 GSF
- Recycling and Transfer Station

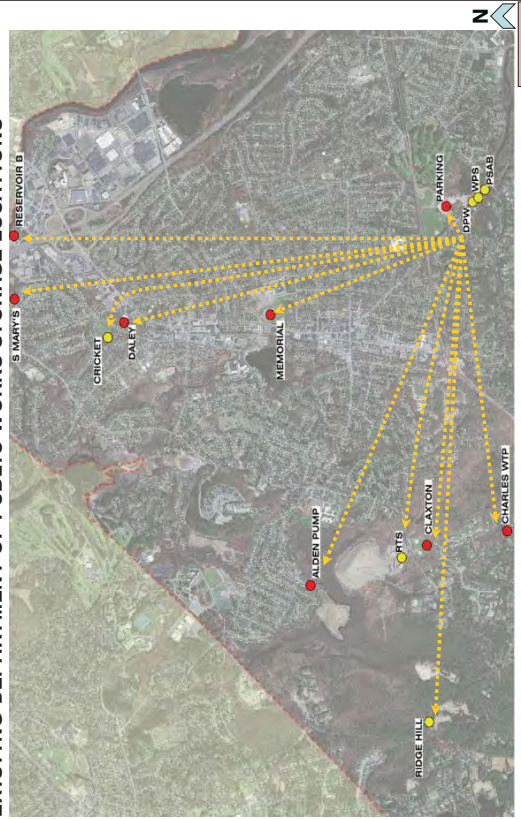


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EXISTING DEPARTMENT OF PUBLIC WORKS STORAGE LOCATIONS



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DEPARTMENT OF PUBLIC WORKS: BUILDING + OPERATIONS DEFICIENCIES

- Existing DPW facilities are undersized for the fleet + personnel
- Employee facilities lacking; not accessible; stairs and egress paths must meet code; building systems neither current nor energy efficient
- No fire suppression system
- No seismic restraints in the structural system
- Main garage is 60' width vs 98', height should be minimally 17' clear of structure or systems, current garage is 18' to top of building; not large enough to house all vehicles and equipment indoors
- Maintenance + Shops: Should have minimum 6-7 bays (current at 3), storage for fluids, tires and parts and supplies; shops per department



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POLICE AND FIRE DEPARTMENTS

- Current Existing Station #1: +/- 31,145 SF
 - Police: +/- 13,095 SF
 - Fire: +/- 11,634 SF
 - Shared: +/- 6,416 SF
- Current Existing Fire Station #2: +/- 9,630 SF
- Programming Needs at Police + Fire Station #1: 43,966 SF
 - Police: +/- 21,609 SF
 - Fire: +/- 16,339 SF
 - Shared spaces and building support: +/- 6,019 SF



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POLICE AND FIRE DEPARTMENTS

- Current building is undersized for vehicles, equipment + personnel
- Organization of spaces does not reflect police + fire operational needs
- Shared resources: FD + PD dispatch, waiting area, conference and EOC are not well located
- Building is not accessible
- No sallyport – detainees are escorted across open parking lot; No holding area; Booking area too small with too much prisoner access to personnel and equipment; Evidence area lacking
- Fire Apparatus Area: Support spaces inadequate; Height and width do not meet current standards



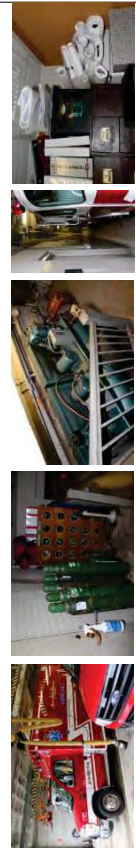
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POLICE AND FIRE DEPARTMENTS

- Site requirements
 - Visitor Parking: 24 hours; prime 7 am to 10 pm
 - Personnel Parking: overlapping shifts for both departments
 - Dumpster
 - Impound area (currently in wash bay)
 - Emergency generator
- Movement of emergency vehicles: Fire and Police vehicles must be able to move quickly and effortlessly from site



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POLICE AND FIRE DEPARTMENTS: PROGRAMMING NEEDS

- Program
 - Shared public areas
 - Police and Fire administrative offices
 - Operations Areas
 - Employee support
 - Detention
 - Garage/maintenance + Wash bay
 - Apparatus area
 - Site support



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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: ROSEMARY POOL: Estimate to Mid-Point of Construction - 2018

Item #25	Project	SF	Construction Cost	\$ / SF	Total Project Cost YR 2014	\$ / SF
	ROSEMARY POOL		\$6,382,775		\$8,778,869	

10 Year Escalated Costs

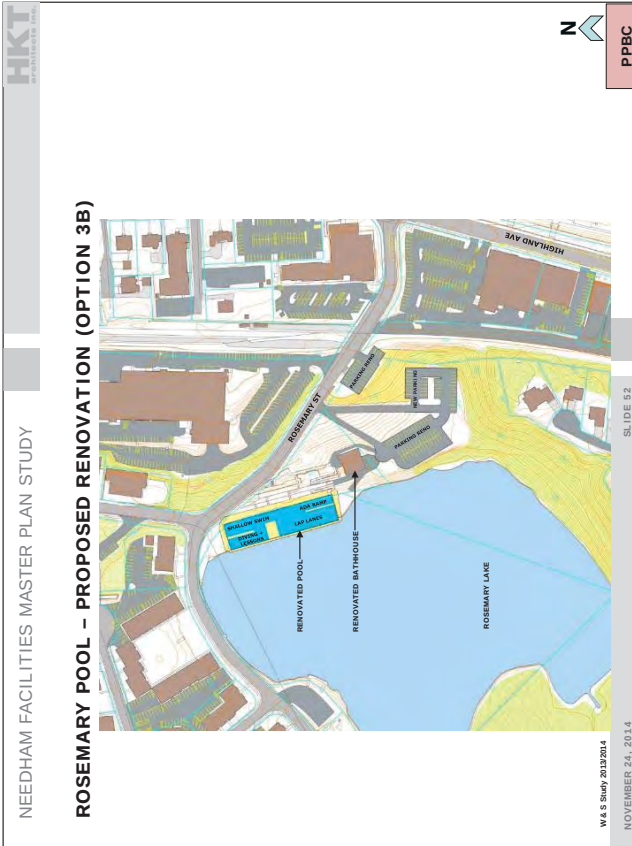
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$9,305,601	\$9,863,937	\$10,238,767	\$10,627,840	\$11,031,698	\$11,450,903	\$11,886,037	\$12,337,706	\$12,806,539	\$13,293,187	\$13,798,328

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: CRICKET FIELD BUILDING: Estimate to Mid-Point of Construction - 2015

Item #26	Project	SF	Construction Cost	\$ / SF	Total Project Cost YR 2014	\$ / SF
	CRICKET FIELD BUILDING: 3 SEASON		\$700,566		\$945,764	

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$1,002,510	\$1,062,660	\$1,103,042	\$1,144,957	\$1,188,465	\$1,233,627	\$1,280,505	\$1,329,164	\$1,379,672	\$1,432,100	\$1,486,520

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PROBABLE COSTS: RENOVATED BUILDING AT MEMORIAL PARK: Estimate in Year 2014

Item #27	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	MEMORIAL PARK BUILDING - RENOVATION	7,260	\$745,960	\$103	\$1,007,046	\$139

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$1,067,469	\$1,131,517	\$1,174,515	\$1,219,147	\$1,265,475	\$1,313,563	\$1,363,476	\$1,415,290	\$1,469,071	\$1,524,896	\$1,582,842

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NEEDHAM FACILITIES MASTER PLAN STUDY

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RENOVATION OF MEMORIAL PARK BUILDING

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PROBABLE COSTS: NEW BUILDING AT MEMORIAL PARK: Estimate in Year 2014

Item #28	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	MEMORIAL PARK - NEW BUILDING	14,584	\$4,372,236	\$300	\$5,902,519	\$405

10 Year Escalated Costs

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$6,256,670	\$6,632,070	\$6,884,089	\$7,145,684	\$7,417,220	\$7,699,074	\$7,991,639	\$8,295,321	\$8,610,543	\$8,937,744	\$9,277,378

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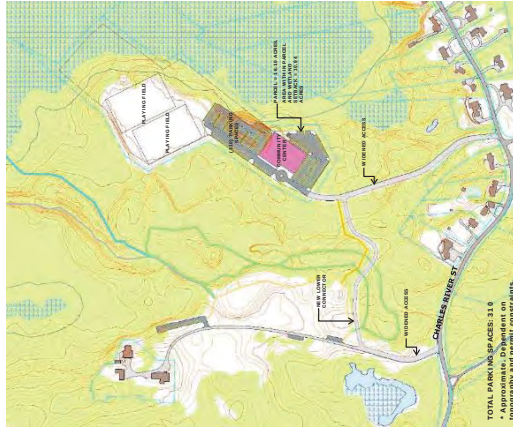
NEW BUILDING AT MEMORIAL PARK

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COMMUNITY CENTER AT NIKE SITE



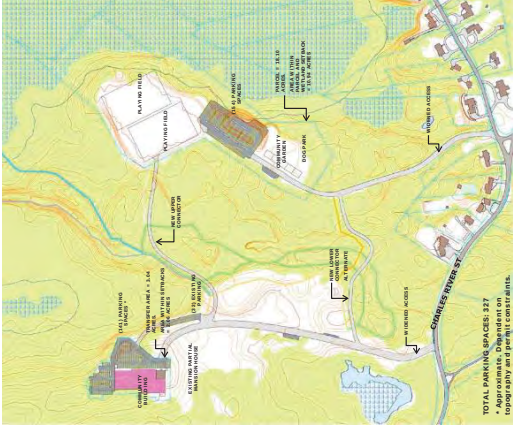
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PUBLIC/PRIVATE OPPORTUNITY

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COMMUNITY CENTER AT RIDGE HILL + SHARED USE OF NIKE SITE



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PUBLIC/PRIVATE OPPORTUNITY

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PROBABLE COSTS: COMMUNITY CENTER AT NIKE SITE: Estimate in Year 2014

Item #29	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	COMMUNITY CENTER AT NIKE SITE	62,000	\$21,419,250	\$345	\$28,915,988	\$466

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	\$30,650,947	\$32,490,004	\$33,724,624	\$35,006,160	\$36,336,394	\$37,717,177	\$39,150,430	\$40,638,146	\$42,182,396	\$43,785,327	\$45,449,169

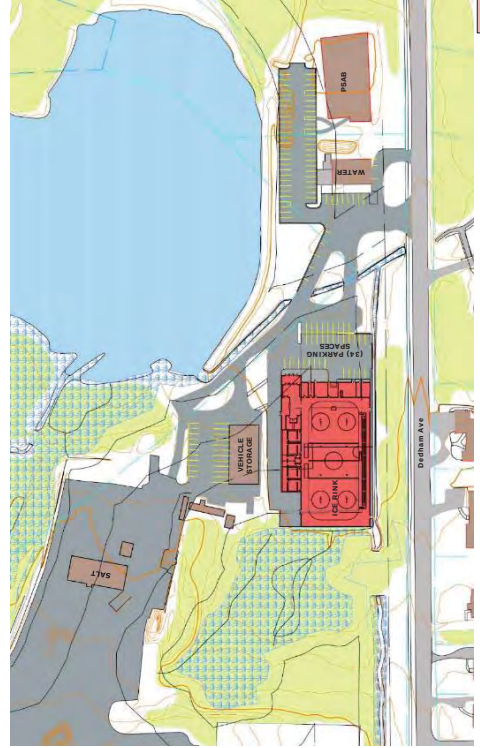
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ICE RINK AT 470 DEDHAM AVE



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PUBLIC/PRIVATE OPPORTUNITY

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NEEDHAM FACILITIES MASTER PLAN STUDY

PROBABLE COSTS: ICE RINK AT 470 DEDHAM AVE: Estimate in Year 2014

Item #32	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	DEDHAM AVE ICE RINK	35,272	\$8,817,340	\$250	\$11,903,409	\$337

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$12,617,614	\$13,374,671	\$13,882,908	\$14,410,459	\$14,958,056	\$15,526,462	\$16,116,468	\$16,728,884	\$17,364,592	\$18,024,446	\$18,709,375	

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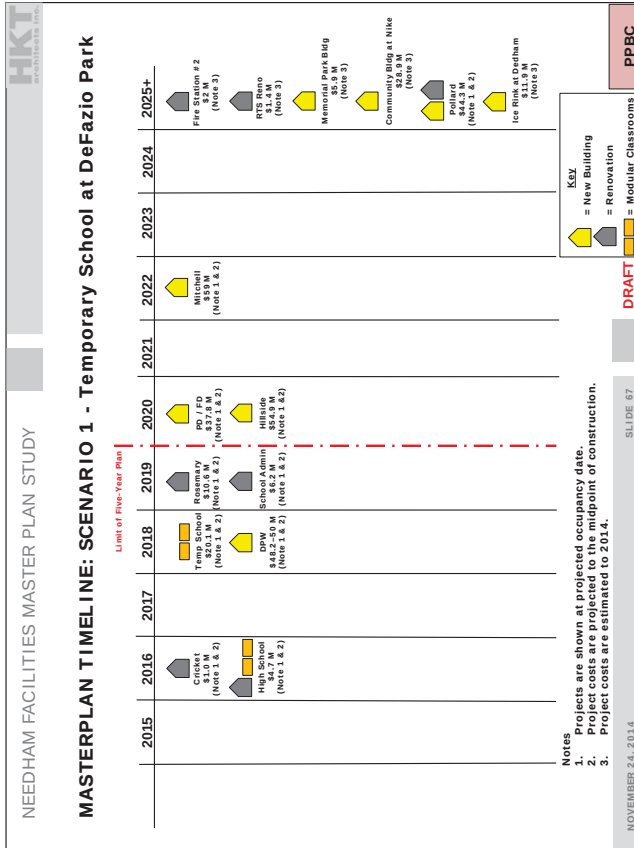
PROBABLE COSTS: ICE RINK AT TOWN FOREST: Estimate in Year 2014

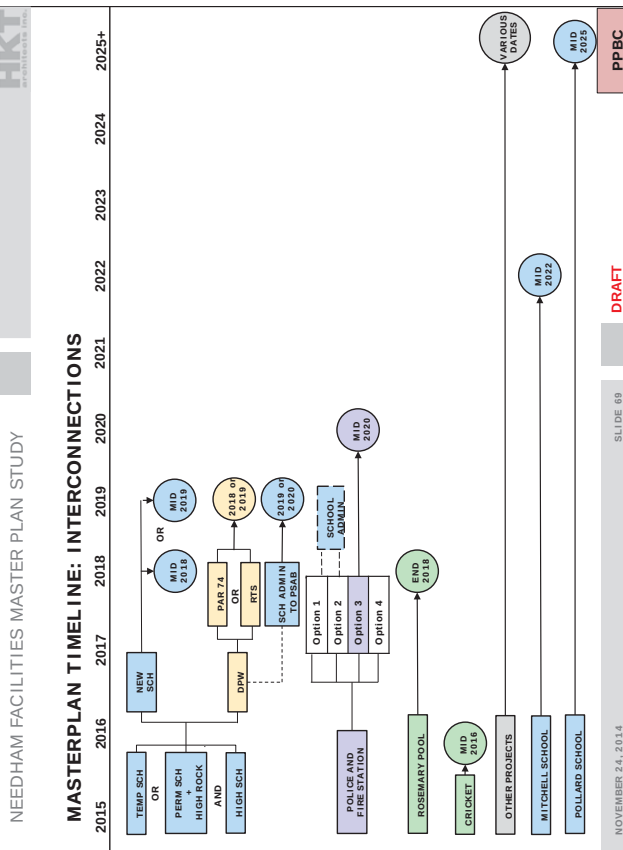
Item #33	Project	SF	Construction Cost YR 2014	\$ / SF	Total Project Cost YR 2014	\$ / SF
	TOWN FOREST ICE RINK	36,839	\$9,758,860	\$265	\$13,174,461	\$358

10 Year Escalated Costs

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
\$13,964,929	\$14,002,825	\$15,385,332	\$15,949,215	\$16,555,285	\$17,184,386	\$17,837,393	\$18,515,214	\$19,218,792	\$19,949,106	\$20,707,172	

NOVEMBER 24, 2014 SLIDE 66 DRAFT PPBC





NOVEMBER 24, 2014

SLIDE 69

DRAFT

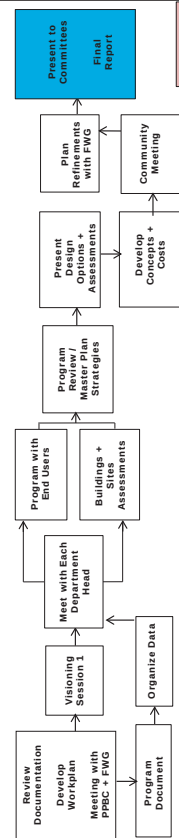
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PPBC

NEEDHAM FACILITIES MASTER PLAN STUDY

- Finalize Timelines and Implementation Plan
- Final Report

NEXT STEPS



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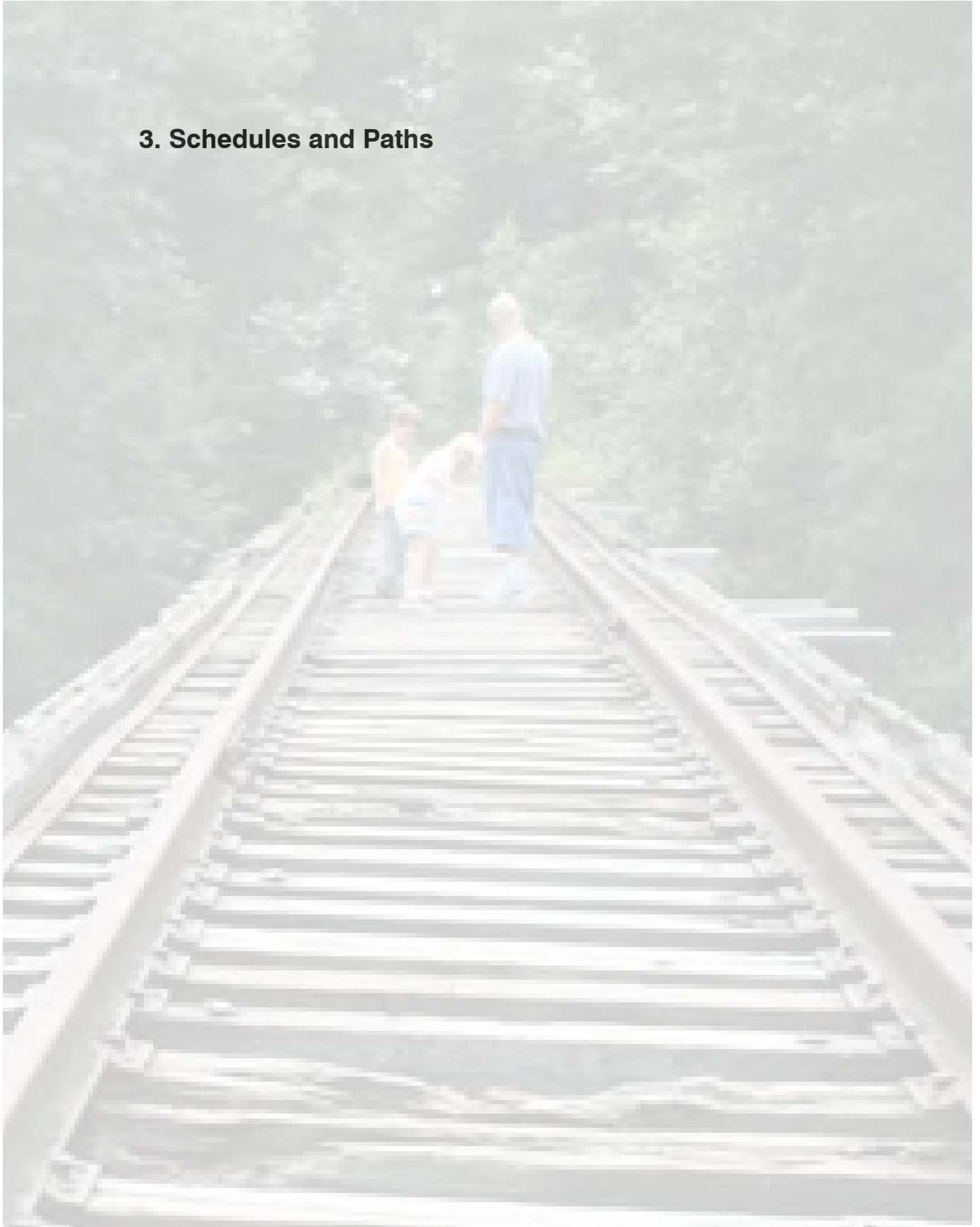


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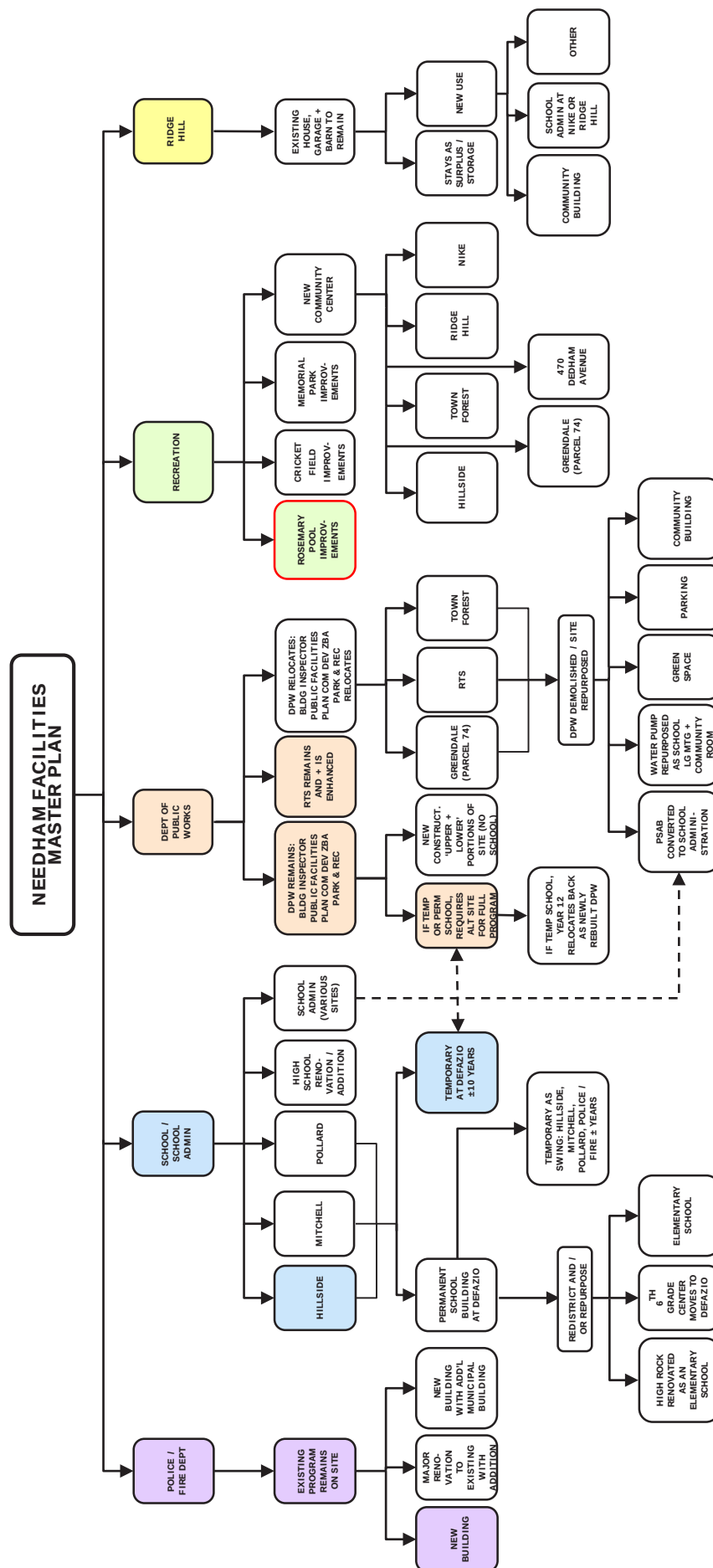
THANK YOU

