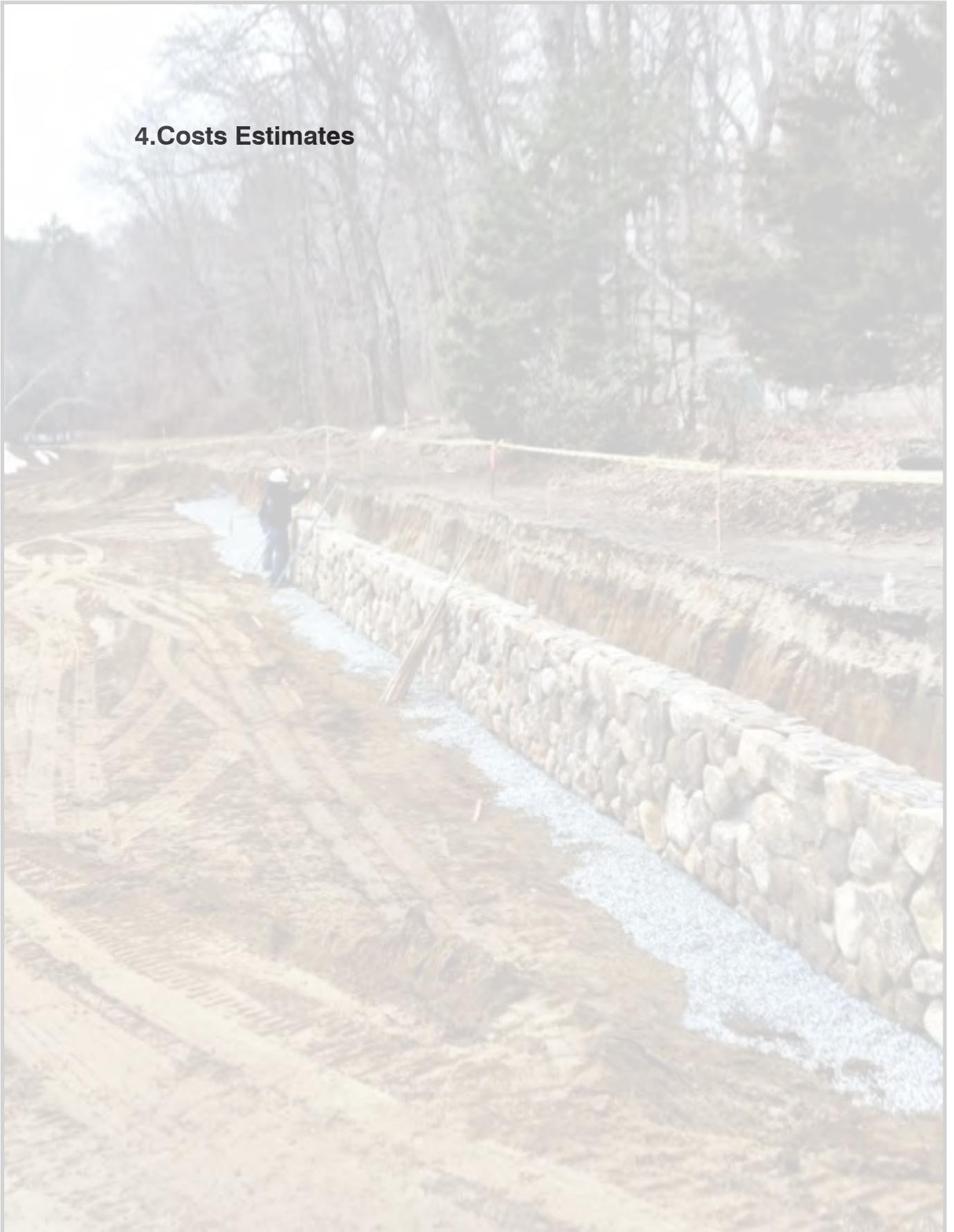


## 4.Costs Estimates





## **Needham Facilities Master Plan Cost Study**

**Town of Needham, Ma**

Prepared by:



165 Middlesex Turnpike Suite 106

Bedford, Ma 01730

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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
1	TEMPORARY SCHOOL AT DEFAZIO PARK (9-18-14 updated D&W costs)	56,236	\$12,766,598	\$227	\$17,234,908	\$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	\$31,310,000	\$376	\$48,003,000	\$577
4	HIGH ROCK RENOVATIONS	7,000	\$2,275,947	\$325	\$3,501,457	\$501
5	HIGH SCHOOL RENOVATIONS AND MODULARS (6-4-14 cost provided by town)	8,062	\$3,463,220	\$428	\$4,144,964	\$514
6	MITCHELL REBUILD (9-18-14 updated D&W costs)	82,227	\$30,244,640	\$368	\$43,150,000	\$525
7	POLLARD ADDITION AND RENOVATIONS		\$21,650,570		\$29,228,270	
8	SCHOOL ADMIN. RELOCATION TO PS&B (includes connector, water pump meeting room & site)	25,277	\$2,166,850	\$86	\$6,395,248	\$116
9	RELOCATION TO PS&B WITH ADDED PRINTERS (includes connector, water pump meeting room & site)	25,277	\$3,978,850	\$157	\$6,570,773	\$212
10	SCHOOL ADMIN. RENOVATION AT EMERY GROVER	21,235	\$7,820,000	\$373	\$10,692,000	\$504
11	SCHOOL ADMIN. NEW AT NIKE SITE	20,000	\$7,680,000	\$384	\$10,168,000	\$518
12	SCHOOL ADMIN. NEW AT PD/OPTION 1	23,000	\$7,290,000	\$330	\$10,246,500	\$446
13	SCHOOL ADMIN. NEW AT PD/OPTION 2	20,800	\$6,864,000	\$330	\$9,266,400	\$446
14	DPW AT PARCEL 74 / GREENDALE AVE	92,442	\$30,551,724	\$331	\$41,238,841	\$447
15	RTS RENOVATIONS - SITE IMPROVEMENTS	4,320	\$1,623,000	\$376	\$2,194,050	\$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	\$24,588,587	\$288	\$33,195,942	\$389
19	DPW REBUILD AT DEDHAM AVE - PARTIAL PROGRAM	61,034	\$19,694,235	\$323	\$26,587,217	\$436
<b>DPW OPTIONS</b>						
20	POLICE / FIRE OPTION 1 (School Admin cost with Item 12 above)	53,238	\$22,948,515	\$431	\$30,890,495	\$582
21	POLICE / FIRE OPTION 2 + PARKING STRUCTURE (School Admin cost with Item 13 above)	50,875	\$30,503,278	\$600	\$41,767,225	\$809
22	POLICE / FIRE OPTION 3 STAND ALONE	51,604	\$14,077,490	\$462	\$20,074,812	\$583
23	POLICE / FIRE OPTION 4 RENO AND ADDITION	46,844	\$14,103,588	\$309	\$19,571,055	\$417
24	FIRE STATION #2 ADDITION / RENOVATION		\$1,472,950		\$1,987,943	
<b>OTHER PROJECTS</b>						
25	ROSEMARY POOL (W&S costs)		\$6,382,775		\$8,778,869	
26	CRICKET FIELD HOUSE RENOVATIONS (BHA 2012 costs +13% escalation to 2104)	7,260	\$625,505	\$103	\$844,432	\$139
27	MEMORIAL PARK BUILDING RENOVATIONS	14,584	\$4,372,236	\$300	\$5,902,519	\$405
28	MEMORIAL PARK BUILDING NEW	62,000	\$21,419,250	\$345	\$28,515,988	\$466
29	COMMUNITY CENTER AT NIKES	60,000	\$22,717,850	\$379	\$30,669,098	\$511
30	COMMUNITY CENTER AT DEDHAM AVE	62,000	\$21,879,000	\$353	\$29,336,650	\$476
31	COMMUNITY CENTER AT PARCEL 74	35,272	\$8,817,340	\$250	\$11,903,409	\$337
32	ICE RINK AT 470 DEDHAM AVE	36,839	\$9,298,860	\$250	\$13,174,461	\$358
33	ICE RINK AT TOWN FOREST					
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
\$18,249,002	\$19,385,142	\$20,101,017	\$20,864,856	\$21,657,721	\$22,480,714	\$23,349,881	\$24,261,110	\$25,214,135	\$26,209,136	\$27,089,242
\$46,308,220	\$49,896,713	\$50,952,008	\$52,888,184	\$54,897,935	\$56,984,057	\$59,149,451	\$61,397,130	\$63,730,221	\$66,151,969	\$68,665,744
\$50,883,180	\$53,961,171	\$55,985,745	\$58,113,202	\$60,321,505	\$62,613,722	\$64,990,043	\$67,462,779	\$70,026,365	\$72,687,367	\$75,440,487
\$3,711,545	\$3,934,238	\$4,083,738	\$4,338,921	\$4,600,000	\$4,740,764	\$4,920,902	\$5,107,897	\$5,301,957	\$5,501,472	\$5,708,116
\$4,393,662	\$4,657,282	\$4,884,259	\$5,077,961	\$5,289,644	\$5,466,572	\$5,613,022	\$5,823,279	\$6,046,640	\$6,276,412	\$6,514,916
