



SFMTA

Kirkland Yard Electrification Project Update

SFMTA Citizen's Advisory Council (CAC)
Engineering, Maintenance, and Safety Committee (EMSC)

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Capital Programs & Construction
August 23, 2023

Kirkland Yard

2301 Stockton Street, San Francisco, CA 94133



SFMTA Photo Archive

Project Status:

- **Pre-Development Phase (Planning Phase):** *completed August 2023*
- **Preliminary Engineering Phase:** *next phase (mid-late September 2023)*
- **Public Outreach and Engagement (POE):** *initiate with SFMTA POET Team*

Kirkland Yard in Fisherman's Wharf



Kirkland Yard – the Facility Today



Kirkland Yard – the Facility Yesterday c.1976

SFMTA Archive M2197_2

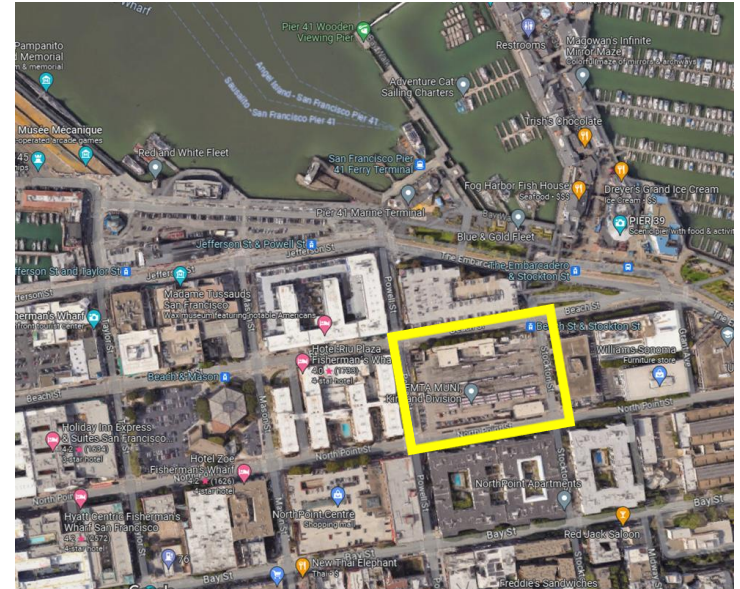


Kirkland Yard - Project Description

Location: 2301 Stockton Street in the Fisherman’s Wharf and Pier 39 neighborhood.

Purpose: Upgrade facilities and electrification to store, maintain and charge approx. 111 40-ft battery electric buses (BEB) at the existing Kirkland Yard.

- **Kirkland Yard** will convert from a diesel-hybrid bus fleet to BEB fleet. Kirkland is the first yard of 6.
- **SFMTA is mandated** to meet California Air Resources Board (CARB) Innovative Clean Transit (ICT) regulation to operate 100% zero emission buses by 2040.
- **Kirkland Yard Electrification Project** will align with SFMTA’s Zero-Emission Bus Roll-Out Plan *the procurement plan for BEB fleet replacement of existing diesel-hybrid buses*



General Scope:

New Work: New pavement for BEBs, new site drainage, new bus wash, dedicated outdoor maintenance bays, new overhead gates at Stockton Street (bus pull-outs), new yard lighting and infill perimeter fencing to match existing.

Demolished/Removed: Operations Building and temporary trailer.

Remain in Place: maintenance bays, tire shop, parts offices and fueling island.

Kirkland Yard - Design Scope Elements

1. Outdoor Maintenance Workspace

- *Workspace for lifting buses & scaffolding.*
- **Canopy Covering** at outdoor maintenance lifts and body shop

2. Yard Pavement

3. Bus Wash

4. Maintenance Office Space

5. Number of Buses

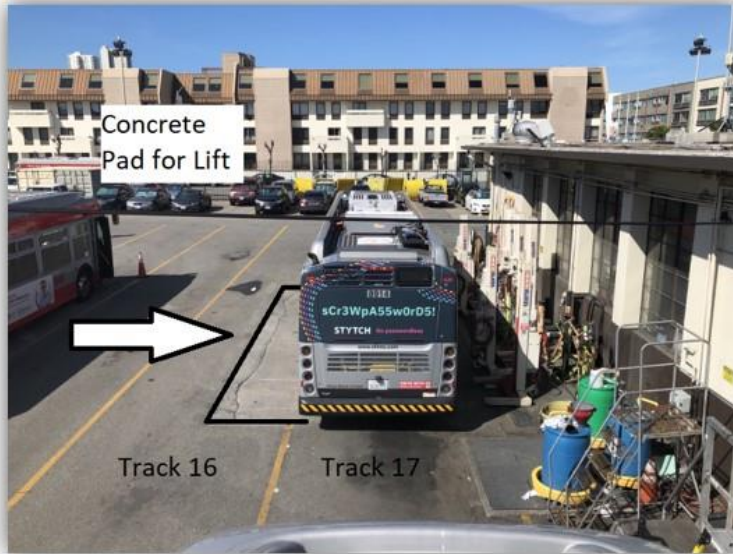
- *Maybe 111 BEB charging spaces*
- *Caveat: space-proof yard layout for wider islands, bio-swales, wider BEB lanes, bus wash reclamation equipment*