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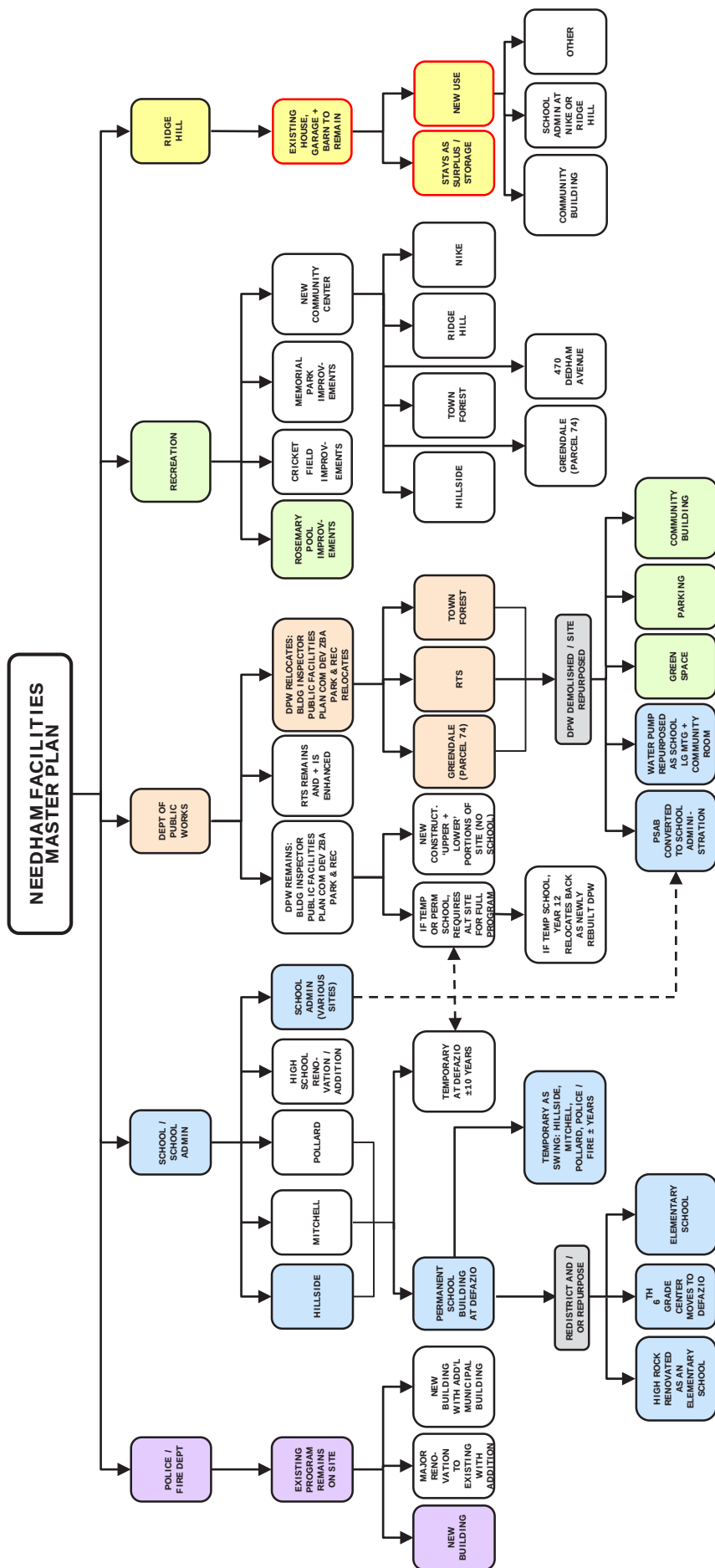
3. Schedules and Paths



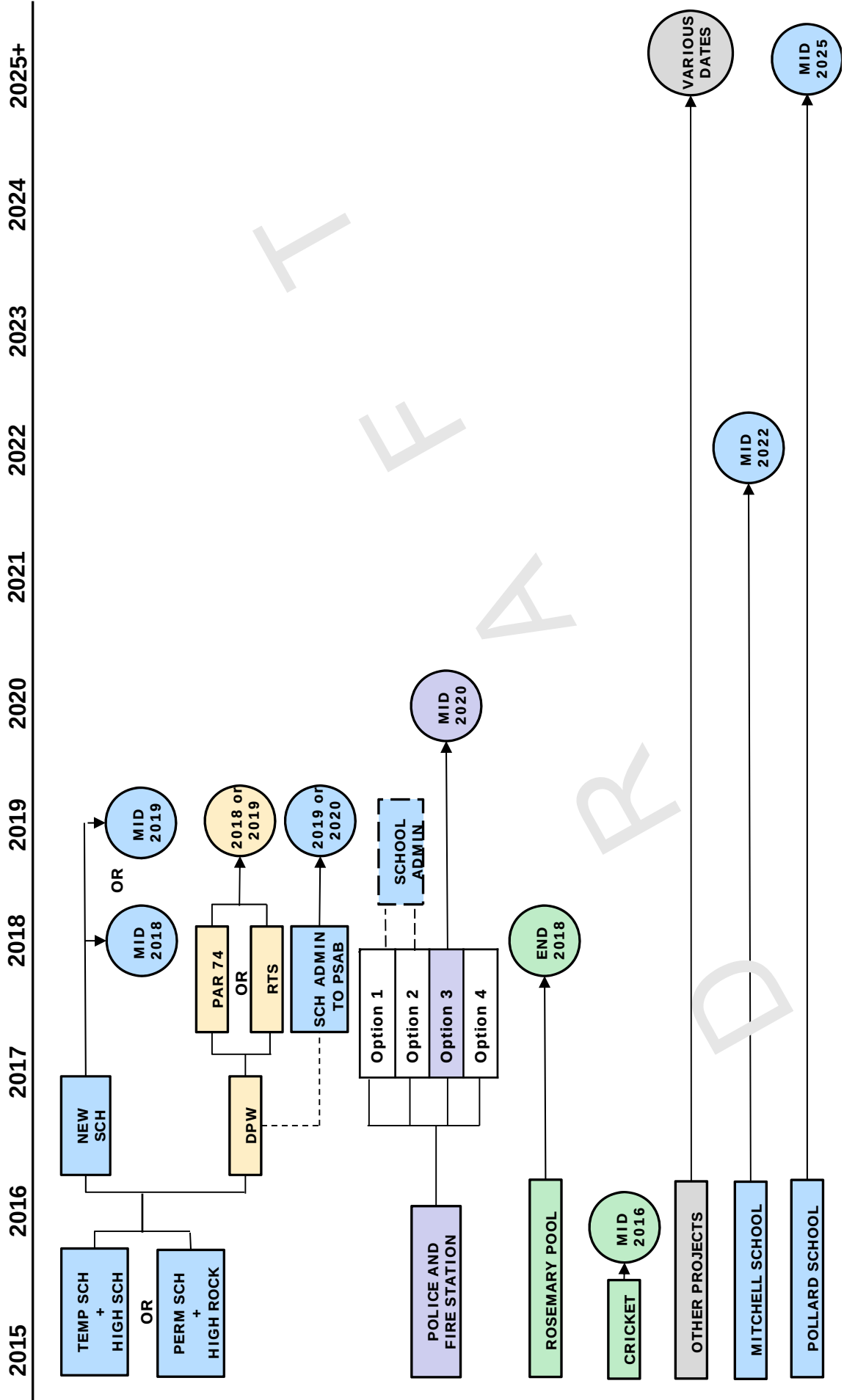
DECISION TREE - A



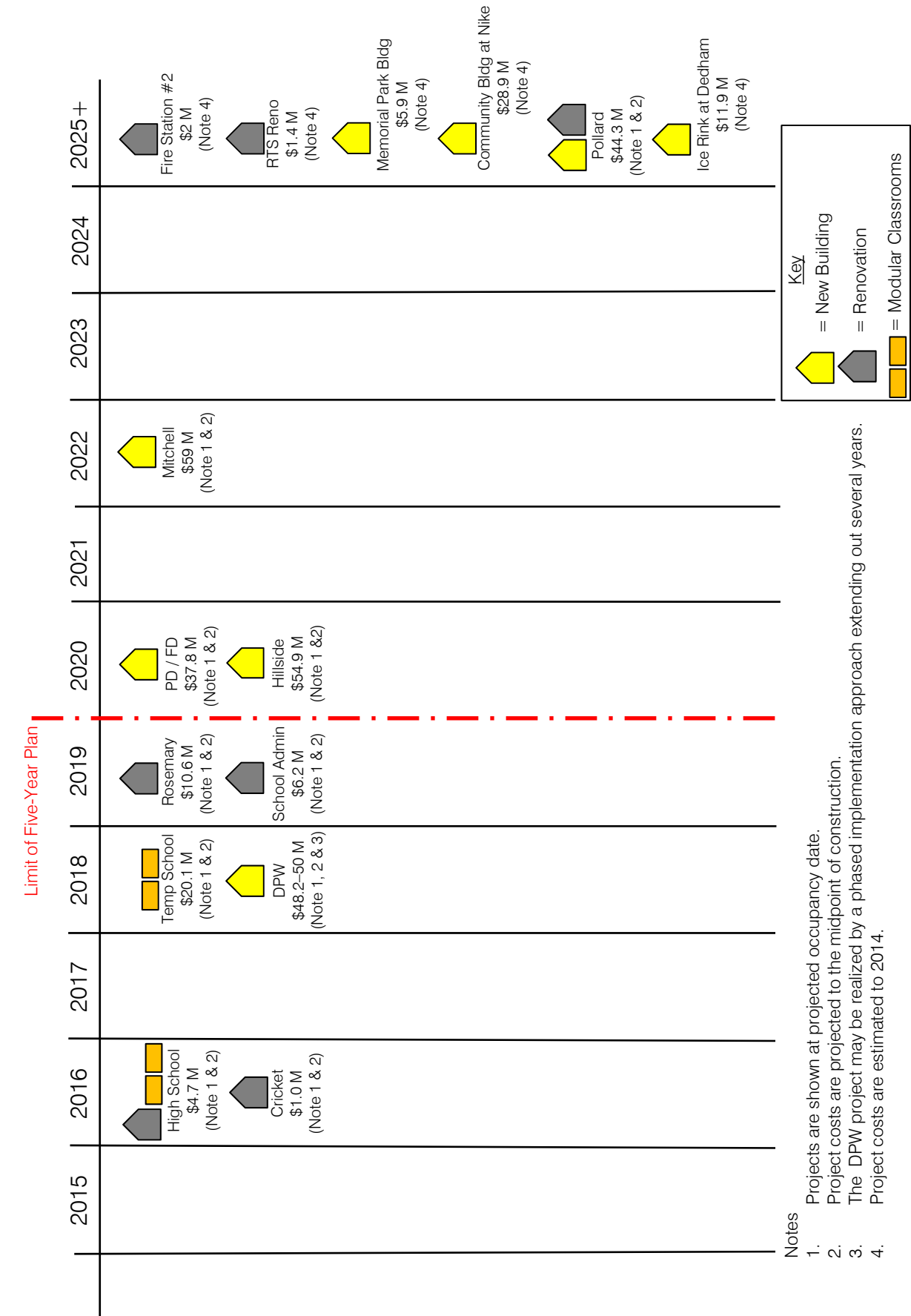
DECISION TREE - B



MASTERPLAN TIMELINE: INTERCONNECTIONS



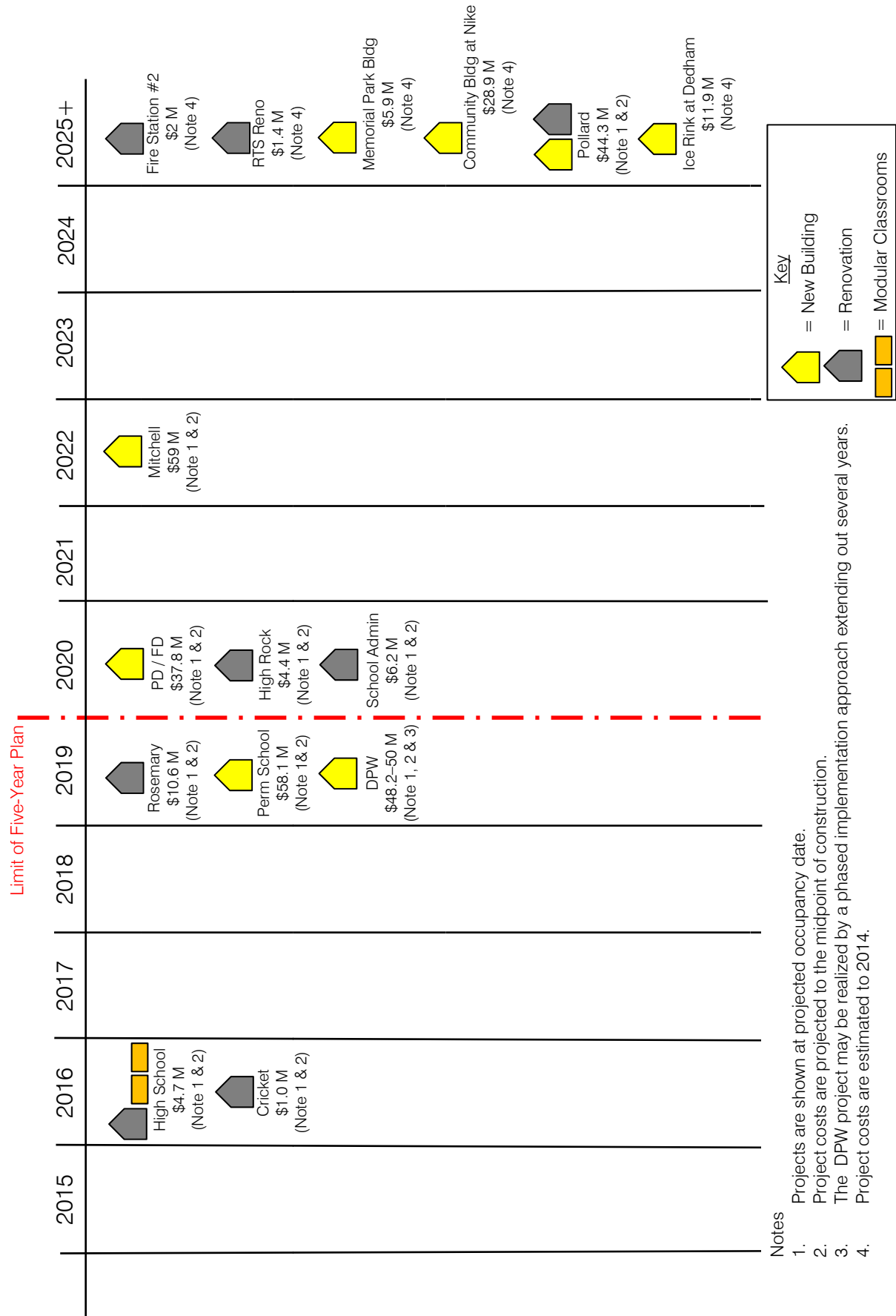
MASTER TIMELINE SCENARIO 1



Notes

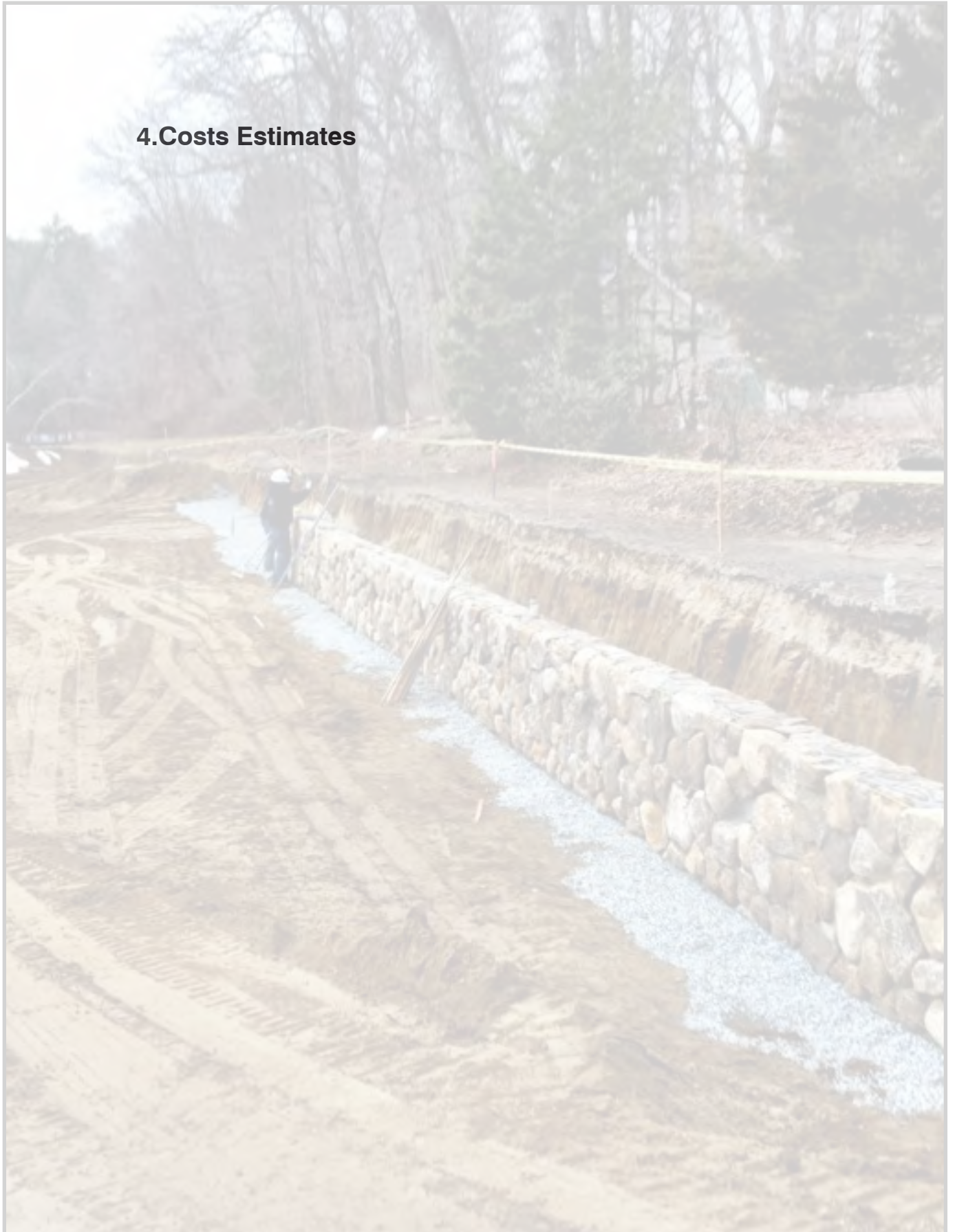
- 1. Projects are shown at projected occupancy date.
- 2. Project costs are projected to the midpoint of construction.
- 3. The DPW project may be realized by a phased implementation approach extending out several years.
- 4. Project costs are estimated to 2014.

MASTER TIMELINE SCENARIO 2



¹ **Note 1:** Costs: Shown as 2014 dollars.
² **Note 2:** Costs: Shown as 2014 dollars.
³ **Note 3:** If a permanent school is built at Delazo Park, the relocation of the DPW could be extended until the fall of 2019.
⁴ **Note 4:** High-risk renovations not necessary if Huskie rebuilt at Delazo Park.
⁵ **Note 5:** Costs: Shown for 10/1/20 only.
⁶ **Note 6:** DPW Partial Program does not include development costs for remainder of program that would need to be paid.
⁷ **Note 7:** Major renovations required for future events occur once final plans are approved.

4.Costs Estimates



Needham Facilities Master Plan Cost Study

Town of Needham, Ma

Prepared by:



165 Middlesex Turnpike Suite 106

Bedford, Ma 01730

www.tortoraconsulting.com

Prepared for:

HKT

October 7, 2014

Needham Facilities Master Plan Cost Study

Town of Needham, Ma

October 7, 2014



Current Costs (2014 dollars)

Item #	Project	SF	Construction Cost	\$/SF	Total Project Cost_ Includes construction + 25% soft costs + 10% project contingency	\$/SF
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SCHOOL OPTIONS

1	TEMPORARY SCHOOL AT DEFAZIO PARK (9-18-14 updated D&W costs)	56,236	\$12,766,598	\$227	\$17,234,008	\$306
2	HILLSIDE REBUILD (9-18-14 updated D&W costs)	80,650	\$30,370,400	\$377	\$43,687,000	\$542
3	PERMANENT SCHOOL AT DEFAZIO PARK (9-18-14 updated D&W costs)	83,200	\$31,310,400	\$376	\$48,003,000	\$577
4	HIGH ROCK RENOVATIONS	7,000	\$2,275,947	\$325	\$3,501,457	\$405
5	HIGH SCHOOL RENOVATIONS AND MODULARS (6-4-14 cost provided by town)	8,062	\$3,463,210	\$428	\$4,144,964	\$514
6	MITCHELL REBUILD (9-18-14 updated D&W costs)	82,227	\$30,244,640	\$368	\$43,590,220	\$530
7	POLLARD ADDITION AND RENOVATIONS		\$21,650,570		\$29,228,270	
8	SCHOOL ADMIN. RELOCATION TO PS48 (includes connector, water pump meeting room & site)	25,277	\$2,565,850	\$86	\$2,925,248	\$116
9	RELOCATION TO PS48 WITH ADDED PARKING (includes connector, water pump meeting room & site)	25,277	\$3,978,350	\$157	\$5,370,773	\$212

DPW OPTIONS

14	DPW AT PARCEL 74 / GREENDALE AVE	92,442	\$30,591,734	\$331	\$41,298,841	\$447
15	RTS RENOVATIONS - SITE IMPROVEMENTS	4,320	\$1,623,000	\$376	\$2,191,050	\$507
16	DPW AT RTS OPTION 4	91,229	\$30,290,484	\$332	\$40,892,153	\$448
17	DPW TOWN FOREST OPTION	89,831	\$29,483,696	\$328	\$39,002,990	\$443
18	DPW REBUILD AT DEDHAM AVE - FULL PROGRAM	85,332	\$24,580,587	\$288	\$33,195,942	\$389
19	DPW REBUILD AT DEDHAM AVE - PARTIAL PROGRAM	61,034	\$19,694,235	\$323	\$26,987,217	\$436

POLICE / FIRE / SCHOOL ADMIN. / PARKING OPTIONS

20	POLICE / FIRE OPTION 1 (School Admin cost with Item 12 above)	53,238	\$22,948,515	\$431	\$30,980,495	\$582
21	POLICE / FIRE OPTION 2 + PARKING STRUCTURE (School Admin cost with Item 13 above)	50,875	\$30,501,278	\$600	\$41,176,725	\$809
22	POLICE / FIRE OPTION 3 STAND ALONE	51,604	\$30,074,612	\$582	\$39,079,814	\$758
23	POLICE / FIRE OPTION 4 RENO AND ADDITION	46,844	\$14,103,558	\$309	\$19,517,055	\$417
24	FIRE STATION #2 ADDITION / RENOVATION		\$1,472,950		\$1,987,943	

OTHER PROJECTS

25	ROSEMARY POOL (W&S costs)		\$6,382,775		\$8,778,869	
26	CRICKET FIELD HOUSE RENOVATIONS (BHA 2012 costs +12% escalation to 2104)	7,260	\$625,505	\$103	\$844,432	\$139
27	MEMORIAL PARK BUILDING RENOVATIONS	14,584	\$4,472,236	\$300	\$5,902,519	\$405
28	MEMORIAL PARK BUILDING NEW	62,000	\$21,419,250	\$345	\$28,115,988	\$466
29	COMMUNITY CENTER AT NIKKE	60,000	\$22,717,850	\$379	\$30,609,098	\$511
30	COMMUNITY CENTER AT DEDHAM AVE	62,000	\$22,879,000	\$369	\$30,356,450	\$496
31	ICE RINK AT 470 DEDHAM AVE	35,272	\$8,817,340	\$250	\$11,903,409	\$337
32	ICE RINK AT TOWN FOREST	36,839	\$9,758,860	\$265	\$13,174,461	\$358
34	RIDGE HILL					

