

CITY OF GILROY

GILROY PUBLIC LIBRARY

PROJECT REPORT #3

ADDITIONAL SUSTAINABILITY ANALYSIS



Additional Credits Targeted as Attainable



LEED-NC

LEED-NC Version 2.2 Project Checklist

Yes ? No

10		4		Sustainable Sites	14 Points	Notes	Construction First Costs	Operational Savings
Y		c	Prereq 1	Construction Activity Pollution Prevention	Required	SWPPP & compliance documentation		
1		d	Credit 1	Site Selection	1	existing site complies w/ credit requirements		
1		d	Credit 2	Development Density & Community Connectivity	1	existing site complies w/ credit requirements		
	1	d	Credit 3	Brownfield Redevelopment	1	NA -existing site is not a Brownfield		
1		d	Credit 4.1	Alternative Transportation, Public Transportation Access	1	existing site complies w/ credit requirements		
1		d	Credit 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms	1	the project will have to add a bike rack and two showers and changing rooms (for staff use only).	\$50,000-\$100,000	none
1		d	Credit 4.3	Alternative Transportation, Low-Emitting & Fuel-Efficient Vehicles	1	provide signage for preferential parking for low-emitting vehicles		
	1	d	Credit 4.4	Alternative Transportation, Parking Capacity	1	NA: not eligible - new additional parking is planned which precludes project eligibility for this credit		
	1	c	Credit 5.1	Site Development, Protect or Restore Habitat	1	NA: Limit of site work does not include enough land outside the building footprint for this project to be eligible for pursuing this credit.		
	1	d	Credit 5.2	Site Development, Maximize Open Space	1	NA: Limit of site work does not include enough land outside the building footprint for this project to be eligible for pursuing this credit.		
1		d	Credit 6.1	Stormwater Design, Quantity Control	1	pervious concrete parking and permeable paving		
1		d	Credit 6.2	Stormwater Design, Quality Control	1	pervious concrete parking and permeable paving		
1		c	Credit 7.1	Heat Island Effect, Non-Roof	1	site paving specifications; landscaping and light colored concrete at parking		
1		d	Credit 7.2	Heat Island Effect, Roof	1	specifications revisions and additions		
1		d	Credit 8	Light Pollution Reduction	1	provide photometric verification - possible exterior lighting revisions		



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5			Water Efficiency		5 Points		Notes		Construction First Costs		Operational Savings	
1			d	Credit 1.1	Water Efficient Landscaping , Reduce by 50%	1	credit requires switching to a drip (negligible cost saving) or subsurface drainage system.		\$50,000		+/- 750 Gallons	
1			d	Credit 1.2	Water Efficient Landscaping , No Potable Use or No Irrigation	1	This credit requires installation of a gray water subsurface irrigation system to distribute building gray water.		see WE credit 1.1		see WE credit 1.1	
1			d	Credit 2	Innovative Wastewater Technologies	1	credit is achieved by installing a purple pipe system to collect, store, and process water from building lavatories and showers for distribution via the subsurface irrigation system noted in Credit 1.1.		\$50,000-\$100,000		see WE credit 1.1 & 1.2	
1			d	Credit 3.1	Water Use Reduction , 20% Reduction	1	specifications revisions and additions					
1			d	Credit 3.2	Water Use Reduction , 30% Reduction	1	specifications revisions and additions					



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				Energy & Atmosphere	17 Points	Notes	Construction First Costs	Operational Savings
14	3							
Y		c	Prereq 1	Fundamental Commissioning of the Building Energy Systems	Required	additional systems design verification - additional services cost		
Y		d	Prereq 2	Minimum Energy Performance	Required	project design - comply with Title 24 2005		
Y		d	Prereq 3	Fundamental Refrigerant Management	Required	specifications call for equipment free of CFC refrigerants		
7	3	d	Credit 1	Optimize Energy Performance	1 to 10	Exceed Title 24 performance by a minimum of 31.5% Energy savings to be projected through building systems modeling used to design the mixed mode thermal conditioning system. With PV installations the KW provided by renewable is not included in the percentage of improvement beyond Title 24.		
3		d	Credit 2	On-Site Renewable Energy	1 to 3	There is the opportunity to put approximately 4,500 square feet of photovoltaic panels on the south-facing roof, and an additional 900 square feet on the south courtyard trellis. This total of 5,400 square feet will generate approximately 92 KW. Analysis shows that 92 KW is in the range of 22% of projected building energy usage (assuming implementation of all the sustainability enhancements previously included in the LEED Gold analysis).	\$730,000 - \$830,000	+/-22% of energy cost
1		c	Credit 3	Enhanced Commissioning	1	Recommended with a mixed mode thermal conditioning system to lower maintenance and operations efforts		
1		d	Credit 4	Enhanced Refrigerant Management	1	HVAC equipment specified to meet minimal refrigerant use requirement		
1		c	Credit 5	Measurement & Verification	1	promotes reduction of operations and facilities costs		
1		c	Credit 6	Green Power	1	credit requires a minimum two year contract with a Green-e certified third party to purchase offsets equal to 35% of projected annual energy usage. There is no capital cost associated with this credit. This credit can be taken at the end of a project, if an additional credit is deemed necessary.		Additional cost for contract \$3000 \$4000 at current rates



