Capital Improvement Study

Town of Seekonk

Massachusetts

Drummey Rosane Anderson, Inc.

Architects

Newton Centre, MA

Consulting Engineering Services, LLC.

Mechanical Engineers

Engineers Design Group.

Structural Engineers

Cost Pro, Inc

Cost estimators

TABLE OF CONTENTS

Page	Description
3	Introduction
5	Recommendations
8	Capital Improvements 2013-2016
9	Capital Improvements 2017-2021
10	Summary Spreadsheet with Priorities
11	Architectural Assessment Town Facilities
21	Architectural Assessment School Facilities
33	MEP Assessment Town Hall
42	MEP Assessment Library
50	MEP Assessment County Street Fire House
56	MEP Assessment Public Safety Complex
64	MEP Assessment DPW Garage
72	MEP Assessment Animal Shelter
78	MEP Assessment Martin Elementary School
87	MEP Assessment Pleasant Street School
97	MEP Assessment Hurley Middle School
107	Hurley Boiler Options
110	MEP Assessment North Street School
119	MEP Assessment Aitken Elementary School
128	MEP Assessment High School
138	Structural Report
165	Cost Estimate

Seekonk Capital Improvements

May 30, 2012

Introduction

Buildings included in this plan are as follows:

Town Hall
Library
County Street Fire House
Public Safety
DPW Garage
Animal Shelter
Martin School
Pleasant Street School
Hurley Middle School
North Street School
Aitkin Elementary School
High School

In 2011 DRA Architects with its team of engineers performed visits to each of the buildings and evaluated to determine the types of improvements that will be necessary for these buildings. Conversationwere held with department heads and those in charge of maintenance. These improvements were categorized into the following groups:

Life Safety
Health
American's with Disabilities Compliance
Site Issues
Exterior Envelop Issues
Building Interiors
Energy and Water Conservation
Hazardous Materials
New Construction

Each of the improvements were then prioritized into the following categories:

Current Critical
Potentially Critical
Necessary – Not yet Critical
Recommended
Grandfathered
Maintenance

A detailed description of criteria used for each of the categories is included in the report.

For each of the improvements an independent cost estimate was obtained. The estimates are a projection of the costs and include soft costs associated with each item. (Soft costs are the

miscellaneous costs associated with professional fees, contingency, bonding costs, bidding expense, testing etc.). The estimator does not have the advantage of detailed drawings for each of the items so the intent is to provide an order of magnitude that, should the improvement move ahead, will be refined up to the bid date. For many of the like items it will be possible to group them together and save on the soft costs. Similarly, there may be items that can be bid without professional drawings and specifications and, again, the soft costs can be reduced.
The cost should be used as an overall budget for each item.

The projection/recommendation of the years to perform the work is based not only on the priorities but the available funding per annum, and an assessment of the best value and need for the monies being expended.

This report is organized with the recommendations presented first followed by the reports for each of the buildings from the various engineers and then the cost estimate for the work.

* * *

Seekonk Capital Improvement Plan Recommendations

May 30, 2012

Major Capital Improvements

For the DPW garage and County Street Firehouse we recommend that new construction be included but the values are in excess of the currently proposed funding. It is our understanding that an expansion of the Animal Shelter is currently in the design process.
For these items bonding capacity is a critical factor in the timing of the projects over the coming years.

Capital Improvement Priorities

The following listing is organized by building but with a suggested fiscal year for performing the work. This should be read in conjunction with the "Capital Project Distribution by Fiscal Year" Chart.

Town Hall

- 2013 Re-grading around building $8,454.00
  In light of the history of basement flooding it will be worthwhile to see whether or not the flooding is impacted by the surrounding grades.
- 2013 Upgrade Fire Alarm System $ 17,512.00
- 2020 ADA Upgrade
  Kitchen cabinet replacement. $ 13,863.00

Library

- 2014 ADA upgrade $ 85,560.00
  The Town's exposure is heightened as very little has been done for ADA compliance.
- 2016 Roof Improvements $ 161,316.00
  The roof gutter problems have the potential of causing severe interior damage if unattended.
- 2016 Upgrade Fire Alarm System $ 133,933.00
- 2016 Roof Top Unit: $ 328,483.00
  Prior to replacement investigate if controls or RTU is creating problems.
- 2020 Replace Carpeting $ 132,798.00
- 2020 Repaint Program Room $5,508.00

County Street Fire House

- Building Replacement

Public Safety

- 2020 Finish work-out room $ 41,508.00

DPW Garage

- Building Replacement is recommended in lieu of repairs.

Animal Shelter

- Expansion & Interior Renovations

Martin School

- 2014 Replace VCT flooring. $ 106,948.00
- 2015 Re-paving play areas (Part of $127,084.00) $ 50,000.00
  Paving is very irregular in these areas and is a tripping hazard
- 2015 Security System $ 25,715.00
  This is in support of added safety for the school children
- 2015 Replace Sinks $ 55,988.00
  These have a rough finish and result in unsanitary conditions
- 2015 Replace Generator $ 60,883.00
- 2018 Re-roofing $ 66,338.00
- 2019 Telephone Upgrade $ 61,497.00
- 2020 Interior Painting $ 38,875.00
- 2020 Parking Lot Paving (Remainder) $ 77,084.00
  Elimination of low spots and correction of irregular areas/curbing.
- 2021 Replace Ventilators $ 591,362.00

Pleasant Street School

- 2014 Replace Plywood Ceiling $ 9,988.00
- 2019 Replace Boilers $ 85,377.00

Hurley

- 2013 Replace Boilers $ 365,803.00
- 2013 Add A/C unit to Music Room $ 39,358.00
  This space easily overheats even with doors left open.
  Adding A/C to the space will improve its usability.
- 2013 Re-point Glass Block Wall $ 50,000.00
  The cost to replace the Glass Block wall at the library is high.
  We suggest that re-pointing the wall may be a way to keep the
  wall watertight until replacement can occur
- 2013 Add roof drains at entrance canopy $ 7,996.00
  There is only one drain in the deep and enclosed canopy which
  if blocked could cause major problems.
- 2018 Roof Repairs $ 87,463.00
- 2020 Interior Re-painting. $ 44,508.00
- 2021 Replace Ventilators $ 331,591.00

North School

- 2016 Replace Clerestory Panels $ 44,626.00
  These texture 1-11 plywood panels are failing and could result in
  interior water damage if not replaced.
- 2016 Fire Rated Doors at Stairs $ 54,561.00
  This will do much to provide a fire separation for the egress stairs.
- 2019 Boiler Replacement $ 205,586.00
- 2020 VCT Replacement $ 50,000.00 (From $ 368,876.00)
  This includes partial replacement to address damaged tiles.

Aitkin School

- 2015 Replace Window Glass $100,000.00 (From $ 315,731.00)
  Most windows are fully obscured and should be replaced with glass.
  We recommend that a partial replacement occur to reduce the cost from that noted.
- 2015 Re-point Window Sills $ 1,370.00
  Currently the joints are fully open to the elements and will, over time, cause deterioration.
- 2015 Re-roof older Section of Roof $ 195,642.00
  The roof is dead level and ponds with water. Insulation is minimal. Replacement will improve drainage and reduce energy use.
- 2015 Add Metal Fascia to cover Holes in Walls $ 10,951.00
  Wall will continue to deteriorate if left exposed
- 2020 ADA Compliance $ 42,231.00
  Replace classroom sinks and cabinets.
- 2021 Replace Ventilators $ 464,932.00

High School

- 2014 Replace Stage Floor $ 103,113.00
  This is necessary for the on-going stage performances
- 2016 Upgrade Security System $ 24,197.00
  This is in support of added safety for the students
- 2014 Replace VCT floor $ 193,248.00
- 2016 Repair Chimney $ 42,806.00
  Roof will need to be protected to accomplish this work.
- 2016 Repair Paving & Curbs. $ 152,422.00
- 2016 Update HVAC Controls. $ 68,554.00
- 2017 Provide equipment access to courtyard. $ 34,421.00
- 2017 New garage for maintenance equipment. $ 516,970.00
- 2017 Replace clay drainage pipe in courtyard. $ 46,890.00
- 2018 Re-roofing flashing. $ 21,492.00
- 2018 Re-roofing. $ 974,802.00
- 2019 Upgrade telephones. $ 122,994.00
- 2020 ADA Compliance $ 21,265.00
  Replace classroom sinks and cabinets.

* * *

Town of Seekonk
Capital Project Distribution By Fiscal Year
2013-2016
May 30, 2012

Building:	Town hall	F. Yr	Library	F. Yr	Martin	F. Yr	Pleasant	F. Yr	Hurley	F. Yr	North School	F. Yr	Aitkin	F. Yr	High School	F. Yr
	$ 8,454.00	13	$ 85,560.00	14	$ 50,000.00	15	$ 9,988.00	14	$ 365,803.00	13	$ 44,626.00	16	$ 100,000.00	15	$ 103,113.00	14
	$ 17,512.00	13	$ 161,316.00	16	$ 25,715.00	15			$ 39,358.00	13	$ 54,561.00	16	$ 1,370.00	15	$ 24,197.00	16
			$ 133,933.00	16	$ 55,988.00	15			$ 50,000.00	13			$ 195,642.00	15	$ 193,248.00	14
			$ 328,483.00	16	$ 106,948.00	14			$ 7,996.00	13			$ 10,951.00	15	$ 42,806.00	16
					$ 60,883.00	15									$ 152,422.00	16
															$ 68,554.00	16
Total:																
$ 2,499,427.00	$ 25,966.00		$ 709,292.00		$ 299,534.00		$ 9,988.00		$ 463,157.00		$ 99,187.00		$ 307,963.00		$ 584,340.00	

Amount	F. YR	Actual Amount		Difference
$ 500,000.00	2013	$ 489,123.00		$ 10,877.00
$ 500,000.00	2014	$ 498,857.00		$ 1,143.00
$ 500,000.00	2015	$ 500,549.00		$ (549.00)
$ 1,000,000.00	2016	$ 1,010,898.00		$ (10,898.00)
$ 2,500,000.00		$ 2,499,427.00		$ 573.00

Town of Seekonk
Capital Project Distribution By Fiscal Year
2017-2021
May 30, 2012

Building:	Town hall	F. Yr	Library	F. Yr	Public Safety	F. Yr	Martin	F. Yr	Pleasant	F. Yr	Hurley	F. Yr	North School	F. Yr	Aitkin	F. Yr	High School	F. Yr
	$ 13,863.00	20	$ 132,798.00	20	$ 41,508.00	20	$ 77,084.00	17	$ 85,377.00	19	$ 44,508.00	20	$ 205,586.00	19	$ 464,932.00	21	$ 34,421.00	17
			$ 5,508.00	20			$ 66,338.00	18			$ 87,463.00	18			$ 42,231.00	20	$ 516,970.00	17
							$ 38,875.00	20			$ 331,591.00	21					$ 122,994.00	19
							$ 61,497.00	19			$ 50,000.00	20					$ 46,890.00	17
							$ 591,362.00	21									$ 21,265.00	20
																	$ 21,492.00	18
																	$ 974,802.00	18
Total:																		
$ 5,571,095.00	$ 13,863.00		$ 138,306.00				$ 835,156.00		$ 85,377.00		$ 513,562.00		$ 1,738,834.00		$ 507,163.00		$ 1,738,834.00	

	Amount	F. YR	Actual Amount		Difference
	$ 700,000.00	2017	$ 675,365.00		$ 24,635.00
	$ 1,125,000.00	2018	$ 1,150,095.00		$ (460.00)
	$ 500,000.00	2019	$ 475,454.00		$ 24,086.00
	$ 400,000.00	2020	$ 390,556.00		$ 33,530.00
Sub-Total	$ 2,725,000.00		$ 2,691,470.00		$ 33,530.00
	$ 1,355,000.00	2021	$ 1,387,885.00		$ 645.00
Total	$ 4,080,000.00				

Roofs		Boilers		Ventilators		Phones	
$ 66,338.00		$ 205,586.00		$ 591,362.00		$ 61,497.00	
$ 87,463.00		$ 85,377.00		$ 331,591.00		$ 122,994.00	
$ 21,492.00				$ 464,932.00			
$ 974,802.00							
$ 1,150,095.00	2018	$ 290,963.00	2019	$ 1,387,885.00	2021	$ 184,491.00	2019

Cabinets/Sinks		Paint/GWB		Carpet/VCT		Other	
$ 13,863.00		$ 5,508.00		$ 132,798.00		$ 34,421.00	
$ 42,231.00		$ 41,508.00		$ 50,000.00		$ 516,970.00	
$ 21,265.00		$ 38,875.00				$ 46,890.00	
		$ 44,508.00				$ 77,084.00	
$ 77,359.00	2020	$ 130,399.00	2020	$ 182,798.00	2020	$ 675,365.00	2017

CAPITAL IMPROVEMENTS TOWN OF SEEKONK, MA. May 30, 2012

PRIORITIES & KEY

1 or 1A	Current Critical
2	Potentially Critical
3	Necessary-Not yet Critical
4	Recommended
G	Grandfathered
M	Maintenance

Grouping: Items that can be bid as a package.
Sub-Priority: Importance within the Priority Category
Cost: Cost of the work

		TOWN HALL				LIBRARY				COUNTY STREET FH.				PUBLIC SAFETY				DPW GARAGE			
		Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping
LIFE SAFETY	Add Fire Rated Doors at Stairs																				
	Add Emergency Lighting									$ 13,595.00											
	Add Exit Signs									$ 3,398.00											
	Upgrade Fire Alarm System	$ 17,512.00	2013			$ 133,933.00	2016			$ 11,330.00								$ 85,697.00			
	New Fire Alarm System																				
	New Fire Sprinkler System																	$ 78,806.00			
	Add Fire Walls																	$ 36,886.00			
	Update Security System									$ 24,699.00											
HEALTH	Replace Sinks																				
	Plumbing Improvements																				
ADA	Correct Stair Nosings																				
	Replace Handrails on Stairs																				
	Kitchen Cabinet Modifications	$ 13,863.00	2020																		
	Correct Door Hardware																				
	Correct Door Size																				
	Correct Toilet Room																				
	Ramps Required	$ 5,064.00																			
	Widen Hallways																				
	Overall ADA Upgrade					$ 85,560.00	2014			$ 56,557.00								$ 75,616.00			
	Remove and Replace Lift																				
	Replace Sinks / Counter																				
SITE	Replace Paving and Curbs									$ 155,857.00								$ 152,220.00			
	New Drainage									$ 81,817.00								$ 133,077.00			
	Slope Grades away from Building	$ 8,454.00	2013																		
	Repair Paving and Curbs													$ 8,180.00							
	Fill Cracked Pavement																				
	Repair Curbing																				
	Replace Drainage Pipes																				
	Tree & Shrub Pruning / Removal	$ 1,889.00																			
EXTERIOR	Roof Modifications					$ 161,316.00	2016							$ 4,573.00							
	New Roofing																				
	Add Roof Drains																				
	Cover Foundation Insulation	$ 49,043.00																			
	Replace Siding																				
	Refinish Exterior									$ 64,913.00								$ 379,237.00			
	Clean And Seal CMU																				
	Repair Chimney																				
	Repaint Cupola																				
	Repointing Required																				
	Clean Brick/CMU																				
	Install Wider Fascia																				
	Repoint Window Sills																				
	Remove Window Glass and Replace																				
	Replace Glass Block																				
	New Building Mounted Site Lighting																				
	Remove/Replace Glazing Alternate																				
INTERIORS	Correct Attic Insulation	$ 5,649.00																			
	Correct Basement Flooding	$ 33,285.00																			
	Correct Wall Insulation																				
	Reconfigure Spaces																				
	Refinish Space									$ 841,554.00				$ 41,508.00	2020						
	Replace Carpeting					$ 132,798.00	2020														
	Repaint Spaces					$ 5,508.00	2020														
	Upgrade Phone System																				
	Refinish Wood Floors																				
	Patch Walls and Repaint																				
	Remove & Replace Tectum Panels																				
	Remove & Replace Plywd Ceiling																				
	New Clock System																				
	Replace Defective VCT Flooring																				
	Replace VCT Flooring																				
	Repaint and add Corner Guards																				
	Repair Floor																				
	Repaint Pool Structure																				
	Replace Stage Floor																				
	Replace 12x12 Ceiling Tiles	$ 29,199.00				$ 8,744.00															
ENERGY & WATER CONSERVATION	Replace Boiler(s)									$ 58,728.00								$ 74,981.00			
	New Generator																	$ 1,517.00			
	Replace Main Panelboard																	$ 70,573.00			
	Install Additional Outlets																				
	Upgrade Outlets & Older Elec Panels																				
	Replace Faucets and Flush Valves					$ 17,551.00								$ 43,875.00				$ 57,742.00			
	Replace HVAC Roof Top Unit					$ 328,483.00	2016														
	Replace HVAC Ventilators																				
	Update HVAC Control System																				
	Add Ventilation																				
	Upgrade Lighting	$ 210,037.00								$ 55,179.00								$ 109,223.00			
	Add Lighting Controls					$ 45,763.00								$ 87,584.00							
	Replace Gym Lighting																				
	Replace Steam Distribution Piping																				
	Replace Water Piping																				
	Convert to hydronic system vs steam																				
HAZARDOUS	Remove & Replace Floor Tile																				
	Remove & Replace 12x12 Ceiling Tile																				
	TOTALS PER BUILDING	$ 373,995.00				$ 919,656.00				$ 1,367,627.00				$ 185,720.00				$ 1,255,575.00			
ADDITION/ NEW CONSTRUCTION	Reconfigure / Expansion																				
	New Construction									$ 3,103,777.00								$ 7,772,478.00			

		ANIMAL SHELTER				MARTIN SCHOOL				PLEASANT ST. SCHOOL				HURLEY SCH00L				NORTH SCHOOL				AITKIN SCHOOL				HIGH SCHOOL			
		Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping
LIFE SAFETY	Add Fire Rated Doors at Stairs																	$ 54,561.00	2016										
	Add Emergency Lighting	$ 5,534.00																											
	Add Exit Signs	$ 1,108.00																											
	Upgrade Fire Alarm System	$ 3,691.00																											
	New Fire Alarm System																												
	New Fire Sprinkler System									$ 321,023.00																			
	Add Fire Walls																												
	Update Security System					$ 25,715.00	2015																			$ 24,197.00	2016		
HEALTH	Replace Sinks	$ 10,318.00				$ 55,988.00	2015																						
	Plumbing Improvements	$ 22,716.00																											
ADA	Correct Stair Nosings																												
	Replace Handrails on Stairs																												
	Kitchen Cabinet Modifications																												
	Correct Door Hardware																												
	Correct Door Size																												
	Correct Toilet Room																												
	Ramps Required																												
	Widen Hallways																												
	Overall ADA Upgrade	$ 16,604.00								$ 308,017.00								$ 574,724.00											
	Remove and Replace Lift									$ 43,727.00																			
	Replace Sinks / Counter																					$ 42,231.00	2020			$ 21,876.00	2020		
SITE	Replace Paving and Curbs					$ 127,084.00	2015/20			$ 373,945.00								$ 383,586.00											
	New Drainage									$ 151,464.00								$ 1,472.00											
	Slope Grades away from Building																												
	Repair Paving and Curbs													$ 4,614.00								$ 5,192.00				$ 152,422.00	2016		
	Fill Cracked Pavement																												
	Repair Curbing																												
	Replace Drainage Pipes																									$ 46,890.00	2017		
	Tree & Shrub Pruning / Removal																									$ 21,265.00	*		
EXTERIOR	Roof Modifications	$ 46,930.00				$ 66,338.00	2018							$ 87,463.00	2018			$ 103,903.00								$ 21,492.00	2018		
	New Roofing	$ 324,177.00																				$ 195,642.00	2015			$ 974,802.00	2018		
	Add Roof Drains													$ 7,996.00	2013														
	Cover Foundation Insulation																												
	Replace Siding																	$ 44,626.00	2016										
	Refinish Exterior																												
	Clean And Seal CMU					$ 258,140.00																							
	Repair Chimney									$ 141,567.00																$ 42,806.00	2016		
	Repaint Cupola									$ 4,564.00																			
	Repointing Required																												
	Clean Brick/CMU																	$ 129,071.00				$ 66,071.00							
	Install Wider Fascia																					$ 10,951.00	2015						
	Repoint Window Sills																					$ 1,370.00	2015						
	Remove Window Glass and Replace																	$ 206,830.00				$ 315,731.00	2015 Partial						
	Replace Glass Block													$ 351,758.00	2013 Partial														
	New Building Mounted Site Lighting																												
	Remove/Replace Glazing Alternate																	$ 12,058.00											
INTERIORS	Correct Attic Insulation																												
	Correct Basement Flooding																												
	Correct Wall Insulation	$ 83,749.00																											
	Reconfigure Spaces																												
	Refinish Space	$ 59,504.00																											
	Replace Carpeting																	$ 54,417.00											
	Repaint Spaces					$ 38,875.00	2020																						
	Upgrade Phone System					$ 61,497.00	2019																			$ 122,994.00	2019		
	Refinish Wood Floors									$ 19,252.00																			
	Patch Walls and Repaint									$ 35,854.00																			
	Remove & Replace Tectum Panels									$ 8,511.00								$ 49,934.00											
	Remove & Replace Plywd Ceiling									$ 9,988.00	2014																		
	New Clock System									$ 61,963.00								$ 124,674.00											
	Replace Defective VCT Flooring																												
	Replace VCT Flooring													$ 368,876.00	2020 Partial														
	Repaint and add Corner Guards													$ 44,508.00	2020														
	Repair Floor																	$ 820.00											
	Repaint Pool Structure																									$ 180,127.00			
	Replace Stage Floor																									$ 103,113.00	2014		
	Replace 12x12 Ceiling Tiles																												
ENERGY & WATER CONSERVATION	Replace Boiler(s)									$ 85,377.00	2019			$ 365,803.00	2013			$ 205,586.00	2019										
	New Generator	$ 29,546.00				$ 60,883.00	2015																						
	Replace Main Panelboard	$ 8,990.00																$ 561,951.00											
	Install Additional Outlets	$ 14,759.00																											
	Upgrade Outlets & Older Elec Panels									$ 308,017.00																			
	Replace Faucets and Flush Valves					$ 199,186.00				$ 73,121.00				$ 264,610.00				$ 146,844.00								$ 372,199.00			
	Replace HVAC Roof Top Unit																												
	Replace HVAC Ventilators					$ 591,362.00	2021							$ 331,591.00	2021							$ 464,932.00	2021						
	Update HVAC Control System					$ 629,420.00								$ 842,239.00				$ 466,162.00								$ 68,554.00	2016		
	Add Ventilation													$ 39,358.00	2013														
	Upgrade Lighting	$ 17,969.00																											
	Add Lighting Controls					$ 232,436.00				$ 86,060.00								$ 172,151.00				$ 158,986.00							
	Replace Gym Lighting									$ 57,541.00																			
	Replace Steam Distribution Piping													$ 714,397.00															
	Replace Water Piping																												
	Convert to hydronic system vs steam									$ 249,835.00																			
HAZARDOUS	Remove & Replace Floor Tile					$ 106,948.00	2014											$ 187,087.00								$ 193,248.00	2014		
	Remove & Replace 12x12 Ceiling Tile					$ 126,741.00																							
	TOTALS PER BUILDING	$ 645,595.00 *				$ 2,580,613.00				$ 2,339,826.00				$ 3,423,213.00				$ 3,480,457.00				$ 1,261,106.00				$ 2,345,985.00			
ADDITION/ NEW CONSTRUCTION	Reconfigure / Expansion																									$ 34,421.00	2017		
	New Construction																									$ 516,970.00	2017		

*Roofing shows alt. approaches

PRIORITIES & KEY

1 or 1A	Current Critical
2	Potentially Critical
3	Necessary-Not yet Critical
4	Recommended
G	Grandfathered
M	Maintenance

Grouping: Items that can be bid as a package.
Sub-Priority: Importance within the Priority Category
Cost: Cost of the work

TOTALS:

$ 54,561.00	Add Fire Rated Doors at Stairs	LIFE SAFETY
$ 19,129.00	Add Emergency Lighting	
$ 4,506.00	Add Exit Signs	
$ 252,163.00	Upgrade Fire Alarm System	
$ -	New Fire Alarm System	
$ 399,829.00	New Fire Sprinkler System	
$ 36,886.00	Add Fire Walls	
$ 74,611.00	Update Security System	
$ -	0	
$ 66,306.00	Replace Sinks	HEALTH
$ 22,716.00	Plumbing Improvements	
$ -	0	
$ -	Correct Stair Nosings	ADA
$ -	Replace Handrails on Stairs	
$ 13,863.00	Kitchen Cabinet Modifications	
$ -	Correct Door Hardware	
$ -	Correct Door Size	
$ -	Correct Toilet Room	
$ 5,064.00	Ramps Required	
$ -	Widen Hallways	
$ 1,117,078.00	Overall ADA Upgrade	
$ 43,727.00	Remove and Replace Lift	
$ 64,107.00	Replace Sinks / Counter	
$ -	0	
$ 1,192,692.00	Replace Paving and Curbs	SITE
$ 367,830.00	New Drainage	
$ 8,454.00	Slope Grades away from Building	
$ 170,408.00	Repair Paving and Curbs	
$ -	Fill Cracked Pavement	
$ -	Repair Curbing	
$ 46,890.00	Replace Drainage Pipes	
$ 23,154.00	Tree & Shrub Pruning / Removal	
$ -	0	
$ 492,015.00	Roof Modifications	EXTERIOR
$ 1,494,621.00	New Roofing	
$ 7,996.00	Add Roof Drains	
$ 49,043.00	Cover Foundation Insulation	
$ 44,626.00	Replace Siding	
$ 444,150.00	Refinish Exterior	
$ 258,140.00	Clean And Seal CMU	
$ 184,373.00	Repair Chimney	
$ 4,564.00	Repaint Cupola	
$ -	Repointing Required	
$ 195,142.00	Clean Brick/CMU	
$ 10,951.00	Install Wider Fascia	
$ 1,370.00	Repoint Window Sills	
$ 522,561.00	Remove Window Glass and Replace	
$ 351,758.00	Replace Glass Block	
$ -	New Building Mounted Site Lighting	
$ 12,058.00	Remove/Replace Glazing Alternate	
$ 5,649.00	Correct Attic Insulation	INTERIORS
$ 33,285.00	Correct Basement Flooding	
$ 83,749.00	Correct Wall Insulation	
$ -	Reconfigure Spaces	
$ 942,566.00	Refinish Space	
$ 187,215.00	Replace Carpeting	
$ 44,383.00	Repaint Spaces	
$ 184,491.00	Upgrade Phone System	
$ 19,252.00	Refinish Wood Floors	
$ 35,854.00	Patch Walls and Repaint	
$ 58,445.00	Remove & Replace Tectum Panels	
$ 9,988.00	Remove & Replace Plywd Ceiling	
$ 186,637.00	New Clock System	
$ -	Replace Defective VCT Flooring	
$ 368,876.00	Replace VCT Flooring	
$ 44,508.00	Repaint and add Corner Guards	
$ 820.00	Repair Floor	
$ 180,127.00	Repaint Pool Structure	
$ 103,113.00	Replace Stage Floor	
$ 37,943.00	Replace 12x12 Ceiling Tiles	
$ 790,475.00	Replace Boiler(s)	ENERGY & WATER CONSERVATION
$ 91,946.00	New Generator	
$ 641,514.00	Replace Main Panelboard	
$ 14,759.00	Install Additional Outlets	
$ 308,017.00	Upgrade Outlets & Older Elec Panels	
$ 1,175,128.00	Replace Faucets and Flush Valves	
$ 328,483.00	Replace HVAC Roof Top Unit	
$ 1,387,885.00	Replace HVAC Ventilators	
$ 2,006,375.00	Update HVAC Control System	
$ 39,358.00	Add Ventilation	
$ 392,408.00	Upgrade Lighting	
$ 782,980.00	Add Lighting Controls	
$ 57,541.00	Replace Gym Lighting	
$ 714,397.00	Replace Steam Distribution Piping	
$ -	Replace Water Piping	
$ 249,835.00	Convert to hydronic system vs steam	
$ 487,283.00	Remove & Replace Floor Tile	HAZARDOUS
$ 126,741.00	Remove & Replace 12x12 Ceiling Tile	
$ 20,179,368.00		
$ 34,421.00	Reconfigure / Expansion	ADDITION/ NEW CONSTRUSTION
$ 11,393,225.00	New Construction	
	0	

Town of Seekonk, MA

Capital Improvements to Town Buildings

Priorities are listed to the left of each item:

Priority **1** – Current Critical: Conditions in this category require immediate action to:

- Correct a cited safety hazard
- Stop accelerated deterioration
- Return a facility to operation

Priority **1A** – ADA Compliance

Priority **2** – Potentially Critical: Conditions in this category if not corrected soon may result in:

- Intermittent Operations
- Rapid Deterioration
- Potential Safety Hazards

Priority **3** – Necessary, not yet critical.
Conditions in this category require appropriate attention to preclude a predictable deterioration or potential downtime and possible damage and higher costs.