10 year escalated costs - (6% per year for 2015 & 2016, 3.8% average per year 2017 - 2025)

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
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1	\$18,249,002	\$19,385,142	\$20,101,017	\$20,864,856	\$21,057,721	\$22,480,714	\$23,334,981	\$24,221,510	\$25,142,135	\$26,097,536	\$27,089,242
2	\$46,308,220	\$49,886,713	\$50,952,008	\$52,888,184	\$54,897,935	\$58,984,057	\$59,149,851	\$61,397,130	\$63,730,221	\$66,151,969	\$68,665,744
3	\$50,883,180	\$53,916,171	\$55,985,745	\$58,113,722	\$60,321,505	\$64,402,779	\$64,939,048	\$67,026,365	\$70,026,365	\$72,687,367	\$75,449,487
4	\$3,711,545	\$3,934,238	\$4,081,738	\$4,338,921	\$4,400,000	\$4,740,764	\$4,925,902	\$5,107,897	\$5,301,597	\$5,500,472	\$5,705,472
5	\$4,393,662	\$4,657,282	\$4,884,259	\$5,077,861	\$5,208,644	\$5,406,572	\$5,613,022	\$5,821,279	\$6,046,640	\$6,276,122	\$6,514,916
6	\$46,163,000	\$48,932,226	\$50,792,226	\$52,722,331	\$54,725,780	\$58,805,360	\$59,859,564	\$61,920,595	\$65,940,524	\$68,450,416	\$71,000,000
7	\$30,981,866	\$32,840,884	\$34,088,838	\$35,384,214	\$36,728,814	\$38,124,509	\$39,573,240	\$41,077,023	\$42,637,950	\$44,258,152	\$45,940,003
8	\$3,300,763	\$3,467,809	\$3,641,708	\$3,841,353	\$3,875,924	\$4,111,105	\$4,267,327	\$4,428,485	\$4,595,805	\$4,769,805	\$4,948,805
9	\$5,693,019	\$6,034,600	\$6,263,915	\$6,501,944	\$6,749,018	\$7,005,481	\$7,271,689	\$7,548,013	\$7,824,837	\$8,102,458	\$8,380,458
10	\$11,333,530	\$12,031,931	\$12,470,045	\$13,048,938	\$13,435,775	\$14,046,334	\$14,476,395	\$15,036,394	\$15,537,397	\$16,080,088	\$16,605,822
11	\$10,990,080	\$11,649,485	\$12,092,105	\$12,553,667	\$13,028,610	\$13,523,718	\$14,037,419	\$14,570,049	\$15,124,749	\$15,699,489	\$16,290,070
12	\$10,861,290	\$11,512,967	\$11,950,460	\$12,404,577	\$12,875,951	\$13,365,237	\$13,871,116	\$14,402,294	\$14,957,505	\$15,535,510	\$16,105,099
13	\$9,822,384	\$10,411,727	\$10,807,373	\$11,218,033	\$11,644,339	\$12,086,424	\$12,546,123	\$13,022,876	\$13,517,745	\$14,031,419	\$14,564,613
14	\$43,716,771	\$46,403,277	\$48,156,705	\$49,997,040	\$51,896,938	\$53,869,011	\$55,916,033	\$58,040,842	\$60,246,394	\$62,535,757	\$64,912,116
15	\$2,322,513	\$2,461,864	\$2,555,415	\$2,692,521	\$2,783,317	\$2,857,543	\$2,965,545	\$3,073,274	\$3,186,286	\$3,317,745	\$3,440,819
16	\$43,345,682	\$45,946,423	\$47,692,387	\$49,504,698	\$51,385,877	\$53,338,540	\$55,365,405	\$57,469,290	\$59,651,123	\$61,919,942	\$64,272,900
17	\$42,191,169	\$44,722,639	\$46,422,099	\$48,186,139	\$50,017,212	\$51,917,866	\$53,890,745	\$55,938,593	\$58,064,260	\$60,270,702	\$62,560,989
18	\$35,187,699	\$37,298,961	\$38,716,322	\$40,187,542	\$41,714,669	\$43,299,826	\$44,945,219	\$46,653,137	\$48,425,956	\$50,266,142	\$52,176,255
19	\$28,182,450	\$29,873,397	\$31,008,586	\$32,186,912	\$33,410,015	\$34,679,596	\$35,997,421	\$37,365,323	\$38,785,205	\$40,259,043	\$41,788,887
20	\$32,839,325	\$34,409,685	\$36,132,453	\$37,505,486	\$38,930,694	\$40,410,060	\$41,945,442	\$43,539,576	\$45,194,080	\$46,911,455	\$48,694,090
21	\$43,647,329	\$46,566,169	\$48,024,283	\$49,849,206	\$51,743,476	\$53,799,728	\$55,750,938	\$57,869,225	\$60,068,256	\$62,350,850	\$64,720,382
22	\$31,879,089	\$33,911,884	\$35,075,924	\$36,408,809	\$37,932,344	\$39,228,453	\$40,719,344	\$42,286,461	\$43,872,587	\$45,539,745	\$47,270,255
23	\$20,688,078	\$22,629,363	\$22,762,679	\$24,658,651	\$24,467,481	\$26,438,865	\$27,471,610	\$28,471,312	\$29,533,222	\$30,676,844	\$31,800,000
24	\$2,107,220	\$2,239,653	\$2,318,532	\$2,406,636	\$2,498,088	\$2,599,015	\$2,691,150	\$2,793,829	\$2,899,995	\$3,010,195	\$3,124,582
25	\$9,305,001	\$10,238,767	\$10,627,840	\$11,031,698	\$11,450,903	\$11,896,037	\$12,337,706	\$12,806,539	\$13,293,187	\$13,798,328	\$14,320,000
26	\$895,098	\$948,804	\$1,022,283	\$1,061,130	\$1,101,403	\$1,141,308	\$1,181,754	\$1,223,860	\$1,276,460	\$1,329,450	\$1,382,842
27	\$1,067,469	\$1,131,517	\$1,205,478	\$1,313,563	\$1,205,478	\$1,313,563	\$1,411,290	\$1,469,071	\$1,524,896	\$1,580,842	\$1,638,000
28	\$6,632,070	\$6,884,089	\$7,145,684	\$7,417,220	\$7,699,074	\$7,991,639	\$8,295,321	\$8,610,943	\$8,937,744	\$9,277,378	\$9,630,000
29	\$30,590,947	\$32,004,160	\$33,006,160	\$34,316,394	\$35,717,177	\$37,117,177	\$38,590,386	\$40,148,146	\$41,790,327	\$43,517,327	\$45,320,000
30	\$32,059,244	\$34,455,799	\$35,769,271	\$37,128,503	\$38,539,386	\$40,003,883	\$41,534,931	\$43,141,944	\$44,739,818	\$46,439,931	\$48,204,648
31	\$31,308,849	\$33,387,380	\$35,448,500	\$37,116,330	\$38,526,951	\$39,990,768	\$41,510,417	\$43,087,813	\$44,725,150	\$46,434,206	\$48,204,648
32	\$12,617,614	\$13,374,671	\$13,882,908	\$14,414,459	\$14,968,056	\$15,536,462	\$16,116,668	\$16,708,894	\$17,304,466	\$17,909,375	\$18,520,000
33	\$13,964,929	\$14,802,825	\$15,365,332	\$15,949,215	\$16,555,285	\$17,184,986	\$17,837,393	\$18,515,214	\$19,218,792	\$19,949,106	\$20,700,000
34											

Needham Facilities Master Plan Cost Study

Town of Needham, Ma

October 7, 2014



GENERAL QUALIFICATIONS

This cost estimate was produced from October & September 2014 Study documents provided by HKT. Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

This estimate includes all direct construction costs, general contractor's overhead and profit and design contingency. Cost escalation per main summary.

Bidding conditions are expected to be public bidding utilizing chapter 149 filed sub bidding and DCAM qualified general contractors.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

ITEMS NOT CONSIDERED IN THIS ESTIMATE

Items not included in this estimate are:

Land acquisition, feasibility, and financing costs
Items identified in the design as Not In Contract (NIC) Items
Items identified in the design as by others
Utility company back charges, including work required off-site
Work to City streets and sidewalks, (except as noted in this estimate)
Construction or occupancy phasing or off hours' work, (except as noted in this estimate)
Rock excavation; special foundations (unless indicated by design engineers)
Contaminated or unsuitable soils removal or replacement

Recommendations For Cost Control

TCI recommends that the Owner and Architect carefully review this document, including line item descriptions, unit prices, clarifications, exclusions, inclusions and assumptions, contingencies, escalation and mark-ups. Request for modifications of any apparent errors or omissions to this document must be made to TCI within ten (10) days of receipt of this estimate. Otherwise, it will be understood that the contents have been concurred with and accepted.

It is recommended that TCI using bid documents produce a final update estimate, to determine overall costs changes which have occurred since the preparation of the estimate. The final update estimate will address changes and additions to the document, as well as addenda issued during bidding process. TCI cannot reconcile bid results to an estimate not produced from bid documents.

Statement Of Probable Cost

TCI has no control over the cost of labor and materials, the general contractor's or any subcontractor's method of determining prices, or competitive bidding and market conditions. The opinion of construction is made on the basis of the experience, qualifications, and best judgment of the professional estimator familiar with the industry. TCI does not guarantee that bids will not vary from this estimate.

TCI staff of professional cost estimators has prepared this estimate in accordance with generally accepted principles and practices.

Acceptance of Report

With acceptance of this report, the holder shall indemnify and hold harmless Tortora Consulting from and against all claims, damages, losses and expenses, including but not limited to attorney fees and court costs arising out of or as a result of the performance of this work, including third party claims.

Needham Facilities Master Plan Cost Study
Town of Needham, Ma

October 7, 2014



DPW AT PARCEL 74 /GREENDALE AVE

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<u>Buildings</u>							
1	DPW Administration	30,819	sf	300.00	9,245,700		
2	Vehicle Storage	40,848	sf	190.00	7,761,120		
3	Maintenance	14,050	sf	250.00	3,512,500		
4	Shops	4,905	sf	250.00	1,226,250		
5	Wash/Fuel Bay	1,820	sf	450.00	819,000		
6	Canopy Storage	10,000	sf	100.00	1,000,000	23,564,570	
Total Typical Building - \$/sf		92,442	sf	254.91	23,564,570		
<u>Sitework</u>							
1	Typical sitework - (high) 20% of building costs (earthwork, utilities, fencing and all site finishes)	1	ls	4,712,914.00	4,712,914		
2	Cold Storage	2,100	sf	75.00	157,500		
3	Bin Storage	3,870	sf	25.00	96,750		
4	Storm water detention allowance	1	ls	250,000.00	250,000	5,217,164	
Total Typical Site - \$/sf		92,442	sf	56.44	5,217,164		
Total Typical Buildings and Site - \$/sf		92,442	sf	311.35	28,781,734		
<u>Premium cost related to building configuration</u>							
1	Four story Admin building (elevator assembly)	1	ls	300,000.00	300,000		
2	Four story Admin building (egress stairs)	8	flts	15,000.00	120,000		
3	Allowance for green roof at vehicle storage building	1	ls	500,000.00	500,000	920,000	
<u>Premium cost related to site location</u>							
1	Perimeter fence (decorative wrought iron)	1,300	lf	300.00	390,000		
2	Existing force main line replace/relocation within site - allowance	1	ls	200,000.00	200,000		
3	Retaining wall with brick face at Vehicle Storage, Shops and Maintenance	1	ls	300,000.00	300,000	890,000	
CURRENT 2014 CONSTRUCTION COSTS						\$30,591,734	

Notes:

- a. Building square foot costs are based on recent DPW project bid results escalated to 2014. Project bid ranges were within the \$220 - \$290/sf depending on building size

Recent bid results:

	<u>Low - High</u>	<u>Sf</u>
Medford DPW (January 2014 bids)	\$251 - \$275	46,100
Wayland DPW (March 2013 bids)	\$218 - \$270	40,052
Amesbury DPW (September 2013 bids)	\$265 - \$290	13,055

- b. Sitework costs assumptions are as follows:
 (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 (Medium) 15% - Sites with moderate slopes, some cut/fill
 (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement
- c. Additional sitework premiums other than listed are not assumed (offsite utilities, traffic lights or work to public roads)

Needham Facilities Master Plan Cost Study
Town of Needham, Ma

October 7, 2014



RTS RENOVATIONS - SITE IMPROVEMENTS

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<u>Buildings</u>							
5	Wash/Fuel Bay	1,820	sf	450.00	819,000		
6	Single story office building	2,500	sf	250.00	625,000	1,444,000	
Total Typical Building - \$/sf		4,320	sf	334.26	1,444,000		
<u>Sitework</u>							
1	Typical sitework - (medium) 15% of building costs (earthwork, utilities, fencing and all site finishes)	1	ls	216,600.00	216,600		
Total Typical Site - \$/sf		4,320	sf	50.14	216,600		
Total Typical Buildings and Site - \$/sf		4,320	sf	384.40	1,660,600		
<u>Premium cost related to site location</u>							
1	Cut and fill site	35,600	sf	2.50	89,000		
2	Demo office building	250	sf	20.00	5,000		
3	Kiosk	1	ls	10,000.00	10,000		
4	Retaining walls	1	ls	75,000.00	75,000	179,000	
CURRENT 2014 CONSTRUCTION COSTS						\$1,623,000	

Notes:

- a. Building square foot costs are based on recent DPW project bid results escalated to 2014. Project bid ranges were within the \$220 - \$290/sf depending on building size

Recent bid results:

	<u>Low - High</u>	<u>Sf</u>
Medford DPW (January 2014 bids)	\$251 - \$275	46,100
Wayland DPW (March 2013 bids)	\$218 - \$270	40,052
Amesbury DPW (September 2013 bids)	\$265 - \$290	13,055

- b. Sitework costs assumptions are as follows:
 (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 (Medium) 15% - Sites with moderate slopes, some cut/fill
 (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement
- c. Additional sitework premiums other than listed are not assumed (offsite utilities, traffic lights or work to public roads)

Needham Facilities Master Plan Cost Study
Town of Needham, Ma

October 7, 2014



DPW AT RTS OPTION 4

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<u>Buildings DPW</u>							
1	Administration	29,091	sf	300.00	8,727,300		
2	Vehicle Storage	41,548	sf	190.00	7,894,120		
3	Maintenance	11,550	sf	250.00	2,887,500		
4	Shops	7,220	sf	250.00	1,805,000		
5	Wash/Fuel Bay	1,820	sf	450.00	819,000		
6	Canopy Storage	14,704	sf	100.00	1,470,400	23,603,320	
Total Typical Building - \$/sf		91,229	sf	258.73	23,603,320		
<u>Sitework</u>							
1	Typical sitework - (high) 20% of building costs (earthwork, ledge, soil conditions, utilities, fencing and all site finishes)	1	ls	4,720,664.00	4,720,664		
2	Cold Storage				NIC		
3	Bin Storage	4,140	sf	25.00	103,500	4,824,164	
Total Typical Site - \$/sf		91,229	sf	52.88	4,824,164		
Total Typical Buildings and Site - \$/sf		91,229	sf	311.61	28,427,484		
<u>Premium cost related to building configuration</u>							
1	Three story Admin building (elevator assembly/ glass entry)	1	ls	350,000.00	350,000		
2	Three story Admin building (egress stairs)	6	flts	15,000.00	90,000	440,000	
<u>Premium cost related to site location</u>							
1	Perimeter fence (decorative wrought iron)	470	lf	300.00	141,000		
2	20' wide bridge including piers, fencing	241	lf	2,000.00	482,000		
3	Ledge blasting and retaining wall allowance	1	ls	800,000.00	800,000		
						1,423,000	
CURRENT 2014 CONSTRUCTION COSTS						\$30,290,484	

Notes:

- a. Building square foot costs are based on recent DPW project bid results escalated to 2014. Project bid ranges were within the \$220 - \$290/sf depending on building size

Recent bid results:

	<u>Low - High</u>	<u>Sf</u>
Medford DPW (January 2014 bids)	\$251 - \$275	46,100
Wayland DPW (March 2013 bids)	\$218 - \$270	40,052
Amesbury DPW (September 2013 bids)	\$265 - \$290	13,055

- b. Sitework costs assumptions are as follows:
 (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 (Medium) 15% - Sites with moderate slopes, some cut/fill
 (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement
- c. Additional sitework premiums other than listed are not assumed (offsite utilities, traffic lights or work to public roads)

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DPW TOWN FOREST OPTION

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<u>Buildings DPW</u>							
1	Administration	28,800	sf	300.00	8,640,000		
2	Vehicle Storage	38,462	sf	190.00	7,307,780		
3	Maintenance	13,308	sf	250.00	3,327,000		
4	Shops	7,441	sf	250.00	1,860,250		
5	Wash/Fuel Bay	1,820	sf	450.00	819,000		
6	Canopy Storage	8,898	sf	100.00	889,800	22,843,830	
Total Typical Building - \$/sf		89,831	sf	254.30	22,843,830		
<u>Sitework</u>							
1	Typical sitework - (high) 20% of building costs (earthwork, ledge, soil conditions, utilities, fencing and all site finishes)	1	ls	4,568,766.00	4,568,766		
2	Cold Storage				NIC		
3	Bin Storage	3,420	sf	25.00	85,500	4,654,266	
Total Typical Site - \$/sf		89,831	sf	51.81	4,654,266		
Total Typical Buildings and Site - \$/sf		89,831	sf	306.11	27,498,096		
<u>Premium cost related to building configuration</u>							
1	Three story Admin building (elevator assembly)	1	ls	250,000.00	250,000		
2	Three story Admin building (egress stairs)	6	flts	150,000.00	900,000	1,150,000	
<u>Premium cost related to site location</u>							
1	Perimeter fence (decorative wrought iron)	452	lf	300.00	135,600		
2	Additional clearing and blasting for raw site conditions	1	ls	500,000.00	500,000		
3	Retaining / masonry walls additional to building costs	1	ls	200,000.00	200,000	835,600	
CURRENT 2014 CONSTRUCTION COSTS						\$29,483,696	

Notes:

- a. Building square foot costs are based on recent DPW project bid results escalated to 2014. Project bid ranges were within the \$220 - \$290/sf depending on building size

Recent bid results:

	<u>Low - High</u>	<u>Sf</u>
Medford DPW (January 2014 bids)	\$251 - \$275	46,100
Wayland DPW (March 2013 bids)	\$218 - \$270	40,052
Amesbury DPW (September 2013 bids)	\$265 - \$290	13,055

- b. Sitework costs assumptions are as follows:
 (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 (Medium) 15% - Sites with moderate slopes, some cut/fill
 (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement
- c. Additional sitework premiums other than listed are not assumed (offsite utilities, traffic lights or work to public roads)

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DPW REBUILD AT DEDHAM AVE - PARTIAL PROGRAM

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
1	School DeFazio Park new 6th grade school including sitework and softcosts (Option 3 D&W report) escalated to 9-14	83,200	sf	376.00	31,301,000		
DeFazio Park - CURRENT 2014 CONSTRUCTION COSTS							31,301,000
<u>DPW Administration</u>							
2	DPW Administration	22,865	sf	300.00	6,859,500		
3	Vehicle Storage	22,865	sf	190.00	4,344,350		
4	Maintenance	11,804	sf	250.00	2,951,000		
5	Existing vehicle storage to remain					ETR	
6	Wash/Fuel Bay					NIC	
9	Meeting room converted from water pump station	2,800	sf	200.00	560,000		
8	Connector	700	sf	600.00	420,000		
7	Canopy Storage	7,295	sf	100.00	729,500	15,864,350	
Total Typical Building - \$/sf		144,234	sf	109.99	15,864,350		
<u>Sitework</u>							
1	Typical sitework - (Low) 10% of building costs (earthwork, utilities, fencing and all site finishes)	1	ls	1,586,435.00	1,586,435		
2	Cold Storage					NIC	
3	Bin Storage					NIC	1,586,435
Total Typical Site - \$/sf		144,234	sf	11.00	1,586,435		
Total Typical Buildings and Site - \$/sf		144,234	sf	120.99	17,450,785		
<u>Premium cost related to building configuration</u>							
1	Two story Admin building (elevator assembly)	1	ls	200,000.00	200,000		
2	Two story Admin building (egress stairs)	2	flts	150,000.00	300,000		
3	Admin heavy duty separation	22,865	sf	10.00	228,650		
4	Vehicle storage clear span	22,865	sf	20.00	457,300	1,185,950	
<u>Premium cost related to site location</u>							
1	Demo existing storage building	34,500	sf	15.00	517,500		
2	Demo salt/sand building	4,000	sf	10.00	40,000		
3	Clean-up/Remediation - \$ TBD	1	ls	500,000.00	500,000	1,057,500	
DPW - CURRENT 2014 CONSTRUCTION COSTS							19,694,235

Notes:

- a. Building square foot costs are based on recent DPW project bid results escalated to 2014. Project bid ranges were within the \$220 - \$290/sf depending on building size

<u>Recent bid results:</u>	<u>Low - High</u>	<u>Sf</u>
Medford DPW (January 2014 bids)	\$251 - \$275	46,100
Wayland DPW (March 2013 bids)	\$218 - \$270	40,052
Amesbury DPW (September 2013 bids)	\$265 - \$290	13,055

- b. Sitework costs assumptions are as follows:
 (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 (Medium) 15% - Sites with moderate slopes, some cut/fill
 (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement
- c. Additional sitework premiums other than listed are not assumed (offsite utilities, traffic lights or work to public roads)

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PARCEL 74 - RELOCATION OF SCHOOL ADMIN / NEW COMMUNITY CTR

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
PSAB School Admin							
1	Light renovation PSAB to School Administration	21,777	sf	50.00	1,088,850		
2	Connector	700	sf	600.00	420,000		
3	Convert Water Pump station to meeting room	2,800	sf	200.00	560,000		
4	Typical sitework - (Low) 10% of building costs (earthwork, utilities, fencing and all site finishes)	1	ls	98,000.00	98,000		
PSAB SCHOOL ADMIN - CURRENT 2014 CONSTRUCTION COSTS						2,166,850	
Community Center							
Buildings							
1	2 story Community Center	60,000	sf	350.00	21,000,000		
						23,166,850	
Total Typical Building - \$/sf		85,278	sf	271.66	23,166,850		
Sitework							
1	Typical sitework - (Low) 10% of building costs (earthwork, utilities, fencing and all site finishes)	1	ls	2,100,000.00	2,100,000		
2	Retaining wall	260	lf	225.00	58,500		
						2,158,500	
Total Typical Site - \$/sf		85,278	sf	25.31	2,158,500		
Total Typical Buildings and Site - \$/sf		85,278	sf	296.97	25,325,350		
Premium cost related to site location							
1	Demo existing building	34,500	sf	15.00	517,500		
2	Reconstruct storage building in new location	5,000	sf	125.00	625,000		
3	Demo salt/sand building	4,000	sf	10.00	40,000		
4	Clean-up/Remediation - \$ TBD	1	ls	500,000.00	500,000		
						1,682,500	
COMMUNITY CENTER - CURRENT 2014 CONSTRUCTION COSTS						\$27,007,850	

Notes:

- a. Sitework costs do not assume unsuitable soil replacement or hazardous soil remediation
- b. Sitework costs assumptions are as follows:
 - (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 - (Medium) 15% - Sites with moderate slopes, some cut/fill
 - (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

