

Bloomfield Library – Planning Study

Town of Bloomfield

Town Council Meeting

May 24, 2021

Introduction | TSKP Studio



“...the newly expanded and renovated building has allowed us to serve the public with a much broader pallet of services...bringing us ever closer to our primary objective to excel as the lifelong learning and cultural center for our community.”

*Katherine Leeds, Retired Library Director
Wilton Library*

The Team | TSKP STUDIO



HARTFORD



BOSTON

Wintonbury Early Childhood Magnet School, Bloomfield



Bloomfield High School Library Addition



21st Century Libraries | Wilton Library



21st Century Libraries | Somers Library



21st Century Libraries | HPL – Dwight Branch



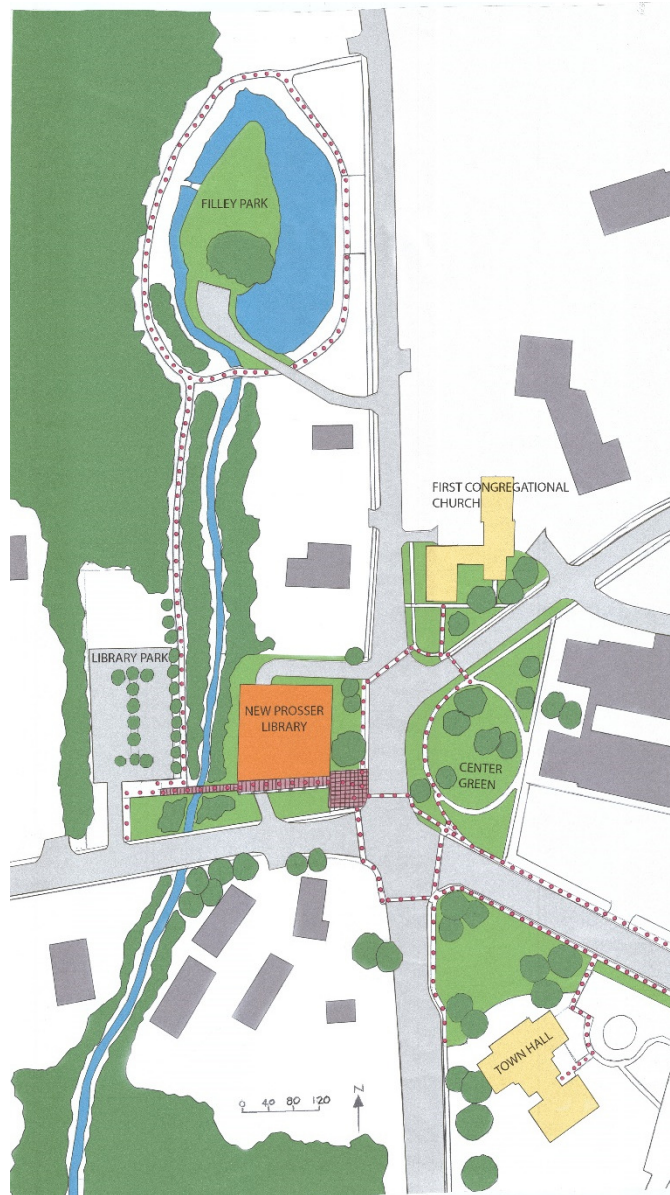
21st Century Libraries | HPL - YOUmedia



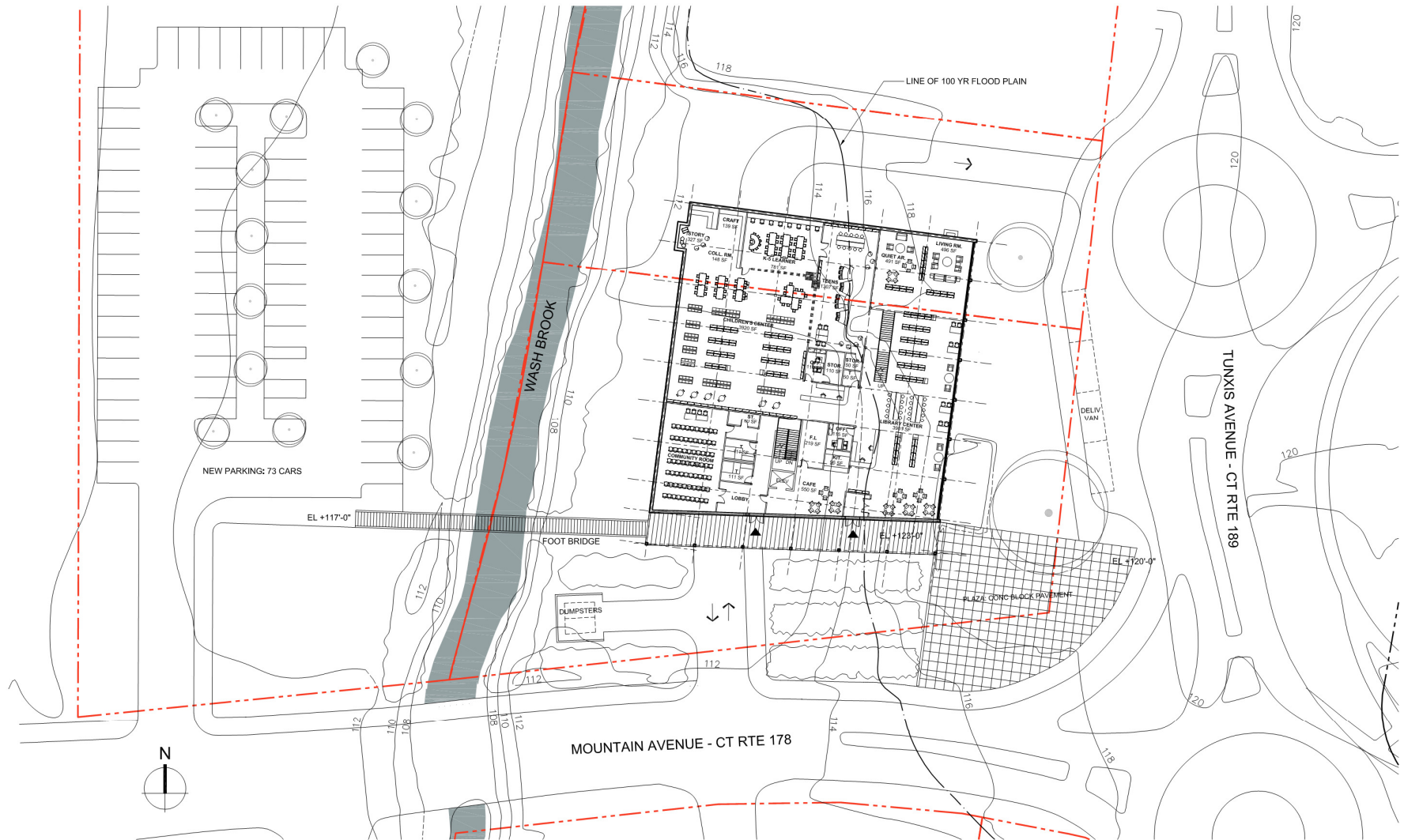
21st Century Libraries | HPL - Park Street Library