Priority **4** – Recommended.
Conditions in this category include items that represent a sensible improvement to existing conditions. They are not required for the most basic function of the facility, but will improve overall usability and/or reduce long-term maintenance costs.

Priority **G** – Grandfathered (does not meet current codes/standards).
Conditions in this category include items that do not conform to existing codes, but have been "grandfathered" in requiring no action at the current time. However, should substantial work be undertaken in contiguous areas, certain existing conditions may require correction.

Priority **M** – Maintenance items, not to be included in this project.

Town Hall

1 **FIRE ALARM** Fire alarm system should be expanded and or upgraded to add ADA approved notification devices it is believed that thru the addition of a booster panel this could be accomplished.

1A **CABINET ACCESS.** Combination kitchenette cabinets are not universally accessible and should be replaced with units with knee spaces.

1A **HANDICAPPED RAMPS.** Slope of walk to main entrance conforms to ADA, but there is no handicapped parking at this location. Handicapped parking is located adjacent to the driveway to the north-east entrance. The driveway is the only access for wheelchairs, but it is considered a ramp due to the ¾" per 1'-0" slope and requires landing due to its length. Driveway needs to be expanded to allow space to create a compliant ramp from the parking to the building.

4 **SITE GRADING.** Grade around Building slopes towards foundations; this can be corrected by re-grading to provide drainage to flow away from the building.

M **SITE PLANTINGS.** In reviewing the landscaping the following corrective measures are required for the plant materials:

South East corner of building: White birch overhangs roof and needs to be pruned back.
Rhododendrons are close to the building but will eventually need pruning.
North-West Entrance: White birch overhangs roof and need to be pruned back.
South-East of main entrance: Evergreen tree, overtime, will crowd out the flagpole and interfere with the building; Rhododendron at corner of building needs to be pruned back to improve shape.

4 **FOUNDATION INSULATION.** Polystyrene insulation is exposed at grade level and should be covered to prevent further deterioration.

3 **ATTIC INSULATION.** Over the years attic insulation has been shifted resulting in many locations without insulation. It is recommended that the voids be filled with blown-in insulation and then covered with batts.

3 **BASEMENT FLOODING.** The basement area has experienced flooding due to water ingress through the floor and the inability of the two sumps to handle the quantity of water. Even though this is a rare occurrence we recommend that an under floor drain be installed and connected to larger sump pumps.

Town Hall continued:

M **INTERIOR FINISHES.** Interior spaces are being painted (over vinyl wall covering) as manpower is available.

M **FLOOR COVERING.** Carpeting is in the process of being replaced.

4 **REPLACE CEILING TILES.** Ceiling tiles should be replaced in corridor areas.

4 **LIGHTING** The lighting systems are older and should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations or at a minimum have the lamping and ballasts upgraded in order to improve energy efficiency. (This could be accomplished thru currently available Utility company incentive programs at little or no cost) The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs. Areas such as the main entrance are too dark and require additional fixtures.

Library:

OBSERVATION. The building is constructed on a former landfill. The south west corner exhibits some settlement (approximately ¼ inch). Over 37 years of the buildings life this is minimal and we do not recommend any action at this time.

2 **FIRE ALARM** Fire alarm system is older and does not conform to current standards and should be replaced or at a minimum annunciation devices should be upgraded to meet current standards which will require the addition of a booster panel to drive the devices.

1A **OVERALL ADA UPGRADE.** The building needs to be upgraded for ADA. For example, doors have knob sets, kitchenette sink has no knee space, coat rack is too high, periodical are shelved too high etc.

3 **ROOFING MODIFICATIONS.** The roof of the building has a good slope but drains to openings in the parapet walls on the east end, where gutters collect the run-off. These gutters freeze in winter and require the use of heat tape with extension cords run across the roof. We recommend that the white EPDM roof be modified to provide roof drains with crickets to replace the gutters. The openings in the parapet would be closed up and overflows provided.

3 **REPLACE CARPET.** Carpeting should be replaced. It is very well worn particularly at doorways.

4 **REPAINT SPACES.** Meeting room is a very dull space and should be redecorated.

M **PLUMBING: REPLACE FAUCETS AND FLUSH VALVES** with automatic units as a water conservation measure.

3 **REPLACE HVAC ROOF TOP UNIT** that has been problematic, has reached or are approaching the end of its useful life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating and cooling system.

3 **REPLACE HVAC CONTROLS SYSTEM** that has been problematic, in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating and cooling system.

4 **ADD LIGHTING CONTROLS** The addition of automated lighting controls should be implemented in order to save on energy costs.

4 **SPACE / CONFIGURATION ISSUES.** Children's room is very tight and requires picture books to be housed on 66 inch high shelves (should be 48 inch max). This would require an addition to correct.

County Street Fire House:

2 **EMERGENCY LIGHTING** units should be installed to ensure the safety of personnel in case of an emergency.

2 **EXIT SIGNS** should be added to ensure the safety of personnel in case of an emergency.

2 **FIRE ALARM** Fire alarm system should be expanded and or upgraded to add smoke detection devices for earlier detection of any problems.

3 **ADD SECURITY SYSTEM.** There is no security system for the building.

1A **OVERALL ADA UPGRADE** is required for the building.

1 **SITE PAVING.** The parking lot needs to be totally repaved. Curbs should be added. Landscaping should be added to reduce run-off from site and supplemented a drainage system.

1 **NEW DRAINAGE SYSTEM** needs to be added for parking areas.

3 **REPLACE BUILDING MOUNTED SITE LIGHTING.** These fixtures are old and in fair/poor condition.

1 **REFINISH EXTERIOR.** All exterior materials on the building need to be refinished, repaired or replaced: Stone; wood siding, wood trim and roofing.

2 **REFINISH SPACE.** All interior materials are in poor condition and need to be replaced. The wood structure appears to be ok.

2 **HVAC** Some equipment such as the existing boiler have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

M **PLUMBING: REPLACE FLUSH VALVES** with automatic units as a water conservation measure.

4 **UPGRADE LIGHTING** The older lighting systems are should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations in order to improve energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs.

1 **RECOMMENDATION.** We need to know what the use would be if renovated. If it will remain a storage building we recommend that it be demolished and a new metal structure be erected. However, we do not believe that a metal building should be located in this residential neighborhood.

Public Safety:

. 4 **SITE PAVING.** Improvements to the site should include repairs to the pavement in two (2) specific areas. These areas
include the depression near the fire station and the area along the entrance road that has deteriorated.

. 4 **SPACE / CONFIGURATION ISSUES.** The computer room, including the 911 system is located under the stairs and appears to be functioning. This is a very tight space for such an important area. We recommend that a plan be established to provide additional space for this equipment to allow for expansion and proper servicing.

. 4 **RECONFIGURE & FINISH ATTIC SPACE.** The unfinished Attic space is used as a work-out room. The walls are formed by the sloping roof and the wood rafters, insulation and polyethylene vapor barrier are exposed to this space. There is one egress stair from this level, and at the time of the visit doors on the first floor were held open with door mounted hold-open devices. It is imperative that these devices be removed to provide a safe exit passage from the upper level.
We recommend that the entire attic space be finished with gypsum wall-board and painted. It will be necessary to include some acoustical material within the space to control reverberation. The storage area at the other end of the attic should be walled off and a door provided.
Sprinklers need to be modified to be within 30" of peak.

? **ROOFING SYSTEM.** The roof was questioned. Heat tape has been added to the rear of the building to control ice dams and associated leaks. We question if ice and water shield was included for the roof and whether or not adequate nailing was installed for the asphalt shingles. Drawings indicate ice and water shield but not on roof overhangs. Numerous bird mouths are visible especially at roof penetrations. We were able to examine a number of shingles to determine if there was any noticeable deficiency that could explain why the shingles have been previously blown off the roof. In the area examined all of the nails had been overdriven with too much pressure in the nail gun. The heads had penetrated the first layer of each of the shingles which could result in shingles being blown off. Shingles had five nails, but some were located in the joint between shingles. GAF, a leading manufacturer recommends four nails per shingle in one hundred and ten miles per hour wind zones. It was also noted that they do not guarantee the shingles against hurricane force winds. The area of roof investigated was relatively small, but we believe it could be an indication of the installation quality throughout the roof. We suggest that a bucket lift be used to examine shingle nailing throughout the roof to determine the extent of the over driven nailing.

. M **PLUMBING** Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure.

. 4 **LIGHTING** Motion sensor lighting controls should be added as a conservation measure and to conform to current codes.

DPW Garage:

2 **EMERGENCY LIGHTING** units should be installed to ensure the safety of personnel in case of an emergency.

2 **EXIT SIGNS** should be added to ensure the safety of personnel in case of an emergency.

2 **FIRE ALARM** Fire alarm system should be expanded and or upgraded to add detection devices for earlier detection of any problems. Existing exits and emergency lighting units should be replaced to ensure the reliability of these systems in case of an emergency.

4 **FIRE SPRINKLER SYSTEM.** There is no fire sprinkler system,

4 **ADD FIRE WALLS.** There are currently no firewalls between the various uses. The wood structure is exposed in the garage areas.

1A **OVERALL ADA UPGRADE.** Restrooms, in general, do not provide for privacy and are not ADA compliant. Hallways are narrow and not ADA accessible. Multiple levels exist throughout building and are not ADA accessible.

2 **SITE PAVING.** Improvements to the property should include adjustments to the layout of the parking areas to include more landscape areas and better defined curb cuts. The pavement on the site should be replaced.

2 **NEW DRAINAGE.** A drainage system should be installed that is compliant with local and state regulations when the paving work is done.

3 **REFINISH EXTERIOR.** The building is aesthetically unsatisfactory. Random mixes of exterior materials provide a patched appearance. A unifying exterior treatment is required.

3 **SPACE / CONFIGURATION ISSUES.** Office spaces are crowded and lack adequate storage space for files and drawings. Garage areas are crowded and work conditions are antiquated. Many vehicles have to be stored outside year round. See recommendation below.

3 **HVAC** Some equipment such as the unit heaters in the equipment bays and the existing boiler have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

1 **GENERATOR** The existing emergency generator should be reviewed to determine the cause of the previous problems to determine if the unit can be repaired and or requires replacement.

DPW Garage continued:

3 **ELECTRICAL** The older distribution equipment (panel boards) should be replaced with newer equipment with additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry.

3 **PLUMBING** Replacement of faucets to automatic units should be implemented as a water conservation measure.

4 **LIGHTING** The lighting systems are older and should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations in order to improve energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs.

3 **PLUMBING** The older piping systems were noted as experiencing ongoing leaks and should be replaced.

2 **RECOMMENDATION**. Recommendation is to demolish the building and construct a new facility. Photovoltaic panels can be easily relocated to the new facility.

Animal Shelter:

2 **EMERGENCY LIGHTING** Emergency lighting and exit units should be added to ensure the safety of personnel and animals in case of an emergency.

2 **EXIT SIGNS** should be added to ensure the safety of personnel in case of an emergency.

2 **FIRE ALARM** Fire alarm system should be expanded and or upgraded to add detection devices for earlier detection and notification. A central system tie-in should also be provided.

2 **REPLACE SINKS.** The concrete block mop sink should be replaced with a manufactured unit with tiled walls and a faucet with a vacuum breaker.

2 **PLUMBING IMPROVEMENTS.** Replacement of existing older plumbing fixtures should be enacted and coordinated with ADA compliance. Ideally all gray water from sinks and washer should be in a closed drainage system instead of being released into the mop sink. The animal bath is serviceable, albeit old.

2 **SPACE / CONFIGURATION ISSUES.** The office area of the building is overcrowded. Animal cage banks (cats) have had to be located in office and work areas due to space restrictions but should have their own separate space. The medical station that currently consists of a small table is grossly inadequate. Any available space within the building and the two out buildings have had to be used as storage space. The plastic storage units should be removed. Separate storage spaces should be provided for animal food, medical supplies and general supplies. Out buildings are not accessible and should be limited to animal carriers, traps and similar non-perishable items. There is no separate space for the public. An expansion would be necessary to overcome these issues. Dog pens require natural light, but there are only two minimally sized windows into the entire space. Pens backing up to the fenced in outdoor area should have doors to allow dogs to go directly to the exterior.

1A **OVERALL ADA UPGRADE.** The building is not universally accessible. Issues include entrance door threshold height, doors have knobsets instead of levers, side clearance on doors, toilet room is too small and fixtures are not ADA compliant, no ramp down to dog pens and up to washer room, sink in washer room is too deep and does not have knee space. An addition would enable these problems to be solved as well. A ramp with a landing and handrails is needed at the wooden storage shed..

2 **ROOF.** The roof is ribbed metal and is 30 years old. The front additions roof panels extend under the original roof but the ribs do not align. T seal this are the original ribs were flattened at the

Animal Shelter continued**:**

intersection, and roofing cement, up to two inches thick was used to fill the gap. Every time someone walks on the additions roof, the roofing cement separates from the original providing a open path for leaks (these are evident on the interior). Vents for the unit heaters have recently been replaced. It is recommended that a rubber roof be installed over continuous insulation board covering on insulation board fitted between the ribs. New metal fascia and treated wood blocking would be added to the roof edge. Alternatively, new roof panels should be installed that extend over the addition. Additional blocking will be required at the purlins of the addition. The metal roof option would create a better tie in if an addition is constructed.

3 **CLIMATIC CONTROL.** Apart from minimal roof insulation it appears that there is none in the walls. Metal panels should be removed and spray foam installation installed in the walls. Insulation in the roof can be improved when roofing issues are addressed. The heat sources (electric radiation) appear to be inadequate to provide a comfortable environment in the office spaces. A new HVAC system should be installed.

4 **REFINISH SPACES.** Interior partition finishes should be changed and upgraded to fiberglass panels throughout.

2 **GENERATOR** It is recommended that a generator be added for the building. The building is used 24 hours a day, every day to house animals, medical vaccines, and food supplies that can spoil at low temperatures. The Animal Warden needs to be able to use the building at any time, and currently relies on a small flashlight during power outages.

3 **REPLACE MAIN PANEL BOARD** The Electrical systems appear to be in good condition however the main panelboard should be replaced with newer equipment with additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry.

3 **INSTALL ADDITIONAL ELECTRICAL OUTLETS.** Outlets are only available in plug strips tied back to the electrical panel. Outlets should be added throughout the building.

4 **LIGHTING** The lighting systems are older and should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations in order to improve energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs.

1 **RECOMMENDATION.** To overcome the space and configuration needs an addition should be added to the building

Capital Improvements to School Buildings

Martin School:

M **SECURITY SYSTEM.** The security system should be evaluated for replacement and/or upgrade in order to resolve its current condition and in order to add the desired additional CCTV cameras at the outside locations.

M **PLUMBING.** There are two Bradley multi-user sinks are well worn and, as a result, are difficult to clean. These should be replaced with units similar to the newer multi-user sinks in the school.

3 **SITE PAVING.** The front of the building requires repaving, replacing curb, and installing drainage system that complies with local and state regulations.

2 **ROOFING SYSTEM.** Roofs are relatively new (2003) but there are significant areas of ponding. Most noticeable is the cafeteria where the roof drains are high. Scuppers also hold water. Introducing crickets in the low points of the roof will do much to eliminate the ponding.

3 **EXTERIOR MASONRY.** Concrete masonry units (CMU) are badly soiled and moss is growing on ledges. We recommend that the CMU be cleaned and a sealer applied to wall to reduce future soiling.

3 **REPAINT SPACES.** The multi-color paint used in the hallways of the older section of the building is in bad shape and should be replaced. We recommend single color paint for ease of maintenance.

M **UPGRADE PHONE SYSTEM.** It was noted that the main phone switch has been problematic and should be replaced.

2 **GENERATOR** The current generator is old and although old is functioning well, it does serve the life safety needs of the school therefore, replacement should be considered.

M **PLUMBING.** Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure.

3 **HVAC SYSTEM.** Replace remainder of unit ventilators. These have reached their life expectancy.

Martin School continued**:**

. 4 . **HVAC SYSTEM CONTROLS.** An upgrade to the control system to the next version should be considered to get the schools all on the same platform and allow control and monitoring from a central location.

. 4 . **LIGHTING CONTROLS.** The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs.

. 1 . **FLOORING SYSTEM / HAZ MAT CONCERN.** 9x9 Vinyl floor tile exists in the cafeteria. We suspect that either the tile or the adhesive contains asbestos.

. 1 . **12x12 CEILING TILES / POTENTIAL HAZ MAT CONCERN.** 12x12 ceiling tiles exist in the cafeteria. Often these tiles are secured with glue that contains asbestos. The tiles are also difficult to work with if maintenance is required and generally have a poor appearance.

Pleasant Street School:

G **FIRE PROTECTION.** A fire protection system (sprinklers) should be installed at the time of any future renovations.

1A **ACCESSIBILITY.** There are many ADA violations throughout the building. For example; knob sets on doors, projecting nosings on stairs; large diameter handrails without extensions.

1A **ACCESSIBILITY.** Wheelchair lift on stairs could block the stairs in case of emergency egress from the building and should be removed and replaced with a vertical lift.

1 **SITE PAVING.** Virtually all of the pavement on the property should be replaced. Curbing improvements should be installed throughout the site to provide more defined curb cuts onto Pleasant Street.

1 **SITE PAVING.** A drainage system should be installed that complies with local and state regulations.

1 **CHIMNEY REPAIRS.** The Chimney needs to be reconstructed. It has lost its cap and is badly cracked.

M **EXTERIOR FINISHES.** Cupola needs to be repainted.

M **INTERIOR FINISHES.** Wood floors need sanding and refinishing.

M **INTERIOR FINISHES.** There are many cracks in the plaster walls that should be patched and the walls repainted.

2 **INTERIOR FINISHES - GYMNASIUM.** Tectum wall panels in gymnasium are badly damaged and need to be replaced. Space should also be repainted.

1 **INTERIOR FINISH.** Plywood ceiling at top of ramp should be replaced with painted gypsum board.

4 **CLOCK SYSTEM.** There is no clock system in the building and a new system should be installed.

2 **HVAC.** Some equipment such as the existing boiler are 30+ years old and have exceeded their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system. Steam traps should be

Pleasant Street School continued:

examined to determine if repair or replacement is required to ensure the efficiency of the heating system.

. 2 . **ELECTRICAL SYSTEMS.** Electrical devices throughout the building are old and should be replaced. Older electrical panels should be replaced.

. M . **PLUMBING.** Faucets and flush valves all should be replaced with automatic units as a water conservation measure.

. 4 . **AUTOMATIC LIGHTING CONTROLS.** The addition of automated lighting controls should be incorporated throughout in order to meet current energy codes and to save on energy costs.

. 4 . **GYMNASIUM LIGHTING.** Gymnasium lighting is halogen without an early strike and should be replaced or supplemented with an instant on lighting source.

Hurley Middle School:

4 **SITE PAVING** Improvements would consist of repairing curb where necessary and pavement repair along the emergency access road.

3 **ROOFING SYSTEM.** The EPDM roof over the 1974 addition was badly ponded and should be redesigned to add crickets to improve drainage. The EPDM membrane is dated 1992 and is installed over 2" poly-isocyanurate insulation over the original built up roof consisting of gravel on 4 ply asphalt built-up roofing on 1 ½" fiberglass insulation on metal deck. The joints in the roof had been re-taped approximately four years ago.

2 **ROOF DRAINAGE.** The roof over the main entrance canopy has a 25" high parapet on all sides creating a bath tub. Water ponds in the center of the roof . There is only one roof drain. An overflow needs to added to this roof as a serious condition would occur if the drain was ever blocked.

2 **GLASS BLOCK WALLS.** The glass block wall above the roof that opens into the library has been patched with non-matching blocks when breakage has occurred. Joints in the block are open allowing water to find its way to the masonry wall below causing severe spalling. Glass block and low masonry should be replaced with an insulated Kalwall system that will greatly improve energy efficiency. Masonry should be replaced with brick with a metal sill at the base of the Kalwall.

3 **FLOORING FINISHES.** Throughout the hallways the VCT is defective leaving extra wide joints between tiles. This is a problem for keeping the floors clean as dirt collects in the wide joints. Some areas have been replaced but much is still left to replace.

3 **FLOORING FINISHES.** There are a number of areas, primarily the front and rear lobbies, where vinyl composition tiles have cracked edges and should be replaced.

3 **INTERIOR WALL FINISH.** Corridors in the 1974 wing need painting. There is much wear on the corners of walls; with the addition of corner guards this could be resolved.

M **PLUMBING** Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure.

3 **HVAC.** The unit ventilators in the classrooms, which have not already been replaced (approximately 50%) in the 1997 renovation have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

4 **UPDATE HVAC CONTROL SYSTEM.** Pneumatic controls should be replaced with digital controls matching the systems in the other schools.

Hurley Middle School continued:

. 2 . **ADD VENTILATION.** Music Room routinely overheats and should be provided with a separate RTU.

. 3 . **HVAC.** It was noted that the steam distribution piping feeding the original building is in poor condition and should be replaced.

. 2 . **ADD AIR CONDITIONING.** Music Room routinely overheats and should be provided with a separate RTU.

North School:

2 **ADD FIRE RATED DOORS.** Doors to egress stairs are not fire rated and should be replaced with 1 hour fire rated assemblies with closers.

1A **ACCESSIBILITY.** There are numerous ADA violations; for example, projected nosings on stairs, oversized handrails without extensions, and door jamb clearance issues. The building needs an overall upgrade to resolve compliance issues.

3 **SITE PAVING.** Bituminous paving around building is badly cracked and in areas should be replaced Sidewalks should be patched at curbing to remove tripping hazard.

3 **DRAINAGE.** The storm water leaching pits should also be inspected and replaced if necessary. Drainage system improvements should also be installed to comply with local and state regulations.

1 **ROOFING SYSTEM.** There are two systems for the flat roofs; ballasted (on the north side 1992) and fully adhered (on the remaining areas 1991). The ballasted roof appears to be in good shape, but foot traffic must continue to be minimized as many of the stones have sharp edges and no walk-ways are provided. The fully adhered EPDM roofs consist of EPDM membrane adhered to ½" fiberboard on 3" poly-isocyanurate insulation. Insulation is secured with 5" long plastic fasteners into gypsum deck. Wind loading has caused a number of fasteners to pull out of the deck leaving the membrane stretched over the fastener heads. This is a critical situation that could result in major damage in a high wind situation. Apart from the failure of the fasteners the roof is in good condition but seams are deteriorating and should be recovered. **REPAIR WORK HAS BEEN COMPLETED**

2 **SIDING.** The siding (assumed to cover previous clerestory windows) above the roof is badly deteriorated and should be replaced with a material that does not required maintenance.

4 **MASONRY.** Brick, on the north side needs to be cleaned to remove moss.

4 **WINDOW GLAZING.** Many windows are glazed with polycarbonate on the exterior and glass on the interior and, overtime, have become obscure. There are a number of options starting with total replacement to just replacement of the center section of polycarbonate. Units could also be replaced with low-E glazing to improve both visibility and energy efficiency. Our recommendation is to replace only those windows that open into staff workrooms.

North School continued:

. 2 . **FLOOR FINISHES.** Carpeting in the classrooms and library need to be replaced. (Also has bad mildew odor).

. 4 . **WALL FINISHES.** Corridor walls in the east portion of the building should be re-painted.

. 4 . **CEILING SYSTEM.** Tectum ceiling panels are drab and should be replaced with acoustical ceiling panels.

. 4 . **CLOCK SYSTEM.** A new clock system should be installed to replace the existing system which is non-functional at this point.

. 2 . **FLOOR FINISHES.** Rubber flooring between original building and east wing needs to be removed, the floor below repaired and new flooring installed.

. 2 . **HVAC.** The boilers (one having exceeded its life expectancy and the other current at the end of it) should both be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

. 2 . **ELECTRICAL SYSTEM.** Original electrical panels should be replaced.

. M . **PLUMBING** Faucets and flush valves all should be replaced with automatic units as a water conservation measure.

. 3 . **UPDATE HVAC CONTROLS SYSTEM.** The pneumatic control system should be upgraded to digital. (Pneumatic control panel is new).

. 4 . **ELECTRICAL SYSTEM.** The addition of automated lighting controls should be incorporated in any areas not already covered in order to meet current energy codes and to save on energy costs.

. 1 . **FLOOR FINISHES / HAZ MAT CONCERN.** 9x9 vinyl floor tile is located in basement classrooms which currently are only used for storage. It probably contains asbestos and should be replaced.

Aitkin Elementary School:

1A **PLUMBING / ACCESSIBILITY.** Select sinks should be replaced with ADA compliant units including those in the classrooms.

3 **DRAINAGE.** A drainage system should be installed that would comply with local and state regulations

3 **SITE PAVING.** Improvements to the property would include some minor repairs to curbing and installation of a drainage system that would comply with local and state regulations. The depression in the secondary access from Rye Street should be repaired.

2 **ROOFING SYSTEM.** EPDM roofing on center section is 20 years old and has had some leaking problems. Slope is minimal and drainage to perimeter scuppers poor. There is much ponding as water cannot get to scuppers. The roof consists of a fully adhered EPDM membrane on 1 ½" of poly-isocyanurate insulation on the original built-up roof comprised of gravel and 5 plies of asphalt roofing on a tectum deck. The insulation level (approx. R=14) is inadequate and should be increase for energy savings. The roof should be replaced with a tapered insulation system. Flashings at walls will need to be replaced and possibly raised.

The west canopy roof should also be replaced and a larger roof drain provided. Roof consists of EPDM on ½" fiberboard on 1" polystyrene on the original built-up roof comprised of gravel and 5 plies of asphalt roofing on a tectum deck.

4 **EXTERIOR MASONRY.** North wall CMU of school is badly soiled and should be cleaned and sealed to reduce further soiling.

2 **EXTERIOR MASONRY.** Below fascia of new wing there is damaged brick around regularly spaced fasteners. A new longer fascia should be installed over these fasteners to prevent further brick deterioration.

2 **MASONRY REPOINTING.** Window sills on the original building need to be re-pointed.

4 **WINDOW GLAZING.** Windows on original building are glazed with polycarbonate on the exterior and glass on the interior and, overtime, have become obscure. There are a number of options starting with total replacement to just replacement of the center section of polycarbonate. Sections should be replaced with low-E glazing to improve both visibility and energy efficiency. We recommend the replacement of the center section of glazing.

Aitkin Elementary School continued**:**

3 **HVAC.** Unit ventilators in the classrooms of the older wing which have not already been replaced have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

4 **LIGHTING CONTROLS.** The addition of automated lighting controls should be added in any areas not already covered, in order to meet current energy codes and to save on energy costs.

1 **STORAGE.** There is a lack of custodial storage in the building such that cardboard boxes are stored adjacent to the boilers. A separate building or addition should be provided for storage space.

High School:

M **CONTROLS.** The security system should be upgraded to allow for additional security cameras.

1A **PLUMBING / ACCESSIBILITY.** Select sinks should be replaced with ADA compliant units including those in the classrooms.

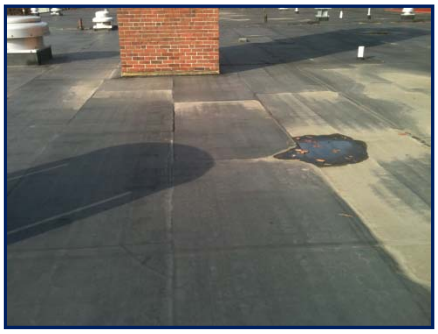
3 **SITE PAVING.** Improvements to the site would be limited to sidewalk, curbing, and some select pavement improvements.
Curbing should be replaced in areas where the curb reveal along sidewalks is less than 4 inches. These areas occur along the eastern side of the school. The areas of pavement that have depressed and hold water after rain events should be repaired to allow them to drain.

3 **DRAINAGE SYSTEM.** Terracotta drains running through courtyard occasionally are blocked by roots and need to be routed out. They are currently functioning but need to be replaced.

3 **TREES.** Some trees will need to be removed from the courtyard in the course of the drainage work, and to reduce those overhanging roof areas. One tree on the south side of the building should also be removed as it is too close to the building.

2 **CHIMNEY.** Chimney needs re-pointing.

3 **ROOFING FLASHINGS.** Roof flashings are very low to roof, however, some sections do leak during intense rain. Some sections do not have a cap flashing but rely on sealant to achieve water-tightness. Possible correction would require brick removal and relocation of through-wall flashing to raise cap flashing to appropriate height. Alternatively a new metal flashing could be designed to bridge over the flashing a create a pressure equalization chamber to reduce wind pressure on the flashing and allow the cavity wall to drain.



3 **ROOFING SYSTEM.** EPDM roof in areas is over 20 years old and insulation board joints are telegraphing through membrane. The roof consists of fully adhered EPDM on 2 1/2" poly-isocyanurate secured with foamed adhesive to 4 ply asphalt built-up roofing on gypsum deck. Significant gaps +/- 1" exist between the insulation boards. These are partially filled with the spray adhesive. These sections should be re-roofed with tapered insulation. Flashings at walls will need to be raised.

