# TRIMET BUS FLEET MANAGEMENT PLAN

June 2011

Revision 4

## Title VI

TriMet ensures full compliance with Title VI of the Civil Rights Act of 1964 by prohibiting discrimination against any person on the basis of race, color, national origin or sex in the provision of benefits and services resulting from its federally assisted programs and activities.

## Americans with Disabilities Act (ADA) Information

If you would like copies of this document in an alternative format, please call (503) 256-2726. Persons who are deaf or hard of hearing may contact using Telecommunications Relay Service by dialing 7-1-1.

¿Habla usted español? La informacion en esta publicación se puede traducir para usted. Para solicitar los servicios de traducción favor de llamar al (503) 731-3490.

# TABLE OF CONTENTS

# List of Figures



# List of Tables

# Appendices

**This page left blank intentionally.**

# ACRONYMS

| | |
|---|---|
| ADA | Americans with Disabilities Act |
| APC | Automatic Passenger Counters |
| ATP | Accessible Transportation Programs |
| ASA | Automated Stop Announcements |
| BDS | Bus Dispatch System |
| CAT | Committee on Accessible Transportation |
| CSI | Customer Service Information |
| FTA | Federal Transit Administration |
| MAX | Metropolitan Area Express |
| MMIS | Maintenance Management Information System |
| MTP | Medical Transportation Program |
| PIP | Productivity Improvement Process |
| PM | Preventive Maintenance |
| SMART | South Metro Area Rapid Transit |
| SOPs | Standard Operating Procedures |
| TC | Transit Center |
| TIP | Transit Investment Plan |
| WES | Westside Express Service |

**This page left blank intentionally.**

# 1. Introduction

TriMet was created in 1969 as a special district of the State of Oregon and is governed by a seven-member board of directors appointed by the Governor. TriMet's 575-square-mile district serves 1.3 million people in the urban portions of Clackamas, Multnomah, and Washington counties.

TriMet plays an important role in the Portland Metropolitan area's pursuit of regional growth management goals (known as the *Region 2040 Growth Concept*). Including; improving bus service to regional centers, expanding the Metropolitan Area Express (MAX) light rail system, and continually improving the quality of the TriMet system which provides regional residents with a comfortable and convenient transportation choice.

Metro is the regional government that develops long-term plans for land use and transportation. TriMet is a partner with Metro and local governments in land use and transportation planning. TriMet's commitment to improve service in concert with growth management is a basis for the region's 50-year land use vision, the *Region 2040 Growth Concept*.

The *Region 2040 Growth Concept*, adopted by Metro in 1995, preserves access to nature and builds better communities by maintaining a compact urban form with increased travel options. It directs most new development to population centers and along corridors that can be well served by transit, walking, and bicycling. Focusing jobs, housing, and services in these areas takes best advantage of transit system investments by reducing the need to drive. MAX is TriMet's light rail system serving the Portland metropolitan area. Opening in 1986, today MAX service includes four lines (Blue, Red, Green and Yellow), the Green line opened on September 12, 2009. Currently, four MAX lines run on 52 miles of track and serve 84 stations. MAX has become a national model for community support, land-use/ transportation planning, public art, and environmentally friendly construction practices.

TriMet operates 81 bus routes throughout the Portland, Oregon, metro area. Many bus lines connect with MAX Light Rail and provide Frequent Service (every 15 minutes or better during morning and afternoon rush hour).

Frequent service connects Regional Centers in the 2040 Plan with each other and with the Central City and serves Main Streets.

In 1998, four lines had 15-minute or better service available each day of the week. Today, the Frequent Service network comprises 12 bus routes and is 164 miles long. Line 75-Lombard/39$^{th}$ Ave. joined the Frequent Service network in May 2004, as well as Line 57-TV Hwy/Forest Grove in September 2004. As a result of these investments in new service, over 40 percent of the population of the TriMet District lives within one-half mile of Frequent Service.

TriMet provides transportation options for thousands of Portland area residents every day. Important to the TriMet system are customer amenities and services. Over the last few years TriMet has improved lighting at bus stops, invested in bus shelters, low-floor air-conditioned

buses, new bus stop signs and customer information at stops, improved pedestrian access with sidewalks and safer street crossings, traffic management tools and bus stop re-spacing to decrease travel time and increase reliability, Transit Tracker with real arrival times by phone, and improvements to the TriMet website and on-line trip planning.

TriMet's LIFT Program provides complementary, door-to-door transportation services to Portland area residents who are functionally unable to use TriMet's regular fixed route services because of a disability. LIFT provides service to locations within 3/4 of a mile of either side of TriMet's 81 fixed routes.

Based on a recommendation by the Special Needs Transportation Policy Advisory Committee to the TriMet Board, TriMet has provided complementary LIFT service in the Metro area since 1980. TriMet became fully compliant with the Americans with Disabilities Act (ADA) in 1996, and since has provided service that meets and exceeds requirements of the ADA.

TriMet's Accessible Transportation Programs (ATP) Department is part of the Operations Division, which also includes bus and rail service. ATP is made up of two programs—TriMet LIFT and the Medical Transportation Program (MTP). The LIFT Program is expressed in all caps to distinguish the program name from the vehicle lifts. LIFT is not an acronym.

TriMet operates LIFT service through contracts with private sector companies, which provide staff for all operating functions including transportation, maintenance, dispatch, and customer services. In addition, TriMet contracts with a taxi company to provide backup transportation that efficiently accommodates fluctuations in demand. TriMet provides vehicles, operating facilities, and equipment for all program elements aside from taxi service. TriMet is responsible for program, contract, and operations management for the LIFT Program, and for determining eligibility of LIFT clients.

During Fiscal Year 2010, TriMet provided 1.07 million LIFT rides.

# 2. Fleet and Maintenance Overview

## 2.1 Fleet Overview

***Fixed Route***

Due to the ongoing recession, starting in March 2011, the fixed route fleet at TriMet will consist of 600 vehicles, with the fixed route contingency fleet composed of 26 vehicles for a grand total of 626 buses. TriMet's entire bus fleet is broken down into the following categories:

53 high-floor 30-foot diesel buses

213 high-floor 40-foot diesel buses

358 low-floor 40-foot diesel buses

Two low-floor 40-foot hybrid diesel-electric buses

TriMet retains a contingency fleet for emergency purposes. Currently, there are 13 high-floor 40-foot diesel buses and 13 high-floor 30-foot diesel buses in the contingency fleet.

***Paratransit – LIFT Program***

The LIFT fleet consists of 252 diesel, cutaway, small buses and 15 gasoline, Dodge Caravan minivans. All of the small buses are lift-equipped and have either three or four securement areas for people using a wheelchair or scooter. Seating for ambulatory customers is a combination of seats fixed to the bus floor and seating that is attached to and can be folded up against the interior wall of the bus, to open floor space for wheelchair securement. Ambulatory seating varies by sub-fleet with a seated maximum of 13 and a minimum of six. The number of seats available for ambulatory customers depends on the number of wheelchair spaces occupied. The Dodge Caravan fleet of 15 vans seats a maximum of three ambulatory customers or 1 customer using a mobility device and is useful when the pick-up location or the drop-off location presents access challenges for the small buses. See Appendix A for the LIFT vehicle fleet details.

## 2.2 Service Overview

For the calendar year 2010, the fixed route fleet averages 40,307 miles per year per bus. The paratransit fleet averages 32,511 miles per year per vehicle. Vehicles are in operation 24 hours a day with the majority of service between 4:00 a.m. and 1:00 a.m.

Time spent outside of revenue operation is used for performing all necessary service, cleaning, and maintenance to the vehicles. TriMet's Field Operation Dispatch office is open 24 hours a day, seven days a week and is responsible for assigning replacement vehicles when needed in accordance with the available vehicle list from Maintenance. Before service operation, all vehicles are given a pre-trip inspection as follows:

Start-up and low air warning system test

Exterior walk around

Interior inspection

Operator's compartment set up and checks

Defects found upon completion of the pre-trip inspection are recorded on the Trip Sheet assigned to the vehicle and resolved by maintenance when the vehicle is no longer in revenue operation.

The LIFT Program operations model consists of a central dispatch contract, a central maintenance contract and three transportation contracts. LIFT Central Dispatch receives ride requests; schedules and dispatches rides; and responds to customer contacts. LIFT Central Maintenance performs all vehicle maintenance, excluding those minor maintenance activities specifically outlined as the responsibility of the LIFT Transportation contractor. LIFT Transportation manages employees who transport customers in TriMet-owned vehicles according to schedules produced by LIFT Central Dispatch. TriMet has general program and operations direction and oversight responsibility.

## 2.3 Existing Bus Fleet

All vehicles in operation are wheelchair accessible and adhere to ADA compliance standards. Table 2-1, TriMet Fixed Route Fleet, provides detailed information on the 586 vehicles used for fixed-route revenue operations.

* The capacity is noted as Seated / Seated+Standing

Table 2-2, TriMet Paratransit Fleet, provides detailed information on the 267 vehicles used for paratransit operations. Table 2-3, TriMet Contingency Fleet, provides detailed information about the fixed route contingency fleet.

**Table 2-1. TriMet Fixed Route Fleet (as of April 25th , 2011)**

| Manufacturer | Length | Capacity* | Engine | Transmission | Model | Year | Size |
|---|---|---|---|---|---|---|---|
| Gillig | 40 | 43/64 | Cummins L-10 | Voith D863 | Phantom | 1990 | 35 |
| Gillig | 30 | 28/35 | Cummins L-10 | Voith D863 | Phantom | 1990 | 18 |
| Gillig | 30 | 28/35 | Cummins L-10 | Voith D863 | Phantom | 1991 | 12 |
| Flexible | 40 | 43/64 | Cummins L10-CE | Voith D863 | 40102-6C | 1992 | 74 |
| Flexible | 30 | 28/35 | Cummins L10-CE | Voith D863 | 30102-6C | 1992 | 10 |
| Flexible | 40 | 43/64 | Cummins M11 Celect | Voith D863 | 40102-6C | 1994 | 26 |
| New Flyer | 40 | 39/56 | DD Series 50 | Allison VR-731 | D40LF | 1997 | 22 |
| Gillig | 40 | 43/60 | Cummins M11-280E | Allison B400R | Phantom | 1997 | 60 |
| Gillig | 40 | 43/60 | Cummins M11-280E | Voith D863.3 | Phantom | 1997 | 5 |
| New Flyer | 40 | 39/56 | Cummins ISL CM850 | Voith DGS PA | D40LF | 1998 | 58 |
| New Flyer | 40 | 39/56 | Cummins ISL CM850 | Voith DGS PA | D40LF | 1998 | 60 |
| New Flyer | 40 | 39/56 | Cummins ISL CM850 | Voith DGS PA | D40LF | 2001 | 59 |
| New Flyer | 40 | 39/56 | Cummins ISL 8.9 | Allison EVD | D40LF | 2002 | 2 |
| New Flyer | 40 | 39/56 | Cummins ISL CM850 | Voith D864.3 | D40LF | 2002 | 55 |
| New Flyer | 40 | 39/56 | Cummins ISL CM850 | Voith D864.3 | D40LF | 2002 | 25 |
| New Flyer | 40 | 39/56 | Cummins ISL CM850 | Voith D864.3 | D40LF | 2006 | 39 |
| New Flyer | 40 | 39/56 | Cummins ISL CM850 | Voith D864.5 | D40LF | 2009 | 40 |
| | | | | | | | |
| Total Fleet | | | | | | | 600 |
| Average Fleet Age (in years) | | | | | | | 13 |