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PARCEL 74 - RELOCATION OF SCHOOL ADMIN / ADDITIONAL PARKING

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
PSAB School Admin							
<u>Buildings</u>							
1	Light renovation PSAB to School Administration	21,777	sf	50.00	1,088,850		
2	Connector	700	sf	600.00	420,000		
3	Meeting room converted from water pump station	2,800	sf	200.00	560,000	2,068,850	
Total Typical Building - \$/sf		25,277	sf	81.85	2,068,850		
<u>Sitework</u>							
1	Typical sitework - (Low) 10% of building costs (earthwork, utilities, fencing and all site finishes)	1	ls	98,000.00	98,000		
2	Retaining wall	260	lf	225.00	58,500		
3	Add surface parking	163	ea	3,500.00	570,500		
Total Typical Site - \$/sf		25,277	sf	28.76	727,000		
Total Typical Buildings and Site - \$/sf		25,277	sf	110.61	2,795,850		
<u>Premium cost related to site location</u>							
1	Demo existing building	34,500	sf	15.00	517,500		
2	Reconstruct storage building in new location	5,000	sf	125.00	625,000		
3	Demo salt/sand building	4,000	sf	10.00	40,000		
						1,182,500	
DeFazio Park with parking - CURRENT 2014 CONSTRUCTION COSTS							\$3,978,350

Notes:

- Sitework costs do not assume unsuitable soil replacement or hazardous soil remediation
- Sitework costs assumptions are as follows:
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
(Medium) 15% - Sites with moderate slopes, some cut/fill
(High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

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POLICE / FIRE OPTION 1

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
School Admin							
1	3 story School Administration	23,000	sf	300.00	6,900,000		
2	Typical sitework - (Low) 10% of building costs (earthwork , utilities, fencing and all site finishes)	1	ls	690,000.00	690,000	7,590,000	
SCHOOL ADMIN - CURRENT 2014 CONSTRUCTION COSTS							7,590,000
Police/Fire							
1	2 story and basement Police/Fire Station	53,238	sf	375.00	19,964,250		
1	Typical sitework - 10% of building costs (earthwork, utilities and all site finishes)	1	ls	1,996,425.00	1,996,425	21,960,675	
Total Typical Buildings and Site - \$/sf		53,238	sf	412.50	21,960,675		
Premium cost related to site location							
1	Perimeter fence (decorative wrought iron)	735	lf	300.00	220,500		
2	Demolition of existing buildings	31,156	sf	15.00	467,340		
3	Phasing & relocations	1	ls	300,000.00	300,000	987,840	
POLICE/FIRE - CURRENT 2014 CONSTRUCTION COSTS							22,948,515

Notes:

- Sitework costs do not assume large quantities of ledge blasting, unsuitable soil replacement or hazardous soil remediation
- Sitework costs assumptions are as follows:
 (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 (Medium) 15% - Sites with moderate slopes, some cut/fill
 (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement
- 911 memorial NIC

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POLICE / FIRE OPTION 2 + PARKING STRUCTURE

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
School Admin							
1	3 story School Administration	20,800	sf	300.00	6,240,000		
2	Typical sitework - (Low) 10% of building costs (earthwork , utilities, fencing and all site finishes)	1	ls	624,000.00	624,000	6,864,000	
SCHOOL ADMIN - CURRENT 2014 CONSTRUCTION COSTS							6,864,000
Police/Fire							
1	2 story and basement Police/Fire Station	50,875	sf	375.00	19,078,125		
3	Parking structure	102	space	15,000.00	1,530,000		
1	Typical sitework - 10% of building costs (earthwork, utilities and all site finishes)	1	ls	2,060,812.50	2,060,813	22,668,938	
Total Typical Buildings and Site - \$/sf		50,875	sf	445.58	22,668,938		
Premium cost related to site location							
1	Perimeter fence (decorative wrought iron)	670	lf	300.00	201,000		
2	Demolition of existing buildings	31,156	sf	15.00	467,340		
3	Phasing & relocation	1	ls	300,000.00	300,000	968,340	
POLICE/FIRE - CURRENT 2014 CONSTRUCTION COSTS							\$30,501,278

Notes:

- Sitework costs do not assume large quantities of ledge blasting, unsuitable soil replacement or hazardous soil remediation
- Sitework costs assumptions are as follows:
 (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 (Medium) 15% - Sites with moderate slopes, some cut/fill
 (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement
- 911 memorial NIC

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POLICE / FIRE OPTION 3 STAND ALONE

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<u>Buildings</u>							
1	2 story and basement Police/Fire Station	51,604	sf	375.00	19,351,500	19,351,500	
Total Typical Building - \$/sf		51,604	sf	375.00	19,351,500		
<u>Sitework</u>							
1	Typical sitework - 10% of building costs (earthwork, utilities and all site finishes)	1	ls	1,935,150.00	1,935,150	1,935,150	
Total Typical Site - \$/sf		51,604	sf	37.50	1,935,150		
Total Typical Buildings and Site - \$/sf		51,604	sf	412.50	21,286,650		
<u>Premium cost related to site location</u>							
1	Perimeter fence (decorative wrought iron)	745	lf	300.00	223,500		
2	Demolition of existing buildings	31,156	sf	15.00	467,340		
3	Phasing & relocation	1	ls	300,000.00	300,000	990,840	
CURRENT 2014 CONSTRUCTION COSTS						\$22,277,490	

Notes:

- Sitework costs do not assume large quantities of ledge blasting, unsuitable soil replacement or hazardous soil remediation
- Sitework costs assumptions are as follows:
 (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 (Medium) 15% - Sites with moderate slopes, some cut/fill
 (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement
- 911 memorial NIC

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POLICE / FIRE OPTION 4 RENO AND ADDITION

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<u>Buildings</u>							
1	2 story and basement Police/Fire Station - Renovation	31,145	sf	200.00	6,229,000		
2	2 story Apparatus Bay - Addition	15,699	sf	375.00	5,887,125	12,116,125	
Total Typical Building - \$/sf		46,844	sf	258.65	12,116,125		
<u>Sitework</u>							
1	Typical sitework - 10% of building costs (earthwork, utilities and all site finishes)	1	ls	1,211,612.50	1,211,613	1,211,613	
Total Typical Site - \$/sf		46,844	sf	25.86	1,211,613		
Total Typical Buildings and Site - \$/sf		46,844	sf	284.51	13,327,738		
<u>Premium cost related to site location & Buildings</u>							
1	Perimeter fence (decorative wrought iron)	540	lf	300.00	162,000		
2	Add elevator addition	1	ls	300,000.00	300,000		
3	Phasing & relocation	1	ls	200,000.00	200,000		
4	Demolition of commercial building (7,200) + existing stair (388)	7,588	sf	15.00	113,820	775,820	
					CURRENT 2014 CONSTRUCTION COSTS		\$14,103,558

Notes:

- Sitework costs do not assume large quantities of ledge blasting, unsuitable soil replacement or hazardous soil remediation
- Sitework costs assumptions are as follows:
 (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 (Medium) 15% - Sites with moderate slopes, some cut/fill
 (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement
- 911 memorial NIC

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FIRE STATION #2 ADDITION / RENOVATION

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
	<u>Building New</u>						
1	vehicle storage	2,114	sf	250.00	528,500		
2	Tuck/Repainting of all brick veneer facade	6,035	sf	20.00	120,700		
3	Replace existing windows	680	sf	150.00	102,000		
4	Replace existing doors	325	sf	100.00	32,500		
5	Replace trim and rake, soffits and fascias	1	ls	125,000.00	125,000		
6	Cupola replacement	1	ls	45,000.00	45,000		
7	Roof Replacement	4,500	sf	60.00	270,000		
8	Misc infills, repair and painting	1	ls	100,000.00	100,000	1,323,700	
Total Typical Building					1,323,700		
	<u>Sitework</u>						
1	Retaining wall premium at new addition	1	ls	25,000.00	25,000		
2	Cut/fill swale and redirect drainage	1	ls	50,000.00	50,000		
3	Paving and parking modification	700	sf	30.00	21,000		
4	Typical sitework - 10% of building new addition cost	1	ls	52,850.00	52,850	148,850	
Total Site					52,850		
Total Typical Buildings and Site					1,376,550		
CURRENT 2014 CONSTRUCTION COSTS							\$1,472,550

Notes:

- Sitework costs do not assume large quantities of ledge blasting, unsuitable soil replacement or hazardous soil remediation
- Sitework costs assumptions are as follows:
 (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 (Medium) 15% - Sites with moderate slopes, some cut/fill
 (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement
- 911 memorial NIC

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Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
	<u>Buildings</u>						
1	2 story and basement School Administration	20,000	sf	300.00	6,000,000		
						6,000,000	
	Total Typical Building - \$/sf	20,000	sf	300.00	6,000,000		
	<u>Sitework</u>						
	Typical sitework - 15% of building costs (earthwork, utilities and all site finishes)						
1		1	ls	900,000.00	900,000		
						900,000	
	Total Typical Site - \$/sf	20,000	sf	45.00	900,000		
	Total Typical Buildings and Site - \$/sf	20,000	sf	345.00	6,900,000		
	<u>Premium cost related to site location & Buildings</u>						
1	Widened existing road	1,400	lf	200.00	280,000		
2	Allowance for utilities and connections 1/4 mile distance	1	ls	500,000.00	500,000		
						780,000	
					CURRENT 2014 CONSTRUCTION COSTS		\$7,680,000

Notes:

- a. Sitework costs do not assume large quantities of ledge blasting, unsuitable soil replacement or hazardous soil remediation
- b. Sitework costs assumptions are as follows:
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
(Medium) 15% - Sites with moderate slopes, some cut/fill
(High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

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COMMUNITY CENTER AT PARCEL 74

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<u>Buildings</u>							
1	2 story Community Center	62,000	sf	285.00	17,670,000	17,670,000	
Total Typical Building - \$/sf		62,000	sf	285.00	17,670,000		
<u>Sitework</u>							
1	Typical sitework - 20% of building costs (Fields, earthwork, utilities and all site finishes)	1	ls	3,534,000.00	3,534,000	3,534,000	
Total Typical Site - \$/sf		62,000	sf	57.00	3,534,000		
Total Typical Buildings and Site - \$/sf		62,000	sf	342.00	21,204,000		
<u>Premium cost related to site location</u>							
1	Retaining wall at west portion of building	1	ls	250,000.00	250,000		
1	Perimeter fence (decorative wrought iron)	750	lf	300.00	225,000		
2	Existing force main line replace/relocation within site - allowance	1	ls	200,000.00	200,000	675,000	
CURRENT 2014 CONSTRUCTION COSTS							\$21,879,000

Notes:

- Sitework costs do not assume large quantities of ledge blasting, unsuitable soil replacement or hazardous soil remediation
- Sitework costs assumptions are as follows:
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
(Medium) 15% - Sites with moderate slopes, some cut/fill
(High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

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[illegible]

Notes:

- a. Sitework costs do not assume large quantities of ledge blasting, unsuitable soil replacement or hazardous soil remediation
- b. Sitework costs assumptions are as follows:
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
(Medium) 15% - Sites with moderate slopes, some cut/fill
(High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

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ICE RINK AT 470 DEDHAM AVE

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<u>Buildings</u>							
1	1 story Ice Rink	35,272	sf	200.00	7,054,400		
						7,054,400	
Total Typical Building - \$/sf		35,272	sf	200.00	7,054,400		
<u>Sitework</u>							
1	Typical sitework - 10% of building costs (earthwork, utilities, fencing and all site finishes)	1	ls	705,440.00	705,440		
						705,440	
Total Typical Site - \$/sf		35,272	sf	20.00	705,440		
Total Typical Buildings and Site - \$/sf		35,272	sf	220.00	7,759,840		
<u>Premium cost related to site location</u>							
1	Demo existing building	34,500	sf	15.00	517,500		
2	Demo salt/sand building	4,000	sf	10.00	40,000		
3	Clean-up/Remediation - \$ TBD	1	ls	500,000.00	500,000		
						1,057,500	
CURRENT 2014 CONSTRUCTION COSTS							\$8,817,340

Notes:

- a. Sitework costs do not assume unsuitable soil replacement or hazardous soil remediation
- b. Sitework costs assumptions are as follows:
 (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 (Medium) 15% - Sites with moderate slopes, some cut/fill
 (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

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ICE RINK AT TOWN FOREST

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<u>Buildings</u>							
1	1 story Ice Rink	36,839	sf	200.00	7,367,800	7,367,800	
Total Typical Building - \$/sf		36,839	sf	200.00	7,367,800		
<u>Sitework</u>							
1	Typical sitework - 20% of building costs (earthwork, utilities, fencing and all site finishes)	1	ls	1,473,560.00	1,473,560	1,473,560	
Total Typical Site - \$/sf		36,839	sf	40.00	1,473,560		
Total Typical Buildings and Site - \$/sf		36,839	sf	240.00	8,841,360		
<u>Premium cost related to site location</u>							
1	Perimeter fence (decorative wrought iron)	725	lf	300.00	217,500		
2	Additional clearing and blasting for raw site conditions	1	ls	500,000.00	500,000		
3	Retaining / masonry walls additional to building costs	1	ls	200,000.00	200,000	917,500	
					CURRENT 2014 CONSTRUCTION COSTS		\$9,758,860

Notes:

- a. Sitework costs do not assume unsuitable soil replacement or hazardous soil remediation
- b. Sitework costs assumptions are as follows:
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
(Medium) 15% - Sites with moderate slopes, some cut/fill
(High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

Needham Facilities Master Plan Cost Study
Town of Needham, Ma

October 7, 2014



MEMORIAL PARK BUILDING RENOVATIONS

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<u>Buildings</u>							
1	Stair/Entry/ Bridge/Elevator addition	860	sf	650.00	559,000		
2	Upgrade toilet and concessions	1	ls	30,000.00	30,000		
3	Upgrade toilet and kitchen	1	ls	50,000.00	50,000		
4	Paint existing interior	3,200	sf	3.00	9,600		
5	Replace egress stair	1	ls	15,000.00	15,000		
						663,600	
<u>Total Typical Building - \$/sf</u>							
		7,260	sf	91.40	663,600		
<u>Sitework</u>							
1	Typical sitework - 10% of building costs (earthwork, utilities, fencing and all site finishes)	1	ls	66,360.00	66,360		
						66,360	
<u>Total Typical Site - \$/sf</u>							
		7,260	sf	9.14	66,360		
<u>Total Typical Buildings and Site - \$/sf</u>							
		7,260	sf	100.55	729,960		
<u>Premium cost related to site location</u>							
1	Realign retaining wall	1	ls	3,000.00	3,000		
2	Concrete pad	1	ls	3,000.00	3,000		
3	Modify ramp and entry	1	ls	10,000.00	10,000	16,000	
						CURRENT 2014 CONSTRUCTION COSTS	
						\$745,960	

Notes:

- a. Sitework costs do not assume unsuitable soil replacement or hazardous soil remediation
- b. Sitework costs assumptions are as follows:
 - (Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
 - (Medium) 15% - Sites with moderate slopes, some cut/fill
 - (High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

October 7, 2014

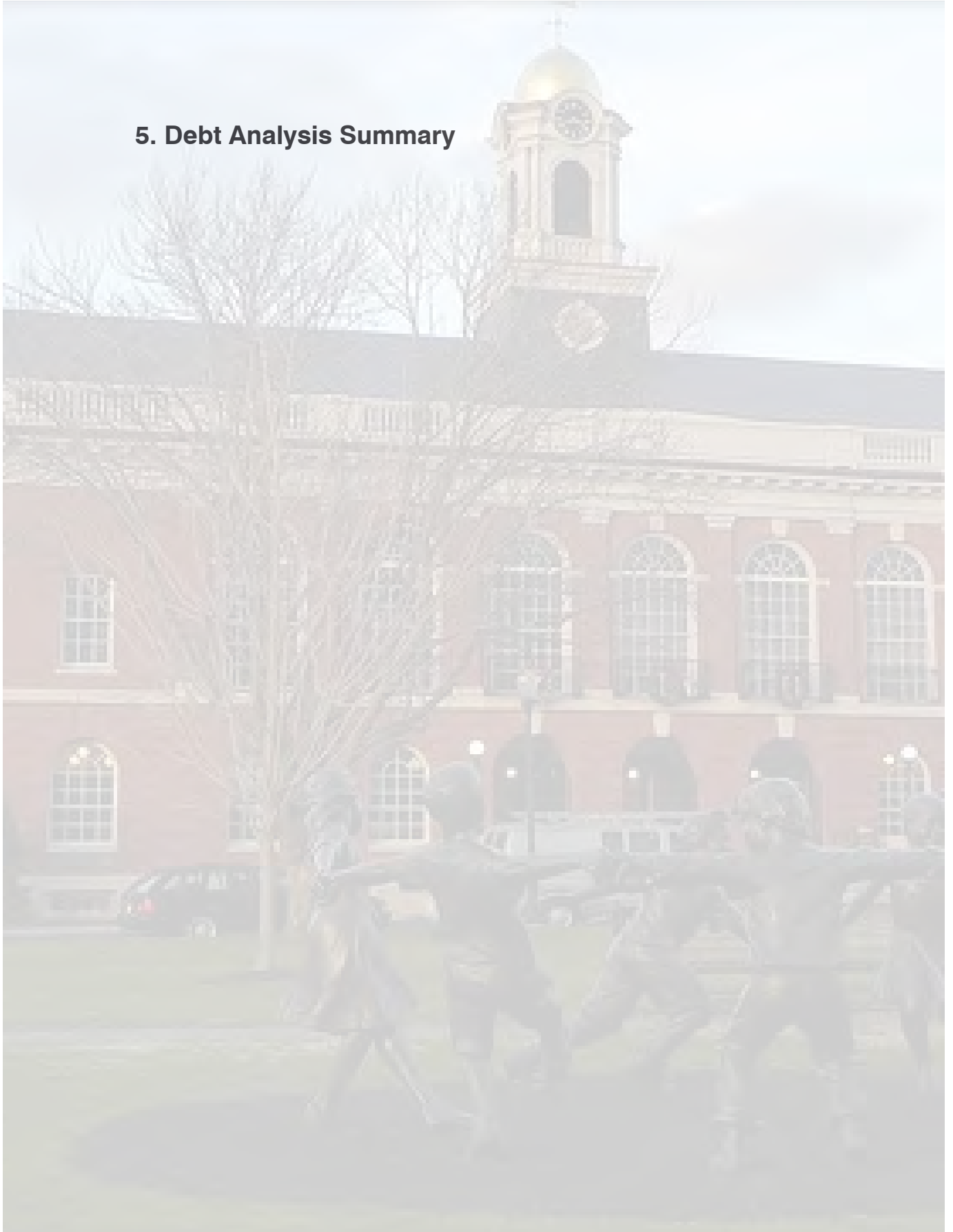
MEMORIAL PARK BUILDING NEW

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<u>Buildings</u>							
1	New 2-story building	14,584	sf	265.00	3,864,760	3,864,760	
Total Typical Building - \$/sf		14,584	sf	265.00	3,864,760		
<u>Sitework</u>							
1	Typical sitework - 10% of building costs (earthwork, utilities, fencing and all site finishes)	1	ls	386,476.00	386,476	386,476	
Total Typical Site - \$/sf		14,584	sf	26.50	386,476		
Total Typical Buildings and Site - \$/sf		14,584	sf	291.50	4,251,236		
<u>Premium cost related to site location</u>							
1	Foundation retaining wall	1	ls	25,000.00	25,000		
2	Demo existing building	6,400	sf	15.00	96,000	121,000	
CURRENT 2014 CONSTRUCTION COSTS							\$4,372,236

Notes:

- Sitework costs do not assume unsuitable soil replacement or hazardous soil remediation
- Sitework costs assumptions are as follows:
(Low) 10% - Sites formally developed with existing utilities and no known site complications such as ledge or significant cut/fill
(Medium) 15% - Sites with moderate slopes, some cut/fill
(High) 20% - Sites with no utilities and excessive site complications, blasting and soil replacement

5. Debt Analysis Summary



Town of Needham
Estimated Debt Service
With Facility Master Plan Projects

Description		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	After 2031
A	General Fund Within the Limit	4,019,539	4,140,125	4,264,329	4,392,259	4,524,027	4,659,748	4,799,540	4,943,526	5,091,832	5,244,587	5,401,925	5,563,982	5,730,902	5,902,829	6,079,914	5,399,400
B	General Fund Excluded	6,947,519	7,880,440	10,749,333	15,412,821	18,415,454	21,877,131	21,380,251	22,392,659	21,041,299	19,540,305	18,363,220	17,429,338	15,943,539	14,570,178	14,001,919	283,695,000
C	Community Preservation Act	1,063,475	1,095,379	1,128,241	1,162,088	1,196,950	1,232,859	1,269,845	1,307,940	1,347,178	1,387,594	1,429,221	1,472,098	1,516,261	1,561,749	1,608,601	10,747,700
D	Recycling Center and Transfer Station	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	-
E	Sewer Enterprise	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	-
F	Water Enterprise	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	4,365,063
G	Total Debt Service	15,230,533	16,315,945	19,341,902	24,167,168	27,336,431	30,969,738	30,649,636	31,844,125	30,680,309	29,372,486	28,394,366	27,665,418	26,390,702	25,234,755	24,890,434	304,207,163
General Fund Within the Limit																	
1	Currently Issued and Outstanding	2,643,827	1,939,032	1,533,136	1,497,618	1,438,828	1,403,689	1,226,644	1,111,530	967,628	867,453	838,834	584,126	568,366	547,161	530,089	-
2	Approved Projects Not Yet Borrowed	795,125	761,050	711,975	668,725	166,025	160,075	154,125	148,175	127,225	102,175	98,325	94,475	90,625	86,775	82,925	-
3	CIP Recommended Projects	560,000	1,523,000	1,596,000	1,598,000	1,694,250	1,436,800	1,224,100	1,065,400	828,000	792,000	756,000	320,000	308,000	296,000	284,000	-
4	Facility Master Plan Projects	-	-	107,100	369,200	358,350	347,500	336,650	325,800	314,950	304,100	293,250	282,400	271,550	260,700	249,850	5,399,400
5	Contingent Debt Service	20,587	(82,957)	316,118	258,716	866,574	1,311,684	1,858,021	2,292,621	2,854,030	3,178,859	3,415,515	4,282,981	4,492,361	4,712,193	4,933,050	-
A	General Fund Within the Limit	4,019,539	4,140,125	4,264,329	4,392,259	4,524,027	4,659,748	4,799,540	4,943,526	5,091,832	5,244,587	5,401,925	5,563,982	5,730,902	5,902,829	6,079,914	5,399,400
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Fund Excluded																	
1	Currently Issued and Outstanding	6,730,519	6,548,340	6,330,133	6,081,221	5,018,154	4,852,011	4,694,631	4,521,539	3,754,679	2,838,185	2,245,600	1,896,218	1,434,919	615,258	600,699	-
2	Approved Projects Not Yet Borrowed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	CIP Recommended Project	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Facility Master Plan Projects	217,000	1,332,100	4,419,200	9,331,600	13,397,300	17,025,120	16,685,620	17,871,120	17,286,620	16,702,120	16,117,620	15,533,120	14,508,620	13,954,920	13,401,220	283,695,000
		Contingent Debt Service															
B	General Fund Excluded	6,947,519	7,880,440	10,749,333	15,412,821	18,415,454	21,877,131	21,380,251	22,392,659	21,041,299	19,540,305	18,363,220	17,429,338	15,943,539	14,570,178	14,001,919	283,695,000
Community Preservation Act																	
1	Currently Issued and Outstanding	456,313	449,163	441,494	430,525	416,675	405,041	395,256	384,906	374,763	364,681	354,306	259,997	241,638	51,813	50,625	-
2	Approved Projects Not Yet Borrowed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	CIP Recommended Project	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Facility Master Plan Projects	-	-	240,000	397,200	718,000	696,650	675,300	653,950	632,600	611,250	589,900	568,550	547,200	525,850	504,500	10,747,700
		Contingent Debt Service															
C	Community Preservation Act	1,063,475	1,095,379	1,128,241	1,162,088	1,196,950	1,232,859	1,269,845	1,307,940	1,347,178	1,387,594	1,429,221	1,472,098	1,516,261	1,561,749	1,608,601	10,747,700
Recycling Center and Transfer Station																	
1	Currently Issued and Outstanding	97,775	25,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Approved Projects Not Yet Borrowed	51,912	49,572	47,232	44,892	18,552	17,652	16,752	15,052	-	-	-	-	-	-	-	-
3	CIP Recommended Project	-	73,550	78,200	104,300	124,500	103,200	72,800	68,900	-	-	-	-	-	-	-	-
4	Facility Master Plan Projects	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Contingent Debt Service	313	1,378	24,568	808	6,948	29,148	60,448	66,048	150,000	150,000	150,000	150,000	150,000	150,000	150,000	-
D	Recycling Center and Transfer Station	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	-
Sewer Enterprise																	
1	Currently Issued and Outstanding	1,043,820	986,918	960,010	556,104	511,113	506,798	502,416	424,560	423,231	421,802	420,277	443,252	430,929	374,908	374,988	-
2	Approved Projects Not Yet Borrowed	40,810	39,220	37,630	36,040	34,450	32,860	31,270	29,680	28,090	-	-	-	-	-	-	-
3	CIP Recommended Project	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Facility Master Plan Projects	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Contingent Debt Service	415,370	473,862	502,360	907,856	954,437	960,342	966,314	1,045,761	1,048,679	1,078,198	1,079,723	1,056,748	1,069,071	1,125,092	1,125,012	-
E	Sewer Enterprise	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	-
Water Enterprise																	
1	Currently Issued and Outstanding	905,551	896,037	890,012	349,244	361,537	353,319	344,997	214,263	210,645	182,452	179,682	176,760	178,738	165,813	162,238	477,713
2	Approved Projects Not Yet Borrowed	445,400	431,300	417,200	403,100	389,000	374,900	360,800	346,700	332,600	258,500	248,000	237,500	227,000	216,500	206,000	978,850
3	CIP Recommended Project	103,100	99,200	95,300	91,400	227,500	513,600	554,300	535,700	517,100	483,500	415,800	401,100	386,400	371,700	357,000	2,908,500
4	Facility Master Plan Projects	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Contingent Debt Service	95,949	123,463	147,488	706,256	571,963	308,181	289,903	453,337	489,655	625,548	706,518	734,640	757,862	795,987	824,762	-
F	Water Enterprise	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	4,365,063

