



- ARCHITECT
- ENGINEER
- PLANNER
- PROJECT MANAGEMENT

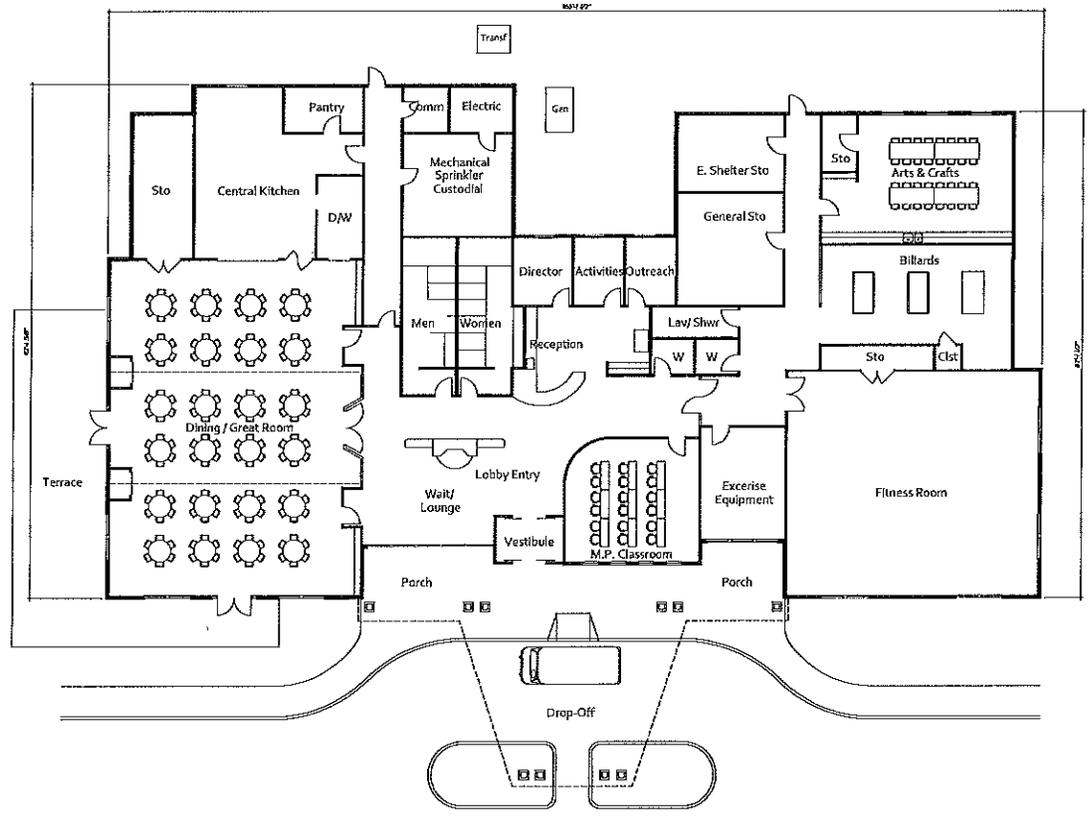
400 MAIN STREET
 ANDOVER, MA 01810
 TEL: 978.786.2000
 FAX: 978.786.2000

STATE: MA
 PROJ NO: 15334
 DESIGN: JAC
 DESIGNED BY:
 DATE: 10-27-14
 FILE NAME: G204
 REV:
 REV:

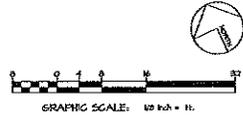
PROJECT FILE:
GROTON SENIOR CENTER FEASIBILITY STUDY
 GROTON, MA

DRAWING:
SENIOR CENTER NEW CONSTRUCTION PRELIMINARY FLOOR PLAN

SHEET:
Ap.6



PRELIMINARY FLOOR PLAN
 10'-1/4"



GROTON, MA

CONCEPT BUDGET STATEMENT OF PROJECT COSTS: NEW SENIOR CENTER CONSTRUCTION

Basis of Design: One Story 13,368 SF. Wood Frame and Sided Building designed.
 Site Location: Existing Senior Center and adjacent land

1. SITEWORK

- | | | |
|----|--|-------------|
| a. | General Site Work/ Site Development; Approx. 2 ac. (Allowance) | \$ 680,000. |
| b. | Demolition of Existing Senior Center (if required) | TBD. |