** The capacity is noted as Seated / Seated+Standing*

**Table 2-2. TriMet Paratransit Fleet (as of April 25th, 2011)**

| Manufacturer | Length | Capacity* | Engine | Transmission | Model | Year | Size |
|---|---|---|---|---|---|---|---|
| Ford | 24' | 9/9 | 7.3L DIT | 4R100 | El Dorado | 1999 | 27 |
| Ford | 24' | 9/9 | 7.3L DIT | 4R100 | El Dorado | 2001 | 33 |
| Ford | 24' | 13/13 | 7.3L DIT | 4R100 | El Dorado | 2001 | 45 |
| Ford | 24' | 13/13 | 7.3L DIT | 4R100 | El Dorado | 2002 | 8 |
| | | | | | | | |
| Ford | 24' | 8/8 | 6.0L DIT | 5R110 | El Dorado | 2006 | 39 |
| Ford | 24' | 8/8 | 6.0L DIT | 5R110 | El Dorado | 2007 | 49 |
| Ford | 24' | 8/8 | 6.0L DIT | 5R110 | El Dorado | 2008 | 1 |
| Ford | 24’ | 12/12 | 6.0LDIT | 5R110 | El Dorado | 2008 | 50 |
| Dodge | 17’ | 4/4 | 3.3L V6 | 41TE | Caravan | 2010 | 15 |
| Total Fleet | | | | | | | 267 |
| Average Fleet Age (in years) | | | | | | | 6.3 |

** The capacity is noted as Seated / Seated+Standing*

**Table 2-3. TriMet Contingency Fleet (as of September 13, 2009)**

| Flexible Manufacturer | Length | Capacity* | Engine | Transmission | Model | Year | Size |
|---|---|---|---|---|---|---|---|
| Gillig | 40 | 43/64 | Cummins L-10 | Voith D863 | Phantom | 1990 | 5 |
| Gillig | 30 | 28/35 | Cummins L-10 | Voith D863 | Phantom | 1990 | 12 |
| Gillig | 30 | 28/35 | Cummins L-10 | Voith D863 | Phantom | 1991 | 1 |
| Flexible | 40 | 43/64 | Cummins L10-CE | Voith D863 | 40102-6C | 1992 | 7 |
| Flexible | 40 | 43/64 | Cummins M11 Celect | Voith D863 | 40102-6C | 1994 | 1 |
| Total Fleet | | | | | | | 26 |
| Average Fleet Age (in years) | | | | | | | 20.3 |

** The capacity is noted as Seated / Seated+Standing*

## 2.4 Operating Spare Ratio

***Fixed Route***

Bus Maintenance's current standard is to maintain below a 20% spare ratio to assure vehicle availability, and is based upon PM peak pullouts and calculated for 30' and 40' buses only.

***Paratransit***

The goal for LIFT service delivery is to maintain above a 16% spare ratio, which is based upon average peak pullouts. As of June 30, 2009, the maximum peak pullout was 232 vehicles. Refer to Appendix A for detailed LIFT fleet service requirements.

## 2.5 Current Maintenance Staffing

TriMet maintenance employees operate on a 24-hour, seven days a week work schedule. All shifts are staffed to accommodate scheduled preventive maintenance (PM) and fleet modifications as well as unscheduled repairs when vehicles are out of operation. Shifts are scheduled so that there is an overlap between shifts for communication relay. Table 2-4, TriMet Maintenance Employee Shift Distribution, illustrates employee distribution by shift.

**Table 2-4. TriMet Maintenance Employee Shift Distribution**

| Position | Day | Swing | Night | *Other |
|---|---|---|---|---|
| Journey Mechanic | 48 | 28 | 36 | |
| Body Shop | 9 | | | |
| Unit Rebuild | 14 | | | |
| Maintenance Mechanic | 3 | 2 | 1 | |
| Helper | 4 | 1 | 5 | 49 |
| Apprentice Mechanic | 9 | | | |
| Spotter | 3 | 1 | 2 | |
| Cleaner | 4 | | | |
| Tire | | | | 6 |

** Other denotes a shift(s) that does not fall into TriMet's standard Day, Swing, or Night shift.*

LIFT vehicles are maintained at a TriMet facility, by employees of the contractor, Penske Truck Leasing, Inc. LIFT Maintenance operates 18.5 hours a day, Monday through Friday, and 10.5 hours a day on the weekends, with a designated on-call lead mechanic available 24 hours a day, seven days a week.

## 2.6 Labor Performance Indicators

***Fixed Route***

Labor performance is key to the successful operation of the Maintenance department. Periodic reviews are in place for supervisors and managers to measure attendance, miles per Journey Mechanic, and overtime usage. Performance goals for these items for Fiscal Year 10-11 are as follows:

Attendance – maintain 92.5% or greater attendance rate.

Miles per Journey Mechanic – maintain 14,000 miles or less per mechanic.

Overtime – maintain costs at or below budgeted levels.

## 2.7 Maintenance Performance Indicators

***Fixed Route***

Each year the Maintenance department identifies goals that are critical to successful performance of the fixed-route fleet. Vehicles must be reliable, clean, safe, and accessible for both internal and external customers and annual goals are directed at meeting those standards in a cost-effective manner. A monthly benchmark report tracks the ability of the Maintenance department to meet its goals.

There are six goals for fiscal year 2010-2011:

Attendance must be 92.5% or greater for all maintenance employees.

Percentage of scheduled repairs must be 70% or greater.

Bus inventory turns at 2.5 per month.

Roadcalls are being tracked, but the process will be changing in FY11, and a new benchmark will be recommended in FY12. Safety rating must be 15 accidents per 200,000 work hours or less.

PM Compliance is at 85% or greater.

Previous goals have focused on overtime costs, spare ratio, preventive maintenance, on-time compliance, maintained pullouts, frequency of interior cleaning and steam cleaning, and repair to payroll hour ratios in addition to attendance, inventory value, cost per vehicle mile and road call mileage. When goals are consistently met, they become a regular part of operations and other goals are introduced.