Prosser Location Plan



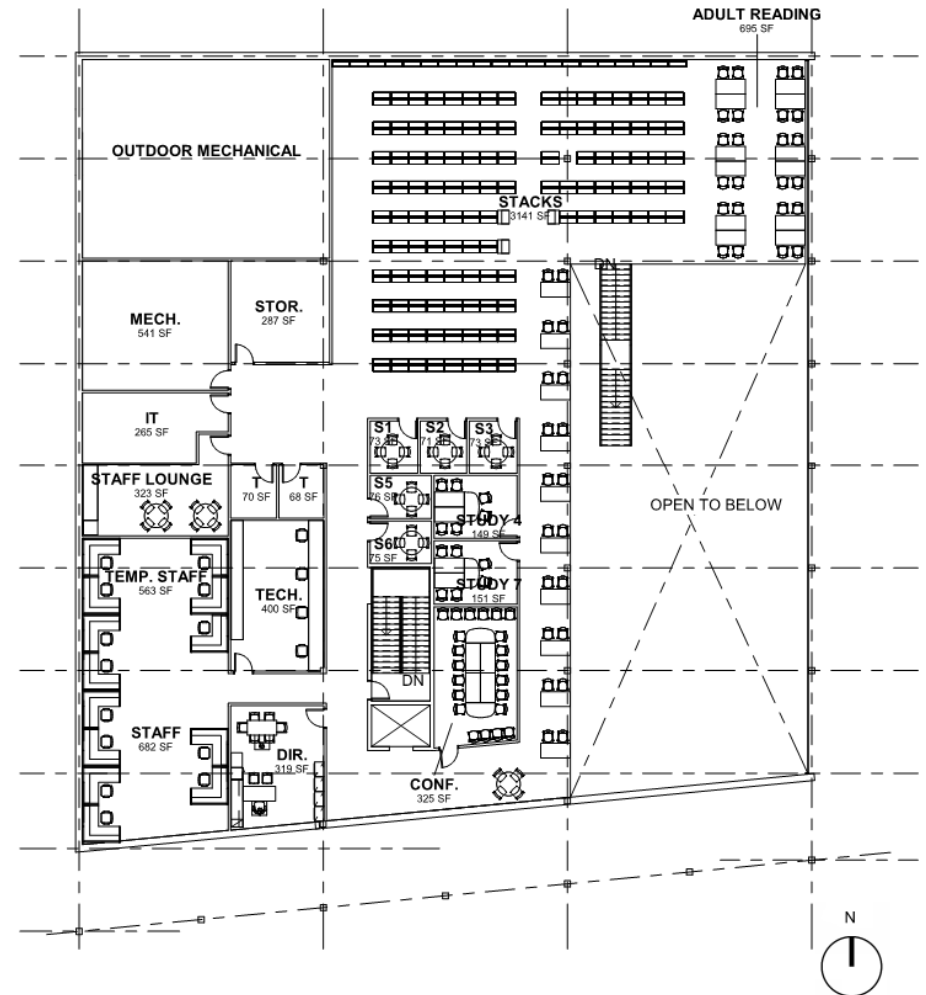
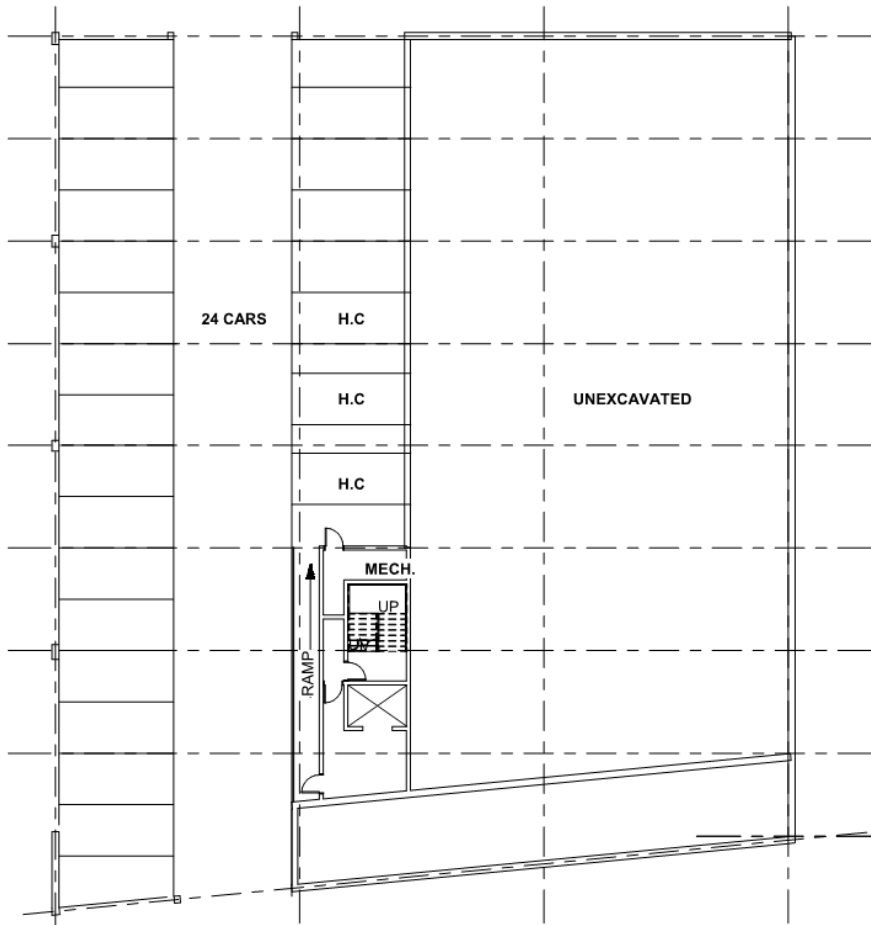
New Prosser Site Plan