2 **ROOFING STRUCTURE.** Roof structure over the pool needs to be re-painted. It is noted that there are only two weeks during the summer when the pool is typically not being used.

2 **STAGE FLOORING SYSTEM.** Stage floor needs to be replaced as it can no longer be refinished.

High School continued:

M **PLUMBING.** Replacement of flush valves on toilets and urinals to automatic units should be implemented as a water conservation measure.

M **CONTROLS.** The HVAC controls system should have a programming upgrade to allow for remote control of system.

4 **COURTYARD ACCESS.** Currently the only access to the courtyard is via the corridors in the school. Any maintenance equipment has to pass through the school and similarly any debris from the courtyard has to be carried through the school. It is recommended that the small classroom (CURRENTLY USED BY South Coast Collaborative) in the north-east corner of the courtyard be eliminated to provide a direct access point from the exterior to the courtyard. With oversized doors small equipment could be driven into the courtyard.

1 **MAINTENANCE STORAGE.** Maintenance equipment is currently stored in a former chicken coop. The space is not adequate and the exterior siding is badly deteriorated. It is recommended that this building be replaced with a building more suited to the storage and access to the maintenance equipment.

* * *

Mechanical and Electrical Systems
Existing Conditions Narrative

Seekonk Town Hall
Seekonk, Massachusetts

September 15, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.00

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
   a. Existing Domestic Water Service: The existing building is currently served by a 1 ½" inch domestic water service located within the water service room which also houses the sprinkler service. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Facilities domestic water needs. The water distribution system is original to the building.
2. Natural Gas:
   a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the HVAC equipment. This service enters the rear of the building at the boiler room.
3. Sanitary:
   a. Existing Sanitary Service: The facilities sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the building. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.
4. Fuel Oil:
   a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:
   - Water closets are floor and wall mounted; auto flush valve, vitreous china and are in very good condition

   - Urinals are wall mounted vitreous china, with auto flush valves and are in very good condition.
   - Lavatories are wall hung vitreous china. Faucets are a combination of the single lever handle type and are in very good condition.

   - Drinking fountains are surface mounted stainless steel units. Most appear to be ADA compliant, and are in good condition.
   - Janitor's mop sinks are wall mounted basins with 2-faucets and vacuum breakers. These basins are in very good condition.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The facilities domestic hot water is generated by a gas fired tank type water heaters. The unit appears new and in very good condition.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with all back flow prevention devices and fire alarm system monitoring. The system is provided by a 6" fire service which enters the front of the building in the water service room.

C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by a number of gas fired heat pumps located in the attic. These units are original to the building and appear to be in very good condition. They were noted by operating personnel to be operating problem free with no noted heating problems.

2. Air conditioning is provided via cooling coils provided in the attic mounted HVAC units which receive their cooling from an exterior mounted Electric chiller and condensing units.

3. The existing temperature controls in the building are via programmable electronic thermostats, these units appear in very good condition and are operating problem free.

4. The present Heating and Ventilating systems consist of a forced air system.

5. Exhaust systems servicing the facility utilize a supply air component within HVAC units.

6. A dedicated split system A/C unit is provided in the computer room.

D. **ELECTRICAL NARRATIVE**

APPLICABLE CODES AND STANDARDS

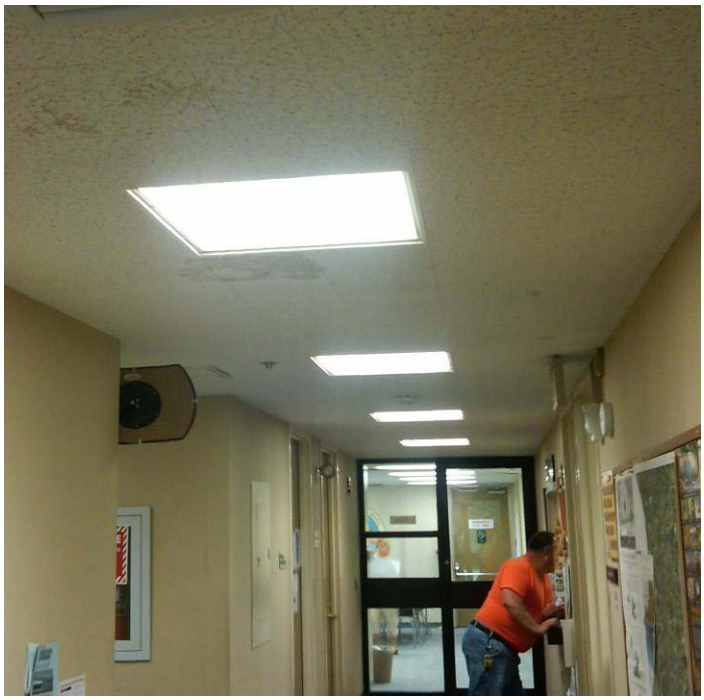
The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 400 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main electric room. The service equipment consists of utility company pole mounted transformers, an underground feed to utility metering equipment a 400amp main disconnect switch and distribution panel located in the main electric room. The predominance of the main distribution equipment service equipment is newer and in very good condition.

2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are newer Square D panels believed to be original to the facility. The condition of these panel boards is very good. The majority of the panel boards do have spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.
3. The lighting throughout the facility consists primarily of recess mounted 2x2 and 2x4 2-lamp and 4-lamp acrylic lensed fluorescent troffers. The lighting throughout the facility is older and in fair/good condition. The light levels appear to be within recommended levels. No automated lighting control was noted.



4. The fire alarm system is an FCI zoned system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors were noted in select areas including smoke detectors in the corridors. Annunciation devices were noted as not conforming to current codes in terms of intensity level requirements.

5. Site lighting is accomplished via building mounted wall packs and a number of pole mounted lights both appear to be in very good condition and utilize current LED lamping technology.
6. There is no on site emergency standby generation equipment.
7. Life safety emergency lighting is provided via emergency battery units with unit mounted light heads. Units appear to be in very good condition and to provide sufficient coverage.
8. Battery powered exit lighting is installed throughout; provides sufficient coverage and units are in good condition.

9. There is currently a Security system including magnetic contacts on all entry doors no motion sensors or CCTV cameras are included.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building (30+ years old), to as recent as 5-7 years old. Most systems appear to be in good or very good condition. HVAC systems all appear to be newer and are functioning without any noted problems.

Plumbing systems all appear to be newer in good working condition and utilize automated features as a water conservation measure.

The Electrical systems appear to be in good condition including service and distribution equipment all of which includes additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are older and should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations or at a minimum have the lamping and ballasts upgraded in order to improve energy efficiency. (This could be accomplished thru currently available Utility company incentive programs at little or no cost) The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs. Fire alarm system should be expanded and or upgraded to add ADA approved notification devices it is believed that thru the addition of a booster panel this could be accomplished. Existing exits and emergency lighting units are in good condition and provide adequate coverage in the event of an emergency.

Mechanical and Electrical Systems
Existing Conditions Narrative

Town Library
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. **PLUMBING NARRATIVE**

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
   a. Existing Domestic Water Service: The existing building is currently served by a 1-1/2" inch domestic water service located within the fire service room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the facilities domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.

2. Natural Gas:
   a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the Roof top unit and the hot water heater. This service enters the side of the building at the main mechanical room.
3. Sanitary:
   a. Existing Sanitary Service: The School's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the School. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.
4. Fuel Oil:
   a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:
   - Water closets are floor mounted; manual flush valve, vitreous china. Fixtures appear new and in very good condition.

   - Urinals are wall mounted vitreous china, with auto flush valves. Fixtures appear new and in very good condition.
   - Lavatories are wall hung vitreous china. Faucets are of the dual lever handle type. Fixtures appear to be new and in very good condition
   - Drinking fountains are surface mounted stainless steel units. Most appear to be ADA compliant, and are in good condition.

   - Janitor's mop sinks are wall mounted basins with 2-faucets and vacuum breakers. These basins are in good condition.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Schools domestic hot water is generated by a single 30 gallon gas fired tank type hot water heater which includes a recirculation pump. The unit appears newer and in good condition.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with all back flow prevention devices and fire alarm system monitoring.

C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated and cooled by a single packaged roof top unit. This unit is approximately 17 Years old Heating is furnished via gas. This unit was noted by operations personal as having ongoing maintenance issues. The physical condition of the unit appears fair for its age although it is approaching its life expectancy.

2. The present Heating Ventilating and Air Conditioning system consists of a ducted air supply and return system from a Trane packaged roof top unit. This single unit supplies all the HVAC needs of the facility

3. The existing temperature control system in the building is via a DDC system. This system is original to the facility and was noted as having had ongoing issues. It should be investigated as to if the controls system is the issue or if it is the issues with the roof top unit that are the problem.

D. **ELECTRICAL NARRATIVE**

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 800 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main mechanical room. The service equipment consists of utility company transformer, an underground feed to utility metering equipment an 800amp main disconnect switch and main distribution panel located in

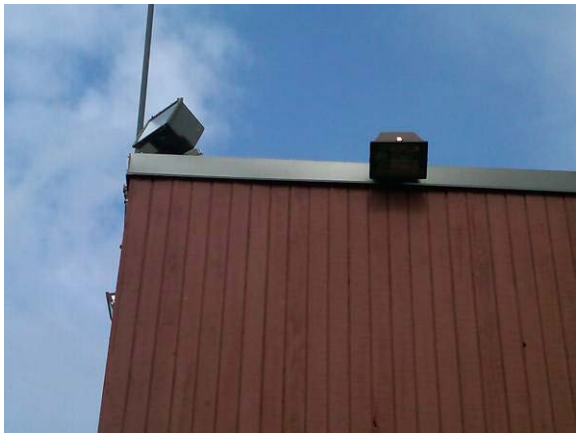
the mechanical room. The predominance of the main distribution service equipment is newer and in very good condition.

2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are newer Westinghouse panels believed to have been installed some time after the construction of the original building. The condition of these panel boards is very good. The majority of the panel boards have spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.
3. The lighting throughout the facility consists primarily of recess mounted 4 lamp, 2’ x 4’ acrylic lens fluorescent troffers and 1 x 4 pendent mounted direct/indirect fluorescent fixtures. The lighting throughout the facility is newer approximately 2 years old and in very good condition. Automated lighting controls have not been incorporated into the facility. The light levels appear to be within recommended levels.

4. The fire alarm system is a FCI zoned system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat detectors are also installed in select areas. It was noted by school personnel during the walk-thru that the system had been

problem free. The system is older however believed to be original to the facility and does not conform to current codes in terms of intensity levels.

5. Site lighting is accomplished via building mounted wall packs, flood lights and a number of pole mounted fixtures all appear to be in good condition.



6. There is no on site emergency standby generator located at the facility.
7. Life safety emergency lighting is provided via emergency battery units with unit mounted light heads. These units are newer in very good condition and appear to provide sufficient coverage throughout the facility.
8. Battery powered exit lighting is installed throughout, and is in good condition.
9. An existing paging system is installed believed to be newer and is in very good condition with no noted problems.
10. There is currently a Caddy security system including cameras at select locations, magnetic door contacts at all the exterior doors. The system was noted as functioning without any issues.

E. **MEP SYSTEMS CONCLUSION**

In general, the systems vary in age from original to the building (30+ years old), to as recent as 2-3 years old. Some equipment such as the existing Roof Top Unit and the controls system have been problematic, have reached or are approaching the end of their useful life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating and cooling system.

Plumbing systems throughout appear newer, seem to be in good working condition and are in very good condition. Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure.

The Electrical systems appear to be in very good condition the distribution equipment (panelboards) includes additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are newer (2 years old) include new more efficient fixtures and utilize the latest lamping and ballasting configurations. The addition of automated lighting controls should be implemented in order to save on energy costs. Fire alarm system is older and does not conform to current standards and should be replaced or at a minimum annunciation devices should be upgraded to meet current standards which will require the addition of a booster panel to drive the devices. Existing exits and emergency lighting units are newer in very good condition and appear to provide sufficient coverage.

Mechanical and Electrical Systems
Existing Conditions Narrative

Fire Station # 1
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. **PLUMBING NARRATIVE**

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
   a. Existing Domestic Water Service: The existing building is currently served by a 1" inch domestic water service located within the boiler room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the buildings domestic water needs. The water distribution system is original to the building.
2. Natural Gas:
   a. Existing Natural Gas Service: There is currently no existing natural gas service to the building.
3. Sanitary:
   a. Existing Sanitary Service: The buildings sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the facility. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.
4. Fuel Oil:
   a. There is currently a 330gallon above ground exterior fuel oil tank located at the rear of the building. This tank appears to be in good condition, it was noted that this tank serves the existing oil fired boiler.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:
   - Water closets are floor mounted; tank type manual flush valve, vitreous china, units appear to be in fair condition.

   - Urinals are wall mounted vitreous china, with manual flush valves, units appear newer and in good condition.
   - Lavatories are recess count mounted vitreous china and stainless steel. Faucets are a combination of single lever handle and two lever handle type, units appear to be in good condition.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The facilities domestic hot water is generated by a single tank type electric water heater.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is no fire protection (sprinklers) coverage currently at the facility.

C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code

4. NFPA, Latest Version

5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by a single hot water boiler. The boiler is a Weil McLain with an oil fired burner. This boiler appears to be older and in fair condition the burner unit appears to have been replaced at some point looks to be approximately 7-10 years old and in good condition. The pump also appears newer and in good condition. The boiler itself has however reached its life expectancy.
2. The present Heating and Ventilating systems consist of finned tube radiation, with exposed fin tube in the apparatus bays. Ventilation is provided via natural ventilation by means of operable windows. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building.

3. The existing temperature controls in the facility is via electric thermostats.

4. A number of thru the wall/window AC units exist to provide air conditioning throughout the building with the exception of the apparatus bay.

D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 200 amperes, 120/240volts, single phase, 3-wire and is located in the first floor ready room. The service equipment consists of utility company pole mounted transformer, an overhead feed to a service drop down to building exterior mounted utility meter. The main distribution service equipment is new manufactured by Challenger and in very good condition.

2. The lighting throughout the facility consists primarily of surface mounted 2-T12 lamp wraparound fluorescent fixtures, Incandescent down lights and 4' strip fluorescents in the apparatus bay. The lighting throughout the facility is older and in fair/good condition. The light levels appear to be within recommended levels.

3. The fire alarm system consists of heat detectors installed through most of the facility. It was noted by operations personnel during the walk-thru that the system had been problem free.

4. Site lighting is accomplished via building mounted wall packs these fixtures appear older and in fair/poor condition and should be replaced.
5. There is no on site emergency standby generator.
6. There is no Life safety emergency lighting is provided at this facility.
7. There is no exit lighting is provided at this facility.
8. There is no security system provided at this facility.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 5-10 years old. Some equipment such as the existing boiler have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

Plumbing systems although older seem to be in good working condition. Replacement of faucets to automatic units should be implemented as a water conservation measure.

The Electrical systems appear to be in good condition however the older lighting systems are should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations in order to improve energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs. Fire alarm system should be expanded and or upgraded to add smoke detection devices for earlier detection of any problems. Exits and emergency lighting units should be installed to ensure the safety of personnel in case of an emergency.

Mechanical and Electrical Systems
Existing Conditions Narrative

Public Safety Complex
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. **PLUMBING NARRATIVE**

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
   a. Existing Domestic Water Service: The existing building is currently served by a 2" inch domestic water service located within the water service room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Facilities domestic water needs. The water distribution system is original to the building.

2. Natural Gas:
   a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers and hot water heater. This service enters the rear of the building.
3. Sanitary:
   a. Existing Sanitary Service: The Facilities sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the building. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.
4. Fuel Oil:

   a. There is no onsite fuel storage with the exception of the Emergency generator skid mounted fuel tank.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:
   - Water closets are wall mounted; manual flush valve, vitreous china, units appear in very good condition.

   - Urinals are wall mounted vitreous china; with manual flush valves, units appear in very good condition.
   - Lavatories are wall hung vitreous china. Faucets are single lever manual handle type; units appear in very good condition.

   - Janitor's mop sinks are floor mounted basins with 2-faucets and vacuum breakers. These basins are in good condition.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The buildings domestic hot water is generated by a Raypak hot water boiler with 2-115 gallon storage tanks. The unit appears to be in very good condition.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with all back flow prevention devices and fire alarm system monitoring. The service enters the building in the Water service entrance room in the front of the building with a 6" service line.

C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated and cooled via multiple attic mounted Air Handler units. These units are manufactured by Aaon are original to the building (6-7 years old) and were noted as operating problem free. These units include hot water and cooling coils for heating and cooling as well as a fresh air component. Hot water for the heating system is provided by a gas fired Fulton Boiler also original to the facility and located in the second floor Mechanical room this unit is in very good condition. Cooling is provided from exterior ground mounted individual condenser units located at the rear of the building. These condensing units are original to the building and in very good condition it was noted however that two of the individual units (#8 and #1) have had ongoing problems which should be investigated and the cause determined and repaired.

2. The present Heating Ventilating and Air Conditioning systems consist of a ducted air system throughout the building. Selected areas such as the sally port and the apparatus bays are heated by infrared tube heaters. The air-handling units have hot water heating coils, cooling coils, filter sections and exhaust fans.

3. The existing temperature controls in the facility are via electronic thermostats controlling individual air handling units these were noted as operating without issue.

D. **ELECTRICAL NARRATIVE**

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 1200 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main electric room. The service equipment consists of a utility company pad mounted transformer with pad mounted utility metering equipment an underground feed to a 1200amp main disconnect circuit breaker switchboard with distribution section located in the main electric room. The predominance of the main distribution equipment service equipment is newer (1995) and in very good condition.

2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are Siemens panels having been installed at the time of construction in 1995. The condition of these panel boards is very good with the majority of the panel boards having spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.

3. The lighting throughout the facility consists primarily of recess mounted 2x4 3 lamp lensed fluorescent fixtures and 2x2 2 lamp fixtures. The lighting throughout the facility is newer and in very good condition however it does not include motion sensor control. The light levels appear to be within recommended levels.
4. The fire alarm system is an EST 2 addressable system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat detectors are present in select areas and smoke detectors are present throughout the common areas. The system appears to be newer in very good condition and it was noted by operations personnel during the walk-thru that the system had been problem free.

5. Site lighting is accomplished via building mounted wall packs, and LED type sconce type lights and a number of pole mounted fixtures all appear to be in very good condition.
6. There is currently an oil fired Caterpillar emergency standby generator. This unit appears to be in very good condition and is believed to have been installed at the time of the 1995 addition. It was noted by operations personal as functioning without any issues and that it offers 100% backup of the facility.

7. Life safety emergency lighting is provided via select fixtures throughout the facility being wired to emergency lighting circuits.
8. Exit lighting is installed throughout, is wired to emergency generator circuits and offers sufficient coverage and is in very good condition.
9. The existing paging and alarm systems were noted as functioning without any problems.
10. There is currently a security system including magnetic contacts at the exterior entry doors and motion sensor detection devices throughout. There is also a CCTV system with both interior and exterior cameras. These systems were noted during the walk thru as operating without problem.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 2-3 years old with the predominance of the systems having been installed at the time of construction in 1995. Some equipment such as the previously noted condenser units have been experiencing problems and should be investigated to determine the cause.

Plumbing systems are newer and in good physical and working condition. Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure.

The Electrical systems appear to be in good condition having been installed in 1995. Distribution panels were noted as having additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are newer; appear to utilizing the latest lamping and ballasting configurations for maximum energy efficiency. Motion sensor lighting controls should be added as a conservation measure and to conform to current codes. Fire alarm system is newer and in very good condition and appears to provide sufficient coverage throughout.

Mechanical and Electrical Systems
Existing Conditions Narrative

Highway Department Garage
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
   a. Existing Domestic Water Service: The existing building is currently served by a 1" inch domestic water service located within the boiler room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the buildings domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.
2. Natural Gas:
   a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers and emergency generator. This service enters the building in the rear adjacent to the emergency generator.

3. Sanitary:
   a. Existing Sanitary Service: The facilities sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the building. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:
    a. There are 3-330gallon above ground as well as a number of 55 gallon drums on site to house automobile oil for related to the trucks.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:
    - Water closets are floor mounted; with auto and manual flush valves, vitreous china. Units appear to be in very good condition.

- Urinals are wall mounted vitreous china, waterless units. Units are in very good condition.
- Lavatories are wall hung vitreous china. Faucets are a combination of two lever handle type.
- Janitor's mop sinks are wall mounted basins with 2-faucets and vacuum breakers. These basins are older and in good/fair condition.
- It was noted by operations personnel that the existing plumbing piping system was old and that they experienced leaks on a frequent basis.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The buildings domestic hot water is generated by a gas fired water heater. The unit appears in good condition.

B. **FIRE PROTECTION NARRATIVE**

FIRE PROTECTION SERVICE

1. There is no fire protection (sprinklers) coverage currently at the facility.

C. **MECHANICAL SYSTEMS:**

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by a single 3 zone hot water boiler. The boiler is a Weil McLain with burner currently operating on Natural gas. The boiler is approximately 20-25 years old and in good/fair condition, the unit is currently at its life expectancy.

2. The present Heating and Ventilating systems consist of finned tube radiation, hot water unit heaters and exhaust systems. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building.

3. Unit heaters in equipment bays are older and in poor condition. They have begun to fail and repairs are becoming more frequent as they have already exceeded their useful life.

4. The existing temperature controls in the facility are electric thermostats these units are newer and appear in good condition.

5. Some thru the wall/window AC units were noted in select small office areas.

D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code

5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 200 amperes, 120/240volts, single-phase, 3-wire and is located in the corner area of the apparatus bay designated for the electric service. The service equipment consists of a utility company pole mounted transformer, an overhead feed to utility metering equipment a 200amp main disconnect switch and distribution equipment. The predominance of the main distribution service equipment older and in fair condition.

2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are older FPE and square D panels believed to be original to the facility, some newer panels have been added at the time of various building additions and on an as-needed basis. The condition of these panel boards range from poor, the original equipment, to good, the most recent. The majority of the panel boards do not have spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.

3. There is currently a new photovoltaic solar panel system installed on the roof this system is new and in very good condition.
4. The lighting throughout the facility consists primarily of surface mounted 2 lamp strip fluorescent fixtures, 4-lamp 2’ x 4’ acrylic lens troffers and HID high bay fixtures in the equipment bays. The lighting throughout the facility is older and in fair/good condition. The light levels appear to be within recommended levels. No auto lighting controls are present within the facility.
5. The fire alarm system consists of manual fire alarm pull stations, horn strobes and heat and smoke detectors. The system is older and the layout appears to be inadequate in terms of coverage and meeting current codes.

6. Site lighting is accomplished via building mounted LED wall packs these fixture appear newer and in very good condition.
7. There is an exterior emergency standby generator located at the rear of the facility. This unit is natural gas fired rated 20KW and manufactured by Magnetek. It was noted by operations personnel that this unit has experienced problems in the past. The unit is older and in fair condition. Transfer is a manual operation and can power the entire facility with the manual shutoff of select loads.

8. Life safety emergency lighting is provided via emergency battery units with unit mounted emergency light heads. These units are newer and in good condition.

9. Battery powered exit lighting is installed, coverage appears insufficient however and additional units should be installed.
10. There is currently a Security system including magnetic contacts at the main doors and motion sensor detection devices.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 1-3 years old. Some equipment such as the unit heaters in the equipment bays and the existing boiler have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

Plumbing systems all appear newer and in very good condition. The older piping systems were noted as experiencing ongoing leaks and should be replaced. Replacement of faucets to automatic units should be implemented as a water conservation measure.

The Electrical systems appear to be in good condition however the older distribution equipment (panelboards) should be replaced with newer equipment with additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are older and should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations in order to improve energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs. Fire alarm system should be expanded and or upgraded to add detection devices for earlier detection of any problems. Existing exits and emergency lighting units should be replaced to ensure the reliability of these systems in case of an emergency. The existing emergency generator should be reviewed to determine the cause of the previous problems to determine if the unit can be repaired and or requires replacement.

Mechanical and Electrical Systems
Existing Conditions Narrative

Animal Shelter
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. **PLUMBING NARRATIVE**

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
   a. Existing Domestic Water Service: The existing building is currently served by a 1" inch domestic water service located in a closet. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the buildings domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.
2. Natural Gas:
   a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the gas fired unit heaters. This service enters the building in the front adjacent to the main entry.

3. Sanitary:
   a. Existing Sanitary Service: The facilities sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the building. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

   a. There is no on site fuel storage tanks located at the facility.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:
   - Water closets are floor mounted tank type, vitreous china. Units appear to be in good condition.
   - Lavatories are wall hung vitreous china. Faucets are of the two lever handle type. Unit is older and in fair/poor condition.

   - Animal wash tub is floor mounted with a single lever handle. This unit is older but appears in good condition.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The buildings domestic hot water is generated by a gas fired water heater. The unit appears in good condition.

B. **FIRE PROTECTION NARRATIVE**

FIRE PROTECTION SERVICE

1. There is no fire protection (sprinklers) coverage currently at the facility.

C. **MECHANICAL SYSTEMS:**

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code

4. NFPA, Latest Version

5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by gas fired unit heaters and electric baseboard radiation. These units are in good condition.

2. The existing temperature controls in the facility are electric thermostats mounted on the individual heating units.

3. Some thru the wall/window AC units were noted in select areas.

D. **ELECTRICAL NARRATIVE**

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition

2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 100 amperes, 120/240volts, single-phase, 3-wire and is located in a closet near the main entry. The service equipment consists of a utility company metering equipment and a 100amp main breaker panelboard. The panelboard is in good condition however has no space for future expansion.

2. The lighting throughout the facility consists primarily of surface mounted 2 lamp strip fluorescent fixtures. The lighting throughout the facility is older and in fair condition. The light levels appear to be within recommended levels. No auto lighting controls are present within the facility.
3. The fire alarm system consists of local only 120 volt hard wired smoke detectors, there did not appear to be a tie-in to a notification service.

4. Site lighting is accomplished via building mounted wall packs these fixtures appear newer and in very good condition.

5. There is currently no emergency standby generator located at the facility.
6. Life safety emergency lighting or exit lighting does not exist at the facility.
7. There is currently a Security system including magnetic contacts at the main doors and motion sensor detection devices.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building 30+ years, to as recent as 1-3 years old, some equipment such as the unit heaters are newer and in good condition.

Plumbing systems all appear older and in fair condition. Replacement of existing older plumbing fixtures should be enacted to replace the older units.

The Electrical systems appear to be in good condition however the main panelboard should be replaced with newer equipment with additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are older and should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations in order to improve energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs. Fire alarm system should be expanded and or upgraded to add detection devices for earlier detection and notification. Emergency lighting and exit units should be added to ensure the safety of personnel and animals in case of an emergency.

Mechanical and Electrical Systems
Existing Conditions Narrative

George Martin Elementary School
Seekonk, Massachusetts

September 13, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. **PLUMBING NARRATIVE**

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
   a. Existing Domestic Water Service: The existing building is currently served by a 4" inch domestic water service located within the boiler/mechanical room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Schools domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.

2. Natural Gas:
   a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers, hot water heaters and select kitchen equipment. This service enters the rear of the building at the boiler room.
3. Sanitary:
   a. Existing Sanitary Service: The School's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the School. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried

sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

   a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:

   - Water closets are floor mounted; manual flush valve, vitreous china, units appear in very good condition.

   - Urinals are wall mounted vitreous china, with manual flush valves; units appear in very good condition.
   - Lavatories are wall hung vitreous china. Faucets are two lever handle type, units appear in very good/good condition.
   - Drinking fountains are surface mounted stainless steel dual level, a few older Vitreous china recess mounted unit do exist. Most appear to be ADA compliant, and are in very good condition.

- Janitor's mop sinks are floor and wall mounted basins with 2-faucets and vacuum breakers. These basins are older and in good/fair condition.
- Typical classroom sinks are counter top, stainless steel units with dual lever gooseneck faucets. Most appear to be ADA compliant.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Schools domestic hot water is generated by a tank type gas fired hot water heater. The unit is approximately 6-7 years old and appears in very good condition.

B. **FIRE PROTECTION NARRATIVE**

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with all back flow prevention devices and fire alarm system monitoring.
2. Kitchen hood is provided with an ansul chemical fire suppression system.

C. **MECHANICAL SYSTEMS:**

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by two hot water boilers. The two boilers are both manufactured by PK one being a Thermific installed in 2003 and the second being a Modufire installed in 2008 both with burners currently operating on Natural gas. These two boilers are both fairly new and operating without any noted problems. Both units are rated 2000 MBH and are in very good condition.

2. The present Heating and Ventilating systems consist of finned tube radiation, unit ventilators in the classrooms and exhaust systems. Areas such as the Gymnasium are served by two ceiling hung H&V units and include a supply air component. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building. The air-handling units have hot water heating coils, filter sections and exhaust fans. The library area includes heating and air conditioning provided via roof top units which were noted as functioning without and noted issues.