Town of Needham
Estimated Debt Service
With Facility Master Plan Projects

Description		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	After 2031
Recap																	-
1	Currently Issued and Outstanding	11,877,804	10,844,989	10,154,784	8,914,713	7,746,306	7,520,857	7,163,945	6,656,798	5,730,945	4,674,573	4,038,700	3,360,353	2,854,589	1,754,952	1,718,638	5,238,587
2	Approved Projects Not Yet Borrowed	1,333,247	1,281,142	1,214,037	1,152,757	608,027	585,487	562,947	539,607	487,915	360,675	346,325	331,975	317,625	303,275	288,925	1,242,450
3	CIP Recommended Project	663,100	1,695,750	1,769,500	1,793,700	2,046,250	2,053,600	1,851,200	1,670,000	1,345,100	1,275,500	1,171,800	721,100	694,400	667,700	641,000	4,504,500
4	Facility Master Plan Projects	217,000	1,332,100	4,766,300	10,098,000	14,473,650	18,069,270	17,697,570	18,850,870	18,234,170	17,617,470	17,000,770	16,384,070	15,327,370	14,741,470	14,155,570	113,962,020
5	Contingent Debt Service	1,139,382	1,161,964	1,437,281	2,207,999	2,462,198	2,740,524	3,373,974	4,126,851	4,882,179	5,444,267	5,836,772	6,867,920	7,196,718	7,767,358	8,086,301	
G	Total	15,230,533	16,315,945	19,341,902	24,167,168	27,336,431	30,969,738	30,649,636	31,844,125	30,680,309	29,372,486	28,394,366	27,665,418	26,390,702	25,234,755	24,890,434	124,947,557
Debt Service % of Total Revenue without Facility Master Plan Projects		9.5%	9.3%	9.0%	8.7%	8.0%	7.8%	7.7%	7.5%	7.0%	6.5%	6.1%	5.9%	5.6%	5.2%	4.9%	
Debt Service % of Total Revenue Excluding Exempt Debt and Related Revenue		5.5%	5.4%	5.4%	5.3%	5.3%	5.3%	5.2%	5.2%	5.1%	5.1%	5.1%	5.0%	5.0%	5.0%	4.9%	
Debt Service % of Total Revenue with Facility Master Plan Projects		9.6%	10.0%	11.4%	13.5%	14.6%	15.9%	15.4%	15.5%	14.7%	13.8%	13.1%	12.5%	11.7%	11.0%	10.6%	
Excluded Debt Tax Impact ASFH (single rate) Existing Debt		\$710	\$689	\$664	\$635	\$509	\$490	\$472	\$535	\$444	\$335	\$265	\$224	\$170	\$72	\$71	
Excluded Debt Tax Impact ASFH (single rate) FMP Projects		\$26	\$159	\$528	\$1,115	\$1,600	\$2,034	\$1,993	\$2,135	\$2,065	\$1,995	\$1,925	\$1,855	\$1,733	\$1,667	\$1,601	
Excluded Debt Tax Impact ASFH (single rate)		\$736	\$848	\$1,192	\$1,750	\$2,109	\$2,524	\$2,465	\$2,670	\$2,509	\$2,330	\$2,190	\$2,079	\$1,903	\$1,739	\$1,672	

ASFH FY2015
\$818,436
Total Assessed Value of Single Family
Homes January 1, 2014
6,851,945,000

Town of Needham
Long Term Debt Service
Actual Issues

Project	TM Vote	Art	Amount	Maturity	C-Rate+	DEBT SERVICE 2017	DEBT SERVICE 2018	DEBT SERVICE 2019	DEBT SERVICE 2020	DEBT SERVICE 2021	DEBT SERVICE 2022	DEBT SERVICE 2023	DEBT SERVICE 2024	DEBT SERVICE 2025
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MUNICIPAL WITHIN THE LEVY LIMIT

DPW Garage Bays	May-13	42	\$800,000	May-24	2.09%	\$93,200.00	\$91,600.00	\$90,000.00	\$88,400.00	\$86,800.00	\$85,200.00	\$83,600.00	\$82,000.00	
Fire Engine	May-11	37	\$400,000	Jul-16	2.72%	\$101,500.00								
Kendrick Street Bridge Repair	May-10	35	\$750,000	Aug-21	2.21%	\$84,187.50	\$82,687.50	\$81,187.50	\$79,593.75	\$77,812.50	\$75,937.50			
Parking Lot Improvements	May-08	41	\$100,000	Aug-16	2.00%	\$20,200.00								
Pollard School Boiler Replacement	May-13	40	\$565,000	Jul-21	3.22%	\$82,250.00	\$80,150.00	\$78,050.00	\$75,950.00	\$73,500.00	\$71,050.00			
Pollard School Boiler Replacement	May-13	40	\$95,000	May-18	2.00%	\$25,900.00	\$20,400.00							
Pollard School Roof Replacement	Nov-10	10	\$725,000	Jul-22	3.67%	\$92,375.00	\$90,125.00	\$82,600.00	\$79,800.00	\$77,000.00	\$74,200.00	\$71,400.00		
Property Acquisition	May-12	31	\$605,000	Nov-32	3.39%	\$46,800.00	\$45,750.00	\$44,550.00	\$43,350.00	\$42,300.00	\$41,400.00	\$40,500.00	\$39,600.00	\$38,700.00
Property Acquisition	May-12	31	\$25,000	May-18	2.00%	\$5,200.00	\$5,100.00							
Property Acquisition	Nov-12	17	\$950,000	Nov-32	3.39%	\$76,325.00	\$74,575.00	\$72,575.00	\$70,575.00	\$68,825.00	\$67,325.00	\$65,825.00	\$59,400.00	\$58,050.00
Property Acquisition	Nov-12	17	\$150,000	May-18	2.00%	\$36,400.00	\$35,700.00							
Property Acquisition	May-12	8	\$52,500	Jul-32	2.93%	\$4,300.00	\$4,210.00	\$4,105.00	\$3,985.00	\$3,865.00	\$3,745.00	\$3,625.00	\$3,505.00	\$3,415.00
Property Acquisition	May-12	8	\$1,005,000	Nov-32	3.39%	\$78,000.00	\$76,250.00	\$74,250.00	\$72,250.00	\$70,500.00	\$69,000.00	\$67,500.00	\$66,000.00	\$64,500.00
Property Acquisition	May-12	8	\$117,500	May-18	2.00%	\$31,100.00	\$25,500.00							
Public Services Administration Building (Series I)	Oct-08	5	\$4,000,000	Aug-26	3.16%	\$319,125.00	\$312,525.00	\$306,225.00	\$299,325.00	\$292,125.00	\$284,625.00	\$276,825.00	\$268,725.00	\$235,762.50
Public Services Administration Building (Series II)	Oct-08	5	\$1,000,000	Dec-24	3.07%	\$84,062.50	\$82,356.25	\$80,487.50	\$78,537.50	\$86,437.50	\$84,093.75	\$81,562.50	\$78,937.50	\$76,312.50
Public Services Administration Building (Series IV)	Oct-08	5	\$100,000	Jul-22	3.69%	\$12,450.00	\$12,150.00	\$11,800.00	\$11,400.00	\$11,000.00	\$10,600.00	\$10,200.00		
Public Services Administration Building (Series V)	Oct-08	5	\$20,000	Nov-16	2.95%	\$5,075.00								
Public Works Infrastructure Program	May-10	36	\$306,500	Jul-17	2.72%	\$71,350.00	\$10,150.00							
Public Works Infrastructure Program	May-11	39	\$600,000	Jul-17	2.82%	\$125,400.00	\$121,800.00							
Public Works Infrastructure Program	May-10	36	\$120,000	Jul-16	3.13%	\$40,600.00								

Town of Needham
Long Term Debt Service
Actual Issues

	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	2026	2027	2028	2029	2030	2031	After 2031

MUNICIPAL WITHIN THE LEVY LIMIT

DPW Garage Bays							
Fire Engine							
Kendrick Street Bridge Repair							
Parking Lot Improvements							
Pollard School Boiler Replacement							
Pollard School Boiler Replacement							
Pollard School Roof Replacement							
Property Acquisition	\$37,800.00	\$36,900.00	\$35,962.50	\$34,968.75	\$33,937.50	\$32,868.75	\$62,362.50
Property Acquisition							
Property Acquisition	\$56,700.00	\$55,350.00	\$53,943.75	\$52,453.13	\$50,906.26	\$49,303.13	\$93,543.75
Property Acquisition							
Property Acquisition	\$2,365.00	\$2,325.00	\$2,282.50	\$2,237.50	\$2,192.50	\$2,145.00	\$4,120.00
Property Acquisition	\$63,000.00	\$61,500.00	\$59,937.50	\$58,281.25	\$56,562.50	\$54,781.25	\$103,937.50
Property Acquisition							
Public Services Administration Building (Series I)	\$227,700.00	\$214,200.00					
Public Services Administration Building (Series II)							
Public Services Administration Building (Series IV)							
Public Services Administration Building (Series V)							
Public Works Infrastructure Program							
Public Works Infrastructure Program							
Public Works Infrastructure Program							

Town of Needham
Long Term Debt Service
Actual Issues

Project	TM Vote	Art	Amount	Maturity	C-Rate+	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
						2017	2018	2019	2020	2021	2022	2023	2024	2025
Public Works Infrastructure Program	May-11	39	\$350,000	Jul-16	3.13%	\$116,725.00								
Public Works Infrastructure Program	May-13	41	\$100,000	May-18	2.00%	\$26,000.00	\$25,500.00							
Public Works Infrastructure Program	May-10	36	\$129,000	May-18	2.00%	\$31,200.00	\$30,600.00							
Public Works Infrastructure Program	May-11	39	\$150,000	May-18	2.00%	\$36,400.00	\$35,700.00							
Public Works Infrastructure Program	May-12	33	\$210,000	May-18	2.00%	\$52,000.00	\$51,000.00							
Senior Center (Series I)	Nov-11	14	\$1,000,000	Nov-32	3.38%	\$77,256.26	\$75,506.26	\$73,506.26	\$71,506.26	\$69,756.26	\$68,256.26	\$66,756.26	\$65,256.26	\$63,756.26
Senior Center (Series II)	Nov-11	14	\$5,050,000	Jul-33	3.54%	\$406,225.00	\$398,575.00	\$390,925.00	\$383,275.00	\$374,350.00	\$365,425.00	\$357,775.00	\$348,850.00	\$335,000.00
Senior Center (Series III)	Nov-11	14	\$1,050,500	May-34	2.83%	\$79,300.00	\$78,200.00	\$77,100.00	\$76,000.00	\$74,900.00	\$73,800.00	\$72,700.00	\$71,600.00	\$65,225.00
Stormwater Systems	May-98	7	\$364,979	Aug-19	(see note)	\$32,701.87	\$31,149.37	\$29,874.01	\$28,566.79					
Street & Traffic Light Improvements	May-08	42	\$25,000	Nov-17	3.34%	\$5,275.00	\$5,100.00							
Title V	May-97	64	\$85,894	Aug-19	(see note)	\$5,662.92	\$5,391.28	\$5,119.64	\$4,853.91					
Town Hall (Series I)	May-09	35	\$2,500,000	Apr-17	2.24%	\$307,500.00								
Town Hall (Series III)	May-09	35	\$385,000	Aug-26	2.63%	\$31,781.26	\$31,281.26	\$30,781.26	\$30,250.01	\$29,656.26	\$29,031.26	\$28,375.01	\$27,656.26	\$26,906.26
General Total						\$2,643,827.31	\$1,939,031.92	\$1,533,136.17	\$1,497,618.22	\$1,438,827.52	\$1,403,688.77	\$1,226,643.77	\$1,111,530.02	\$967,627.52

Town of Needham
Long Term Debt Service
Actual Issues

	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	2026	2027	2028	2029	2030	2031	After 2031
Public Works Infrastructure Program							
Public Works Infrastructure Program							
Public Works Infrastructure Program							
Public Works Infrastructure Program							
Public Works Infrastructure Program							
Senior Center (Series I)	\$62,256.26	\$60,756.26	\$59,193.76	\$57,537.51	\$50,906.26	\$49,303.13	\$93,543.75
Senior Center (Series II)	\$327,500.00	\$319,687.50	\$311,406.25	\$302,812.50	\$293,906.25	\$284,687.50	\$795,000.00
Senior Center (Series III)	\$63,975.00	\$62,725.00	\$61,400.00	\$60,075.00	\$58,750.00	\$57,000.00	\$160,500.00
Stormwater Systems							
Street & Traffic Light Improvements							
Title V							
Town Hall (Series I)							
Town Hall (Series III)	\$26,156.26	\$25,390.63					
General Total	\$867,452.52	\$838,834.39	\$584,126.26	\$568,365.64	\$547,161.27	\$530,088.76	\$1,313,007.50

Town of Needham
Long Term Debt Service
Actual Issues

Project	TM Vote	Art	Amount	Maturity	C-Rate+	DEBT SERVICE 2017	DEBT SERVICE 2018	DEBT SERVICE 2019	DEBT SERVICE 2020	DEBT SERVICE 2021	DEBT SERVICE 2022	DEBT SERVICE 2023	DEBT SERVICE 2024	DEBT SERVICE 2025
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DEBT EXCLUDED FROM THE LEVY LIMIT

Broadmeadow School +	May-00	31	\$8,400,000	Nov-23	3.00%	\$857,150.00	\$828,300.00	\$801,325.00	\$771,225.00	\$741,425.00	\$708,700.00	\$678,000.00	\$642,600.00	
Eliot School	May-00	32	\$5,500,000	Jun-25	3.82%	\$399,843.76	\$388,593.76	\$352,343.76	\$341,343.76	\$330,343.76	\$319,343.76	\$308,343.76	\$297,343.76	\$286,343.76
High Rock & Pollard School Projects	May-07	41	\$1,120,000	Dec-26	3.91%	\$84,550.00	\$82,150.00	\$79,675.00	\$77,125.00	\$74,800.00	\$72,400.00	\$70,000.00	\$62,700.00	\$60,500.00
High Rock & Pollard School Projects	May-07	41	\$5,000,000	Aug-27	4.69%	\$409,662.50	\$398,731.25	\$387,137.50	\$375,212.50	\$362,625.00	\$344,500.00	\$331,500.00	\$318,500.00	\$305,500.00
High Rock & Pollard School Projects	May-07	41	\$10,500,000	Aug-28	3.35%	\$787,862.50	\$772,600.00	\$758,031.25	\$742,075.00	\$720,500.00	\$703,312.50	\$685,437.50	\$666,875.00	\$647,625.00
High Rock School	Nov-06	9	\$480,000	Dec-26	3.91%	\$35,562.50	\$34,562.50	\$33,531.25	\$32,468.75	\$31,500.00	\$30,500.00	\$29,500.00	\$28,500.00	\$27,500.00
High School (Series I)	May-03	31	\$10,000,000	May-26	4.01%	\$757,250.00	\$735,250.00	\$713,250.00	\$641,250.00	\$621,250.00	\$601,250.00	\$581,250.00	\$561,250.00	\$541,250.00
High School (Series IIA)	May-03	31	\$9,000,000	Dec-24	3.89%	\$711,125.00	\$689,925.00	\$668,062.50	\$645,537.50	\$625,000.00	\$603,800.00	\$582,600.00	\$556,500.00	\$535,500.00
High School (Series IIB)	Feb-05	1	\$2,000,000	Dec-26	3.91%	\$149,362.50	\$145,162.50	\$140,831.25	\$136,368.75	\$132,300.00	\$128,100.00	\$123,900.00	\$119,700.00	\$115,500.00
High School (Series III)	Feb-05	1	\$3,850,000	Jun-28	3.42%	\$283,450.00	\$275,450.00	\$267,450.00	\$259,450.00	\$253,450.00	\$247,200.00	\$240,450.00	\$233,700.00	\$226,700.00
Library Project +	May-03	30	\$6,510,000	Dec-19	3.00%	\$902,000.00	\$870,550.00	\$830,475.00	\$796,775.00					
Newman School HVA Repairs (Series I)	Nov-09	14	\$1,000,000	Dec-19	2.62%	\$110,000.00	\$107,375.00	\$104,500.00	\$101,500.00					
Newman School HVA Repairs (Series III)	Nov-09	14	\$5,000,000	Oct-28	3.35%	\$395,300.00	\$389,700.00	\$383,750.00	\$373,600.00	\$359,600.00	\$348,925.00	\$341,050.00	\$332,650.00	\$323,900.00
Newman School HVA Repairs (Series V)	Nov-09	14	\$2,200,000	Nov-32	3.39%	\$171,600.00	\$167,750.00	\$163,350.00	\$158,950.00	\$155,100.00	\$151,800.00	\$148,500.00	\$145,200.00	\$141,900.00
Newman School HVA Repairs (Series VI)	Nov-09	14	\$9,000,000	Jul-32	2.82%	\$675,800.00	\$662,240.00	\$646,420.00	\$628,340.00	\$610,260.00	\$592,180.00	\$574,100.00	\$556,020.00	\$542,460.00
Excluded Total						\$6,730,519	\$6,548,340	\$6,330,133	\$6,081,221	\$5,018,154	\$4,852,011	\$4,694,631	\$4,521,539	\$3,754,679

CPA FUND

Town Hall (Series II)	May-09	35	\$3,500,000	Oct-28	3.36%	\$276,012.50	\$272,112.50	\$267,968.75	\$260,900.00	\$251,150.00	\$243,715.63	\$238,231.26	\$232,381.26	\$226,287.51
Town Hall (Series III)	May-09	35	\$1,225,000	Aug-26	2.63%	\$101,700.00	\$100,100.00	\$98,500.00	\$96,800.00	\$94,900.00	\$92,900.00	\$90,800.00	\$88,500.00	\$86,100.00
Town Hall (Series IV)	May-09	35	\$970,000	Jul-30	2.80%	\$78,600.00	\$76,950.00	\$75,025.00	\$72,825.00	\$70,625.00	\$68,425.00	\$66,225.00	\$64,025.00	\$62,375.00
CPA Total						\$456,313	\$449,163	\$441,494	\$430,525	\$416,675	\$405,041	\$395,256	\$384,906	\$374,763

Town of Needham
Long Term Debt Service
Actual Issues

	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	2026	2027	2028	2029	2030	2031	After 2031

DEBT EXCLUDED FROM THE LEVY LIMIT

Broadmeadow School +							
Eliot School							
High Rock & Pollard School Projects	\$58,300.00	\$56,100.00					
High Rock & Pollard School Projects	\$292,500.00	\$279,500.00	\$266,500.00				
High Rock & Pollard School Projects	\$627,000.00	\$605,000.00	\$583,000.00	\$561,000.00			
High Rock School	\$26,500.00	\$25,500.00					
High School (Series I)	\$520,625.00						
High School (Series IIA)							
High School (Series IIB)	\$111,300.00	\$107,100.00					
High School (Series III)	\$219,450.00	\$211,950.00	\$109,200.00				
Library Project +							
Newman School HVA Repairs (Series I)							
Newman School HVA Repairs (Series III)	\$314,450.00	\$304,650.00	\$294,675.00	\$244,800.00			
Newman School HVA Repairs (Series V)	\$138,600.00	\$135,300.00	\$131,862.50	\$128,218.75	\$124,437.50	\$120,518.75	\$228,662.50
Newman School HVA Repairs (Series VI)	\$529,460.00	\$520,500.00	\$510,980.00	\$500,900.00	\$490,820.00	\$480,180.00	\$912,580.00
Excluded Total	\$2,838,185	\$2,245,600	\$1,896,218	\$1,434,919	\$615,258	\$600,699	\$1,141,243

CPA FUND

Town Hall (Series II)	\$219,706.26	\$212,881.26	\$205,934.38	\$188,700.00			
Town Hall (Series III)	\$83,700.00	\$81,250.00					
Town Hall (Series IV)	\$61,275.00	\$60,175.00	\$54,062.50	\$52,937.50	\$51,812.50	\$50,625.00	
CPA Total	\$364,681	\$354,306	\$259,997	\$241,638	\$51,813	\$50,625	

Town of Needham
Long Term Debt Service
Actual Issues

Project	TM Vote	Art	Amount	Maturity	C-Rate+	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
						2017	2018	2019	2020	2021	2022	2023	2024	2025

RTS ENTERPRISE FUND

Soil Remediation	Nov-12	16	\$140,000	Nov-17	3.31%	\$26,375.00	\$25,500.00							
Construction Equipment	May-13	44	\$210,000	May-17	2.00%	\$71,400.00								
RTS Total						\$97,775	\$25,500							

