

File # 190972
Received in Committee
1/8/20
[Signature]

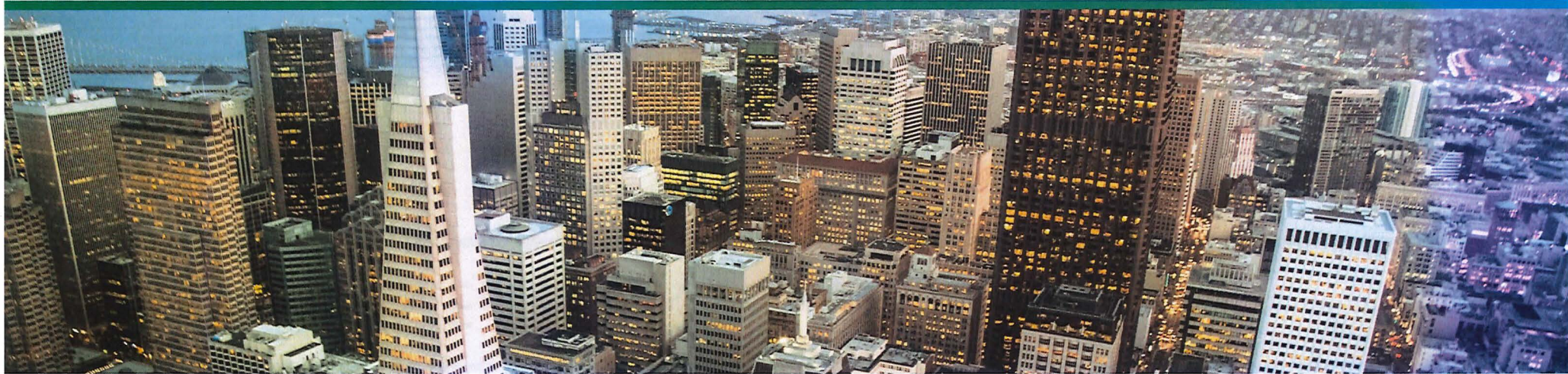


SF Environment

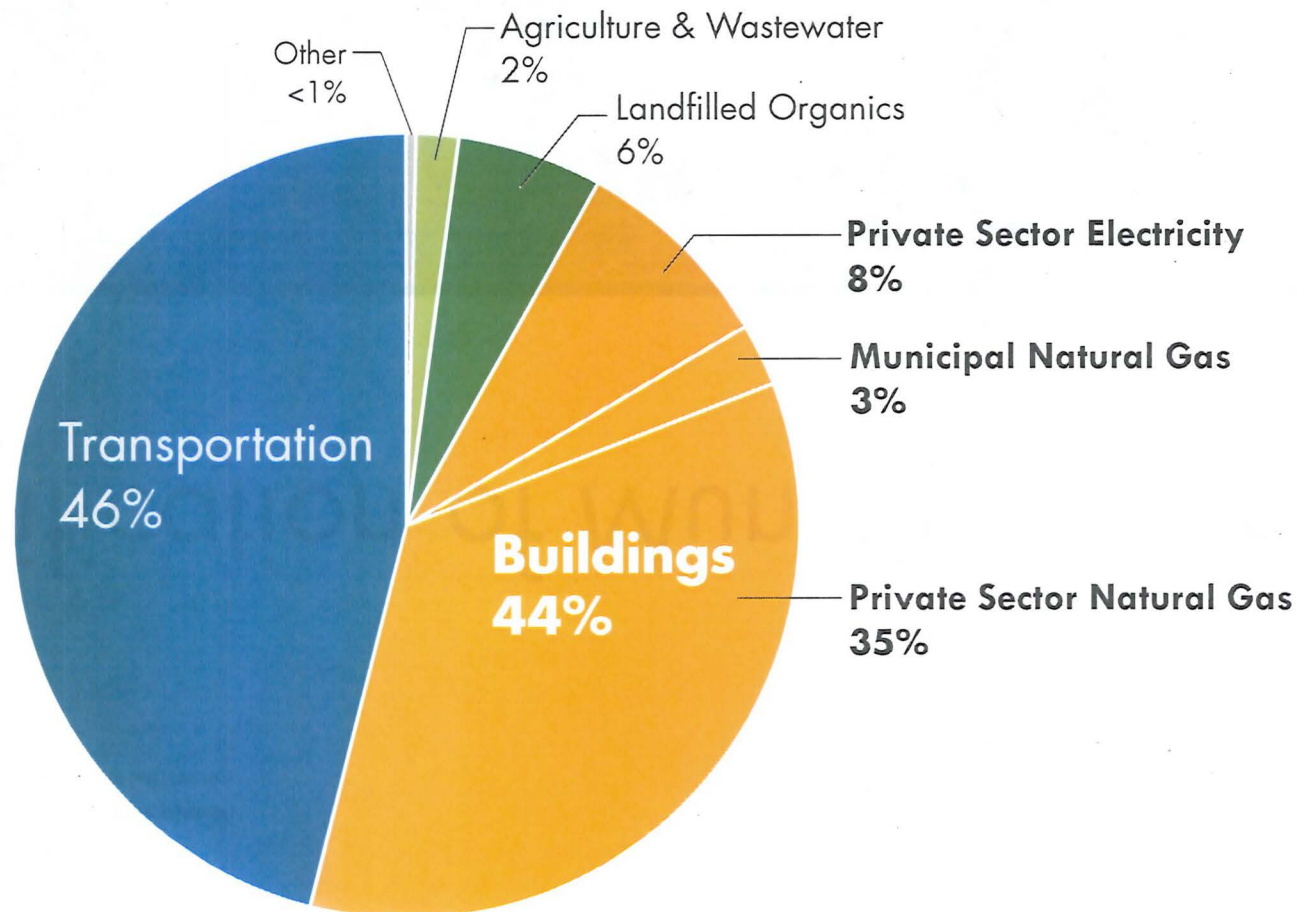
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A Department of the City and County of San Francisco