3. Unit Ventilators in classrooms are a mix with approximately 50% of the units having been replaced within the last 3-5 years and the remaining units being approximately 30+/- years old manufactured by Trane. The older units have exceeded the life expectancy and repairs are becoming more frequent. Although they have been able to obtain parts for repairs when needed, obtaining these parts will become more of an issue as more units fail and require replacement parts, these older units should be replaced.

4. Exhaust systems servicing the classrooms utilize a single exhaust grille to draw air out of the classroom. Exhaust grills are located in the ceiling of the room on the opposite wall as the unit ventilators.

5. The existing temperature controls in the school are a Johnson Controls DDC system which is operating without issue. A desire was expressed to upgrade this system to the latest version in order to increase the capabilities and allow the tie in and control capabilities of all the schools for a central location.

6. Some thru the wall/window AC units exist in select small office areas were noted.

D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

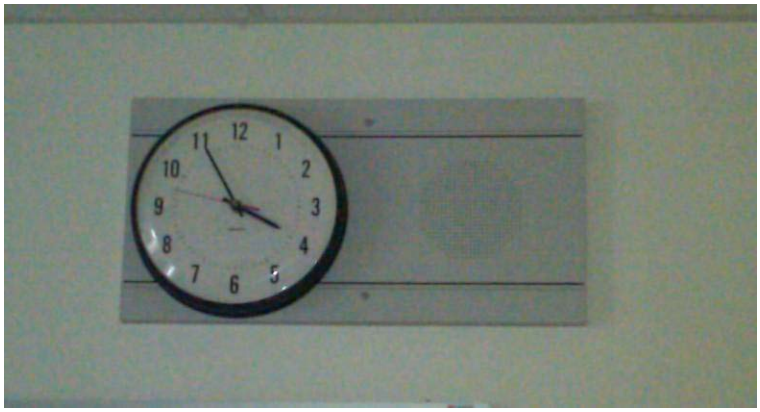
EXISTING SYSTEMS

1. The building is served by a single electrical service rated 1200 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main electric room. The service equipment consists of utility company pad mounted transformer believed to be a 300 KVA unit, with pad mounted utility metering equipment an underground feed to a 1200amp switchboard with main switch and distribution section located in the main electric room. The predominance of the main distribution equipment service equipment is new (2001) and in very good condition.

2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are Square D panels believed to have been installed during the 2001 renovation. The condition of these panel boards is good with the majority of the panel boards having spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.
3. The lighting throughout the facility consists primarily of recess mounted 2x2 2 lamp lensed fluorescent fixtures in the common areas and 2' x 4' center trough fixtures in the classrooms and other academic areas. The lighting throughout the facility is newer and in very good condition and includes motion sensor control. The light levels appear to be within recommended levels.

4. The fire alarm system is a Simplex 4100 addressable system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors are present in select areas. The system appears to be newer in very good condition and it was noted by school personnel during the walk-thru that the system had been problem free.
5. Site lighting is accomplished via building mounted wall packs and a number of pole mounted flood lights both appear to be in good condition.
6. There is currently a 25KW gas fired Kohler emergency standby generator. This unit appears quite old. It was noted however as functioning without any issues. Whereas it does serve the life safety needs of the school including emergency lighting it should be completely checked to ensure its reliability and replacement should be considered.

7. Life safety emergency lighting is provided via select fixtures throughout the facility being wired to emergency lighting circuits.
8. Exit lighting is installed throughout, is wired to emergency generator circuits and is in good condition.
9. The existing clock system was noted as functioning without problems.



10. The existing paging system was noted as functioning without any problems.

11. There is currently a FBI security system including cameras at the main doors and motion sensor detection devices throughout. This system has experienced multiple failures according to operations personal and an upgrade of the system is desired to both correct the ongoing problems and to add additional exterior cameras at sensitive locations.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 2-3 years old with the predominance of the major systems having been upgraded in 2001. Some equipment such as the unit ventilators in the classrooms which have not already been replaced have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system. The upgrade of the controls system to the next version should be considered in order to get all the schools on the same platform and allow control and monitoring of all facilities from a central location

Plumbing systems seem to be newer and in good physical and working condition. Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure. Select sinks should be replaced with ADA compliant units where necessary. It was noted that two of the existing circular round sinks in the toilet rooms require replacement.

The Electrical systems appear to be in good condition having been replaced during the 2001 upgrade. Distribution panels were noted as having additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are newer; appear to utilizing the latest lamping and ballasting configurations for maximum energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs. Fire alarm system is newer and in very good condition and appears to provide sufficient coverage throughout. It was noted that the main phone switch has been problematic and should be replaced. The existing emergency generator should be evaluated for replacement given its age and critical nature of the equipment. The security system should be evaluated for replacement and/or upgrade in order to resolve its current condition and in order to add the desired additional CCTV cameras at the outside locations.

Mechanical and Electrical Systems
Existing Conditions Narrative

Pleasant Street School
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. **PLUMBING NARRATIVE**

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

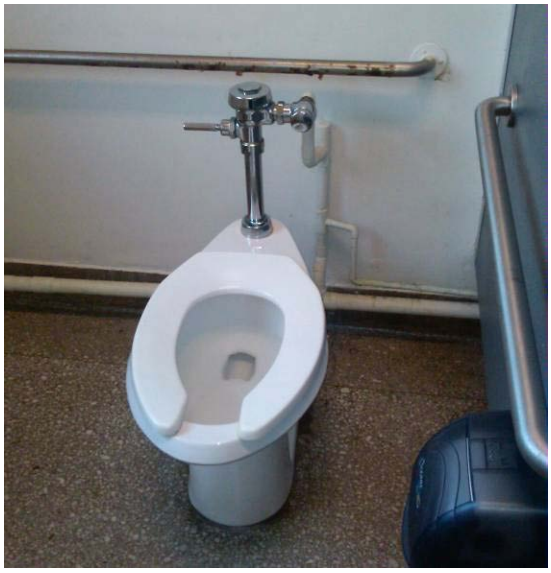
PLUMBING UTILITIES

1. Domestic Water:
   a. Existing Domestic Water Service: The existing building is currently served by 2 separate 2" services. Each of the two services enters the front of the building in the basement level includes a utility meter and isolation valves These water services currently serve all of the Schools domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.
2. Natural Gas:
   a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boiler, hot water heaters and select kitchen equipment. This service enters the front of the building near the main entry.

3. Sanitary:
   a. Existing Sanitary Service: The School's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the School. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.
4. Fuel Oil:
   a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:
   - Water closets are floor mounted; manual flush valve, vitreous china, units appear in good condition.



   - Urinals are wall mounted vitreous china; with manual flush valves, units appear in good condition.
   - Lavatories are wall hung vitreous china. Faucets are dual lever handle type, units appear in good condition.
   - Janitor's mop sinks are wall mounted basins with 2-faucets and vacuum breakers. These basins appear in good condition.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Schools domestic hot water is generated by a 175 gallon tank type gas fired hot water heater. The unit appears in good condition.

B. **FIRE PROTECTION NARRATIVE**

FIRE PROTECTION SERVICE

1. There is no fire protection (sprinklers) system in the facility.
2. Kitchen hood is provided with an ansul chemical fire suppression system.

C. **MECHANICAL SYSTEMS:**

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by a single steam boiler. The boiler is manufactured by H.B. Smith appears to be 35 plus years old and rated 1700 MBH. The boilers burner is currently operating on Natural gas as the fuel source. This boiler is old and should be replaced as its life expectancy has already been exceeded.

2. The present Heating and Ventilating systems consist of steam radiation mounted on exterior walls and in some instances on the ceilings and exhaust systems. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building.

3. Radiation units throughout appear to be original and in good condition the condition of the steam traps was indeterminable but these should be checked and replaced if required.

4. Exhaust systems servicing the classrooms utilize a single exhaust grille to draw air out of the classroom in conjunction with the operable windows.

5. Some thru the wall/window AC units exist in select small office areas and some classrooms.

D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service which is believed to be rated 400 amperes, 240/120volts, single-phase, 3-wire. The service equipment consists of utility company pole mounted transformers, an overhead feed and service drop to exterior building mounted utility metering a 400amp interior main service disconnect circuit breaker and distribution panelboard. The equipment is located in the basement electrical closet was installed in 1992, is manufactured by Cutlet Hammer and is in very good condition.

2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are Cutler Hammer panels believed to have been installed during the service equipment upgrade in 1992. The condition of these newer panel boards is very good with the majority of the panel boards having spare circuit

breakers available for new circuits to be added, or include the space to add new circuit breakers.

3. The lighting throughout the facility consists primarily of surface and pendent mounted 1x4 lensed wraparound fluorescent fixtures and recess mounted 2x4 lensed fluorescent fixtures. The lighting throughout the facility is in good condition but does not include any motion sensor control. The light levels appear to be within recommended levels.

4. The fire alarm system is a ELS 1500 series zoned system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors are present throughout and appear to offer 100% coverage. The system appears to be 15+/- years old although most of the annunciation and detection devices appear to be much newer and in good condition and it was noted by school personnel during the walk-thru that the system has been problem free. Coverage and compliance with current codes appears to be sufficient.

5. Site lighting is accomplished via building mounted wall packs, all fixtures appear to be in good condition.
6. There is currently no emergency standby generator to serve the facility.
7. Life safety emergency lighting is provided via emergency battery units with unit mounted light heads throughout the facility. These units appear to offer sufficient coverage and are in good condition.

8. Exit lighting is installed throughout, is of the self contained battery unit type and offers sufficient coverage and is in good condition.

9. There was no central clock system noted within the existing facility.
10. The existing paging system was noted as functioning without any problems and in good condition. This system is via the phone system.
11. It was noted that there appeared to be an excessive heat buildup in the IDF closet housing the data and computer equipment in the office area. This issue can most likely be resolved thru improved ventilation of the closet or if the loading within the room dictates the addition of a small dedicated air conditioning system.
12. There is currently a security system including magnetic contacts at all exterior entry points, controlled access at main entry points and motion sensors throughout the school. There is also a CCTV system with cameras on both interior and exterior of the school. Both systems have been operating without any noted issues.

E. **MEP SYSTEMS CONCLUSION**

In general, the systems vary in age from original to the building, to as recent as 2-3 years old. Some equipment the existing boiler are 30+ years old and have exceeded their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system. Steam traps should be examined to determine if repair or replacement is required to ensure the efficiency of the heating system.

Plumbing fixtures seem to be newer and in good physical and working condition. Faucets and flush valves all should be replaced with automatic units as a water conservation measure. Select sinks should be replaced with ADA compliant units where necessary.

A fire protection system (sprinklers) should be installed at the time of any future renovations.

The Electrical systems appear to be in good condition having been replaced during the 1998 upgrade of the electrical systems. The devices throughout however are still old and should be replaced. The majority of the distribution panels were noted as having additional breaker and/or spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. Older panels should however be replaced. The lighting systems are in good physical condition appearing to provide acceptable light levels. The addition of automated lighting controls should be incorporated throughout in order to meet current energy codes and to save on energy costs. Fire alarm system is in good condition and appears to provide sufficient coverage throughout. The security system appears to provide sufficient coverage and is operating without issue. A new clock system should be installed as there is currently none in place.

Mechanical and Electrical Systems
Existing Conditions Narrative

Hurley Middle School
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. **PLUMBING NARRATIVE**

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
   a. Existing Domestic Water Service: The existing building is currently served by a 4" inch domestic water service located within the boiler/mechanical room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Schools domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.

2. Natural Gas:
   a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers, hot water heaters, emergency generator and select kitchen equipment. This service enters the rear of the building at the boiler room.
3. Sanitary:
   a. Existing Sanitary Service: The School's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the School. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

   a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:
   - Water closets are wall mounted; manual flush valve, vitreous china, units appear in very good condition.
   - Urinals are wall mounted vitreous china; with manual flush valves, units appear in very good condition.

   - Lavatories are wall hung vitreous china. Faucets are single lever manual handle type; units appear in very good condition.
   - Drinking fountains are surface mounted stainless steel dual level units. Most appear to be ADA compliant, and are in very good condition.
   - Janitor's mop sinks are floor mounted basins with 2-faucets and vacuum breakers. These basins are in good condition.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Schools domestic hot water is generated by a 75 gallon tank type gas fired hot water heater and a P.K. Thermific boiler both units appear newer and in very good condition.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with all back flow prevention devices and fire alarm system monitoring. The service enters the building in the boiler room with an 8" service.

2. Kitchen hood is provided with an ansul chemical fire suppression system.

C. **MECHANICAL SYSTEMS:**

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by three steam boilers. The three steam boilers are manufactured by Smith installed in 1997 and steam to hot water heat exchangers are utilized to provide hot water to the 1970 and 1997 additions. All three have burners currently operating on Natural gas. These three boilers are fairly new 13 years old. The units are rated 3563 MBH each.

2. The present Heating and Ventilating systems consist of finned tube radiation, unit ventilators in the classrooms and exhaust systems. Areas such as the Gymnasium are served by two ceiling hung H&V units and include a supply air component. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building. The air-handling units have hot water heating coils, filter sections and exhaust fans. The administration, nurses and guidance areas all include heating and air conditioning provided via roof top units which were noted as functioning without and noted issues.

3. Unit Ventilators in classrooms are a mix with approximately 50% of the units having been replaced within the last 10+/- years and the remaining units being approximately 30+/- years old manufactured by Trane. The older units have exceeded the life expectancy and repairs are becoming more frequent. Although they have been able to obtain parts for repairs when needed, obtaining these parts will become more of an issue as more units fail and require replacement parts, these older units should be replaced prior to permanent failures.

4. Exhaust systems servicing the classrooms utilize a single exhaust grille to draw air out of the classroom. Exhaust grills are located in the ceiling of the room on the opposite wall as the unit ventilators.

5. The existing temperature controls in the school are a pneumatic control system Johnson Controls system which is operating without issue.

6. Some thru the wall/window AC units exist in select small office areas.

D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition

4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 2000 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main electric room. The service equipment consists of utility company pad mounted transformer, utility metering equipment an underground feed to a 2000amp switchboard with main switch and distribution section located in the main electric room. The predominance of the main distribution equipment service equipment is newer (1997) and in very good condition.

2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are Siemens panels believed to have been installed during the 1997 renovation. The condition of these panel boards is very good with the majority of the panel boards having spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.
3. The lighting throughout the facility consists primarily of recess mounted 2x4 volumetric 2 lamp lensed fluorescent fixtures in the common areas and 1x4 pendent mounted wraparounds in the classrooms and other academic areas. The lighting throughout the facility is newer and in very good condition and includes motion sensor control. The light levels appear to be within recommended levels.

4. The fire alarm system is a Simplex 4005 addressable system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors are present in select areas. The system appears to be newer in very good condition and it was noted by school personnel during the walk-thru that the system had been problem free.

5. Site lighting is accomplished via building mounted wall packs, floodlights and a number of pole mounted HID shoebox fixtures both appear to be in good condition.
6. There is currently a gas fired Olympian emergency standby generator. This unit appears to be in very good condition and is believed to have been installed at the time of the 1997 addition. It was noted by operations personal as functioning without any issues.

7. Life safety emergency lighting is provided via select fixtures throughout the facility being wired to emergency lighting circuits supplemented by emergency battery units with unit mounted light heads.
8. Exit lighting is installed throughout, is wired to emergency generator circuits and is in good condition.

9. The existing clock system was noted as functioning without problems.
10. The existing paging system was noted as functioning without any problems.
11. There is currently a security system including magnetic contacts at the exterior entry doors and motion sensor detection devices throughout. There is also a CCTV system with both interior and exterior cameras. This system was noted during the walk thru as operating without problem.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 2-3 years old with the predominance of the major systems having been upgraded at the time of the most recent renovation in 1997. Some equipment such as the unit ventilators in the classrooms which have not already been replaced (approximately 50%) have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system. It was noted that the steam distribution piping feeding the original building is in poor condition and should be replaced.

Plumbing systems seem to be newer and in good physical and working condition. Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure. Select sinks should be replaced with ADA compliant units where necessary.

The Electrical systems appear to be in good condition having been replaced during the 1997 upgrade. Distribution panels were noted as having additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are newer; appear to utilizing the latest lamping and ballasting configurations for maximum

energy efficiency. Motion sensor lighting controls are present throughout. Fire alarm system is newer and in very good condition and appears to provide sufficient coverage throughout.

Consulting Engineering Services, LLC.

Memorandum

Memorandum Date: April 10, 2012

Written To: Kenneth C. Best, AIA, Principal; Drummey Rosane Anderson, Inc.

Project Name: Seekonk Building Studies

CES Project Number: 2011153.00

Regarding: Hurley Middle School Boiler Replacement

Written By: Peter M. Austin, Jr., P.E.

Ken,

Below is a summary of several options, including benefits and disadvantages, for addressing the failed steam boiler at the Hurley Middle School in Seekonk, Massachusetts.

Option 1: Repair of the existing boiler:

This option entails replacing the damaged sections within the damaged boiler with new sections. The anticipated cost for this option is approximately $5,000 by H.B. Smith.

- Benefits:
  - Anticipated as the lowest first cost.
  - Shortest construction schedule.
  - Less impact on existing systems.
  - Familiarity of the maintenance personnel with the existing boiler.
- Disadvantages
  - If the root cause of the failure is not addressed, the potential for failure will remain.
  - The remaining sections of this boiler and possibly the other two boilers may have been damaged, resulting in the potential for subsequent failures regardless of whether the root cause of this failure has been addressed.
  - Inefficient control system remains in service.

Option 2: Repair of all three existing boilers:

This option entails replacing the damaged sections within the damaged boiler with new sections, inspecting the remaining boilers and replacing sections within the remaining boilers as required. The anticipated cost for this option is approximately $15,000 (note that this cost is contingent upon the results of the inspection of the remaining boilers).

- Benefits:
  - Anticipated as lower first cost than boiler replacement.

    - Shorter construction schedule.
    - Less impact on existing systems than boiler replacement.
    - Familiarity of the maintenance personnel with the existing boilers.
- Disadvantages
    - If the root cause of the failure is not addressed, the potential for failure will remain.
    - Inefficient control system remains in service.

Option 3: Replacement of the existing boiler:

This option entails replacing the damaged boiler with a higher efficiency steam boiler that can readily be converted to hot water at a later date. The anticipated cost for this option is approximately $60,000 (note that this cost is contingent upon the final boiler selection and final installation design).

- Benefits:
    - Replacement boiler will likely have higher efficiency, resulting in lower operating cost.
    - Eliminates the concern that existing damage will cause premature failure of the boiler.
    - Replacement boiler potentially can be easily converted to hot water from steam.
- Disadvantages
    - There are potentially architectural difficulties installing the replacement boiler.
    - Anticipated as higher first cost.
    - Longer construction schedule.
    - More impact on existing systems.
    - Maintenance personnel may have to learn new equipment.
    - The remaining sections of the other two boilers may have been damaged, resulting in the potential for subsequent failures regardless of whether the root cause of this failure has been addressed.

Option 4: Replacement of all three existing boilers:

This option entails replacing the existing boilers with higher efficiency steam boiler that can readily be converted to hot water at a later date. The anticipated cost for this option is approximately $180,000 (note that this cost is contingent upon the final boiler selection and final installation design).

- Benefits:
    - Replacement boilers will likely have higher efficiency, resulting in lower operating cost.
    - Eliminates the concern that existing damage will cause premature failure of the boilers.
    - Replacement boilers potentially can be easily converted to hot water from steam.
    - A new control system will allow for greater efficiency. The replacement boilers can automatically shut down and restart as the heating demand changes.
- Disadvantages
    - There are potentially architectural difficulties installing the replacement boilers.
    - Anticipated as higher first cost.
    - Longer construction schedule.
    - More impact on existing systems.
    - Maintenance personnel may have to learn new equipment.

Option 5: Replacement of all three existing boilers with hot water boilers:

This option entails replacing the existing boilers with higher efficiency condensing hot water boilers. Installation of condensing boilers will required replacement of all the steam and condensate piping with heating hot water piping, replacement of all steam coils with hot water coils and installation of heating hot water pumps The anticipated cost for this option is approximately $450,000 (note that this cost is contingent upon the final boiler selection and final installation design).

- Benefits:
  - Replacement boilers will have higher efficiency, resulting in lower operating cost.
  - Eliminates the concern that existing damage will cause premature failure of the boilers.
  - A new control system will allow for greater efficiency. The replacement boilers can automatically shut down and restart as the heating demand changes.
- Disadvantages
  - There are potentially architectural difficulties installing the replacement boilers.
  - Anticipated as highest first cost.
  - Longer construction schedule.
  - Most impact on existing systems, including replacement of all steam and condensate piping and all steam coils.
  - Maintenance personnel will have to learn new equipment.

In the event the Owner selects Options 1, 2 or 3, CES recommends that H.B. Smith review the existing boiler installation and operation to determine why the boiler has failed and recommend modifications to ensure the two remaining boilers will not fail and that these recommendations are implemented. This review should be undertaken regardless of whether the boiler is repaired or replaced.

In the event the Owner opts to repair the failed boiler (Options 1 or 2), CES would recommend that H.B. Smith inspect the remaining sections within the boiler to ensure these sections have not been damaged and will not fail in the near future.

Please contact me if you have any questions or if I can be of any additional assistance.

P:_Proj-11\2011153.00\Project Management\Correspondence\Hurley Middle School Boiler Replacement.docx

Cc:

Mechanical and Electrical Systems
Existing Conditions Narrative

North Street School
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. **PLUMBING NARRATIVE**

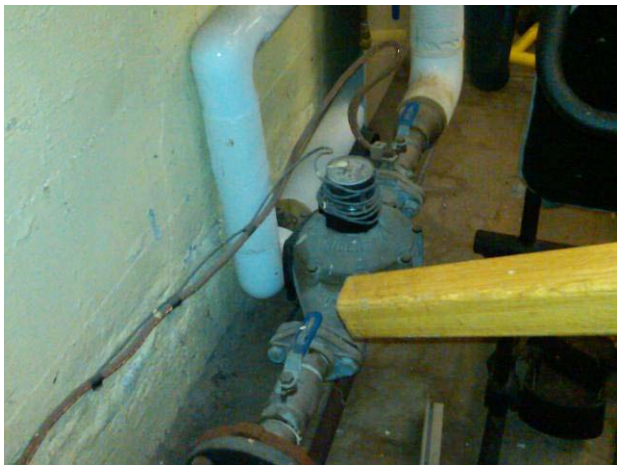
APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
   a. Existing Domestic Water Service: The existing building is currently served by 4" domestic water service located within the basement storage area adjacent to the sprinkler service. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Schools domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.

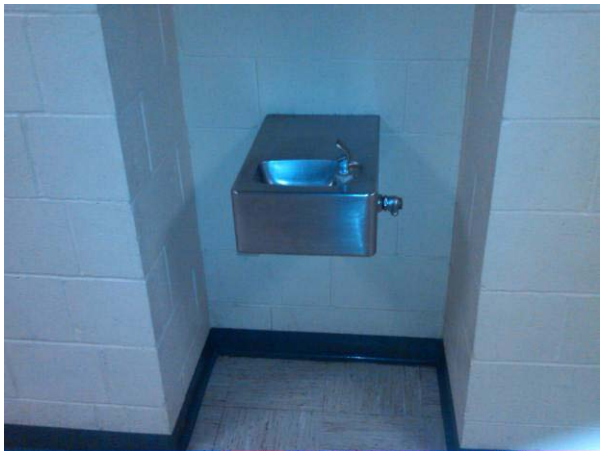


2. Natural Gas:
   a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers, hot water heaters and select kitchen equipment. This service enters the front of the building at the boiler room.
3. Sanitary:
   a. Existing Sanitary Service: The School's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the School. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.
4. Fuel Oil:
   a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:
   - Water closets are floor mounted; manual flush valve, vitreous china, units appear in very good condition.

   - Urinals are wall mounted vitreous china; with manual flush valves, units appear in very good condition.
   - Lavatories are wall hung vitreous china. Faucets are single lever handle type, units appear in good condition.
   - Drinking fountains are surface mounted stainless steel. Most appear be ADA compliant, and are in very good condition.



   - Typical classroom sinks are counter top, stainless steel units with single lever faucets and water fountain. Most appear to not be ADA compliant.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Schools domestic hot water is generated by a 175 gallon tank type gas fired hot water heater. The unit appears in good condition.

B. **FIRE PROTECTION NARRATIVE**

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with an 8" incoming line located in the basement storage area, complete with back flow prevention devices and fire alarm system monitoring.

2. Kitchen hood is provided with an ansul chemical fire suppression system.

C. **MECHANICAL SYSTEMS:**

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by two hot water boilers. The two boilers are both manufactured by H.B. Smith one being newer approximately 25 years old and rated

2146 MBH and the second being older (40+/- years old) with an indeterminable output but believed to be in the same 200MBH range. Both boilers have their burners operating on Natural gas as the fuel source. These two boilers are both old one having already exceeded its life expectancy and the second currently at its life expectancy. We were informed that ongoing repairs have been necessary on both. These units are in fair and poor condition and should be replaced.

2. The present Heating and Ventilating systems consist of finned tube radiation, unit ventilators in the classrooms and exhaust systems. Areas such as the gymnasium and cafeteria are also served by unit ventilators, fin tube radiation and exhaust systems. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building. The air-handling units have hot water heating coils, filter sections and exhaust fans.
3. Unit Ventilators in classrooms appear to be approximately 15-20 years old manufactured by MSI. These units appear to be in good condition and have been operating without any noted issues according to operations personal.

4. Exhaust systems servicing the classrooms utilize a single exhaust grille to draw air out of the classroom. Exhaust grills are located in the ceiling of the room on the opposite wall as the unit ventilators.

5. The existing temperature controls in the school are pneumatic; it appears that the system has been recently upgraded with a new pneumatic control panel. The system compressor appears to be about 7-10 years old and in good condition.

6. Most areas within the school area to be air conditioned via a large number of thru the wall/window AC units these appear to serve classrooms and small office areas throughout the school.

D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 800 amperes, 208Y/120volts, 3-phase, 4-wire. The service equipment consists of utility company pad mounted transformer believed to be a 150 KVA unit, an underground feed to an 800amp Challenger main distribution panel with utility metering equipment located in the basement main electric room. The predominance of the main distribution equipment service equipment is newer (1992) and in very good condition.

2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are Challenger panels believed to have been installed during the most recent renovation some panels however do exist that appear to be much older. The condition of these newer panel boards is very good with the majority of the panel boards having spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers. The condition of the older panels however is fair to poor.
3. The lighting throughout the facility consists primarily of recess mounted 2x4 lensed fluorescent fixtures. In the classrooms and other academic areas pendent mounted direct/indirect fluorescent fixtures are utilized. The lighting throughout the facility is newer and in good condition and includes motion sensor control. The light levels appear to be within recommended levels.

4. The fire alarm system is a Notifier zoned system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors are present in select areas including smoke detectors in all corridors. The system appears to be 15+/- years old and in good condition and it was noted by school personnel during the walk-thru that the system had been problem free. Coverage and compliance with current codes appears to be sufficient.

5. Site lighting is accomplished via building mounted wall packs and pole mounted shoebox HID type fixtures, all fixtures appear to be in good condition.
6. There is currently no emergency standby generator to serve the facility.
7. Life safety emergency lighting is provided remote light heads wired to multiple central battery units throughout the facility. These units and central battery units appear in good condition

8. Exit lighting is installed throughout, is wired to central battery units as their emergency source and are in good condition.
9. The existing clock system was noted as non-functioning with clocks within the school now operating on batteries.

10. The existing paging system was noted as functioning without any problems and in good condition.
11. There is currently an AE National security system including magnetic contacts at all exterior entry points and motion sensors throughout. There is also a CCTV system with cameras both interior and exterior. Both systems have been operating without any noted issues.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 2-3 years old. Some equipment such as the unit ventilators in the classrooms are older but still 10+ years to their life expectancy. The boilers one having already exceeded its life expectancy and the other current at the end of it should both be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system. The upgrade of the controls system appears to have already taken place.

Plumbing systems seem to be newer and in good physical and working condition. Faucets and flush valves all should be replaced with automatic units as a water conservation measure. Select sinks should be replaced with ADA compliant units where necessary mainly those units located in the classrooms.

The Electrical systems appear to be in very good condition having been replaced during the 1992 upgrade of the electrical systems. The majority of the distribution panels were noted as having additional breaker and/or spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. Older panels should however be replaced. The lighting systems are newer; appear to utilizing the latest lamping and ballasting configurations for maximum energy efficiency. The addition of automated lighting controls should be incorporated in any areas not already covered in order to meet current energy codes and to save on energy costs. Fire alarm system is in good condition and appears to provide sufficient coverage throughout. The security system appears to provide sufficient coverage and is operating without issue. A new clock system should be installed to replace the existing system which is non-functional at this point.

Mechanical and Electrical Systems
Existing Conditions Narrative

Aitken Elementary School
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. **PLUMBING NARRATIVE**

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
   a. Existing Domestic Water Service: The existing building is currently served by a domestic water service located within the boiler/mechanical room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Schools domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.
2. Natural Gas:
   a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers, hot water heaters and select kitchen equipment. This service enters the rear of the building at the boiler room.

