

## **OVERVIEW OF SUPPLEMENTAL DRAWINGS AND CHARTS**

Five primary categories of work were identified for inclusion in this study. Twelve sites were evaluated and 17 possible site / program combinations were considered. After site evaluation the highest ranked sites resulting from this evaluation were then further studied and planning options were prepared. The Facilities Working Group then selected a scheme) that best meet the programming needs of that department and was most responsive given the sites available. Those schemes are summarized in Volume One – Planning Options / Recommendations.

Volume Two contains data that was prepared or referenced for each of those selected options and any other options that were considered. This volume is separated into those 5 primary sections which include the following:

- Schools and School Administration
- Department of Public Works
- Fire and Police Departments
- Recreation
- Ridge Hill

Included in each section is data that was collected during the process of programming, existing site / building evaluation, potential site investigation and planning phases. These include:

- Overviews of programs
- Organization charts (if available)
- Equipment lists
- Existing site conditions and assessments
- Preferred option
- Other proposed options

**OVERVIEW OF DEPARTMENT OF PUBLIC WORKS**

The Public Works Department plans, designs, constructs, operates, maintains, and manages all physical infrastructure necessary for Needham community life. The Department of Public Works includes Administrative Services, Engineering Division, Garage and Equipment Division, Highway Division, Parks & Forestry Division, Recycling & Transfer Station (RTS), and the Water, Sewer and Drain Division.

The Department of Public Works provides the following services:

- Highway maintenance and construction
- Traffic control
- Snow removal
- Water supply and distribution
- Sanitary / storm sewer construction and maintenance
- Protection against flooding
- Solid waste disposal
- Park and forestry maintenance
- Safe and secure water and sewer facilities
- Maintenance of athletic and recreational facilities

The Department of Public Works currently occupies space at the following locations:

- Hollis Building at 470 Dedham Avenue: +/-38,000 GSF
- Pre-engineered Building: 4,998 GSF
- 486 Dedham (Former Water Pumping Station) = 2,400 GSF on main floor
- Public Services Administration Building = 21,777 GSF (Shared with 4 other departments)
- DeFazio Storage Area A: 9,652 SF
- DeFazio Storage Area B: 2,200 SF
- DeFazio Salt Shed: 4,063 SF
- Daley Building: 10,425 SF (exterior storage)
- Alden Road Pump Station: 620 SF
- Charles River WTP: 160 SF
- Reservoir B Pump Station Garage: 1,000 SF
- St. Mary's Pump Station: 415 SF (meter work area)
- Winter Rental: 1,500 SF
- Cricket Field: 1,500 SF (storage)
- Claxton Field: 1,000 SF (storage)
- Cage at DeFazio: 5,899 SF
- Memorial Field \*Estimate: +3,000 SF (storage)
- Ridge Hill Reservation Garages and Barn \*Estimate: +3,000 SF
- Material Bins at Dedham Ave \*Estimate: +3,000 SF
- Recycling and Transfer Station (RTS)
- Salt / sand shed operations at the RTS

The department houses administration and operations offices and employee support spaces as well as all the vehicles, equipment and materials necessary for the day to day operations of this department. A listing of the vehicles in included as part of this document. The preferred programming approach consolidated all of the activities located throughout Town. This approach would provide better oversight of employees and activities, and vehicles, equipment and materials would be easily accessed and under cover. The RTS site and several small garage spaces that house equipment dedicated to a park or playing field would remain as currently located but in a reduced capacity.

Programming for this department included the following indoor spaces:

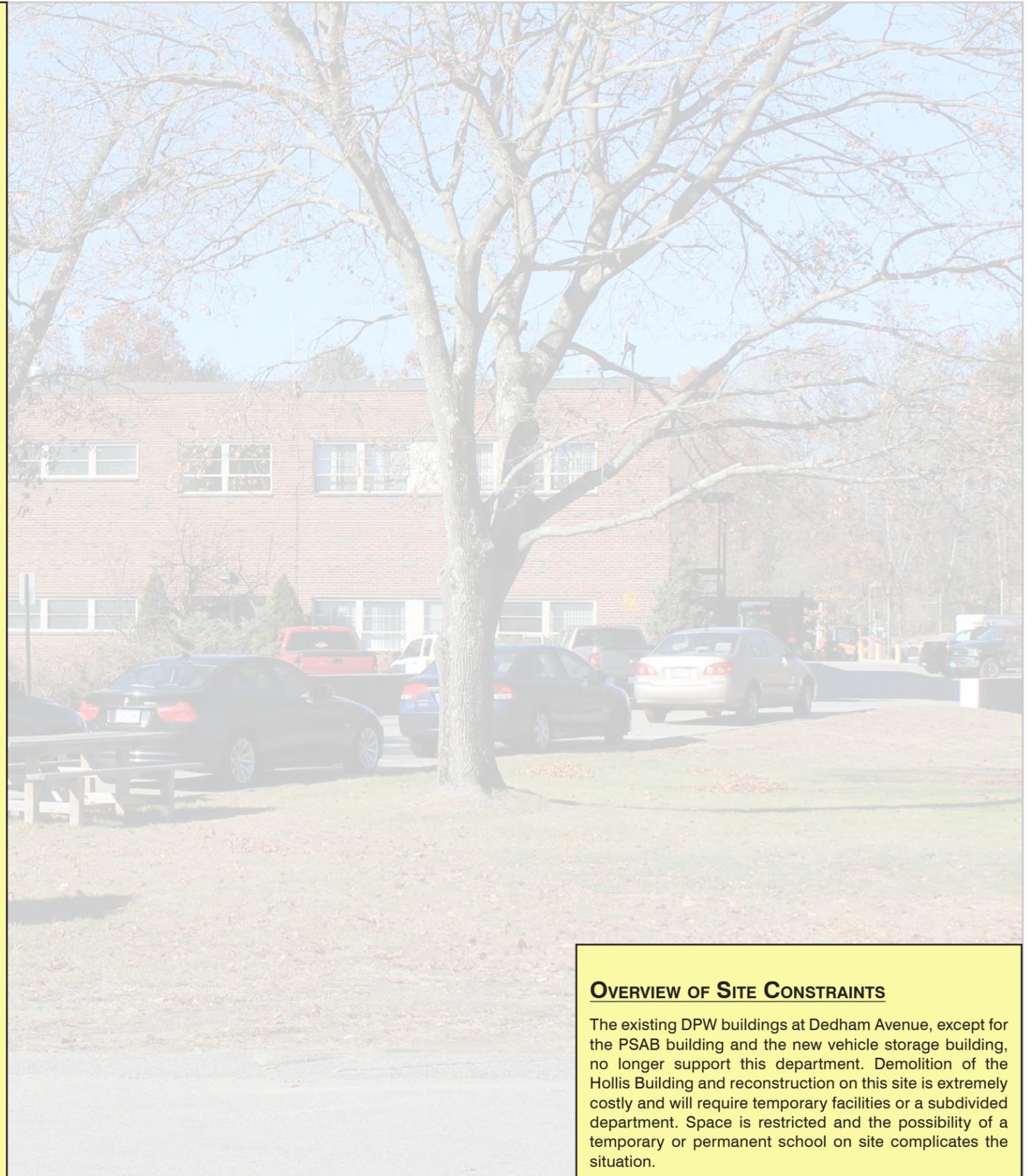
- Administration: Shared spaces including lunchroom and training
- Administration offices and meeting rooms
- Operations offices and work areas
- Engineering offices and plan vault
- Employee support spaces including locker rooms, toilets and lunchroom
- Garage / Maintenance
- Shops
- Wash Bay
- Vehicle storage and prep
- Building support

Site elements included:

- Parking for both staffs and visitors
- Fuel depot
- Cold storage
- Covered parking for equipment
- Bin storage
- Sander and spreader storage
- Dumpster and Recycling

Following site walk-throughs and programming sessions conducted by HKT Architects with DPW staff, the programming documents were organized to include the following:

- DPW – Shared
- DPW – Administration
- DPW – Administration - Operations
- DPW – Administration - Engineering
- DPW – Operations - Employee Support
- DPW – Operations – Garage / Maintenance
- DPW – Operations – Shops
- DPW – Operations – Wash Bay / Vehicle Storage and Prep
- DPW – Building Support
- DPW – Other Suites

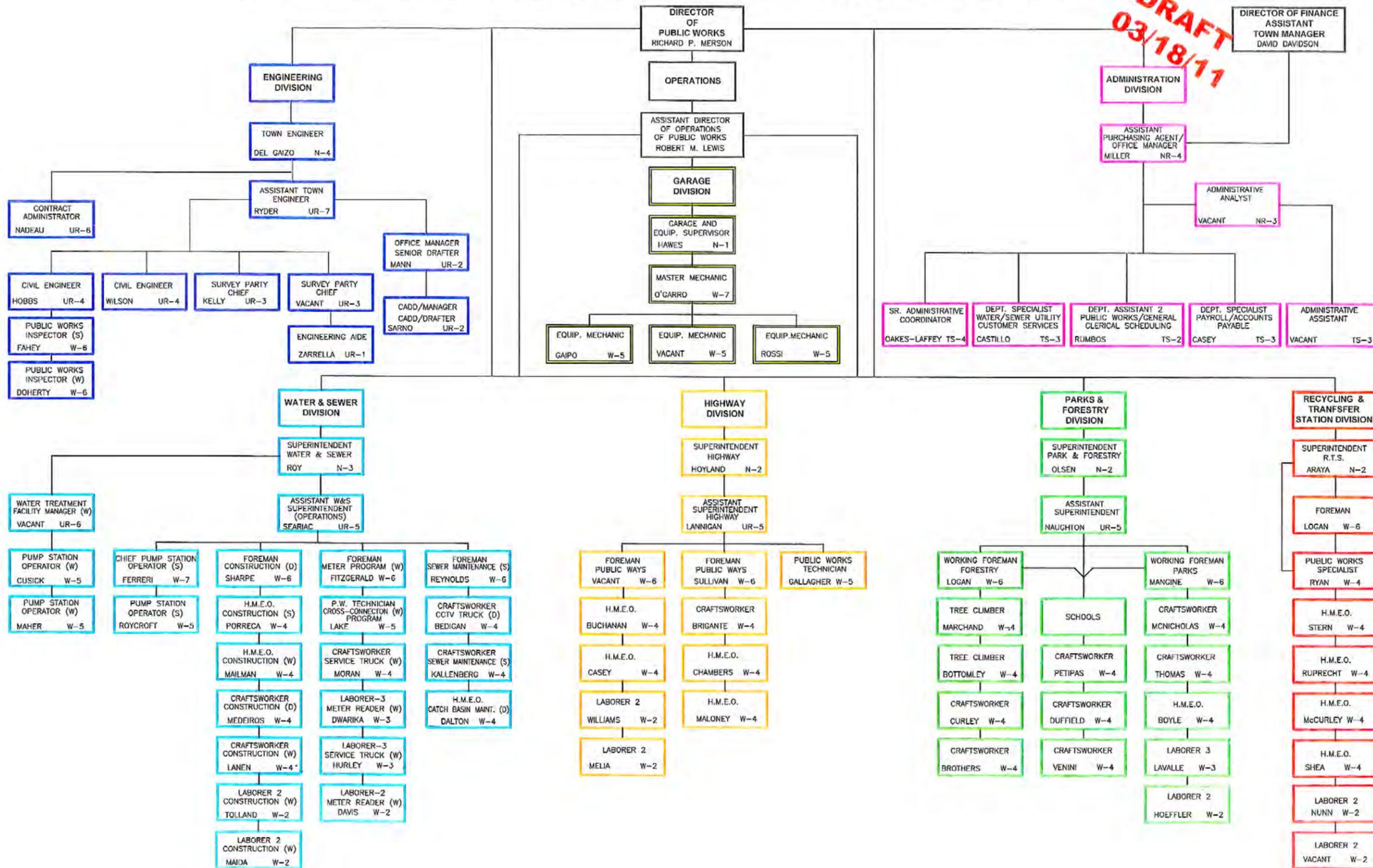


**OVERVIEW OF SITE CONSTRAINTS**

The existing DPW buildings at Dedham Avenue, except for the PSAB building and the new vehicle storage building, no longer support this department. Demolition of the Hollis Building and reconstruction on this site is extremely costly and will require temporary facilities or a subdivided department. Space is restricted and the possibility of a temporary or permanent school on site complicates the situation.