2. GENERAL CONSTRUCTION

- | | | |
|----|---|--------------|
| a. | Construct 13,368 GSF Building @\$248/SF.= | \$3,315,300. |
| b. | Covered Entrance Portico/ Drop Off | 80,000. |

Sub Total:		\$ 4,075,300.
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3. CONSTRUCTION FACTORS

- | | | |
|----|---|----------|
| a. | General Conditions and Requirements @ 8%= | 326,000. |
| b. | Contractor Overhead & Profit @ 7%= | 308,100. |
| c. | Bonds and Insurance @ 2%= | 94,200. |
| d. | Study/ Design Contingency @ 10%= | 480,400. |
| e. | Escalation to Mid-Pt. Const. (9/17) @ 5%= | 264,200. |

Sub-Total and Estimated Construction Bid:		\$ 5,548,200.
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- | | | |
|----|---------------------------------------|----------|
| f. | Construction Change Contingency @ 6%= | 332,900. |
|----|---------------------------------------|----------|

4. TOTAL PRELIMINARY CONSTRUCTION BUDGET: \$ 5,881,100.

5. PROJECT DEVELOPMENT

- | | | |
|----|--|-----------|
| a. | Architectural / Engineering Services: (DCAMM Schedule) | 470,000. |
| b. | Owner's Project Manager (M.G.L. c149§ 44A1/2) | 200,000. |
| c. | Site Survey | Complete. |
| d. | Geotechnical Engineer / Borings / Perc Testing | 12,000. |
| e. | Legal / Bonding Counsel | TBD. |
| f. | Bidding/ Printing | 10,000. |
| g. | Legal Advertising / Bid | 1,000. |
| h. | Clerk of the Works | OPM. |
| i. | Construction Materials Testing | 26,000. |
| j. | Utility Expenses | 23,000. |
| k. | Furniture, Fixtures & Equipment (Allowance) | 200,000. |
| l. | Tel / Data Systems (Est.) | 60,000. |
| m. | Moving/ Relocation Expenses | 10,000. |

Sub Total:		\$ 1,012,000.
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- | | | |
|----|--------------------------------------|---------|
| n. | Project Development Contingency @ 5% | 50,000. |
|----|--------------------------------------|---------|

Total Project Development:		\$ 1,062,000.
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GROTON, MA

6. SITE/ PROPERTY AQUISION

a. Estimated property acquisition costs \$ TBD.

7. TOTAL PRELIMINARY PROJECT BUDGET STATEMENT: \$ 6,943,100.

8. ALTERNATE BID COSTS

a. Demolition and site restoration of existing Senior Center. \$120,000

9. QUALIFICATIONS

a. This Summary of Probable Project Cost is based on a preliminary Building and Site Design Drawings dated August 2016, and the following assumptions:

1. Normal Construction schedule has been used to prepare this Summary.
2. Premium time costs are not included. Costs are based on forty-hour workweek, Mon. thru Fri.
3. This Summary is based on prevailing wage rates.
4. No costs are included for disposal or remedial work on contaminated soil.
5. An Allowance is not included for hazardous materials.
6. Items that could impact this Summary are:
 - a. Unforeseen subsurface conditions
 - b. Restrictive technical specification
 - c. Non-competitive bid conditions (less than five qualified bids)
 - d. Sole source specification of materials or products
 - e. Delays beyond the project schedule or May 2017 bid date
 - f. Accelerated completion
 - g. Unforeseen permitting conditions

b. This opinion of Probable Budget Summary of Project Cost is made on the basis of the experience, qualifications and best judgment of RAI's Professional Staff. This Summary is for Budget purposes only. Actual construction value is determined after the completion of the Construction Documents and the Bid Award process. Variance of +/- 5% of the Summary amount is probable.