Electrification of Municipal Facilities



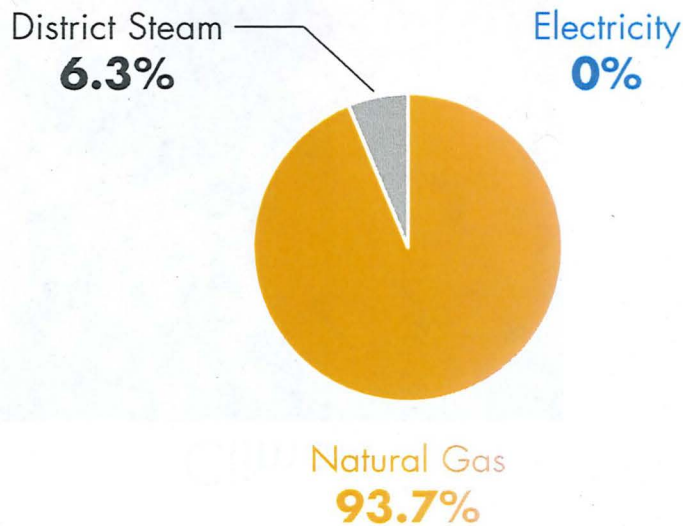
San Francisco's Emissions Sources Today



Emission Sources in San Francisco Buildings

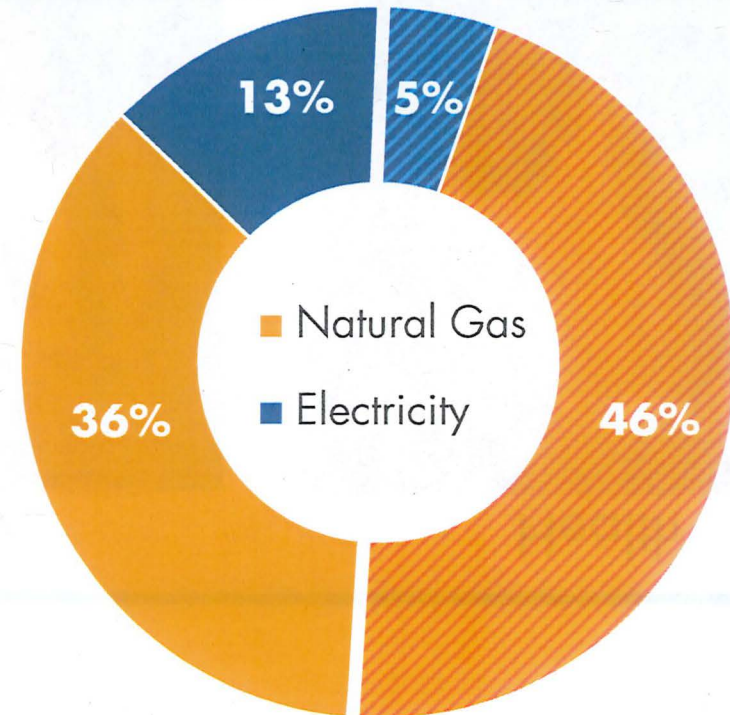


Municipal



Citywide

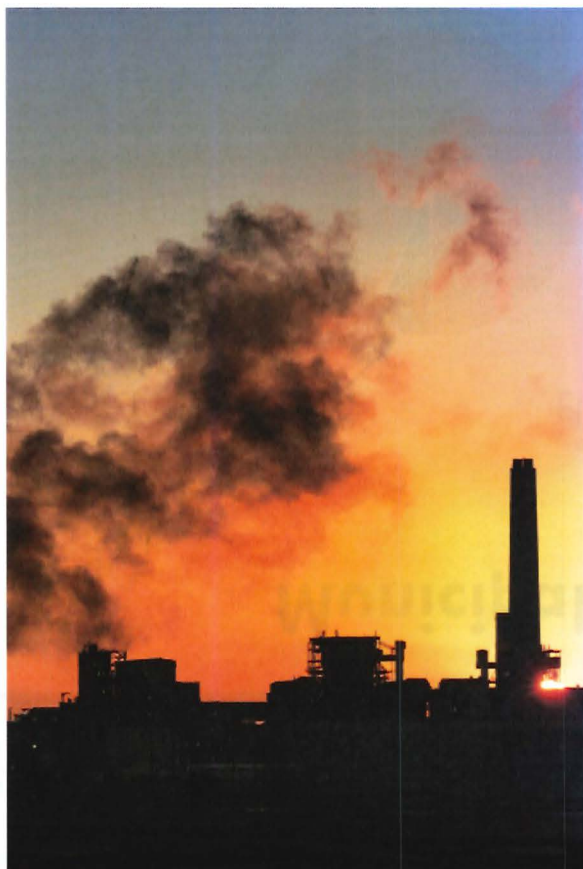
Commercial Residential



Natural Gas Impacts . . .



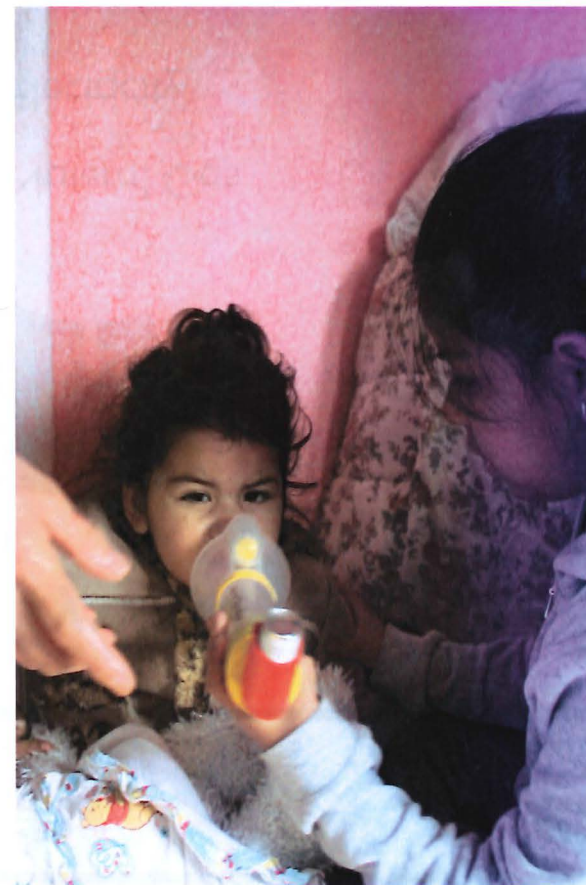
Climate



Safety



Health



Policy Proposal for Municipal Buildings



New construction and whole building major renovations





Env Code Ch 7

	All-Electric	Natural Gas & Electricity "Mixed-Fuel"
Municipal	Required	No Natural Gas Allowed Waiver process available

An Established Waiver Process



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MUNICIPAL GREEN BUILDING WAIVER REQUEST
Environment Code Chapter 7; Ordinance No. 204-11; SFE Regulations SFE13-03-GB
For projects applying for building permit on or after January 1, 2017, subject to LEED v4 requirements in San Francisco Environment Code Chapter 7 as amended effective April 16, 2017

London N. Breed
Mayor
Deborah O. Raphael
Director

Project Information

Project Name:	Project/Job Number:	Date of Waiver Request:
Project Street Address:	Project Sponsor (City Department):	
Current Design Phase % Completion:	City Project Manager:	Phone:
		Email:

San Francisco Environment Code CHAPTER 7: Green Building Requirements for City Buildings
SEC. 713. WAIVERS.