\$46,163,000	\$48,327,780	\$50,792,226	\$52,723,321	\$54,725,780	\$56,805,360	\$58,969,364	\$61,230,370	\$63,600,416	\$66,080,524	\$68,450,616
\$30,981,966	\$32,400,884	\$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
\$3,100,763	\$3,286,809	\$3,441,708	\$3,541,353	\$3,675,924	\$3,815,609	\$3,960,002	\$4,111,105	\$4,267,327	\$4,429,485	\$4,597,808
\$5,693,019	\$6,034,915	\$6,263,915	\$6,501,944	\$6,749,018	\$7,005,481	\$7,271,689	\$7,548,013	\$7,824,837	\$8,122,561	\$8,441,598
\$11,333,830	\$12,013,931	\$13,470,495	\$13,948,937	\$13,485,775	\$13,946,314	\$14,476,295	\$15,036,394	\$15,619,088	\$16,200,088	\$16,805,822
\$10,990,080	\$11,649,485	\$12,021,605	\$12,153,667	\$13,028,630	\$13,523,118	\$14,071,419	\$14,570,049	\$15,120,749	\$15,699,489	\$16,296,070
\$10,861,290	\$11,512,967	\$11,950,460	\$12,404,577	\$12,875,951	\$13,365,237	\$13,871,116	\$14,400,294	\$14,947,505	\$15,515,510	\$16,105,099
\$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
\$43,767,771	\$46,803,377	\$48,156,705	\$49,897,040	\$51,896,938	\$53,869,011	\$55,916,033	\$58,040,842	\$60,246,394	\$62,535,757	\$64,912,116
\$2,322,813	\$2,461,864	\$2,555,415	\$2,672,521	\$2,783,317	\$2,857,943	\$2,966,545	\$3,073,274	\$3,186,286	\$3,317,745	\$3,449,489
\$43,946,682	\$45,946,423	\$47,692,387	\$49,504,698	\$51,385,877	\$53,338,540	\$55,366,405	\$57,469,290	\$59,651,123	\$61,919,942	\$64,272,900
\$42,191,169	\$44,722,639	\$46,422,099	\$48,186,139	\$50,017,212	\$51,917,866	\$53,890,745	\$55,938,533	\$58,064,200	\$60,270,702	\$62,560,989
\$35,187,699	\$37,288,961	\$38,716,322	\$40,187,542	\$41,714,669	\$43,299,826	\$44,945,219	\$46,653,137	\$48,425,956	\$50,266,142	\$52,176,655
\$28,182,450	\$29,873,397	\$31,008,596	\$32,186,912	\$33,410,015	\$34,679,596	\$35,997,421	\$37,365,323	\$38,785,205	\$40,259,043	\$41,788,887
\$32,839,325	\$34,809,685	\$36,132,423	\$37,505,486	\$38,930,694	\$40,410,060	\$41,945,442	\$43,539,576	\$45,194,080	\$46,914,455	\$48,694,000
\$43,673,329	\$46,266,169	\$48,024,283	\$49,849,206	\$51,743,476	\$53,709,728	\$55,750,938	\$57,869,225	\$60,068,256	\$62,350,850	\$64,720,382
\$33,971,089	\$35,911,884	\$37,975,924	\$39,408,809	\$40,975,594	\$42,628,651	\$44,371,344	\$46,206,461	\$48,137,587	\$50,163,745	\$52,277,555
\$20,688,078	\$21,923,363	\$22,762,679	\$23,626,679	\$24,567,481	\$25,487,865	\$26,473,844	\$27,531,212	\$28,671,372	\$29,893,222	\$31,200,844
\$2,107,220	\$2,232,653	\$2,318,532	\$2,406,636	\$2,498,088	\$2,593,015	\$2,691,150	\$2,793,829	\$2,899,995	\$3,010,195	\$3,124,582
\$9,305,001	\$9,869,937	\$10,278,767	\$10,627,840	\$11,031,698	\$11,450,903	\$11,886,037	\$12,337,706	\$12,806,539	\$13,293,187	\$13,798,328
\$895,098	\$948,804	\$984,858	\$1,022,283	\$1,061,130	\$1,101,453	\$1,143,308	\$1,186,754	\$1,231,800	\$1,278,600	\$1,327,250
\$1,067,469	\$1,113,517	\$1,174,515	\$1,245,475	\$1,315,563	\$1,384,478	\$1,461,071	\$1,541,290	\$1,624,896	\$1,708,842	\$1,794,842
\$6,256,070	\$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
\$30,650,947	\$32,000,004	\$33,724,624	\$35,006,160	\$36,316,394	\$37,717,177	\$39,150,330	\$40,638,146	\$42,180,396	\$43,785,327	\$45,449,169
\$32,059,244	\$34,659,799	\$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
\$33,387,380	\$35,187,380	\$36,448,500	\$37,128,503	\$38,539,386	\$40,003,883	\$41,534,931	\$43,141,944	\$44,739,818	\$46,439,931	\$48,204,648
\$13,617,614	\$13,974,671	\$14,414,459	\$14,988,056	\$15,526,462	\$16,116,668	\$16,769,375	\$17,384,592	\$18,064,466	\$18,709,375	\$19,424,806
\$13,964,929	\$14,802,825	\$15,366,332	\$15,949,215	\$16,555,285	\$17,184,386	\$17,837,393	\$18,516,214	\$19,218,792	\$19,949,106	\$20,707,172