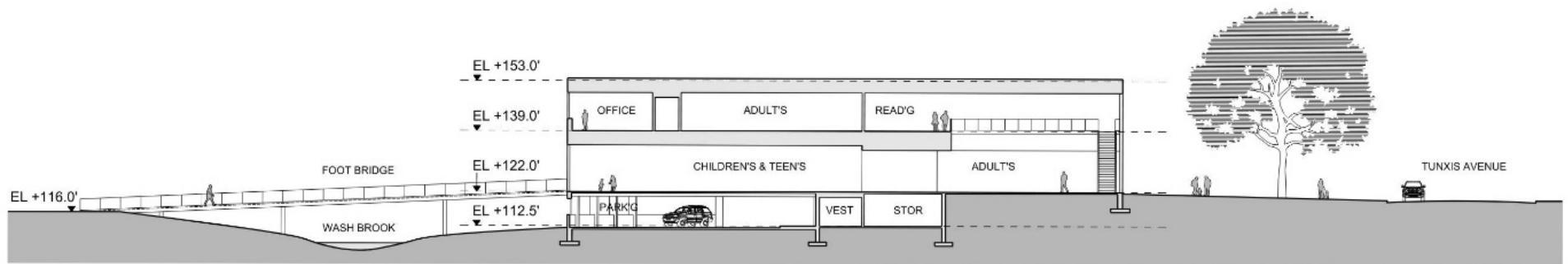
Classic Veranda Examples



New Prosser Floor Plans



Cross Section Through Prosser Site

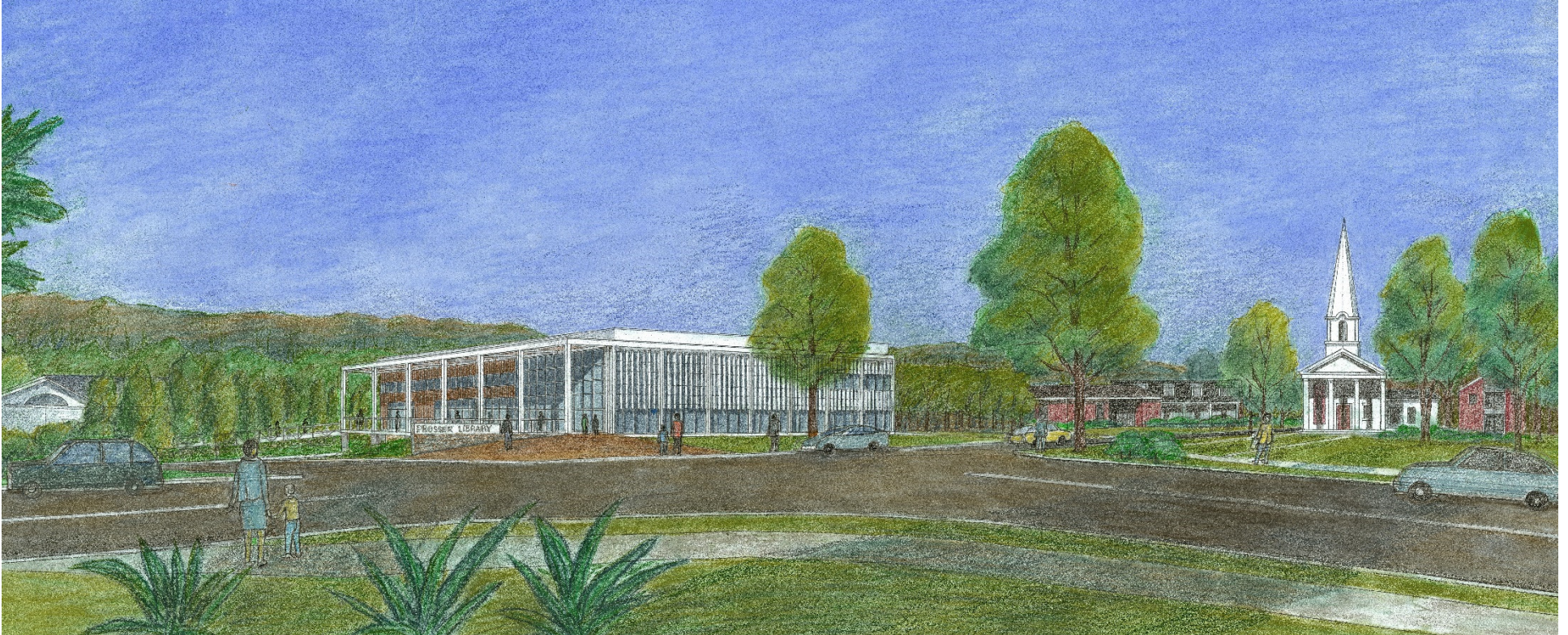


CROSS SECTION THROUGH SITE

Prosser View from Town Hall



New Prosser View from Town Hall

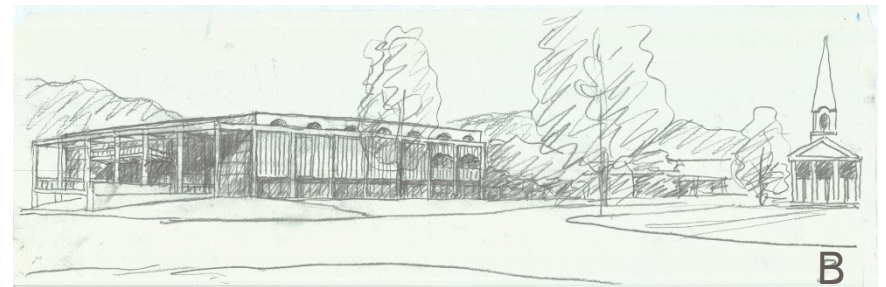
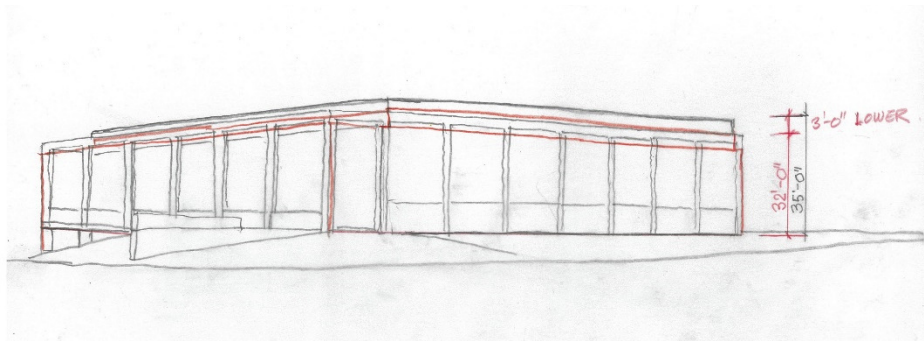