- ARCHITECTS
- ENGINEERS
- PLANNERS
- PROJECT MANAGEMENT

400 MAIN STREET
 ANDOVER, MA 01821
 TEL.: 413.795.0000
 FAX.: 413.795.0000

STAIRS

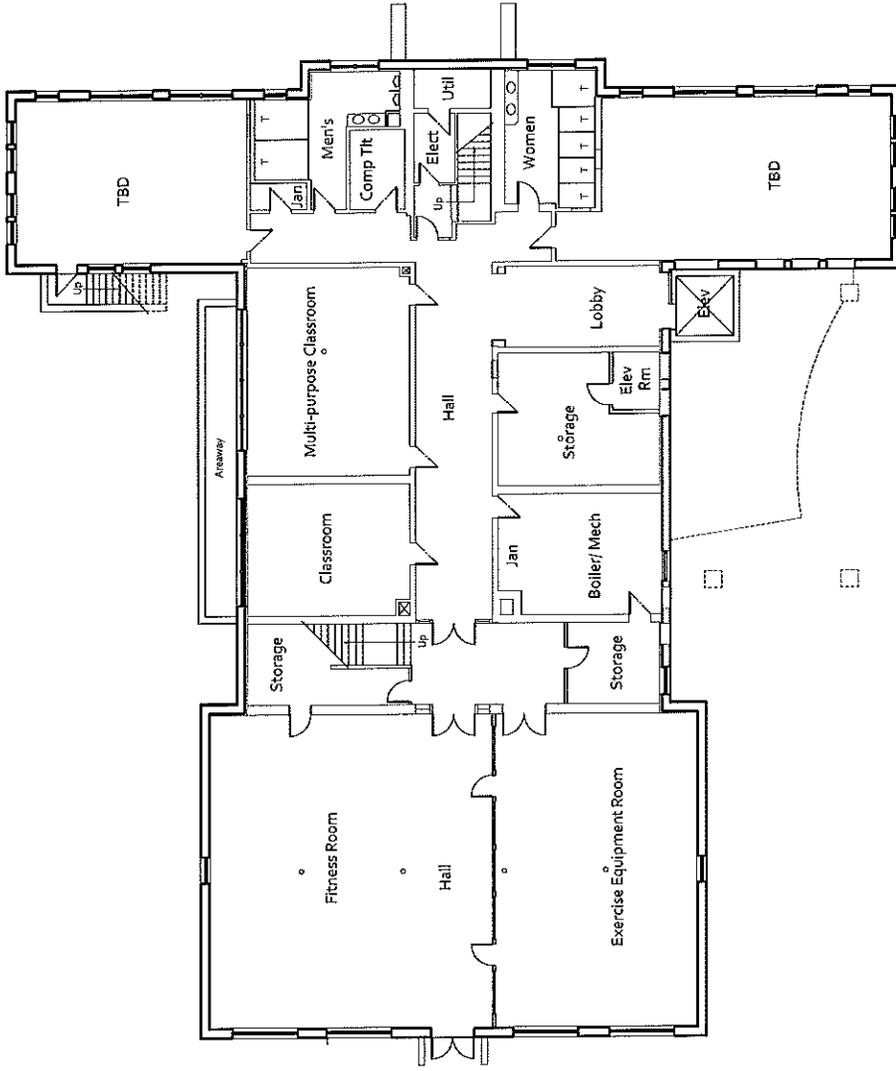
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 DRAWN: JAC
 CHECKED: TK
 DATE: 12/12/14
 FILE NAME: 002304
 REV: _____
 REV: _____

PROJECT TITLE:
GROTON SENIOR CENTER FEASIBILITY STUDY
 GROTON, MA

DRAWING:
PRESBOTT SCHOOL PRELIMINARY BASEMENT FLOOR PLAN

SHEET

Ap.8



PRELIMINARY FLOOR PLAN
 1/8" = 1'-0"



- ARCHITECTS
- ENGINEERS
- PLANNERS
- PROJECT MANAGEMENT

4301 MAIN STREET
 ANDOVER, MA 01821
 TEL: +1.337.886.0000
 FAX: +1.337.886.0000

STAMP

SCALE: 1/8" = 1'-0"
 PROJ. NO: 160304
 DRAWN: JAC
 CHECKED: TH
 DATE: 12.12.2016
 FILE NAME: 02204
 REV: _____
 REV: _____