3. Sanitary:
   a. Existing Sanitary Service: The School's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the School. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.
4. Fuel Oil:
   a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:
   - Water closets are wall mounted; auto flush valve, vitreous china, units appear in very good condition.

   - Urinals are wall mounted vitreous china, with auto flush valve; units appear in very good condition.
   - Lavatories are wall hung vitreous china. Faucets are single lever handle auto type, units appear in very good/good condition.
   - Drinking fountains are surface mounted stainless steel dual level units a few older Vitreous china recess mounted unit do exist. Most appear to be ADA compliant, and are in very good condition.
   - Typical classroom sinks are counter top, stainless steel units with dual lever gooseneck faucets. Most appear to not be ADA compliant.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Schools domestic hot water is generated by a 85 gallon tank type gas fired hot water heater. The unit is approximately 5-6 years old and appears in very good condition.

B. **FIRE PROTECTION NARRATIVE**

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with an 8" incoming line, all back flow prevention devices and fire alarm system monitoring. The service enters in the boiler/mechanical room.

2. Kitchen hood is provided with an ansul chemical fire suppression system.

C. **MECHANICAL SYSTEMS:**

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by two hot water boilers. The two boilers are both manufactured by Smith were installed during the 1997 renovation and are in very good condition. Both boilers have their burners operating on Natural gas. These two boilers are both fairly new and operating without any noted problems. Both units are rated 2403 MBH and are in very good condition.

2. The present Heating and Ventilating systems consist of finned tube radiation, unit ventilators in the classrooms and exhaust systems. Areas such as the gymnasium and cafeteria are served by two ceiling hung H&V units which include a supply air component along with baseboard fin tube radiation. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building. The air-handling units have hot water heating coils, filter sections and exhaust fans. The library area includes heating and air conditioning provided via roof top units which were noted as functioning without and noted issues.

3. Unit Ventilators in classrooms are a mix with approximately 50% of the units having been replaced in recent years and the remaining units being approximately 30+/- years old manufactured by Herman Nelson. The older units have exceeded their life expectancy and repairs are becoming more frequent. Although they have been able to obtain parts for repairs when needed, obtaining these parts will become more of an issue as more units fail and require replacement parts, these older units should be replaced.

4. The existing temperature controls in the school are a pneumatic the controls system compressor is new and in very good condition.

5. Areas such as the main office, Nurses area and Library are provided with Air Conditioning via Roof top unit. Additionally a large number of thru the wall/window AC units were noted serving classrooms and small office areas throughout the school.

D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 800 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main electric room. The service equipment consists of utility company pad mounted transformer believed to be a 150 KVA unit, with pad mounted utility metering equipment an underground feed to a 800amp Siemens main distribution panel located in the main electric room. The predominance of the main distribution equipment service equipment is new (1997) and in very good condition.

2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are Siemens panels believed to have been installed during the most recent renovation. The condition of these panel boards is very good with the majority of the panel boards having spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.
3. The lighting throughout the facility consists primarily of recess mounted 2x2 volumetric fluorescent and 1x4 volumetric fixtures. In the classrooms and other academic areas pendent mounted wraparound fluorescent fixtures are utilized. The lighting throughout the facility is newer and in very good condition and includes motion sensor control. The light levels appear to be within recommended levels.

4. The fire alarm system is a Simplex 4100 addressable system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors are present in select areas including smoke detectors in all corridors. The system appears to be newer in very good condition and it was noted by school personnel during the walk-thru that the system had been problem free.

5. Site lighting is accomplished via building mounted wall packs and flood lights these appear to be in good condition.
6. There is currently an Olympian gas fired emergency standby generator that serves the facility. This unit is located outside at the rear of the school and appears in good condition. It was noted by operations personal that the unit was functioning without any noted problems. This unit serves the life needs of the school including emergency lighting.

7. Life safety emergency lighting is provided via select fixtures throughout the facility being wired to emergency lighting circuits.
8. Exit lighting is installed throughout, is wired to emergency generator circuits and is in good condition.

9. The existing clock system was noted as functioning without problems.
10. The existing paging system was noted as functioning without any problems.
11. There is currently a FB II security system including cameras both interior and exterior motion sensors and magnetic contacts at all exterior entry points. This system has been operating without any noted issues.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 2-3 years old with the predominance of the major systems having been upgraded during the 1997 renovation project. Some equipment such as the unit ventilators in the classrooms of the older wing which have not already been replaced have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

Plumbing systems seem to be newer and in good physical and working condition. Faucets and flush valves all appear to have been upgraded to automatic units as a water conservation measure. Select sinks should be replaced with ADA compliant units where necessary mainly those units located in the classrooms.

The Electrical systems appear to be in very good condition having been replaced during the 1997 upgrade. Distribution panels were noted as having additional breaker and/or spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are newer; appear to utilizing the latest lamping and ballasting configurations for maximum energy efficiency. The addition of automated lighting controls should be in any areas not already covered should implemented in order to meet current energy codes and to save on energy costs. Fire alarm system is newer and in very good condition and appears to provide sufficient coverage throughout. The existing emergency generator appears in good condition and should continue to be maintained and tested annually. The security system appears to provide sufficient coverage and is operating without issue.

Mechanical and Electrical Systems
Existing Conditions Narrative

Seekonk High School
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. **PLUMBING NARRATIVE**

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
   a. Existing Domestic Water Service: The existing building is currently served by a 3" inch domestic water service located in the boiler/mechanical area. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Schools domestic water needs. The water distribution system is original to the building and each subsequent addition.

2. Natural Gas:
   a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers, hot water heaters and select kitchen equipment. This service enters the rear of the building at the boiler room.
3. Sanitary:
   a. Existing Sanitary Service: The School's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the School. The piping

material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

   a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:
   - Water closets are wall mounted; manual flush valve, vitreous china units appear to be in very good condition.

   - Urinals are wall mounted vitreous china; manual flush valve, units appear to be in very good condition.
   - Lavatories are wall hung half round wash stations with auto activation these units are newer and in good condition.

   - Drinking fountains are surface mounted stainless steel dual level units. Most appear to be ADA compliant, and are in very good condition.
   - Janitor's mop sinks are floor mounted basins with 2-faucets and vacuum breakers. These basins appear in very good condition.

- Typical classroom sinks are counter top, stainless steel units with dual lever gooseneck faucets. All are non-ADA compliant.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Schools domestic hot water is generated by a PX Thermific gas fired boiler and storage tank with circulator pump. The unit appears new and in very good condition.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with all back flow prevention devices and fire alarm system monitoring.
2. Kitchen hood is provided with an ansul chemical fire suppression system.

C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by two hot water boilers. The two boilers are Smith with burners currently operating on Natural gas. These two boilers are approximately 7 years old and in very good condition. Both boilers are rated 3893 MBH.

2. The present Heating and Ventilating systems consist of finned tube radiation, unit ventilators in the classrooms and exhaust systems. Areas such as the Gymnasium/Cafeteria are served by ceiling hung H&V units and include a supply air component the pool area is served by a roof top unit and includes dehumidification. The mechanical equipment is located primarily on exterior walls and in various indoor

mechanical spaces within the building. The air-handling units have hot water heating coils, filter sections and exhaust fans.

3. Unit Ventilators in classrooms are newer units, are approximately 7 years old having been replaced in 2003 and are in very good condition.

4. The existing temperature controls in the school are a Johnson Controls DDC system which is operating without issue. A desire was expressed to upgrade this system to the latest version in order to increase the capabilities and allow the tie in and control capabilities of all the schools for a central location.

5. Some thru the wall/window AC units exist in select small office areas were noted.

D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition

4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 1600 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main electric room. The service equipment consists of utility company pad mounted transformer with pad mounted utility metering; an underground feed to a 1600amp Siemens main switchboard and distribution section. The predominance of the main distribution equipment and service equipment is new and in very good condition.

2. There are a number of electrical panels located throughout the facility. These panelboards are newer Siemens panels believed to have been installed at the time of the 2003 renovation. The condition of these panel boards is very good. The majority of the panel boards do have spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers to address future needs.

3. The lighting throughout the facility consists primarily of recess mounted 2x4 and 2x2 volumetric fluorescent fixtures. The lighting throughout the facility is newer and in very good condition. The light levels appear to be within recommended levels.

4. The fire alarm system is a Simplex 4100 addressable system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors are present in select areas. It was noted by school personnel during the walk-thru that the system was newer and had been problem free. All devices appear to provide adequate coverage and to conform to current codes.

5. Site lighting is accomplished via building mounted wall packs and a number of pole mounted site lights both appear to be in good condition.

6. There is a 100KW superior natural gas emergency generator located at the rear of the building just outside the boiler room. This unit appears newer and in very good condition. We were informed that this unit covers all the life safety power requirements.

7. Life safety emergency lighting is provided via select fixtures throughout the school being wired to emergency lighting circuits.
8. The existing clock system and paging system both were installed new at the time of the 2003 renovation and were noted by operations personal as operating without and noted problems.
9. There is currently a FBI security system including cameras at the main doors and motion sensor detection devices throughout. This system has experienced multiple failures according to operations personal and an upgrade of the system is desired to both correct the ongoing problems and to add additional exterior cameras at sensitive locations.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building (40+ years old), to as recent as 5-7 years old. Some equipment such as the unit ventilators in the classrooms, the HVAC control system and the boilers were all replaced during the most recent 2003 renovation and are in very good condition.

Plumbing systems although older seem to be in good working condition. Replacement of flush valves on toilets and urinals to automatic units should be implemented as a water conservation measure. Select sinks should be replaced with ADA compliant units including those in the classrooms.

The Electrical systems appear to be in very good condition and seemed to have been completely replaced during the most recent renovation. The lighting systems are newer and utilize the current ballast and lamping technologies. Motion sensor lighting control has been installed throughout. Fire alarm system has been upgraded and is in very good condition. The security system and the HVAC controls system should be upgraded to offer the expandability and operational fetchers desired by operational personal.

Town of Seekonk Municipal Buildings

Structural Report

August 25, 2011

We visited the town on August 8, 2011 to view the various municipal buildings covered in this report. Our assessment is based solely on visual inspections of the exterior and some limited interior spaces. We did not remove any finishes, and, in most instances, were unable to view the building structures in their entirety.

Other than a general statement relating to future work and code issues, none of the buildings were assessed for compliance with structural requirements of the Massachusetts State Building Code (MSBC) incorporating the International Existing Building Code (IEBC).

TOWN HALL

This single story building with a partial basement appears to have traditional concrete foundations. There is no evidence of any distress or settlement to these elements. The main framing consists of wood stud walls likely supporting wood trusses. The first floor slab over the basement has eight inch deep precast prestressed plank with two inch topping, the remainder of the slab at this level is concrete on grade. There is no evidence of any distress at the first floor.

The exterior has vinyl siding and is in reasonable condition.

The lightweight nature of the structure, unusual for a town hall, may be able to resist code mandated wind loads; however, with ever increasing climactic influences, the ability of the building to resist increased wind loadings may be in question. Resistance depends on adequate anchorage of the load bearing elements and details of these were not available for review. It is unlikely that the building qualifies for designation as a shelter.

LIBRARY

The single story structure appears to be supported on concrete foundation walls which are exposed to a height above grade of approximately four feet. There are numerous vertical shrinkage cracks in this wall, but no evidence of any settlement or differential settlement (Reference Photos 1411 – 1415).

The exterior has vertical wood paneling presumably supported by stud walls.

The main roof structure is supported by steel framing. Based on the available plan layout, it would appear that there are no obvious lateral load resisting elements. The layout of partition walls is not conducive to provision of bracing and there did not appear to be any other lateral structural elements.

The building may well have complied with code requirements at the time of construction; but, a brief overview questions the capacity to resist potential increased wind loading. It is unlikely that the building can be designated as a shelter.

ANIMAL SHELTER

The small, prefabricated metal building is supported on concrete foundations. There were no obvious signs of any distress to either foundations or metal framing (Reference Photos 1421 & 1422).

FIRE STATION – COUNTY STREET

The single story building with floor framing at the attic has concrete masonry walls supporting wood roof trusses. The exterior has a mixture of vinyl siding, wood sheathing above the doors at the rear and veneer brick between and above the front overhead doors. Foundations are traditional cast-in-place concrete while the floor is cast-in-place concrete slab-on-grade.

There are no obvious signs of any settlement or distress to main walls and foundations. There is however, decay at the foundation/brick interface at the front doors (Reference Photos 1424 & 1432). The metal fire escape is in poor condition (Reference Photos 1427, 1429 & 1430). The exterior sheathing at the rear is in decay. The chimney is in poor condition with missing brick and joint decay (Reference Photo 1428). With the building technically having been unoccupied (used for storage only), any repairs would require compliance with the Massachusetts State Building Code (MSBC) and the International Existing Building Code (IEBC).

HIGHWAY DEPARTMENT GARAGE

The single story structure has CMU on the exterior, a split level first floor slab-on-grade and a flat wood plank roof supported on steel beams. The lower level has concrete walls to grade level at the side and rear.

The exterior has been modified over the years and has brick, patterned block and parged block (Reference Photos 1436 & 1440). Its condition is poor, particularly at the front office elevation where there is severe corrosion to the steel lintels at the windows (Reference Photos 1434 & 1437 - 1443).

While the exterior is cosmetically inferior, the exterior walls, viewed from the interior, are in sound condition (Reference Photo 1444). There is no evidence of any cracking or distress between windows and the bearing at beam locations is in sound condition. The slabs-on--grade exhibit cracking and some localized distress. Overall, the building has significant defects which should be addressed.

MARTIN ELEMENTARY SCHOOL

The original building was constructed in 1970 with an addition in 1994. The original school exterior wall system was removed and replaced with traditional stud and brick. The increase in wall thickness was achieved by bolting galvanized angles to foundations to support the brick veneer (Reference Photo 1384). Care needs to be taken to ensure the exterior grading and landscaping is below these angles to avoid corrosion which can occur even with galvanized elements.

There are no concerns with the 1994 addition and the roof framing for the 1970 original building appears to be in sound condition. There are no obvious areas where drifted snow would cause problems.

HIGH SCHOOL

The original building consists of a single story with a partial two story academic wing. It appears to be steel framed on traditional concrete foundations.

The exterior has brick veneer and there are localized conditions where cracked brick is evident (Reference Photos 1405 - 1410).

The 2003 addition consists of an auditorium, gymnasium and pool structure, and is in sound condition. There is discoloration to the steel roof framing above the pool (Reference Photos 1398 & 1401). This is as a result of the initial paint system and/or preparation of the steel. There are no structural concerns; however, careful consideration should be given to any repainting where treatment needs to ensure a properly prepared surface.

The exterior of the original buildings should be reviewed and repairs and re-pointing implemented.

AITKEN ELEMENTARY SCHOOL

The single story structure has steel framing supporting glulam wood framing and steel joists. Foundations are traditional cast-in-place concrete spread footings.

The exterior is in sound condition with no evidence of distress at foundations or walls.

The brick chimney shows some deterioration and should be repaired to avoid future problems.

NORTH STREET ELEMENTARY SCHOOL

The single story building with partial basement has traditional concrete foundations with load bearing masonry, steel columns and pitched wood roof framing.

Apart from localized cracking and mortar loss at unit ventilators, the exterior masonry is in reasonable condition. The brick in the courtyard is in good condition and generally all structure and walls are in sound condition.

PLEASANT STREET ELEMENTARY SCHOOL

The school has traditional cast-in-place concrete foundations supporting load-bearing masonry with wood framing at the floors and wood truss and rafters at the pitched roofs.

The exterior brick shows signs of severe distress and decay on the front elevation, particularly at unit ventilators (Reference Photos 1387 – 1389 & 1393) and at exterior projections (Reference Photo 1391). Concrete at the entrance steps shows spalling and decay (Reference Photo 1392).

The wood framing at the roof (Reference Photo 1394) appears to be in sound conditions as viewed from the access hatch. There does not appear to be any distress to the main timber members and wood sheathing.

The glulam portal at the gymnasium and wood roof deck is in sound condition (Reference Photo 1395).

The brick chimney is in poor condition, even though it has been previously repaired.

Attention needs to be paid to the exterior brick where localized cracking and joint distress is evident.

HURLEY MIDDLE SCHOOL

The middle school has a two story academic wing and a single story at the core areas, i. e. gymnasium, library, cafeteria and administration.

All exposed structural elements appear in sound condition.

The exterior façade is in reasonable condition; however, there is some localized distress at brick mortar joints (Reference Photos 1416, 1417 & 1419). There is evidence of staining and mold at some of the exterior split faced block (Reference Photo 1418).

The brick chimney, as viewed from the ground, appears to be in sound condition (Reference Photo 1420).

EXECUTIVE SUMMARY

The existing condition of the municipal buildings has been described. The town should also be aware of code implications should repair, alterations, change of occupancy or additions be contemplated. Code compliance with MSBC incorporating IEBC would be required.

Based on our observations, none of the buildings have the capacity for any vertical expansion. Any additions should be kept structurally separate and constructed under the Code for New Construction. Any proposed work in existing buildings should be carefully investigated and studied, using the various classifications in the MSBC and IEBC to achieve not only an economic structural solution, but, incorporation with other disciplines including architectural, mechanical electrical and plumbing.

PHOTOGRAPHS

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Photo 9

Photo 10

Photo 11

Photo 12

Photo 13

Photo 14

Photo 15

Photo 16

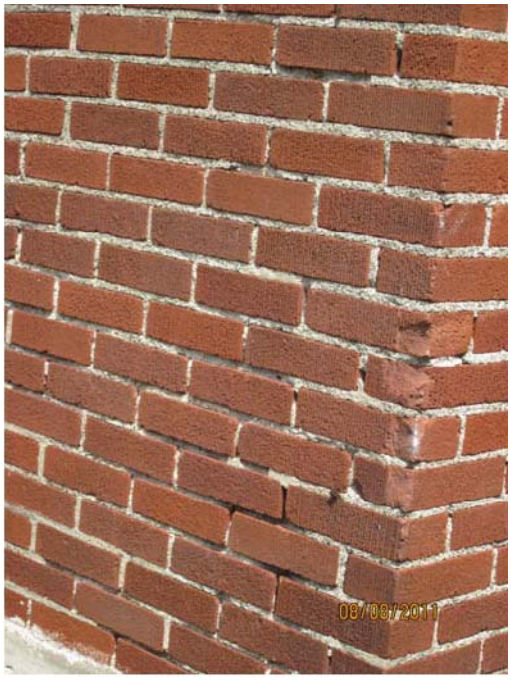


Photo 17

Photo 18

Photo 19

Photo 20

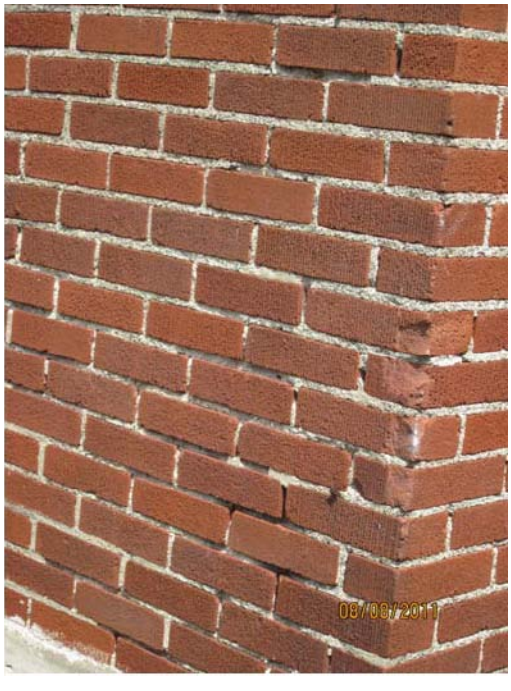


Photo 21

Photo 22

Photo 23

Photo 24

Photo 25

Photo 26

Photo 27

Photo 28

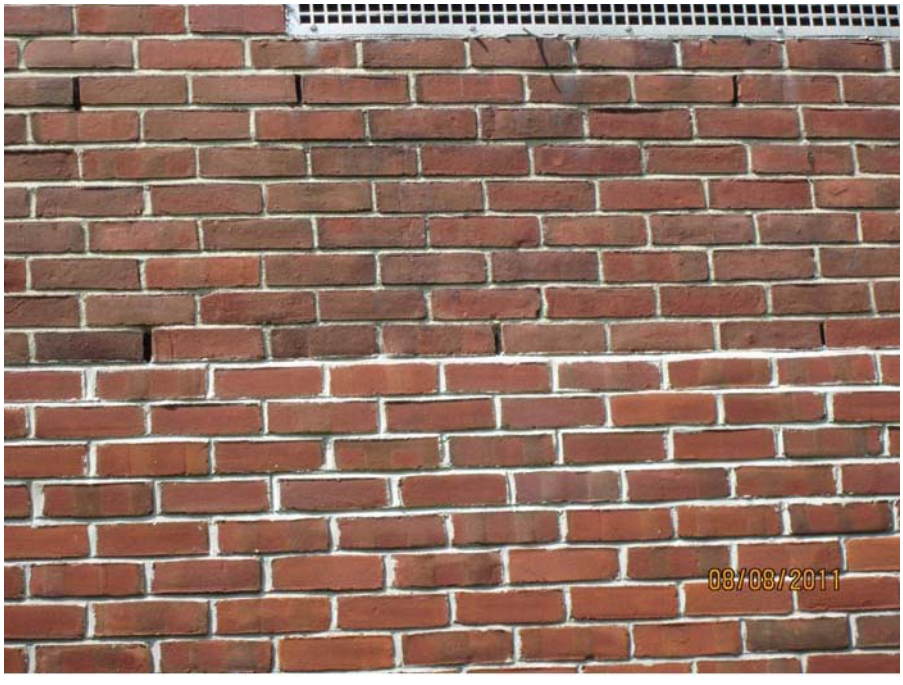


Photo 29

Photo 30

Photo 31

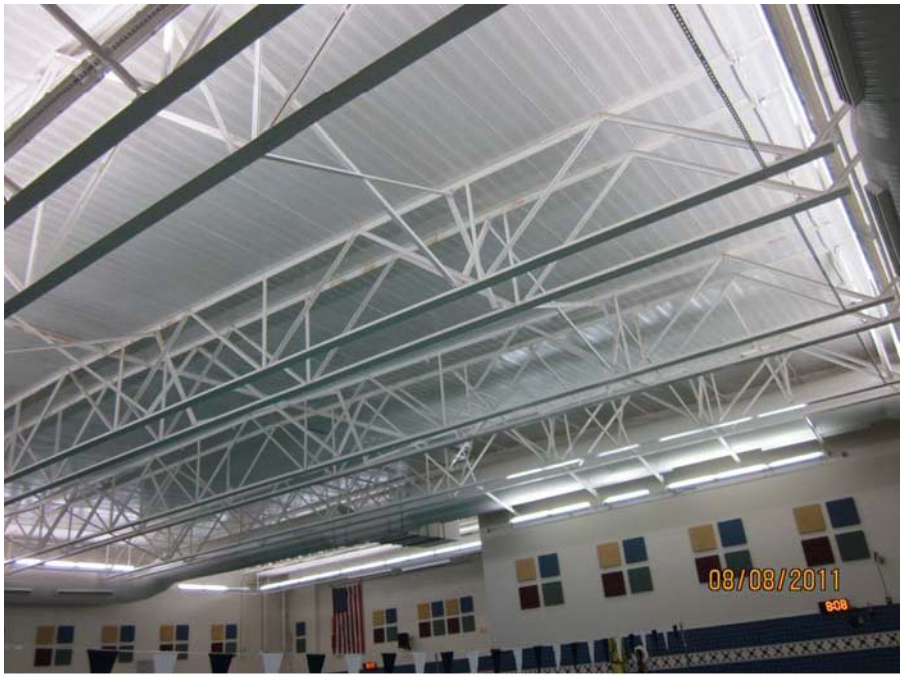


Photo 32

Photo 33

Photo 34

Photo 35

Photo 36

Photo 37

Photo 38

Photo 39

Photo 40

Photo 41

Photo 42

Photo 43

Photo 44

Photo 45

Photo 46

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
MARKUP LIST
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Markups - To Be Calculated Cumulatively					
General Conditions					
Project Value Less That 200k			20.00%		
Project Value 200k - 500k			16.00%		
Project Value 500k - 1mil			14.00%		
Project Value 1mil - 2mil			12.00%		
Project Value 2mil - 5mil			10.00%		
Overhead & Profit					
Project Value Less That 200k			23.00%		
Project Value 200k - 500k			18.00%		
Project Value 500k - 1mil			16.00%		
Project Value 1mil - 2mil			14.00%		
Project Value 2mil - 5mil			12.00%		
Design & Price Reserve			15.00%		
Escalation					
1 Years From Now	Feb-13		4.01%		
2 Years From Now	Feb-14		8.23%		
3 Years From Now	Feb-15		12.56%		
4 Years From Now	Feb-16		17.06%		
5 Years From Now	Feb-17		21.76%		
Bond					
Project Value Less That 100k			3.00%		
Project Value 100k - 1mil			2.40%		
Project Value 1mil - 2mil			2.00%		
Project Value 2mil - 5mil			1.60%		
Project Value 5mil - 10mil			1.34%		
Soft Costs/Design Fees			30.00%		

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 13,193
TOWN HALL
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth		
basement		3,744 sf		382 lf		
level 1		9,449 sf		672 lf		
Fire Alarm						$
demo horns and strobes			13,193	sf	0.04	528
new horns and strobes			13,193	sf	0.22	2,902
booster panel, 6 1/2 amp			1	ea	1,164.91	1,165
battery back-up			1	ea	695.70	696
fire alarm wiring for booster only	allow		200	lf	9.14	1,828
assume reuse of existing wiring at device locations						
Sub Total - Direct Cost						7,119
General Conditions			20.00%			1,424
Overhead & Profit			23.00%			1,965
Design & Price Reserve			15.00%			1,576
Escalation		Feb-14	8.23%			995
Bond			3.00%			392
Soft Costs/Design Fees			30.00%			4,041
Total Project Cost						$17,512
Cabinet Access						$
remove and dispose metal base cabinets			7	lf	46.71	327
remove and dispose 2 burner cook top			1	ea	103.28	103
remove and dispose counter top sink			1	ea	86.05	86
new kitchenette			7	lf	659.87	4,619
patch floors			1	ea	155.36	155
patch walls			1	ea	346.47	346
Sub Total - Direct Cost						5,636
General Conditions			20.00%			1,127
Overhead & Profit			23.00%			1,555
Design & Price Reserve			15.00%			1,248
Escalation		Feb-14	8.23%			787
Bond			3.00%			311
Soft Costs/Design Fees			30.00%			3,199
Total Project Cost						13,863

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 13,193
TOWN HALL
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Handicapped Ramps						$
expand driveway for compliant ramp						
demo bit. Paving	240 sf		1	ea	617.50	618
assume 40 lf x 6 lf wide						
fine grade and compaction for ADA compliance	by hand		240	sf	0.92	221
new bit. Paving			240	sf	2.61	626
pavement markings			240	sf	2.47	593
Sub Total - Direct Cost						2,058
General Conditions			20.00%			412
Overhead & Profit			23.00%			568
Design & Price Reserve			15.00%			456
Escalation		Feb-14	8.23%			288
Bond			3.00%			113
Soft Costs/Design Fees			30.00%			1,169
Total Project Cost						$5,064
Site Grading						$
grade around building to slope away						
rough grading around perimeter of building			159	cy	see below	
assume 536 lf, 4 lf wide, 2 lf deep						
excavator and crew			2	days	946.50	1,893
excavator mobilization/demobilization			1	ea	472.26	472
landscape repairs, loam and seed			2,144	sf	0.50	1,072
no survey crew included						
Sub Total - Direct Cost						3,437
General Conditions			20.00%			687
Overhead & Profit			23.00%			949
Design & Price Reserve			15.00%			761
Escalation		Feb-14	8.23%			480
Bond			3.00%			189
Soft Costs/Design Fees			30.00%			1,951
Total Project Cost						$8,454

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 13,193
TOWN HALL
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Site Plantings						$
Prune White Birch Overhanging Building			2	ea	164.01	328
Prune Rhododendrons	allow		10	ea	8.89	89
Move evergreen tree at flagpole			1	ea	350.74	351
Sub Total - Direct Cost						768
General Conditions			20.00%			154
Overhead & Profit			23.00%			212
Design & Price Reserve			15.00%			170
Escalation		Feb-14	8.23%			107
Bond			3.00%			42
Soft Costs/Design Fees			30.00%			436
Total Project Cost						$1,889
Foundation Insulation						$
cover exposed insulation at grade level						
hand excavation and compaction at building perimeter			50	cy	55.33	2,767
backfill			50	cy	53.35	2,668
assume 672 lf, 2 lf wide, 1 lf deep, 1 lf exposed						
parge exposed insulation, waterproof Portland cement 1/2", 2 coats			1,344	sf	8.29	11,142
landscape repairs, loam and seed			6,720	sf	0.50	3,360
Sub Total - Direct Cost						19,937
General Conditions			20.00%			3,987
Overhead & Profit			23.00%			5,503
Design & Price Reserve			15.00%			4,414
Escalation		Feb-14	8.23%			2,785
Bond			3.00%			1,099
Soft Costs/Design Fees			30.00%			11,318
Total Project Cost						$49,043