Sewer ENTERPRISE FUND

MWPAT 97-13	Oct-96	8	\$67,700	Aug-18	(see note)	\$6,288.05	\$6,106.89	\$6,150.00						
MWPAT 97-33	Oct-96	7	\$180,300	Aug-18	(see note)	\$16,720.92	\$16,208.29	\$16,195.00						
MWPAT 97-63	May-97	46	\$1,019,778	Aug-18	(see note)	\$94,916.69	\$91,683.46	\$91,840.00						
MWPAT 98-10	May-97	42	\$130,200	Aug-18	(see note)	\$12,114.16	\$11,683.18	\$11,685.00						
Sewer Pump Station	May-05	49	\$500,000	Jun-19	3.17%	\$56,000.00	\$54,000.00	\$52,000.00						
Sewer Pump Station	May-08	45	\$550,000	Aug-28	3.36%	\$42,050.00	\$41,225.00	\$40,437.50	\$39,575.00	\$33,750.00	\$32,968.75	\$32,156.25	\$31,312.50	\$30,437.50
Sewer Pump Station	May-09	54	\$90,000	Jul-17	2.79%	\$15,675.00	\$15,225.00							
Sewer Pump Station	Nov-11	15	\$6,034,290	Jan-33	2.15%	\$374,005.59	\$374,065.92	\$374,128.59	\$374,191.96	\$374,256.32	\$374,322.93	\$374,390.95	\$374,459.50	\$374,530.66
Sewer System Rehabilitation	Nov-05	9	\$2,000,000	Nov-22	4.35%	\$124,262.50	\$119,737.50	\$115,637.50	\$111,487.50	\$82,856.25	\$79,725.00	\$76,575.00		
Sewer System Rehabilitation	Nov-05	9	\$320,000	Aug-28	3.39%	\$21,937.50	\$21,525.00	\$21,131.25	\$20,700.00	\$20,250.00	\$19,781.25	\$19,293.75	\$18,787.50	\$18,262.50
Sewer System Rehabilitation	Nov-05	9	\$145,000	Dec-19	2.59%	\$16,350.00	\$15,956.25	\$15,525.00	\$10,150.00					
Infiltration and Inflow Removal	May-07	45	\$220,990	Feb-17		\$44,198.00								
West Street Force Main +	May-98	59	\$568,400	May-19	3.98%	\$67,632.50	\$70,232.50	\$67,600.00						
West Street Pumping Station +	May-98	58	\$1,252,300	May-19	3.98%	\$151,669.00	\$149,269.00	\$147,680.00						
Sewer Total						\$1,043,820	\$986,918	\$960,010	\$556,104	\$511,113	\$506,798	\$502,416	\$424,560	\$423,231

Town of Needham
Long Term Debt Service
Actual Issues

	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	2026	2027	2028	2029	2030	2031	After 2031

RTS ENTERPRISE FUND

Soil Remediation							
Construction Equipment							
RTS Total							

Sewer ENTERPRISE FUND

MWPAT 97-13							
MWPAT 97-33							
MWPAT 97-63							
MWPAT 98-10							
Sewer Pump Station							
Sewer Pump Station	\$29,500.00	\$28,500.00	\$42,200.00	\$35,700.00			
Sewer Pump Station							
Sewer Pump Station	\$374,602.39	\$374,676.63	\$374,752.24	\$374,829.00	\$374,907.65	\$374,987.84	\$750,224.19
Sewer System Rehabilitation							
Sewer System Rehabilitation	\$17,700.00	\$17,100.00	\$26,300.00	\$20,400.00			
Sewer System Rehabilitation							
Infiltration and Inflow Removal							
West Street Force Main +							
West Street Pumping Station +							
Sewer Total	\$421,802	\$420,277	\$443,252	\$430,929	\$374,908	\$374,988	\$750,224

Town of Needham
Long Term Debt Service
Actual Issues

						DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
						2017	2018	2019	2020	2021	2022	2023	2024	2025
Project	TM Vote	Art	Amount	Maturity	C-Rate+									
WATER ENTERPRISE FUND														
MWPAT Water	May-08	47	\$765,335	Jul-30	2.00%	\$49,347.11	\$49,289.34	\$49,229.64	\$49,168.68	\$49,106.10	\$49,043.56	\$48,978.67	\$48,913.08	\$48,845.41
St Mary's Pump Station	May-13	47	\$1,995,000	May-34	2.85%	\$146,775.00	\$144,775.00	\$142,775.00	\$140,775.00	\$138,775.00	\$136,775.00	\$134,775.00	\$132,775.00	\$130,275.00
Water Distribution System Rehabilitation	May-09	56	\$400,000	Dec-24	3.02%	\$31,687.50	\$31,031.25	\$30,312.50	\$29,562.50	\$28,812.50	\$28,031.25	\$27,187.50	\$26,312.50	\$25,437.50
Water Service Connections	May-06	70	\$55,000	Aug-19	2.51%	\$5,487.50	\$5,350.00	\$5,218.75	\$5,075.00					
Water Storage Tank Rehabilitation	May-08	48	\$655,000	Jun-19	3.16%	\$72,800.00	\$70,200.00	\$67,600.00						
Water System Rehabilitation	May-06	71	\$1,500,000	Nov-22	4.32%	\$130,537.50	\$126,012.50	\$121,912.50	\$117,762.50	\$138,093.75	\$132,875.00	\$127,625.00		
Water System Rehabilitation	May-06	71	\$212,000	Jun-19	3.16%	\$22,400.00	\$21,600.00	\$20,800.00						
Water System Rehabilitation	May-06	71	\$100,000	Aug-28	3.41%	\$7,312.50	\$7,175.00	\$7,043.75	\$6,900.00	\$6,750.00	\$6,593.75	\$6,431.25	\$6,262.50	\$6,087.50
Water Treatment Facility +	May-96	47	\$1,710,000	May-19	3.98%	\$202,593.00	\$201,393.00	\$204,360.00						
Water Treatment Facility +	Nov-97	18	\$1,994,300	May-19	3.98%	\$236,610.50	\$239,210.50	\$240,760.00						
Water Total						\$905,551	\$896,037	\$890,012	\$349,244	\$361,537	\$353,319	\$344,997	\$214,263	\$210,645

Town of Needham
Long Term Debt Service
Actual Issues

	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	2026	2027	2028	2029	2030	2031	After 2031
WATER ENTERPRISE FUND							
MWPAT Water	\$48,777.26	\$48,707.26	\$48,635.00	\$48,563.06	\$48,488.04	\$48,412.51	
St Mary's Pump Station	\$127,775.00	\$125,275.00	\$122,625.00	\$119,975.00	\$117,325.00	\$113,825.00	\$315,475.00
Water Distribution System Rehabilitation							
Water Service Connections							
Water Storage Tank Rehabilitation							
Water System Rehabilitation							
Water System Rehabilitation							
Water System Rehabilitation	\$5,900.00	\$5,700.00	\$5,500.00	\$10,200.00			
Water Treatment Facility +							
Water Treatment Facility +							
Water Total	\$182,452	\$179,682	\$176,760	\$178,738	\$165,813	\$162,238	\$315,475

Town of Needham
Estimated Debt Service
Approved Authorizations Not Yet Issued

Project	TM Vote	Art	Amount	Yrs^	Rate*	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
						2017	2018	2019	2020	2021	2022	2023	2024	2025

MUNICIPAL WITHIN THE LEVY LIMIT

Central Avenue/Elliot Street Bridge Engineering	May-14	39	\$900,000	5	6.00%	\$223,200	\$212,400	\$201,600	\$190,800					
Property Acquisition - 66 - 70 Chestnut Street	Nov-13	22	\$1,330,000	19	5.50%	\$153,475	\$148,800	\$129,125	\$125,275	\$121,425	\$117,575	\$113,725	\$109,875	\$106,025
Public Works Infrastructure Program	May 2012, May 2013, and May 2014 Votes		\$1,490,000	5	5.50%	\$365,450	\$348,950	\$332,450	\$305,950					
Senior Center	Nov-11	14	\$335,000	10	6.00%	\$53,000	\$50,900	\$48,800	\$46,700	\$44,600	\$42,500	\$40,400	\$38,300	\$21,200
General Total						\$795,125	\$761,050	\$711,975	\$668,725	\$166,025	\$160,075	\$154,125	\$148,175	\$127,225

RTS ENTERPRISE FUND

RTS Equipment	May-11	43	\$120,000	5	6.00%	\$29,760	\$28,320	\$26,880	\$25,440					
Soil Remediation	Nov-12	16	\$133,000	9	6.00%	\$22,152	\$21,252	\$20,352	\$19,452	\$18,552	\$17,652	\$16,752	\$15,052	
RTS Total						\$51,912	\$49,572	\$47,232	\$44,892	\$18,552	\$17,652	\$16,752	\$15,052	

Sewer ENTERPRISE FUND

Sewer Pump Station Construction RB	Nov-11	15	\$265,000	10	6.00%	\$40,810	\$39,220	\$37,630	\$36,040	\$34,450	\$32,860	\$31,270	\$29,680	\$28,090
Sewer Total						\$40,810	\$39,220	\$37,630	\$36,040	\$34,450	\$32,860	\$31,270	\$29,680	\$28,090

WATER ENTERPRISE FUND

Water Main Improvements	May-08	47	\$600,000	10	6.00%	\$92,400	\$88,800	\$85,200	\$81,600	\$78,000	\$74,400	\$70,800	\$67,200	\$63,600
St Mary's Pumping Station	May-13	47	\$1,295,000	20	7.00%	\$151,100	\$146,550	\$142,000	\$137,450	\$132,900	\$128,350	\$123,800	\$119,250	\$114,700
St Mary's Pumping Station	May-13	47	\$1,670,100	20	7.00%	\$201,900	\$195,950	\$190,000	\$184,050	\$178,100	\$172,150	\$166,200	\$160,250	\$154,300
Water Total						\$445,400	\$431,300	\$417,200	\$403,100	\$389,000	\$374,900	\$360,800	\$346,700	\$332,600

Town of Needham
Estimated Debt Service
Approved Authorizations Not Yet Issued

	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	2026	2027	2028	2029	2030	2031	After 2031

MUNICIPAL WITHIN THE LEVY LIMIT

Central Avenue/Elliot Street Bridge Engineering							
Property Acquisition - 66 - 70 Chestnut Street	\$102,175	\$98,325	\$94,475	\$90,625	\$86,775	\$82,925	\$180,675
Public Works Infrastructure Program							
Senior Center							
General Total	\$102,175	\$98,325	\$94,475	\$90,625	\$86,775	\$82,925	\$180,675

RTS ENTERPRISE FUND

RTS Equipment							
Soil Remediation							
RTS Total							

Sewer ENTERPRISE FUND

Sewer Pump Station Construction RB							
Sewer Total							

WATER ENTERPRISE FUND

Water Main Improvements							
St Mary's Pumping Station	\$110,150	\$105,600	\$101,050	\$96,500	\$91,950	\$87,400	\$299,100
St Mary's Pumping Station	\$148,350	\$142,400	\$136,450	\$130,500	\$124,550	\$118,600	\$473,750
Water Total	\$258,500	\$248,000	\$237,500	\$227,000	\$216,500	\$206,000	\$772,850

Town of Needham
Estimated Debt Service
Recommended CIP FY2016 - FY2020 Authorizations

Project	TM Vote#	Amount	Yrs^	Rate*	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
					2017	2018	2019	2020	2021	2022	2023	2024	2025

MUNICIPAL WITHIN THE LEVY LIMIT

Central Avenue/Elliot Street Bridge	May-15	\$4,000,000	20	6.00%	\$60,000	\$440,000	\$428,000	\$416,000	\$404,000	\$392,000	\$380,000	\$368,000	\$356,000
Public Works Infrastructure Program	May-15	\$1,000,000	5	6.00%	\$260,000	\$248,000	\$236,000	\$224,000	\$212,000				
Public Works Infrastructure Program	May-16	\$750,000	5	6.00%		\$195,000	\$186,000	\$177,000	\$168,000	\$159,000			
Public Works Infrastructure Program	May-17	\$500,000	5	6.00%			\$130,000	\$124,000	\$118,000	\$112,000	\$106,000		
Public Works Infrastructure Program	May-18	\$250,000	5	6.00%				\$65,000	\$62,000	\$59,000	\$56,000	\$53,000	
Fire Engine	May-19	\$575,000	4	6.00%					\$162,250	\$170,800	\$162,100	\$148,400	
High School Class Room Expansion	May-15	\$4,000,000	10	6.00%	\$240,000	\$640,000	\$616,000	\$592,000	\$568,000	\$544,000	\$520,000	\$496,000	\$472,000
General Total					\$560,000	\$1,523,000	\$1,596,000	\$1,598,000	\$1,694,250	\$1,436,800	\$1,224,100	\$1,065,400	\$828,000

RTS ENTERPRISE FUND

Specialized Equipment	May-17	\$285,000	5	6.00%		\$73,550	\$78,200	\$74,300	\$70,400	\$26,500			
Specialized Equipment	May-18	\$250,000	5	6.00%				\$30,000	\$54,100	\$76,700	\$72,800	\$68,900	
RTS Total						\$73,550	\$78,200	\$104,300	\$124,500	\$103,200	\$72,800	\$68,900	

Sewer ENTERPRISE FUND

Sewer Total													
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WATER ENTERPRISE FUND

Water System Rehabilitation	May-15	\$635,000	10	6.00%	\$103,100	\$99,200	\$95,300	\$91,400	\$87,500	\$83,600	\$79,700	\$75,800	\$71,900
Water Main Replacement	May-19	\$4,000,000	20	7.00%					\$140,000	\$430,000	\$474,600	\$459,900	\$445,200
Water Total					\$103,100	\$99,200	\$95,300	\$91,400	\$227,500	\$513,600	\$554,300	\$535,700	\$517,100

Town of Needham
Estimated Debt Service
Recommended CIP FY2016 - FY2020 Authorizations

	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	2026	2027	2028	2029	2030	2031	After 2031

MUNICIPAL WITHIN THE LEVY LIMIT

Central Avenue/Elliot Street Bridge	\$344,000	\$332,000	\$320,000	\$308,000	\$296,000	\$284,000	\$1,312,000
Public Works Infrastructure Program							
Public Works Infrastructure Program							
Public Works Infrastructure Program							
Public Works Infrastructure Program							
Fire Engine							
High School Class Room Expansion	\$448,000	\$424,000					
General Total	\$792,000	\$756,000	\$320,000	\$308,000	\$296,000	\$284,000	\$1,312,000

RTS ENTERPRISE FUND

Specialized Equipment							
Specialized Equipment							
RTS Total							

Sewer ENTERPRISE FUND

Sewer Total							
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WATER ENTERPRISE FUND

Water System Rehabilitation	\$53,000						
Water Main Replacement	\$430,500	\$415,800	\$401,100	\$386,400	\$371,700	\$357,000	
Water Total	\$483,500	\$415,800	\$401,100	\$386,400	\$371,700	\$357,000	

Town of Needham
Estimated Debt Service
Facility Master Plan Projects

					DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote#	Amount	Yrs^	Rate*	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026

MUNICIPAL WITHIN THE LEVY LIMIT

Rosemary Pool GF 30%	2016 ATM	\$3,060,000	21	7.00%			\$107,100	\$369,200	\$358,350	\$347,500	\$336,650	\$325,800	\$314,950	\$304,100
General Total							\$107,100	\$369,200	\$358,350	\$347,500	\$336,650	\$325,800	\$314,950	\$304,100

DEBT EXCLUDED FROM THE LEVY LIMIT

High Rock School	2016 STM	\$4,400,000	12	7.00%	\$77,000	\$154,000	\$748,000	\$717,200	\$686,400	\$655,600	\$624,800	\$594,000	\$563,200	\$532,400
New School at DeFazio (1st Bond)	2016 STM	\$21,160,000	23	7.00%	\$140,000	\$740,600	\$2,621,200	\$2,541,400	\$2,381,600	\$2,307,400	\$2,233,200	\$2,159,000	\$2,084,800	\$2,010,600
New School at DeFazio (2nd Bond)	2016 ATM	\$20,000,000	22	7.00%		\$350,000	\$700,000	\$2,650,000	\$2,562,500	\$2,225,000	\$2,155,000	\$2,085,000	\$2,015,000	\$1,945,000
New Public Safety Building	2018 ATM	\$37,800,000	21	7.00%				\$1,323,000	\$4,536,000	\$4,403,700	\$4,271,400	\$4,139,100	\$4,006,800	\$3,874,500
Capital Project	2017 ATM	\$8,000,000	21	7.00%				\$280,000	\$960,000	\$932,000	\$904,000	\$876,000	\$848,000	\$820,000
DPW Phased Project (1st Bond)	2016 ATM	\$10,000,000	20	7.00%		\$87,500	\$350,000	\$1,260,000	\$1,220,800	\$1,181,600	\$1,142,400	\$1,103,200	\$1,064,000	\$1,024,800
DPW Phased Project (2nd Bond)	2016 ATM	\$15,000,000	22	7.00%				\$350,000	\$525,000	\$1,800,000	\$1,747,500	\$1,695,000	\$1,642,500	\$1,590,000
Mitchell School (1st Bond)	2018 ATM	\$24,926,000	22	7.00%				\$210,000	\$525,000	\$2,994,820	\$2,907,320	\$2,819,820	\$2,732,320	\$2,644,820
Mitchell School (2nd Bond)	2018 ATM	\$20,000,000	22	7.00%						\$525,000	\$700,000	\$2,400,000	\$2,330,000	\$2,260,000
Excluded Total						\$217,000	\$1,332,100	\$4,419,200	\$9,331,600	\$13,397,300	\$17,025,120	\$16,685,620	\$17,871,120	\$16,702,120

CPA FUND

Rosemary Pool CPA Debt 60%	2016 ATM	\$6,140,000	22	7.00%			\$240,000	\$397,200	\$718,000	\$696,650	\$675,300	\$653,950	\$632,600	\$611,250
CPA Total							\$240,000	\$397,200	\$718,000	\$696,650	\$675,300	\$653,950	\$632,600	\$611,250

RTS ENTERPRISE FUND

RTS Total														
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Town of Needham
Estimated Debt Service
Facility Master Plan Projects

	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	2027	2028	2029	2030	2031	After 2031

MUNICIPAL WITHIN THE LEVY LIMIT

Rosemary Pool GF 30%	\$293,250	\$282,400	\$271,550	\$260,700	\$249,850	\$6,977,400
General Total	\$293,250	\$282,400	\$271,550	\$260,700	\$249,850	\$6,977,400

DEBT EXCLUDED FROM THE LEVY LIMIT

High Rock School	\$501,600	\$470,800				\$6,325,000
New School at DeFazio (1st Bond)	\$1,936,400	\$1,862,200	\$1,788,000	\$1,713,800	\$1,639,600	\$46,608,000
New School at DeFazio (2nd Bond)	\$1,875,000	\$1,805,000	\$1,735,000	\$1,665,000	\$1,595,000	\$44,877,500
New Public Safety Building	\$3,742,200	\$3,609,900	\$3,477,600	\$3,345,300	\$3,213,000	\$89,869,500
Capital Project	\$792,000	\$764,000	\$736,000	\$708,000	\$680,000	\$19,020,000
DPW Phased Project (1st Bond)	\$985,600	\$946,400	\$907,200	\$868,000	\$828,800	\$21,115,100
DPW Phased Project (2nd Bond)	\$1,537,500	\$1,485,000	\$1,432,500	\$1,380,000	\$1,327,500	\$37,287,500
Mitchell School (1st Bond)	\$2,557,320	\$2,469,820	\$2,382,320	\$2,294,820	\$2,207,320	\$61,119,100
Mitchell School (2nd Bond)	\$2,190,000	\$2,120,000	\$2,050,000	\$1,980,000	\$1,910,000	\$53,385,000
Excluded Total	\$16,117,620	\$15,533,120	\$14,508,620	\$13,954,920	\$13,401,220	\$379,606,700

CPA FUND

Rosemary Pool CPA Debt 60%	\$589,900	\$568,550	\$547,200	\$525,850	\$504,500	\$14,134,450
CPA Total	\$589,900	\$568,550	\$547,200	\$525,850	\$504,500	\$14,134,450

RTS ENTERPRISE FUND

RTS Total						
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Town of Needham
Estimated Debt Service
Facility Master Plan Projects

Project	TM Vote#	Amount	Yrs^	Rate*	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
					2017	2018	2019	2020	2021	2022	2023	2024	2025	2026

Sewer ENTERPRISE FUND

Sewer Total

WATER ENTERPRISE FUND

Water Total

Town of Needham
Estimated Debt Service
Facility Master Plan Projects

	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	2027	2028	2029	2030	2031	After 2031

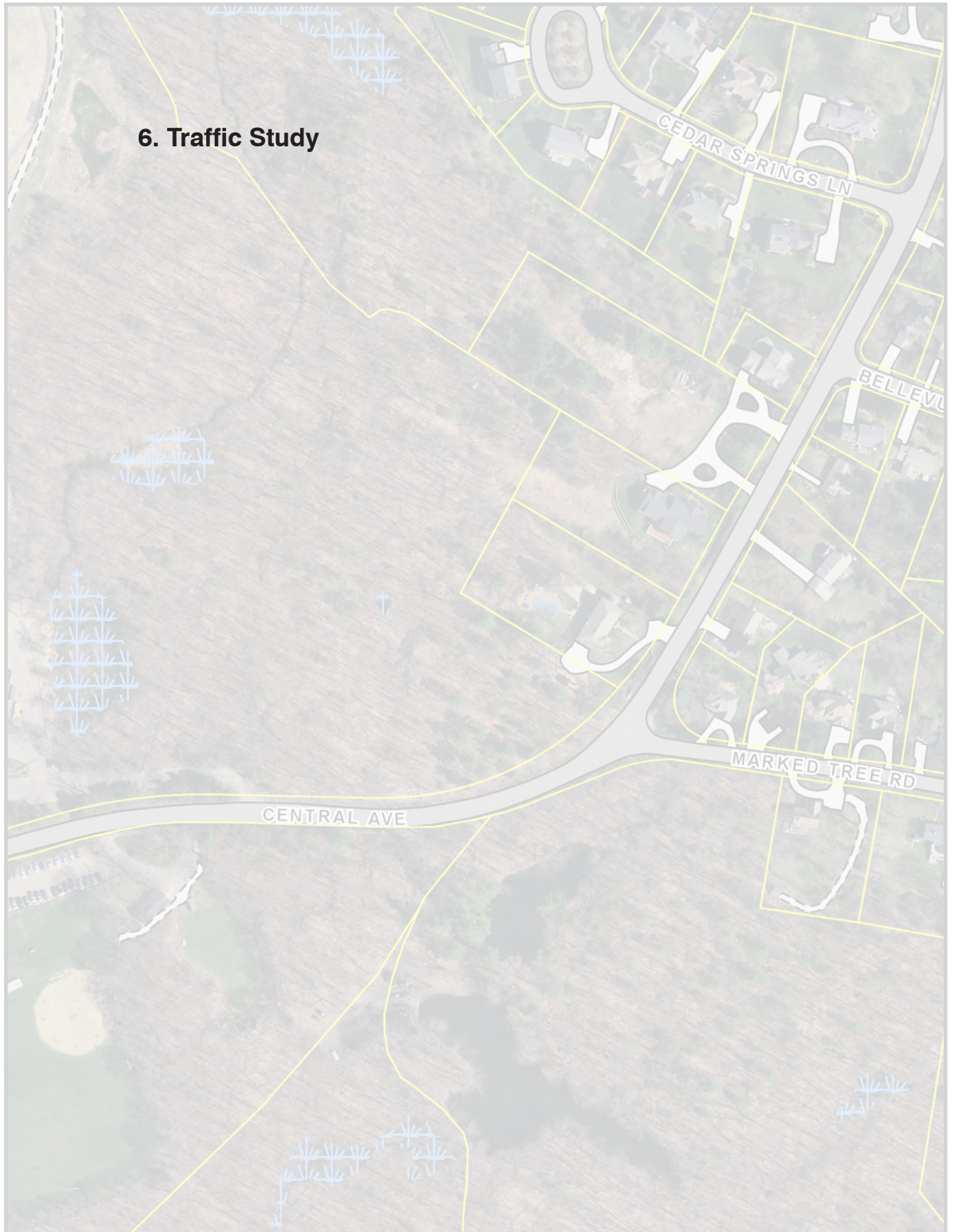
Sewer ENTERPRISE FUND

Sewer Total						
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WATER ENTERPRISE FUND

Water Total						
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6. Traffic Study





PARECORP.COM

Engineers | Scientists | Planners



July 31, 2014

Revised December 4, 2014

Mr. William R. Hammer, AIA
HKT Architects Inc.
35 Medford Street
Somerville, MA 02143

Re: **Needham Facilities Master Plan**
Traffic Engineering Services
DPW and Fire/Police Buildings
Needham, Massachusetts
PARE Project No. 14116.01

Dear Mr. Hammer:

Pare Corporation (PARE) has completed the requested traffic study to determine the potential impacts for the construction of a new Department of Public Works (DPW) facility at two locations in Needham, Massachusetts. The two locations under consideration include a shared location with the existing Recycling/Transfer Station (RTS) on Central Avenue and an undeveloped property, known as Parcel 74, on Greendale Avenue (between Cheney Street and Brookline Street). The existing DPW is located at 470 Dedham Avenue. The findings of this investigation are discussed below.