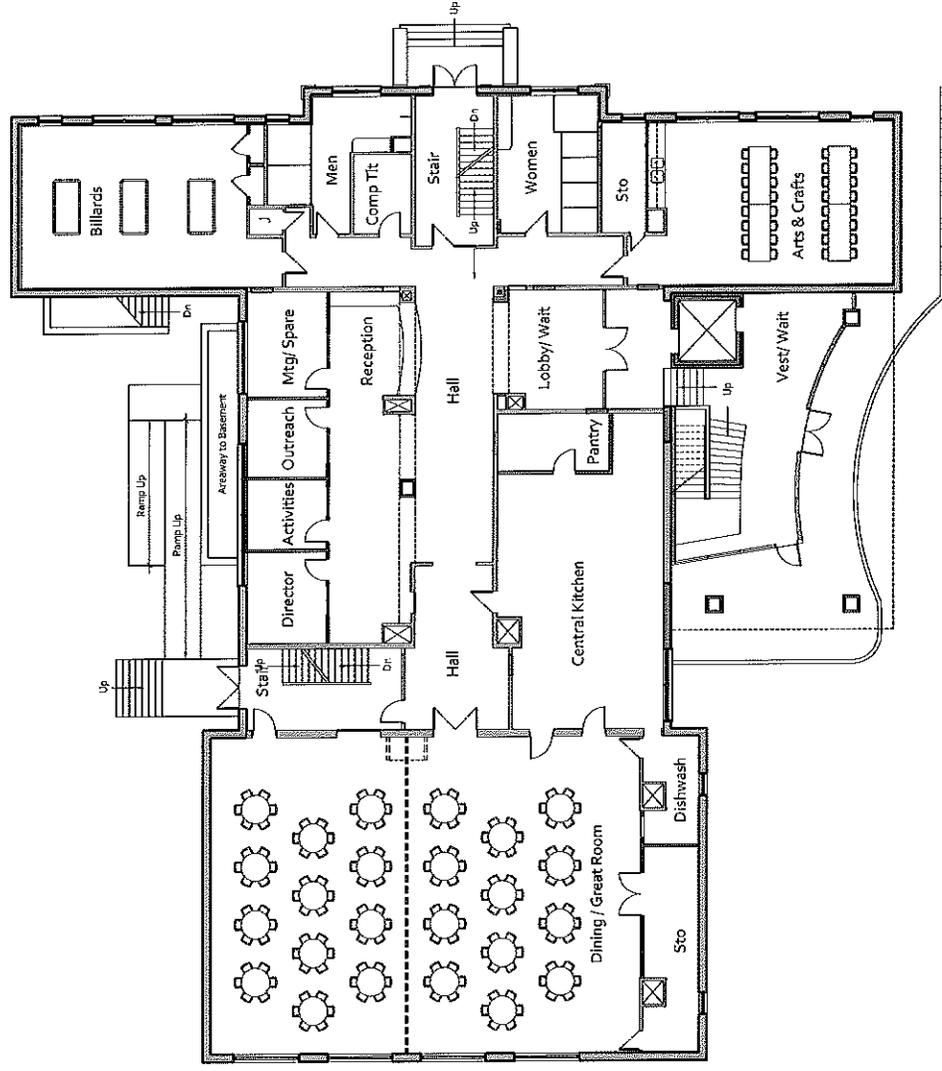
PROJECT TITLE:
GROTON SENIOR CENTER FEASIBILITY STUDY

