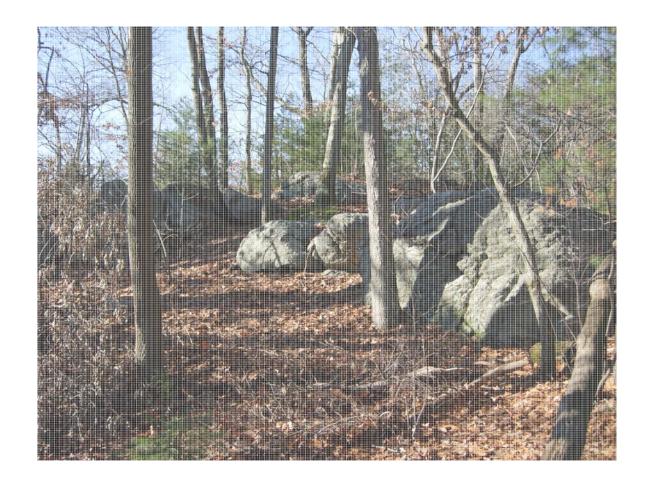
### New Senior Center – Town of Dedham April 28, 2008







# **Design Process**





### Goals and Values

### A Place for Seniors:

- A Sense of Community Meet social and personal needs
- **Serve a variety of seniors** by attracting a wider age-range of both women and men
- "New looking, not stuffy" Create a Center that is **inviting, warm, open and airy**
- Design a building that provides easy mobility and is accessible to all
- **Connect to the exterior** with lots of windows, natural light and access to walking paths
- Create a welcoming, active Lobby opening to Administration and Dining
- Provide flexible, adequate program spaces for large and small gatherings
  - Communal areas to meet with friends, share meals, hold large events/put on shows
  - Intimate spaces for one on one counseling and personal discussions
  - Spaces for new programs, adult education, discussion groups, arts and crafts
- Encourage Intergenerational programs between seniors and children
- Support Outreach for Meals on Wheels, food pantry and lending medical equipment
- Promote clean air, safe materials and energy efficiency "Green is healthier"





### Goals and Values

### A Good Neighbor:

- Work closely with the School Department/Committee and surrounding Neighbors
- Focus on the safety of the children at Dexter School and control senior traffic
- Create an effective flow for bus and car drop-off and maximize on-site parking
- Design a Senior Center that blends appropriately with the Dexter School
- Retain a **natural visual buffer** between the buildings and preserve the wooded setting
- Minimize the Senior Center's scale by "nestling" into the hillside
- Allow for adequate play areas and the future expansion of Dexter School

### **A Community Process:**

- Create a Senior Center that the **Dedham Community can embrace and be proud of**
- Build community support by following an open process that is efficiently managed
- Educate the community with presentations to neighborhood groups, town meeting
- Reviews with Finance and other town authorities
- **Provide Value** through effective use of town funds and **low operating costs**
- Be environmentally responsible and plan for a LEED Certifiable building
- Pass Town Meeting This may be our one chance to build a Senior Center