NEEDHAM PUBLIC WORKS DEPARTMENT - ORGANIZATIONAL CHART

**DRAFT**  
03/18/11



# DEPARTMENT OF PUBLIC WORKS

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	Vactor 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	VHD64B	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	SEO4502	RTS.				
064	2007	Refuse Trailer	Manac	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

UNIT#	YEAR	TYPE	MAKE	MODEL	DIV	Storage	Seasonal Use	Location	Size
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	SWO45102102	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	310SJ	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	1985	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	Worksport					
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

## DPW VEHICLE STORAGE INVENTORY

**OVERVIEW OF DEPARTMENT OF PUBLIC WORKS - SHARED**

**Functions**

All public spaces for visitors, lunchroom, training / storm command rooms, and shared office equipment and storage.

**Quantitative Criteria**

3,305 NSF – 4,751 GSF of space

**Functional Description**

Interaction with public, waiting areas, toilets, lunchroom for 25, office equipment and supplies – shared by administration, operations/engineering, Training/DPW Storm Command with dispatch/office/conference room.

**Qualitative Description**

Welcoming spaces but with good control so no direct access to work space by visitors. Areas that are easy to maintain with good lighting and mechanical systems, and well located for ease of access by both staff and the community for off-hours use.

**Locational Criteria**

Adjacent to public parking and administrative offices and Operations personnel. Storm Command should also be close to kitchen area and toilets.

**Technical Criteria**

All spaces should be finished using standard office or lobby materials. Specialized equipment will be necessary in many areas so spaces should be planned with the focus on securing that equipment if the space is accessed by the general community.

**General Notes**

In a consolidated building, with or without other inter-related departments, these shared functions should be organized so that visitors who interact with the department personnel located here or have access to some spaces do so without impacting the daily business of the DPW.

Space	Size proposed SF	Total GSF Subtotals	Total GSF per division
<b>Department of Public Works</b>			
Entry Vestibule - Lobby	240		
Lunchroom	425		
Office support/supplies and staff toilets	1150		
Training/DPW Storm Command: Dispatch, Office, Conference Room and Storage	1490		
<b>SUBTOTAL</b>		3,305	
Gross area adjustment 15%		496	
Circulation adjustment at 25%		950	
<b>SUBTOTAL GSF</b>		<b>4,751</b>	

**OVERVIEW OF DEPARTMENT OF PUBLIC WORKS - ADMINISTRATION**

**Functions**

Private offices, conference and administrative areas for DPW director, assistant director and administrative supervisor and support staff.

**Quantitative Criteria**

1,668 NSF – 2,398 GSF of space

**Functional Description**

General administrative work, small meetings and general workspace. Visitors include contractors, independent plow operators and those seeking permits for work in the Town.

**Qualitative Description**

Private offices and conference room, and welcoming, but secure, areas planned for interactions with visitors.

**Locational Criteria**

Near public lobby and with easy access to the Operations - Administrative areas.

**Technical Criteria**

All spaces should be finished using standard office materials. Equipment includes conventional products required for daily operations.

**General Notes**

These spaces should be organized so that administrators have private work areas and so that visitors can easily interact with support staff.

Space	Size proposed SF	Total GSF Subtotals	Total GSF per division
<b>Administration</b>			
Offices	1452		
Conference	216		
<b>SUBTOTAL</b>		1,668	
Gross area adjustment 15%		250	
Circulation adjustment at 25%		480	
<b>SUBTOTAL GSF</b>		<b>2,398</b>	

**OVERVIEW OF DEPARTMENT OF PUBLIC WORKS – ADMINISTRATION - OPERATIONS**

**Functions**

Private offices, common workspaces and active record storage areas for Operations personnel.

**Quantitative Criteria**

1,442 NSF – 2,073 GSF of space

**Functional Description**

General administrative work areas for Highway, Park and Forestry, and Sewer and Water Superintendents and Assistant Superintendents and open work areas for other Operations staff.

**Qualitative Description**

Private offices and open office workspace.

**Locational Criteria**

Preferred to be adjacent to Administrative areas or directly with Operations.

**Technical Criteria**

All spaces should be finished using standard office materials. Equipment includes conventional products required for daily operations.

**General Notes**

These spaces should be organized so that superintendents, located in private work areas, and assistant superintendents and general work areas are adjacent to each other. No public interaction required.

Space	Size proposed SF	Total GSF Subtotals	Total GSF per division
<b>Administration - Operations</b>			
Offices for Superintendents	732		
Work Areas for 11	560		
Active Records Storage	150		
<b>SUBTOTAL</b>		1,442	
Gross area adjustment 15%		216	
Circulation adjustment at 25%		415	
<b>SUBTOTAL GSF</b>		<b>2,073</b>	

**OVERVIEW OF DEPARTMENT OF PUBLIC WORKS –  
ADMINISTRATION - ENGINEERING**

**Functions**

Private offices, administrative areas and support spaces for Town Engineer, Assistant Town Engineer, Contract Administrator, Surveyor, Traffic Engineer, Clerk / Office Manager, CAD Manger, Inspectors, Engineering Assistants.

**Quantitative Criteria**

3,180 NSF – 4,571 GSF of space

**Functional Description**

General administrative work, general workspace, library, vault and service desk area. Visitors include those seeking engineering information for work in the Town.

**Qualitative Description**

Private offices and open work areas, secure vault for records and survey equipment, and welcoming, but secure, areas planned for interactions with visitors.

**Locational Criteria**

Near public lobby and with all spaces interconnected.

**Technical Criteria**

All spaces should be finished using standard office materials. Equipment includes conventional products required for daily operations as well as large format copy equipment. Files are extensive and require areas for flat files.

**General Notes**

These spaces should be organized so that administrators have private work areas, that all others located in the open work areas have large enough workstations to accommodate large format drawings, and so that visitors can easily interact with support staff.

Space	Size proposed SF	Total GSF Subtotals	Total GSF per division
<b>Administration - Engineering</b>			
Engineering offices	1890		
Service desk; copy equipment; files	440		
Vault Storage	850		
<b>SUBTOTAL</b>		3,180	
Gross area adjustment 15%		477	
Circulation adjustment at 25%		914	
<b>SUBTOTAL GSF</b>		<b>4,571</b>	

**OVERVIEW OF DEPARTMENT OF PUBLIC WORKS –  
OPERATIONS - EMPLOYEE SUPPORT**

**Functions**

Private locker/shower/toilet rooms, lunchrooms and laundry dedicated for Operations personnel..

**Quantitative Criteria**

2,652 NSF – 3,812 GSF of space

**Functional Description**

Spaces that support all Operations personnel.

**Qualitative Description**

Private, secure and well-built spaces that will be subjected to use by personnel that routinely are dressed in well used heavy duty work gear.

**Locational Criteria**

Adjacent to work areas.

**Technical Criteria**

All spaces should be finished using standard heavy duty durable materials.

**General Notes**

These spaces should be located as close as possible to work areas but separated to prevent fume migration and to be a pleasant and well-appointed environment.

Space	Size proposed SF	Total GSF Subtotals	Total GSF per division
<b>Operations - Employee Support</b>			
Locker/Shower/Toilet Room	1896		
Lunchroom with Kitchen	756		
<b>SUBTOTAL</b>		2,652	
Gross area adjustment 15%		398	
Circulation adjustment at 25%		762	
<b>SUBTOTAL GSF</b>		<b>3,812</b>	

**OVERVIEW OF DEPARTMENT OF PUBLIC WORKS –  
OPERATIONS – GARAGE / MAINTENANCE**

**Functions**

Area dedicated for maintenance of vehicles and equipment.

**Quantitative Criteria**

10,738 NSF – 14,818 GSF of space

**Functional Description**

Office areas, maintenance bays and storage areas for all materials required for repairing vehicles and small equipment for all groups within the department as well as other Town-owned vehicles.

**Qualitative Description**

Heavy duty finishes, either CMU or other high-impact materials that can take years of abuse in a harsh environment. Lighting, mechanical systems and power outlets that support the work and the specialized equipment required in this facility. Typical height from the floor to any suspended equipment or structural framing should be at least 22'-0".

**Locational Criteria**

All spaces should be located for easy access for department and Town vehicles. All interior spaces should be arranged to allow for efficient operations by mechanics.

**Technical Criteria**

All spaces should be finished using standard heavy duty durable materials.

**General Notes**

This department services all vehicles and equipment, manages equipment replacement and fueling for Town vehicles. A properly sized department allows for day to day maintenance work and long term projects and provides approximately 1.5 working bays per mechanic.

**Special Requirements**

Specialty equipment includes 2 and 4 post vehicle lifts, moveable lifts, welding equipment, bridge crane and monorail, source capture ventillation equipment, a fluid distribution system and a fluid storage room.

Space	Size proposed SF	Total GSF Subtotals	Total GSF per division
<b>Operations - Garage/Maintenance</b>			
Garage Maintenance Bays	8888		
Maintenance Workshop	1850		
<b>SUBTOTAL</b>		10,738	
Gross area adjustment 15%		1,611	
Circulation adjustment at 20%		2,470	
<b>SUBTOTAL GSF</b>		<b>14,818</b>	

**OVERVIEW OF DEPARTMENT OF PUBLIC WORKS – OPERATIONS – SHOPS**

**Functions**

Area dedicated for maintenance of small equipment and as a shop for department projects.

**Quantitative Criteria**

4,345 NSF – 5,746 GSF of space

**Functional Description**

Shared vehicle bay for all divisions to drop off equipment to be worked on. Caged areas for each department provides for storage of dedicated equipment and supplies and area for small work projects.

**Qualitative Description**

Heavy duty finishes, either CMU or other high-impact materials that can take years of abuse in a harsh environment. Lighting, mechanical systems and power outlets that support the work and the specialized equipment required in this facility. Typical height from the floor to any suspended equipment or structural framing should be at least 18'-0".

