

Bloomfield Library – Planning Study

Town of Bloomfield

Town Council Meeting

May 24, 2021

Introduction | TSKP Studio



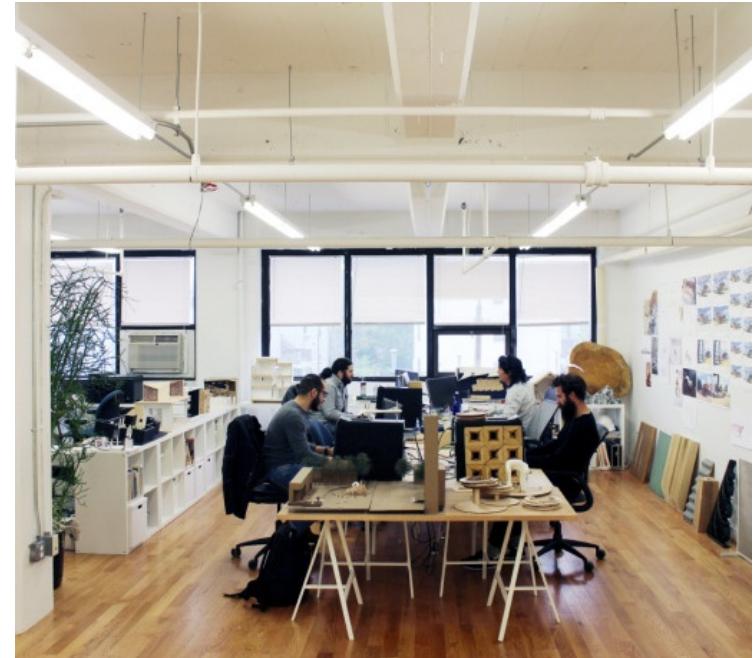
“...the newly expanded and renovated building has allowed us to serve the public with a much broader pallet of services...bringing us ever closer to our primary objective to excel as the lifelong learning and cultural center for our community.”