New Prosser View at Dusk

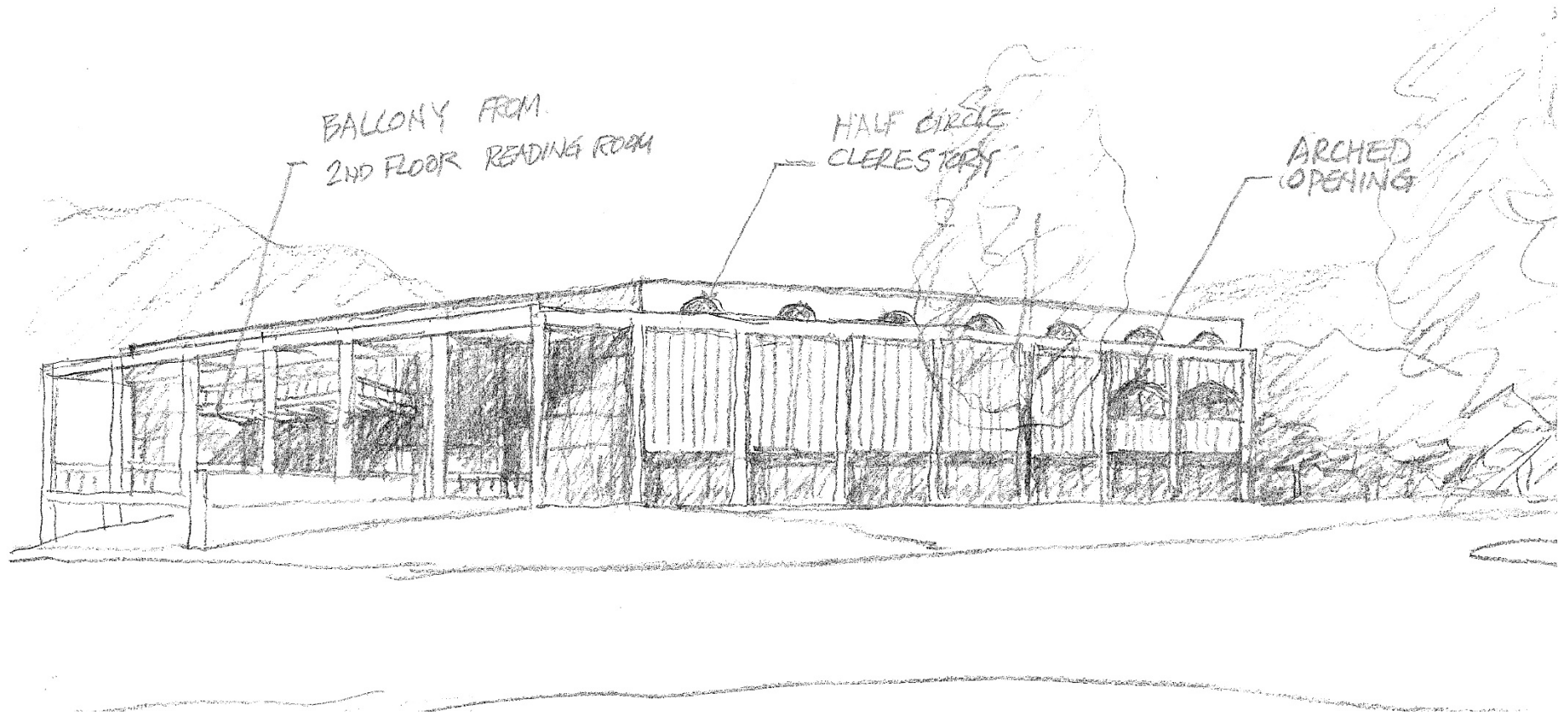


Additional Sketch Studies in Response to Comments

- Reduce Scale
- Articulate Exterior
- Add Arched Openings
- Add Balcony
- Add Smaller Scale Elements
- Add Arched Clerestory Windows
- Add Variety in Reading Room Windows
- Traditional Colonnade
- Add Tall Windows



Additional Exterior Studies – Option B Features



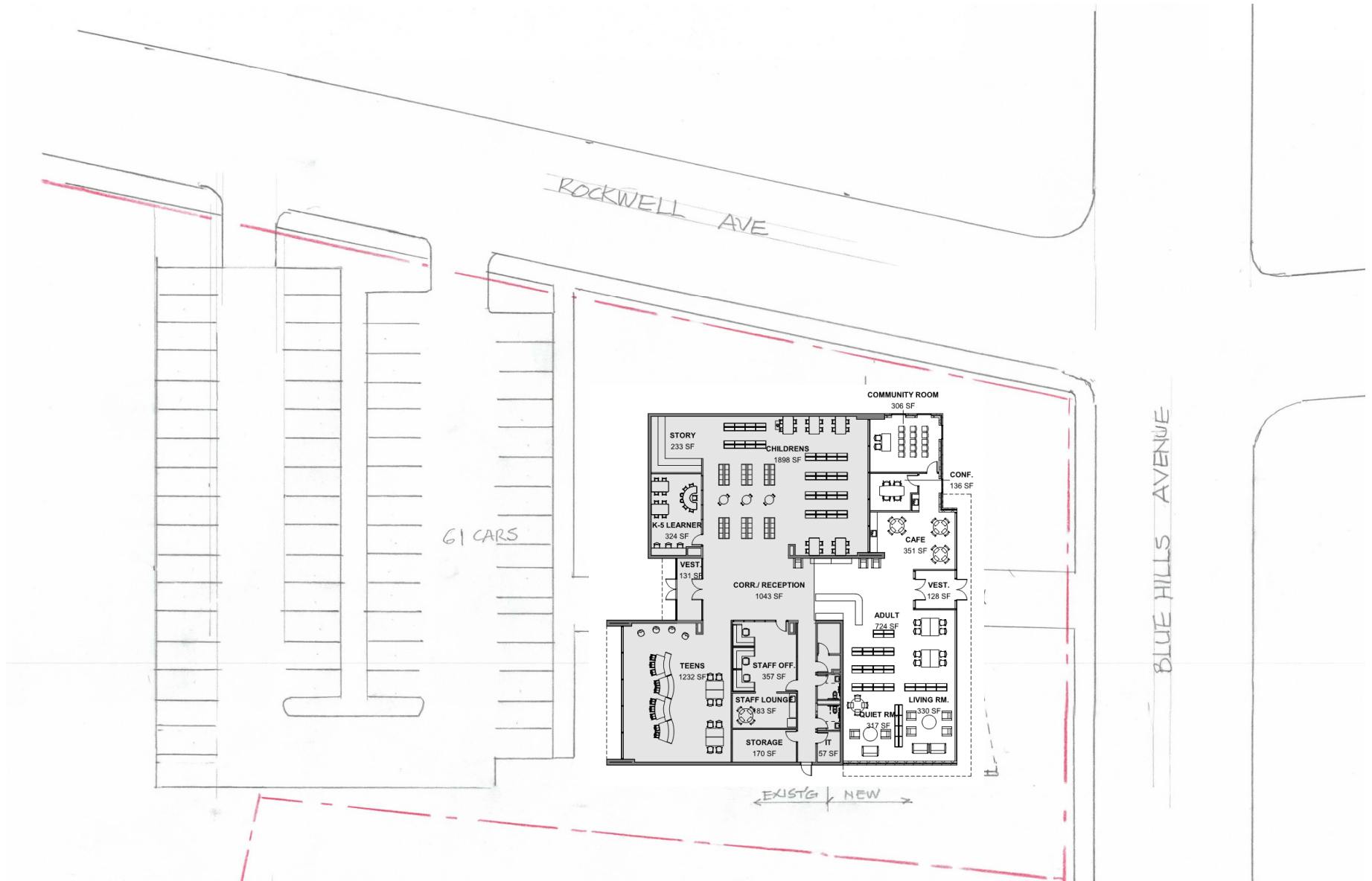
McMahon Wintonbury View from Blue Hills Ave.