# 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 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	
<b>Total Typical Building - \$/sf</b>		<b>92,442</b>	<b>sf</b>	<b>254.91</b>	<b>23,564,570</b>		
<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
<b>Total Typical Site - \$/sf</b>		<b>92,442</b>	<b>sf</b>	<b>56.44</b>	<b>5,217,164</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>92,442</b>	<b>sf</b>	<b>311.35</b>	<b>28,781,734</b>		
<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
						<b>CURRENT 2014 CONSTRUCTION COSTS</b>	<b>\$30,591,734</b>

Notes:

- 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
- 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
- Additional sitework premiums other than listed are not assumed (offsite utilities, traffic lights or work to public roads)

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	
<b>Total Typical Building - \$/sf</b>		<b>4,320</b>	<b>sf</b>	<b>334.26</b>	<b>1,444,000</b>		
<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		
<b>Total Typical Site - \$/sf</b>		<b>4,320</b>	<b>sf</b>	<b>50.14</b>	<b>216,600</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>4,320</b>	<b>sf</b>	<b>384.40</b>	<b>1,660,600</b>		
<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	
<b>CURRENT 2014 CONSTRUCTION COSTS</b>						<b>\$1,623,000</b>	

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	
<b>Total Typical Building - \$/sf</b>		<b>91,229</b>	<b>sf</b>	<b>258.73</b>	<b>23,603,320</b>		
<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	
<b>Total Typical Site - \$/sf</b>		<b>91,229</b>	<b>sf</b>	<b>52.88</b>	<b>4,824,164</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>91,229</b>	<b>sf</b>	<b>311.61</b>	<b>28,427,484</b>		
<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
						<b>CURRENT 2014 CONSTRUCTION COSTS</b>	<b>\$30,290,484</b>