**Locational Criteria**

All spaces should be located for easy access for departments. All caged spaces should be arranged around central vehicle bay.

**Technical Criteria**

All spaces should be finished using standard heavy duty durable materials.

**General Notes**

This area provides a central drop off point for all departments and is specifically not dedicated to one group. Caged areas provide for specialized parts and tools and includes large storage areas for pallet and bulk materials.

**Special Requirements**

Specialty equipment includes a monorail, pallet storage, hazardous material storage and caged areas to secure valuable tools and equipment.

Space	Size proposed SF	Total GSF Subtotals	Total GSF per division
<b>Operations - Shops</b>			
Shared Vehicle Bay, storage cages and meter shop	4345		
<b>SUBTOTAL</b>		4,345	
Gross area adjustment 15%		652	
Circulation adjustment at 15%		750	
<b>SUBTOTAL GSF</b>		<b>5,746</b>	

**OVERVIEW OF DEPARTMENT OF PUBLIC WORKS – OPERATIONS – WASH BAY / VEHICLE STORAGE AND PREP**

**Functions**

Area dedicated for vehicle storage and a wash bay.

**Quantitative Criteria**

40,038 NSF – 46,244 GSF of space

**Functional Description**

Wash bay and large clear span area for storage of vehicles and towed equipment and the preparation of vehicles for daily work.

**Qualitative Description**

Heavy duty finishes, either CMU or other high-impact materials that can take years of abuse in a harsh environment. Lighting, mechanical systems, power outlets, and wash equipment that support the work required. Typical height from the floor to any suspended equipment or structural framing should be at least 19'-0" at the wash bay and 18'-0" at vehicle storage.

**Locational Criteria**

Easy access to employee area and good access to exterior.

**Technical Criteria**

All vehicle storage and prep spaces should be finished using standard heavy duty durable materials. Wash bay must include CMU with concrete curbs, fully galvanized exposed structural steel/metal and/or hard ceilings.

**General Notes**

The wash bay must be detailed as a marine or similar environment and those finishes must not be downgraded when selecting materials. Vehicle storage should include a clear span to allow for ultimate flexibility in the arrangement of trucks and equipment.

**Special Requirements**

Specialty equipment includes wash bay equipment and supplies, catwalk for access to upper areas of trucks, floor drains and a strict knock-down process protocol.

Space	Size proposed SF	Total GSF Subtotals	Total GSF per division
Wash Bay & Equipment Room	1538		
Vehicle Staging & Prep	38500		
<b>SUBTOTAL</b>		40,038	
Gross area adjustment 10%		4,004	
Circulation adjustment at 5%		2,202	
<b>SUBTOTAL GSF</b>		<b>46,244</b>	

**OVERVIEW OF DEPARTMENT OF PUBLIC WORKS - BUILDING SUPPORT**

**Functions**

All spaces dedicated for IT, vertical circulation, mechanical, electrical, fire protection and plumbing building needs.

**Quantitative Criteria**

1,660 NSF – 2,291 GSF of space

**Functional Description**

Areas to include janitor's closets with employee workstation, all equipment and servers necessary to support department and rooms for all building services.

**Qualitative Description**

Efficient and durable space.

**Locational Criteria**

Centralized location to serve building or located as needed to meet code requirements.

**Technical Criteria**

All spaces should be finished using standard heavy duty durable materials or finished, as in the case of stairs and elevators, to match other public area finishes.

**General Notes**

All of these spaces are required for a fully functioning building.

**Special Requirement**

Specialty equipment includes IT Department emergency back-up hub and emergency radio system.

Space	Size proposed SF	Total GSF Subtotals	Total GSF per division
<b>Building Support</b>			
MEPFP Rooms, IT, Elevators and Stairs, Janitors	1660		
<b>SUBTOTAL</b>		1,660	
Gross area adjustment 15%		249	
Circulation adjustment at 20%		382	
<b>SUBTOTAL GSF</b>		<b>2,291</b>	

**OVERVIEW OF OTHER SUITES CURRENTLY LOCATED WITH DPW**

**Functions – General Notes**

The following departments are included for co-location with the DPW because of overlapping working relationships and the public component of some of these groups. The integration of these departments at the PSAB has been very successful to date.

**Building Department Suite**  
2,055 NSF – 2,954 GSF of space

**Public Facilities Department Suite (Construction and Operations)**  
1,175 NSF – 1,689 GSF of space

**Planning, Community Development, Conservation, ZBA Suite**  
1,765 NSF – 2,537 GSF of space

**Park and Recreation Suite**  
1,200 NSF – 1,725 GSF of space

Space	Size proposed SF	Total GSF Subtotals	Total GSF per division
Building Inspector Suite			
SUBTOTAL GSF		2,954	
Public Facilities Department Suite			
SUBTOTAL GSF		1,689	
Planning, Community Development, Conservation Commission, ZBA Suite			
SUBTOTAL GSF		2,537	
Park and Recreation Suite			
SUBTOTAL GSF		1,725	
Other Departments SUBTOTAL GSF			8,905

**OVERVIEW OF DEPARTMENT OF PUBLIC WORKS – OUTDOOR STORAGE / COLD STORAGE**

**Canopy Storage**

This storage should be designed to meet the needs of large truck storage that could be changed season to season.

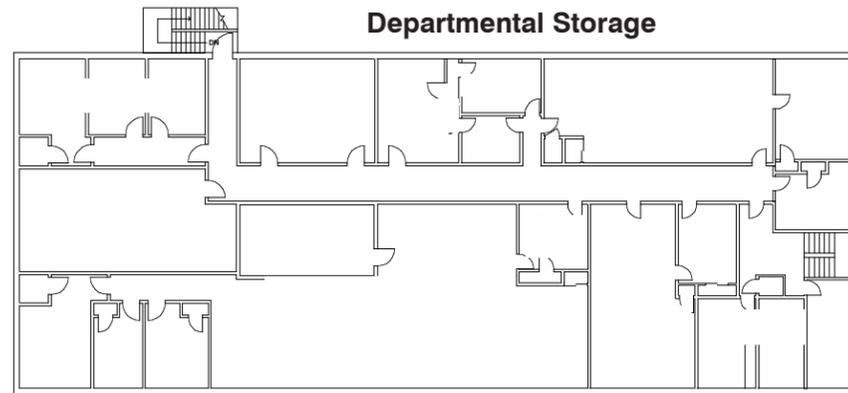
**Cold Storage**

This storage is for parts and pieces that are part of the construction of roads and systems. These includes such as piping and manhole covers.

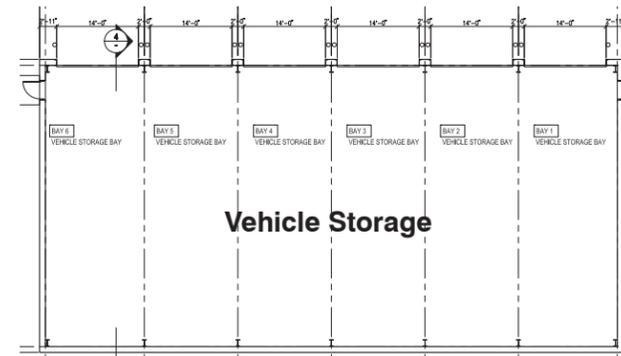
**Bin Storage**

This storage is for gravel, sand, mulch, field mix and any other materials needed for maintenance of roads, fields, and parks.

Space	Size proposed SF	Total GSF Subtotals	Total GSF per division
SUBTOTAL GSF		1,725	
Other Departments SUBTOTAL GSF			8,905
CONSOLIDATED GSF			95,609
Covered Parking for 36 Vehicles + Equipment			
Parking for 72 employees and 10 visitors			
Fuel Island			
6 Bin Storage; patch 2 gravel, rock, sand, mulch			
Sanders			
Exterior Cold Storage			
Spreaders: gantry			
Dumpster			
Recycling dumpster			