Site Descriptions

Existing DPW Facility

The existing Needham DPW facility is located at 470 Dedham Avenue (Massachusetts Route 135) just west of the Dedham Avenue/South Street signalized intersection. DeFazio Park is located just west of the DPW and the two sites share the western driveway. Dedham Avenue is classified as an Urban Principal Arterial and has a posted speed limit of 40 mile per hour in the vicinity of the site. Dedham Avenue consists of one 11-foot wide travel lane in each direction with 1-foot wide shoulders. Sidewalk is located on the north side of the roadway and is separated from traffic by a grass buffer.

The main entrance to the DPW is located approximately 450 feet north of South Street and operates as a two-way driveway. The second access point to the DPW is shared with DeFazio Park and is located approximately 1,000 feet to the west. Two-way access to the rear of the DPW facility is provided through the DeFazio Park parking lot and is frequently used by the DPW. Figure 1 shows the location of the existing DPW facility and surrounding area.

•

8 BLACKSTONE VALLEY PLACE LINCOLN, RI 02865
T 401.334.4100 F 401.334.4108

10 LINCOLN ROAD, SUITE 103 FOXBORO, MA 02035
T 508.543.1755 F 508.543.1881



Scale: 1" = 800'



PARE CORPORATION
ENGINEERS - SCIENTISTS - PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401-334-4100

Project No. 14116.01

Date: August 2014

Figure 1
Existing DPW Site
Needham Department of Public Works
Needham, Massachusetts



William R. Hammer

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July 31, 2014
Revised December 4, 2014

Alternative 1 – Needham Recycling / Transfer Station – Central Avenue

Under Alternative 1, the new DPW facility is planned to be co-located with the existing Needham Recycling/Transfer Station site on Central Avenue. Central Avenue consists of one 12-foot wide travel lane in each direction with 1-foot wide shoulders. Central Avenue is classified as an Urban Minor Arterial and has a posted speed limit of 30 miles per hour in the vicinity of the project area. Claxton Field is located across Central Avenue from the RTS. A map of the RTS site is shown in Figure 2.

The existing RTS has three driveways. The northern driveway is enter only and serves all vehicles accessing the site. The center driveway is exit only and provides one right turn lane and one left turn lane. The center driveway serves as the primary exit point for vehicles leaving the site. The southern driveway is exit only and consists of one exiting lane. Each of these driveways is planned to be preserved under the proposed addition of the DPW. The conceptual design for the proposed DPW site includes the addition of an employee parking lot on the east side of the site. The new driveway to the parking lot would be placed just south of the intersection of Central Avenue and Marked Tree Road. The conceptual site plan for Alternative 1 is shown in Figure 4.

The RTS currently has operating hours of 7:30 a.m. to 4:00 p.m. Tuesday-Saturday. Based on correspondence with the Town, the heaviest traffic periods at the RTS can be observed in the early morning just after the RTS opens and in the afternoon, just prior to closing. Tuesdays and Friday are typically busy days while Saturday is the busiest. Additionally, the Newman School is located approximately one-half mile north of the proposed site on Central Avenue. The Newman School is heavy traffic generator in the hour surrounding the a.m. drop-off period and p.m. dismissal period.

Alternative 2 – Parcel 74 – Greendale Avenue

Under Alternative 2, the new DPW facility is planned to be placed on currently undeveloped Parcel 74, currently under the control of the Parks and Recreation Department, on Greendale Avenue. In the area of Parcel 74, Greendale Avenue consists of two 14-foot wide travel lanes separated by a double-yellow centerline with 6 to 7-foot wide shoulders, resulting in a total roadway width of approximately 40 to 42 feet. Parcel 74 is located between Cheney Street and Brookline Street on the east side of Greendale Avenue. Greendale Avenue is classified as an Urban Minor Arterial and has a posted speed limit of 40 mile per hour in the vicinity of the site. Land use surrounding this site primarily consists of single family homes. Greendale Avenue generally runs in a north/south direction and is parallel to I-95. The majority of land between Greendale Avenue and I-95 is heavily wooded and undeveloped. A map of the site area is shown in Figure 3.

The proposed DPW site would be located on the east side of Greendale Avenue, between Greendale Avenue and I-95. The site would stretch from Cheney Street to Brookline Street with one driveway accessing Cheney Street and one driveway accessing Greendale Avenue at Brookline Street. A small visitor parking lot would also have access to Greendale Avenue between Paul Revere Road and Oak Hill Road. The width of Greendale Avenue and public right-of-way would allow for the installation of a turning lane on Greendale Avenue to serve the DPW site. The conceptual site plan for Alternative 2 is shown in Figure 5.



Scale: 1" = 800'



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401-334-4100

Project No. 14116.01

Date: August 2014

Figure 2
Needham Recycling Transfer Site - Central Avenue
Needham Department of Public Works
Needham, Massachusetts



Scale: 1" = 800'



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Project No. 14116.01

Date: August 2014

Figure 3
Parcel 74 - Greendale Avenue
Needham Department of Public Works
Needham, Massachusetts

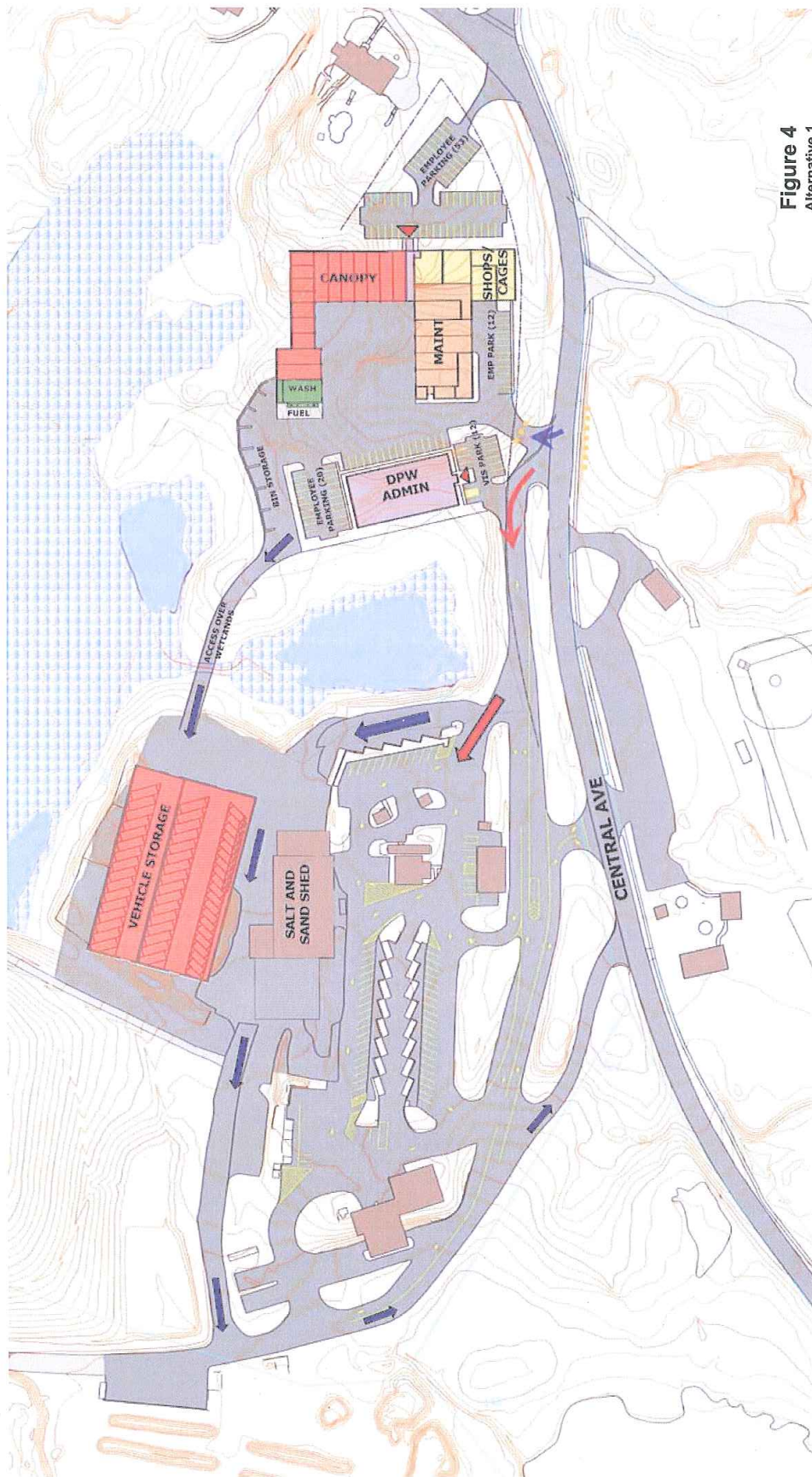


Figure 4
Alternative 1
Recycling/Transfer Station -
Central Avenue

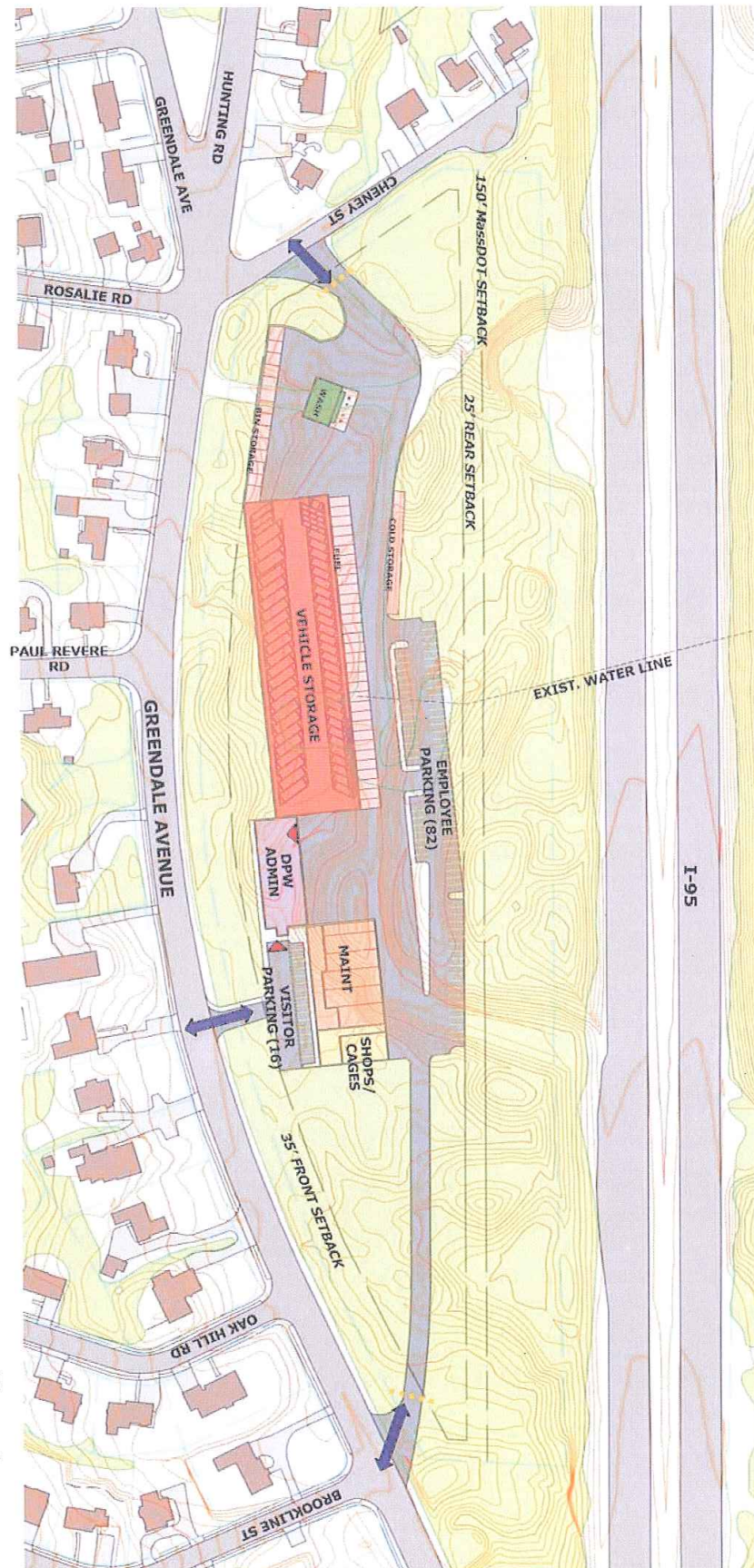


Figure 5
Alternative 2
Parcel 74 - Greendale Avenue



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Traffic Safety Analysis

Crash History

Crash data for the study areas for the years of 2010 to 2012, was gathered from the MassDOT Crash Portal. The study area included the driveway and intersections immediately surrounding the existing and proposed DPW sites. The crash data is summarized in Table 1.

Table 1: Crash Data Summary

Location	Intersection	Total	Type of Damage		Type of Collision							
			Injury	PDO ¹	Rear-End	Angle	Head-on	Sideswipe Opposite Direction	Bike	Object	Loss of Control	Unknown
Existing DPW – Dedham Avenue	Dedham Avenue & Existing DPW Driveway	4	-	4	3	-	-	-	-	-	-	1
	Dedham Avenue & South Street	9	1	8	2	5	1	-	1	-	-	-
Recycling/ Transfer Station – Central Avenue	Central Avenue & Recycling/ Transfer Center	1	-	1	-	-	-	-	-	1	-	-
	Central Street & Marked Tree Road	9	4	5	1	2	-	1	1	1	1	2
Parcel 74 – Greendale Avenue	Greendale Avenue, Hunting Road, Cheney Street, & Rosalie Road	2	-	2	1	-	-	-	-	1	-	-
	Greendale Avenue & Brookline Street	2	-	2	-	1	-	-	-	-	1	-

1. Property Damage Only.

Four crashes were observed in the three-year analysis period at the intersection of Dedham Avenue and the existing DPW facility. Three of the crashes were rear-end collisions and none resulted in injury.

Nine crashes were observed at the intersection of Dedham Avenue and South Street. Angle collisions were the most common type crash at this intersection with a total of five. In general, the crashes appear to be of low severity as only one of the nine resulted in injury.

Nine crashes were also observed at the intersection of Central Avenue and Marked Tree Street. Crashes at this intersection appear to be of higher severity than the other location as four of the nine crashes resulted in injury. This location also included a vehicle-bicycle crash.



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Vehicle Speed Studies

Vehicle speed studies were taken on Dedham Avenue, Greendale Avenue, and Central Avenue. The results of the speed studies are summarized in Table 2.

Table 2: Speed Study Results

Location	Posted Speed Limit	Average Speed	Median Speed	85 Percentile Speed	10 m.p.h. Pace Speed	Percent of Vehicle over Speed Limit
Dedham Avenue	40	35	35	38	29-38	10
Central Avenue	30	36	36	39	31-40	95
Greendale Avenue	40	39	40	43	34-43	38

1. All speed data reported in miles per hour.

Sight Distance Analysis

Sight distance measurements were taken at the driveways of the existing DPW and each of the potential sites. Stopping site distance (SSD) is the distance required by a vehicle traveling at the design speed of a roadway to stop prior to striking an object in its path of travel. Intersection sight distance (ISD) is the sight distance required by a driver entering or crossing an intersecting roadway to perceive an on-coming vehicle and safely complete an entering or crossing maneuver with on-coming traffic. The design speeds used to determine the minimum safe SSD and ISD for each location were based on the 85th percentile speeds of the approaching roadway as determined by the speed studies. SSD and ISD measurements were compared to minimum requirements presented in the American Association of State Highway and Transportation Officials (AASHTO) publication *A Policy on the Geometric Design of Highways and Streets, Sixth Edition 2011*. AASHTO does state that if the measured ISD is at least equal to the required SSD for the specified design speed, the intersection can operate safely. Tables 3, 4, and 5 summarize the results of the sight distances measured at each location.



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Table 3: Sight Distance Summary - Dedham Avenue

Intersection/Sight Distance Measurement	Feet		
	Required Minimum ¹	Intersection Sight Distance ²	Measured
<i>Dedham Avenue & Existing DPW Driveway (East Entrance)</i>			
<i>Stopping Sight Distance:</i>			
Dedham Avenue approaching from the north	305	--	>500
Dedham Avenue approaching from the south	305	--	>500
<i>Intersection Sight Distance:</i>			
Looking north from Existing DPW Driveway(East Entrance)	305	385/445	>500
Looking south from Existing DPW Driveway(East Entrance)	305	385/445	>500
<i>Dedham Avenue & DPW/DeFazio Park Driveway</i>			
<i>Stopping Sight Distance:</i>			
Dedham Avenue approaching from the north	305	--	>500
Dedham Avenue approaching from the south	305	--	>500
<i>Intersection Sight Distance:</i>			
Looking north from DPW/DeFazio Park Driveway	305	385/445	>500
Looking south from DPW/DeFazio Park Driveway	305	385/445	>500

1. Based on 40 mile per hour design speed.

2. ISD values shown are for right turn/left turn movements.

Stopping sight distance and intersection sight distance requirement were exceeded at both of the existing DPW driveways on Dedham Avenue.



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Table 4: Sight Distance Summary - Central Avenue

Intersection/Sight Distance Measurement	Feet		
	Required Minimum ¹	Intersection Sight Distance ²	Measured
Central Avenue & RTS Southern Driveway			
<i>Stopping Sight Distance:</i>			
Central Avenue approaching from the north	305	--	>500
Central Avenue approaching from the south	305	--	475
<i>Intersection Sight Distance:</i>			
Looking north from RTS Southern Driveway	305	385/445	>500
Looking south from RTS Southern Driveway	305	385/445	475
Central Avenue & RTS Center Driveway			
<i>Stopping Sight Distance:</i>			
Central Avenue approaching from the north	305	--	>500
Central Avenue approaching from the south	305	--	310
<i>Intersection Sight Distance:</i>			
Looking north from RTS Center Driveway	305	385/445	>500
Looking south from RTS Center Driveway	305	385/445	310
Central Avenue & RTS Entrance Driveway			
<i>Stopping Sight Distance:</i>			
Central Avenue approaching from the north	305	--	335
Central Avenue approaching from the south	305	--	>500
<i>Intersection Sight Distance:</i>			
Looking north from RTS Entrance Park Driveway	305	385/445	335
Looking south from RTS Entrance Park Driveway	305	385/445	>500
Central Avenue & Employee Parking Lot			
<i>Stopping Sight Distance:</i>			
Central Avenue approaching from the north	305	--	125
Central Avenue approaching from the south	305	--	165
<i>Intersection Sight Distance:</i>			
Looking north from Employee Parking Lot	305	385/445	115
Looking south from Employee Parking Lot	305	385/445	145

1. Based on 40 mile per hour design speed.

2. ISD values shown are for right turn/left turn movements.

Several sight distance measurements taken at the RTS site fell short of those required by AASHTO. The ISD measurement at the Center Driveway did not meet AASHTO requirements from the driveway looking to the south. There is a vertical crest curve just south of the driveway that limits visibility from the driveway to the south. The ISD does however, exceed the required SSD.

Sight distance measurements were taken at the existing RTS entrance driveway. This driveway currently operates as one-way, entry only. However, under Alternative 1, this driveway is planned to operate as a two-way driveway to serve the new DPW facility. ISD measurements from the existing driveway to the north were not met as the sight distance is restricted by the horizontal curvature of Central Avenue, and from vegetation and exposed bedrock along the west side of Central Avenue. The ISD does however, exceed the required SSD.



Both SSD and ISD measurements at the proposed new employee parking lot fell short of those required by AASHTO. Sight distance to the north of the proposed driveway is restricted by a horizontal curve in Central Avenue, existing trees and shrubs, and a white roadside fence of the adjacent property owner. Even with the removal of the trees and shrubs, the position of the horizontal curve and the fence limits sight distance to less than the required distance.

To the south, sight distance is restricted by the horizontal curvature of Central Street, vegetation, and exposed bedrock. To achieve the required sight distance at this location, the existing vegetation would have to be removed in addition to removal of a portion of the exposed bedrock.

Table 5: Sight Distance Summary - Greendale Avenue

Intersection/Sight Distance Measurement	Feet		
	Required Minimum ¹	Intersection Sight Distance ²	Measured
<i>Greendale Avenue & Cheney Street</i>			
<i>Stopping Sight Distance:</i>			
Greendale Avenue approaching from the north	360	--	>500
Greendale Avenue approaching from the south	360	--	420
<i>Intersection Sight Distance:</i>			
Looking north from Cheney Street	360	430/500	>500
Looking south from Cheney Street	360	430/500	205
<i>Greendale Avenue & Site Driveway (at Brookline Street)</i>			
<i>Stopping Sight Distance:</i>			
Greendale Avenue approaching from the north	305	--	595
Greendale Avenue approaching from the south	305	--	570
<i>Intersection Sight Distance:</i>			
Looking north from Site Driveway (at Brookline Street)	305	430/500	595
Looking south from Site Driveway (at Brookline Street)	305	430/500	570

1. Based on 45 mile per hour design speed.

2. ISD values shown are for right turn/left turn movements.

Sight distance measurements taken for the Parcel 74 site all met those required by AASHTO with the exception of the ISD measurement taken from Cheney Street looking south on Greendale Avenue. Sight distance at this location is restricted by the roadside slope and vegetation on the southeast corner of the intersection. To achieve the AASHTO recommended ISD, vegetation would have to be removed from the corner and a portion of the slope may have to be removed. The ISD does however, exceed the required SSD.



Traffic Volumes

Traffic volumes within the study area were supplied by the Town of Needham and collected by PARE. Traffic data for the study area surrounding the Greendale Avenue site was also obtained from the *Traffic Impact and Access Study for the proposed Needham Mews Residential Community* prepared by Vanasse and Associates, Inc., 2013. The traffic count information is described below.

Traffic counts were taken at the driveway of the existing DPW Driveway from 6:30 – 9:00 a.m. on Tuesday, July 22 and Wednesday, July 23, 2014 to determine traffic generated by the existing DPW facility. The existing facility is co-located with the Public Service Administration Building which houses additional Town Departments. The counts shown below do not differentiate between DPW traffic and traffic associated with the other Town Departments. These traffic volumes are therefore slightly higher than the volumes that can be expected at the new DPW facility. The peak hour of traffic at the existing DPW site was from 7:00 – 8:00 a.m. and is summarized in Table 7.

Table 6: DPW Generated Traffic

Time interval	Entering	Exiting
7:00 – 8:00 a.m.	40	42

Turning movement counts were also taken at the two proposed site locations. Traffic counts at the intersection of Greendale Avenue and Brookline Street were taken on Wednesday, October 1, 2014 while traffic counts at Central Avenue and the RTS Driveway were taken on Thursday, October 2, 2014. Turning movement count locations and times are summarized below.

- Greendale Avenue & Brookline Street – 7:00 a.m. to 9:00 a.m.
- Central Avenue & RTS Driveways – 7:00 a.m. to 9:00 a.m.
- Central Avenue & RTS Driveways – 3:00 p.m. to 6:00 p.m.

Morning and afternoon peak period counts were performed at the RTS site to capture fluctuations in traffic associated with the nearby Newman Elementary School. The Newman School hours are from 8:45 a.m. to 3:10 p.m. Traffic counts at the intersection of Greendale Avenue and Brookline Street were taken during the a.m. peak periods, as this time period coincides with the peak traffic period of the DPW.

Future Conditions

Traffic volumes in the study areas were projected to the year 2019 to present a five-year future build scenario. MassDOT traffic count data within the Town of Needham was reviewed and indicated that traffic volumes have fallen slightly over the last several years. However, in order to provide a conservative analysis, a 1% annual growth rate was applied to the existing traffic volumes as general background growth.