**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)

October 7, 2014

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	
<b>Total Typical Building - \$/sf</b>		<b>89,831</b>	<b>sf</b>	<b>254.30</b>	<b>22,843,830</b>		
<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	
<b>Total Typical Site - \$/sf</b>		<b>89,831</b>	<b>sf</b>	<b>51.81</b>	<b>4,654,266</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>89,831</b>	<b>sf</b>	<b>306.11</b>	<b>27,498,096</b>		
<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	fts	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	
<b>CURRENT 2014 CONSTRUCTION COSTS</b>							<b>\$29,483,696</b>

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)

**Needham Facilities Master Plan Cost Study**  
**Town of Needham, Ma**



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**DPW REBUILD AT DEDHAM AVE - FULL PROGRAM**

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<u>Buildings</u>							
1	DPW Administration	22,865	sf	300.00	6,859,500		
2	Vehicle Storage 1 & 2	45,343	sf	190.00	8,615,170		
3	Maintenance	11,804	sf	250.00	2,951,000		
4	Existing vehicle storage to remain				ETR		
5	Wash/Fuel Bay	1,820	sf	450.00	819,000		
6	Connector	700	sf	600.00	420,000		
7	Meeting room converted from water pump station	2,800	sf	200.00	560,000	20,224,670	
8	Canopy Storage	12,990	sf	100.00	1,299,000		
<b>Total Typical Building - \$/sf</b>		<b>85,332</b>	<b>sf</b>	<b>252.23</b>	<b>21,523,670</b>		
<u>Sitework</u>							
1	Typical sitework - (Low) 10% of building costs (earthwork, utilities, fencing and all site finishes)	1	ls	2,022,467.00	2,022,467		
2	Cold Storage				NIC		
3	Bin Storage	3,960	sf	25.00	99,000	2,121,467	
<b>Total Typical Site - \$/sf</b>		<b>85,332</b>	<b>sf</b>	<b>24.86</b>	<b>2,121,467</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>85,332</b>	<b>sf</b>	<b>277.10</b>	<b>23,645,137</b>		
<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 structure heavy duty separation	22,865	sf	10.00	228,650		
4	Vehicle Storage 1 heavy duty construction for clear span	22,865	sf	20.00	457,300	1,185,950	
<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	
						<b>CURRENT 2014 CONSTRUCTION COSTS</b>	<b>\$24,589,587</b>

**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)

October 7, 2014

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		
<b>DeFazio Park - CURRENT 2014 CONSTRUCTION COSTS</b>							<b>31,301,000</b>

DPW Administration

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
<b>Total Typical Building - \$/sf</b>		<b>144,234</b>	<b>sf</b>	<b>109.99</b>	<b>15,864,350</b>		

Sitework

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
<b>Total Typical Site - \$/sf</b>		<b>144,234</b>	<b>sf</b>	<b>11.00</b>	<b>1,586,435</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>144,234</b>	<b>sf</b>	<b>120.99</b>	<b>17,450,785</b>		

Premium cost related to building configuration

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

Premium cost related to site location

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

Recent bid results:	Low - High	Sf
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  
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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
<b>PSAB School Admin</b>							
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		
<b>PSAB SCHOOL ADMIN - CURRENT 2014 CONSTRUCTION COSTS</b>							<b>2,166,850</b>

<b>Community Center</b>							
<u>Buildings</u>							
1	2 story Community Center	60,000	sf	350.00	21,000,000	23,166,850	
<b>Total Typical Building - \$/sf</b>		<b>85,278</b>	<b>sf</b>	<b>271.66</b>	<b>23,166,850</b>		
<u>Sitework</u>							
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	
<b>Total Typical Site - \$/sf</b>		<b>85,278</b>	<b>sf</b>	<b>25.31</b>	<b>2,158,500</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>85,278</b>	<b>sf</b>	<b>296.97</b>	<b>25,325,350</b>		

<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		
4	Clean-up/Remediation - \$ TBD	1	ls	500,000.00	500,000	1,682,500	
<b>COMMUNITY CENTER - CURRENT 2014 CONSTRUCTION COSTS</b>							<b>\$27,007,850</b>