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 13,193
TOWN HALL
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Attic Insulation						$
Fill voids with blown-in insulation	allow 10%		945	sf	1.23	1,162
cellulose, 6 1/2", R22						
Cover filled areas with batts	allow 10%		945	sf	1.20	1,134
kraft faced fiberglass, 6" thick, 11" wide, R19						
40% increase labor factor included for reduced work area in attic						
consider access requirements, as well as insulation is a few feet below trusses and rests directly on existing ceiling						
this item should be combined with hallway ceiling replacement for ease of access and to minimize cost						
Sub Total - Direct Cost						2,296
General Conditions			20.00%			459
Overhead & Profit			23.00%			634
Design & Price Reserve			15.00%			508
Escalation		Feb-14	8.23%			321
Bond			3.00%			127
Soft Costs/Design Fees			30.00%			1,304
Total Project Cost						$5,649
Basement Flooding						$
French drain			382	lf	see below	
demo slab on grade around foundation wall			256	sf	17.21	4,405
demo slab for pipe to pump			30	lf	17.21	516
patch slab on grade			30	lf	30.20	906
remove and backfill 12" gravel under slab			9	cy	67.65	641
premium for excavating inside building basement		100%	1	ea	641.00	641
4" perforated pipe and filter fabric			382	lf	14.91	5,696
4" pvc pipe to pump	allow		30	lf	7.31	219
sump pump, 21 gpm @ 15' head, 1/3 hp			1	ea	507.36	507
Sub Total - Direct Cost						13,531
General Conditions			20.00%			2,706
Overhead & Profit			23.00%			3,735
Design & Price Reserve			15.00%			2,996
Escalation		Feb-14	8.23%			1,890
Bond			3.00%			746
Soft Costs/Design Fees			30.00%			7,681
Total Project Cost						$33,285

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 13,193
TOWN HALL
SEEKONK, MA 02771

Description	Note	Quantity	Unit	Price	Total
Interior Finishes					$
demo hallway 12x12 ceiling tile, on suspension system		1,296	sf	1.43	1,853
replace ceiling tiles in hallway with 2'x2' act		1,296	sf	5.09	6,597
premium for insulation resting directly on ceiling til labor only 50%		1,296	sf	2.64	3,421
consider existing insulation is resting directly on ceiling to be demolished					
this item should be combined with attic insulation option for ease of access and to minimize cost					
Sub Total - Direct Cost					11,871
General Conditions		20.00%			2,374
Overhead & Profit		23.00%			3,276
Design & Price Reserve		15.00%			2,628
Escalation	Feb-14	8.23%			1,658
Bond		3.00%			654
Soft Costs/Design Fees		30.00%			6,738
Total Project Cost					$29,199
Lighting					$
remove and dispose of lighting		13,193	sf	0.25	3,298
new lighting		13,193	sf	5.01	66,097
automated lighting controls	eng. allowance	13,193	sf	1.25	16,491
Sub Total - Direct Cost					85,886
General Conditions		20.00%			17,177
Overhead & Profit		23.00%			23,704
Design & Price Reserve		15.00%			19,015
Escalation	Feb-14	8.23%			11,998
Bond		2.40%			3,787
Soft Costs/Design Fees		30.00%			48,470
Total Project Cost					$210,037

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 14,882
LIBRARY
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth		
level 1		14,882	sf	488	lf	
Fire Alarm						$
demo existing fire alarm system			14,882	sf	0.18	2,679
new fire alarm system			14,882	sf	3.50	52,087
Sub Total - Direct Cost						54,766
General Conditions			20.00%			10,953
Overhead & Profit			23.00%			15,115
Design & Price Reserve			15.00%			12,125
Escalation		Feb-14	8.23%			7,651
Bond			2.40%			2,415
Soft Costs/Design Fees			30.00%			30,908
Total Project Cost						$133,933
Overall ADA upgrade						$
ADA upgrade	allowance		14,882	sf	4.50	66,969
Sub Total - Direct Cost						66,969
General Conditions			20.00%			13,394
Overhead & Profit			23.00%			18,483
Design & Price Reserve			15.00%			14,827
Escalation		Feb-14	8.23%			9,355
Bond			2.40%			2,953
Soft Costs/Design Fees			30.00%			37,794
Total Project Cost						$163,775

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 14,882
LIBRARY
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Roofing Modifications					$
Provide roof drains with crickets					
add roof drains 8"	allow	3	ea	1,642.73	4,928
add overflow drains 6"	allow	3	ea	1,225.53	3,677
core roof 10"		3	ea	125.63	377
core roof 8"		3	ea	107.51	323
build up tapered insulation on existing	ext. poly sty, 6" avg	943	bf	1.04	980
vapor barrier		1,885	sf	0.12	226
1/2" dense glass sheathing		1,885	sf	1.70	3,205
white epdm roof over new insulation		1,885	sf	5.32	10,028
patch roof at roof drains		6	ea	170.25	1,022
6" storm pipe and insulation		30	lf	84.08	2,522
8" storm pipe and insulation		174	lf	99.68	17,344
10" cpp storm pipe underground	allow	50	lf	18.49	925
storm manhole, 4' structure		1	ea	4,136.25	4,136
excavate and backfill		50	lf	26.73	1,337
bedding for up to 12" pipe		50	lf	7.40	370
tie into existing system		1	ea	988.00	988
remove and replace ceiling tiles	4' wide	520	sf	11.85	6,162
saw cut roadway for trench 7" depth		40	lf	4.76	190
patch & repair trench 4" base, 3" finish		80	sf	7.39	591
traffic control detail		1	ea	1,085.76	1,086
signage/barricades		1	ea	1,482.00	1,482
saw slab on grade		16	lf	22.45	359
remove slab on grade		16	sf	6.70	107
excavate inside building		2	cy	49.65	99
core foundation wall 10"		1	ea	102.75	103
backfill		2	cy	28.38	57
patch/repair slab on grade		16	sf	30.20	483
chase wall (corner of multi-purpose room)		56	sf	10.09	565
paint chase wall		56	sf	1.11	62
Fill Openings In Parapet		60	sf		
assume 6 openings, 10 lf, 1 lf high					
6" stud		60	sf	5.15	309
1/2" gyp mat sheathing, both sides		120	sf	1.86	223
vertical wood to match existing		60	sf	2.85	171
paint vertical wood to match existing		60	sf	3.08	185
epdm membrane	allow	100	sf	5.11	511
heat weld to existing	allow	100	lf	1.14	114
cant strip		100	lf	2.13	213
base flash		100	lf	5.03	503
assume entire roof slope is sufficient to east wall, build up tapered insulation over existing roof from east wall to 1/2 way across grid					
Sub Total - Direct Cost					65,963
General Conditions		20.00%			13,193
Overhead & Profit		23.00%			18,206
Design & Price Reserve		15.00%			14,604
Escalation	Feb-14	8.23%			9,215
Bond		2.40%			2,908
Soft Costs/Design Fees		30.00%			37,227
Total Project Cost					$161,316

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 14,882
LIBRARY
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Replace Carpet (area shown on plan)						$
demo carpet, scrape glue			9,200	sf	0.55	5,060
demo base			586	lf	0.55	322
new carpet tile			9,200	sf	5.12	47,104
new vinyl base			586	lf	2.56	1,500
move shelving and furniture	arch. allowance		1	ea	7,000.00	7,000
Sub Total - Direct Cost						60,986
General Conditions			20.00%			12,197
Overhead & Profit			23.00%			16,832
Design & Price Reserve			15.00%			13,502
Escalation		Feb-14	8.23%			8,519
Bond			2.40%			2,689
Soft Costs/Design Fees			30.00%			34,418
Total Project Cost						$149,143
Repaint Meeting Room						$
prep existing walls	9'6" high		1,577	sf	0.31	489
paint walls	9'6" high		1,577	sf	1.11	1,750
Sub Total - Direct Cost						2,239
General Conditions			20.00%			448
Overhead & Profit			23.00%			618
Design & Price Reserve			15.00%			496
Escalation		Feb-14	8.23%			313
Bond			3.00%			123
Soft Costs/Design Fees			30.00%			1,271
Total Project Cost						$5,508
Interior Finishes						$
demo main entrance 12x12 ceiling tile on suspension system			557	sf	1.40	780
replace ceiling tiles at main entrance with 2'x2' act			557	sf	4.98	2,774
note: this work is not reflected in the "scope narrative" but is marked up on plans received from DRA						
Sub Total - Direct Cost						3,554
General Conditions			20.00%			711
Overhead & Profit			23.00%			981
Design & Price Reserve			15.00%			787
Escalation		Feb-14	8.23%			497
Bond			3.00%			196
Soft Costs/Design Fees			30.00%			2,018
Total Project Cost						$8,744

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 14,882
LIBRARY
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Plumbing						$
replace faucets with automatic units			7	ea	594.51	4,162
replace flush valves with automatic units			5	ea	594.51	2,973
Sub Total - Direct Cost						7,135
General Conditions			20.00%			1,427
Overhead & Profit			23.00%			1,969
Design & Price Reserve			15.00%			1,580
Escalation		Feb-14	8.23%			997
Bond			3.00%			393
Soft Costs/Design Fees			30.00%			4,050
Total Project Cost						$17,551
HVAC						$
remove RTU	cfm		1	ea	6,492.68	6,493
new RTU	cfm		1	ea	73,507.00	73,507
new controls			14,882	sf	3.65	54,319
Sub Total - Direct Cost						134,319
General Conditions			20.00%			26,864
Overhead & Profit			23.00%			37,072
Design & Price Reserve			15.00%			29,738
Escalation		Feb-14	8.23%			18,764
Bond			2.40%			5,922
Soft Costs/Design Fees			30.00%			75,804
Total Project Cost						$328,483
Lighting Controls						$
automated lighting controls	eng. allowance		14,882	sf	1.25	18,603
Sub Total - Direct Cost						18,603
General Conditions			20.00%			3,721
Overhead & Profit			23.00%			5,135
Design & Price Reserve			15.00%			4,119
Escalation		Feb-14	8.23%			2,599
Bond			3.00%			1,025
Soft Costs/Design Fees			30.00%			10,561
Total Project Cost						$45,763

Description	Note	Quantity	Unit	Price	Total

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 4,606
COUNTY STREET FIRE HOUSE
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Basic Quantities	GFA		Girth		
level 1	3,502 sf		247 lf		
level 2	1,104 sf		152 lf		
Emergency Lighting					$
emergency lighting throughout		4,606	sf	1.20	5,527
Sub Total - Direct Cost					5,527
General Conditions		20.00%			1,105
Overhead & Profit		23.00%			1,525
Design & Price Reserve		15.00%			1,224
Escalation	Feb-14	8.23%			772
Bond		3.00%			305
Soft Costs/Design Fees		30.00%			3,137
Total Project Cost					$13,595
Exit Signs					$
exit signs throughout		4,606	sf	0.30	1,382
Sub Total - Direct Cost					1,382
General Conditions		20.00%			276
Overhead & Profit		23.00%			381
Design & Price Reserve		15.00%			306
Escalation	Feb-14	8.23%			193
Bond		3.00%			76
Soft Costs/Design Fees		30.00%			784
Total Project Cost					$3,398
Security System					$
motion sensors and door contacts		4,606	sf	2.18	10,041
Sub Total - Direct Cost					10,041
General Conditions		20.00%			2,008
Overhead & Profit		23.00%			2,771
Design & Price Reserve		15.00%			2,223
Escalation	Feb-14	8.23%			1,403
Bond		3.00%			553
Soft Costs/Design Fees		30.00%			5,700
Total Project Cost					$24,699

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 4,606
COUNTY STREET FIRE HOUSE
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Fire Alarm					$
add smoke detectors to fire alarm system		4,606	sf	1.00	4,606
Sub Total - Direct Cost					4,606
General Conditions		20.00%			921
Overhead & Profit		23.00%			1,271
Design & Price Reserve		15.00%			1,020
Escalation	Feb-14	8.23%			643
Bond		3.00%			254
Soft Costs/Design Fees		30.00%			2,615
Total Project Cost					$11,330
ADA Upgrade					$
upgrade single user bathroom, shower/lavatory/water closet		1	ls	7,070.00	7,070
remove and replace door hardware with lever type lockset		10	ea	511.19	5,112
bevel riser on stairs (wood)		54	lfr	4.49	242
new metal hand rail		35	lf	43.48	1,522
exterior automatic door opener, button activated		1	ea	6,455.75	6,456
fire alarm system, upgrade visual/audible alarms	allow	14	ea	185.00	2,590
Sub Total - Direct Cost					22,992
General Conditions		20.00%			4,598
Overhead & Profit		23.00%			6,346
Design & Price Reserve		15.00%			5,090
Escalation	Feb-14	8.23%			3,212
Bond		3.00%			1,267
Soft Costs/Design Fees		30.00%			13,052
Total Project Cost					$56,557

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 4,606
COUNTY STREET FIRE HOUSE
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Site Paving						$
clear and grub site			1	ea	988.00	988
remove and dispose of bit. Concrete			11,362	sf	0.98	11,135
rough grade grubbed area			3,009	sf	0.11	331
fine grade grubbed area			3,009	sf	0.15	451
bit. Paving, 12"base, 2" binder, 1 1/2" wearing			9,885	sf	3.77	37,266
concrete curb			300	lf	14.77	4,431
concrete sidewalk at entrance			135	sf	5.71	771
concrete sidewalk along road			175	sf	5.71	999
steps on grade			14	lfr	123.50	1,729
guard rail			10	lf	192.66	1,927
curb cut			6	ea	494.00	2,964
loam and seed			1,478	sf	0.50	739
Sub Total - Direct Cost						63,731
General Conditions			20.00%			12,746
Overhead & Profit			23.00%			17,590
Design & Price Reserve			15.00%			14,110
Escalation		Feb-14	8.23%			8,903
Bond			2.40%			2,810
Soft Costs/Design Fees			30.00%			35,967
Total Project Cost						$155,857
Site Drainage System						$
catch basin, 4' drainage structure	allow		5	ea	3,383.41	16,917
drainage pipe, 10" cpp	allow		265	lf	15.13	4,009
excavate and backfill			265	lf	26.73	7,083
up to 12" pipe bedding			265	lf	7.40	1,961
saw cut roadway for trench 7" depth			40	lf	4.76	190
patch & repair trench 4" base, 3" finish			80	sf	7.39	591
traffic control detail			1	ea	1,027.52	1,028
signage/barricades			1	ea	1,482.00	1,482
Sub Total - Direct Cost						33,261
General Conditions			20.00%			6,652
Overhead & Profit			23.00%			9,180
Design & Price Reserve			15.00%			7,364
Escalation		Feb-14	8.23%			4,646
Bond			3.00%			1,833
Soft Costs/Design Fees			30.00%			18,881
Total Project Cost						$81,817

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 4,606
COUNTY STREET FIRE HOUSE
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Refinish Exterior					$
refinish, repair, or replace all exterior materials					
clean/restore stone front		330	sf	4.43	1,462
repoint as necessary	allow 20%	165	sf	27.76	4,580
prep wood siding for new paint		2,020	sf	0.95	1,919
paint wood siding		2,020	sf	2.03	4,101
paint/seal cmu		220	sf	2.00	440
patch and repair cmu	allow 20%	44	sf	23.61	1,039
power wash wood siding above rear doors		350	sf	3.93	1,376
paint/seal wood above rear doors		350	sf	2.03	711
prep and paint trim at windows and doors		346	lf	2.45	848
prep and paint trim at base of shingles		140	lf	3.00	420
prep and paint soffit at front	2'5"	128	sf	3.00	384
prep and paint fascia at front		102	lf	3.00	306
prep and paint fascia at peaks		74	lf	3.00	222
demo soffit and back of building	1'6"	120	sf	4.13	496
rebuild wood soffit at back of building		120	sf	4.12	494
paint new soffit		120	sf	2.47	296
fascia at new soffit		80	lf	3.95	316
prep and paint exterior steel stairs		60	lfr	6.17	370
prep and paint exterior steel landing		37	sf	4.07	151
prep and paint exterior steel railings		28	lf	13.45	377
paint exterior doors		3	leaf	135.63	407
paint exterior roll up doors		618	sf	6.45	3,986
remove and replace gutters		51	lf	15.49	790
new gutters at back soffit		80	lf	9.53	762
new downspouts at back soffit		25	lf	5.44	136
Sub Total - Direct Cost					26,389
General Conditions		20.00%			5,278
Overhead & Profit		23.00%			7,283
Design & Price Reserve		15.00%			5,843
Escalation	Feb-14	8.23%			3,686
Bond		3.00%			1,454
Soft Costs/Design Fees		30.00%			14,980
Total Project Cost					$64,913

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 4,606
COUNTY STREET FIRE HOUSE
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Refinish Space					$
gut interior		4,606	sf	8.08	37,216
partitions		3,029	sf	5.96	18,053
prep and paint interior of exterior wall		5,187	sf	1.76	9,129
paint interior partitions		78,754	sf	1.12	88,204
ceramic tile walls	6' high	522	sf	15.46	8,070
seal garage floor		2,711	sf	0.78	2,115
vct		879	sf	3.29	2,892
carpet		879	sf	5.04	4,430
ceramic tile floor		87	sf	15.25	1,327
radial rubber floor at stairs		51	lfr	19.90	1,015
vinyl base		658	lf	2.52	1,658
ceramic tile base		45	lf	14.33	645
act ceilings		4,606	sf	4.98	22,938
water closet		1	ea	2,524.06	2,524
lavatory		1	ea	1,413.27	1,413
shower		1	ea	2,555.35	2,555
doors 3'x7' and frame, hm		8	leaf	680.88	5,447
paint doors		8	leaf	135.63	1,085
metal storage shelving	allow	40	lf	84.08	3,363
kitchenette		1	ea	5,279.27	5,279
electrical		4,606	sf	9.51	43,803
hvac		4,606	sf	12.52	57,667
plumbing		4,606	sf	7.82	36,019
fire alarm		4,606	sf	2.50	11,515
dumpster rental		1	weeks	783.29	783
load & truck	10 mile round trip	20	cy	58.93	1,179
dump charges		8	ton	92.88	743
Sub Total - Direct Cost					371,067
General Conditions		16.00%			59,371
Overhead & Profit		18.00%			77,479
Design & Price Reserve		15.00%			76,188
Escalation	Feb-14	8.23%			48,072
Bond		2.40%			15,172
Soft Costs/Design Fees		30.00%			194,205
Total Project Cost					$841,554

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 4,606
COUNTY STREET FIRE HOUSE
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
HVAC						$
remove existing boiler			1	ea	1,136.87	1,137
boiler, oil fired	720 mbh		1	ea	22,737.40	22,737
Sub Total - Direct Cost						23,874
General Conditions			20.00%			4,775
Overhead & Profit			23.00%			6,589
Design & Price Reserve			15.00%			5,286
Escalation		Feb-14	8.23%			3,335
Bond			3.00%			1,316
Soft Costs/Design Fees			30.00%			13,553
Total Project Cost						$58,728
Upgrade Lighting						$
remove and dispose of lighting			4,606	sf	0.12	553
new lighting			4,606	sf	3.50	16,121
automated lighting controls	eng. allowance		4,606	sf	1.25	5,758
Sub Total - Direct Cost						22,432
General Conditions			20.00%			4,486
Overhead & Profit			23.00%			6,191
Design & Price Reserve			15.00%			4,966
Escalation		Feb-14	8.23%			3,134
Bond			3.00%			1,236
Soft Costs/Design Fees			30.00%			12,734
Total Project Cost						$55,179
Demo and Rebuild						$
demo existing building			4,606	sf	9.39	43,250
new building including site			6,758	sf	212.41	1,435,467
Sub Total - Direct Cost						1,478,717
General Conditions			12.00%			177,446
Overhead & Profit			14.00%			231,863
Design & Price Reserve			15.00%			283,204
Escalation		Feb-14	8.23%			178,692
Bond			1.60%			37,599
Soft Costs/Design Fees			30.00%			716,256
Total Project Cost						3,103,777

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 28,484
PUBLIC SAFETY
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth		
level 1		15,099	sf	619	lf	
level 2		8,524	sf	480	lf	
mezzanine level		4,328	sf	299	lf	
mech level		533	sf	104	lf	
Site						$
repair pavement near fire station						
remove bit. pavement at depression	allow		200	sf	0.98	196
remove bit. pavement at entrance road	allow		500	sf	0.98	490
bit. Paving, 12"base, 2" binder, 1 1/2" wearing			700	sf	3.77	2,639
Sub Total - Direct Cost						3,325
General Conditions			20.00%			665
Overhead & Profit			23.00%			918
Design & Price Reserve			15.00%			736
Escalation		Feb-14	8.23%			465
Bond			3.00%			183
Soft Costs/Design Fees			30.00%			1,888
Total Project Cost						$8,180

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 28,484
PUBLIC SAFETY
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Reconfigure & Finish Attic Space						$
remove door mounted hold open devices			2	ea	131.40	263
partitions			226	sf	7.63	1,724
doors 3'x7' and frame, hm			1	leaf	680.88	681
paint door			1	leaf	135.63	136
level 5 abuse resistant gyp board on wood structure			1,575	sf	2.71	4,268
fur and level 5 abuse resistant board			332	sf	4.91	1,630
paint partitions			2,133	sf	1.12	2,389
acoustical panels	assume 20%		315	sf	14.53	4,577
modify sprinklers within 30" of roof peak	labor		1	day	684.21	684
modify sprinklers within 30" of roof peak	material		1	ea	521.50	522
Sub Total - Direct Cost						16,874
General Conditions			20.00%			3,375
Overhead & Profit			23.00%			4,657
Design & Price Reserve			15.00%			3,736
Escalation		Feb-14	8.23%			2,357
Bond			3.00%			930
Soft Costs/Design Fees			30.00%			9,579
Total Project Cost						$41,508
Roof						$
investigate shingle nailing with bucket lift						
bucket lift			1	day	327.97	328
truck driver			1	day	451.43	451
roofer/inspector			1	day	585.66	586
mobilization			1	ea	246.65	247
demobilization			1	ea	246.65	247
Sub Total - Direct Cost						1,859
General Conditions			20.00%			372
Overhead & Profit			23.00%			513
Design & Price Reserve			15.00%			412
Escalation		Feb-14	8.23%			260
Bond			3.00%			102
Soft Costs/Design Fees			30.00%			1,055
Total Project Cost						$4,573

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 28,484
PUBLIC SAFETY
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Plumbing					$
replace faucets with automatic units		15	ea	594.51	8,918
replace flush valves with automatic units		15	ea	594.51	8,918
Sub Total - Direct Cost					17,836
General Conditions		20.00%			3,567
Overhead & Profit		23.00%			4,923
Design & Price Reserve		15.00%			3,949
Escalation	Feb-14	8.23%			2,492
Bond		3.00%			983
Soft Costs/Design Fees		30.00%			10,125
Total Project Cost					$43,875
Lighting					$
automated lighting controls	eng. allowance	28,484	sf	1.25	35,605
Sub Total - Direct Cost					35,605
General Conditions		20.00%			7,121
Overhead & Profit		23.00%			9,827
Design & Price Reserve		15.00%			7,883
Escalation	Feb-14	8.23%			4,974
Bond		3.00%			1,962
Soft Costs/Design Fees		30.00%			20,212
Total Project Cost					$87,584

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 6,831
DPW GARAGE
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth		
level 1		6,831 sf		373 lf		
Fire Alarm						$
expand/upgrade early detection devices			6,831	sf	3.50	23,909
remove exit signs			6,831	sf	0.04	273
exit signs			6,831	sf	0.30	2,049
remove emergency lighting units			6,831	sf	0.06	410
emergency lighting units			6,831	sf	1.20	8,197
Sub Total - Direct Cost						34,838
General Conditions			20.00%			6,968
Overhead & Profit			23.00%			9,615
Design & Price Reserve			15.00%			7,713
Escalation		Feb-14	8.23%			4,867
Bond			3.00%			1,920
Soft Costs/Design Fees			30.00%			19,776
Total Project Cost						$85,697
Fire Sprinkler System						$
currently is not one						
new fire protection system			6,831	sf	4.69	32,037
Sub Total - Direct Cost						32,037
General Conditions			20.00%			6,407
Overhead & Profit			23.00%			8,842
Design & Price Reserve			15.00%			7,093
Escalation		Feb-14	8.23%			4,475
Bond			3.00%			1,766
Soft Costs/Design Fees			30.00%			18,186
Total Project Cost						$78,806
Add Fire Walls						$
Fire walls between different use areas			1,872	sf	8.01	14,995
Sub Total - Direct Cost						14,995
General Conditions			20.00%			2,999
Overhead & Profit			23.00%			4,139
Design & Price Reserve			15.00%			3,320
Escalation		Feb-14	8.23%			2,095
Bond			3.00%			826
Soft Costs/Design Fees			30.00%			8,512
Total Project Cost						$36,886

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 6,831
DPW GARAGE
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Overall ADA upgrade						$
overall ADA upgrade			6,831	sf	4.50	30,740
Sub Total - Direct Cost						30,740
General Conditions			20.00%			6,148
Overhead & Profit			23.00%			8,484
Design & Price Reserve			15.00%			6,806
Escalation		Feb-14	8.23%			4,294
Bond			3.00%			1,694
Soft Costs/Design Fees			30.00%			17,450
Total Project Cost						$75,616
Site Paving						$
remove bit. Concrete pavement			11,714	sf	0.98	11,480
bit. Paving, 12"base, 2" binder, 1 1/2" wearing			10,533	sf	3.77	39,709
loam and seed			4,386	sf	0.50	2,193
concrete curb			600	lf	14.77	8,862
Sub Total - Direct Cost						62,244
General Conditions			20.00%			12,449
Overhead & Profit			23.00%			17,179
Design & Price Reserve			15.00%			13,781
Escalation		Feb-14	8.23%			8,695
Bond			2.40%			2,744
Soft Costs/Design Fees			30.00%			35,128
Total Project Cost						$152,220
New Drainage						$
catch basin, 4' drainage structure	allow		5	ea	3,383.41	16,917
drainage pipe, 10" cpp	allow		450	lf	15.13	6,809
excavate and backfill			450	lf	26.73	12,029
up to 12" pipe bedding			450	lf	7.40	3,330
saw cut roadway for trench 7" depth			1,472	lf	4.76	7,007
patch & repair trench 4" base, 3" finish			736	sf	7.39	5,439
traffic control detail			1	ea	1,085.76	1,086
signage/barricades			1	ea	1,482.00	1,482
Sub Total - Direct Cost						54,099
General Conditions			20.00%			10,820
Overhead & Profit			23.00%			14,931
Design & Price Reserve			15.00%			11,978
Escalation		Feb-14	8.23%			7,557
Bond			3.00%			2,982
Soft Costs/Design Fees			30.00%			30,710
Total Project Cost						$133,077

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 6,831
DPW GARAGE
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Refinish Exterior						$
fur exterior of building, 7/8" channel, 16" o.c.			5,222	sf	2.37	12,376
rigid insulation 2"			5,222	sf	2.12	11,071
vapor barrier			5,222	sf	0.24	1,253
cement clapboards			5,222	sf	4.53	23,656
misc. trim			1	ls	3,548.40	3,548
paint cement clapboards			5,222	sf	2.49	13,003
demo windows	allow 25%		1,306	sf	3.69	4,819
aluminum windows	allow 25%		1,306	sf	65.35	85,347
Sub Total - Direct Cost						155,073
General Conditions			20.00%			31,015
Overhead & Profit			23.00%			42,800
Design & Price Reserve			15.00%			34,333
Escalation		Feb-14	8.23%			21,663
Bond			2.40%			6,837
Soft Costs/Design Fees			30.00%			87,516
Total Project Cost						$379,237
HVAC						$
remove unit heaters in bays			6	ea	156.45	939
unit heaters in bays	197.7 mbh		6	ea	1,694.88	10,169
remove boiler			1	ea	3,311.53	3,312
boiler, gas fired	544 mbh		1	ea	16,062.20	16,062
Sub Total - Direct Cost						30,482
General Conditions			20.00%			6,096
Overhead & Profit			23.00%			8,413
Design & Price Reserve			15.00%			6,749
Escalation		Feb-14	8.23%			4,258
Bond			3.00%			1,680
Soft Costs/Design Fees			30.00%			17,303
Total Project Cost						$74,981