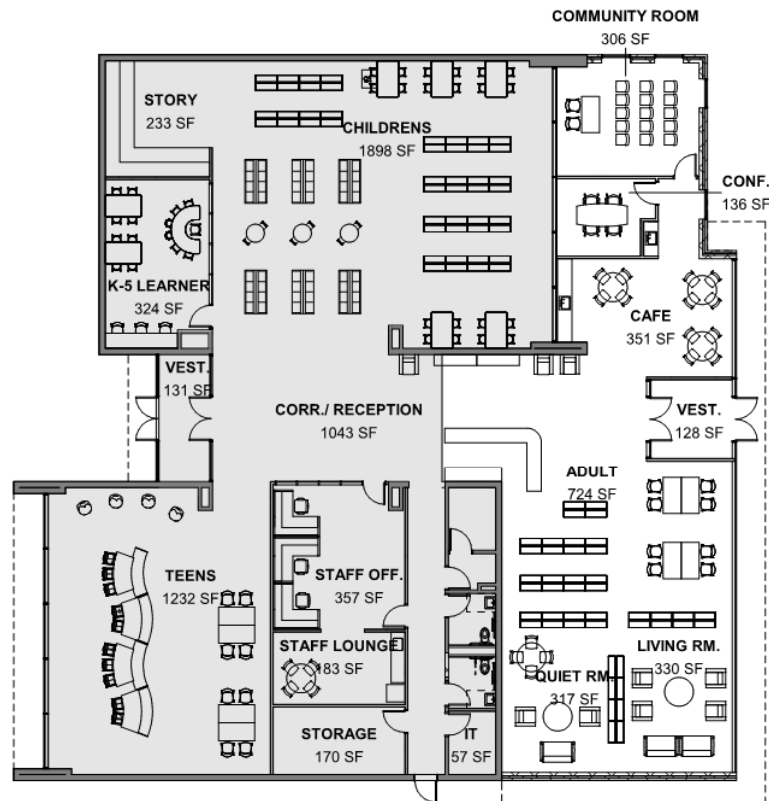
McMahon Wintonbury Aerial View with Addition



McMahon Wintonbury Site Plan



McMahon Wintonbury Floor Plan



McMahon Wintonbury Exterior View with Addition



McMahon Wintonbury Exterior View with Addition



Bloomfield Library Preferred Options | Budgets



GENERAL SUMMARY - COMPARISON

Prosser & McMahon Library Comparison
21-Apr-21

Total Area:
New Building Area:
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Project Duration:
Project Start Date:

Draft Budget

DCC PROSSER LIBRARY OPT 1 (New)

27,817 sf
27,817 sf
0 sf
20,200 sf
152,460 sf
110 lf
16 mo
2022

DCC McMahon Library Opt 2

8,918 sf
2,895 sf
6,023 sf
0 sf
47,916 sf
0 lf
10 mo
2022

BP #	DESCRIPTION	EST VALUE	Cost / Unit	EST VALUE	Cost / Unit
0.1	PROJECT REQUIREMENTS	\$ 500,000	\$31,750 /mo	\$ 312,500	\$31,750 /mo
1.2	FINAL CLEANING	\$ 28,574	\$1.03 /sf	\$ 9,161	\$1.03 /sf
2.1	DEMOLITION & ABATEMENT - PROSSER EXISTING - 21,840 SF	\$ 398,580	\$14.33 /sf	N/A	N/A
2.1	DEMOLITION & ABATEMENT - REILLY LUMBER - 6,000 SF	\$ 75,000	\$2.70	N/A	N/A
2.1	DEMOLITION & ABATEMENT - MCMAHON SELECTIVE 6,023 SF	N/A	N/A	\$ 96,368	\$10.83 /sf
3.1	CONCRETE	\$ 749,545	\$76.95 /sf	\$ 90,888	\$10.17 /sf
4.1	MASONRY PROSSER	\$ 1,154,406	\$41.50 /sf	\$ 333,243	\$37.37 /sf
5.1	STRUCTURAL STEEL & MISCELLANEOUS METALS	\$ 806,131	\$28.98 /sf	\$ 83,897	\$9.41 /sf
6.1	TIMBER FRAMING & DECKING IN LIEU OF STRUCT STL	\$ 728,057	\$26.17 /sf	N/A	N/A
6.1	STRUCTURAL REPAIR AND PATCH	N/A	N/A	\$ -	\$0.00 /sf
6.2	WOOD RAIN SCREEN, VERTICAL WOOD SCREEN & SUNSHADE	\$ 775,000	\$27.86 /sf	N/A	N/A
6.3	ARCHITECTURAL MILLWORK	\$ 297,464	\$10.69 /sf	\$ 113,202	\$12.69 /sf
7.1	ROOFING SYSTEM	\$ 294,715	\$10.59 /sf	\$ 94,484	\$10.59 /sf
8.1	GLASS & GLAZING	\$ 1,265,674	\$45.50 /sf	\$ 409,982	\$45.97 /sf
9.1	DRYWALL & GENERAL TRADES	\$ 1,182,090	\$42.50 /sf	\$ 303,714	\$34.06 /sf
9.3	TILE & CARPET	\$ 91,463	\$3.29 /sf	\$ 29,323	\$3.29 /sf
9.4	ACOUSTICAL CEILINGS	\$ 120,277	\$4.32 /sf	\$ 38,560	\$4.32 /sf
9.5	FLOORING	\$ 303,084	\$10.90 /sf	\$ 97,167	\$10.90 /sf
9.6	PAINTING	\$ 125,177	\$4.50 /sf	\$ 40,131	\$4.50 /sf
14.1	ELEVATOR	\$ 156,000	\$52,000 /stp	N/A	N/A
21.1	FIRE SUPPRESSION SYSTEM	\$ 152,594	\$5.50 /sf	\$ 49,049	\$5.50 /sf
22.1	PLUMBING SYSTEM	\$ 514,615	\$18.50 /sf	\$ 164,983	\$18.50 /sf
23.1	HVAC SYSTEM	\$ 1,210,040	\$43.50 /sf	\$ 401,310	\$45.00 /sf
26.1	ELECTRICAL SYSTEM	\$ 973,595	\$35.00 /sf	\$ 312,130	\$35.00 /sf
31.1	SITEWORK	\$ 2,161,883	\$77.72 /sf	\$ 679,449	\$76.19 /sf
	PWL-FAB BRIDGE - MATERIAL (110 lf)	\$ 200,000	\$1,818.18 /lf	N/A	N/A
	PRE-FAB BRIDGE - LABOR	\$ 10,000	\$77.72 /lf	N/A	N/A
	PRE-FAB BRIDGE - SITE & CONC - MAT & LABOR	\$ 150,000	\$1,363.64 /lf	N/A	N/A
ESTIMATED COST OF CONSTRUCTION		\$ 14,264,359	\$ 513 /sf	\$ 3,659,340	\$ 410 /sf
	STATE EDUCATION FEE	\$ 3,709	0.026%	\$ 951	0.026%
	BUILDING PERMIT FEE	NIC		NIC	
	STAFF	\$ 730,480	\$45,655 /mo	\$ 341,350	\$34,135 /mo
	GENERAL REQUIREMENTS	\$ 121,600	\$7,600 /mo	\$ 35,000	\$3,500 /mo
	PRECONSTRUCTION SERVICES & ADDL SERVICES	\$ 39,495	\$ 7,899 /mo	\$ 13,165	\$ 2,633 /mo
	GENERAL INSURANCE	\$ 113,697	0.75%	\$ 30,374	0.75%
	CMR FEE	\$ 458,200	3.0%	\$ 102,005	2.5%
	CONTINGENCY - (DESIGN & ESTIMATING)	\$ 1,573,154	10%	\$ 548,901	15%
	CONTINGENCY - (CM Construction)	\$ 471,946	3%	\$ 125,466	3%
	CM P & P BONDS	\$ 142,213	0.80%	\$ 38,852	0.80%
ESTIMATED HARD COSTS		\$ 17,918,854	\$ 644 /sf	\$ 4,895,404	\$ 549 /sf
	Furniture, Equipment, Shelving	\$ 750,000		\$ 100,000	
	A/F Fees	\$ 1,350,000		\$ 340,000	
	A/E Reimbursables	\$ 10,000			INCL
	Builders Risk Insurance	\$ 25,000		\$ 5,000	
	Haz Mat Consultant	\$ 75,000		\$ 5,000	
	Other Consult. (LEED)	\$ 25,000		\$ 10,000	
	Commissioning Agent	\$ 30,000		\$ -	INCL
	Testing Fees	\$ 45,000		\$ 5,000	
	Owner's Rep or Clerk of Works	\$ 150,000			INCL
	Moving Expenses	\$ 100,000		\$ 50,000	
	Legal & Accounting Expenses	\$ 175,000			INCL
	Computer Equipment, Server & Network	\$ 237,300		\$ 50,000	
	Phones, Voice & Video Equipment	\$ 39,000		\$ 10,000	
	Security Equipment, Incl. Book Security	\$ 35,000		\$ 20,000	
	Swing Space Costs	\$ 120,000		\$ -	
	Owner Project Contingency - 7.5%	\$ 1,566,637	7.5%	\$ 411,780	7.5%
TOTAL SOFT COSTS		\$ 4,684,937	\$ 168 /sf	\$ 1,006,780	\$ 113 /sf
TOTAL PROJECT COSTS		\$ 22,603,790	\$ 813 /sf	\$ 5,902,184	\$ 662 /sf
Alternates					
Solar		TBD		TBD	
Geothermal		TBD		TBD	