## Program

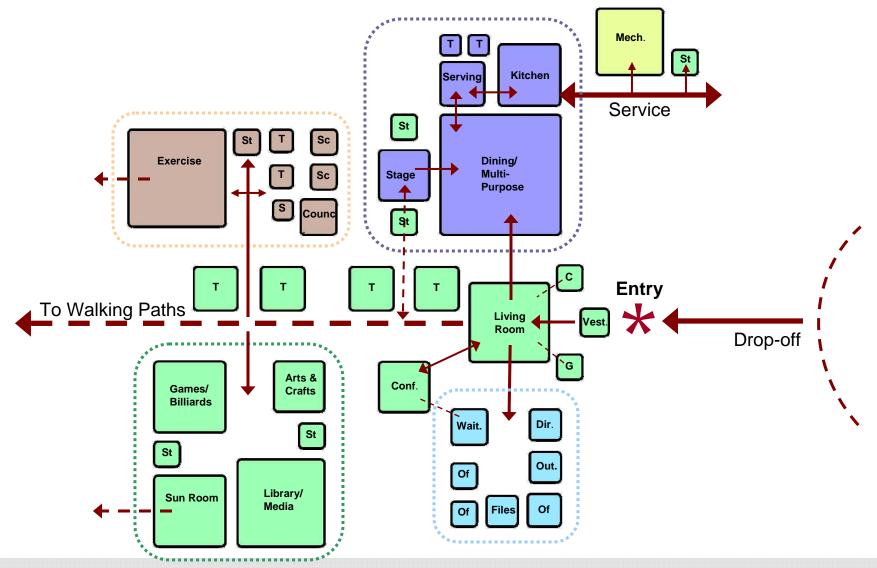
		# of		
No.	Nam e	Spaces	SF per Space	Total SF
1.00	General Areas			
1.01	Entry Vestibule	1	120	120
1.02	Living Room	1	1000	1000
1.03	Public Toilet Rooms	4	300	1200
1.04	Library/Media	1	1200	1200
1.05	General Storage	5	100	500
1.06	Coffee Area	1	100	100
1.07	Gift shop	1	100	100
1.08	Games/Billiards	1	800	800
1.09	Large Conference Room	1	400	400
1.10	Arts and Crafts	1	400	400
1.11	Sun Room (planting/gardens)	1	800	800
	Sub-Total			6620
2.00	Administration			
2.01	Reception/Waiting	1	200	200
2.02	Director's Office	1	150	150
2.03	Outreach Office	1	150	150
2.04	Staff Offices	2	100	200
2.05	Shared Office	1	170	170
2.06	Files/Supplies	1	150	150
	Sub-Total			1020

	No	# of	05 0	T-1-105
No.	Nam e	Spaces	SF per Space	Total SF
3.00	Wellness/Health Clinic			
3.01	Exercise Room	1	1500	1500
3.02	Screening Rooms	2	100	200
3.03	Small Conference/Counseling	1	200	200
3.04	Toilet Rooms (M, W)	2	80	160
3.05	Unisex Shower	1	60	60
3.06	Storage	1	100	100
	Sub-Total			2220
4.00	Function Areas			
4.01	Dining/Multipurpose	1	2300	2300
4.02	Stage	1	400	400
4.03	Serving Area	1	300	300
4.04	Kitchen	1	600	600
4.05	Staff Toilet Rooms	2	65	130
	Sub-Total			3730
5.00	Mechanical Room			
5.01	Boiler/HW/Electrical/Custodian	1	700	700
	Sub-Total			700
	Total Net SF			14290
	Net/Gross Multiplier	45%		6431
	Total Gross SF			20721





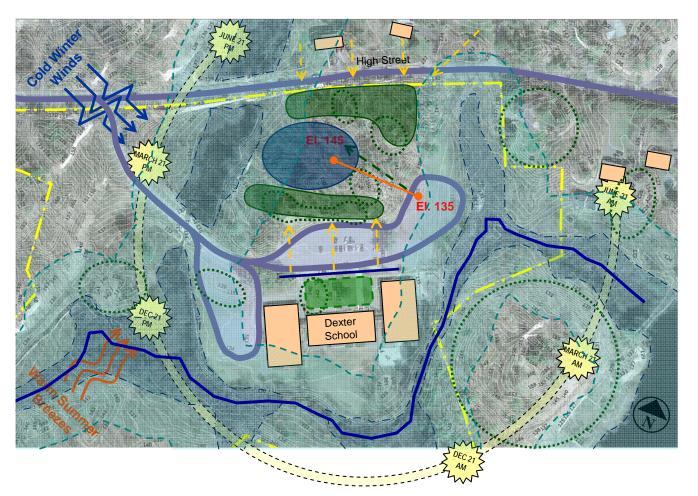
## Organizational Diagram







### Site Analysis



- Solar Arc/Winds
- Vehicular Circulation
- Wetlands, Lowder Brook & 100' Buffer
- Existing Buildings
- Topography/ Elevation
- Stone Wall
- Green Space
- Preserving Woods/ Natural Setting
- Buffer from School
- Buffer from Neighbors
- Connect Levels