*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



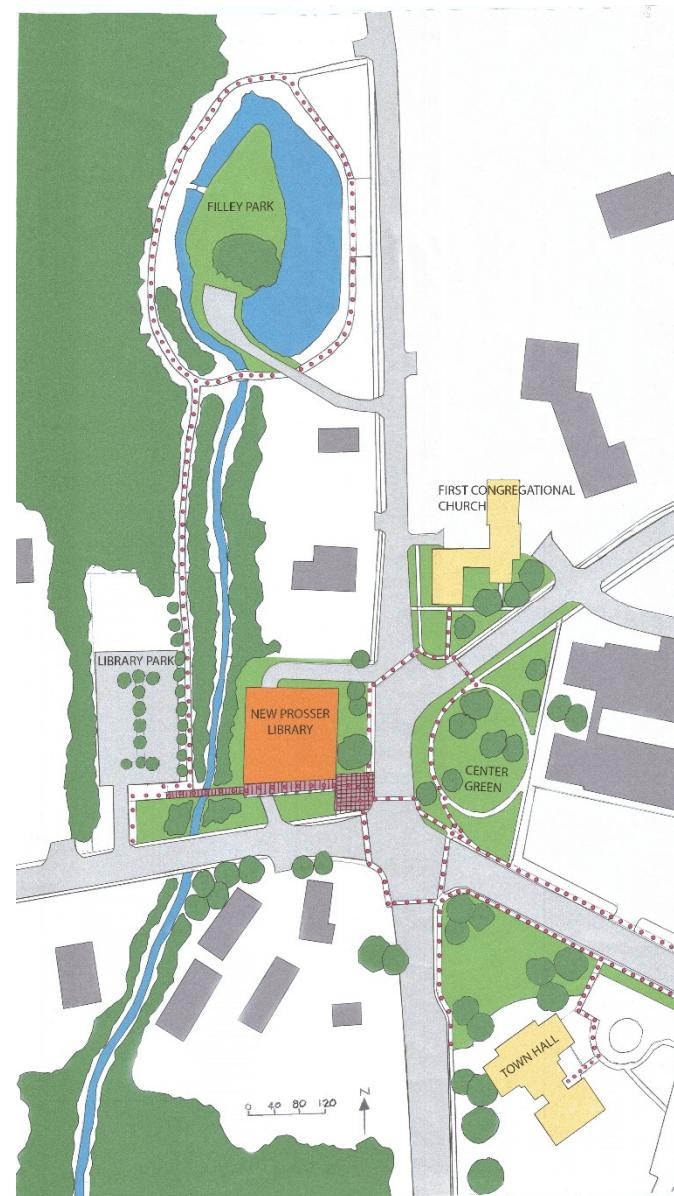
21st Century Libraries | HPL - YOUMedia



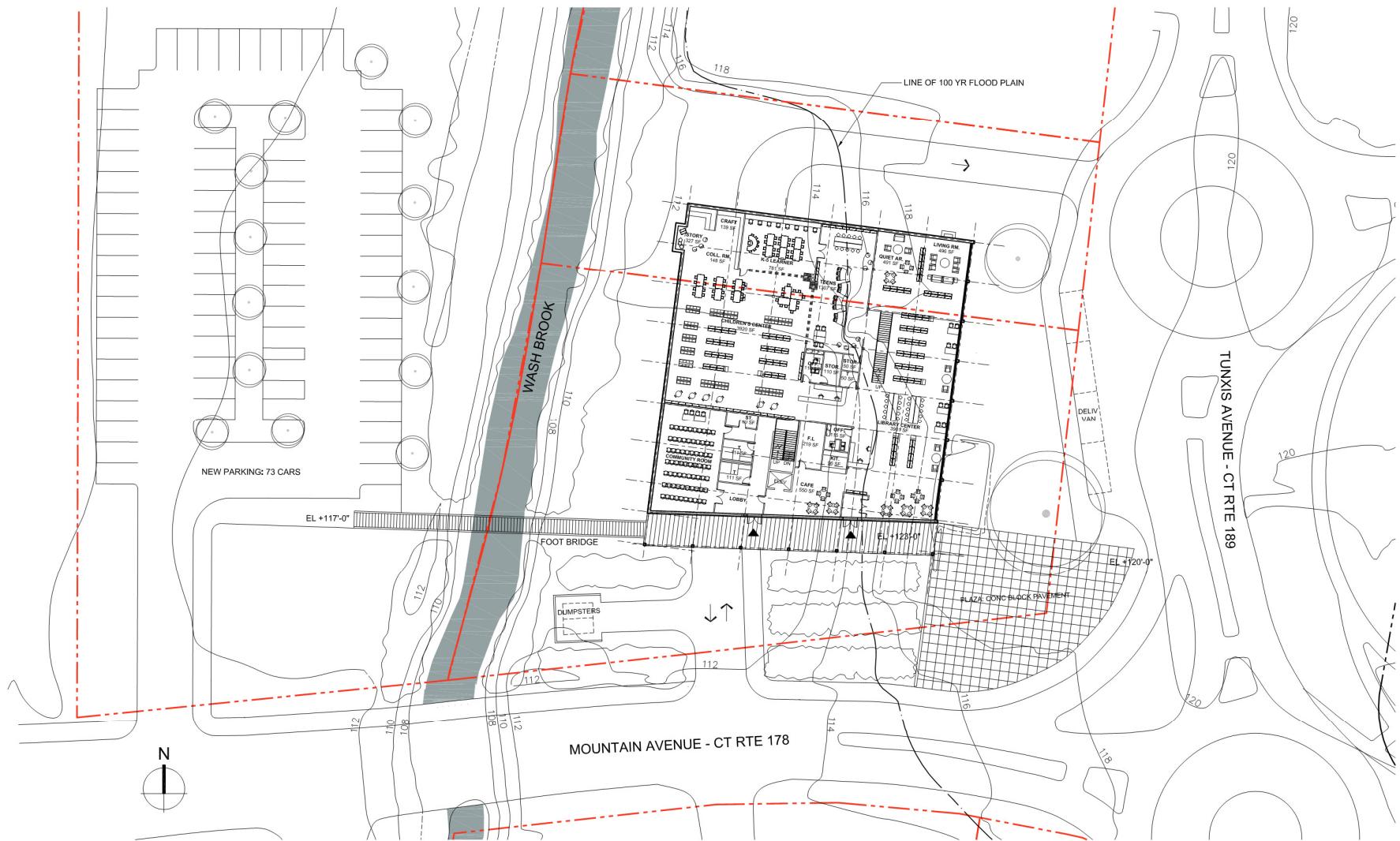
21st Century Libraries | HPL - Park Street Library