(a) Waivers from the requirements of this Chapter are available under the following circumstances:

(2) **Cost Prohibitive.** A City department may request a waiver from the Director on a form provided by the Director if compliance with this Chapter is cost prohibitive. The Task Force shall provide the Director with a recommendation with respect to the waiver request. The Director may grant a waiver if the requesting department has:

(A) Demonstrated which specific requirements are cost prohibitive, and that the requirements are not economically, environmental, and health benefits not attainable.

(B) If applicable for Section 705, demonstrated that the requirements are not economically, environmental, and health benefits not attainable.

(3) **Alternate Compliance.** A City department may request a waiver from the Director on a form provided by the Director if the department can demonstrate that an independent professional engineer or architect has determined that the proposed project can be constructed to meet or exceed the requirements of this Chapter through the use of an alternate design or construction method.

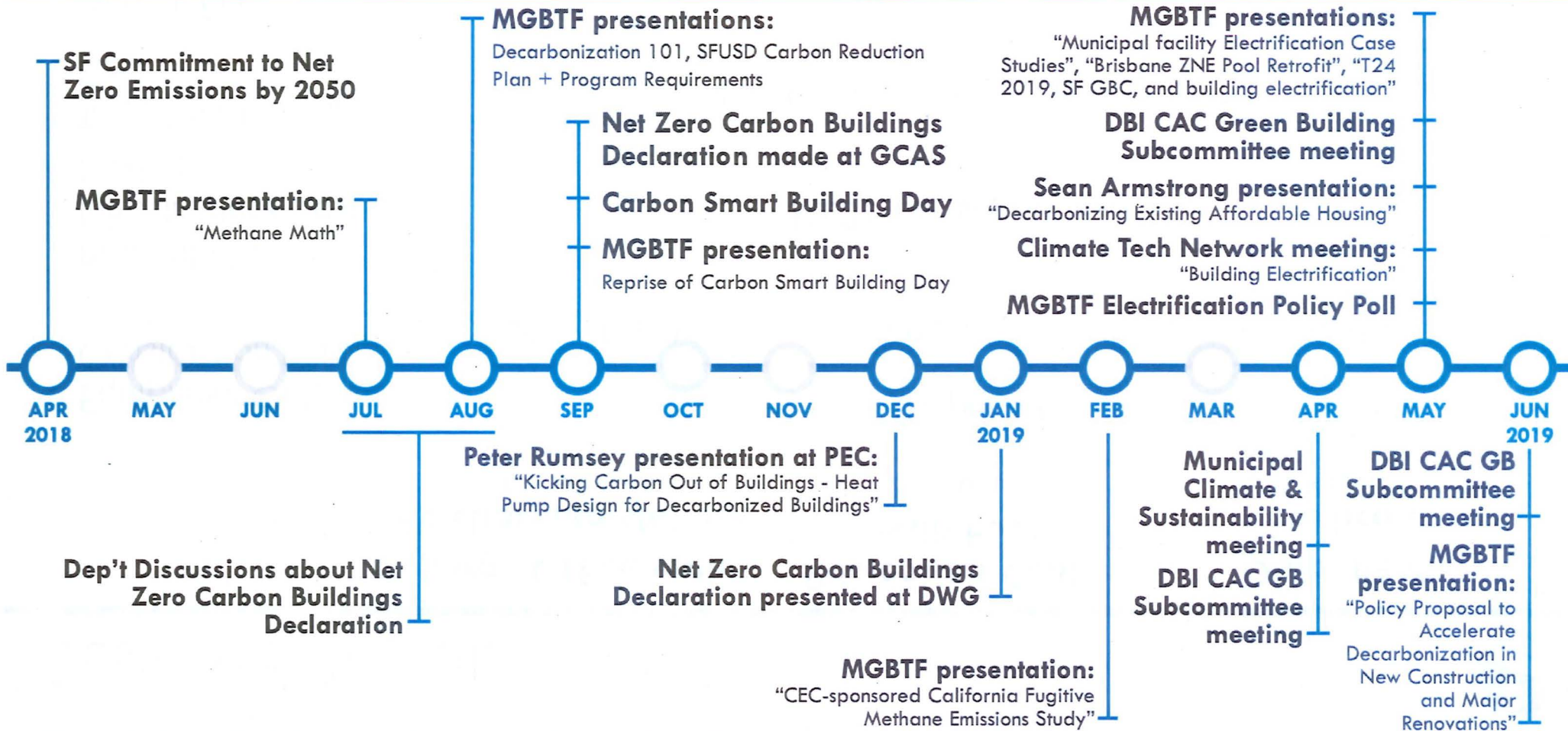
Costs and Benefits



	Large Office with EV charging stations 498,600 sq ft	Recreation Center with Pool 20,100 sq ft	Outpatient Healthcare 26,800 sq ft
Equipment Only Construction Cost		-/+ \$1 per sq ft	
	\$550 sq sf (avg)	\$500 sq sf (avg)	\$900 sq sf (avg)
Natural Gas Infrastructure Cost Savings	\$0.35 per square foot		