GROTON MA

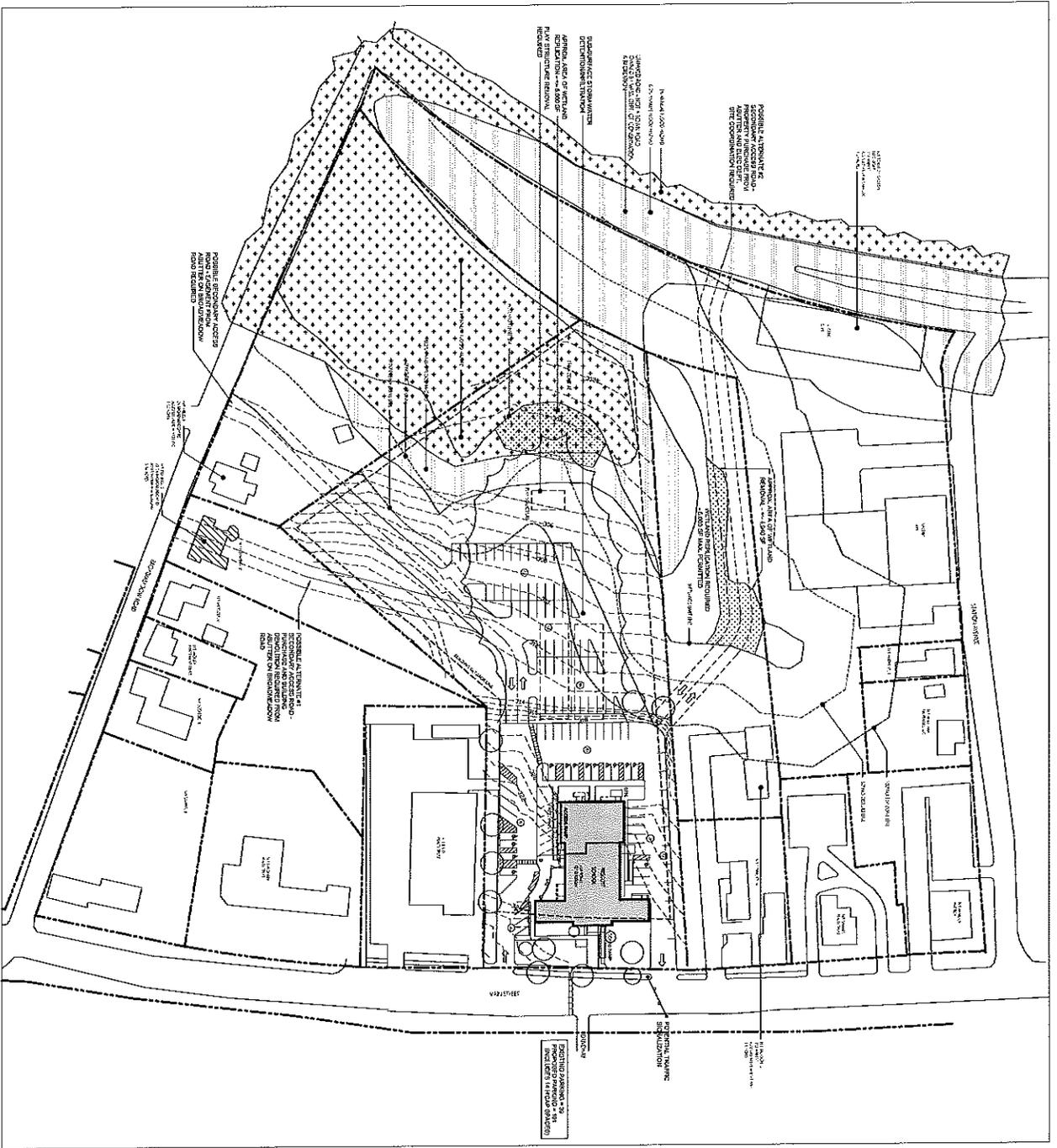
DRAWING:
PREBOOTT SCHOOL PRELIMINARY FIRST FLOOR PLAN

SHEET:

Ap.9



PRELIMINARY FLOOR PLAN
 1/8" = 1'-0"



SITE INFORMATION
 PRESCOTT SCHOOL TOPOGRAPHY
 TAKEN FROM "REUSE STUDY PLAN"
 BOSTON MA - 02130/2
 ADJUSTING FEATURES AND
 FEMA FLOOD DATA TAKEN
 FROM TOWN GIS SYSTEM

Ap.10

DATE:

PROJECT TITLE

GROTON SENIOR CENTER FEASIBILITY STUDY

GROTON MA

DRAWING:
 PRESCOTT SCHOOL

PRELIMINARY SITE PLAN

SCALE: 1/4" = 1'-0"

PROJ. NO. 100334

DRAWN: JAO

CHECKED: JMC

DATE: 12/20/05

TITLE BLOCK: 022004

REV:

REV:

STATUS:

437 MAIN STREET
 ANDOVER, MA 01810
 TEL: 978.478.8800
 FAX: 978.478.0000

ARCHITECTS
 ENGINEERS
 PLANNERS

PROJECT MANAGER/SVT

REINHARDT ASSOCIATES



Groton Fire Department

Fire ~ EMS ~ Rescue

"Together We Serve the Community"

45 Farmers Row
Groton, Massachusetts 01450
Tel: (978) 448-6333
Fax: (978) 448-1116



To: Mark Haddad

From: Steele McCurdy

Date: January 4, 2016

Re: Prescott Building

I have reviewed the site plan for the Prescott Building and have some questions that I would like to have questions and concerns that I would like to have addressed at the Jan 13th meeting if possible. In order to better analyze the plan, I would need road widths and turn radius calculations for the entire plan. The following is a non-inclusive list of issues that can be seen based on the current drawings.