Prosser Location Plan



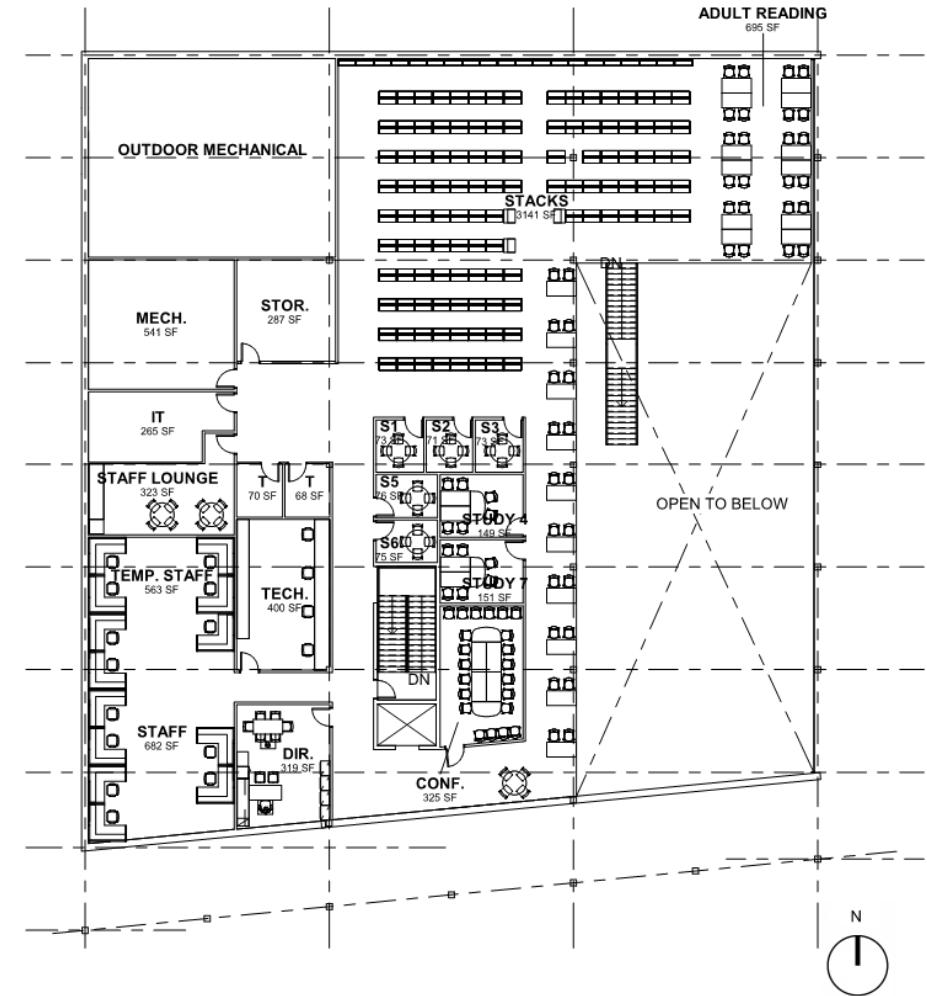
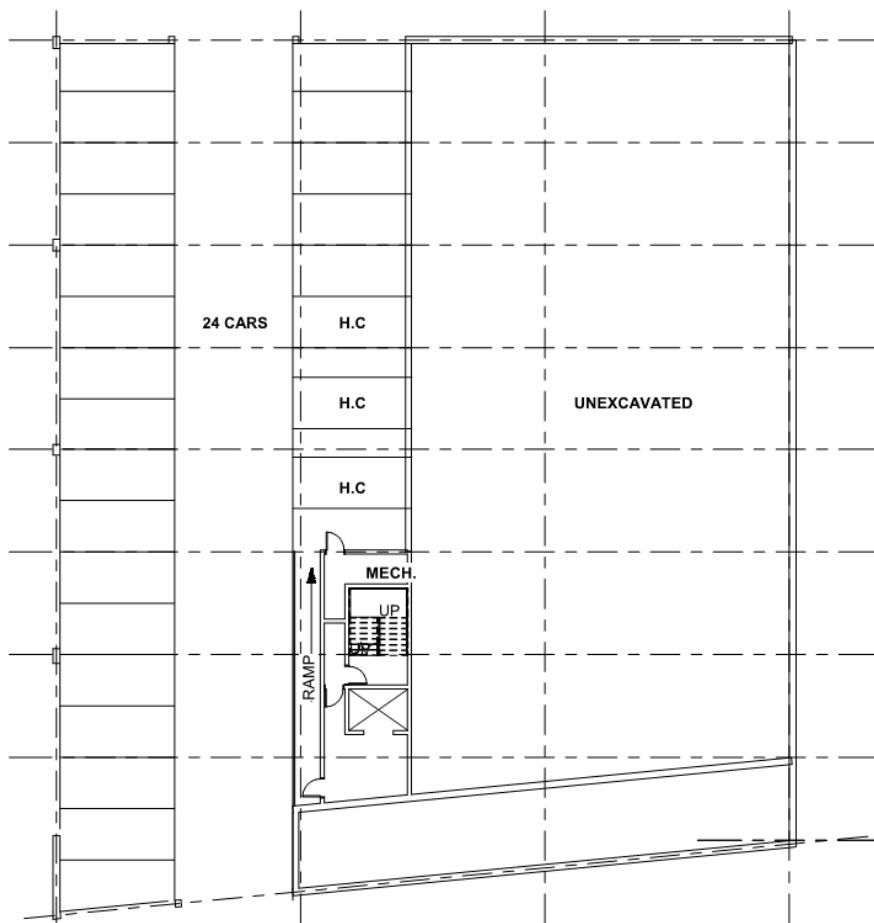
New Prosser Site Plan