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
<b>PSAB School Admin</b>							
<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	
<b>Total Typical Building - \$/sf</b>		<b>25,277</b>	<b>sf</b>	<b>81.85</b>	<b>2,068,850</b>		
<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	727,000	
<b>Total Typical Site - \$/sf</b>		<b>25,277</b>	<b>sf</b>	<b>28.76</b>	<b>727,000</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>25,277</b>	<b>sf</b>	<b>110.61</b>	<b>2,795,850</b>		
<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	
<b>DeFazio Park with parking - CURRENT 2014 CONSTRUCTION COSTS</b>							<b>\$3,978,350</b>

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**  
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**POLICE / FIRE OPTION 1**

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<b>School Admin</b>							
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	
<b>SCHOOL ADMIN - CURRENT 2014 CONSTRUCTION COSTS</b>							<b>7,590,000</b>
<b>Police/Fire</b>							
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	
<b>Total Typical Buildings and Site - \$/sf</b>		<b>53,238</b>	<b>sf</b>	<b>412.50</b>	<b>21,960,675</b>		
<b>Premium cost related to site location</b>							
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	
<b>POLICE/FIRE - CURRENT 2014 CONSTRUCTION COSTS</b>							<b>22,948,515</b>

**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
- c. 911 memorial NIC

October 7, 2014

POLICE / FIRE OPTION 2 + PARKING STRUCTURE

Item #	PROJECT	AREA	UNIT	COST/SF	EST'D COST	SUB TOTAL	TOTAL COST
<b>School Admin</b>							
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	
<b>SCHOOL ADMIN - CURRENT 2014 CONSTRUCTION COSTS</b>							<b>6,864,000</b>
<b>Police/Fire</b>							
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	
<b>Total Typical Buildings and Site - \$/sf</b>		<b>50,875</b>	<b>sf</b>	<b>445.58</b>	<b>22,668,938</b>		
<b>Premium cost related to site location</b>							
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	
<b>POLICE/FIRE - CURRENT 2014 CONSTRUCTION COSTS</b>							<b>\$30,501,278</b>

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
- c. 911 memorial NIC

October 7, 2014

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	
<b>Total Typical Building - \$/sf</b>		<b>51,604</b>	<b>sf</b>	<b>375.00</b>	<b>19,351,500</b>		
<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
<b>Total Typical Site - \$/sf</b>		<b>51,604</b>	<b>sf</b>	<b>37.50</b>	<b>1,935,150</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>51,604</b>	<b>sf</b>	<b>412.50</b>	<b>21,286,650</b>		
<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	
						<b>CURRENT 2014 CONSTRUCTION COSTS</b>	<b>\$22,277,490</b>

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
- c. 911 memorial NIC

October 7, 2014

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	
<b>Total Typical Building - \$/sf</b>		<b>46,844</b>	<b>sf</b>	<b>258.65</b>	<b>12,116,125</b>		
<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	
<b>Total Typical Site - \$/sf</b>		<b>46,844</b>	<b>sf</b>	<b>25.86</b>	<b>1,211,613</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>46,844</b>	<b>sf</b>	<b>284.51</b>	<b>13,327,738</b>		
<u>Premium cost related to site location &amp; 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	
						<b>CURRENT 2014 CONSTRUCTION COSTS</b>	<b>\$14,103,558</b>

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
- c. 911 memorial NIC

October 7, 2014

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/Repointing 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	
<b>Total Typical Building</b>					<b>1,323,700</b>		
<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	
<b>Total Site</b>					<b>52,850</b>		
<b>Total Typical Buildings and Site</b>					<b>1,376,550</b>		
<b>CURRENT 2014 CONSTRUCTION COSTS</b>							<b>\$1,472,550</b>

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
- c. 911 memorial NIC

October 7, 2014

SCHOOL ADMIN: NEW AT NIKE SITE

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	
<b>Total Typical Building - \$/sf</b>		<b>20,000</b>	<b>sf</b>	<b>300.00</b>	<b>6,000,000</b>		
<u>Sitework</u>							
1	Typical sitework - 15% of building costs (earthwork, utilities and all site finishes)	1	ls	900,000.00	900,000	900,000	
<b>Total Typical Site - \$/sf</b>		<b>20,000</b>	<b>sf</b>	<b>45.00</b>	<b>900,000</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>20,000</b>	<b>sf</b>	<b>345.00</b>	<b>6,900,000</b>		
<u>Premium cost related to site location &amp; 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	
<b>CURRENT 2014 CONSTRUCTION COSTS</b>						<b>\$7,680,000</b>	