6. Bus Operations

- *Remain the same with "pull-outs" onto Stockton Street*
- *Buses circulate in counter-clockwise pattern in the yard*

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Kirkland: Maintenance Workspaces



- Concrete pad extends into Track 16 for the weight of the lift when the bus is in the air.
- Extra room is needed to remove and install the lifts



- Yellow striping is where the scaffolds would be positioned on Track 16 to service the exterior and top of the buses.

Maintenance Workspaces

- Outdoor maintenance **workspaces at Tracks 16 & 17 remain**
- **New canopy cover over the maintenance work areas - to shelter from elements**
- **New canopy cover over the body shop work area**

Kirkland: Yard Drainage & Pavement

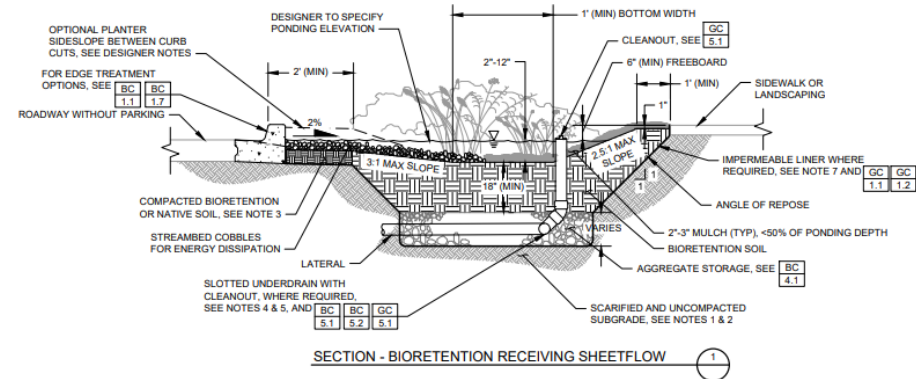


Yard Drainage

- Provide on-site stormwater retention *bio-swales, and cistern for bus wash*

Yard Pavement

- Provide concrete pavement *to support heavier BEB buses, maintenance workspaces, and tolerances for pantograph charging*



Kirkland: New Bus Wash




September 14, 1950

 X2499.jpg



October 27, 2017

 171027_Kirk_Shops_098.jpg

Replace existing bus wash

- *Relocate from existing location to corner of yard.*
- *Provide new bus wash with reclamation system and cistern.*
- *Space-proof location with bus circulation, turning radius and yard layout configuration.*

Kirkland: Operations Offices



Operations Space for Division Manager Office, Union Representative Office, Administrative, Dispatcher & Yard Starter “office” area and Training Office.

Transit Operator Spaces: Break Room, Locker & Restroom Facilities as well as yard staff personnel and Lactation Room.

Temporary Office Trailer or Building: develop for 15-year life cycle expectancy.

- Temporary office structure for operations staff.
- Robust, efficient and longevity.
- Potrero Project (2027) will provide additional conference and training rooms

