SFFD Fire Station No. 16

2251 Greenwich Street, San Francisco, CA 94123
Project registered with the certification goal of LEED Gold
under LEED for New Construction & Major Renovations (v2009)

PROJECT TEAM

- San Francisco Public Works – BDC (Project Management, Architecture)
- San Francisco Public Works – IDC (Structural, Mechanical, Electrical)
- Parsons Brinkerhoff / Patricia McGovern Engineers (Civil)
- Enovity Inc (Commissioning)
- SFPUC / Newcomb, Anderson, McCormick (M&V)

GENERAL FACTS

- Project Manager – Gabriella Judd Cirelli
- Est. Const. Cost – Not Available
- Est. Const. Schedule – Not Available

INTRODUCTION

Fire Station No. 16 was originally built in 1955 and is the San Francisco Fire Department's local station for the Cow Hollow and Marina neighborhoods. The building has been slated under the 2010 Earthquake Safety and Emergency Response Bond for demo and complete replacement and is currently in undergoing permit review.

SUSTAINABLE FEATURES

- Blue Roof Design – Unlike a green roof, a blue roof does not have vegetation. Rather, storm water is controlled by use of restricted roof drains which limit the impact on San Francisco's combined storm water and waste water sewer system during high intensity storm events. Roughly 20% of the roof utilizes this approach.
- Infiltration Trench – Roughly 20% of the roof is piped to an infiltration trench located beneath the sidewalk on the back side of the building at Pixley Street. Like the blue roof design, the infiltration trench limits the impact on the sewer system.
- Low Flow Fixtures – Plumbing fixtures designed to maximize water savings.
- Panel Radiator + Dedicated Outside Air System (DOAS) – HVAC system utilizes panel radiators which use hot water to heat people objects in the room rather than using heated air. The dedicated outside air system limits the amount of air being conditioned to just the ventilation rates required by ASHRAE with an additional 30% to improve indoor air quality.
- No Refrigerant Use – All bedrooms have operable windows for passive cooling.
- LED Lighting – The entire fire station utilizes high efficiency LED lighting with the exception of utility closets.

LEED 2009 for New Construction and Major Renovations

Project Checklist

ESER 1 Fire Station 16

2.12.14

Sustainable Sites — Possible Points: 26

Y	?	N			
Y			Prereq 1	Construction Activity Pollution Prevention	
1			Credit 1	Site Selection	1
5			Credit 2	Development Density and Community Connectivity	5
	1		Credit 3	Brownfield Redevelopment	1
6			Credit 4.1	Alternative Transportation—Public Transportation Access	6
1			Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	1
		3	Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
2			Credit 4.4	Alternative Transportation—Parking Capacity	2
		1	Credit 5.1	Site Development—Protect or Restore Habitat	1
		1	Credit 5.2	Site Development—Maximize Open Space	1
	1		Credit 6.1	Stormwater Design—Quantity Control	1
		1	Credit 6.2	Stormwater Design—Quality Control	1
	1		Credit 7.1	Heat Island Effect—Non-roof	1
1			Credit 7.2	Heat Island Effect—Roof	1
1			Credit 8	Light Pollution Reduction	1

Water Efficiency — Possible Points: 10

Y	?	N			
Y			Prereq 1	Water Use Reduction—20% Reduction	
	4		Credit 1	Water Efficient Landscaping	2 to 4
		2	Credit 2	Innovative Wastewater Technologies	2
2	2		Credit 3	Water Use Reduction	2 to 4

Energy and Atmosphere — Possible Points: 35

Y	?	N			
Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
8		11	Credit 1	Optimize Energy Performance	1 to 19
	1	6	Credit 2	On-Site Renewable Energy	1 to 7
2			Credit 3	Enhanced Commissioning	2
2			Credit 4	Enhanced Refrigerant Management	2
3			Credit 5	Measurement and Verification	3
2			Credit 6	Green Power	2

Materials and Resources — Possible Points: 14

Y	?	N			
Y			Prereq 1	Storage and Collection of Recyclables	
		3	Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 3
		1	Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements	1
2			Credit 2	Construction Waste Management	1 to 2
		2	Credit 3	Materials Reuse	1 to 2

Materials and Resources, Continued

Y	?	N			
1	1		Credit 4	Recycled Content	1 to 2
1	1		Credit 5	Regional Materials	1 to 2
1			Credit 6	Rapidly Renewable Materials	1
1			Credit 7	Certified Wood	1

Indoor Environmental Quality — Possible Points: 15

Y			Prereq 1	Minimum Indoor Air Quality Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
1			Credit 1	Outdoor Air Delivery Monitoring	1
1			Credit 2	Increased Ventilation	1
1			Credit 3.1	Construction IAQ Management Plan—During Construction	1
1			Credit 3.2	Construction IAQ Management Plan—Before Occupancy	1
1			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
1			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
1			Credit 4.3	Low-Emitting Materials—Flooring Systems	1
1			Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
1			Credit 5	Indoor Chemical and Pollutant Source Control	1
1			Credit 6.1	Controllability of Systems—Lighting	1
1			Credit 6.2	Controllability of Systems—Thermal Comfort	1
1			Credit 7.1	Thermal Comfort—Design	1
1			Credit 7.2	Thermal Comfort—Verification	1
	1		Credit 8.1	Daylight and Views—Daylight	1
	1		Credit 8.2	Daylight and Views—Views	1

Innovation and Design Process — Possible Points: 6

1			Credit 1.1	Innovation in Design: Specific Title	1
1			Credit 1.2	Innovation in Design: Specific Title	1
1			Credit 1.3	Innovation in Design: Specific Title	1
1			Credit 1.4	Innovation in Design: Specific Title	1
1			Credit 1.5	Innovation in Design: Specific Title	1
1			Credit 2	LEED Accredited Professional	1

Regional Priority Credits — Possible Points: 4

1			Credit 1.1	Regional Priority: Specific Credit	1
	1		Credit 1.2	Regional Priority: Specific Credit	1
	1		Credit 1.3	Regional Priority: Specific Credit	1
	1		Credit 1.4	Regional Priority: Specific Credit	1

62	17	31	**Total**	Possible Points: 110

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110