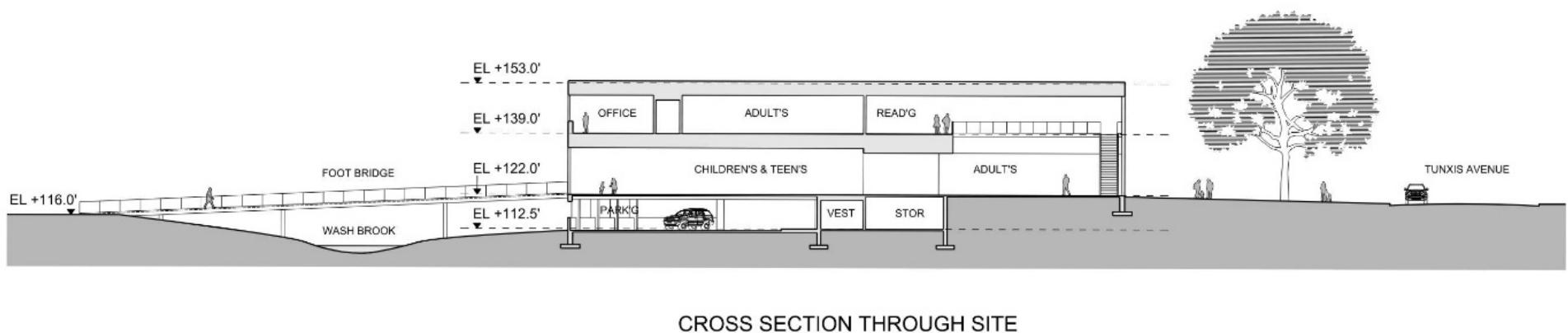
Classic Veranda Examples



New Prosser Floor Plans



Cross Section Through Prosser Site



Prosper View from Town Hall



New Prosser View from Town Hall

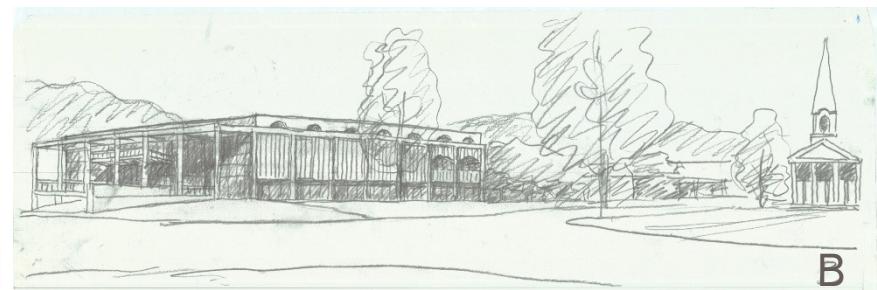
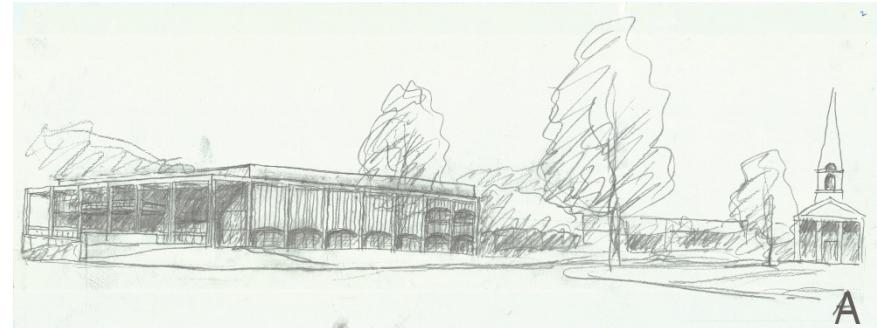
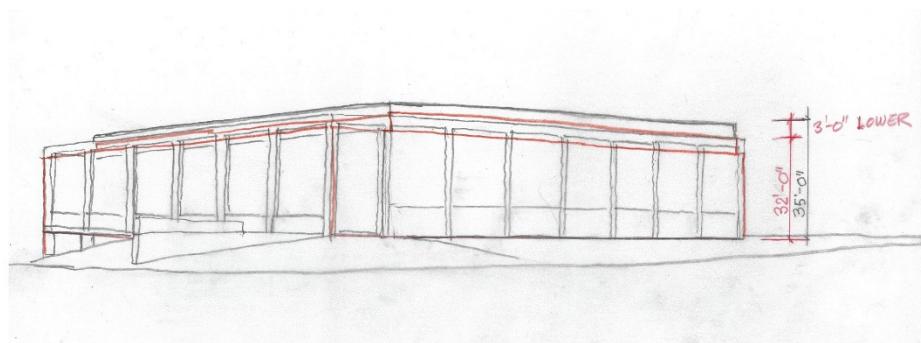