**Figure 2-1. TriMet Attendance Performance (as of April 2011)**

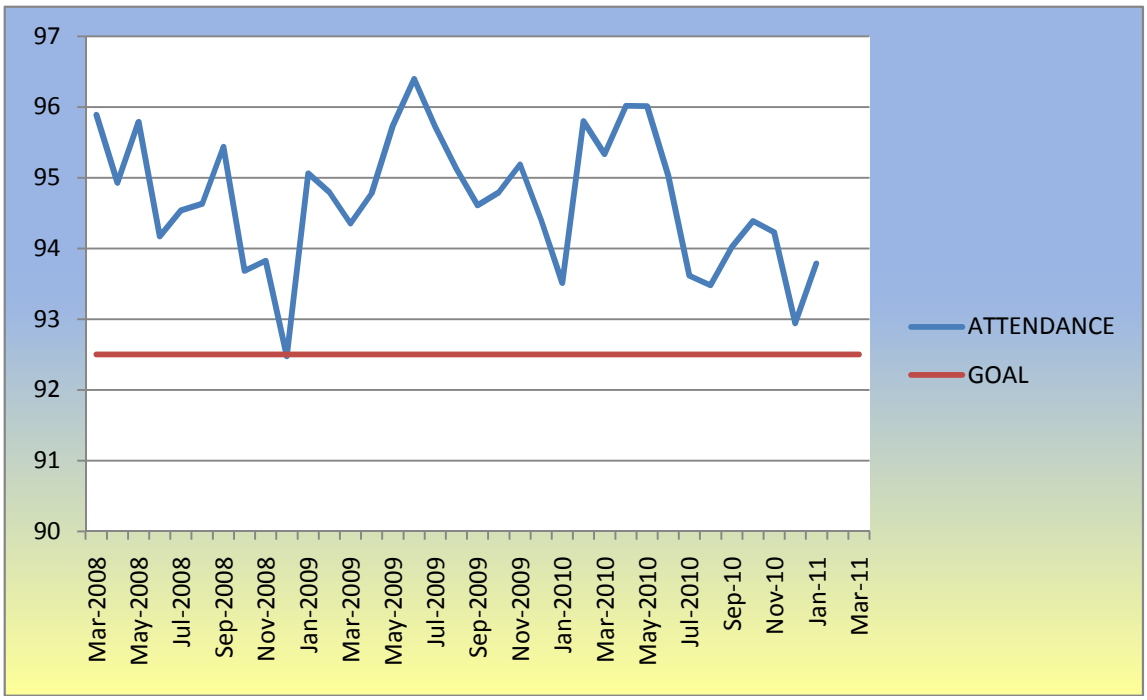



**Figure 2-2. TriMet Overtime Performance (as of June 2010)**

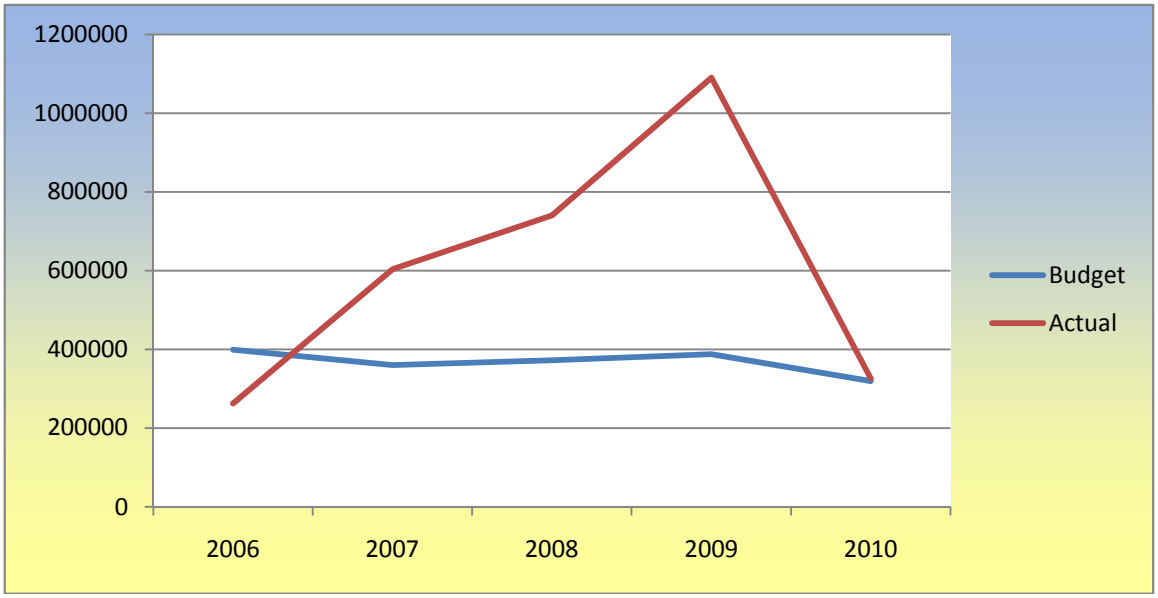


**Figure 2-3. TriMet Labor Performance (as of April 2011)**

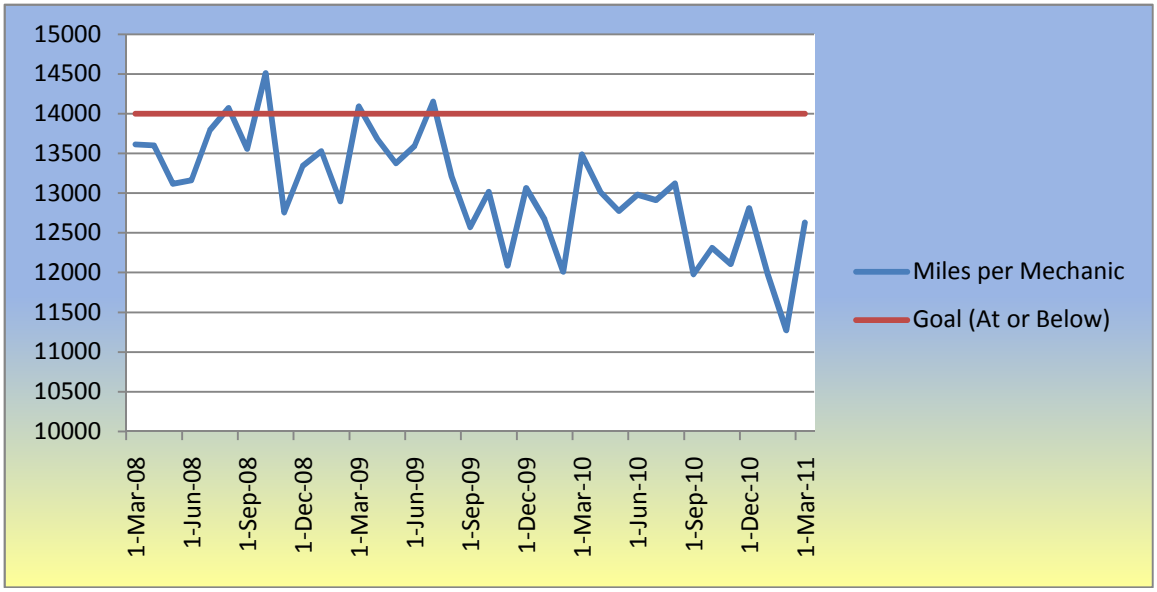
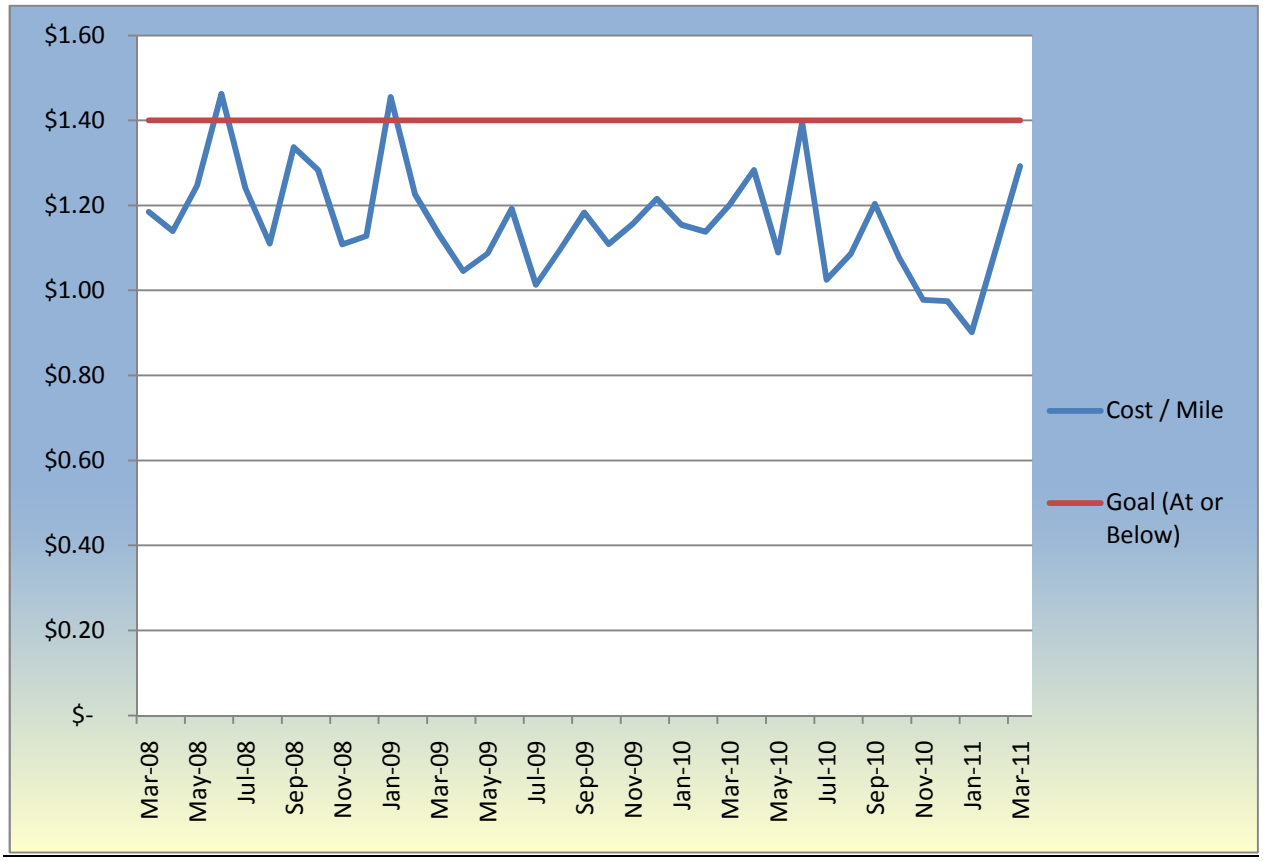
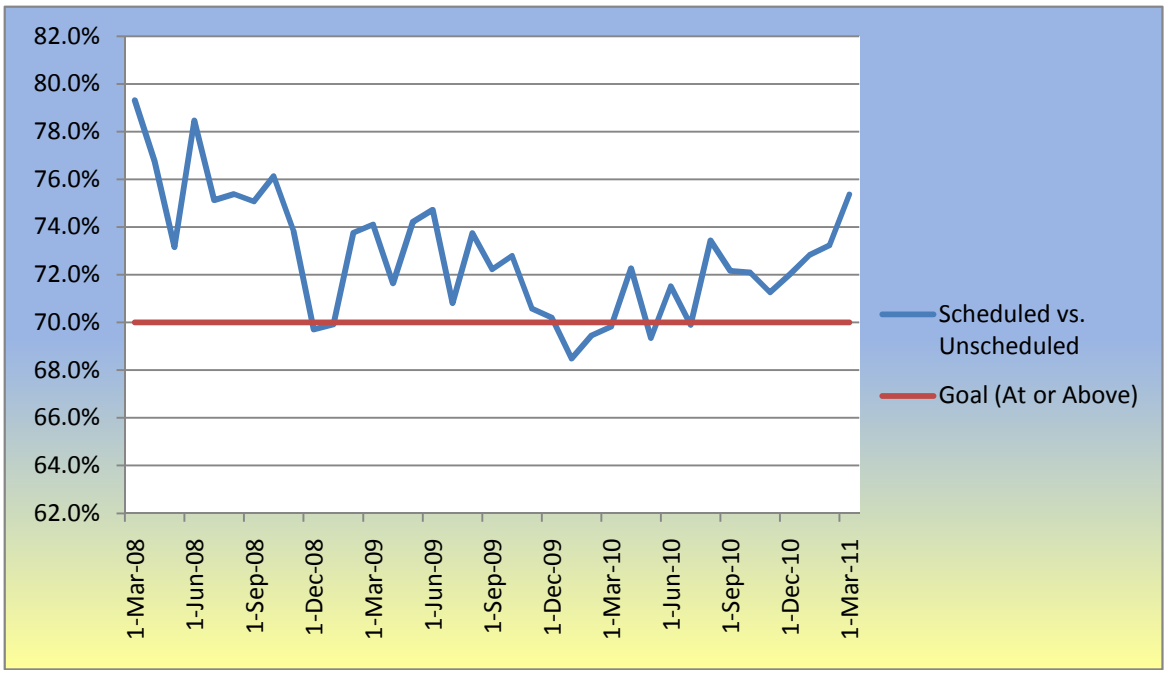



**Figure 2-4. TriMet Cost per Mile Performance (as of April 2011)**




***Total cost of Materials and Services / Bus Fleet Mileage**

**Figure 2-5. TriMet Scheduled vs. Unscheduled Work Performance (as of April 2011)**




## 2.8 Scheduled Preventive Maintenance

***Fixed Route***

All fixed route and LIFT vehicles are scheduled for regular preventive maintenance. Preventive maintenance schedules vary in accordance to the system on which the maintenance is performed. Inspection procedures vary slightly depending on the model and make of the vehicle and its components. The Appendices section of this document contains the detailed fleet management sheets for the following inspections.

### 2.8.1 General Preventive Maintenance

B Inspection – Oil change, interior/exterior inspection, chassis lubrication, and brake adjustment

C Inspection – B inspection plus oil sample, differential fluid level reading, and procedural check on lift and transmission systems for some buses

D Inspection – C inspection plus procedural check of air and system, opacity reading, differential fluid change, and visual inspection of exhaust and steering systems

The schedule for general preventive maintenance varies by fleet and/or engine manufacturer. The interval for each type is listed in Table 2-5, General PM Intervals, below.

Please refer to Appendix D for detailed information on bus maintenance expenditures.

**Table 2-5. General PM Intervals**

| PM | Vehicles manufactured by Gillig or Flexible with Cummins Engine | Vehicles manufactured by New Flyer or those with Detroit Diesel (DD) Engines |
|---|---|---|
| B | 10,000 miles | 7,000 miles |
| C | 20,000 miles | 14,000 miles |
| D | 40,000 miles | 28,000 miles |

### 2.8.2 Transmission Preventive Maintenance

L Inspection (every 18,000 miles) – Visual inspection, fluid drain and filter change, record fault codes, ATF sample and road test for proper shifts and retarder functions.

LR Inspection (every 72,000 miles) – L inspection plus pan drop for metal and clutch check and operating pressure check.

### 2.8.3 Engine Preventive Maintenance

E Inspection (every 50,000 miles) – Manual and electronic idle and valve checks and tune-up inspection.

### 2.8.4 Air Conditioning Preventive Maintenance

ACB Inspection (every 24,000 miles) – ACA inspection plus clutch bearing lubrication, pressure and temperature check, and filter replacement.

ACC Inspection (every 48,000 miles) – ACB inspection plus compressor area steam cleaning, voltage/amperage readings from motors and compressor operating efficiency tests.

### 2.8.5 Wheelchair Lift Preventive Maintenance

WLR Inspection (every 12,000 miles) – clean platform, check ride and step height, inspect system for leaks, and lubricate all moving parts.

WLX Inspection (every 48,000 miles) – WLR inspection plus fluid and filter change.

### 2.8.6 Other Preventive Maintenance

FB (Farebox) Inspection (annual inspection) – Coin mechanism, bill transport, coin escrow, bill stuffer, logic board, and lock inspection, lube, adjust, and bulb replacement as needed.

CAM (Camera System) Inspection (every 12,000 miles) – Procedural check of all cameras, data packs and data recorders.

CBI (Contingency Bus Inspection) (every 90 days) – Brake adjustments, air, electrical, throttle, and interlock system operation check, and fluid level check for all contingency buses.