Bloomfield Library Preferred Options | Budgets



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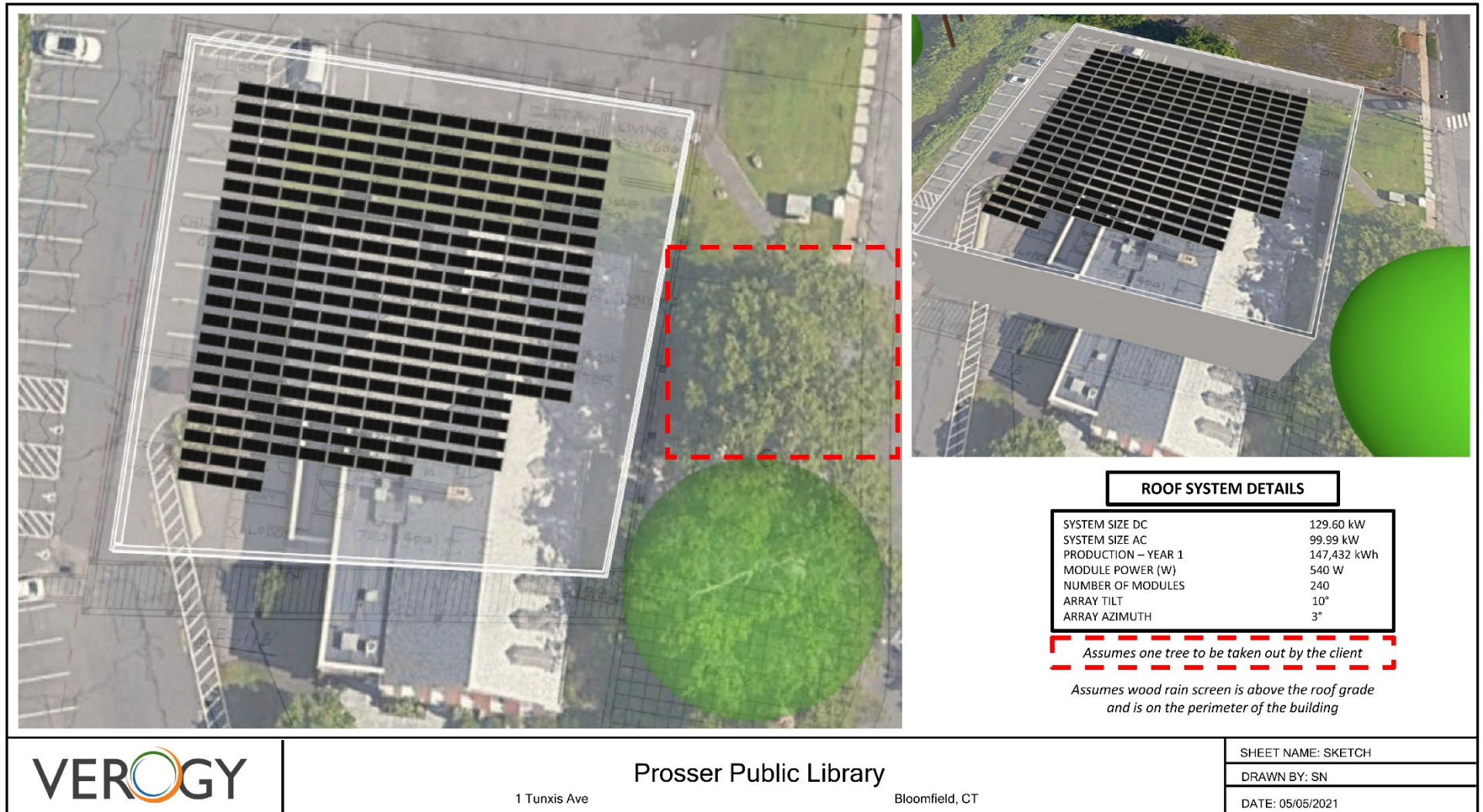
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TBD
TBD