Three additional developments proposed within the Greendale Avenue study area are expected to have an impact on the traffic conditions within the five-year study period. The information from these studies was collected from the *Traffic Impact and Access Study for the proposed Needham Mews Residential Community* prepared by Vanasse and Associates, Inc. 2013. Information for these studies is provided in Table 7.

**Table 7: Future Developments within the Study Area¹**

PROJECT NAME	DESCRIPTION
Greendale Village 40B Residential Development	20 single family homes
Center 128 Commercial Development	740,000 square feet of office and 128-room hotel
Mews Residential Community	300-unit residential apartment community

¹Information on the future developments within the project area were obtained from the *Traffic Impact and Access Study for the proposed Needham Mews Residential Community* prepared by Vanasse and Associates, Inc. 2013.

The MassDOT I-95/Route 128 Add-A-Lane Project is currently under construction and is expected to have a significant impact on the traffic volumes on Greendale Avenue. The project consists of widening I-95/Route 128 from Randolph to Wellesley, providing four travel lanes in each direction. The project also includes construction of a new interchange at Kendrick Street and new collector and distributor roads between Highland Avenue and Kendrick Street.

The addition of the Kendrick Street interchange as part of the I-95/Route 128 Add-A-Lane project is expected to reduce commuter traffic on Greendale Avenue as north/south traffic will have access to I-95/Route 128 via the Kendrick Street interchange. The reduction in Greendale Avenue traffic volumes was also provided in *Traffic Impact and Access Study for the proposed Needham Mews Residential Community* prepared by Vanasse and Associates, Inc. 2013 and included in the analysis of the future scenario.

Trip Generation

It is expected that the traffic counts taken at the existing DPW facility site during the morning peak period will be the same as those at the proposed facility. The traffic counts that were taken at the existing facility also included traffic associated with the Public Service Administration Building which shares a driveway. Based on information provided by the Town, the peak morning traffic period for the DPW facility will include employees entering the site, about 8 to 10 trucks exiting the DPW facility, as well as other Town vehicles using the site for fueling. Based on this information, the traffic counts taken at the existing DPW represent a reasonable, conservative, estimate of the traffic the DPW facility is expected to generate during the a.m. peak period.

During the p.m. peak period, the peak traffic generated by the facility will generally consist of employees leaving the site. Based on information provided by the Town, the traffic volumes will consist of approximately 50 employees leaving the site around 3:00 p.m. At the RTS site, this period is expected to overlap with RTS operations and the dismissal of the Newman Elementary School.

Trip Distribution

Recycling/Transfer Station – Central Avenue

During the a.m. peak hour, trips to and from the proposed DPW facility at the RTS site were distributed amongst the three DPW driveways. Trips entering the site were evenly divided between the proposed employee parking lot adjacent to Marked Tree Road and the existing northern driveway. Trips exiting the site were distributed between the Southern RTS Driveway, DPW Maintenance and Administration Driveway and the Employee Parking Lot. No DPW traffic was assumed to use the Central Driveway as it is expected this would be used for RTS operations only. It was assumed that 50% of traffic would exit via the Southern Driveway, 30% via the DPW Maintenance and Administration Driveway, and 20% via the Employee Parking Lot. Due to the location of the RTS with respect to the Town of Needham, 80% of traffic was assumed to enter and exit the site to/from the north and 20% was expected to enter/exit the site to/from the south.



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During the p.m. peak hour, exiting traffic was evenly split between the DPW Maintenance and Administration Driveway and the Employee Parking Lot. The same distribution of traffic from the site used for the a.m. peak period was used for the p.m. peak period as 80% of traffic is assumed to exit to the north and 20% is assumed to exit to the south. The trip distribution to and from the RTS Site is summarized in Figure 6.

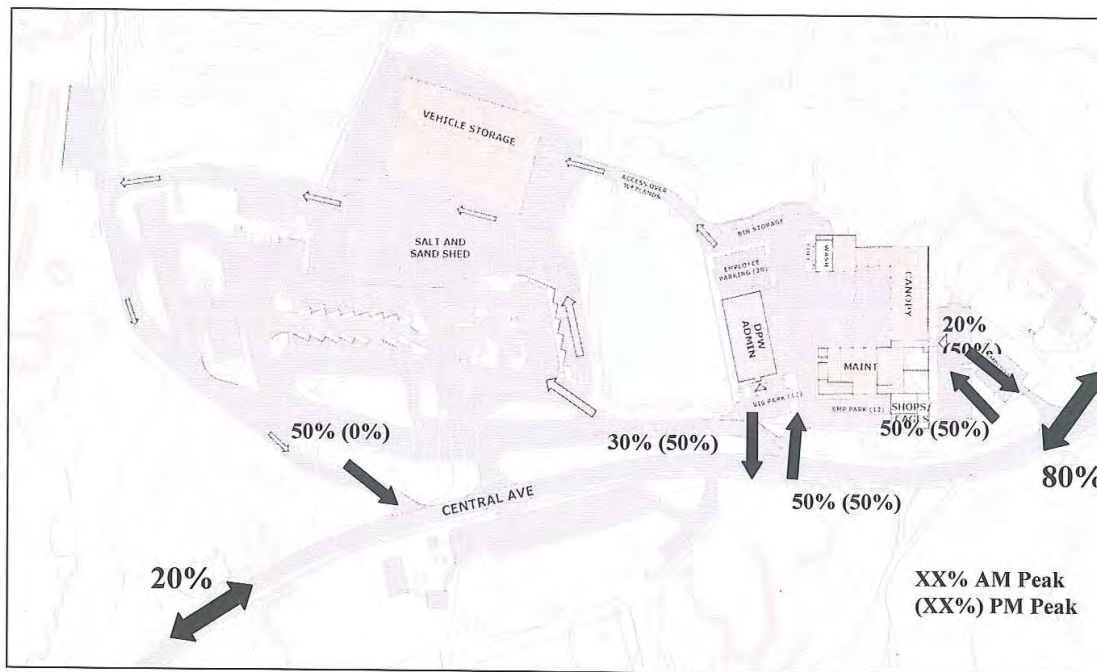


Figure 6: Trip Distribution at RTS Site

*Parcel 74 – Greendale Avenue*

Trips to and from the proposed DPW facility at Parcel 74 were evenly distributed between the northern and southern driveways. Due to the positioning of the site with regards to the Town of Needham, traffic to/from north, south, and west of the site was evenly split.

Capacity Analysis

Capacity analysis characterizes intersections based on their level of service (LOS). At unsignalized intersections, LOS is a quality measure describing operational conditions based on the amount of seconds of delay per vehicle. Delay at an unsignalized intersection is the amount of time a vehicle spends from the point at which it reaches the rear of the vehicle queue at the approach to the intersection, to the time it performs its maneuver at the intersection and enters the main roadway. If no vehicle queue is present as the vehicle approaches the intersection, the delay is the amount of time it takes the driver to find an acceptable gap in the traffic stream on the main street, and perform the turning maneuver. Level of Service is determined by the average amount of delay per vehicle. Six LOS are defined for each type of facility, from A to F, with A representing the best operating conditions and F representing the worst operating conditions. The LOS criteria for unsignalized intersections are provided in Table 8 below.

Table 8: LOS Criteria for Unsignalized Intersection

LOS	Unsignalized Intersection
	Delay Time (sec/veh)
A	0-10
B	> 10-15
C	> 15-25
D	> 25-35
E	> 35-50
F	> 50

Also included in the capacity analysis is the 95th percentile queue length at the approaches to each intersection. This figure represents the maximum queue length that can be expected during each peak period analyzed.

Recycling/Transfer Station – Central Avenue

At the RTS site, capacity analyses were performed during the a.m. peak hour (7:00 – 8:00 a.m.) and the anticipated DPW p.m. peak hour (3:00 – 4:00) to coincide with the two time periods the DPW is expected to generate the most traffic. Based on discussion with the Town, these time periods are also the peak traffic periods associated with the RTS. The results of the capacity analyses are shown in Table 9 below.



Table 9: Recycling/Transfer Station – Central Avenue - Capacity Analysis Results

Intersection	Movement	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour		
		LOS	Delay ¹	Queue Length ²	LOS	Delay ¹	Queue Length ²
Central Avenue & Southern RTS Driveway	EB LR	D	34.9	0.6	A ⁴	-	-
	NB LT	A	N/C	-	A	N/C	-
	SB TR	A	N/C	-	A	N/C	-
Central Avenue & DPW Maintenance & Administration Driveway	EB LR	D	27.2	0.3	E	37.4	1.1
	NB LT	A	0.0	0	A	0.0	0
	SB TR	A	N/C	-	A	N/C	-
Central Avenue & Employee Parking Lot	EB LR	D	27.3	0.2	E	39.9	1.1
	NB LT	A	0.0	0	A	0.0	0
	SB TR	A	N/C	-	A	N/C	-

1. Delay is measured in seconds/vehicle.
2. Queue Length shown represents the 95th percentile queue length in number of vehicles.
3. N/C – No Conflict
4. This driveway is expected to serve DPW trucks exiting the facility. Minimal traffic is expected to utilize this driveway during the p.m. peak hour.

The results of the capacity analysis indicate that the turning movements into the site all operate at an acceptable level of service (LOS A). Movements exiting the site resulted in LOS D during the a.m. peak period and LOS E during the p.m. peak period. LOS D and E are considered acceptable levels of service for an unsignalized intersection and intersection capacity for the driveways at this potential location do not appear to present a significant concern.

Parcel 74 – Greendale Avenue

At the Parcel 74 site, capacity analyses were performed only during the a.m. peak hour (7:15 – 8:15 a.m.). The morning peak hour was the only period analyzed as it was indicated by the Town as the period experiencing the greatest traffic volumes. The p.m. peak hour is less of a concern at this location as the p.m. peak of the DPW is not expected to overlap with the commuter peak.

Two scenarios were analyzed at the Greendale Avenue site location. Under each scenario, traffic volumes on Greendale Avenue have been adjusted based on the expected reduction from the I-95/Route 128 Add-A-Lane project and increased based on anticipated increases in traffic from the Greendale Village and Center 128 developments. Based on a discussion with the Town, the Mews 40B residential development has yet to be approved. The first analysis includes the additional traffic volumes from the Mew 40B residential development while the second analysis does not.

The results of the capacity analyses are shown in Table 10.



Table 10: Parcel 74 – Greendale Avenue - Capacity Analysis Results

Intersection	Movement	Weekday A.M. Peak Hour with Mews Development			Weekday A.M. Peak Hour without Mews Development		
		LOS	Delay ¹	Queue Length ²	LOS	Delay ¹	Queue Length ²
Greendale Avenue & Cheney Street	WB LR	E	35.1	0.6	D	29.1	0.4
	NB TR	A	N/C	-	A	N/C	-
	SB LT	A	0.4	0.1	A	0.4	0.1
Greendale Avenue, Brookline Street & Southern Site Driveway	EB LTR	F	>150	20.0	F	>150	17.3
	WB LTR	E	48.0	0.8	D	33.0	0.6
	NB LTR	A	0.4	0.2	A	0.5	0.2
	SB LTR	A	0.2	0.0	A	0.2	0.0

1. Delay is measured in seconds/vehicle.
2. Queue Length shown represents the 95th percentile queue length in number of vehicles.
3. N/C – No Conflict

The results of the capacity analysis indicate that the turning movements out of the site from Cheney Street operate at LOS E with the Mews development and LOS D without the Mews development. Both LOS D and LOS E are acceptable levels of service at this location.

At the intersection of Greendale Avenue, Brookline Street and the Southern DPW Driveway, the westbound approach from the DPW driveway experiences LOS E with the Mews development and LOS D without the Mews development. Both LOS E and LOS D from this driveway are acceptable levels of service. However, the eastbound approach from Brookline Street experiences significant delays during the a.m. peak hour. The existing conditions of this intersection were analyzed and are shown in Table 11 below. Under existing conditions, the Brookline Street approach experiences significant delays, operating at LOS F. Under the two future scenarios analyzed, with the addition of the DPW Driveway at this location, conditions to the Brookline Street approach are expected to worsen as vehicle delay and queue length increase.

Table 11: Greendale Avenue & Brookline Street – Existing Conditions - Capacity Analysis Results

Intersection	Movement	Existing Weekday A.M. Peak Hour		
		LOS	Delay ¹	Queue Length ²
Greendale Avenue, Brookline Street & Southern Site Driveway	EB LR	F	>150	11.5
	SB LT	A	0.5	0.2
	NB TR	A	N/C	0.0

1. Delay is measured in seconds/vehicle.
2. Queue Length shown represents the 95th percentile queue length in number of vehicles.
3. N/C – No Conflict

A peak hour volume signal warrant analysis was performed at the intersection of Greendale Avenue and Brookline Street for the a.m. peak hour of 7:15 to 8:15 a.m. The signal warrant analysis, attached to this letter report, shows that the existing volumes at the intersection meet the peak hour volume requirements to warrant a traffic signal.

**Conclusion**

Upon completion of the preliminary traffic study of the areas surrounding the potential locations of the Needham DPW, several conclusions can be made.

- The proposed location of the Employee Parking Lot Driveway at the proposed RTS site presents sight distance concerns. The placement of the driveway with relation to the horizontal curvature of Central Avenue limits the available sight distance at the intersection to less than that recommended by AASHTO. North of the intersection, increasing the available sight distance would require removal of existing vegetation and the white fence of the adjacent property owner. South of the intersection, improving the sight distance would require removal of existing vegetation and exposed bedrock from the southwest corner of the intersection.
- The placement of the DPW Administration/Maintenance Driveway with the RTS Entrance Driveway may also present some traffic circulation and safety concerns. The Driveway currently operates as a one-way, entry only driveway. Allowing two-way traffic to/from the DPW Administration/Maintenance Driveway presents a conflict point with vehicles entering the RTS driveway and vehicles exiting the DPW Administration/Maintenance Driveway. This concern is heightened by the relatively high and continuous volume of traffic that enters the RTS driveway.
- In general, no significant capacity concerns are anticipated at the proposed DPW driveways at the RTS site. The capacity analysis performed indicated that all driveways are expected to operate at an acceptable LOS during the a.m. and p.m. peak hours with minimal impact to the main roadways.
- No capacity concerns are anticipated at the northern DPW driveway (Cheney Street) at Parcel 74. However, there is a capacity concerns at the intersection of Greendale Avenue and Brookline Street. This intersection operates poorly during the a.m. peak period under existing conditions and is expected to worsen with the introduction of DPW traffic. While vehicles exiting the DPW driveway may not experience excessive delays, the additional traffic at the intersection would worsen the performance of the movement from Brookline Street to Greendale Avenue.
- The existing peak hour volumes at the intersection of Greendale Avenue and Brookline Street were analyzed to determine if they exceed the volumes required to warrant signalization of the intersection. The existing a.m. peak hour volumes just meet the minimum warrant for signalization. Other volume related signal warrants, including an eight-hour warrant and four-hour warrant, were not able to be analyzed as only morning peak data was collected. It is likely that these warrants would not be met as it appears that congestion at this intersection is isolated to the a.m. peak. Additionally, meeting one signal warrant should not, in itself, be justification for installation of traffic signal. Additional factors, such as crash history, intersection geometry, vehicle delay, etc. should also be considered prior to signalizing an intersection.
- There is potential for the a.m. peak hour volumes at the intersection of Greendale Avenue and Brookline Street to fall below those warranting signalization of the intersection under future conditions. The I-95/Route 128 Add-A-Lane project is expected to decrease traffic along Greendale Avenue. However, the majority of this traffic is expected to be replaced with traffic associated with new developments including the Mews Residential Community, Center 128 Commercial Development, and Greendale Village Residential Development. Should these developments fail to be



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constructed or the I-95/Route 128 Add-A-Lane project reduces traffic more than projected, the intersection would likely no longer meet the signal warrant.

- Consideration could also be given to relocating the Southern DPW Driveway on Greendale Avenue towards Oak Hill Road, away from Brookline Street. This would reduce the impact to the intersection of Greendale Avenue and Brookline Street and also alleviate some of the concerns connecting the DPW driveway to the intersection presents.

We are available to discuss this report with you at your convenience. Please feel free to contact us if you have any questions or need additional information.

Sincerely,

John Shevlin
Senior Vice President

JPS/TT
Enclosures

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7. Inventory of Previous Studies, Reports and Documents



Town of Needham, MA

TOWN WIDE STUDIES + DOCUMENTS		
STUDY, REPORT OR DOCUMENT	AUTHOR	DATE
Facilities Master Plan Volumes 1, 2 and 3	DiNisco Design Partnership	November 15, 2006
Capital Improvements Plan	Town of Needham	January, 2011
Facility Financing Summary	Town of Needham	July 13, 2011
Capital Improvements Plan	Town of Needham	January, 2012
Facility Financing Plan Update General Fund	Town of Needham	September 18, 2012
Capital Improvements Plan	Town of Needham	January, 2013
Capital Improvements Plan FY2015-FY2019	Town of Needham	January 7, 2014
SCHOOLS		
STUDY, REPORT OR DOCUMENT	AUTHOR	DATE
William F. Pollard Junior High School	The Architects Collaborative	August, 1956
Addition & Alterations Pollard Junior High School	Drummey Rosane Anderson	August, 1969
Needham Townwide Comprehensive Facility Study – Emery Grover Building	Kaestle Boos Associates, Inc.	March, 1990
Pollard Middle School Addition and Renovation	The Office of Michael Rosenfeld, Inc. Architects	September 15, 1992
Pollard Middle School Systems Improvements	Richard D. Kimball Company Inc.	May 11, 1999
Geotechnical Evaluation Proposed School Development DPW/DeFazio Park Site	GZA GeoEnvironmental Inc.	April, 1999
Pollard Middle School Cafeteria & Corridor Modifications	Knight, Bagge & Anderson Inc.	April 18, 2002
Nike Site Study Scheme E	John G. Crowe Associates, Inc.	August, 2004
School Space Committee - Space Needs Study	16 Member Committee convened by Superintendent	March 17, 2009
Emery Grover National Register Filing (Copy)	The Needham Historical Society, Inc.	July 19, 2010
Emery Grover Building Needham Senior Center site Feasibility Study – <i>Includes Building Assessment</i>	Bargmann Hendrie + Archetype, Inc.	August 6, 2010
Appraisal of Real Property The Emery Grover Building	Atlantic Appraisal Associates	October 4, 2010
Potential Alternative Uses and Values The Emery Grover Building	Atlantic Appraisal Associates	December, 2010
Comprehensive Facilities Assessment Mitchell & Hillside Schools	Dore & Whittier Architects, Inc.	August 22, 2011
Comprehensive Facilities Assessment Pollard Middle School	Dore & Whittier Architects, Inc.	August 22, 2011
Nike Site Study Scheme H + J	Town of Needham Public Facilities - Construction	May, 2012

Inventory of Previous Studies, Reports and Documents

Town of Needham, MA

DeFazio Park Site Development Study Presentation	Dore & Whittier Architects, Inc.	December 17, 2012
Pre-Feasibility Study Mitchell & Hillside Schools	Dore & Whittier Architects, Inc.	July 6, 2012
Pre-Feasibility Study – Environmental Evaluation Hillside School	Dore & Whittier Architects, Inc.	October 5, 2012
Statement of Interest Certification to MSBA Pollard School	Needham School District	March 20, 2013
Statement of Interest Certification to MSBA William Mitchell School	Needham School District	March 20, 2013
Statement of Interest Certification to MSBA Hillside School	Needham School District	March 20, 2013
School Administration Study	designLAB architects	August, 2013
Modular Classrooms Feasibility Study Mitchell School	Dore & Whittier Architects, Inc.	<i>Draft Report</i> November 26, 2013
Enrollment Projections for School Years Beginning in 2014-15 to SY 2023-24	Future School Needs Committee	November, 2013
FY 2015/16 - 2019/20 Five Year Financial Forecast	Needham School Department	September 26, 2014
DEPARTMENT OF PUBLIC WORKS		
STUDY, REPORT OR DOCUMENT	AUTHOR	DATE
DPW Hollis Building	Alonzo B. Reed, Incorporated Engineers and Architects	March 11, 1960
DPW Hollis Building Addition	Alonzo B. Reed, Incorporated Engineers and Architects	June 7, 1965
Re-Use-It Building	Glassman Associates, Inc. Architects and Engineers	March 4, 1992
Transfer Station Modification Project	Weston & Sampson Engineers Inc.	May, 1997
Needham Sanitary Landfill Closure Project	Weston & Sampson Engineers Inc.	October, 1997
Phase 1 Environmental Site Assessment 470 Dedham Avenue	GZA GeoEnvironmental Inc.	April, 1999
Needham RTS / Former Landfill Access Study	Weston & Sampson Engineers Inc.	<i>Final Draft</i> September 27, 2004
Notice of Intent For Needham DPW Drainage Improvement Project	BETA Group, Inc.	August, 2011
DPW Drainage Improvement Plans	BETA Group, Inc.	<i>Draft</i> January, 2012
New Salt Storage Building at RTS	Weston & Sampson Engineers Inc.	March 29, 2013
Vehicle Storage Garage Feasibility Study & Schematic Design	Weston & Sampson Engineers Inc.	<i>Undated but approximately</i> May, 2013
POLICE AND FIRE DEPARTMENTS		

Inventory of Previous Studies, Reports and Documents

Town of Needham, MA

STUDY, REPORT OR DOCUMENT	AUTHOR	DATE
Police & Fire Department Renovation	Putnam and Associates Architects	February, 1989
Additions and Renovations to Fire Station #2	Whitman & Howard, Inc. Engineers and Architects	March, 1989
Fire Department Feasibility Study	Maximus	June 20, 2002
Fire Department Staffing Study	matrix consulting group	September 29, 2005
Fire Station No. 1 Rooftop Chiller Replacement Project	SED Associates Corp	August, 2010
Fire Station No. 2 Boiler Replacement Project	SED Associates Corp.	August, 2010
Geotechnical Investigation Report for BIDMC on Chestnut Street	Briggs Engineering & Testing	March 30, 2013
RECREATION		
STUDY, REPORT OR DOCUMENT	AUTHOR	DATE
Rosemary Pool Existing Conditions Report	C b I Consulting Inc.	September 18, 1998
Phase 1 Environmental Site Assessment Rosemary pool Complex	Rizzo Associates for Bargmann Hendrie + Archetype, Inc.	January 8, 2001
Rosemary Lake Complex Facilities Plan	Bargmann Hendrie + Archetype, Inc.	February, 2002
DeFazio Park and Memorial Park Renovation Master Plan	Gale Associates, Inc.	July 20, 2006
Cricket Building Feasibility Study	Bargmann Hendrie + Archetype, Inc.	March 9, 2012
Feasibility Study for the Future of Rosemary Pool	Weston & Sampson Engineers Inc.	January, 2014 with Amendment March, 2014
RIDGE HILL		
STUDY, REPORT OR DOCUMENT	AUTHOR	DATE
Ridge Hill Reservation Agreement to transfer 3.04 Acres for Senior Center	Between Board of Selectmen and Conservation Commission	May 24, 2007
Ridge Hill Reservation Replacement Agreement	Between Board of Selectmen and Conservation Commission	April 27, 2010
Ridge Hill Working Group Report	Working Group convened by Board of Selectmen	August 10, 2012
Ridge Hill Reservation Ecological Management Plan	Conservation Commission	January 26, 2012
OTHERS		
STUDY, REPORT OR DOCUMENT	AUTHOR	DATE
Open Space Study	Open Space Study Working Group	December 11, 2003
Summary of Findings & Recommendations		
Needham Senior Center Site Feasibility Study	Catlin Architecture	June, 2007

Inventory of Previous Studies, Reports and Documents

Town of Needham, MA

Needham Public Services Administration Building – Plans Only	Winter Street Architects	December 12, 2008
Needham Senior Center Site Feasibility Study with Ridge Hill Diagrams	Bargmann Hendrie + Archetype, Inc.	April, 2010 and June, 2010
Lincoln Street Municipal Parking Lot Construction	Weston & Sampson Engineers Inc.	<i>Drafts Construction Documents</i> September, 2013
Wetlands Permitting Evaluation	Needham Conservation Commission	February 12, 2014