Secondary access roads

The proposed secondary access road does raise a few questions regarding the traffic flow in the site. The alternative access road must be a minimum of 20 feet wide (527 CMR 1, 18.2.3.4.1.1 with no turn radius of smaller than 30' (527 CMR 1, 18.2.3.4.3.1).

26 Broadmeadow Rd is the preferred location since it exists to an existing paved roadway that currently allows two-way traffic.

Alternative 1 exits to a 1 way section of Broadmeadow that will require a longer travel pattern in order to access the site. The current width is also limited in this section creating additional issues.

Alternative 2 exits to a dirt road. This dirt road may have insufficient base to support fire apparatus and will require regular maintenance in order to keep the road in acceptable condition to be used as access. It should be noted that this location would be the preferable location if the outlet road was paved. Having access from Station Ave and Broadmeadow would eliminate occasional flooding issues on Broadmeadow.

Main St access/Main road

Any turn from Main St would need to meet a 30 foot turning radius (527 CMR 1 18.2.3.4.3.1). This 30 foot radius can be reduced to 25 feet with the addition of a secondary road. Parking on Main St would need to be restricted further to ensure that vehicles do not interfere with the turn radius.

The one way traffic sections of the driveway and parking lot would need to be a minimum of 15 feet wide in order to accommodate fire apparatus. Some of the existing parking may interfere with that

requirement. 527 CMR 1, 18.2.3.4.1.1, requires a 20 minimum width. In this case however utilizing a 1 way traffic pattern, we may interpret the code to be "boulevard-style" meaning that a reduced width can be utilized.

The turns at the corners of the building must have a minimum 30 foot radius with cars parked in the closest parking spaces.

Primary Egress to Main St

If fire apparatus accesses the site it is unlikely to be able to turn around to exit via the secondary access. For this reason the width and turn radius along the right side of the building must meet 15 feet of clearance and R 30' at Main St.

Miscellaneous

Any fire department access roadways must have a minimum vertical clearance of 13'6". (527 CMR 1, 18.2.3.4.1.2)

I need to know the locations of the fire department connection for any proposed sprinkler system. Related, the location of fire current and proposed hydrants is also needed.

ESTIMATE OF PROBABLE PRESCOTT SCHOOL COSTS

Basis of Estimate:

1. Existing Prescott School Evaluation Study
2. Repair of Identified Deficient Building Conditions, Code Deficiencies and Recommended Improvements for Senior Center Reno
3. Warming Shelter / Non-Emergency Shelter
4. Minimum Existing Roofing Replacement

A. SITE DEMO

1.	Environmental Protections	8,500.
2.	Clear / Grub Approx. 1 Acre	10,500.
3.	Lawns / Landscaping (Allowance)	6,000.
4.	Strip / Stockpile Topsoil	15,600.
5.	General Excavation / Trenching	23,000.
6.	Regrade / Repave Existing Parking and Drives	81,000.
7.	Additional parking construction @ \$1,700/ car x 52 cars	88,400
8.	Gravel fill rear site for additional parking	215,000.
9.	Expansion/ modifications to storm water management system	86,000.
10.	Modifications to exterior stair guard railings	8,000.
11.	Accessible ramps to primary entrances, \$500/LF x 100 LF	55,000.
12.	Miscellaneous Concrete Pads / Bases	5,600.
13.	Miscellaneous Site Signage (Allowance)	12,000.
14.	Secondary Emergency Vehicle Access (if feasible)	See Alternates.
		<u>\$ 614,600.</u>

B. ARCHITECTURAL

1.	Abate Asbestos, Lead Paint and Hazmats (Allowance)	30,000.
2.	Selective Demolition / Cutting and Patching Finishes	125,000.
3.	Remove Wood Floor / Install New Sub-Flooring (1 floor)	102,000.
4.	Replace Kalwall windows with new windows	115,000.
5.	Exterior Repairs and Improvements (Allowance)	70,000.
6.	Exterior Entrance Additions and Stair	180,000.
7.	New 3-stop Elevator, Hoistway and Machine Room.	200,000.
8.	Install power assist device at accessible entrances	6,000.
9.	Modifications to stair risers, treads, nosing and handrails	44,000.
10.	Interior renovations \$70/SF x 20,400 SF (Basement/1 st Floor)	1,428,000.
11.	Second Floor Code Improvements (Allowance)	120,000.
		<u>\$ 2,420,000.</u>