***Paratransit***

The paratransit fleet has a two-level preventive maintenance inspection program: "A" level service every 5,000 miles for minivans or every 6,000 miles for LIFT buses and "B" level service every 30,000 miles for all LIFT revenue vehicles. As with fixed route inspections, the "B" service is more progressive than the "A" service. These consist of seven service sections:

1. Test drive
2. Under chassis and lube
3. Service
4. Upper chassis, engine and electrical
5. Engine inspection
6. Wheelchair lift (ramp on minivans)
7. Final inspection

## 2.9 Scheduled Predictive Maintenance

***Fixed Route***

Predictive maintenance is performed on components that have exhibited a determined lifetime. Components are identified for predictive maintenance in accordance with their frequency of unscheduled repairs. Component replacement history by fleet type is statistically reviewed to determine the optimum replacement schedule. TriMet currently has fourteen components on a predictive maintenance schedule: air dryers, brake application valves, brake relay valves (front and back), air compressors, alternator bearings, fuel pumps, water pumps, turbochargers, operator seats, diesel particulate filters, suspension airbags, windshield wipers, fuel injectors, electric starters and engine thermostats.

TriMet is always evaluating and identifying bus components that could be placed on a predictive replacement interval.

***Paratransit***

There is not a scheduled predictive maintenance program currently in place for the LIFT fleet.

## 2.10 Unscheduled Maintenance

***Fixed Route***

Unscheduled maintenance is classified into four categories: Road calls, pullout repairs, operator reported defects, and yard repairs.

Road call repairs: A disruption of service where another vehicle must be put into service to replace the disabled vehicle for mechanical or safety concerns.

Pullout repairs: Problems with a vehicle, typically minor mechanical or safety issues, that are found by the operator that must be fixed before the vehicle is put into service.

Operator reported defects: Problems with a vehicle that do not warrant a disruption of service and are mainly comfort, cosmetic, or minor mechanical issues.

Field Repairs by Downtown Mechanics and Yard Repairs: Repairs done to the vehicle within the yard confines, typically for cosmetic or minor mechanical issues at fixed locations or transit centers.

All unscheduled maintenance is entered into the Maintenance Management Information System (MMIS) and corrective actions to remedy the problem are recorded. Those that are safety related or likely to result in a road call are repaired before being returned to service. Defects not falling into the above categories but not able to be repaired immediately are deferred and scheduled for further repairs at a later date. One indicator of Maintenance performance is the percentage of scheduled to unscheduled repairs. The performance goal for FY10-11 is to keep unscheduled maintenance at or below 30% of total repairs.

***Paratransit***

Unscheduled maintenance is identified on the fleet of LIFT vehicles: at the time of the operator's pre-trip inspection before pull-out, during service when a road call or vehicle tow is required, and in response to a written operator defect report submitted to Maintenance. Safety and maintenance related issues that do not allow for safe operation of a vehicle will be repaired before the vehicle is used to deliver service.

## 2.11 Cleaning Program

***Fixed Route***

During the nightly service process, where buses are refueled and have their fluids checked, each interior is cleaned with a cyclone blower to remove dust, trash, etc., before being run through a wash rack for exterior cleaning. In addition, floors are mopped as needed but no less than once per week. Aluminum wheels are cleaned regularly but no less than once per week.

Our performance in this area is based upon customer complaints through our Customer Service Information (CSI) process. The goal is to have no more than two customer complaints at each garage for each month.

***Paratransit***

Cleaning of buses is part of the transportation providers' contract. Operators daily sweep out buses, remove trash from vehicles and spot clean windows, surfaces and floors as needed. The transportation providers contract with a vendor who performs thorough interior cleaning and exterior cleaning.

## 2.12 Bus Maintenance Facilities

***Fixed Route***

Bus Maintenance is headquartered at 4413 SE 17th Avenue, Portland, Oregon. TriMet has a total of 626 buses grouped into 17 fleets that represent different sizes, makes, and models of vehicles. Fleets consist of 30- and 40-foot buses. Each bus is assigned to a garage — Center Street garage, Powell garage on the Eastside, or Merlo garage on the Westside. Buses start and end each service day and receive all necessary maintenance at their assigned garages.

Bodywork is performed at the Merlo garage in the body shop, which is equipped and staffed to repair accident damage, body defects, and paint. The Unit Rebuild group is located at Center Street and performs rebuild of various components such as transmissions, air/electric components, electronic components, steering gear boxes, hydraulic pumps, lift pistons, etc. In addition, buses are brought to this location to perform engine overhauls.

The bus fleet is domiciled and maintained at three operating divisions — Powell, Center, and Merlo garages. Table 2-6 shows when each facility was built.

**Table 2-6. Opening Year Fixed Route Operating Bases**

| | Year Built |
|---|---|
| Powell | 1976 |
| Center | 1980 |
| Merlo | 1984 |

TriMet Facilities Management maintains the bus garages. There is no deferred capital maintenance. Facilities Maintenance prioritizes capital maintenance as follows:

1. Structures (roof and envelope)
2. Major sub-systems (HVAC, hoists, plumbing)
3. Surface treatments and finishes (paint, concrete)

## 2.13 Maintenance Facility – Paratransit

LIFT Maintenance is located at 2800 NW Nela Street, Portland, OR. All vehicle maintenance, excluding identified light maintenance items: (replacing headlights, taillights, wiper arms and blades, adding washer fluid and topping off engine/transmission fluid,) is done at the Nela facility. Buses are transferred from their operating base to Nela for necessary preventive maintenance and repairs. Body damage repairs are done by outside contractors. LIFT maintenance has 11 bus bays, five equipped with lifts in the 24,000 square foot facility.

The LIFT fleet is domiciled at three facilities—Nela; Region 2- 2055 SW Merlo Court, Beaverton, OR (Merlo LIFT); and 3705 SE 99th Avenue, Portland, OR (Powell LIFT). All LIFT facilities, including office buildings, parking lots and shop areas, are TriMet-owned.. There are 101 vehicles operating out of the Powell LIFT facility, 86 operating out of NW Nela and 80 operating out of Merlo LIFT.

All scheduled maintenance and most repair work on LIFT vehicles is performed at LIFT central maintenance, located at the NW Nela facility in Portland, OR, the exception being body repairs done by outside contractors. Table 2-7 shows when each facility was occupied by TriMet:

**Table 2-7. Opening Year LIFT Operating Bases**

| | Year |
|---|---|
| Nela | 1997 |
| Merlo LIFT | 2011 |
| Powell LIFT | 2003 |

## 2.14 TriMet Force Account Plan for Preventive Maintenance

FTA defines force account work as work other than grant or project administration that is included in an approved grant and performed by a grantee's own labor forces. Force account work may consist of design, construction, refurbishment and inspection, and construction management activities. Incremental labor cost from flagging protection, service diversion or other activities directly related to a capital grant may also be defined as force account work. Force account work does not include grant or project administration activities that are otherwise direct project costs. Force account can include major capital project work on rolling stock. An example of this is preventive maintenance activities.

TriMet's rail, fixed route, paratransit and facilities maintenance program includes work performed by TriMet's labor force and by contractors. By far the great majority of preventive maintenance is performed by TriMet's own labor forces as negotiated by the Working and Wage Agreement between Amalgamated Transit Union Division 757 and TriMet. Under the labor agreement work that is contracted out must meet criteria specified in the labor agreement. Contracted maintenance must also be pre-approved by the ATU. TriMet's LIFT paratransit maintenance is contracted out entirely, but that is also by agreement with the ATU.

The justification for using force account work for preventive maintenance is the TriMet ATU labor agreement.

Budgets pertaining to preventive maintenance are included in the Appendices section of this document.

# 3. Fleet and Fleet Management

## 3.1 Quality of Service – Fixed Route and Paratransit

High quality transportation is a key element to the TriMet system. Safe, frequent, reliable and comfortable service on modern vehicles is fundamental to improving service quality and attracting new riders. TriMet will maintain and improve the quality of its transit service as described below.

***Safety and Security***

Ensuring safe operation of transit service and safe design of transit facilities and equipment is embedded into all TriMet activities. Similarly, all TriMet employees serve as "eyes and ears" for security awareness.

Procurements and construction of new buses, light rail vehicles, and facilities include safety requirements in design and performance specifications, which are verified in design reviews and testing. Safety hazards are formally identified, assessed, and resolved as part of developing specifications and designs. Acceptance testing against safety-related design and performance requirements is formally performed and documented. Certification that all safety design requirements have been met, as well as the following operational safety requirements, is required before completed facilities and equipment are placed into passenger service. Standard Operating Procedures (SOPs) govern all operations, to assure safety and quality.

Safety training for employees is formal and documented, specific both to job classification and the specific equipment or facility involved.

Emergency response drills are conducted periodically.

Every accident is analyzed for preventability, with lessons learned implemented by improvements to procedures, training, or equipment, as appropriate.

Safety audits are performed on an ongoing basis, and the Federal Transit Administration (FTA) performs safety program oversight.

Security programs include:

All TriMet employees serve as "eyes and ears" for security awareness and reporting.

Security procedures assure rapid and assured communication and response to a reported security situation. TriMet's operations command center works closely with 9-1-1 dispatch centers to assure the fastest possible police or emergency response.

TriMet buses have security cameras on-board, and public telephones installed near high-use bus stops enable customers to call 9-1-1.

Transit Police Division officers, contracted Transit Security Officers, Rider Advocates (in North/Northeast neighborhoods), and Fare Inspectors patrol the TriMet system. TriMet has increased these dedicated personnel by 18 percent from 2002 to 2004.

TriMet receives information about homeland security threats potentially affecting the transit system through the Transit Police Division and other sources, and takes appropriate action. Since 2001, TriMet has adopted transit agency best practices and training related to domestic security, which all operating personnel have been trained on. TriMet continually monitors emerging trends in mass transit security and homeland security.

Riders can play an important role in maintaining system safety and security, by reporting potentially unsafe or threatening situations to TriMet staff. In 2004, TriMet introduced new security signage, brochures, channel cards, and Transit Tracker notices encouraging heightened passenger awareness.

All LIFT and fixed route vehicles are equipped with TriMet's Bus Dispatch System (BDS), which was installed in 1997. BDS capabilities include voice and data communications, automated vehicle location, and covert alarms, allowing safety and security issues to receive immediate attention from dispatchers, and emergency personnel.

***Frequency and Levels of Service***

Service frequencies often reflect the demand for service; however TriMet understands the importance of frequency as it applies to quality of service. Frequent service contributes to ridership in several ways:

It reduces actual and, even more substantially, perceived travel time by transit.

It makes the need to transfer less onerous. Given contemporary multi-destination travel patterns, TriMet cannot connect all the origins and destinations with direct service. If the transfer wait time is short and the transfer environment is good, customers will be much more willing to transfer.

It makes transit more attractive for short trips. Most trips by automobile are short, so it is important for transit to attract these trips in order to increase ridership and meet 2040 goals, particularly on transit ridership to Regional and Town Centers and along Main Streets.

It makes transit convenient, an essential element in attracting more trips.

As stated, frequency and levels of service are reflective of demand. This is especially true during peak-periods, when efficient deployment of resources is essential. Peak-only and express bus service is provided between 7:00 a.m. and 8:30 a.m. and 4:00 p.m. and 6:00 p.m. on weekdays. Though frequent service routes operate all day, service frequencies on these routes increase during these periods to also meet the higher demand for service. TriMet service in general is available between the 4:00 a.m. and 2:00 a.m. on weekdays and the span of service for weekends is generally from 4:30 a.m. to 1:30 a.m. with no peak periods.