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 6,831
DPW GARAGE
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Generator						$
review for repair or replacement	labor		1	day	616.62	617
Sub Total - Direct Cost						617
General Conditions			20.00%			123
Overhead & Profit			23.00%			170
Design & Price Reserve			15.00%			137
Escalation		Feb-14	8.23%			86
Bond			3.00%			34
Soft Costs/Design Fees			30.00%			350
Total Project Cost						$1,517
Electrical						$
remove panel boards			6,831	sf	0.20	1,366
panel boards			6,831	sf	4.00	27,324
Sub Total - Direct Cost						28,690
General Conditions			20.00%			5,738
Overhead & Profit			23.00%			7,918
Design & Price Reserve			15.00%			6,352
Escalation		Feb-14	8.23%			4,008
Bond			3.00%			1,581
Soft Costs/Design Fees			30.00%			16,286
Total Project Cost						$70,573
Plumbing						$
remove distribution piping			6,831	sf	0.13	888
remove and replace distribution piping			6,831	sf	2.61	17,829
replace faucets with automatic units	allow		4	ea	594.51	2,378
replace flush valves with automatic units	allow		4	ea	594.51	2,378
Sub Total - Direct Cost						23,473
General Conditions			20.00%			4,695
Overhead & Profit			23.00%			6,479
Design & Price Reserve			15.00%			5,197
Escalation		Feb-14	8.23%			3,279
Bond			3.00%			1,294
Soft Costs/Design Fees			30.00%			13,325
Total Project Cost						$57,742

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 6,831
DPW GARAGE
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Lighting						$
remove and dispose of lighting			6,831		0.25	1,708
remove and replace lighting			6,831		5.00	34,155
automated lighting controls	eng. allowance		6,831		1.25	8,539
Sub Total - Direct Cost						44,402
General Conditions			20.00%			8,880
Overhead & Profit			23.00%			12,255
Design & Price Reserve			15.00%			9,831
Escalation		Feb-14	8.23%			6,203
Bond			3.00%			2,447
Soft Costs/Design Fees			30.00%			25,205
Total Project Cost						$109,223
Recommendation						$
new facility (includes demo old facility)			20,632	ea	186.24	3,842,504
relocate photovoltaic panels	allow		1	ea	5,000.00	5,000
Sub Total - Direct Cost						3,847,504
General Conditions			10.00%			384,750
Overhead & Profit			12.00%			507,870
Design & Price Reserve			15.00%			711,019
Escalation		Feb-14	8.23%			448,629
Bond			1.34%			79,057
Soft Costs/Design Fees			30.00%			1,793,649
Total Project Cost						7,772,478

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 1,500
ANIMAL SHELTER
SEEKONK, MA 02771

Description	Note	Quantity	Unit	Price	Total
Basic Quantities	GFA		Girth		
level 1	1,500 sf		168 lf		
Emergency Lighting					$
add emergency lighting		1,500	sf	1.50	2,250
Sub Total - Direct Cost					2,250
General Conditions		20.00%			450
Overhead & Profit		23.00%			621
Design & Price Reserve		15.00%			498
Escalation	Feb-14	8.23%			314
Bond		3.00%			124
Soft Costs/Design Fees		30.00%			1,277
Total Project Cost					$5,534
Exit Signs					$
add exit signs		1,500	sf	0.30	450
Sub Total - Direct Cost					450
General Conditions		20.00%			90
Overhead & Profit		23.00%			124
Design & Price Reserve		15.00%			100
Escalation	Feb-14	8.23%			63
Bond		3.00%			25
Soft Costs/Design Fees		30.00%			256
Total Project Cost					$1,108
Fire Alarm					$
expand/upgrade to add early detection devices		1,500	sf	1.00	1,500
Sub Total - Direct Cost					1,500
General Conditions		20.00%			300
Overhead & Profit		23.00%			414
Design & Price Reserve		15.00%			332
Escalation	Feb-14	8.23%			210
Bond		3.00%			83
Soft Costs/Design Fees		30.00%			852
Total Project Cost					$3,691

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 1,500
ANIMAL SHELTER
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Replace Sinks						$
remove concrete block mop sink			1	ea	207.56	208
new mop sink and rough in			1	ea	3,207.23	3,207
tile walls around sink	8'high		40	sf	15.93	637
new faucet with vacuum breaker			1	ea	141.85	142
Sub Total - Direct Cost						4,194
General Conditions			20.00%			839
Overhead & Profit			23.00%			1,158
Design & Price Reserve			15.00%			929
Escalation		Feb-14	8.23%			586
Bond			3.00%			231
Soft Costs/Design Fees			30.00%			2,381
Total Project Cost						$10,318
Plumbing Improvements						$
remove/replace older fixture with ADA compliant			3	ea	1,773.10	5,319
install gray water system			1,500	sf	2.61	3,915
Sub Total - Direct Cost						9,234
General Conditions			20.00%			1,847
Overhead & Profit			23.00%			2,549
Design & Price Reserve			15.00%			2,045
Escalation		Feb-14	8.23%			1,290
Bond			3.00%			509
Soft Costs/Design Fees			30.00%			5,242
Total Project Cost						$22,716

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 1,500
ANIMAL SHELTER
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Overall ADA upgrade					$
overall ADA upgrade		1,500	ea	4.50	6,750
Sub Total - Direct Cost					6,750
General Conditions		20.00%			1,350
Overhead & Profit		23.00%			1,863
Design & Price Reserve		15.00%			1,494
Escalation	Feb-14	8.23%			943
Bond		3.00%			372
Soft Costs/Design Fees		30.00%			3,832
Total Project Cost					$16,604
Roof					$
rubber roof		1,500	sf	5.32	7,980
over continuous insulation board, 2" ex. Poly sty, R10		1,500	sf	1.77	2,655
insulation board fitted between existing ribs		1,500	sf	2.30	3,450
new metal fascia at perimeter		168	lf	26.18	4,398
pressure treated blocking at perimeter		168	lf	3.54	595
Sub Total - Direct Cost					19,078
General Conditions		20.00%			3,816
Overhead & Profit		23.00%			5,266
Design & Price Reserve		15.00%			4,224
Escalation	Feb-14	8.23%			2,665
Bond		3.00%			1,051
Soft Costs/Design Fees		30.00%			10,830
Total Project Cost					46,930
Roof Alternate					$
install new metal roof panels over existing additions		1,500		11.92	17,880
pressure treated blocking at purlins of existing additions		1,500		1.16	1,740
Sub Total - Direct Cost					132,558
General Conditions		20.00%			26,512
Overhead & Profit		23.00%			36,586
Design & Price Reserve		15.00%			29,348
Escalation	Feb-14	8.23%			18,518
Bond		2.40%			5,845
Soft Costs/Design Fees		30.00%			74,810
Total Project Cost					$324,177

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 1,500
ANIMAL SHELTER
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Climatic Control						$
remove and reinstall metal wall panels	14' high		2,352	sf	3.39	7,973
spray foam insulation in exterior walls	3"		2,352	sf	2.68	6,303
remove existing HVAC			1,500	sf	0.66	990
new HVAC system			1,500	sf	12.52	18,780
Sub Total - Direct Cost						34,046
General Conditions			20.00%			6,809
Overhead & Profit			23.00%			9,397
Design & Price Reserve			15.00%			7,538
Escalation		Feb-14	8.23%			4,756
Bond			3.00%			1,876
Soft Costs/Design Fees			30.00%			19,327
Total Project Cost						$83,749
Refinish Spaces						$
Upgrade all interior portions to FRP panels	14' high		5,082	sf	4.76	24,190
Sub Total - Direct Cost						24,190
General Conditions			20.00%			4,838
Overhead & Profit			23.00%			6,676
Design & Price Reserve			15.00%			5,356
Escalation		Feb-14	8.23%			3,379
Bond			3.00%			1,333
Soft Costs/Design Fees			30.00%			13,732
Total Project Cost						$59,504
Generator						$
new generator and distribution			1	ea	12,012.00	12,012
Sub Total - Direct Cost						12,012
General Conditions			20.00%			2,402
Overhead & Profit			23.00%			3,315
Design & Price Reserve			15.00%			2,659
Escalation		Feb-14	8.23%			1,678
Bond			3.00%			662
Soft Costs/Design Fees			30.00%			6,818
Total Project Cost						$29,546

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 1,500
ANIMAL SHELTER
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Replace Main Panel Board						$
remove main panel board			1	ea	150.15	150
replace main panel board			1	ea	3,503.50	3,504
Sub Total - Direct Cost						3,654
General Conditions			20.00%			731
Overhead & Profit			23.00%			1,009
Design & Price Reserve			15.00%			809
Escalation		Feb-14	8.23%			511
Bond			3.00%			201
Soft Costs/Design Fees			30.00%			2,075
Total Project Cost						$8,990
Install Additional Outlets						$
add throughout building			1,500	sf	4.00	6,000
Sub Total - Direct Cost						6,000
General Conditions			20.00%			1,200
Overhead & Profit			23.00%			1,656
Design & Price Reserve			15.00%			1,328
Escalation		Feb-14	8.23%			838
Bond			3.00%			331
Soft Costs/Design Fees			30.00%			3,406
Total Project Cost						$14,759
Lighting						$
remove and dispose of lighting			1,500	sf	0.12	180
new lighting			1,500	sf	3.50	5,250
add automated lighting controls	eng. allowance		1,500	sf	1.25	1,875
Sub Total - Direct Cost						7,305
General Conditions			20.00%			1,461
Overhead & Profit			23.00%			2,016
Design & Price Reserve			15.00%			1,617
Escalation		Feb-14	8.23%			1,020
Bond			3.00%			403
Soft Costs/Design Fees			30.00%			4,147
Total Project Cost						$17,969

Description	Note	Quantity	Unit	Price	Total

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 76,036
MARTIN SCHOOL
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth		
level 1		76,036 sf		1,870 lf		
Security System						$
evaluate system			1	day	616.62	617
cctv cameras	exterior		3	ea	2,816.58	8,450
security system wiring			120	lf	11.56	1,387
Sub Total - Direct Cost						10,454
General Conditions			20.00%			2,091
Overhead & Profit			23.00%			2,885
Design & Price Reserve			15.00%			2,315
Escalation		Feb-14	8.23%			1,460
Bond			3.00%			576
Soft Costs/Design Fees			30.00%			5,934
Total Project Cost						$25,715
Plumbing						$
remove multi user sink			2	ea	481.08	962
remove and replace multi users sink, circular, 8 person			2	ea	10,899.35	21,799
Sub Total - Direct Cost						22,761
General Conditions			20.00%			4,552
Overhead & Profit			23.00%			6,282
Design & Price Reserve			15.00%			5,039
Escalation		Feb-14	8.23%			3,180
Bond			3.00%			1,254
Soft Costs/Design Fees			30.00%			12,920
Total Project Cost						$55,988

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 76,036
MARTIN SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Site Paving						$
remove bit. Paving			5,754	sf	0.98	5,639
bit. Paving, 12"base, 2" binder, 1 1/2" wearing			5,754	sf	3.77	21,693
1" bit. Topping			547	sf	0.51	279
remove bit. Paving sidewalk			431	sf	0.98	422
bit. Paving sidewalk, 2" thick, 4" base			431	sf	2.39	1,030
fine grade			1,400	sf	0.15	210
remove concrete curb			76	lf	4.93	375
concrete curb			76	lf	14.77	1,123
catch basin, 4' drainage structure			2	ea	3,383.41	6,767
patch pavement at new catch basins			100	sf	10.40	1,040
drainage pipe, 10" cpp	allow		150	lf	15.13	2,270
excavate and backfill			150	lf	26.73	4,010
up to 12" pipe bedding			150	lf	7.40	1,110
saw cut roadway for trench 7" depth			160	lf	4.76	762
patch & repair trench 4" base, 3" finish			320	sf	7.39	2,365
traffic control detail			1	ea	1,085.76	1,086
signage/barricades			1	ea	1,482.00	1,482
Sub Total - Direct Cost						51,663
General Conditions			20.00%			10,333
Overhead & Profit			23.00%			14,259
Design & Price Reserve			15.00%			11,438
Escalation		Feb-14	8.23%			7,217
Bond			3.00%			2,847
Soft Costs/Design Fees			30.00%			29,327
Total Project Cost						$127,084
Roofing System						$
demo roof for cricket installation			2,518	sf	1.14	2,871
vapor barrier			2,518	sf	0.12	302
1/2" dense glass sheathing			2,518	sf	1.70	4,281
epdm roof over new insulation			2,518	sf	5.32	13,396
rigid insulation	2"		2,518	sf	1.91	4,809
build up tapered insulation on existing	ext. poly sty, 6" av		1,259	bf	1.04	1,309
Sub Total - Direct Cost						26,968
General Conditions			20.00%			5,394
Overhead & Profit			23.00%			7,443
Design & Price Reserve			15.00%			5,971
Escalation		Feb-14	8.23%			3,767
Bond			3.00%			1,486
Soft Costs/Design Fees			30.00%			15,309
Total Project Cost						$66,338

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 76,036
MARTIN SCHOOL
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Exterior Masonry						$
clean masonry walls to water table	4' high		1,030	sf	4.96	5,109
clean entire masonry wall	13' high		5,514	sf	4.96	27,349
clean entire masonry wall	17'4" high		1,950	sf	5.21	10,160
clean entire masonry wall	22'8" high		1,980	sf	5.33	10,553
clean entire masonry wall	23'4" high		1,983	sf	5.33	10,569
seal walls after cleaning			12,457	sf	2.10	26,160
scaffolding			11,427	sf	1.37	15,655
Sub Total - Direct Cost						105,555
General Conditions			20.00%			21,111
Overhead & Profit			23.00%			29,133
Design & Price Reserve			15.00%			23,370
Escalation		Feb-14	8.23%			14,746
Bond			2.40%			4,654
Soft Costs/Design Fees			30.00%			59,571
Total Project Cost						$258,140
Repaint Spaces						$
paint corridor walls	10' high		14,110	sf	1.12	15,803
Sub Total - Direct Cost						15,803
General Conditions			20.00%			3,161
Overhead & Profit			23.00%			4,362
Design & Price Reserve			15.00%			3,499
Escalation		Feb-14	8.23%			2,208
Bond			3.00%			871
Soft Costs/Design Fees			30.00%			8,971
Total Project Cost						$38,875
Upgrade Phone System						$
replace main phone switch	eng. allowance		1	ea	25,000.00	25,000
Sub Total - Direct Cost						25,000
General Conditions			20.00%			5,000
Overhead & Profit			23.00%			6,900
Design & Price Reserve			15.00%			5,535
Escalation		Feb-14	8.23%			3,492
Bond			3.00%			1,378
Soft Costs/Design Fees			30.00%			14,192
Total Project Cost						$61,497

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 76,036
MARTIN SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Plumbing					$
replace faucets and flush valves with automatic uni	allow	137	ea	594.51	81,448
Sub Total - Direct Cost					81,448
General Conditions		20.00%			16,290
Overhead & Profit		23.00%			22,480
Design & Price Reserve		15.00%			18,033
Escalation	Feb-14	8.23%			11,378
Bond		2.40%			3,591
Soft Costs/Design Fees		30.00%			45,966
Total Project Cost					$199,186
HVAC System					$
replace remainder of unit ventilators		25	ea	10,430.00	260,750
Sub Total - Direct Cost					260,750
General Conditions		16.00%			41,720
Overhead & Profit		18.00%			54,445
Design & Price Reserve		15.00%			53,537
Escalation	Feb-14	8.23%			33,780
Bond		2.40%			10,662
Soft Costs/Design Fees		30.00%			136,468
Total Project Cost					$591,362
HVAC System Controls					$
upgrade controls to allow central control/monitoring		76,036	sf	3.65	277,531
Sub Total - Direct Cost					277,531
General Conditions		16.00%			44,405
Overhead & Profit		18.00%			57,948
Design & Price Reserve		15.00%			56,983
Escalation	Feb-14	8.23%			35,954
Bond		2.40%			11,348
Soft Costs/Design Fees		30.00%			145,251
Total Project Cost					$629,420

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 76,036
MARTIN SCHOOL
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Lighting Controls						$
add automated lighting controls	eng. allowance		76,036	sf	1.25	95,045
Sub Total - Direct Cost						95,045
General Conditions			20.00%			19,009
Overhead & Profit			23.00%			26,232
Design & Price Reserve			15.00%			21,043
Escalation		Feb-14	8.23%			13,277
Bond			2.40%			4,191
Soft Costs/Design Fees			30.00%			53,639
Total Project Cost						$232,436
New Generator						$
remove old generator			1	ea	3,228.23	3,228
new generator, 25 kw, natural gas, 120/208v, 3 phase			1	ea	21,521.50	21,522
Sub Total - Direct Cost						24,750
General Conditions			20.00%			4,950
Overhead & Profit			23.00%			6,831
Design & Price Reserve			15.00%			5,480
Escalation		Feb-14	8.23%			3,458
Bond			3.00%			1,364
Soft Costs/Design Fees			30.00%			14,050
Total Project Cost						$60,883
Flooring System/Haz Mat Concern						$
remove 9x9 tile in cafeteria	ACM		2,973	sf	9.88	29,373
remove base			241	lf	1.48	357
vct			2,973	sf	3.29	9,781
floor patching/leveling/repair	flash patch		2,973	sf	1.13	3,359
vinyl base			241	lf	2.52	607
Sub Total - Direct Cost						43,477
General Conditions			20.00%			8,695
Overhead & Profit			23.00%			12,000
Design & Price Reserve			15.00%			9,626
Escalation		Feb-14	8.23%			6,074
Bond			3.00%			2,396
Soft Costs/Design Fees			30.00%			24,680
Total Project Cost						106,948

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 76,036
MARTIN SCHOOL
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
12x12 Ceiling Tiles/Haz Mat Concern						$
remove 12x12 ceiling tile	ACM		2,973	sf	12.35	36,717
new act ceiling tile			2,973	sf	4.98	14,806
Sub Total - Direct Cost						51,523
General Conditions			20.00%			10,305
Overhead & Profit			23.00%			14,220
Design & Price Reserve			15.00%			11,407
Escalation		Feb-14	8.23%			7,198
Bond			3.00%			2,840
Soft Costs/Design Fees			30.00%			29,248
Total Project Cost						126,741

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 27,989
PLEASANT STREET SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Basic Quantities	GFA		Girth		
lower level	12,452 sf		561 lf		
upper level	15,537 sf		777 lf		
Fire Protection					$
install new fire protection system		27,989	sf	4.69	131,268
Sub Total - Direct Cost					131,268
General Conditions		20.00%			26,254
Overhead & Profit		23.00%			36,230
Design & Price Reserve		15.00%			29,063
Escalation	Feb-14	8.23%			18,338
Bond		2.40%			5,788
Soft Costs/Design Fees		30.00%			74,082
Total Project Cost					$321,023
Accessibility					$
overall ADA upgrade		27,989		4.50	125,951
Sub Total - Direct Cost					125,951
General Conditions		20.00%			25,190
Overhead & Profit		23.00%			34,762
Design & Price Reserve		15.00%			27,885
Escalation	Feb-14	8.23%			17,595
Bond		2.40%			5,553
Soft Costs/Design Fees		30.00%			71,081
Total Project Cost					$308,017

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 27,989
PLEASANT STREET SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Accessibility						$
remove stair mounted wheelchair lift			1	ea	1,557.00	1,557
new vertical chair lift			1	ea	16,218.75	16,219
Sub Total - Direct Cost						17,776
General Conditions			20.00%			3,555
Overhead & Profit			23.00%			4,906
Design & Price Reserve			15.00%			3,936
Escalation		Feb-14	8.23%			2,483
Bond			3.00%			980
Soft Costs/Design Fees			30.00%			10,091
Total Project Cost						$43,727
Site Paving						$
remove bit. paving			30,844	sf	0.98	30,227
bit. paving, 12"base, 2" binder, 1 1/2" wearing			30,844	sf	3.76	115,973
concrete curb	allow		400	lf	14.77	5,908
crack sealer			500	lf	1.24	620
remove bit. Berm			20	lf	5.93	119
bit. berm, 12" high, 24" deep			20	lf	3.04	61
Sub Total - Direct Cost						152,908
General Conditions			20.00%			30,582
Overhead & Profit			23.00%			42,203
Design & Price Reserve			15.00%			33,854
Escalation		Feb-14	8.23%			21,361
Bond			2.40%			6,742
Soft Costs/Design Fees			30.00%			86,295
Total Project Cost						$373,945

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 27,989
PLEASANT STREET SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Site Drainage						$
storm manhole, 4' structure			1	ea	3,382.96	3,383
catch basin, 4' drainage structure	allow		7	ea	3,383.41	23,684
drainage pipe, 10" cpp	allow		650	lf	15.13	9,835
excavate and backfill			650	lf	26.73	17,375
up to 12" pipe bedding			650	lf	7.40	4,810
saw cut roadway for trench 7" depth			40	lf	4.76	190
patch & repair trench 4" base, 3" finish			20	lf	7.39	148
traffic control detail			1	ea	1,027.52	1,028
signage/barricades			1	ea	1,482.00	1,482
Sub Total - Direct Cost						61,935
General Conditions			20.00%			12,387
Overhead & Profit			23.00%			17,094
Design & Price Reserve			15.00%			13,712
Escalation		Feb-14	8.23%			8,652
Bond			2.40%			2,731
Soft Costs/Design Fees			30.00%			34,953
Total Project Cost						$151,464
Chimney Repairs						$
remove existing chimney	3'6x2'6"x10'		88	cf	15.62	1,375
reconstruct chimney			120	sf	458.04	54,965
scaffolding			1	ls	1,548.00	1,548
Sub Total - Direct Cost						57,888
General Conditions			20.00%			11,578
Overhead & Profit			23.00%			15,977
Design & Price Reserve			15.00%			12,816
Escalation		Feb-14	8.23%			8,087
Bond			2.40%			2,552
Soft Costs/Design Fees			30.00%			32,669
Total Project Cost						$141,567
Exterior Finishes						$
paint cupola			1	ea	308.25	308
scaffolding/staging			1	ls	1,548.00	1,548
Sub Total - Direct Cost						1,856
General Conditions			20.00%			371
Overhead & Profit			23.00%			512
Design & Price Reserve			15.00%			411
Escalation		Feb-14	8.23%			259
Bond			3.00%			102
Soft Costs/Design Fees			30.00%			1,053
Total Project Cost						$4,564

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 27,989
PLEASANT STREET SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Interior Finishes						$
sand and refinish wood floors			2,756	sf	2.84	7,827
(upper level main hallway)						
Sub Total - Direct Cost						7,827
General Conditions			20.00%			1,565
Overhead & Profit			23.00%			2,160
Design & Price Reserve			15.00%			1,733
Escalation		Feb-14	8.23%			1,093
Bond			3.00%			431
Soft Costs/Design Fees			30.00%			4,443
Total Project Cost						$19,252
Interior Finishes						$
patch and repair plaster walls in gymnasium			6,748	sf	0.62	4,184
paint walls in gymnasium			6,748	sf	1.54	10,392
Sub Total - Direct Cost						14,576
General Conditions			20.00%			2,915
Overhead & Profit			23.00%			4,023
Design & Price Reserve			15.00%			3,227
Escalation		Feb-14	8.23%			2,036
Bond			3.00%			803
Soft Costs/Design Fees			30.00%			8,274
Total Project Cost						$35,854
Interior Finishes - Gymnasium						$
remove tectum wall panels	arch allowance		500	sf	1.04	520
new tectum wall panels			500	sf	4.34	2,170
paint tectum panels			500	sf	1.54	770
Sub Total - Direct Cost						3,460
General Conditions			20.00%			692
Overhead & Profit			23.00%			955
Design & Price Reserve			15.00%			766
Escalation		Feb-14	8.23%			483
Bond			3.00%			191
Soft Costs/Design Fees			30.00%			1,964
Total Project Cost						$8,511

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 27,989
PLEASANT STREET SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Interior Finish						$
remove plywood ceiling over ramp	allow		500	sf	0.87	435
new gyp ceiling			500	sf	5.93	2,965
paint ceiling			500	sf	1.32	660
Sub Total - Direct Cost						4,060
General Conditions			20.00%			812
Overhead & Profit			23.00%			1,121
Design & Price Reserve			15.00%			899
Escalation		Feb-14	8.23%			567
Bond			3.00%			224
Soft Costs/Design Fees			30.00%			2,305
Total Project Cost						$9,988
Clock System						$
new clock system, wireless			27,989	sf	0.90	25,190
Sub Total - Direct Cost						25,190
General Conditions			20.00%			5,038
Overhead & Profit			23.00%			6,952
Design & Price Reserve			15.00%			5,577
Escalation		Feb-14	8.23%			3,519
Bond			3.00%			1,388
Soft Costs/Design Fees			30.00%			14,299
Total Project Cost						$61,963
HVAC						$
remove boiler			1	ea	3,311.53	3,312
new steam boiler, gas fired	1,700mbh		1	ea	30,664.20	30,664
examine steam traps for repair/replacement			1	day	715.92	716
Sub Total - Direct Cost						34,692
General Conditions			20.00%			6,938
Overhead & Profit			23.00%			9,575
Design & Price Reserve			15.00%			7,681
Escalation		Feb-14	8.23%			4,846
Bond			3.00%			1,912
Soft Costs/Design Fees			30.00%			19,693
Total Project Cost						85,337

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 27,989
PLEASANT STREET SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
HVAC Alternate					$
Alternate: (seperate item)					
convert to hydronic system (demo entire existing steam, new pipe, pum		27,989	sf	3.65	102,160
Sub Total - Direct Cost					102,160
General Conditions		20.00%			20,432
Overhead & Profit		23.00%			28,196
Design & Price Reserve		15.00%			22,618
Escalation	Feb-14	8.23%			14,271
Bond		2.40%			4,504
Soft Costs/Design Fees		30.00%			57,654
Total Project Cost					249,835
Electrical Systems					$
replace electrical devices		27,989	sf	4.50	125,951
replace older electrical panels		included above			
Sub Total - Direct Cost					125,951
General Conditions		20.00%			25,190
Overhead & Profit		23.00%			34,762
Design & Price Reserve		15.00%			27,885
Escalation	Feb-14	8.23%			17,595
Bond		2.40%			5,553
Soft Costs/Design Fees		30.00%			71,081
Total Project Cost					$308,017
Plumbing					$
replace faucets and flush valves with automatic uni allow		50	ea	594.51	29,726
Sub Total - Direct Cost					29,726
General Conditions		20.00%			5,945
Overhead & Profit		23.00%			8,204
Design & Price Reserve		15.00%			6,581
Escalation	Feb-14	8.23%			4,153
Bond		3.00%			1,638
Soft Costs/Design Fees		30.00%			16,874
Total Project Cost					73,121

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 27,989
PLEASANT STREET SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Automatic Lighting Controls						$
add automated lighting controls	eng. allowance		27,989	sf	1.25	34,986
Sub Total - Direct Cost						34,986
General Conditions			20.00%			6,997
Overhead & Profit			23.00%			9,656
Design & Price Reserve			15.00%			7,746
Escalation		Feb-14	8.23%			4,887
Bond			3.00%			1,928
Soft Costs/Design Fees			30.00%			19,860
Total Project Cost						$86,060
Gymnasium Lighting						$
remove lighting in gym			2,832	sf	0.25	708
new lighting with instant on source			2,832	sf	8.01	22,684
Sub Total - Direct Cost						23,392
General Conditions			20.00%			4,678
Overhead & Profit			23.00%			6,456
Design & Price Reserve			15.00%			5,179
Escalation		Feb-14	8.23%			3,268
Bond			3.00%			1,289
Soft Costs/Design Fees			30.00%			13,279
Total Project Cost						$57,541

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 101,745
HURLEY MIDDLE SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Site Paving						$
repair pavement along access road			400	sf	4.69	1,876
Sub Total - Direct Cost						1,876
General Conditions			20.00%			375
Overhead & Profit			23.00%			518
Design & Price Reserve			15.00%			415
Escalation		Feb-14	8.23%			262
Bond			3.00%			103
Soft Costs/Design Fees			30.00%			1,065
Total Project Cost						$4,614
Roofing System						$
demo roof for cricket installation			3,320	sf	1.14	3,785
vapor barrier			3,320	sf	0.12	398
1/2" dense glass sheathing			3,320	sf	1.70	5,644
epdm roof over new insulation			3,320	sf	5.32	17,662
rigid insulation	2"		3,320	sf	1.91	6,341
build up tapered insulation on existing	ext. poly sty, 6" av		1,660	bf	1.04	1,726
Sub Total - Direct Cost						35,556
General Conditions			20.00%			7,111
Overhead & Profit			23.00%			9,813
Design & Price Reserve			15.00%			7,872
Escalation		Feb-14	8.23%			4,967
Bond			3.00%			1,960
Soft Costs/Design Fees			30.00%			20,184
Total Project Cost						$87,463
Roof Drainage						$
overflow drain at entrance canopy	4"		1	ea	1,710.52	1,711
core roof 6"			1	ea	86.57	87
4" drain pipe and insulation			10	lf	56.23	562
connect to existing			1	ea	521.50	522
drain flashing	4"		1	ea	85.13	85
patch roof	allow		1	ea	283.75	284
Sub Total - Direct Cost						3,251
General Conditions			20.00%			650
Overhead & Profit			23.00%			897
Design & Price Reserve			15.00%			720
Escalation		Feb-14	8.23%			454
Bond			3.00%			179
Soft Costs/Design Fees			30.00%			1,845
Total Project Cost						$7,996

