

Mobility Management: Bus Acceptance

Community Relations Committee

July 10, 2019

Item #7

Bus Maintenance

- Staffing
- Fleet Inventory
- Preventive Maintenance Program
- Preventive Maintenance KPI's
- Bus Acceptance Program

Fleet Inventory (Fixed Route)

Quantity	Year	Make	Length (ft.)	Avg. Miles (LTD)
55*	2002	NABI	60	404,000
91	2009	Gillig LF	40	261,000
40	2009	Gillig LF	35	245,000
4	2009	Gillig	29	308,000
25	2013	Gillig Hyb	40	164,000
4	2013	Gillig	29	195,000
21	2014	Gillig LF	40	145,000
12	2014	Gillig LF	29	78,000
50	2017	Gillig LF	40	50,000
2	2019	Proterra	40	
*Pending				
55	2019	New Flyer	60	
8	2020	Proterra	40	

Preventive Maintenance Program

- SamTrans' Preventive Maintenance Program is outlined through Standard Operating Procedures (SOP):
 - M-17 Preventive Maintenance (per subfleet)
 - M-12 Minor "A" Inspection (safety and environmental)
 - M-10 Maintenance Calibration Procedures (tooling)
- On-time PMI completion
 - FTA's state of good repair on-time compliance requires 80% of scheduled PMIs

Bus Maintenance KPI's

- PMI's – 95% On-time, Criteria +/- 500 miles of PMI interval (YTD 100%)
- Buses Out of Service Awaiting Parts – less than 2% of the fleet (YTD 0.92%)
- Inventory Variance – less than 2% (YTD 0.04% or \$634 on \$1.5M inventory)
- Average Miles Between Service Calls (MBSC) – 25,000 miles/month (YTD 28,217 miles)

Bus Maintenance KPI's

- Miles Between Service Calls

<u>Fiscal Year</u>	<u>Miles</u>	<u>Service Calls</u>	<u>Average Miles Between Calls</u>
2015	5,637,449	223	25,280
2016	5,993,556	217	27,620
2017	5,961,779	204	29,224
2018	5,875,691	227	25,844
2019	5,699,767	202	28,217

* District serviced vehicles only. FY 2019 YTD as of May 31, 2019

Bus Maintenance KPI's

- Safety – hours worked without industrial injury, i.e. NB 40,000 hrs/yr, SB 35,000 hrs/yr (NB 2 injuries, SB 0 injuries)
- Preventable Accidents (YTD 0 preventable accidents)
- CHP Terminal Inspection – maintain Terminal Inspection Certification through compliance of California's Code of Regulations (CCR, Title 13)

Bus Acceptance Program

- Bus Post Delivery Inspection (PDI):
 - Inspections and operational checks on the bus structure, systems, and sub-systems
 - Software and firmware (engines, transmission, HVAC, etc.)
 - Discrepancies are documented and repaired prior to acceptance.
 - Road tests and fluid changes (as required)
 - PDI's are performed by Bus Manufacturer Field Service Technicians (FSTs), System Vendors (i.e. Thermo King, Voith, Cummins, Apollo), and SamTrans' acceptance team

Bus Acceptance Program

- Electronic Component Installation, Configuration, and Validation:
 - Remove existing electronic equipment such as radios, fareboxes, and Clipper; transfer to new bus
 - Other Intelligent Transportation System (ITS) that require configuration, activation, and operational checks – OrbStar, GPS, CAD/AVL, On board Cameras, Destination Signs, Wi-Fi, Doors, etc.
 - Determine placement of equipment to optimize passenger and operator ergonomics

Bus Acceptance Program

- Integration Into District's Asset Management Systems:
 - Creation of a bus procurement folder for each bus
 - Acceptance Documentation (First article inspection, certificate of origin, resident inspector sign-off report, Buy America Certification, serialized component list)
 - Tariff Weight Slip
 - Title and Registration
 - Obtain DMV registration
 - Inclusion into asset inventory (Finance) and vehicle insurance (Risk Management)

Bus Acceptance Program

- Integration Into District's Asset Management Systems (continued):
 - Vehicle profile entered into SPEAR system
 - Vehicle and system's warranty tracking (SPEAR and PeopleSoft)
- Review the service check list for sign-off, acceptance, and payment

Bus Acceptance Program

- Prior to Revenue Service
 - Complete equipment familiarization for maintenance and transportation
 - Training provided by bus manufacturer, and sub-system OEMs
 - Finalize Preventive Maintenance Inspection (PMIs) schedules and documents
 - Vehicle serviced, detailed, and made ready for revenue service
 - Add cards, placards, and route schedules
 - Release 5-10 buses into revenue service