***Automated Stop Announcements***

Computerized "Automated Stop Announcements" (ASA) are installed on all existing low-floor buses and planned for all newly procured low-floor buses. Beyond assisting TriMet in assuring that the ADA requirements for announcing transit stops are fully complied with, the ASA will improve service quality for all transit riders. ADA requires that stops be internally announced for transfer points, major intersections, destination points, requested stops, and externally announced for the route and destination for customers waiting at stops served by multiple lines.

TriMet's ASA system includes internal and external audio announcements, and an internal readerboard display of stops. TriMet's ASA project staff has continually consulted with the "Committee on Accessible Transportation" (CAT), other disability organizations, and TriMet bus operators in development of the system. The system is configurable to adjust features such as what is announced, audio volume, etc., based on feedback from bus operators and riders.

***TriMet began making ASA external route and destination announcements in December 2006, and internal stop announcements in December 2007, for a few selected routes. Today, over 90% of bus routes are loaded into the ASA system for external announcements. Modern Vehicles***

TriMet's newest buses have low floors that make it easier for all riders to get on and off, especially elderly individuals and persons with mobility devices. All new buses are also air-conditioned and have lower emissions than our older vehicles. Future bus orders will include automated stop announcement equipment as well. New light rail cars will continue to be of low-floor design and will feature additional seating compared to existing MAX vehicles.

## 3.2 Reliability

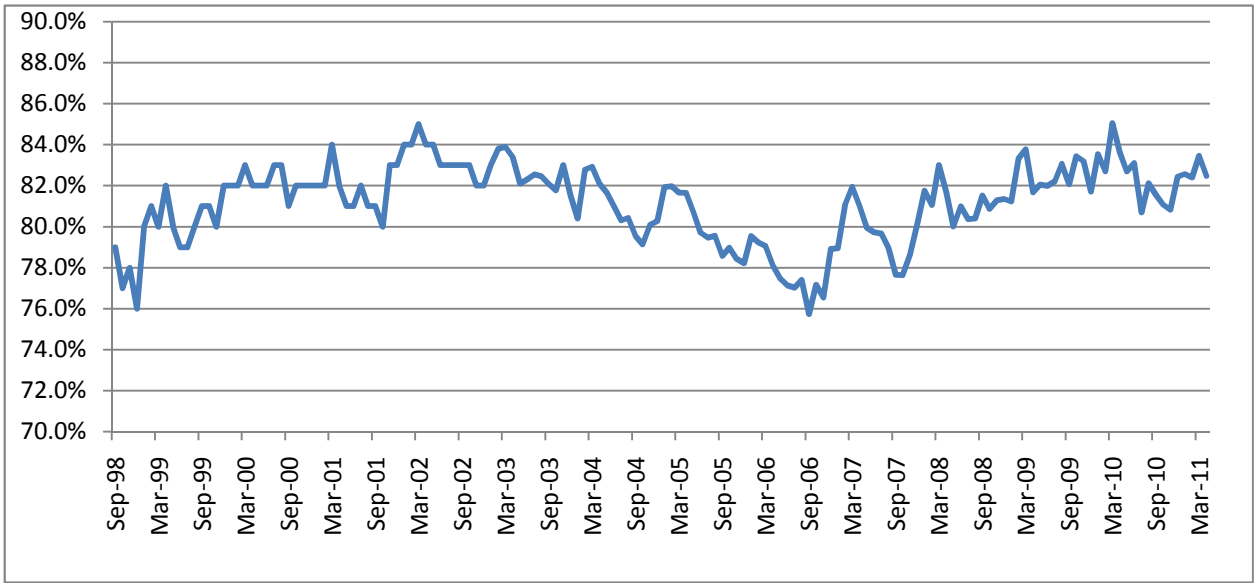
TriMet's market research shows that transit service must be reliable in order to be a viable alternative transportation choice. This is achieved by writing accurate schedules; minimizing the time buses are delayed by traffic congestion; efficient boarding and fare payment systems; proper training and supervision of drivers; and restoring service promptly after a disruption.

### 3.2.1 On-Time Performance

***Fixed Route***

A bus is considered on time if it arrives no more than one minute before its scheduled arrival time or less than five minutes after its scheduled departure time.. Information on bus arrival times is continually collected and summarized each quarter. The goal is for at least 90 percent of all bus trips and 95 percent of MAX trips to arrive at time points on time during an average weekday, Saturday, or Sunday.

**Figure 3-1. Bus (weekday) On-Time Performance by Month (1998-2011)**



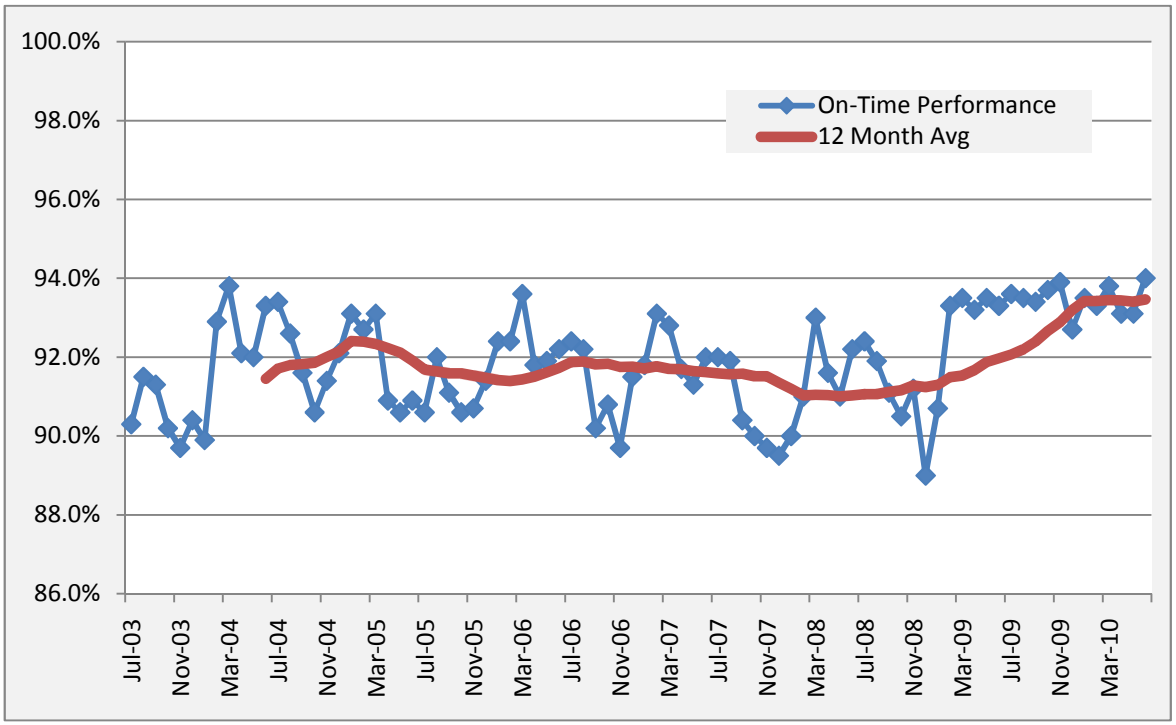

Changes in bus system on-time performance in Figure 3-1 can be explained partially by the implementation of new operational technology such the Bus Dispatch System (Fall 1997) or a comprehensive effort by operations management to address runtime and schedule adherence issues brought forward by bus operators (Winter 2007 - present).

TriMet modifies bus schedules and routes to maximize service productivity. Ridership is also a measure of how efficient and productive bus service is.

***Paratransit***

A LIFT route is considered on time if it arrives no more than 30 minutes after the start of the scheduled pickup window. The goal is for at least 90 percent of all pickups to be within the 30-minute window.

**Figure 3-2. LIFT On-Time Performance by Month (FY04 - FY10)**




In addition to on-time performance for pickups, LIFT also tracks on-time performance for customer appointments, and time on board the vehicle. These performance indicators, and complaint data for LIFT service, is reported quarterly to TriMet's advisory committee, CAT.

### 3.2.2 On-Street Improvements

Traffic preferential improvements along roadways that help improve the reliability of bus service include:

Signal priority

Jump lanes at intersections

Bus stops with curb extensions

Management and route design measures to reduce run times and improve reliability

### 3.2.3 Technological Applications

TriMet uses advancements in transit technology to track and improve the reliability of service. In addition to the use of automatic passenger counters (APC) at bus doors to collect ridership information, TriMet implemented the bus dispatch system (BDS) in 1997. This allows TriMet to

track buses via satellite and, when combined with APC data, provides a powerful tool for analyzing service.

## 3.3 Service Delays – Fixed Route and Paratransit

### 3.3.1 Maintaining Service Reliability: In-Service Failures

***Fixed Route***

Close attention is paid to service delays due to mechanical failures. Using our PIP (Productivity Improvement Process), mechanics continually identify specific components that resulted in an inordinate number of road calls. Each component is then analyzed to determine the best way to reduce unscheduled failures and if a predictive maintenance procedure can be applied. Each of these problem components would then be changed at a predetermined mileage designed to reduce unscheduled replacements by 95%.

In addition, mobile service trucks are available at three service locations in east, west, and the downtown regions of our service district. Each truck is on duty, staffed, and outfitted with commonly used parts during the AM and PM peaks. This has reduced the need for operators to road call a bus to make what would ordinarily be a very minor repair, i.e., headlight, wiper blade, mirror, etc.

***Paratransit***

TriMet and its contractor for LIFT vehicle maintenance, Penske Truck Leasing, monitor roadcall mileage very closely. One of the primary measures of contract effectiveness is roadcall mileage, as the contract mandates no less than 25,000 miles between chargeable roadcalls for the LIFT fleet.

All of the above is predicated on rigorous attention to comprehensive PM procedures and on time performance. TriMet LIFT has a goal of 95% on time performance of its PMs and has met that goal for a number of years, often exceeding it.

### 3.3.2 Miles Between Road Calls

***Fixed Route***

Fleet reliability is measured in miles between road calls. This mileage has increased significantly over the past five years as preventive maintenance schedules have been completed more than 95% on time and frontline employees have taken an active role in preventing the problems that cause road call vehicles. In addition to preventive maintenance, the Maintenance department is now pursuing predictive maintenance where high profile components are replaced on a schedule determined by historical failures.

Road calls are applicable to 30- and 40-foot buses and are divided into three categories:

Major road calls are defined as road calls due to a mechanical failure that affects movement or safety such as an engine, transmission or door.