### **LEED Checklist**



#### **LEED for New Construction v2.2** Registered Project Checklist

Project Name: Dedham Senior Center Project Address: 1100 High Street, Dedham MA

- 5	5 2	Sus	tainable Sites	14 Points
20		Prereg 1	Construction Activity Pollution Prevention	Required
- 4		Credit 1	Site Selection	1
		Credit 2	Development Density & Community Connectivity	-
	1		Brownfield Redevelopment	-
1		Credit 4.1	Alternative Transportation, Public Transportation Access	-
		Credit 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms	-
	$\overline{}$	Credit 4.3	Alternative Transportation, Low-Emitting & Fuel-Efficient Vehicles	1
	1	Credit 4.4	Alternative Transportation, Parking Capacity	
1		Credit 5.1	Site Development, Protect or Restore Habitat	
1		Credit 5.2	Site Development, Maximize Open Space	
10		Credit 6.1	Stormwater Design, Quantity Control	
	+	Credit 6.2	Stormwater Design, Quality Control	
1		Credit 7.1	Heat Island Effect, Non-Roof	
		Credit 7.2	Heat Island Effect, Roof	
	+	Credit 8	Light Pollution Reduction	
s ?	No		Light Foliation Reduction	
1		Wat	er Efficiency	5 Points
	_	Credit 1.1	Water Efficient Landscaping, Reduce by 50%	
+	+	Credit 1.1	Water Efficient Landscaping, No Potable Use or No Irrigation	
+	+	Credit 2		
	+	Credit 2.1	Innovative Wastewater Technologies	
1	-	Credit 3.1	Water Use Reduction, 20% Reduction	
		Gredit 3.2	Water Use Reduction, 30% Reduction	
5	5	Ene	rgy & Atmosphere	17 Points
				110011111111111111111111111111111111111
20		Prereg 1	Fundamental Commissioning of the Building Energy Systems	
		Prereq 1 Prereq 2	Fundamental Commissioning of the Building Energy Systems	Require
		Prereq 2	Minimum Energy Performance	Required Required
				Required Required
		Prereq 2	Minimum Energy Performance	Required Required Required
		Prereq 2 Prereq 3	Minimum Energy Performance Fundamental Refrigerant Management	Required Required Required
		Prereq 2 Prereq 3	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance 10.5% New Buildings or 3.5% Existing Building Renovations	Required Required Required
		Prereq 2 Prereq 3	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance 10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations	Require Require Require
		Prereq 2 Prereq 3	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations	Require Require Require
		Prereq 2 Prereq 3	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations	Require Require Require
		Prereq 2 Prereq 3	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 5 24.5% New Buildings or 17.5% Existing Building Renovations	Require Require Require
	1	Prereq 2 Prereq 3	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 524.5% New Buildings or 17.5% Existing Building Renovations 28% New Buildings or 21% Existing Building Renovations	Required Required Required
		Prereq 2 Prereq 3	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 5 24.5% New Buildings or 17.5% Existing Building Renovations 28% New Buildings or 21% Existing Building Renovations 31.5% New Buildings or 24.5% Existing Building Renovations	Require Require Require
		Prereq 2 Prereq 3	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 5 24.5% New Buildings or 17.5% Existing Building Renovations 28% New Buildings or 21% Existing Building Renovations 315% New Buildings or 24.5% Existing Building Renovations 315% New Buildings or 28% Existing Building Renovations	Requirer Requirer Requirer
		Prereq 2 Prereq 3	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 24.5% New Buildings or 17.5% Existing Building Renovations 38.5% New Buildings or 24.5% Existing Building Renovations 31.5% New Buildings or 24.5% Existing Building Renovations 35% New Buildings or 28% Existing Building Renovations 35% New Buildings or 3.5% Existing Building Renovations	Require Require Require
		Prereq 2 Prereq 3 Credit 1	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 5 24.5% New Buildings or 17.5% Existing Building Renovations 28% New Buildings or 24% Existing Building Renovations 31.5% New Buildings or 24.5% Existing Building Renovations 35% New Buildings or 28% Existing Building Renovations 38.5% New Buildings or 31.5% Existing Building Renovations 42% New Buildings or 35% Existing Building Renovations	Requirer Requirer Requirer
		Prereq 2 Prereq 3	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 5 24.5% New Buildings or 17% Existing Building Renovations 28% New Buildings or 21% Existing Building Renovations 31.5% New Buildings or 24.5% Existing Building Renovations 31.5% New Buildings or 31.5% Existing Building Renovations 38.5% New Buildings or 31.5% Existing Building Renovations 42% New Buildings or 35% Existing Building Renovations 38.5% New Buildings or 35% Existing Building Renovations	Requirer Requirer 1 to 10