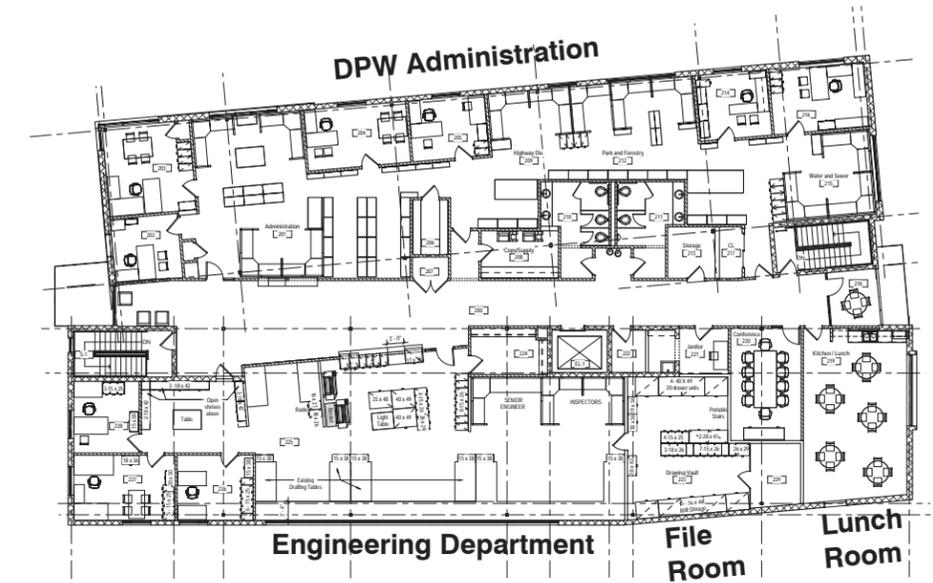


DPW AT 470 DEDHAM AVENUE - UPPER LEVEL @ 22,865 GSF

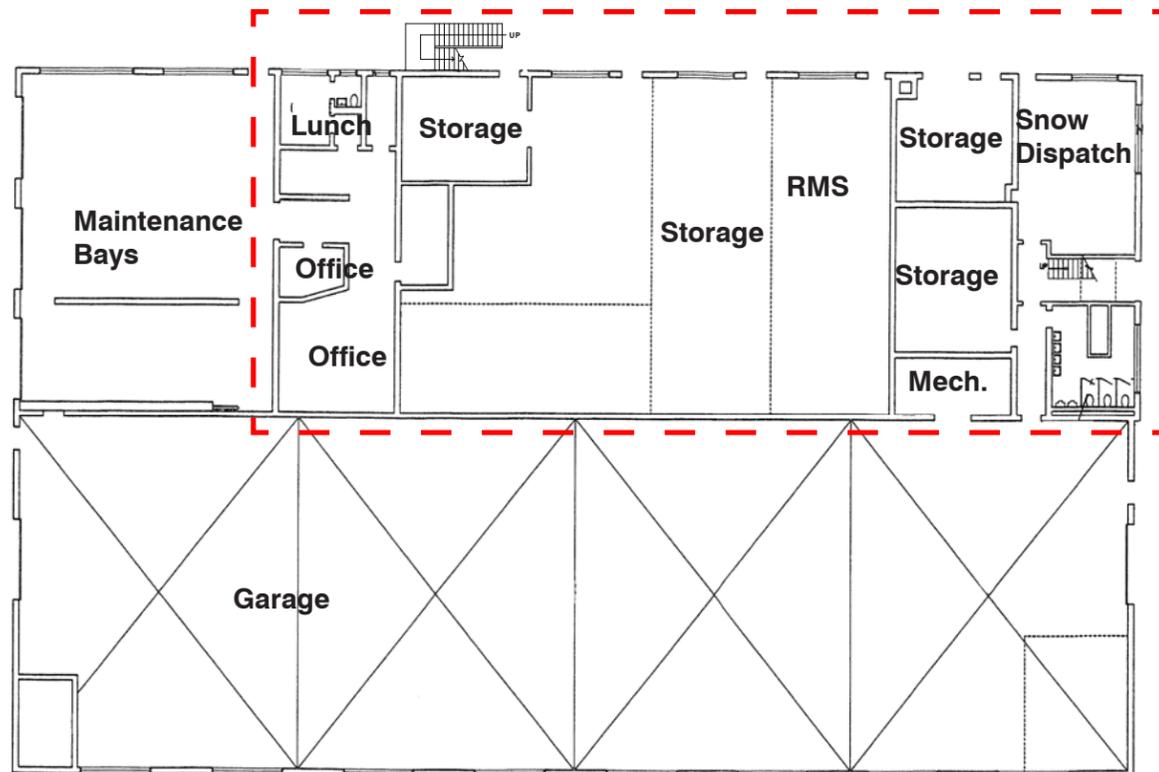


2013 VEHICLE STORAGE BUILDING @ 5,000 GSF

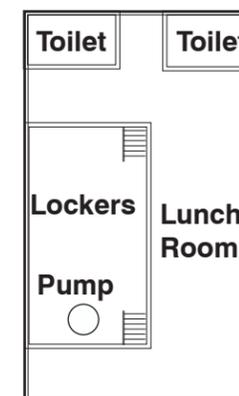
GRAPHIC SCALE



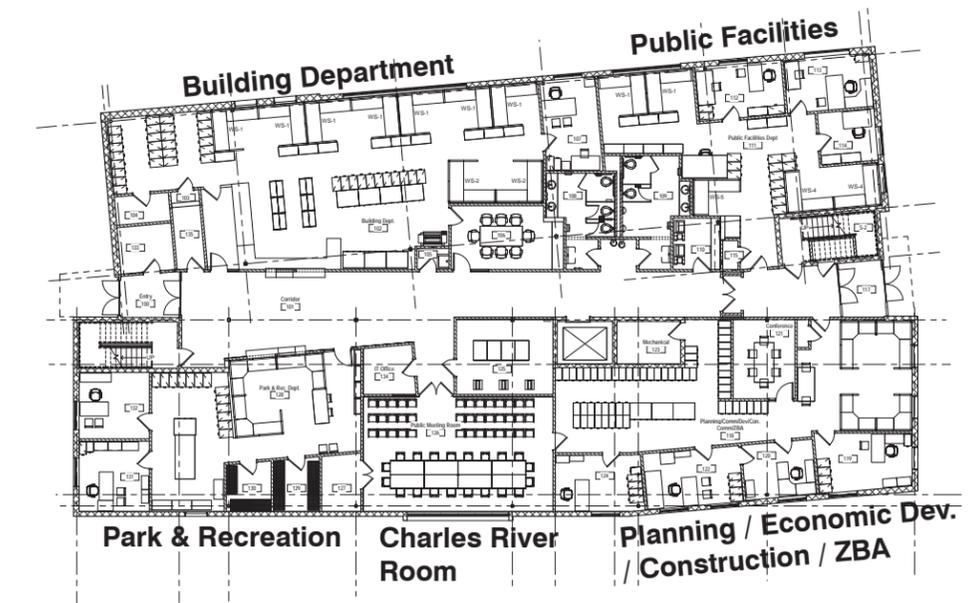
PSAB - UPPER LEVEL



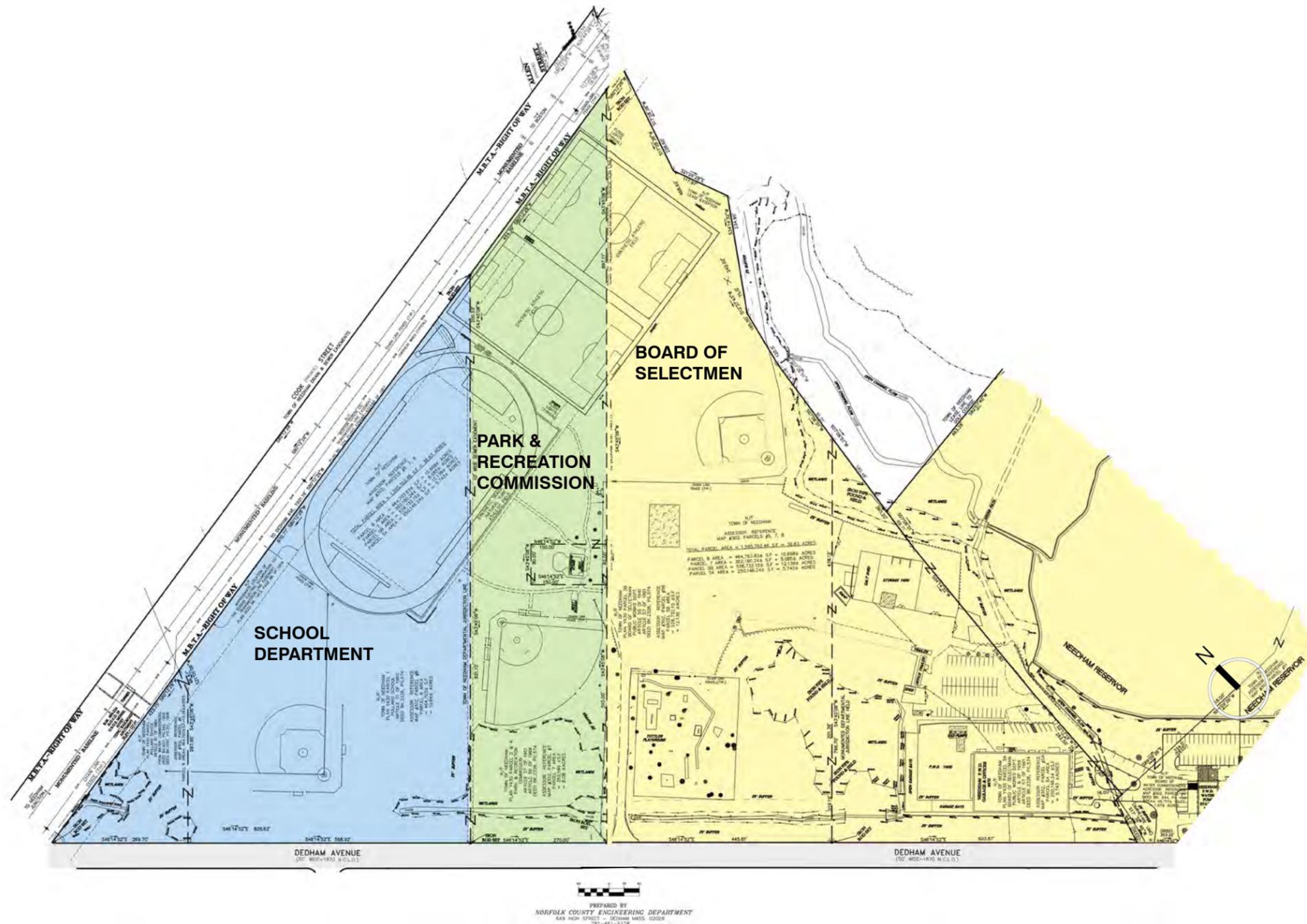
DPW AT 470 DEDHAM AVENUE - LOWER LEVEL @ 22,865 GSF



OLD WATER PUMP BUILDING @ 2,800 GSF



PSAB - LOWER LEVEL @ 21,777 GSF (ALL LEVELS)



**DEFazio PARK - MAP OF JURISDICTION**  
(References Accessor Maps from Town of Needham)



**EXISTING CONDITIONS:**

**DeFAZIO PARK AND DEPARTMENT OF PUBLIC WORKS**

**Parcel Area: 63.0 Acres with DPW portion approximately 9.9 Acres**

**Jurisdiction: School Committee, Park and Recreation Commission, Board of Selectmen**

**Description**

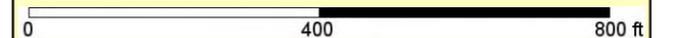
- Public Services Administration Building (500 Dedham Avenue)
- Water Pump Station (484 Dedham Avenue)
- Hollis Building (470 Dedham Avenue)
- Cold Storage yard
- Former Salt Storage Building
- Wetlands, riverfront and ponds
- Needham Reservoir
- Bordered by Golf Course
- Massachusetts Bay Transportation Authority (MBTA) commuter rail line

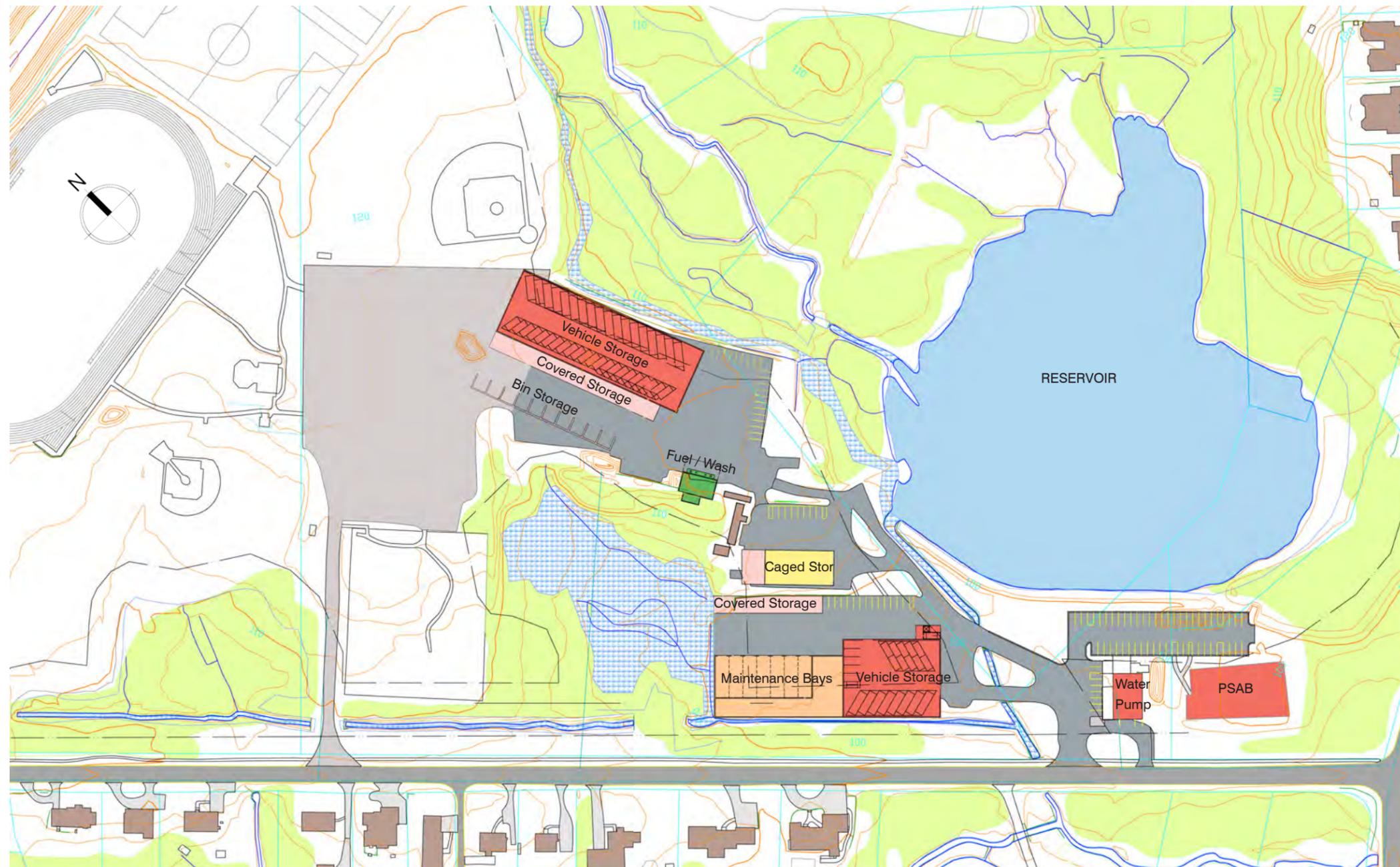
**Legend**

- 2013 Parcels
- - - Parcel Setback
- Wetland Boundary
- - - Wetlands Setback
- Wetlands