C. STRUCTURAL

1.	Cutting / Patching and Reframing New Openings	30,000.
2.	Miscellaneous Seismic improvements	100,000.
		<u>\$ 130,000.</u>

FEASIBILITY STUDY

RENOVATION OF PRESCOTT SCHOOL

D. PLUMBING

1.	Replace/Repair Sanitary Piping	55,000.
2.	Replacement of Existing Grease Interceptor (In Slab)	15,000.
3.	Replace Existing Domestic Hot Water Heater	26,000.
4.	New Gas and Water Piping	25,000.
5.	New Plumbing Fixtures (26 @ Senior Center)	130,000.
6.	New Plumbing Fixtures (Kitchen Allowance)	35,000.
7.	Miscellaneous Plumbing Reconfiguration/Repair	15,000.
		\$ 301,000.

E. FIRE PROTECTION

1.	Wet Pipe Automatic Sprinkler System (20,400 S.F.)	107,100.
		\$ 107,100.

F. HVAC

1.	100% Outdoor Air Unit with Energy Recovery	56,000.
2.	Restroom Exhaust Systems Vent to Roof	28,000.
3.	Replacement of Existing Terminal Equipment w/ FCU's (54 Zones)	140,000.
4.	Shell and Tube Steam to Hot Water Heat Exchanger & Accessories	56,000.
5.	Chillers for Fan Coil Units	110,000.
6.	Ductwork and Piping	210,000.
7.	Energy Management System and Controls	75,000.
8.	Kitchen Hood and Make-Up Air System	25,000.
		\$ 700,000.

G. ELECTRICAL

1.	Replace / Upgrade Power, Lighting and Comm/Data Systems (Allowance)	500,000.
2.	New 225 KW Diesel Standby Generator / Equipment	120,000.
		\$ 620,000.

H. TOTAL PROJECT BUDGET SUMMARY

\$ 4,892,700.

I. CONSTRUCTION FACTORS

1.	General Conditions/ OH & P @ 15% =	733,900.
	Sub-Total:	\$ 5,626,600.
2.	Study/ Design Contingency@ 10% =	562,660.
	Sub-Total	\$ 6,189,300.
3.	Escalation to Mid-Pt. Const. (10/17) @ 5% =	309,500.
	Sub-Total	\$ 6,498,800.
4.	Construction Change Contingency @ 7.5% =	487,400.

J. TOTAL CONCEPTUAL CONSTRUCTION BUDGET:

\$ 6,986,200.

FEASIBILITY STUDY

RENOVATION OF PRESCOTT SCHOOL

K. PROJECT DEVELOPMENT EXPENSES:

1.	Architectural / Engineering Services: (DCAMM Schedule)	594,000.	
2.	Owner's Project Manager (MGL c149§ 44A1/2)	240,000.	
3.	Legal / Bonding Counsel	By Town	
4.	Printing / Reproduction	10,000.	
5.	Legal Advertising / Bid	1,000.	
6.	Clerk of the Works	OPM	
7.	Construction Materials Testing	8,000.	
8.	Utility Expenses	23,000.	
9.	Furniture, Fixtures & Equipment (Allowance)	180,000.	
10.	Central Kitchen equipment / Fit-Out	90,000.	
11.	Tel / Data Systems (Est.)	60,000.	
12.	Moving / Relocation	<u>5,000.</u>	
	Sub Total:		\$ 1,211,000.
11.	Project Development Contingency @ 5%:	<u>60,550.</u>	
	Total Project Development:		\$ 1,271,550.

L. TOTAL CONCEPTUAL PROJECT BUDGET SUMMARY:

\$ 8,257,750.

M. ALTERNATES

1.	Rear Access Road (Public and Emergency Vehicles)	\$230,000. - \$290,000.
	a. Not including Property Acquisition	
2.	Traffic Signalization (if approved)	\$200,000. - \$240,000.