New Prosser View at Dusk

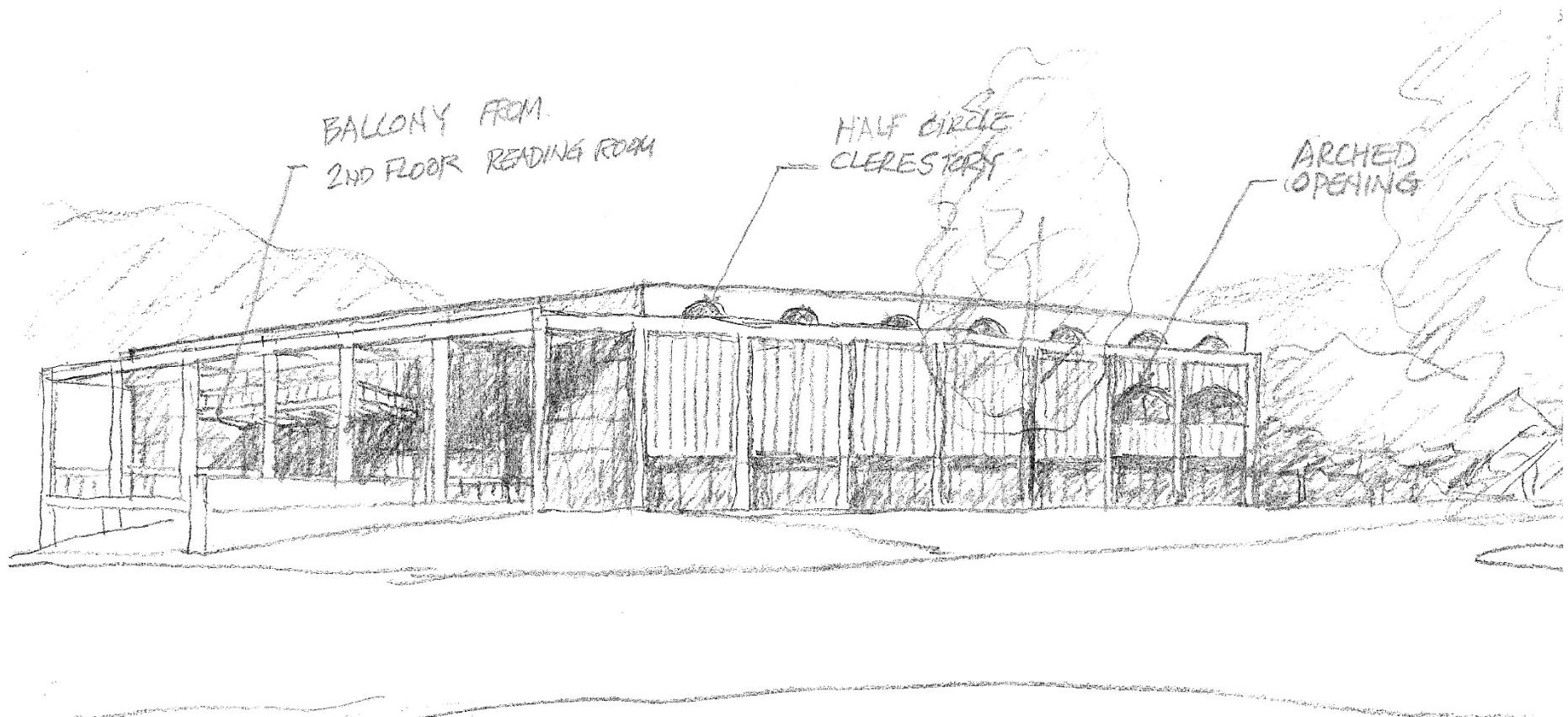


Additional Sketch Studies in Response to Comments

- 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



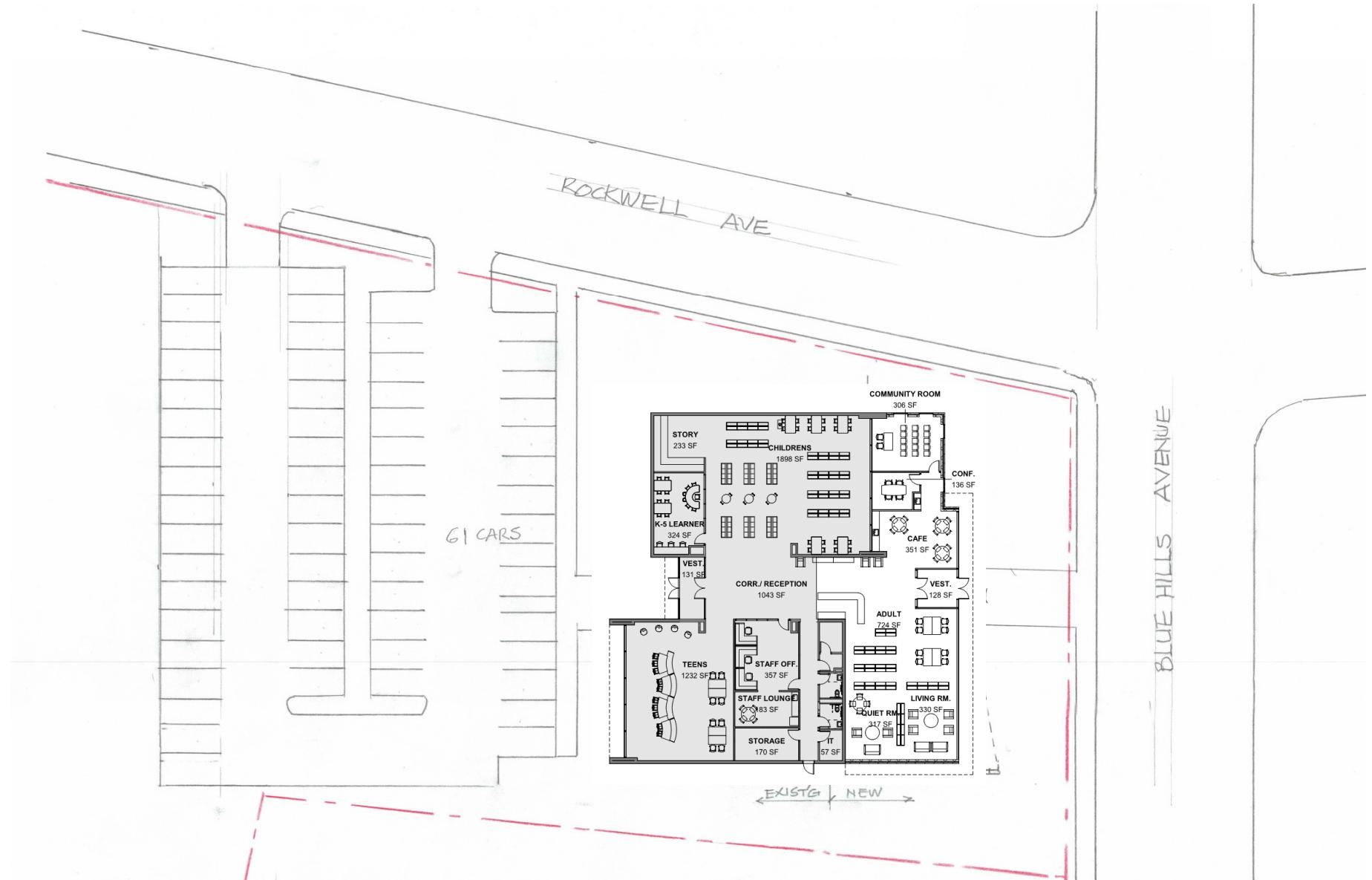
McMahon Wintonbury View from Blue Hills Ave.