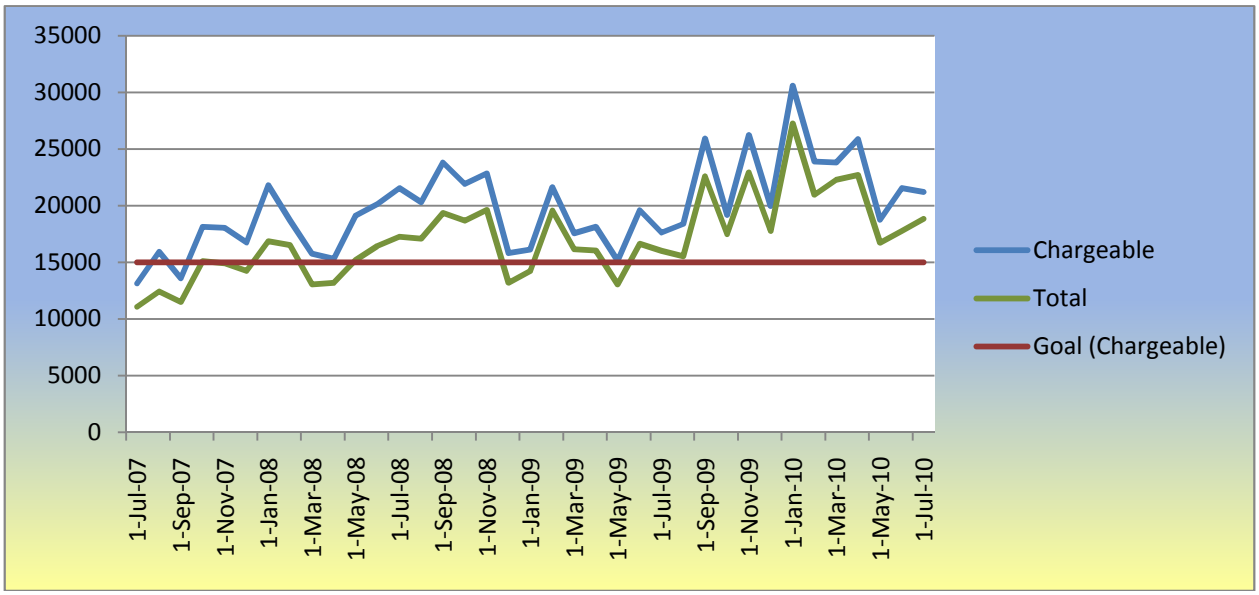
Minor road calls are defined as road calls due to a mechanical failure of a part that does not affect movement or safety such as air conditioning or lift ramps.

Other road calls are defined as road calls caused by non-mechanical issues such as accidents or bio-hazards.

Total road calls are defined as the combination of major and minor road calls.

Chargeable road calls are the basis for performance goals of the department. The new process for capturing and identifying roadcalls was implemented in December 2010. Research showed that our old standard of roadcall counting did not account appropriately the number of roadcalls in regards to NTD reporting standards. All past roadcall mileage is invalid when compared to NTD standards.

**Figure 3-3. FY07-10 Annual Road Call Mileage - Fixed Route**




**The Goal is only effective for the Chargeable Roadcall Mileage. Total Roadcall Mileage factors in Non-Chargeable Roadcalls that we have no control over.*

***Paratransit***

LIFT Maintenance has adopted the new roadcall reporting process to mirror the process in place for fixed-route bus maintenance.

**This page left blank intentionally.**

# 4. Schedule and Ridership

## 4.1 Schedule Design – Fixed Route

TriMet service is designed to meet ridership demands while maintaining a high level of service efficiency. An important component to maintaining this efficiency is in designing service schedules to meet the varying demand levels for service throughout the day. The basic variable that gives service planners this flexibility is altering service headways throughout the day. However other variables such as span of service, inter-lining bus trips, and offering peak-only service can improve the efficiency of service on the street.

***Span of Service***

Regular TriMet service is available between the 4:00 a.m. and 2:00 a.m. on weekdays. Peak periods on these days are experienced between 7:00 a.m. and 8:30 a.m. and 4:00 p.m. and 6:00 p.m. The span of service for weekends is generally from 4:30 a.m. to 1:30 a.m. with no peak periods.

***Frequency***

As mentioned in Section 3 the frequency of service, or service headway, is a large component of service quality. Service frequency is also a significant component in the schedule design of TriMet's bus system. Bus service is generally categorized as regular service, frequent service, and peak-only service. All routes operate during peak periods (6:30-8:30 a.m., 4:00-6:00 p.m.), when the demand for service is high. Frequent Service routes operate all day and offer 15-minute (or better) service headways during morning and afternoon rush hour. General TriMet service is available from 4:00 a.m. to 2:00 a.m.

**Table 4-1. Bus Service Frequency**

| Category | Span of Service | Routes (% of all routes) |
|---|---|---|
| **Frequent service** | Service at least every 15 min during morning and afternoon rush hour | 12 (15%) |
| **Regular service** | All day service (4:00am to 2:00am) | 49 (61%) excludes Freq Svc |
| **Peak-only service** | 6:30 a.m. to 8:30a.m. 4:00 p.m. to 6:00 p.m. | 20 (25%) |

TriMet bases future service changes on its Transit Investment Plan (TIP). The TIP is a rolling five-year plan that is updated annually. More information on the TIP is included in Section 5.

## 4.2 Route Performance Monitoring – Fixed Route

TriMet has established a process to identify low-performing lines and to either improve ridership or discontinue the route in order to improve service to other lines with greater need. The first step is to ensure that riders, local jurisdictions, and other interested parties are invited to participate in the review of a route's performance. The initial focus is to find ways to increase ridership. This could be achieved by restructuring the service, adding more service, improving bus stops or access to them, implementing programs to increase demand, undertaking promotional campaigns, or targeting service to new developments along the line. A strategy is then developed and implemented on a trial basis.

Generally, lines are given six months or more to reach an acceptable ridership productivity level. If that level is not achieved, the service may be reallocated to other lines that need more capacity. TriMet will look first to reallocate the service within the same community. TriMet will provide some form of safety net service for those riders who have special needs, particularly seniors and people with disabilities.

Fixed route bus lines have a desired minimum of 15 boarding rides per vehicle hour and a maximum operating cost of $5.00 per boarding ride. The operating cost per ride guideline is roughly twice the bus system average, $2.75. Lines that do not attract at least 15 boarding rides per vehicle hour are low performing lines that should be addressed to improve productivity.

Table 4-2 lists present low performing and marginally performing lines and line segments. As a whole, these account for approximately  percent of weekly bus system vehicle hours, 1.6 percent of boarding rides and 4.5 percent of peak buses.

**Table 4-2. Low Performing Lines (<15 BR/VH), Spring 2011**

| ROUTE | Boarding Rides/ Vehicle Hour | Cost/Boarding Ride |
|---|---|---|
| 16 - Front Ave / St Johns | 14.6 | $6.53 |
| 18 - Hillside | 4.8 | $19.95 |
| 23 - San Rafael | 13.8 | $6.87 |
| 30 - Estacada | 12.6 | $7.55 |
| 34 - River Rd | 13.8 | $6.88 |
| 36 - South Shore | 10.9 | $8.72 |
| 37 - Lake Grove | 11.4 | $8.35 |
| 38 - Boones Ferry Rd | 13.1 | $7.26 |
| 43 - Taylors Ferry Rd | 12 | $7.95 |
| 47 - Baseline/Evergreen | 14.1 | $6.74 |
| 50 - Cedar Mill | 9.9 | $9.57 |
| 55 - Hamilton | 13.8 | $6.89 |
| 59 - Walker/Park Way | 11.2 | $8.48 |
| 63 - Washington Park | 14 | $6.81 |
| 84 - Kelso/Boring | 4.4 | $21.77 |
| 152 - Milwaukie | 13.6 | $6.99 |
| 154 - Willamette | 9.5 | $10.01 |

TriMet also modifies bus schedules and routes to manage capacity and maximize service productivity. Productivity is measured as the portion of time that buses spend serving passengers (revenue hours) compared to the total time that buses are out of the bus yard (vehicle hours). Vehicle hours include revenue hours, time between ends of lines and the garages (deadhead hours), and schedule recovery/operator break times during the day (layover hours). Productivity enhancements balance layover hours to provide schedule recovery time when and where it is most needed. This increases the overall usefulness of transit service by reallocating service (lines and parts of routes) with low ridership to lines with higher ridership potential. Allocation of service to meet customer demand is important for ensuring adequate frequency and availability of seats.

**Table 4-3. Bus Schedule Efficiency (RH/VH)**

| _____ | Revenue Hours | Vehicle Hours | Efficiency |
|---|---|---|---|
| June-02 | 122,141 | 166,439 | 73.38% |
| June-03 | 124,879 | 168,110 | 74.28% |
| June-04 | 128,516 | 171,803 | 74.80% |
| June-05 | 123,758 | 166,260 | 74.44% |
| June-06 | 123,673 | 165,237 | 74.85% |
| June-07 | 123,166 | 162,485 | 75.80% |
| June-07 | 123,166 | 162,485 | 75.80% |
| June-08 | 125,505 | 164,039 | 76.51% |
| June-09 | 129,982 | 169,745 | 76.57% |
| June-10 | 118,172 | 155,794 | 75.85% |

*Source: Monthly Performance Report*

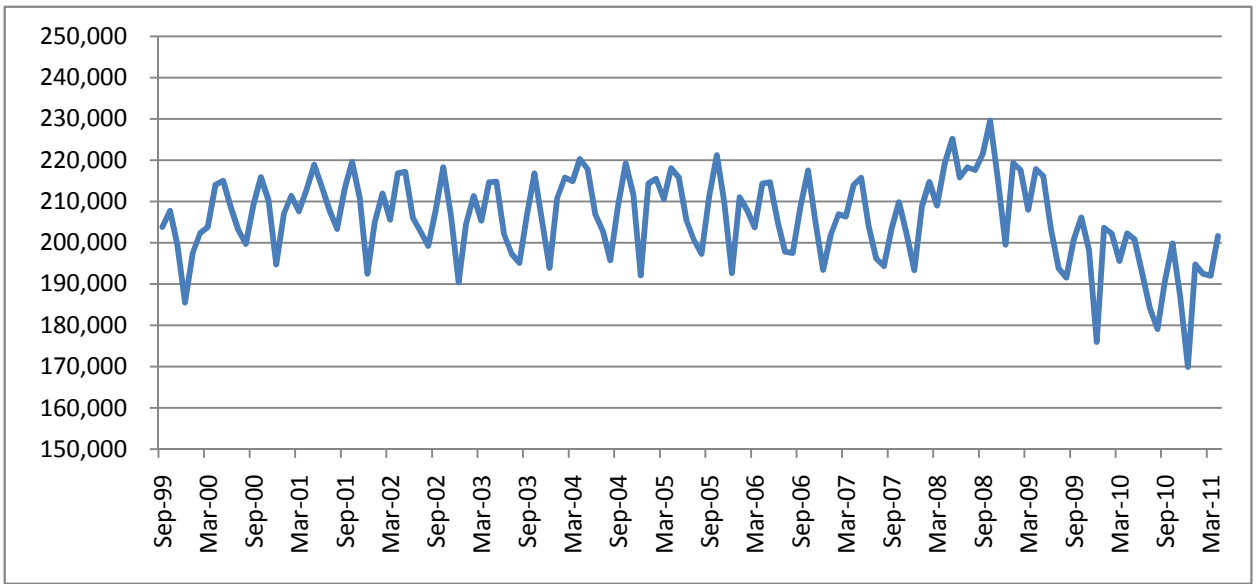
TriMet improves internal operations to ensure that buses leave the end of the line on time, that schedules reflect realistic running times, provide balanced layover times, and that service disruptions are addressed quickly. Efforts are also underway to work with operators and other field personnel to improve on-time performance and operating conditions, and adjust run times when appropriate.

## 4.3 Ridership – Fixed Route

***Fixed Route***

Ridership growth reflects the investments TriMet has made in improving service, especially on Sundays. The portion of weekday riders served by Frequent Service increased from 17 percent in 1998 to 57 percent (for FY2010). All of the net bus system ridership growth since FY1999 has been on Frequent Service lines. Overall, TriMet ridership is increasing faster than other indicators of regional growth, including population and automobile vehicle miles traveled.