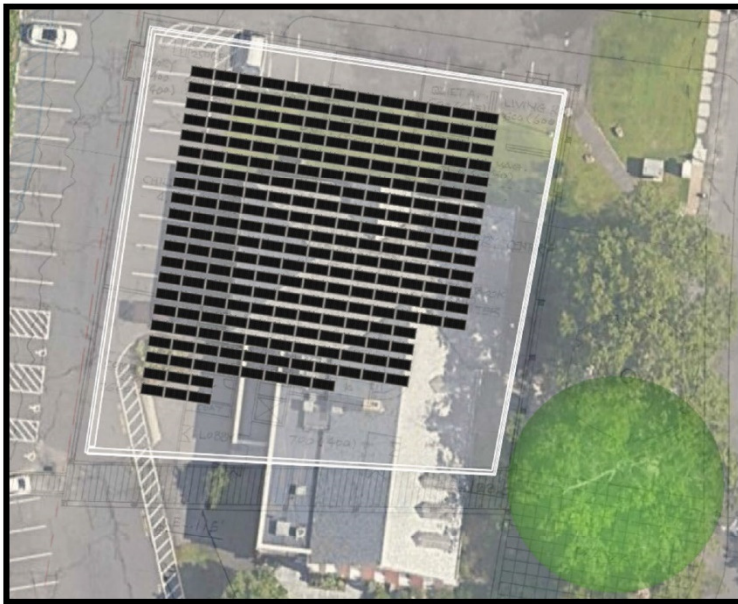
TBD
TBD

Bloomfield Library Prosser Photovoltaic Analysis



Bloomfield Library Prosser Photovoltaic Analysis

Prosser Public Library Financial Overview



EV CHARGING STATIONS(4)
Included in project



System Cost: \$263,734
Purchase Price: **\$1.831/ Watt**

DEPOSIT LEASE

Purchase Price: **\$237,360**

INCENTIVES

Value of Incentives: **\$199,219***
Budgeted Length of Incentive: **15 Years**
**75% of total project cost*

RETURN ON INVESTMENT

Payback Period: **8.19 Years**
Project NPV: **\$104,516***
**6.50% Discount Rate Assumed*
Project IRR: **13.48%**

SYSTEM OFFSET

2021 Offsettable Rate: **\$0.1056/kWh**

Amount of Current Annual Usage that
will be Offset by Clean Renewable
Energy: **98.29%**

PPA SPECIFICS

PPA Rate: **\$0.068/kWh**
PPA Rate Escalator: **0% (flat rate)**
PPA Term (Years): **20**
Total Term Savings: **\$205,707**
Average Annual Savings: **\$10,285**

Bloomfield Library Prosser Photovoltaic Analysis

Buy the Power – Power Purchase Agreement (PPA)

2021 Utility Rate for Offsettable Charges	\$	0.1056
Utility Inflation Rate		2.99%
PPA Rate Offered (\$/kWh):	\$	0.068
PPA Annual Escalation Rate (%/year):		0.00%
PPA Term Offered (years):		20

Year	kWh Generated	Offsettable Utility Costs	Solar PPA Cost	Annual Discount from Utility Cost of Electricity	
				(\$)	(%)
2022	147,432	\$ 15,575	\$ 10,025	\$ 5,550	-36%
2023	147,044	\$ 15,999	\$ 9,999	\$ 6,000	-38%
2024	146,306	\$ 16,394	\$ 9,949	\$ 6,445	-39%
2025	145,569	\$ 16,799	\$ 9,899	\$ 6,901	-41%
2026	144,832	\$ 17,214	\$ 9,849	\$ 7,366	-43%
2027	144,095	\$ 17,639	\$ 9,798	\$ 7,840	-44%
2028	143,358	\$ 18,073	\$ 9,748	\$ 8,325	-46%
2029	142,621	\$ 18,518	\$ 9,698	\$ 8,820	-48%
2030	141,883	\$ 18,973	\$ 9,648	\$ 9,325	-49%
2031	141,146	\$ 19,439	\$ 9,598	\$ 9,841	-51%
2032	140,409	\$ 19,915	\$ 9,548	\$ 10,367	-52%
2033	139,672	\$ 20,403	\$ 9,498	\$ 10,905	-53%
2034	138,935	\$ 20,902	\$ 9,448	\$ 11,455	-55%
2035	138,198	\$ 21,413	\$ 9,397	\$ 12,015	-56%
2036	137,461	\$ 21,936	\$ 9,347	\$ 12,588	-57%
2037	136,723	\$ 22,470	\$ 9,297	\$ 13,173	-59%
2038	135,986	\$ 23,017	\$ 9,247	\$ 13,770	-60%
2039	135,249	\$ 23,577	\$ 9,197	\$ 14,380	-61%
2040	134,512	\$ 24,150	\$ 9,147	\$ 15,003	-62%
2041	133,775	\$ 24,735	\$ 9,097	\$ 15,639	-63%
Totals:	2,815,206	\$ 397,141	\$ 191,434	\$ 205,707	-52%

Bloomfield Library Prosser Photovoltaic Analysis

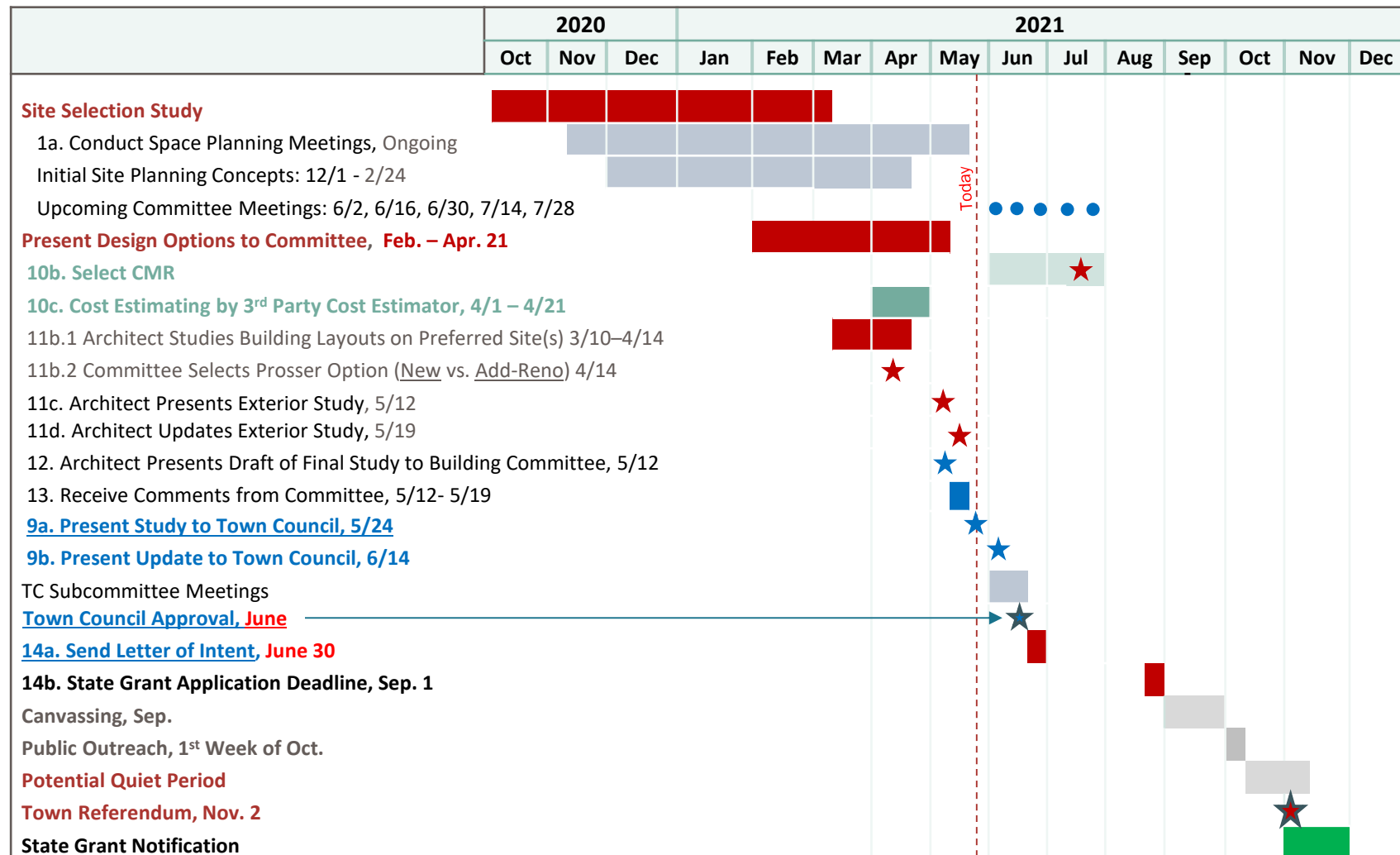
Buy the Array – Purchase and Sale 35 Years*