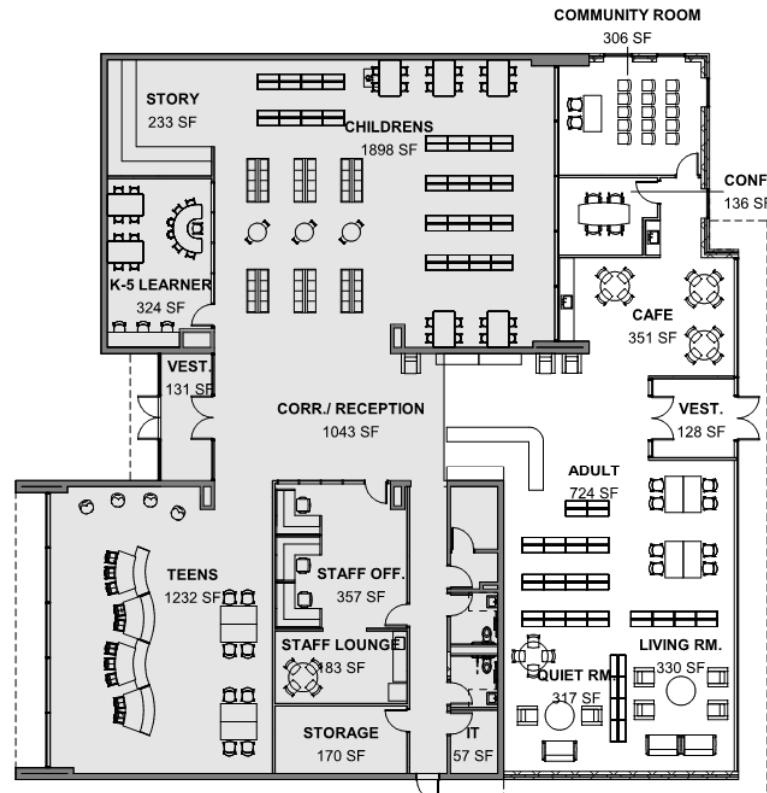
McMahon Wintonbury Aerial View with Addition



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:
Renovation Building Area:
Mass Demolition Area:
Site Area at Building:
Pro-Fab Bridge:
Project Duration:
Project Start Date:

Draft Budget			
DCC PROSSER LIBRARY OPT 1 (New)		DCC McMahon Library Opt 2	
27,817 sf		8,918 sf	
27,817 sf		2,895 sf	
0 sf		6,023 sf	
20,200 sf		0 sf	
152,460 sf		47,916 sf	
110 lf		0 lf	
16 mo		10 mo	
2022		2022	
BP #		DESCRIPTION	
0.1	PROJECT REQUIREMENTS		
1.2	FINAL CLEANING		
2.1	DEMOLITION & ABATEMENT - PROSSER EXISTING - 21,840 SF		
2.1	DEMOLITION & ABATEMENT - REILLY LUMBER - 6,000 SF		
2.1	DEMOLITION & ABATEMENT MCMAHON SELECTIVE 6,023 SF		
3.1	CONCRETE		
4.1	MASONRY PROSSER		
5.1	STRUCTURAL STEEL & MISCELLANEOUS METALS		
6.1	TIMBER FRAMING & DECKINGS IN LIEU OF STRUCT STL		
6.1	STRUCTURAL REPAIR AND PATCH		
6.2	WOOD RAIN SCREEN, VERTICAL WOOD SCREEN & SUNSHADE		
6.3	ARCHITECTURAL MILLWORK		
7.1	ROOFING SYSTEM		
8.1	GLASS & GLAZING		
9.1	DRYWALL & GENERAL TRADES		
9.3	TILE & CARPET		
9.4	ACOUSTICAL CEILINGS		
9.5	FLOORING		
9.6	PAINTING		
14.1	ELEVATOR		
21.1	FIRE SUPPRESSION SYSTEM		
22.1	PLUMBING SYSTEM		
23.1	HVAC SYSTEM		
26.1	ELECTRICAL SYSTEM		
31.1	SITEWORK		
	PRE-FAB BRIDGE - MATERIAL (110 lf)		
	PRE-FAB BRIDGE - LABOR		
	PRE-FAB BRIDGE - SITE & CONC - MAT & LABOR		
ESTIMATED COST OF CONSTRUCTION			
	\$ 14,264,359	\$ 513 /sf	\$ 3,659,340 \$ 410 /sf
STATE EDUCATION FEE			
BUILDING PERMIT FEE			
STAFF			
GENERAL REQUIREMENTS			
PRECONSTRUCTION SERVICES & ADDL SERVICES			
GENERAL INSURANCE			
CMR FEE			
CONTINGENCY - (DESIGN & ESTIMATING)			
CONTINGENCY - (CM Construction)			
CM P & P BONDS			
ESTIMATED HARD COSTS			
Furniture, Equipment.., Shelving	\$ 17,918,854	\$ 644 /sf	\$ 4,895,404 \$ 549 /sf
A/E Fees			
A/E Reimbursables			
Builders Risk Insurance			
Haz Mat Consultant			
Other Consult. (LEED)			
Commissioning Agent			
Testing Fees			
Owner Rep or Clerk of Works			
Moving Expenses			
Legal & Consulting Expenses			
Computer Equipment, Server & Network			
Phones, Voice & Video Equipment			
Security Equipment, Incl. Book Security			
Swing Space Costs			
Owner Project Contingency - 7.5%	\$ 1,568,637	7.5%	\$ 411,780 7.5%
TOTAL SOFT COSTS			
	\$ 4,684,937	\$ 168 /sf	\$ 1,006,780 \$ 113 /sf
TOTAL PROJECT COSTS			
Alternates	\$ 22,603,790	\$ 813 /sf	\$ 5,902,184 \$ 662 /sf
Solar	TBD		TBD
Geothermal	TBD		TBD