2013 Aerial photo data from Needham WebGIS





**OVERVIEW OF A NEW DEPARTMENT OF PUBLIC WORKS AT DEDHAM AVENUE – FULL PROGRAM**

The DPW has occupied this site on Dedham Avenue for more than 50 years. The Operations division, occupying the Hollis Building, has never undergone any significant renovation. The second floor of the building is not accessible and has indoor air quality issues. Employee spaces such as toilet and lunchrooms are still located in this building. The Public Services Administration Building (PSAB) was constructed to accommodate administrative functions that formerly occupied the second level.

Suites for related Town departments, Building Inspector, Public Facilities Operations & Construction, Planning & Community Development, Conservation & ZBA, and Park & Recreation are co-located in this building.

Other occupied buildings and structures include the Water Pump Station, fuel depot, old salt shed, cold storage structures for equipment and materials and a pre-engineered metal buildings. More than 47,000 square feet of DPW program is currently located off site. The deficiencies of the buildings are significant:

- Employee locker rooms, toilets and lunchrooms are lacking or not accessible
- Stairs and egress paths do not meet code
- There is no fire suppression system
- There are no seismic restraints
- The vehicle storage space is undersized for vehicles and equipment
- There are too few maintenance bays, shops, and storage areas

The existing structure cannot easily be renovated to meet the current and future needs and even incremental improvements will trigger expensive code mandated retrofits. The site has high groundwater issues and solutions to the NPDES rules and requirements, to cover or treat water runoff, are difficult and costly.

**Description of a New Department of Public Works at Dedham Avenue – Full Program**

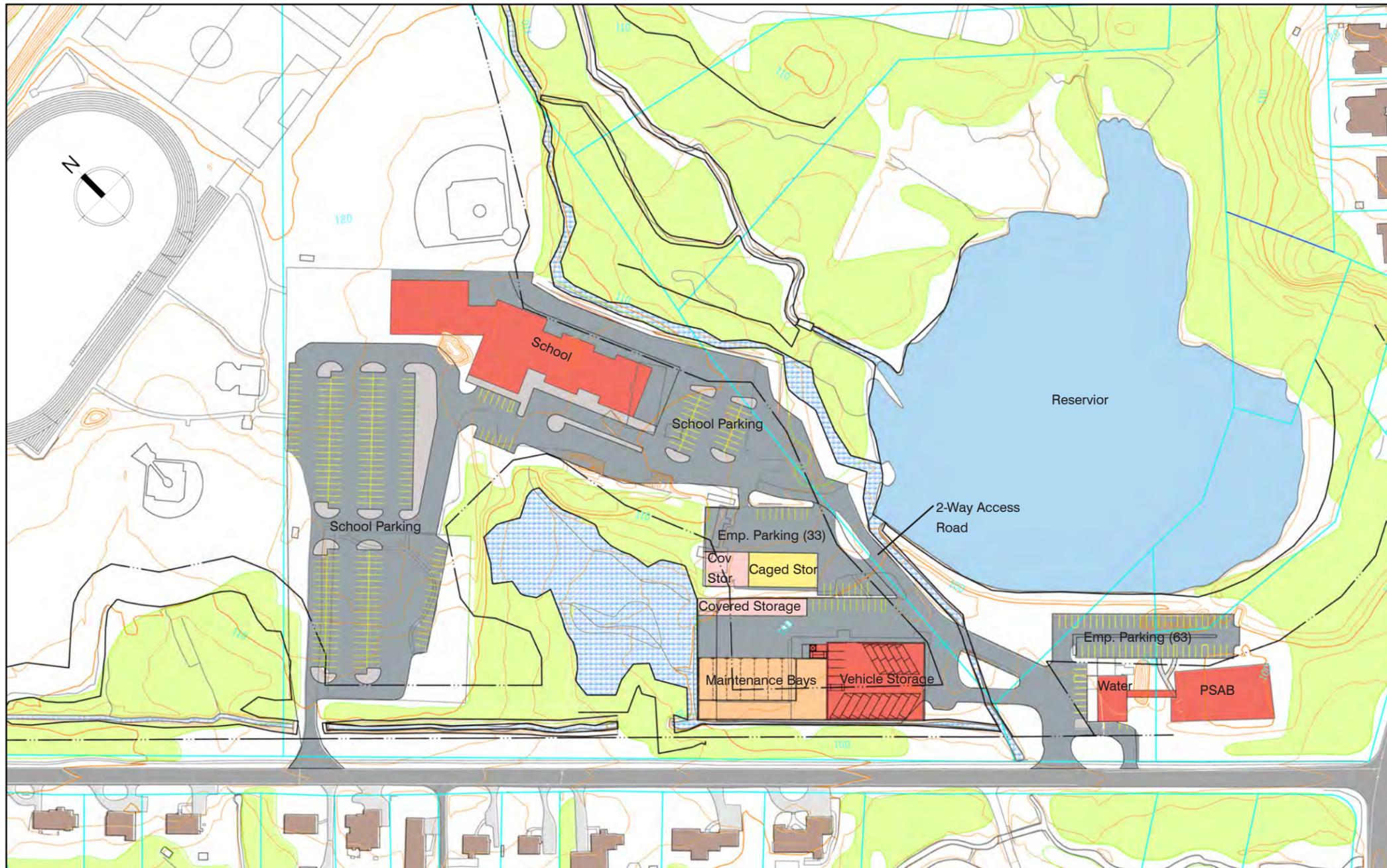
The only way to stay on site and construct the entire DPW would be if a school is not located in the southeast corner of DeFazio Park (as shown on page 13). Accommodating the needs of the DPW would require expansion into the gravel parking area. The new and consolidated department would include demolition of the Hollis Building, old salt shed, and fuel depot and related cold storage buildings. The proposed plan includes construction of the following:

- In approximately the area of the existing Hollis Building, yard, fuel depot and covered storage, a new two story vehicle storage building with personnel spaces located on the upper level, a vehicle maintenance building and covered vehicle storage would be constructed
- Metal building would be enlarged to increase vehicle storage
- At the upper portion of site, including a portion of the gravel lot, another vehicle storage building with a covered canopy
- Fuel depot
- Wash bay
- Bin storage
- Repurpose old Water Pump Station Building for DPW use

This plan has limited yard areas because all of the remaining property must be dedicated to truck movement and circulation through this multilevel site as well as parking for employees. Some off-site storage for off season equipment and lay down areas for materials will still be required. The plan would require relocation of employees and operations during construction of the main structures but a phased approach that begins with construction at the upper level may limit the moves these employees might require.

**New Construction:**  
**Vehicle Storage 1 + 2, Maintenance, Wash Bay and Connector to Pump Station Building: 60,000 SF**  
**Heavy Renovation at old Pump Station: 2,800 SF**  
**Canopy Storage: 12,990 SF**  
**Bin Storage: 3,960 SF**

**Existing DPW Administration at PSAB to remain: 22,865 SF**



**DPW PARTIAL PROGRAM AT DEDHAM AVENUE**

**OVERVIEW OF A NEW DEPARTMENT OF PUBLIC WORKS AT DEDHAM AVENUE – PARTIAL PROGRAM**

If a school is located at DeFazio Park accommodating the needs of the DPW would be limited to the lower portion of the site. Construction of the school would include demolition of the old salt shed, gantry and bin storage as well as materials lay down areas.

**Description of a New Department of Public Works at Dedham Avenue – Partial Program**

The new department would include demolition of the Hollis Building, covered storage and fuel depot. The proposed plan includes construction of the following:

- In approximately the area of the existing Hollis Building, yard, fuel depot and covered storage, a two story vehicle storage building with personnel spaces located on the upper level, a vehicle maintenance building and covered vehicle storage would be constructed
- Metal building would be enlarged to increase vehicle storage
- Bin storage
- Large meeting room is accommodated in the old Water Pump Building

The following program areas would need to be constructed elsewhere, RTS or Greendale Ave. site:

- Another vehicle storage building with a covered canopy
- Fuel depot
- Wash bay
- Materials handling area