		Prereq 2 Prereq 3 Credit 1	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 24.5% New Buildings or 17.5% Existing Building Renovations 28% New Buildings or 21% Existing Building Renovations 31.5% New Buildings or 24.5% Existing Building Renovations 35% New Buildings or 28% Existing Building Renovations 38.5% New Buildings or 35% Existing Building Renovations 42% New Buildings or 35% Existing Building Renovations 42% New Buildings or 35% Existing Building Renovations 42% New Buildings or 35% Existing Building Renovations 0n-Site Renewable Energy 2.5% Renewable Energy	Require Require 1 to 1 1 to 1
		Prereq 2 Prereq 3 Credit 1	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 24% New Buildings or 17.5% Existing Building Renovations 28% New Buildings or 24% Existing Building Renovations 31.5% New Buildings or 24.5% Existing Building Renovations 35% New Buildings or 24.5% Existing Building Renovations 38.5% New Buildings or 31.5% Existing Building Renovations 42% New Buildings or 315% Existing Building Renovations 07.Site Renewable Energy 2.5% Renewable Energy 7.5% Renewable Energy	Requirer Requirer 1 to 10
		Prereq 2 Prereq 3  Credit 1  Credit 2	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 28% New Buildings or 21% Existing Building Renovations 31.5% New Buildings or 24.5% Existing Building Renovations 35% New Buildings or 28% Existing Building Renovations 38.5% New Buildings or 31.5% Existing Building Renovations 42% New Buildings or 35% Existing Building Renovations On-Site Renewable Energy 2.5% Renewable Energy 12.5% Renewable Energy 12.5% Renewable Energy	Requirer Requirer Requirer
		Prereq 2 Prereq 3  Credit 1  Credit 2  Credit 3	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 24.5% New Buildings or 17.5% Existing Building Renovations 31.5% New Buildings or 21% Existing Building Renovations 31.5% New Buildings or 24.5% Existing Building Renovations 35% New Buildings or 28% Existing Building Renovations 35% New Buildings or 35% Existing Building Renovations 38.5% New Buildings or 31.5% Existing Building Renovations 42% New Buildings or 35% Existing Building Renovations 42% New Buildings or 12% Existing Building Renovations 42% New Buildings or 12% Existing Building Renovations 42% New Buildings or 31.5% Existing Building Renovations	Requirer Requirer Requirer 1 to 10
11		Prereq 2 Prereq 3  Credit 1  Credit 2  Credit 3 Credit 4	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 24% New Buildings or 17.5% Existing Building Renovations 38.5% New Buildings or 24.5% Existing Building Renovations 38.5% New Buildings or 24.5% Existing Building Renovations 38.5% New Buildings or 315% Existing Building Renovations 38.5% New Buildings or 315% Existing Building Renovations 38.5% New Buildings or 315% Existing Building Renovations 50.5ite Renewable Energy 1.5% Renewable Energy 1.5% Renewable Energy 1.5% Renewable Energy Enhanced Commissioning Enhanced Refrigerant Management	Requirer Requirer Requirer 1 to 10
		Prereq 2 Prereq 3  Gredit 1  Credit 2  Credit 3  Credit 4  Credit 5	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 21% New Buildings or 17% Existing Building Renovations 28% New Buildings or 21% Existing Building Renovations 31.5% New Buildings or 24.5% Existing Building Renovations 35% New Buildings or 37.5% Existing Building Renovations 38.5% New Buildings or 37.5% Existing Building Renovations 38.5% New Buildings or 35% Existing Building Renovations 07.5% Renewable Energy 12.5% Renewable Energy 12.5% Renewable Energy 12.5% Renewable Energy Enhanced Commissioning Enhanced Refrigerant Management Measurement & Verification	Requirer Requirer Requirer 1 to 10
11		Prereq 2 Prereq 3  Credit 1  Credit 2  Credit 3 Credit 4	Minimum Energy Performance Fundamental Refrigerant Management  Optimize Energy Performance  10.5% New Buildings or 3.5% Existing Building Renovations 14% New Buildings or 7% Existing Building Renovations 17.5% New Buildings or 10.5% Existing Building Renovations 21% New Buildings or 14% Existing Building Renovations 24% New Buildings or 17.5% Existing Building Renovations 38.5% New Buildings or 24.5% Existing Building Renovations 38.5% New Buildings or 24.5% Existing Building Renovations 38.5% New Buildings or 315% Existing Building Renovations 38.5% New Buildings or 315% Existing Building Renovations 38.5% New Buildings or 315% Existing Building Renovations 50.5ite Renewable Energy 1.5% Renewable Energy 1.5% Renewable Energy 1.5% Renewable Energy Enhanced Commissioning Enhanced Refrigerant Management	Require Require Require