Bloomfield Library Preferred Options | Budgets



DOWNES CONSTRUCTION COMPANY

GENERAL SUMMARY - COMPARISON

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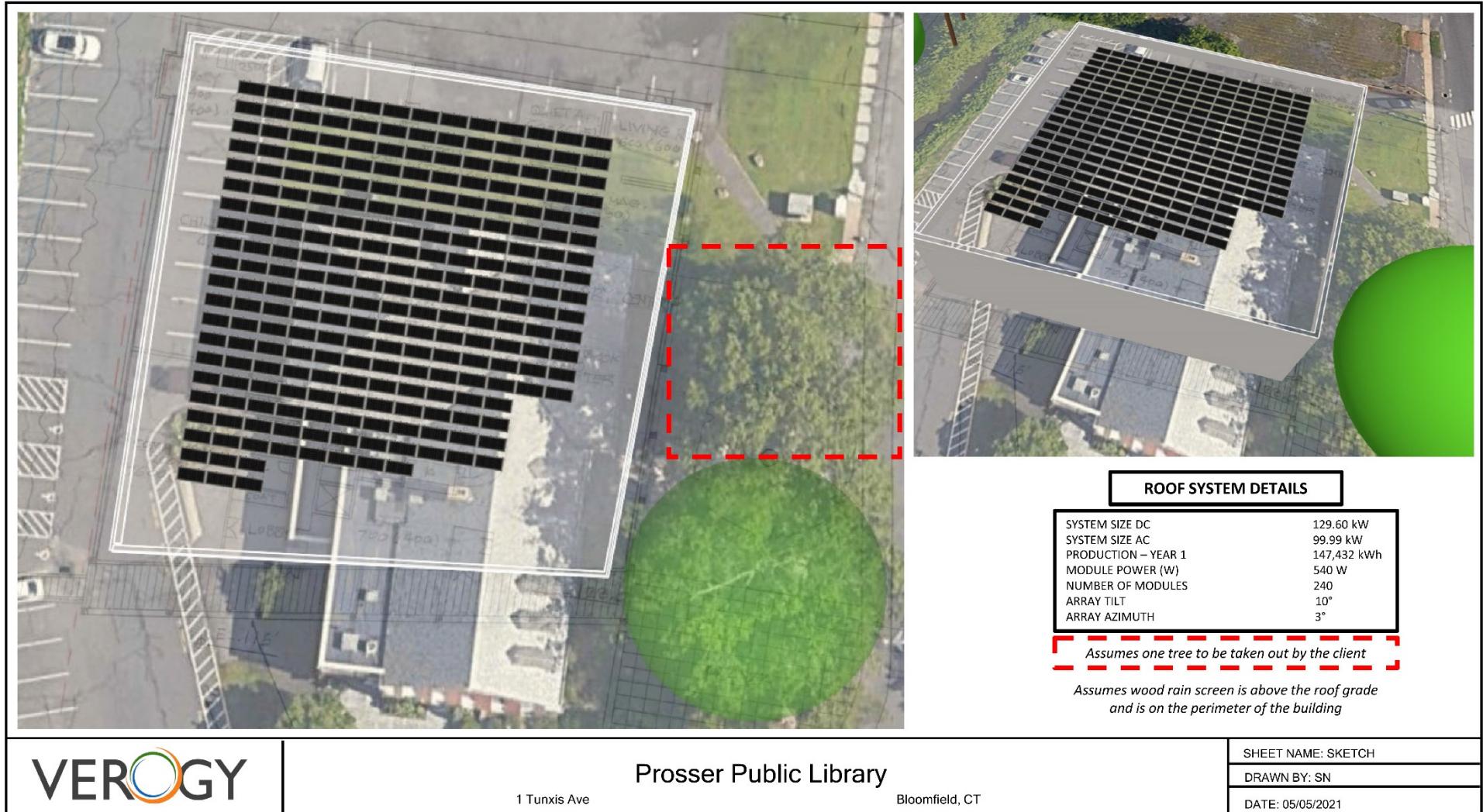
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Draft Budget

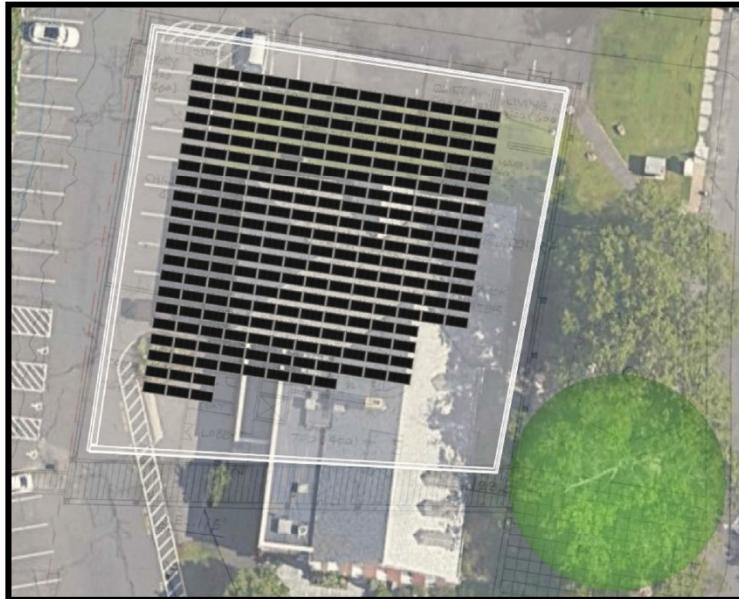
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2022	2022