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Yes ? No								
7	6	Materials & Resources		13 Points	Notes	Construction First Costs	Operational Savings	
Y		d	Prereq 1	Storage & Collection of Recyclables	Required	provide collection and storage locations		
	1	c	Credit 1.1	Building Reuse , Maintain 75% of Existing Walls, Floors & Roof	1	NA: Project scope does not include any reuse of the existing building.		
	1	c	Credit 1.2	Building Reuse , Maintain 100% of Existing Walls, Floors & Roof	1	NA: Project scope does not include any reuse of the existing building.		
	1	c	Credit 1.3	Building Reuse , Maintain 50% of Interior Non-Structural Elements	1	NA: Project scope does not include any reuse of the existing building.		
1		c	Credit 2.1	Construction Waste Management , Divert 50% from Disposal	1	project specifications and contractor compliance		
1		c	Credit 2.2	Construction Waste Management , Divert 75% from Disposal	1	project specifications and contractor compliance		
	1	c	Credit 3.1	Materials Reuse , 5%	1	These points are dependent on contractor's materials sourcing, and cannot be predicted at this time. No additional capital cost or operational savings.		
	1	c	Credit 3.2	Materials Reuse , 10%	1	These points are dependent on contractor's materials sourcing, and cannot be predicted at this time. No additional capital cost or operational savings.		
1		c	Credit 4.1	Recycled Content , 10% (post-consumer + ½ pre-consumer)	1	project specifications and contractor submittal compliance		
1		c	Credit 4.2	Recycled Content , 20% (post-consumer + ½ pre-consumer)	1	project specifications and contractor submittal compliance		
1		c	Credit 5.1	Regional Materials , 10% Extracted, Processed & Manufactured Regionally	1	project specifications and contractor submittal compliance		
1		c	Credit 5.2	Regional Materials , 20% Extracted, Processed & Manufactured Regionally	1	project specifications and contractor submittal compliance		
	1	c	Credit 6	Rapidly Renewable Materials	1	These types of materials are not appropriate for this project in quantities that would reach the 2.5% materials cost threshold.		
1		c	Credit 7	Certified Wood	1	All wood to be specified as FSC certified; Contractor compliance and submittals.		





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15		Indoor Environmental Quality		15 Points	Notes	Construction First Costs	Operational Savings
Y		d	Prereq 1	Minimum IAQ Performance	Required	comply with ASHRAE 62.1, section 4, Ventilation for Acceptable IAQ	
Y		d	Prereq 2	Environmental Tobacco Smoke (ETS) Control	Required	comply with public safety standards	
1		d	Credit 1	Outdoor Air Delivery Monitoring	1	CO2 monitoring - exceed ASHRAE 62.1 ventilation requirements by 15% - part of mixed mode system with natural ventilation	
1		d	Credit 2	Increased Ventilation	1	Mixed mode natural ventilation thermal conditioning system.	see credit EA 1 see credit EA 1
1		c	Credit 3.1	Construction IAQ Management Plan, During Construction	1	project specifications and contractor submittal compliance	
1		c	Credit 3.2	Construction IAQ Management Plan, Before Occupancy	1	project specifications and contractor submittal compliance	
1		c	Credit 4.1	Low-Emitting Materials, Adhesives & Sealants	1	project specifications and contractor submittal compliance	
1		c	Credit 4.2	Low-Emitting Materials, Paints & Coatings	1	project specifications and contractor submittal compliance	
1		c	Credit 4.3	Low-Emitting Materials, Carpet Systems	1	project specifications and contractor submittal compliance	
1		c	Credit 4.4	Low-Emitting Materials, Composite Wood & Agrifiber Products	1	project specifications and contractor submittal compliance	
1		d	Credit 5	Indoor Chemical & Pollutant Source Control	1	project design complies	
1		d	Credit 6.1	Controllability of Systems, Lighting	1	project design complies	
1		d	Credit 6.2	Controllability of Systems, Thermal Comfort	1	project design complies	
1		d	Credit 7.1	Thermal Comfort, Design	1	project design complies	
1		d	Credit 7.2	Thermal Comfort, Verification	1	User survey to be implemented by the Library staff w/ assistance from GWS	
1		d	Credit 8.1	Daylight & Views, Daylight 75% of Spaces	1	Additional skylighting required for achievement	
1		d	Credit 8.2	Daylight & Views, Views for 90% of Spaces	1	project design complies	



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4		1		Innovation & Design Process		5 Points	Notes	Construction First Costs	Operational Savings
1			d	Credit 1.1	Innovation in Design: Education Outreach	1	To be developed with Librarian and Library Staff		
1			d	Credit 1.2	Innovation in Design: EA credit 5 Measurement & Verification	1	Exemplary Performance - provide a case study of the Measurement and Verification process including post-occupancy status of energy consumption (actual) and methods implemented to adjust / improve conservation.		
1			d	Credit 1.3	Innovation in Design: To Be Selected by Owner	1	Per City Selection: Possible options: Green Cleaning Contract; window integrated photovoltaics; advanced building system controls; add specifications for 'cradle to cradle products; chemical free pest control; preventative maintenance program./ post occupancy energy auditing. Additional design development is necessary to identify and document an innovative feature unique to the project.		
	1		d	Credit 1.4	Innovation in Design	1	This point requires an innovative feature unique to the project. Typically, USGBC awards this point for an owner and/or occupant initiated program. Additional design development is necessary to identify and document an innovative feature unique to the project.		
1			c	Credit 2	LEED® Accredited Professional	1	GWS		

Yes ? No

55		4		10		Project Totals (pre-certification estimates)		69 Points	
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Certified 26-32 points Silver 33-38 points Gold 39-51 points Platinum 52-69 points

Cost Summary:	Credits Previously targeted as Attainable:	\$350,000 to \$600,000
	Additional Credits targeted as Attainable	\$880,000 to \$1,080,000
	Total for all Credits targeted as Attainable	\$1,230,000 to \$1,680,000





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THANK YOU