M. QUALIFICATIONS

1. This Summary of Probable Project Cost is based on a non-specific Building and Site Design and the following assumptions:
 - a. Normal Construction schedule has been used to prepare this Summary.
 - b. Premium time costs are not included. Costs are based on forty-hour workweek, Mon. thru Fri.
 - c. This Summary is based on prevailing wage rates.
 - d. No costs are included for disposal or remedial work on contaminated soil.
 - e. An Allowance is not included for hazardous materials.
 - f. Items that could impact this Summary are:
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 - 2) Restrictive technical specification
 - 3) Non-competitive bid conditions (less than five qualified bids)
 - 4) Sole source specification of materials or products
 - 5) Delays beyond the project schedule or **May 2017 bid date**
 - 6) Accelerated completion
 - 7) Unforeseen permitting conditions
2. This opinion of Probable Budget Summary of Project Cost is made on the basis of the experience, qualifications and best judgment of RAI's Professional Staff. This Summary is for Budget purposes only. Actual construction value is determined after the completion of the Construction Documents and the Bid Award process. Variance of +/- 5% of the Summary amount is probable.

At the request of the Study Committee, an investigation into the probability of a traffic light control device at the existing crosswalk in front of the building, on Main Street, Route 119 was conducted. Reinhardt Associates, Inc. contacted several knowledgeable professionals regarding the possibilities and implementation of such devices. The results are as follows:

Ms. Lori Bonavita, Planning Director was contacted by telephone. She would not be in favor of a traffic control light at this location. Since it is a mid-block installation, she sees no benefit except to disrupt traffic flow. If the plans move ahead and include a proposed traffic light, she would NOT recommend approval to the Planning Board when it came for her input for Site Plan Approval. She also felt that the Board of Selectmen would have the same negative feeling about such a proposal. The Town has just set up a Complete Streets Committee which is studying the Town streets, with emphasis on Main Street. They are looking at walkability, traffic flow and aesthetics. They have only had one meeting, but are going to pursue implementing a Complete Streets system. She forwarded some materials that the committee has produced.

Mr. Tom Delaney, Director of the DPW was contacted by telephone. He would not be in favor of a traffic control light at this location. He also believes that it would not get the approval of the Board of Selectmen, who must approve all traffic control devices in Town. He noted that Main Street is designated as State Route 119, however, the street is a "highway under local control".

Ms. Juliet Locke, Traffic Engineer, VHB, Springfield was contacted by telephone. As a past traffic consultant to our firm, she offered very helpful information concerning traffic control devices. The installation of traffic control devices is governed by the Manual of Uniform Traffic Control Devices (MUTCD), issued by the Federal Government. In particular, Section 4C.01, Studies and Factors for Justifying Traffic Control Signals, lists the "warrants" that apply to permitting such installations. There are nine warrants that will need to be addressed.

- Eight-Hour Vehicular Volume
- Four-Hour Vehicular Volume
- Peak Hour
- Pedestrian Volume
- School Crossing
- Coordinated Signal System
- Crash Experience
- Roadway Network
- Intersection Near a Grade Crossing

A study by a Traffic Engineer is required for this. The MUTCD section is quite lengthy, but one of the items that would apply to this location is: "A traffic control signal should not be installed if it will seriously disrupt progressive traffic flow".

Ms. Locke also mentioned that many citizen committees do not realize the very high cost of traffic signals. A typical Traffic Engineer study could cost approximately \$50,000-\$60,000 and typical traffic signalization controls could cost approximately \$150,000-\$160,000, installed.

Mark Haddad

From: John MacMillan <jmacmillan@reinhardtassoc.com>
Sent: Tuesday, January 10, 2017 6:11 PM
To: Mark Haddad
Cc: Mihran Keoseian (mkeosa70@gmail.com); Kathy Shelp
Subject: New Prescott Flagged Wetlands
Attachments: WETLAND SKETCH.PDF; Prescott Site Updated Wetlands Jan 2017.pdf

Mark,
We just received the updated wetland flagging from Surveyor (attached).
It appears the wetlands have changed considerably and now adjoin the southeastern corner of the rear parking area.
This means that there would be no access to Broadmeadow because of the amount of wetlands that that would be displaced.
It also means that there is much less area for new parking behind Prescott.

I have attached a site plan with a revised wetland shown in redline.
Let me know if you have any questions or want to discuss.

Sorry for bad news.

John D. MacMillan A.I.A., LEED AP

Reinhardt Associates, Inc.
Architects and Engineers

jmacmillan@reinhardtassoc.com

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