**Figure 4-1. Fixed Route Bus Ridership 1999-2011**




## 4.4 Passenger Load Standards – Fixed Route

TriMet's service standards list acceptable passenger capacities for different vehicles. These standards encourage ridership by preventing passenger overcrowding and ensuring that everyone has a comfortable ride. Alleviating crowding can require greater capital and operating resources for more buses and trains, operators, mechanics, supervisory personnel, and equipment.

**Table 4-4. Achievable Passenger Capacities per Fixed Route Vehicle**

| Type of Vehicle | Passenger Capacities (Average during peak one hour in peak direction of travel) | | |
|---|---|---|---|
| | Seated | Standing | Total |
| 30-Foot Bus | 28 | 2 | 30 |
| 40-Foot Bus | 39 | 12 | 51 |

***Load Factor Evaluation – Fixed Route***

Ridership information is collected daily from APCs at bus doors. Approximately 82 percent of TriMet's bus fleet is APC-equipped. Ridership summaries are prepared quarterly to determine if passenger overcrowding is occurring or is projected to occur within the next year. The counters on buses provide monthly ridership counts, peak load checks, and data for the National Transit

Database and information for service adjustments. TriMet's passenger loading standards are used to determine if a bus is overcrowded.

## 4.5 Factors Influencing Peak Period Ridership – Fixed Route

Demand for service is greatest on weekday mornings and afternoons. However special events can influence peak period ridership as well, especially when they occur during the pm peak, when TriMet experiences its greatest demand for service. Sporting events are a common reason to deploy contingency buses to meet high ridership demands. Special events such as these occur on an average two to three times a year and can require as many as 10 contingency buses to accommodate the increased demand for service. Efforts are made to balance the deployment of operators and vehicles among all three garages when possible.

Increases in service productivity help offset the need for more buses in the afternoon peak.

**Table 4-5. Fixed Route Buses in Service**

| | Weekday | | | | | |
|---|---|---|---|---|---|---|
| | 6 a.m.-10 a.m. | 10 a.m.-4 p.m. | 4 p.m.-8:45 p.m. | 8:45 p.m. | | |
| Qtr | Am Pk | Midday | Pm Pk | Evening | Sat | Sun |
| Jun-02 | 527 | 316 | 561 | 205 | 275 | 197 |
| Jun-03 | 521 | 315 | 552 | 205 | 276 | 198 |
| Jun-04 | 510 | 315 | 541 | 201 | 271 | 204 |
| Jun-05 | 492 | 308 | 525 | 198 | 265 | 204 |
| Jun-06 | 492 | 305 | 526 | 195 | 268 | 206 |
| Jun-07 | 480 | 307 | 529 | not available | 269 | 205 |
| Jun-08 | 488 | 311 | 528 | not available | 274 | 217 |
| Jun-09 | 496 | 310 | 541 | not available | 268 | 221 |
| Jun-10 | 461 | 282 | 514 | 189 | 245 | 203 |

*Notes:*
*Beginning with Sept-02, does not include two vans assigned to Cedar Mill service during peak periods (Line 42). Beginning with June-03, does not include two wkday and three wknd buses on Washington Park Shuttle (Line 73). Blue Lake Shuttle not included (summer only). No buses required (or saved) for construction reroutes are included in this data.*
*Sept-00 represents the historic peak for bus pullouts.*

Peak pullouts are projected based on existing service needs and planned service changes. Projecting peak pullouts assists the agency with planning for future bus purchases and fleet retirement.

| | FY09 | FY10 PLAN | FY10 Actual | FY11 PLAN | FY12 PLAN | FY13 PLAN |
|---|---|---|---|---|---|---|
| **Standard Low Floor** | 361 | 361 | 360 | 360 | 440 | 440 |
| **Standard High Floor** | 280 | 254 | 226 | 226 | 146 | 146 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Current Fleet Plan** | 641 | 615 | 586 | 586 | 586 | 586 |
| **Required Fleet (spare ratio x pk pullouts)** | 639 | 605 | 576 | 576 | 579 | 581 |
| **Peak pullouts*** | 541 | 514 | 488 | 488 | 490 | 492 |
| **Spare ratio** | 18.1% | 17.6% | 18% | 18% | 18% | 18% |
| **Bus Purchases** | 40 | 0 | 0 | 0 | 80 | 0 |
| **Percent low floor (% of Current Fleet)** | 56% | 59% | 61% | 61% | 75% | 75% |
| **APC Equipped (% of Current Fleet)** | 79% | 81% | 86% | 86% | 100% | 100% |
| **ASA Equipped (% of Current Fleet)** | 56% | 59% | 61% | 61% | 75% | 75% |
| | | | | | | |
| **Service Assumptions:** | | | | | | |
| **Passenger crowding** | | | | | 1 | 1 |
| **Reliability** | | | | | 2 | 2 |
| **Service productivity** | | -27 | -26 | | -1 | -1 |
| **Sellwood Bridge Weight Limits** | -2 | | | | | |
| **Restore Line 71 schedule** | -1 | | | | | |
| **TOTAL** | -3 | -27 | -26 | 0 | 2 | 2 |

Table 4-6 is calculated by multiplying peak pullouts by the agency spare ratio. Over one-half of all TriMet buses are now low-floor vehicles and are equipped with APCs. Most buses are now ASA–equipped.

## Table 4-6. TriMet Fixed Route Fleet FY2009-2013

| | FY09 | FY10 PLAN | FY10 Actual | FY11 PLAN | FY12 PLAN | FY13 PLAN |
|---|---|---|---|---|---|---|
| **Standard Low Floor** | 361 | 361 | 360 | 360 | 440 | 440 |
| **Standard High Floor** | 280 | 254 | 226 | 226 | 146 | 146 |
| **Current Fleet Plan** | 641 | 615 | 586 | 586 | 586 | 586 |
| **Required Fleet (spare ratio x pk pullouts)** | 639 | 605 | 576 | 576 | 579 | 581 |
| **Peak pullouts*** | 541 | 514 | 488 | 488 | 490 | 492 |
| **Spare ratio** | 18.1% | 17.6% | 18% | 18% | 18% | 18% |
| **Bus Purchases** | 40 | 0 | 0 | 0 | 80 | 0 |
| **Percent low floor (% of Current Fleet)** | 56% | 59% | 61% | 61% | 75% | 75% |
| **APC Equipped (% of Current Fleet)** | 79% | 81% | 86% | 86% | 100% | 100% |
| **ASA Equipped (% of Current Fleet)** | 56% | 59% | 61% | 61% | 75% | 75% |
| | | | | | | |
| **Service Assumptions:** | | | | | | |
| **Passenger crowding** | | | | | 1 | 1 |
| **Reliability** | | | | | 2 | 2 |
| **Service productivity** | | -27 | -26 | | -1 | -1 |
| **Sellwood Bridge Weight Limits** | -2 | | | | | |
| **Restore Line 71 schedule** | -1 | | | | | |
| **TOTAL** | -3 | -27 | -26 | 0 | 2 | 2 |

## 4.6 ADA Paratransit

TriMet has provided demand response transportation services through the LIFT Program to people with disabilities since 1976, fifteen years before passage of the Americans with Disabilities Act (ADA) mandated the service. The LIFT Program is a shared-ride, public transportation service for people who are unable to use fixed route buses or MAX due to a disability or disabling health condition. LIFT operates during the same hours as bus and MAX services, generally 4:30-2:30 a.m., seven days a week. The boundary of the LIFT service area is three-fourths of a mile from the outermost portions of TriMet's bus and MAX lines and includes all locations inside that boundary, except for areas that are not part of the TriMet service district. All rides are by advance reservation only and must be requested no later than 5:00 p.m. the day before the trip. The LIFT Program operates door-to-door and curb-to-curb service, according to service standards that exceed or are equal to the standards established by the ADA.

LIFT service fares are $1.85 one-way. A book of 10 tickets costs $18.50, and a LIFT Monthly Pass is available for $52.00.

Contractors are responsible for providing LIFT service, representing three distinct organizational areas: transportation, dispatch, maintenance, and a supplemental taxi contractor. LIFT performance is measured against the following goals:

LIFT On-Time Performance (percent of vehicle arrivals for customer pickup within 30 minutes of scheduled pickup) >= 90%.

Monthly Rides per Vehicle Hour >=2.0

Operating Cost per Vehicle Hour <=$47.85 (includes maintenance costs).

LIFT Miles/Chargeable Roadcall >=25,000

LIFT Miles/Vehicle Accident >=95,000

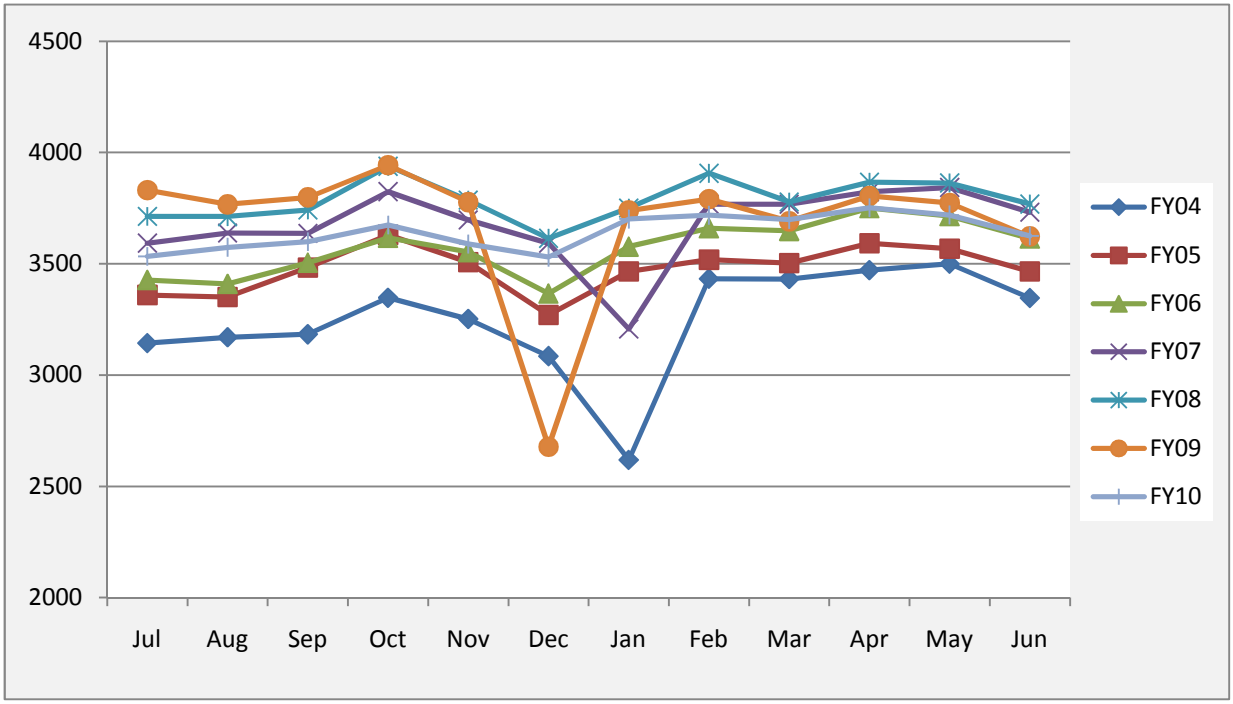
LIFT Complaints per 1000 Rides <= 3.0

In FY09-10, the LIFT program met or exceeded all these goals except for the rides per hour goal, which was 13% lower and cost per vehicle hour, which was 5% higher.