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 101,745
HURLEY MIDDLE SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Glass Block Walls						$
demo glass block wall			1,536	sf	2.08	3,195
demo brick wall			31	sf	4.98	154
demo concrete sill			48	lf	3.90	187
replace low brick with masonry wall			53	sf	34.42	1,824
metal sill at sill of window			48	lf	18.07	867
new insulated Kalwall			1,536	sf	89.59	137,610
Sub Total - Direct Cost						143,837
General Conditions			20.00%			28,767
Overhead & Profit			23.00%			39,699
Design & Price Reserve			15.00%			31,845
Escalation		Feb-14	8.23%			20,093
Bond			2.40%			6,342
Soft Costs/Design Fees			30.00%			81,175
Total Project Cost						$351,758
Flooring Finishes						$
remove vct at areas with cracked edges			2,735	sf	0.76	2,079
floor patching/leveling/repair	flash patch		2,735	sf	1.21	3,309
new vct at areas with cracked edges			2,735	sf	3.29	8,998
remove base			423	lf	0.54	228
vinyl base			423	lf	2.52	1,066
remove vct at hallways			5,761	sf	0.76	4,378
floor patching/leveling/repair	flash patch		5,761	sf	1.21	6,971
new vct at hallways			5,761	sf	3.29	18,954
remove base			1,504	lf	0.54	812
vinyl base			1,504	lf	2.52	3,790
remove vct at classrooms			17,616	sf	0.76	13,388
floor patching/leveling/repair			17,616	sf	1.21	21,315
new vct at classrooms			17,616	sf	3.29	57,957
remove base			2,481	lf	0.54	1,340
vinyl base			2,481	lf	2.52	6,252
Sub Total - Direct Cost						150,837
General Conditions			20.00%			30,167
Overhead & Profit			23.00%			41,631
Design & Price Reserve			15.00%			33,395
Escalation		Feb-14	8.23%			21,071
Bond			2.40%			6,650
Soft Costs/Design Fees			30.00%			85,125
Total Project Cost						$368,876

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 101,745
HURLEY MIDDLE SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Interior Wall Finish						$
paint corridors of 1974 wing	10' high		10,510	sf	1.12	11,771
add corner guards as needed	8' high		47	ea	134.52	6,322
Sub Total - Direct Cost						18,093
General Conditions			20.00%			3,619
Overhead & Profit			23.00%			4,994
Design & Price Reserve			15.00%			4,006
Escalation		Feb-14	8.23%			2,528
Bond			3.00%			997
Soft Costs/Design Fees			30.00%			10,271
Total Project Cost						$44,508
Plumbing						$
remove and replace faucets and flush valves with a allow			182	ea	594.51	108,201
Sub Total - Direct Cost						108,201
General Conditions			20.00%			21,640
Overhead & Profit			23.00%			29,863
Design & Price Reserve			15.00%			23,956
Escalation		Feb-14	8.23%			15,115
Bond			2.40%			4,771
Soft Costs/Design Fees			30.00%			61,064
Total Project Cost						$264,610
HVAC						$
remove and replace unit ventilators (50% of 1997 wing)			13	ea	10,430.00	135,590
Sub Total - Direct Cost						135,590
General Conditions			20.00%			27,118
Overhead & Profit			23.00%			37,423
Design & Price Reserve			15.00%			30,020
Escalation		Feb-14	8.23%			18,941
Bond			2.40%			5,978
Soft Costs/Design Fees			30.00%			76,521
Total Project Cost						$331,591

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 101,745
HURLEY MIDDLE SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Update HVAC Control System						$
update controls for pneumatic to digital			101,745	sf	3.65	371,369
Sub Total - Direct Cost						371,369
General Conditions			16.00%			59,419
Overhead & Profit			18.00%			77,542
Design & Price Reserve			15.00%			76,250
Escalation		Feb-14	8.23%			48,111
Bond			2.40%			15,185
Soft Costs/Design Fees			30.00%			194,363
Total Project Cost						$842,239
Add Ventilation						$
new RTU at music room	eng. allowance		1	ea	16,000.00	16,000
Sub Total - Direct Cost						16,000
General Conditions			20.00%			3,200
Overhead & Profit			23.00%			4,416
Design & Price Reserve			15.00%			3,542
Escalation		Feb-14	8.23%			2,235
Bond			3.00%			882
Soft Costs/Design Fees			30.00%			9,083
Total Project Cost						$39,358
HVAC						$
replace steam distribution piping in original buildin (in tunnels)	eng. allowance		21,000	sf	15.00	315,000
Sub Total - Direct Cost						315,000
General Conditions			16.00%			50,400
Overhead & Profit			18.00%			65,772
Design & Price Reserve			15.00%			64,676
Escalation		Feb-14	8.23%			40,808
Bond			2.40%			12,880
Soft Costs/Design Fees			30.00%			164,861
Total Project Cost						$714,397

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 101,745
HURLEY MIDDLE SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
HVAC						$
remove boiler			3	ea	3,311.53	9,935
new steam boiler, gas fired	1,700mbh		3	ea	46,309.20	138,928
examine steam traps for repair/replacement			1	day	715.92	716
Sub Total - Direct Cost						149,579
General Conditions			20.00%			29,916
Overhead & Profit			23.00%			41,284
Design & Price Reserve			15.00%			33,117
Escalation		Feb-14	8.23%			20,896
Bond			2.40%			6,595
Soft Costs/Design Fees			30.00%			84,416
Total Project Cost						365,803

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 56,314
NORTH SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Add Fire Rated Doors						$
add 1 hr rated doors at egress stairs			10	leaf	1,358.86	13,589
1 hr partition at doorway			140	sf	10.68	1,495
magnetic closers at doors			10	ea	344.01	3,440
fire alarm conduit and wire			400	lf	9.14	3,656
Sub Total - Direct Cost						22,180
General Conditions			20.00%			4,436
Overhead & Profit			23.00%			6,122
Design & Price Reserve			15.00%			4,911
Escalation		Feb-14	8.23%			3,099
Bond			3.00%			1,222
Soft Costs/Design Fees			30.00%			12,591
Total Project Cost						$54,561
Accessibility						$
overall ADA upgrade			56,314	sf	4.50	253,413
Sub Total - Direct Cost						253,413
General Conditions			16.00%			40,546
Overhead & Profit			18.00%			52,913
Design & Price Reserve			15.00%			52,031
Escalation		Feb-14	8.23%			32,830
Bond			2.40%			10,362
Soft Costs/Design Fees			30.00%			132,629
Total Project Cost						$574,724
Site Paving						$
remove and dispose of bit. Concrete			24,858	sf	0.98	24,361
bit. Paving, 12"base, 2" binder, 1 1/2" wearing			24,858	sf	3.76	93,466
build up paving to be flush with curb			25	sf	2.09	52
saw cut pavement			86	lf	4.78	411
remove bit. paving			296	lf	0.98	290
bit. Paving basketball courts			12,509	sf	3.02	37,777
court markings			1	ea	494.00	494
basketball goals & footings	NIC		-		-	-
Sub Total - Direct Cost						156,851
General Conditions			20.00%			31,370
Overhead & Profit			23.00%			43,291
Design & Price Reserve			15.00%			34,727
Escalation		Feb-14	8.23%			21,911
Bond			2.40%			6,916
Soft Costs/Design Fees			30.00%			88,520
Total Project Cost						$383,586

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 56,314
NORTH SCHOOL
SEEKONK, MA 02771

Description	Note	Quantity	Unit	Price	Total
Siding					$
remove wood siding at old clearstory		650	sf	2.84	1,846
stud infill, insulation, sheath, aluminum siding		650	sf	25.07	16,296
Sub Total - Direct Cost					18,142
General Conditions		20.00%			3,628
Overhead & Profit		23.00%			5,007
Design & Price Reserve		15.00%			4,017
Escalation	Feb-14	8.23%			2,534
Bond		3.00%			1,000
Soft Costs/Design Fees		30.00%			10,298
Total Project Cost					$44,626
Masonry					$
clean brick on North elevation		9,254	sf	4.30	39,792
assume 441'x14', 110'x28'					
scaffolding		9,254	sf	1.37	12,678
Sub Total - Direct Cost					52,470
General Conditions		20.00%			10,494
Overhead & Profit		23.00%			14,482
Design & Price Reserve		15.00%			11,617
Escalation	Feb-14	8.23%			7,330
Bond		3.00%			2,892
Soft Costs/Design Fees		30.00%			29,786
Total Project Cost					129,071
Widow Glazing					$
total replacement		1,225	sf	65.35	80,054
demo windows		1,225	sf	3.69	4,520
Sub Total - Direct Cost					84,574
General Conditions		20.00%			16,915
Overhead & Profit		23.00%			23,342
Design & Price Reserve		15.00%			18,725
Escalation	Feb-14	8.23%			11,815
Bond		2.40%			3,729
Soft Costs/Design Fees		30.00%			47,730
Total Project Cost					206,830

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 56,314
NORTH SCHOOL
SEEKONK, MA 02771

Description	Note	Quantity	Unit	Price	Total
Widow Glazing Alternate					$
replacement limited windows (clouded in sketch)		71	sf	65.35	4,640
demo windows		71	sf	3.69	262
Sub Total - Direct Cost					4,902
General Conditions		20.00%			980
Overhead & Profit		23.00%			1,353
Design & Price Reserve		15.00%			1,085
Escalation	Feb-14	8.23%			685
Bond		3.00%			270
Soft Costs/Design Fees		30.00%			2,783
Total Project Cost					12,058
Floor Finishes					$
remove carpeting, scrape glue at classrooms and library		3,698	sf	0.54	1,997
remove base		486	lf	0.54	262
new carpeting at classrooms and library		3,698	sf	5.04	18,638
vinyl base		486	lf	2.52	1,225
Sub Total - Direct Cost					22,122
General Conditions		20.00%			4,424
Overhead & Profit		23.00%			6,106
Design & Price Reserve		15.00%			4,898
Escalation	Feb-14	8.23%			3,090
Bond		3.00%			1,219
Soft Costs/Design Fees		30.00%			12,558
Total Project Cost					$54,417
Ceiling System					$
remove tectum panels on ceilings, leave grid		5,300	sf	1.14	6,042
replace tectum ceiling panels with act panels		5,300	sf	2.69	14,257
Sub Total - Direct Cost					20,299
General Conditions		20.00%			4,060
Overhead & Profit		23.00%			5,603
Design & Price Reserve		15.00%			4,494
Escalation	Feb-14	8.23%			2,836
Bond		3.00%			1,119
Soft Costs/Design Fees		30.00%			11,523
Total Project Cost					$49,934

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 56,314
NORTH SCHOOL
SEEKONK, MA 02771

Description	Note		Quantity	Unit	Price	Total
Clock System						$
new clock system, wireless			56,314		0.90	50,683
Sub Total - Direct Cost						50,683
General Conditions			20.00%			10,137
Overhead & Profit			23.00%			13,989
Design & Price Reserve			15.00%			11,221
Escalation		Feb-14	8.23%			7,080
Bond			3.00%			2,793
Soft Costs/Design Fees			30.00%			28,771
Total Project Cost						$124,674
Floor Finishes						$
remove rubber flooring (original building to east wing)			40	sf	0.76	30
repair floor below demo			40	sf	1.21	48
new flooring at demolished area	vct?		40	sf	3.29	132
remove base			40	lf	0.54	22
vinyl base			40	lf	2.52	101
Sub Total - Direct Cost						333
General Conditions			20.00%			67
Overhead & Profit			23.00%			92
Design & Price Reserve			15.00%			74
Escalation		Feb-14	8.23%			47
Bond			3.00%			18
Soft Costs/Design Fees			30.00%			189
Total Project Cost						$820
HVAC						$
remove boilers			2	ea	5,319.30	10,639
replace boilers, gas fired	2,146mbh		2	ea	36,713.60	73,427
Sub Total - Direct Cost						84,066
General Conditions			20.00%			16,813
Overhead & Profit			23.00%			23,202
Design & Price Reserve			15.00%			18,612
Escalation		Feb-14	8.23%			11,744
Bond			2.40%			3,706
Soft Costs/Design Fees			30.00%			47,443
Total Project Cost						$205,586

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 56,314
NORTH SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Electrical System					$
replace original electrical panels		56,314	sf	4.40	247,782
Sub Total - Direct Cost					247,782
General Conditions		16.00%			39,645
Overhead & Profit		18.00%			51,737
Design & Price Reserve		15.00%			50,875
Escalation	Feb-14	8.23%			32,100
Bond		2.40%			10,131
Soft Costs/Design Fees		30.00%			129,681
Total Project Cost					$561,951
Plumbing					$
remove and replace faucets and flush valves with automatic units		101	ea	594.51	60,046
Sub Total - Direct Cost					60,046
General Conditions		20.00%			12,009
Overhead & Profit		23.00%			16,573
Design & Price Reserve		15.00%			13,294
Escalation	Feb-14	8.23%			8,388
Bond		2.40%			2,647
Soft Costs/Design Fees		30.00%			33,887
Total Project Cost					$146,844
Update HVAC Control System					$
update controls for pneumatic to digital		56,314	sf	3.65	205,546
Sub Total - Direct Cost					205,546
General Conditions		16.00%			32,887
Overhead & Profit		18.00%			42,918
Design & Price Reserve		15.00%			42,203
Escalation	Feb-14	8.23%			26,628
Bond		2.40%			8,404
Soft Costs/Design Fees		30.00%			107,576
Total Project Cost					$466,162

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 56,314
NORTH SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Automatic Lighting Controls						$
add automated lighting controls	eng. allowance		56,314	sf	1.25	70,393
Sub Total - Direct Cost						70,393
General Conditions			20.00%			14,079
Overhead & Profit			23.00%			19,429
Design & Price Reserve			15.00%			15,585
Escalation		Feb-14	8.23%			9,834
Bond			2.40%			3,104
Soft Costs/Design Fees			30.00%			39,727
Total Project Cost						$172,151
Flooring System/Haz Mat Concern						$
remove 9x9 tile in basement			5,320	sf	9.88	52,562
new vct floor			5,320	sf	3.29	17,503
floor patching/leveling/repair	flash patch		5,320	sf	1.21	6,437
Sub Total - Direct Cost						76,502
General Conditions			20.00%			15,300
Overhead & Profit			23.00%			21,114
Design & Price Reserve			15.00%			16,937
Escalation		Feb-14	8.23%			10,687
Bond			2.40%			3,373
Soft Costs/Design Fees			30.00%			43,174
Total Project Cost						$187,087

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
AITKIN ELEMENTARY SCHOOL
SEEKONK, MA 02771

GFA 52,009

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth		
level 1		52,009 sf		1,648 lf		
Site Paving						$
repair depression in Rye St. access			450	sf	4.69	2,111
Sub Total - Direct Cost						2,111
General Conditions			20.00%			422
Overhead & Profit			23.00%			583
Design & Price Reserve			15.00%			467
Escalation		Feb-14	8.23%			295
Bond			3.00%			116
Soft Costs/Design Fees			30.00%			1,198
Total Project Cost						$5,192
Roofing System						$
demo roof at center section			9,490	sf	1.14	10,819
tapered insulation at center section	6" avg		4,745	bf	1.04	4,935
flashing at walls at center section			376	lf	5.62	2,113
epdm roof at center section			9,490	sf	5.32	50,487
demo roof at west canopy			600	sf	1.14	684
remove existing roof drain			1	ea	124.12	124
new roof drain at west canopy	8"		1	ea	1,642.73	1,643
new epdm roof at west canopy			600	sf	5.32	3,192
new fascia			305	lf	19.68	6,002
Sub Total - Direct Cost						79,999
General Conditions			20.00%			16,000
Overhead & Profit			23.00%			22,080
Design & Price Reserve			15.00%			17,712
Escalation		Feb-14	8.23%			11,176
Bond			2.40%			3,527
Soft Costs/Design Fees			30.00%			45,148
Total Project Cost						$195,642

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 52,009
AITKIN ELEMENTARY SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Exterior Masonry					$
clean north wall masonry		3,400	sf	4.43	15,062
seal north wall		3,400	sf	2.10	7,140
scaffolding		3,400	sf	1.37	4,658
Sub Total - Direct Cost					26,860
General Conditions		20.00%			5,372
Overhead & Profit		23.00%			7,413
Design & Price Reserve		15.00%			5,947
Escalation	Feb-14	8.23%			3,752
Bond		3.00%			1,480
Soft Costs/Design Fees		30.00%			15,247
Total Project Cost					$66,071
Masonry Repointing					$
backer rod and sealant at sills		78	lf	7.14	557
Sub Total - Direct Cost					557
General Conditions		20.00%			111
Overhead & Profit		23.00%			154
Design & Price Reserve		15.00%			123
Escalation	Feb-14	8.23%			78
Bond		3.00%			31
Soft Costs/Design Fees		30.00%			316
Total Project Cost					$1,370
Widow Glazing					$
total replacement		1,870	sf	65.35	122,205
demo windows		1,870	sf	3.69	6,900
Sub Total - Direct Cost					129,105
General Conditions		20.00%			25,821
Overhead & Profit		23.00%			35,633
Design & Price Reserve		15.00%			28,584
Escalation	Feb-14	8.23%			18,035
Bond		2.40%			5,692
Soft Costs/Design Fees		30.00%			72,861
Total Project Cost					$315,731

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 52,009
AITKIN ELEMENTARY SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
HVAC						$
replace old unit ventilators in older wing			19	ea	10,430.00	198,170
Sub Total - Direct Cost						198,170
General Conditions			20.00%			39,634
Overhead & Profit			18.00%			42,805
Design & Price Reserve			15.00%			42,091
Escalation		Feb-14	8.23%			26,558
Bond			2.40%			8,382
Soft Costs/Design Fees			30.00%			107,292
Total Project Cost						$464,932
Lighting Controls						$
add automated lighting controls	eng. allowance		52,009	sf	1.25	65,011
Sub Total - Direct Cost						65,011
General Conditions			20.00%			13,002
Overhead & Profit			23.00%			17,943
Design & Price Reserve			15.00%			14,393
Escalation		Feb-14	8.23%			9,082
Bond			2.40%			2,866
Soft Costs/Design Fees			30.00%			36,689
Total Project Cost						$158,986
ADA Sink Replacement						$
replace non-ADA sinks and modify casework - 3' section			9	ea	1,907.55	17,168
Sub Total - Direct Cost						17,168
General Conditions			20.00%			3,434
Overhead & Profit			23.00%			4,738
Design & Price Reserve			15.00%			3,801
Escalation		Feb-14	8.23%			2,398
Bond			3.00%			946
Soft Costs/Design Fees			30.00%			9,746
Total Project Cost						$42,231

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 52,009
AITKIN ELEMENTARY SCHOOL
SEEKONK, MA 02771

Description	Note	Quantity	Unit	Price	Total
Fascia Replacement					$
metal fascia		274	lf	12.49	3,422
blocking		364	bf	2.83	1,030
Sub Total - Direct Cost					4,452
General Conditions		20.00%			890
Overhead & Profit		23.00%			1,229
Design & Price Reserve		15.00%			986
Escalation	Feb-14	8.23%			622
Bond		3.00%			245
Soft Costs/Design Fees		30.00%			2,527
Total Project Cost					$10,951

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 143,070
HIGH SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth		
level 1		123,504 sf		2,757 lf		
level 2		19,566 sf		682 lf		
Controls						$
cctv cameras	exterior		3	ea	2,816.58	8,450
security system wiring			120	lf	11.56	1,387
Sub Total - Direct Cost						9,837
General Conditions			20.00%			1,967
Overhead & Profit			23.00%			2,715
Design & Price Reserve			15.00%			2,178
Escalation		Feb-14	8.23%			1,374
Bond			3.00%			542
Soft Costs/Design Fees			30.00%			5,584
Total Project Cost						24,197
Plumbing/Accessibility						$
remove select sinks			6	ea	68.84	413
new select sinks with ADA compliant sinks			6	ea	1,413.27	8,480
Sub Total - Direct Cost						8,893
General Conditions			20.00%			1,779
Overhead & Profit			23.00%			2,455
Design & Price Reserve			15.00%			1,969
Escalation		Feb-14	8.23%			1,242
Bond			3.00%			490
Soft Costs/Design Fees			30.00%			5,048
Total Project Cost						$21,876

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 143,070
HIGH SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Site Paving						$
demo bit. Paving			7,891	sf	0.98	7,733
bit. paving, 12"base, 2" binder, 1 1/2" wearing			7,891	sf	3.76	29,670
reset catch basin rim			1	ea	287.51	288
remove bit. concrete Sidewalk			3,907	sf	0.98	3,829
bit. concrete sidewalk			3,907	sf	2.39	9,338
remove concrete sidewalk			160	sf	1.61	258
concrete sidewalk			160	sf	5.71	914
remove tree			1	ea	1,235.00	1,235
replace curbing along sidewalks where reveal < 4" - eastern side of sch			460	lf	19.70	9,062
Sub Total - Direct Cost						62,327
General Conditions			20.00%			12,465
Overhead & Profit			23.00%			17,202
Design & Price Reserve			15.00%			13,799
Escalation		Feb-14	8.23%			8,707
Bond			2.40%			2,748
Soft Costs/Design Fees			30.00%			35,174
Total Project Cost						$152,422
Drainage System						$
remove terracotta drains in courtyard			2	ea	136.34	273
terracotta drains in courtyard			2	ea	2,470.00	4,940
remove terracotta piping in courtyard	6"		282	lf	20.70	5,837
terracotta pipe in courtyard	6"		282	lf	28.41	8,012
Sub Total - Direct Cost						19,062
General Conditions			20.00%			3,812
Overhead & Profit			23.00%			5,261
Design & Price Reserve			15.00%			4,220
Escalation		Feb-14	8.23%			2,663
Bond			3.00%			1,051
Soft Costs/Design Fees			30.00%			10,821
Total Project Cost						$46,890
Trees						$
remove trees in courtyard			6	ea	1,235.00	7,410
remove trees around exterior of building			1	ea	1,235.00	1,235
Sub Total - Direct Cost						8,645
General Conditions			20.00%			1,729
Overhead & Profit			23.00%			2,386
Design & Price Reserve			15.00%			1,914
Escalation		Feb-14	8.23%			1,208
Bond			3.00%			476
Soft Costs/Design Fees			30.00%			4,907
Total Project Cost						$21,265

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 143,070
HIGH SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Roofing Flashings						$
metal flashing, bridge over existing			322	lf	5.62	1,810
Sub Total - Direct Cost						1,810
General Conditions			20.00%			362
Overhead & Profit			23.00%			500
Design & Price Reserve			15.00%			401
Escalation		Feb-14	8.23%			253
Bond			3.00%			100
Soft Costs/Design Fees			30.00%			1,028
Total Project Cost						$4,454
Roofing Modifications						$
metal flashing	see detail		322	lf	7.38	2,376
metal flashing continuous with cleat			322	lf	5.62	1,810
corrugated spacer			322	lf	2.27	731
sealer and backer rod			322	lf	6.24	2,009
Sub Total - Direct Cost						6,926
General Conditions			20.00%			1,385
Overhead & Profit			23.00%			1,912
Design & Price Reserve			15.00%			1,533
Escalation		Feb-14	8.23%			968
Bond			3.00%			382
Soft Costs/Design Fees			30.00%			3,932
Total Project Cost						$17,038
Roofing Systems						$
demo roof			39,544	sf	1.14	45,080
tapered insulation	6" avg		19,772	bf	1.04	20,563
vapor barrier			39,544	sf	0.12	4,745
1/2" dense glass sheathing			39,544	sf	1.70	67,225
epdm roof			39,544	sf	5.32	210,374
wall flashing, raised up			224	lf	5.68	1,272
roof drains as necessary	eng. allowance		16	ea	1,642.73	26,284
storm water drainage			39,544	ea	1.56	61,689
Sub Total - Direct Cost						437,232
General Conditions			16.00%			69,957
Overhead & Profit			16.00%			81,150
Design & Price Reserve			15.00%			88,251
Escalation		Feb-14	8.23%			55,683
Bond			2.40%			17,575
Soft Costs/Design Fees			30.00%			224,954
Total Project Cost						$974,802

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 143,070
HIGH SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Chimney					$
repoint chimney		510	sf	27.76	14,158
remove chimney cap		30	lf	4.46	134
chimney cap		30	lf	52.05	1,562
scaffolding		1	ls	1,548.00	1,548
Sub Total - Direct Cost					17,402
General Conditions		20.00%			3,480
Overhead & Profit		23.00%			4,803
Design & Price Reserve		15.00%			3,853
Escalation	Feb-14	8.23%			2,431
Bond		3.00%			959
Soft Costs/Design Fees		30.00%			9,878
Total Project Cost					$42,806
Phone System					$
upgrade phone system		1	ls	50,000.00	50,000
Sub Total - Direct Cost					50,000
General Conditions		20.00%			10,000
Overhead & Profit		23.00%			13,800
Design & Price Reserve		15.00%			11,070
Escalation	Feb-14	8.23%			6,985
Bond		3.00%			2,756
Soft Costs/Design Fees		30.00%			28,383
Total Project Cost					$122,994
Roofing Structure					$
Paint exposed structure over pool					
floor protection		9,300	sf	0.35	3,255
staging		9,300	sf	2.00	18,600
prep ceiling/remove rust		9,300	sf	2.44	22,692
paint exposed structure over pool		9,300	sf	3.13	29,109
Sub Total - Direct Cost					73,656
General Conditions		20.00%			14,731
Overhead & Profit		23.00%			20,329
Design & Price Reserve		15.00%			16,307
Escalation	Feb-14	8.23%			10,289
Bond		2.40%			3,247
Soft Costs/Design Fees		30.00%			41,568
Total Project Cost					$180,127

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 143,070
HIGH SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Stage Flooring System					$
demo stage floor		2,250	sf	3.15	7,088
new stage floor		2,250	sf	15.48	34,830
Sub Total - Direct Cost					41,918
General Conditions		20.00%			8,384
Overhead & Profit		23.00%			11,569
Design & Price Reserve		15.00%			9,281
Escalation	Feb-14	8.23%			5,856
Bond		3.00%			2,310
Soft Costs/Design Fees		30.00%			23,795
Total Project Cost					$103,113
Plumbing					$
remove and replace faucets and flush valves with automatic units		256	ea	594.51	152,195
Sub Total - Direct Cost					152,195
General Conditions		20.00%			30,439
Overhead & Profit		23.00%			42,006
Design & Price Reserve		15.00%			33,696
Escalation	Feb-14	8.23%			21,261
Bond		2.40%			6,710
Soft Costs/Design Fees		30.00%			85,892
Total Project Cost					$372,199
Controls					$
programming upgrade to allow for remote control of system		40	hr	696.72	27,869
Sub Total - Direct Cost					27,869
General Conditions		20.00%			5,574
Overhead & Profit		23.00%			7,692
Design & Price Reserve		15.00%			6,170
Escalation	Feb-14	8.23%			3,893
Bond		3.00%			1,536
Soft Costs/Design Fees		30.00%			15,820
Total Project Cost					$68,554

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS GFA 143,070
HIGH SCHOOL
SEEKONK, MA 02771

COSTPRO, INC.

Description	Note		Quantity	Unit	Price	Total
Floor Finishes/Haz Mat Concern						$
remove 9x9 floor tiles at classrooms	ACT		6,000	sf	9.88	59,280
vct floors at classrooms			6,000	sf	3.29	19,740
Sub Total - Direct Cost						79,020
General Conditions			20.00%			15,804
Overhead & Profit			23.00%			21,810
Design & Price Reserve			15.00%			17,495
Escalation		Feb-14	8.23%			11,039
Bond			2.40%			3,484
Soft Costs/Design Fees			30.00%			44,596
Total Project Cost						$193,248
Courtyard Access						$
demo small classroom			162	sf	14.82	2,401
renovate classroom for access			162	sf	35.85	5,808
oversized doors			4	leaf	1,238.45	4,954
cut and demo exterior walls for access			84	sf	9.88	830
Sub Total - Direct Cost						13,993
General Conditions			20.00%			2,799
Overhead & Profit			23.00%			3,862
Design & Price Reserve			15.00%			3,098
Escalation		Feb-14	8.23%			1,955
Bond			3.00%			771
Soft Costs/Design Fees			30.00%			7,943
Total Project Cost						$34,421
Maintenance Storage						$
demo wood structures			2,000	sf	3.46	6,920
metal building			3,200	sf	29.06	92,992
overhead doors 10x10			4	ea	3,247.37	12,989
personnel door			1	leaf	1,484.34	1,484
slab on grade			3,200	sf	6.47	20,704
strip footings			240	lf	44.51	10,682
spread footings			16	ea	202.24	3,236
foundation wall			960	sf	82.23	78,941
Sub Total - Direct Cost						227,948
General Conditions			16.00%			36,472
Overhead & Profit			18.00%			47,596
Design & Price Reserve			15.00%			46,802
Escalation		Feb-14	8.23%			29,531
Bond			2.40%			9,320
Soft Costs/Design Fees			30.00%			119,301
Total Project Cost						516,970