**New Construction:**

**Vehicle Storage, Maintenance and Connector to Pump Station Building: 35,400 SF**

**Heavy Renovation at old Pump Station: 2,800 SF**

**Canopy Storage: 7,295 SF**

**Bin Storage: 3,960 SF**

**Existing DPW Administration at PSAB to remain: 22,865 SF**



**EXISTING CONDITIONS:**  
**PARCEL 74 / GREENDALE AVENUE**

**Parcel Area:** 13.00 Acres

**Jurisdiction:** Park and Recreation

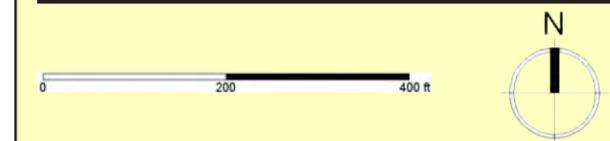
**Description**

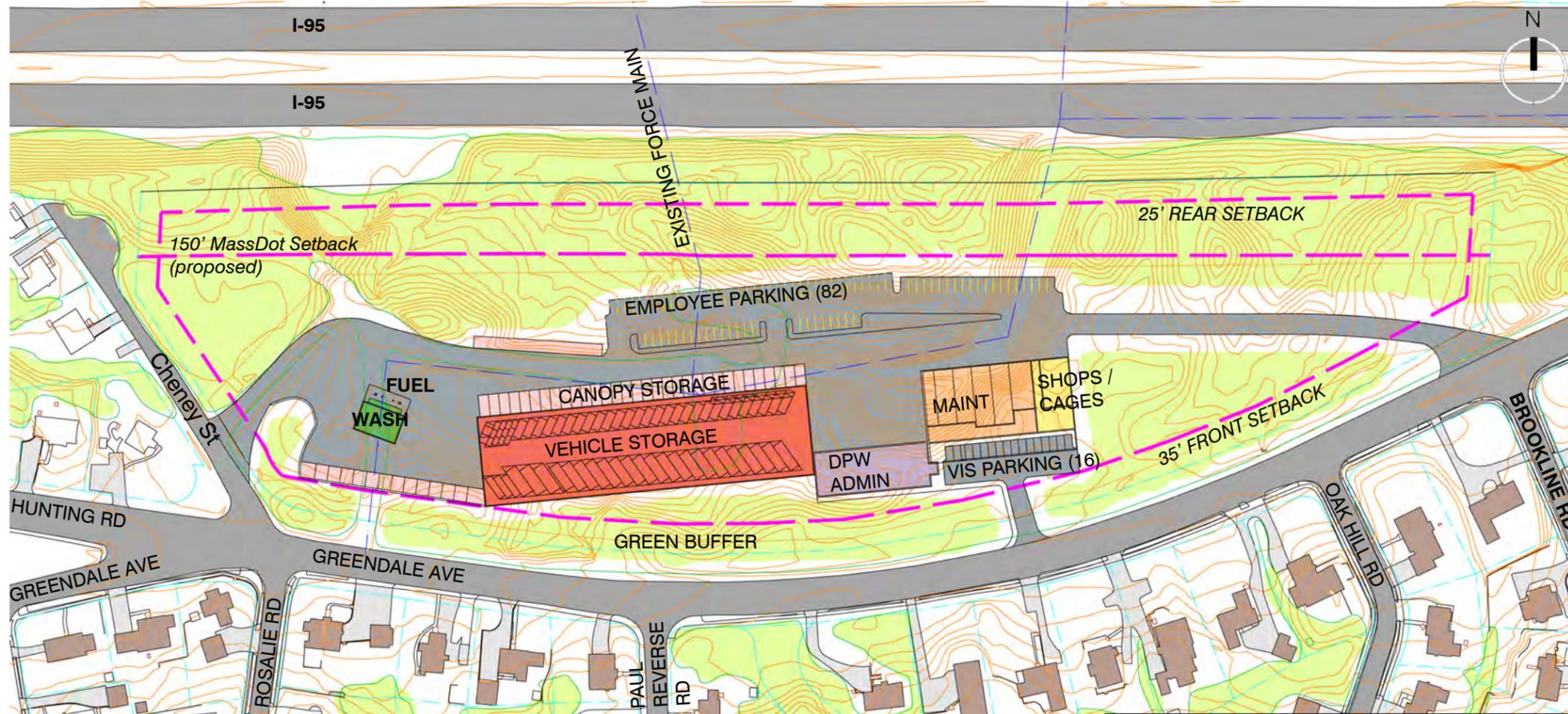
- Force Main easement located on site
- No known ledge
- Significant grade changes
- MassDot Setback from Roadway: 150 ft (proposed)

**Legend**

- 2013 Parcels
- - - Parcel Setback
- Wetland Boundary
- - - Wetlands Setback
- Wetlands

2013 Aerial photo data from Needham WebGIS





**DPW AT PARCEL 74 / GREENDALE AVENUE (PREFERRED SITE)**

**OVERVIEW OF A NEW DEPARTMENT OF PUBLIC WORKS AT PARCEL 74 / GREENDALE AVENUE**

The existing DPW buildings at Dedham Avenue, except for the PSAB building and the new vehicle storage building, no longer support this department. Demolition of the Hollis Building and reconstruction on that site is extremely costly and will require temporary facilities or a subdivided department. Space is restricted and the possibility of a temporary or permanent school on site complicates the situation.

The preferred solution for solving the space needs and operational deficiencies of the DPW is a new and fully consolidated department at Parcel 74 on Greendale Avenue. This site supports all the needs of the department and would serve the department for many years to come.

**Description of a New Department of Public Works at Parcel 74 / Greendale Avenue**

A new building on Parcel 74 will bring together all of the operational, programmatic and storage needs at one location. Although some dedicated field equipment may continue to reside at existing park buildings, all needs of this department are addressed at once. This building will enhance operations and protect valuable equipment. Phasing or temporary occupancy is not required but jurisdictional change is required.

Though located in a residential neighborhood the changes in elevation can be used to the advantage of the building. Working yards and roadways would be located at a lower elevation and out of sight of the majority of the residents. The buildings would be used to shield the neighborhood from "yard" work and noise. The only portion of the building entirely visible would be the upper levels of the 4-story administration building which would be more office-like in appearance. Depending on final grading the upper portions of other buildings may be partially visible.

The new DPW would include the following:

- Administration building on four levels
- Vehicle storage
- Maintenance
- Shops
- Wash Bay
- Fuel Depot
- Canopy Storage
- Cold Storage
- Bin Storage

**New Construction:**

- DPW Administration, Vehicle Storage, Maintenance, Shops, Wash / Fuel Bay: 92,442 SF**
- Canopy Storage: 10,000 SF**
- Cold Storage: 2,100 SF**
- Bin Storage: 3,870 SF**



**EXISTING CONDITIONS:  
RECYCLING AND TRANSFER STATION**

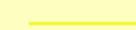
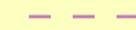
**Parcel Area: 74.4 Acres**

**Jurisdiction: Board of Selectmen**

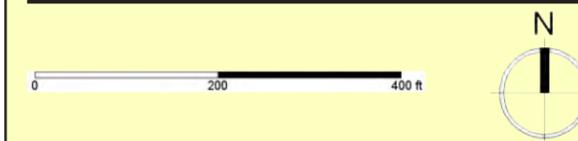
**Description**

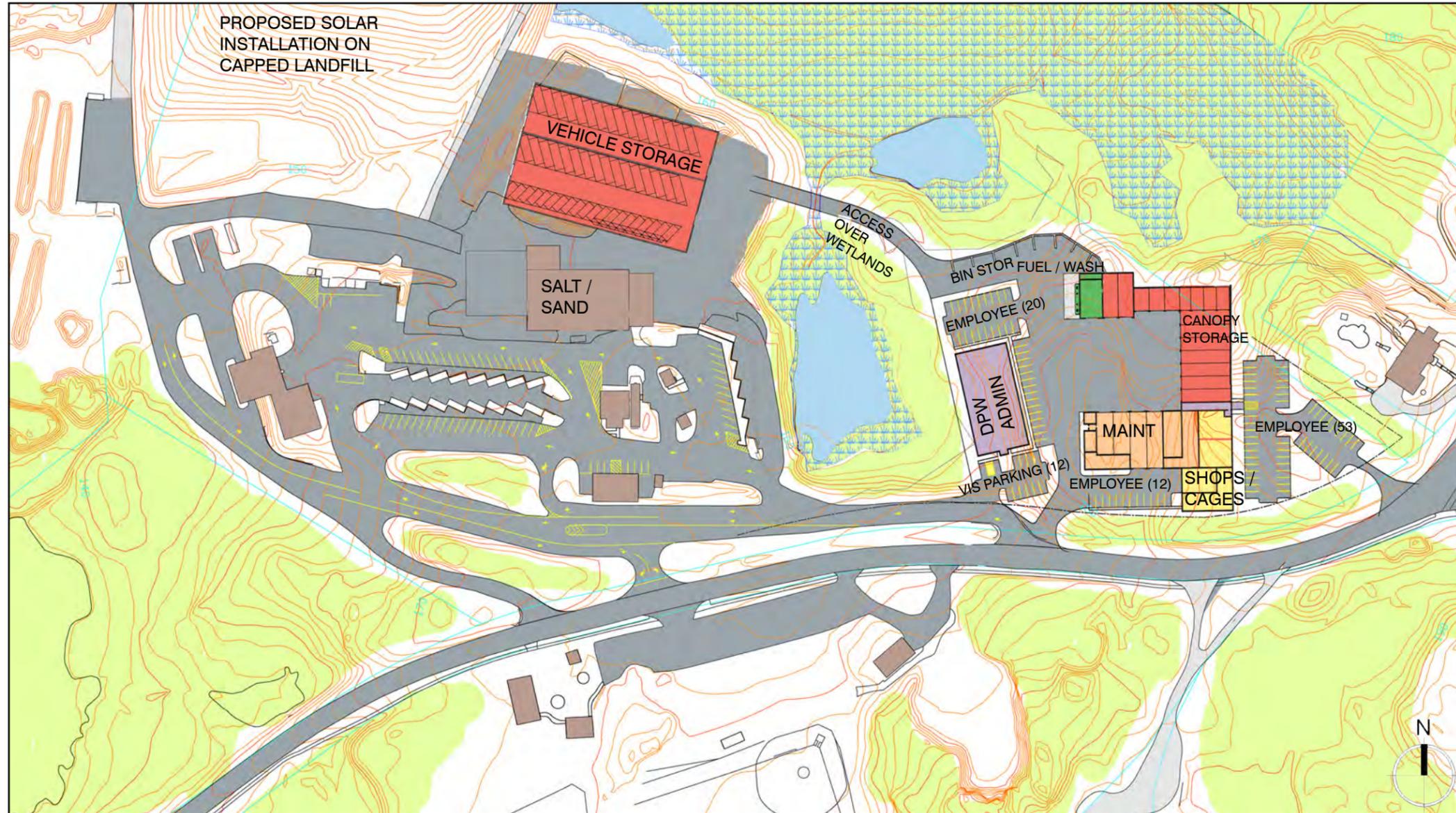
- Surrounded on three sides by wetlands
- Significant grade changes
- Visible ledge
- Eastern site (12 acres ±)
- Materials Handling Area
- Transfer Station / Garages / Employee Trailer
- Solar Installation on Capped Landfill
- Compost Area
- Across from Claxton Field

**Legend**

-  2013 Parcels
-  Parcel Setback
-  Wetland Boundary
-  Wetlands Setback
-  Wetlands

2013 Aerial photo data from Needham WebGIS





**DPW AT RTS - OPTION 4**

(This is the preferred option of the four layouts studied at the RTS)

**OVERVIEW OF A NEW DEPARTMENT OF PUBLIC WORKS AT THE RECYCLING AND TRANSFER STATION**

As earlier described, the existing DPW buildings at Dedham Avenue, except for the PSAB building and the new vehicle storage building, no longer support this department. Renovations are extremely costly and will not result in a modern facility that will serve the Town for many years to come. Space is restricted particularly if a school is constructed on the site.

Another solution considered for solving the space needs and operational deficiencies of the DPW is a new and consolidated department at the Recycling and Transfer Station. This site currently is comprised of the Town

transfer station, tipping floor, materials handling, compost area, and salt / sand shed. To the east of the site is twelve acres of Town owned land available for development which could support most of the needs of the department. However, this site has several complications that could affect operations.