**System Estimated Useful Life*

Year	Utility Savings	ZREC Income	Utility Savings + ZREC Income	Net Cost of System	O&M Expenses	Savings & Revenue	Cumulative Net Benefit (Cost)
1	\$ 15,575	\$ 7,175	\$ 22,750	\$ (237,360)	\$ -	\$ (214,610)	\$ (214,610)
2	\$ 15,999	\$ 13,697	\$ 29,696	\$ -	\$ -	\$ 29,696	\$ (184,914)
3	\$ 16,394	\$ 13,697	\$ 30,092	\$ -	\$ -	\$ 30,092	\$ (154,822)
4	\$ 16,799	\$ 13,604	\$ 30,404	\$ -	\$ -	\$ 30,404	\$ (124,419)
5	\$ 17,214	\$ 13,511	\$ 30,725	\$ -	\$ -	\$ 30,725	\$ (93,694)
6	\$ 17,639	\$ 13,418	\$ 31,057	\$ -	\$ (2,159)	\$ 28,897	\$ (64,796)
7	\$ 18,073	\$ 13,418	\$ 31,491	\$ -	\$ (2,159)	\$ 29,332	\$ (35,465)
8	\$ 18,518	\$ 13,325	\$ 31,842	\$ -	\$ (2,159)	\$ 29,683	\$ (5,782)
9	\$ 18,973	\$ 13,232	\$ 32,204	\$ -	\$ (2,159)	\$ 30,045	\$ 24,263
10	\$ 19,439	\$ 13,232	\$ 32,670	\$ -	\$ (2,159)	\$ 30,511	\$ 54,774
11	\$ 19,915	\$ 13,045	\$ 32,960	\$ -	\$ (2,159)	\$ 30,801	\$ 85,575
12	\$ 20,403	\$ 13,045	\$ 33,448	\$ -	\$ (2,159)	\$ 31,289	\$ 116,864
13	\$ 20,902	\$ 13,045	\$ 33,947	\$ -	\$ (2,159)	\$ 31,788	\$ 148,652
14	\$ 21,413	\$ 12,859	\$ 34,272	\$ -	\$ (2,159)	\$ 32,112	\$ 180,765
15	\$ 21,936	\$ 12,859	\$ 34,794	\$ -	\$ (2,159)	\$ 32,635	\$ 213,400
16	\$ 22,470	\$ 6,057	\$ 28,527	\$ -	\$ (2,159)	\$ 26,368	\$ 239,768
17	\$ 23,017	\$ -	\$ 23,017	\$ -	\$ (2,159)	\$ 20,858	\$ 260,626
18	\$ 23,577	\$ -	\$ 23,577	\$ -	\$ (2,159)	\$ 21,418	\$ 282,043
19	\$ 24,150	\$ -	\$ 24,150	\$ -	\$ (2,159)	\$ 21,990	\$ 304,034
20	\$ 24,735	\$ -	\$ 24,735	\$ -	\$ (2,159)	\$ 22,576	\$ 326,610
21	\$ 25,398	\$ -	\$ 25,398	\$ -	\$ (2,159)	\$ 23,238	\$ 349,848
22	\$ 26,026	\$ -	\$ 26,026	\$ -	\$ (2,159)	\$ 23,867	\$ 373,715
23	\$ 26,670	\$ -	\$ 26,670	\$ -	\$ (2,159)	\$ 24,511	\$ 398,226
24	\$ 27,331	\$ -	\$ 27,331	\$ -	\$ (2,159)	\$ 25,171	\$ 423,397
25	\$ 28,007	\$ -	\$ 28,007	\$ -	\$ (2,159)	\$ 25,848	\$ 449,245
26	\$ 28,700	\$ -	\$ 28,700	\$ -	\$ (2,159)	\$ 26,541	\$ 475,786
27	\$ 29,411	\$ -	\$ 29,411	\$ -	\$ (2,159)	\$ 27,251	\$ 503,037
28	\$ 30,138	\$ -	\$ 30,138	\$ -	\$ (2,159)	\$ 27,979	\$ 531,016
29	\$ 30,884	\$ -	\$ 30,884	\$ -	\$ (2,159)	\$ 28,725	\$ 559,741
30	\$ 31,649	\$ -	\$ 31,649	\$ -	\$ (2,159)	\$ 29,489	\$ 589,231
31	\$ 32,432	\$ -	\$ 32,432	\$ -	\$ (2,159)	\$ 30,273	\$ 619,504
32	\$ 33,235	\$ -	\$ 33,235	\$ -	\$ (2,159)	\$ 31,076	\$ 650,579
33	\$ 34,057	\$ -	\$ 34,057	\$ -	\$ (2,159)	\$ 31,898	\$ 682,477
34	\$ 34,900	\$ -	\$ 34,900	\$ -	\$ (2,159)	\$ 32,741	\$ 715,218
35	\$ 35,764	\$ -	\$ 35,764	\$ -	\$ (2,159)	\$ 33,605	\$ 748,823
Totals:	\$ 851,745	\$ 199,219	\$ 1,050,964	\$ (237,360)	\$ (64,780)	\$ 748,823	

□

Pre-Referendum Study Phases | Milestones



Post-Referendum Design Phases | Milestones