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	
<b>Total Typical Building - \$/sf</b>		<b>62,000</b>	<b>sf</b>	<b>285.00</b>	<b>17,670,000</b>		
<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	
<b>Total Typical Site - \$/sf</b>		<b>62,000</b>	<b>sf</b>	<b>57.00</b>	<b>3,534,000</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>62,000</b>	<b>sf</b>	<b>342.00</b>	<b>21,204,000</b>		
<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	
						<b>CURRENT 2014 CONSTRUCTION COSTS</b>	<b>\$21,879,000</b>

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

October 7, 2014

COMMUNITY CENTER AT NIKE

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	
<b>Total Typical Building - \$/sf</b>		<b>62,000</b>	<b>sf</b>	<b>285.00</b>	<b>17,670,000</b>		
<u>Sitework</u>							
1	Typical sitework - 15% of building costs (Fields, earthwork, utilities and all site finishes)		1	ls	2,650,500.00	2,650,500	2,650,500
<b>Total Typical Site - \$/sf</b>		<b>62,000</b>	<b>sf</b>	<b>42.75</b>	<b>2,650,500</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>62,000</b>	<b>sf</b>	<b>327.75</b>	<b>20,320,500</b>		
<u>Premium cost related to site location &amp; Buildings</u>							
1	Widened existing road	1,400	lf	200.00	280,000		
2	Lower connector road	1,000	lf	200.00	200,000		
3	Upgrade of road from Charles to lower level connector	475	lf	250.00	118,750		
4	Allowance for utilities and connections 1/4 mile distance	1	ls	500,000.00	500,000		
						1,098,750	
						<b>CURRENT 2014 CONSTRUCTION COSTS</b>	<b>\$21,419,250</b>

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

Needham Facilities Master Plan Cost Study  
Town of Needham, Ma



October 7, 2014

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	
<b>Total Typical Building - \$/sf</b>		<b>35,272</b>	<b>sf</b>	<b>200.00</b>	<b>7,054,400</b>		
<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
<b>Total Typical Site - \$/sf</b>		<b>35,272</b>	<b>sf</b>	<b>20.00</b>	<b>705,440</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>35,272</b>	<b>sf</b>	<b>220.00</b>	<b>7,759,840</b>		
<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
<b>CURRENT 2014 CONSTRUCTION COSTS</b>							<b>\$8,817,340</b>

Notes:

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- 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

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	
<b>Total Typical Building - \$/sf</b>		<b>36,839</b>	<b>sf</b>	<b>200.00</b>	<b>7,367,800</b>		
<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
<b>Total Typical Site - \$/sf</b>		<b>36,839</b>	<b>sf</b>	<b>40.00</b>	<b>1,473,560</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>36,839</b>	<b>sf</b>	<b>240.00</b>	<b>8,841,360</b>		
<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	
						<b>CURRENT 2014 CONSTRUCTION COSTS \$9,758,860</b>	

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 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	
<b>Total Typical Building - \$/sf</b>		<b>7,260</b>	<b>sf</b>	<b>91.40</b>	<b>663,600</b>		
<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	
<b>Total Typical Site - \$/sf</b>		<b>7,260</b>	<b>sf</b>	<b>9.14</b>	<b>66,360</b>		
<b>Total Typical Buildings and Site - \$/sf</b>		<b>7,260</b>	<b>sf</b>	<b>100.55</b>	<b>729,960</b>		
<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
<b>CURRENT 2014 CONSTRUCTION COSTS</b>							<b>\$745,960</b>

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		
<b>Total Typical Building - \$/sf</b>		<b>14,584</b>	<b>sf</b>	<b>265.00</b>	<b>3,864,760</b>			
<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	
<b>Total Typical Site - \$/sf</b>		<b>14,584</b>	<b>sf</b>	<b>26.50</b>	<b>386,476</b>			
<b>Total Typical Buildings and Site - \$/sf</b>		<b>14,584</b>	<b>sf</b>	<b>291.50</b>	<b>4,251,236</b>			
<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	
							<b>CURRENT 2014 CONSTRUCTION COSTS</b>	<b>\$4,372,236</b>

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