Total Construction Cost	-\$1.35/sq. ft. to +\$0.65/sq. ft		
Annual Energy Savings	9%	48%	32%

Calculations based on SFPUC's General Use Municipal Electricity Service Rate
 ARUP (2019) San Francisco Municipal Facility Case Studies/TRC, Energy Soft (2019) 2019 Nonresidential New Construction Reach Code Cost Effectiveness Study

Stakeholder Engagement - Outreach and Education



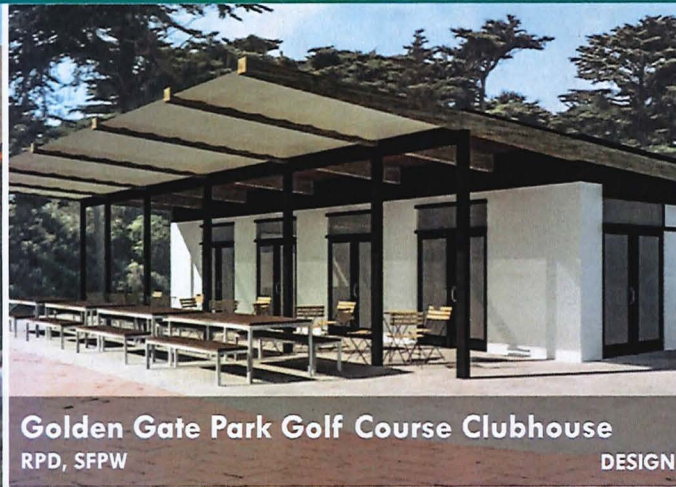
SF All-Electric Examples: City Buildings



Southeast Community Center

SFPUC, SFPW

PRECONSTRUCTION



Golden Gate Park Golf Course Clubhouse

RPD, SFPW

DESIGN



Claire Lilienthal Elementary School

SFUSD, Lionakis

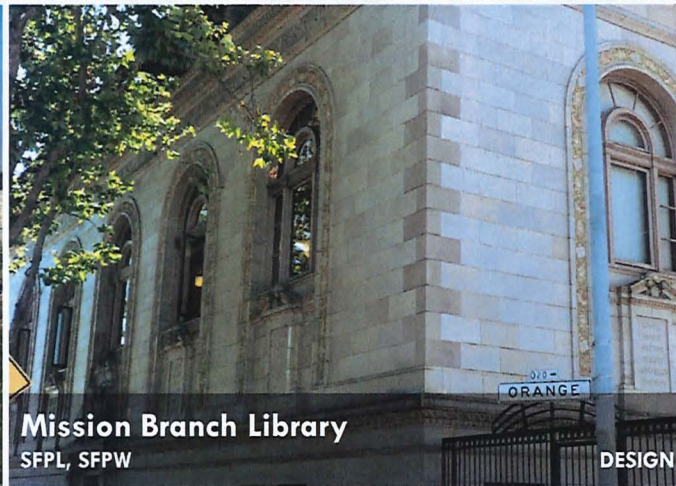
OCCUPIED



Alameda Creek Watershed Center

SFPUC, SFPW

PRECONSTRUCTION



Mission Branch Library

SFPL, SFPW

DESIGN



SFSU Student Housing Block 6

SFSU, Gould Evans, BuildGroup

CONSTRUCTION

SF All-Electric Examples: Affordable Housing



Casa Adelante, 681 Florida:
TNDC & MEDA, Mithun



Hunters Point Shipyard Block 52:
McCormack Baron Salazar, Mithun



Balboa Upper Yard:
Mission Housing Development, Related, Mithun



Casa Adelante, 2060 Folsom:
TNDC/CCDC, Mithun, YA Studio, AEA



Hunters Point Shipyard Block 54:
McCormack Baron Salazar, Mithun



Maceo May:
CCDC, Swords to Plowshares, Mithun, AEA

Next Steps – Delivering the Buildings of the Future



Thank you for listening



Cyndy Comerford, Climate Program Manager
San Francisco Department of the Environment