**Description of a New Department of Public Works at the Recycling and Transfer Station**

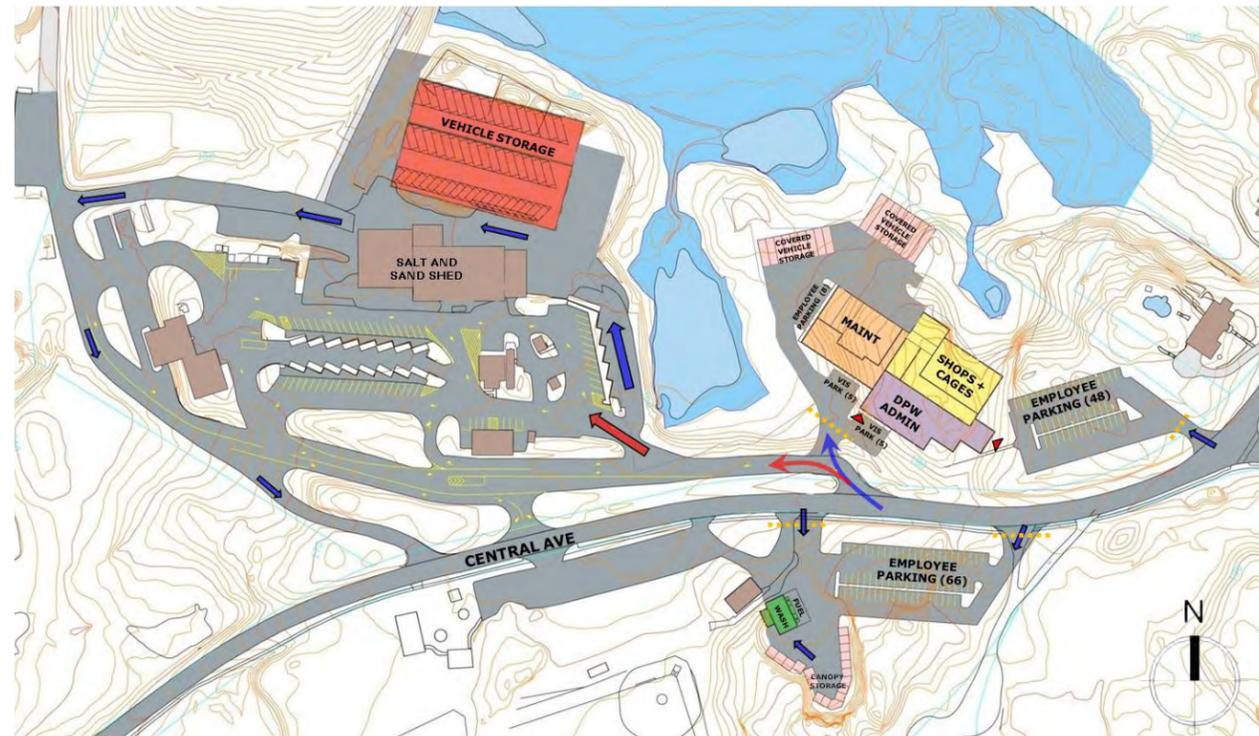
A new building at the RTS will bring together the operational, programmatic and storage needs at one location. Although some dedicated field equipment may continue to reside at a park building, the needs of this department can be addressed at once. This building will enhance operations and protect valuable equipment. Phasing or temporary occupancy is not required. The site is complicated by significant changes in topography, wetlands and access / egress to Central Avenue. Concerns about traffic congestion related to Central Avenue may need to be addressed and the topography at the roadway nearest the curve in the road may need to be reshaped to provide better sight lines for large vehicles.

Most of the buildings would be located on a newly constructed elevation and would be accessed off the same entry most vehicles use to enter the property. An upper level employee only parking lot off of Central Avenue would lead to an elevator / stair layout that would provide access to the main operations level. In addition a short bridge and roadway would be constructed over the wetland to provide a loop traffic pattern for DPW vehicles and would lead to another vehicle storage building located behind the salt / sand shed, in the existing materials handling area.

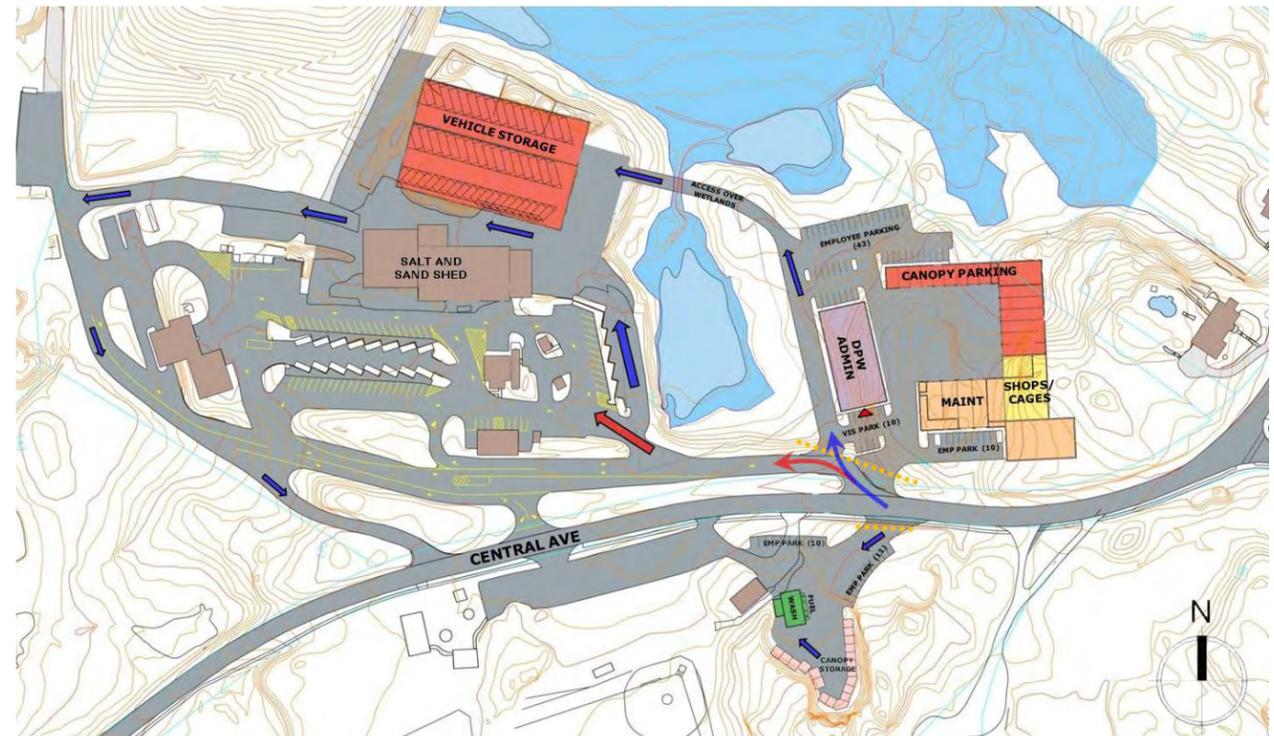
**The new DPW would include the following:**

- Administration building on three levels
- Vehicle storage
- Maintenance
- Shops
- Wash Bay
- Fuel Depot
- Canopy Storage
- Bin Storage

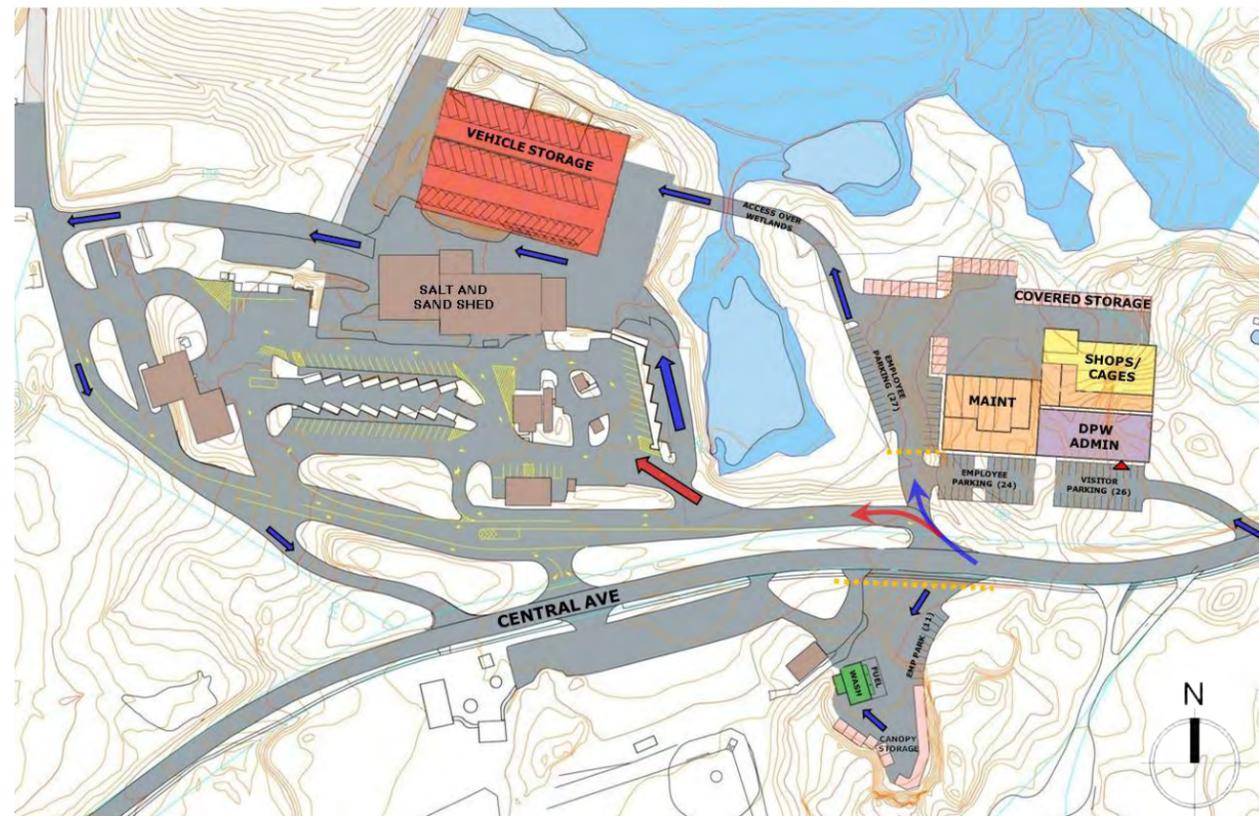
**New Construction:**  
**DPW Administration, Vehicle Storage, Maintenance, Shops, Wash / Fuel Bay: 91,230 SF**  
**Canopy Storage: 14,704 SF**  
**Bin Storage: 4,140 SF**



DPW AT RTS - OPTION 1



DPW AT RTS - OPTION 2



DPW AT RTS - OPTION 3

**NOTE**

Three other options were considered for the RTS site. All three included the location of a wash bay, fuel depot, and bin storage on the south side of Central Avenue adjacent to Claxton Field. Ultimately, Option 4 was preferred to limit vehicle movement across Central Avenue.

None of these four options are as efficient a layout when compared to the Parcel 74 option.