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

SYSTEM OFFSET

2021 Offsettable Rate: \$0.1056/kWh

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

INCENTIVES

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

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

RETURN ON INVESTMENT

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

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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

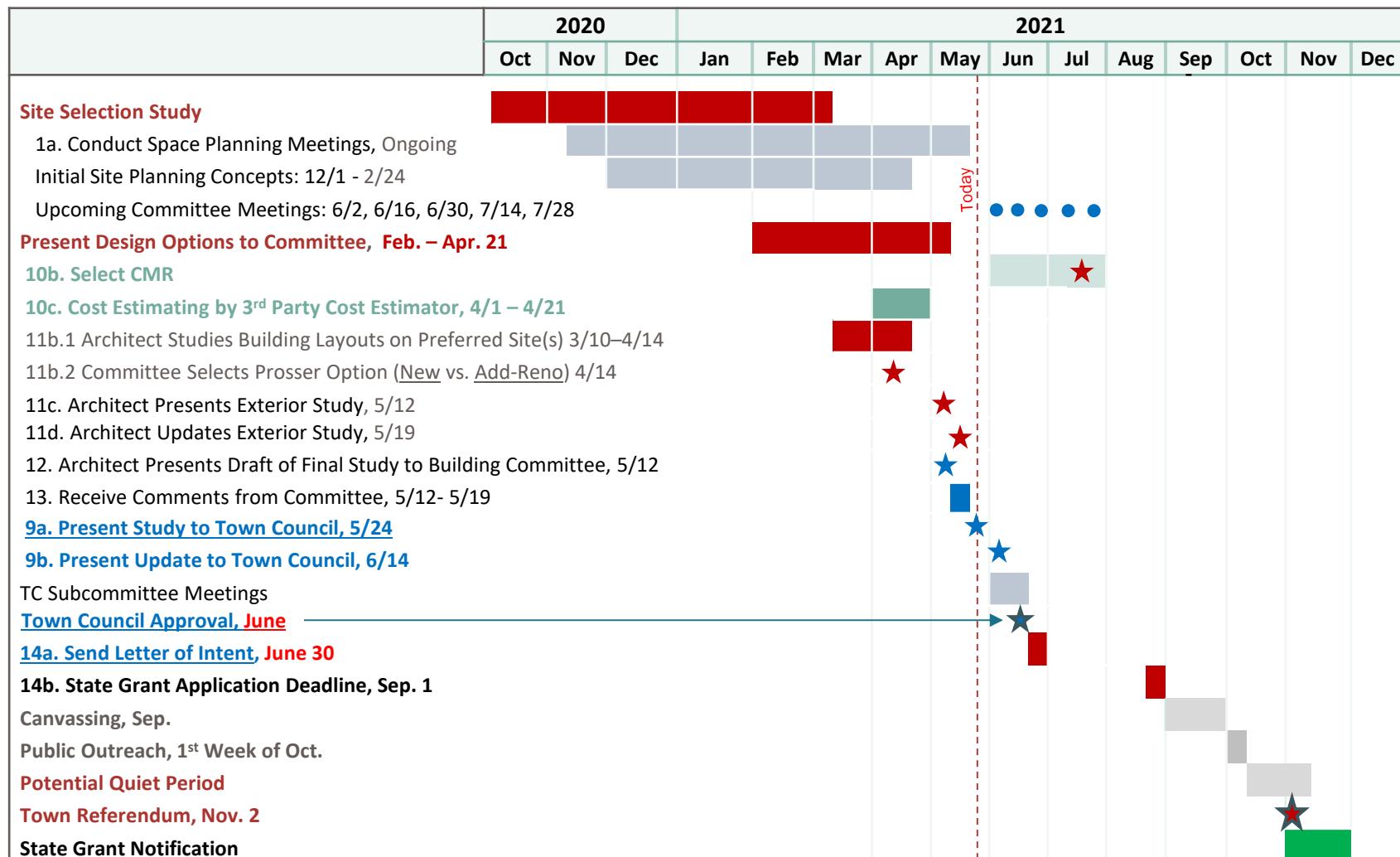
Buy the Array – Purchase and Sale 35 Years*

*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

	2021			2022											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
REFERENDUM															
NOTICE OF GRANT FROM STATE LIBRARY BOARD															
<u>SCHEMATIC DESIGN PHASE, Start Dec. 1, 2021</u>															
A2-T2 Site Surveys by Surveyor	■	■	■												
SD Drawings of Architectural, Mechanical, Structural		■	■	■	■	■									
SD Site Plans			■	■	■	■									
Update Cost Estimate						■									
<u>DESIGN DEVELOPMENT PHASE, Start Mar. 1, 2022</u>															
DD Site Civil & Landscape Details															
- Floodplain Management Plan															
- Site Utilities and Drainage Plans															
- Traffic Analysis															
- TPZ, Wetlands, DEP, DOT, Landscape Details, Site Plan Review, Approval															
<u>Site Plan Approval</u>															
DD Building Details															
- Design Review Board															
<u>Update Cost Estimate</u>															
<u>CONSTRUCTION DOCUMENTS PHASE, Start Jun. 1, 2022</u>															
- Final Plans and Specs, Bidding Documents															
- Approval of Plans by State Library Board															
<u>BIDDING PHASE, Start Sep. 15, 2022</u>															
- Receive Bids from Trade Contractors															
- Sign GMP with CM, <u>Issue Notice to Proceed with Construction</u>															