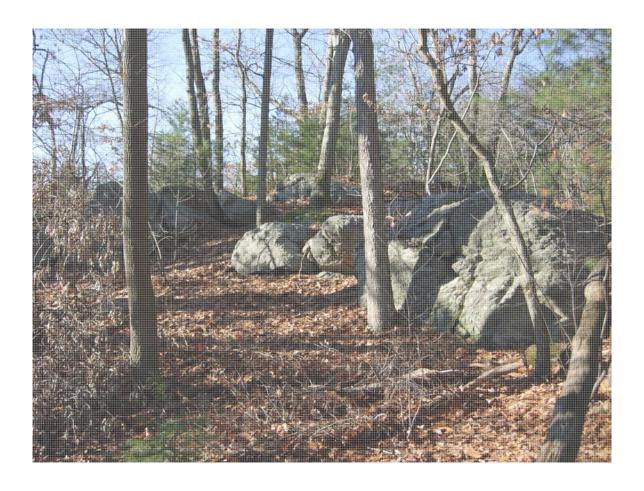
3 4 6	Mate	erials & Resources	13 Points
V	Prereg 1	Storage & Collection of Recyclables	Required
1		Building Reuse, Maintain 75% of Existing Walls, Floors & Roof	
1	Credit 1.2	Building Reuse, Maintain 100% of Existing Walls, Floors & Roof	
1	Credit 1.3	Building Reuse, Maintain 50% of Interior Non-Structural Elements	0.0
1	Credit 2.1	Construction Waste Management, Divert 50% from Disposal	100
11	Credit 2.2	Construction Waste Management, Divert 75% from Disposal	
1	Credit 3.1	Materials Reuse, 5%	
1	Credit 3.2	Materials Reuse,10%	
1	Credit 4.1	Recycled Content, 10% (post-consumer + 1/2 pre-consumer)	
1	Credit 4.2	Recycled Content, 20% (post-consumer + ½ pre-consumer)	
1	Credit 5.1	Regional Materials, 10% Extracted, Processed & Manufactured Regio	
11	Credit 5.2	Regional Materials, 20% Extracted, Processed & Manufactured Regio	- 5
1	Credit 6	Rapidly Renewable Materials	
1	Credit 7	Certified Wood	
es 7 N	0		
1 4	Indo	oor Environmental Quality	15 Points
Y	Prereq 1	Minimum IAQ Performance	Require
Y	Prereq 2	Environmental Tobacco Smoke (ETS) Control	Require
1	Credit 1	Outdoor Air Delivery Monitoring	
1	Credit 2	Increased Ventilation	
1	Credit 3.1	Construction IAQ Management Plan, During Construction	
1	Credit 3.2	Construction IAQ Management Plan, Before Occupancy	
1	Credit 4.1	Low-Emitting Materials, Adhesives & Sealants	
1	Credit 4.2	Low-Emitting Materials, Paints & Coatings	
1	Credit 4.3	Low-Emitting Materials, Carpet Systems	
1	Credit 4.4	Low-Emitting Materials, Composite Wood & Agrifiber Products	
1	Credit 5	Indoor Chemical & Pollutant Source Control	
1	Credit 6.1	Controllability of Systems, Lighting	
1	Credit 6.2	Controllability of Systems, Thermal Comfort	
1	Credit 7.1	Thermal Comfort, Design	
1	Credit 7.2	Thermal Comfort, Verification	
1	Credit 8.1	Daylight & Views, Daylight 75% of Spaces	
1	Credit 8.2	Daylight & Views, Views for 90% of Spaces	
es ? N			
1	Inno	ovation & Design Process	5 Point
	Credit 1.1	Innovation in Design: Provide Specific Title	
	Credit 1.2	Innovation in Design: Provide Specific Title	
	Credit 1.3	Innovation in Design: Provide Specific Title	
	Credit 1.4	Innovation in Design: Provide Specific Title	
1	Credit 2	LEED® Accredited Professional	
es ? N		LLLD Accidulted Professional	