**PARTIAL DPW FACILITIES AT RTS**

**OVERVIEW OF RENOVATIONS AT THE RECYCLING AND TRANSFER STATION**

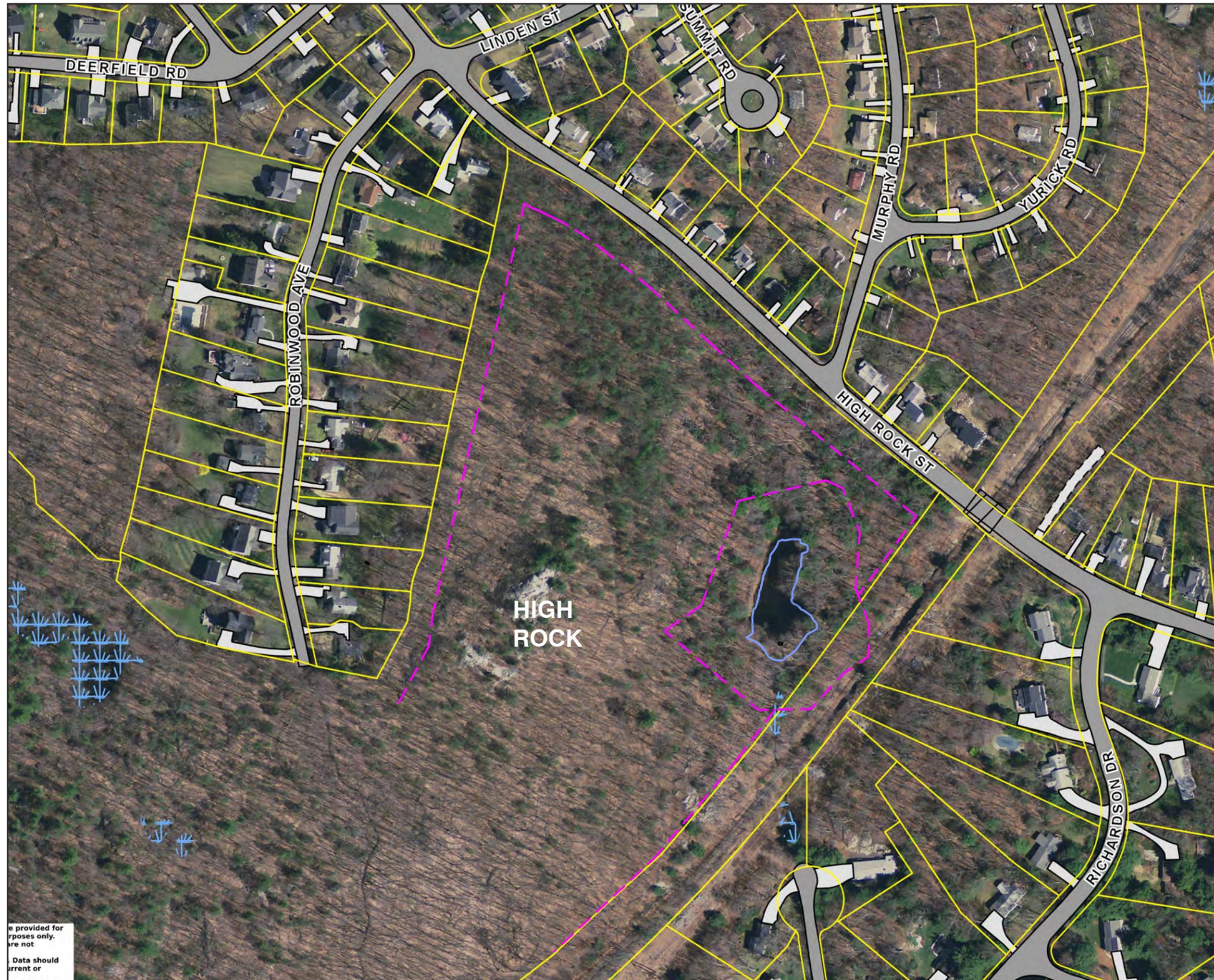
The work at this site is dependent on the option selected to meet the needs of the DPW. If a partial renovation is selected for Dedham Avenue the areas of need not addressed at that site could be addressed at the RTS. In addition, this site will need updates and renovations based on its rugged use of buildings and roadways. Employees are currently housed in trailers and other structures that have long outlived their useful life.

**Description of Renovations at the Recycling and Transfer Station**

The tipping floor and finishes will need to be replaced and office space and employee support spaces lack any and all amenities. A new building to handle the needs of these employees is warranted and demolition of trailers and other spaces that currently house these spaces will free up some land for future consideration. A materials handling area would be located on the adjacent 12 acres.

**New Construction:**

- Single story off administration building: 2,500 SF**
- Wash / Fuel Bay: 1,820 SF**
- Total Building Construction: 4,320 SF**



Information provided for informational purposes only. Data should be current or accurate.



**EXISTING CONDITIONS:**  
**TOWN FOREST**

**Parcel Area:** 200+ Acres, 64.8 Acres in Parcel at North-east parcel

**Jurisdiction:** Park and Recreation

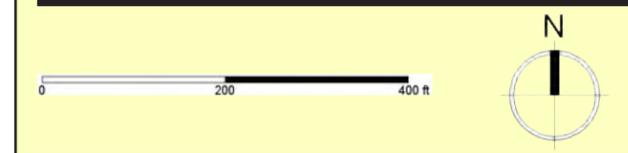
**Description**

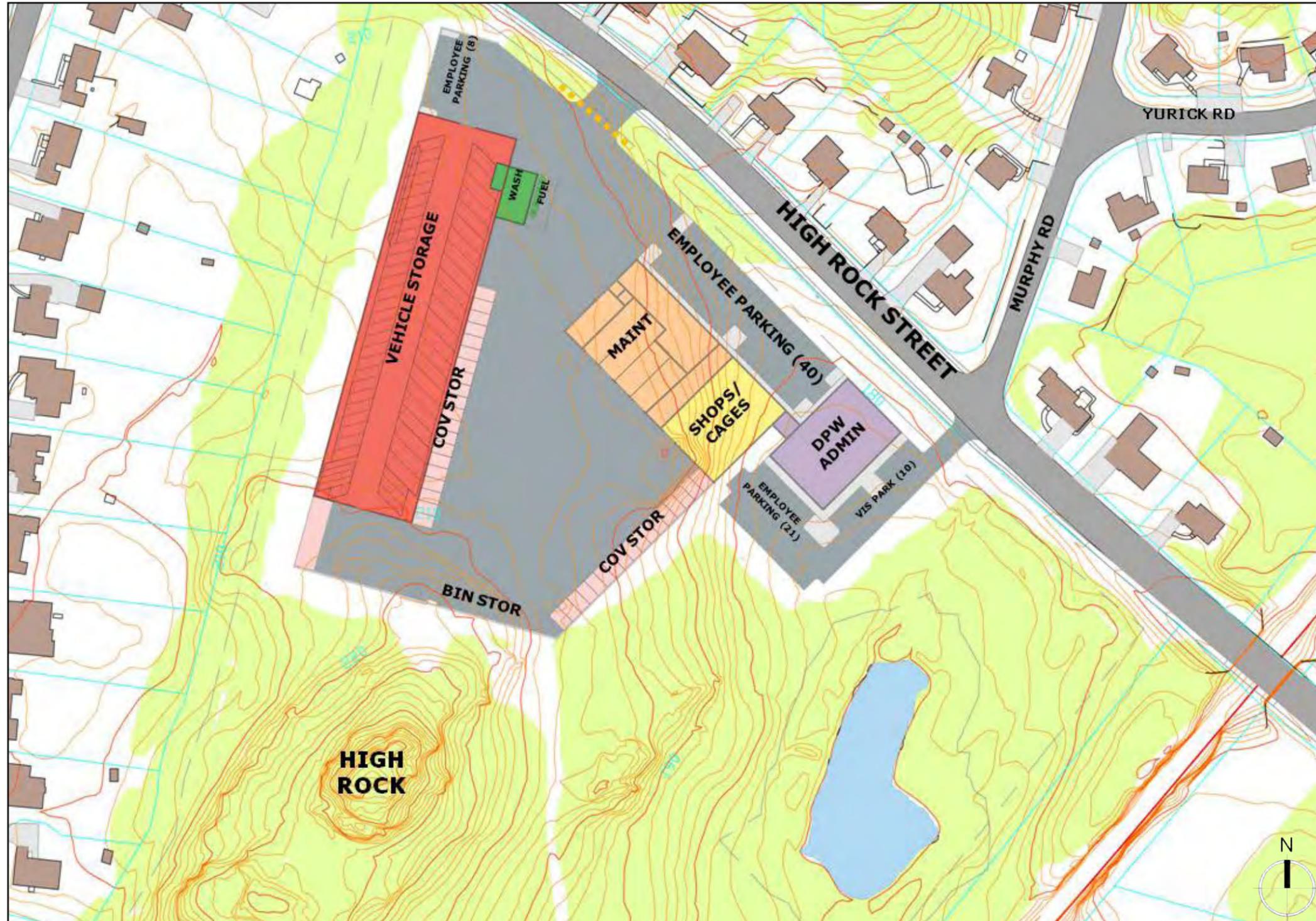
- Contains wetlands
- Significant grade changes including High Rock
- Forest with walking trails
- Adjacent to new Rail Trail

**Legend**

- 2013 Parcels
- Parcel Setback
- Wetland Boundary
- Wetlands Setback
- Wetlands

2013 Aerial photo data from Needham WebGIS





**DEPARTMENT OF PUBLIC WORKS AT TOWN FOREST**

**OVERVIEW OF A NEW DEPARTMENT OF PUBLIC WORKS AT TOWN FOREST**

As earlier described, the existing DPW buildings at Dedham Avenue, except for the PSAB building and the new vehicle storage building, no longer support this department.

Town Forest is another solution considered for solving the space needs and operational deficiencies of the DPW. This site currently is the Town Forest with hiking trails and the High Rock. Land transfer for use as a DPW requires jurisdictional changes, Town Meeting approval, as well as approval from the State Legislature. The site has a long tradition of active recreation use. This is the least favored alternative for the DPW.

**Description of a New Department of Public Works at Town Forest**

A new building at Town Forest will bring together the operational, programmatic and storage needs at one location. Some dedicated field equipment may continue to reside at a park building, but the needs of this department are addressed at once. This building will enhance operations and protect valuable equipment. Phasing or temporary occupancy is not required. The site is complicated by its' significance as a prime natural area and the High Rock. Though there are some changes in topography and wetlands these are not difficult issues to overcome.

Most of the buildings would be located directly off of High Rock Street. These buildings and structures would be used to define and confine the useable property. The working yard would be in a courtyard formed by structures. Only the three story administration building would use the change in topography to separate visitor form workers. The parking associated for this portion of the building could be used by the public who access the trails.

The new DPW would include the following:

- Administration building on three levels
- Vehicle storage
- Maintenance
- Shops
- Wash Bay
- Fuel Depot
- Canopy Storage
- Bin Storage

**New Construction:**  
**DPW Administration, Vehicle Storage, Maintenance, Shops, Wash / Fuel Bay: 89,850 SF**  
**Canopy Storage: 8,898 SF**  
**Bin Storage: 3,420 SF**