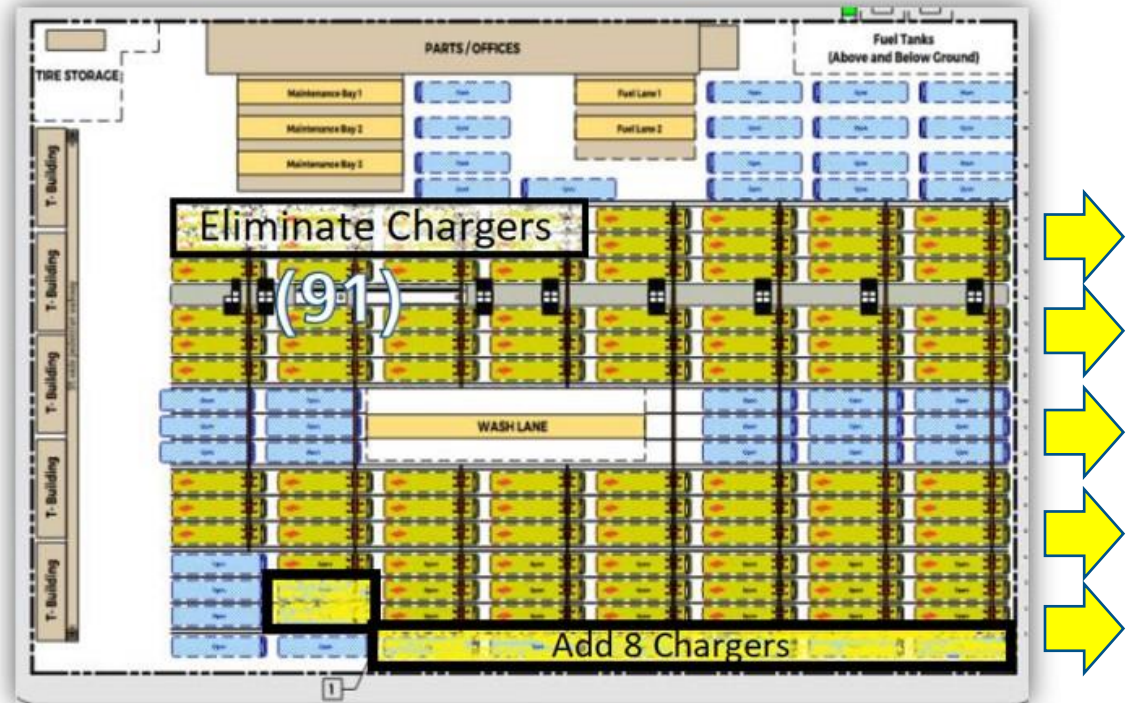
Kirkland Yard: Number of BEB Buses

Number of Buses

13 rows x 8 columns
equals **104 buses**

6 buses behind &
9 buses before
bus wash equals **15 buses**

104 + 15 = 119 buses
Minus 8 buses
(from outdoor maintenance)
Equals 111 Buses



Number of Buses: Discussed a bus fleet size count of 111 BEB charge positions. Excludes the blue color-coded buses north of the pantograph charging area or in the Fueling Area. This area was kept free for circulation and additional bus storage of BEB's not requiring complete charge or have been charged.

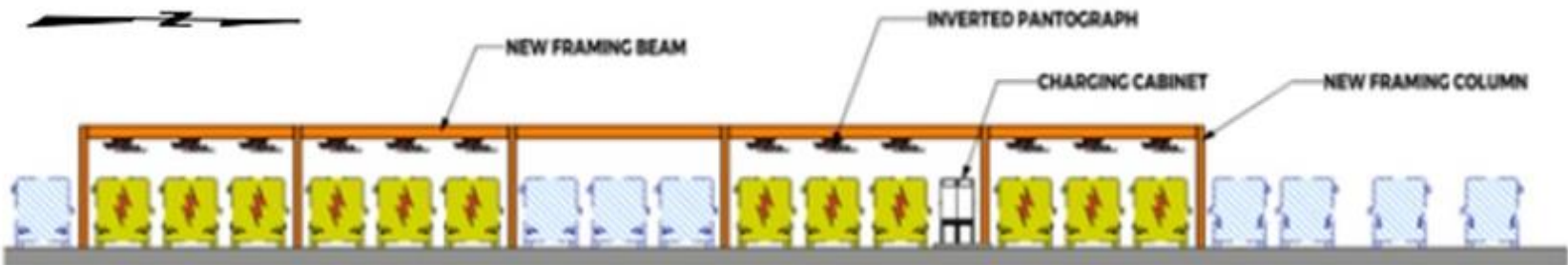
- o **Caveat - Yard to be space proofed for wider lanes for BEB buses, bio-swales (on-site storm water retention), wider equipment island, more than 1 equipment island, bus wash reclamation equipment.**

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Kirkland Yard: Depot Charging of BEBs



Images of Steel-Framed Gantry Structure supporting depot pantograph charging system



Steel-Framed Gantry Structure w/overhead only depot pantographs. Charging Cabinets at grade.

Kirkland: Project Schedule

Activity	Duration (Mos)	1Q 2023	2Q 2023	3Q 2023	4Q 2023	1Q 2024	2Q 2024	3Q 2024	4Q 2024	1Q 2025	2Q 2025	3Q 2025	4Q 2025	1Q 2026	2Q 2026	3Q 2026	4Q 2026	1Q 2027	2Q 2027	3Q 2027	4Q 2027	1Q 2028	2Q 2028
Pre-Development	9	█	█	█																			
Bridging Documents (to PE)	10				█	█	█																
Prepare RFP & Advertise	9							█	█	█	█												
Award Construction Contract	2											█											
Design-Build Construction	31												█	█	█	█	█	█	█	█	█	█	█
Final Close-Out	6																					█	█

Activity	Start	End	Duration (Mos)
Pre-Development	11/1/2022	8/14/2023	9
Bridging Documents (to PE)	10/2/2023	7/1/2024	10
Prepare RFP & Advertise	7/1/2024	3/31/2025	9
Award Construction Contract	4/1/2025	5/31/2025	2
Design-Build Construction	6/1/2025	12/31/2027	31
Final Close-Out	1/1/2028	6/30/2028	6

A large, light blue, stylized letter 'U' graphic that serves as a background for the slide. The 'U' is composed of several vertical bars of varying heights and widths, creating a modern, architectural look. The top of the 'U' is open, and the bottom is a wide, rounded curve.

Thank you!