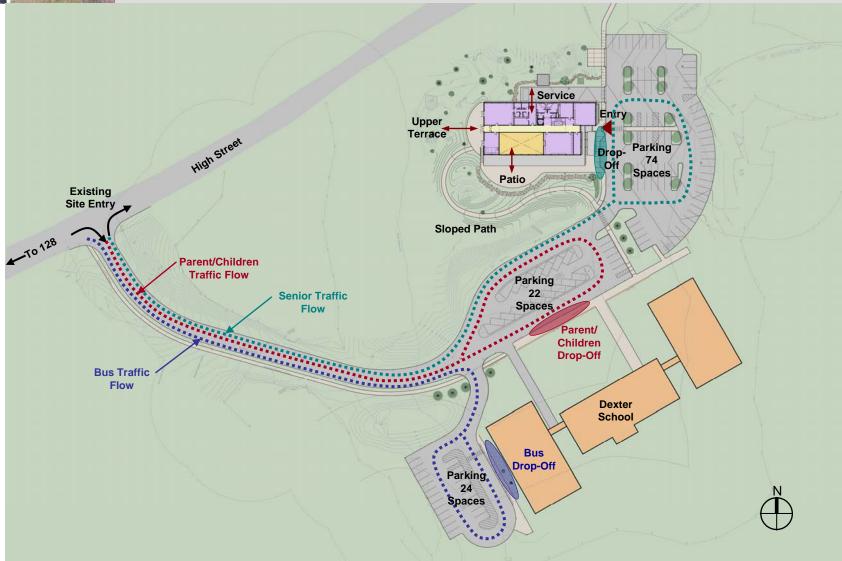
# **Schematic Design**







### Site Plan



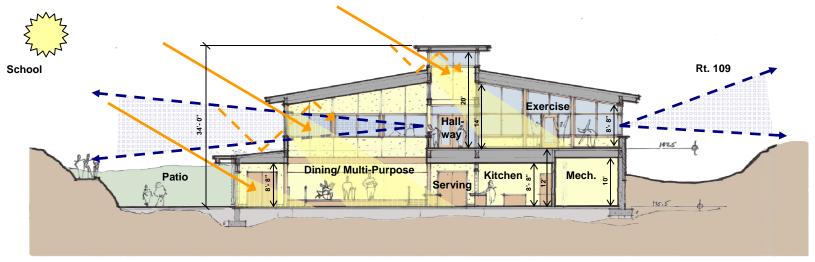
#### Lower Level Plan Service <del>+</del> 135' Outreach Off. Files Off. Elec. Cust. Load. Men Women Office Mech. Shared Сору Copier Off. Dir. Recep. Wait Loan Off. Gen. St. **⊕** 136' Serving DOG Living Covered Platform Conf. Room Entry Dining/ Multi-Purpose Drop-**Parking** Off Chair/ Café/ Gifts St. Table St. Patio <del>\$</del> 135.5'

### **Upper Level Plan** Woods £3 + 144' Top of Wall Women Arts/ Game Crafts Room Fitness Exer. Jan. Room Counseling Hallway Upper Terrace Sun Rm/ Sun Library/ Planting Rm/ **Open To Below** Media Sitting Parking

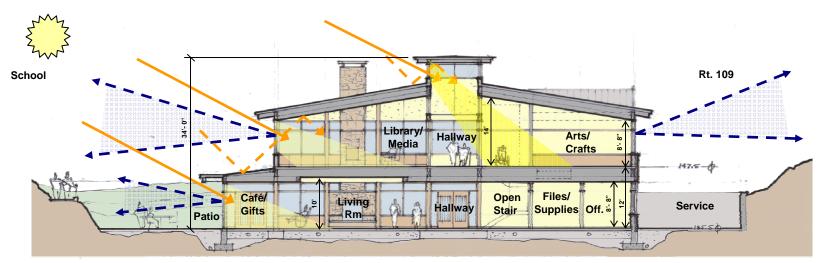




## **Building Sections**



Section A – 2 Story Dining & Balcony

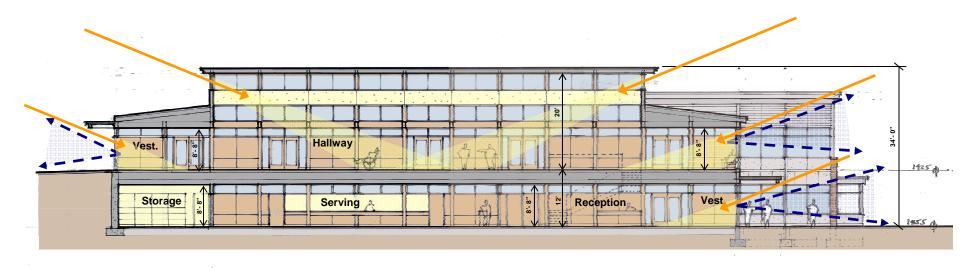


Section B - Lobby, Library & Stair





## **Building Section**



**Section C - Entry & Hallway** 





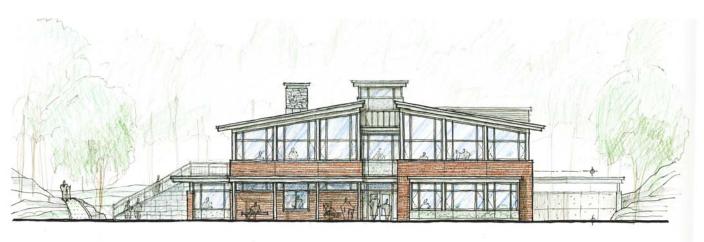


Reception and Living Room





### **Exterior Elevations**



**East Elevation** 



**South Elevation** 





### **Exterior Elevations**



**North Elevation** 







**New Senior Center** 





### **Cost Summary**

#### Site Costs:

- · Improve existing roads & parking
- Improve existing storm water control
- Create safe vehicular/ pedestrian circulation & drop-offs
- New landscaping Trees, plantings, walkways, & patios
- · Addresses conservation commission requirements
- Addresses parking access requirements by town authorities
- Allowances for ledge removal & utility work

#### **Soft Costs:**

- Professional & OPM fees
- Surveys, wetlands & geotech
- · Furnishings & equipment
- Testing, reviews & commissioning
- Owner's 5% construction contingency

#### **Building Costs:**

- Low maintenance, durable exterior materials
- Low operational cost (up to 30% savings)
- · High efficiency mechanical systems, individual controls
- · Natural daylighting, grey water reuse, healthy air
- Efficient plan Open & airy, minimal circulation
- · Warm, durable interior finishes
- Well organized, flexible program space
- · Long lasting steel construction
- Code compliant & handicap accessible





### Design Development Estimate

T	1.	0	
BIII	ding	Cons	truction:
Dur	CHILL	COILD	ti tiotioii.

Sub Total	\$4,699,717
+ Escalation 9%	\$422,975
	\$5,122,692
+ <sup>2</sup> Design Contingency 5%	\$256,135
	\$5,378,827
General Requirements	\$699,248
Total Bldg Construction Cost =	\$6,078,075

#### Notes:

- 1. Escalation for 4Q 2009, midpoint construction now 9%
- 2. Design contingency lowered from 10% (SD) to 5% (DD)
- 3. Soft costs include 5% owner's construction contingency

0	٠		~										
-	1	te		a	ท	C.	tr	11	C	Ħ	0	n	•
U	I.	LC		U	11	o	LI	ч	-	LI	v	11	٠

Sub Total	\$1,263,205
+ <sup>1</sup> Escalation 9%	\$113,688
	\$1,376,893
+ <sup>2</sup> Design Contingency 5%	\$68,845
	\$1,445,738
General Requirements	\$187,946
Total Site Construction Cost =	\$1,633,684

### Project Totals:

Bldg Construction Cost = + Site Construction Cost =	\$6,078,075 \$1,633,684
Total Construction Cost = + <sup>3</sup> Total Soft Cost =	\$7,711,759 \$1,924,000
Total Bldg Construction Cost =	\$9,635,759