Operating costs of the LIFT service have increased 482% since FY92 when the Americans with Disabilities Act became law and 130% since FY00. Ridership has increased 165% since 1992 and 48% since FY00. The cost to provide a one-way ride on LIFT is now about $29. TriMet's LIFT costs have been in line with the national average.

TriMet, like many transit agencies throughout the country, struggles to meet the demand for ADA complementary paratransit services. LIFT vehicle hours, program costs and ridership have nearly tripled since 1992 when the ADA became law and continue to grow at rates greater than fixed route.

**Figure 4-2. LIFT Average Weekday Rides FY04-FY10**




LIFT Ridership is projected to grow at an average rate of 1.5% per year over the next 10 years.

In response to the combined pressures of increasing ridership demand, customer demands for service quality improvements and limited funding, TriMet, the three counties, Ride Connection and consumer groups in the region are working together to improve mobility for persons with disabilities through cost efficient, innovative services, marketing fixed route as a transportation preference and a variety of fixed route travel training programs.

The comprehensive approach includes the following programs:

1. An Improved Fixed Route Foundation

   Disability Awareness and Sensitivity Training for fixed route operators.

   Ride Wise, a partnership between TriMet, Ride Connection, and other organizations includes intake and referral services, fixed route travel training, a “train the trainer” program, consumer education and outreach, fixed route familiarization, specialized one-on-one training, and a peer trainer program. Program began November 2004.

2. LIFT Eligibility Process improvements

TriMet opened a centralized transit mobility center in February 2010 to perform in-person evaluation of a LIFT applicant's functional abilities to determine the most appropriate mode of travel and educate customers on the services available to them based on their abilities.

3. Innovative Services for LIFT-eligible Riders

   Shopper Shuttles

   Local community-based services (North/Northeast RideAbout service began May 2004)

   Coordination with the private non-profit transportation network

Organizations that have taken this approach have been able to slow the growth of expensive door-to-door services.

TriMet does not anticipate the need for additional LIFT vehicles over the next four years, due to decreased service demand. TriMet is projecting the need for an additional six to eight LIFT vehicles a year over the fifth through tenth year in our ten year vehicle expansion projection plan. These costs are included in the agency's financial forecast.

**Figure 4-3. LIFT Annual Ridership FY07-FY22**

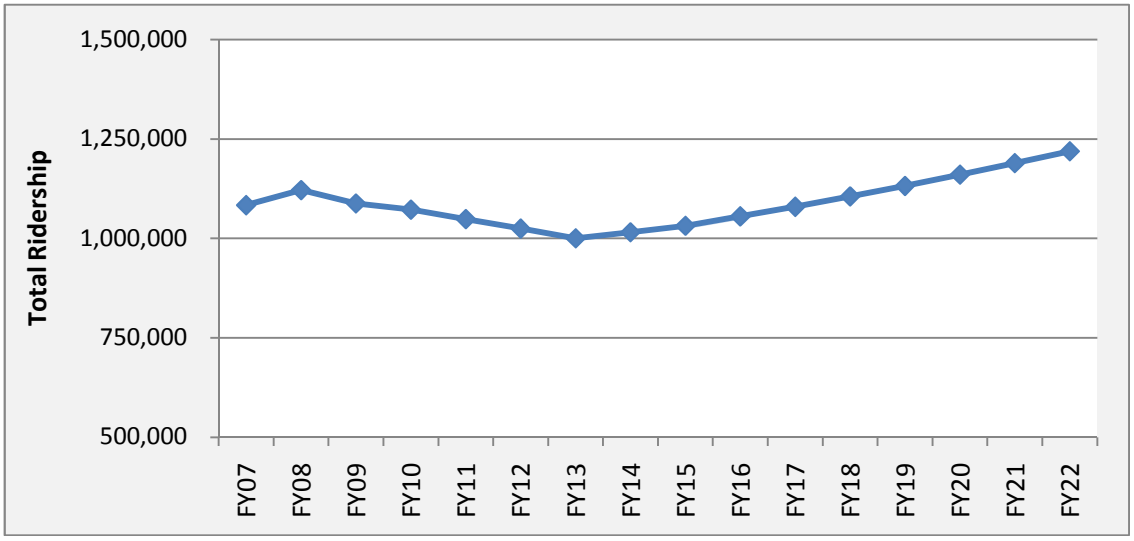


**Table 4-7. Four-Year History and a Projection of LIFT Vehicle Needs through 2021**

| Year | Peak Vehicles | Total |
|---|---|---|
| 1999 | 136 | 163 |
| 2000 | 145 | 174 |
| 2001 | 165 | 187 |
| 2002 | 173 | 193 |
| 2003 | 172 | 203 |
| 2004 | 185 | 210 |
| 2005 | 195 | 226 |
| 2006 | 204 | 236 |
| 2007 | 213 | 246 |
| 2008 | 221 | 259 |
| 2009 | 232 | 269 |
| 2010 | 235 | 269 |
| 2011 | 236 | 269 |
| 2012 | 238 | 269 |

# 5. Future System

TriMet's TIP provides a framework for how transit investments will be made in the Portland region. It outlines where transit will grow in the future and establishes the priorities for where TriMet will expand bus service. The growth and expansion of the TriMet system has obvious implications on its bus fleet.

***South Corridor Phase 2: Portland to Milwaukie Light Rail Transit***

This 7.3 mile light rail transit alignment will connect downtown Portland, the South Waterfront District, the Oregon Museum of Science and Industry (OMSI) and the central eastside industrial area, densely populated southeast Portland neighborhoods and the community of Milwaukie and just south of Milwaukie at Park Avenue on McLoughlin Blvd. Frequent Service buses from the Clackamas and Oregon City Regional Centers will connect to the line. The project will be approximately 7.3 miles with 10 new stations and 2,000 Park & Ride spaces. Early demand modeling projects 27,400 weekday riders in the year 2030.

***Columbia River Crossing***

The Columbia River Crossing is a bridge, transit and highway improvement project. The existing I-5 Columbia River bridges were constructed in 1917 and 1958. Without a project, traffic congestion on the I-5 bridges will increase from six hours today up to 14 to 16 hours by the year 2030. This will have a negative effect on the regional economy and severely impact the quality of life for residents and those who work and travel in this corridor.

The Oregon Department of Transportation and Washington State Department of Transportation have been leading the bi-state study of the critical I-5 corridor lifeline between Oregon and Washington. Previous study of this corridor determined that a durable and balanced transportation solution in this corridor had to be multi-modal. TriMet is a part of a multi-agency, bi-state team conducting the multi-modal study of this corridor between Delta Park in Oregon and SR-500 in Washington.

The light rail portion of the project will include five stations – one on Hayden Island and four in Vancouver, Washington.

TriMet is awaiting permission to enter Preliminary Engineering (PE) from the Federal Transit Administration. PE is a major step in the review and approval of federal funding for a project.

A Final Environmental Impact Statement will be released early 2011, with final design following, and the beginning of construction starting as early as 2012.

## Expanding Fixed Route (Bus) Service

Investments in Frequent Service would both expand the number of Frequent Service lines and add more service to existing lines in the early morning and evening. Table 5-1 identifies planned Frequent Service improvements that will help achieve the Regional Transportation Plan's 20-year strategy for transit.

Two new Frequent Service lines and three span-of-service increases to existing Frequent Service lines have been identified as top-tier priorities as funding for operations and bus fleet expansion becomes available. The cost to upgrade service is measured by peak buses added and additional weekly vehicle hours required ($100.29/VH in FY10). Table 5-1 illustrates the locations of these Tier 1 Priority expansions within the context of existing Frequent and Regular Service. A more in-depth description of each of these expansions then follows.

**Table 5-1. Frequent Service Expansion Priority**

| Type | Line | From | To | Weekly Vehicle Hour Increase | Peak Bus Increase |
|---|---|---|---|---|---|
| **Tier 1 priority** | | | | | |
| New | 76-Beaverton/Tualatin | Beaverton TC | Tualatin | 390 | 3 |
| New | 31-King Rd | Milwaukie TC | Clackamas TC | 240 | 2 |
| Span | 4-Division/Fessenden | Portland Mall | Gresham TC | 50 | 0 |
| Span | 8-Jackson Park/NE 15th | Portland Mall | Marquam Hill | 25 | 0 |
| Span | 15-Belmont/NW 23rd | Portland Mall | 92nd Ave | 75 | 0 |
| **Total** | | | | **860** | **5** |
| **Tier 2 priority** | | | | | |
| Extension | 54-Beaverton-Hillsdale Hwy | Beaverton TC | Scholls Ferry Rd | 225 | 2 |
| Extension | 33-McLoughlin | Oregon City TC | Clackamas Community College | 260 | 2 |
| New | 35-Macadam/Greeley | Oregon City TC | Portland Mall | 605 | 0 |
| Extension | 31-King Rd | Clackamas TC | 152nd | 125 | 1 |
| Span | 12-Barbur/Sandy Blvd | Portland Mall | Durham Rd | 60 | 0 |
| Span | 12-Barbur/Sandy Blvd | Portland Mall | Parkrose TC | 40 | 0 |
| Span | 33-McLoughlin | Portland Mall | Oregon City | 160 | 0 |
| Total | | | | 1,475 | 5 |
| **Tier 3 priority** | | | | | |
| Extension | 12-Barbur/Sandy Blvd | Durham Rd | Sherwood | 140 | 2 |
| New | 79-Clackamas/Oregon City | Clackamas TC | Oregon City TC | 305 | 3 |
| New | 87-Airport Way/181st | NE Sandy Blvd | SE Powell Blvd | 380 | 2 |
| **Total** | | | | **825** | **7** |

*Note: Span refers to hours of service (e.g. 6 a.m. to 11 p.m.)*

## 5.1 Bus Service Changes Related to South Corridor Phase 2

The Milwaukie community has for many years expressed a desire to shift the location of bus stops that now comprise downtown Milwaukie's on-street transit center and reduce the bus layovers in downtown Milwaukie. The City of Milwaukie and TriMet have agreed to reduce the impact of the on-street transit operations by reducing bus layovers. With the opening of the Green Line in September 2009 and interlining of several bus routes and other adjustments, the number of weekly bus layovers in downtown Milwaukie was reduced by 52 percent from 2004 levels. Improved bus stops in the form of Level III shelters and other amenities are also part of bus stops on SE Jackson Street between Main and 21st. Reconstruction of Jackson St. and bus stop improvements are expected to be completed in 2011. Future alignments for bus service in downtown Milwaukie are now under consideration in the context of Preliminary Engineering for the Portland-Milwaukie light rail project. TriMet, City and project staff is assessing alternatives for bus routing, stops, and bus-rail connections. There will be further consultation with the City Council and community stakeholders before a final plan for bus service in downtown Milwaukie is affirmed.

**Areas of future focus**

TriMet will continue to work with Milwaukie, Oregon City, Gladstone and Clackamas County to identify and support other capital improvements that can build service in this corridor, consistent with the South Corridor work program.

## 5.2 Bus Service Changes Related to Columbia River Crossing Project

At this time, there are no sustentative changes to the TriMet bus service as a result of this project.

**This page left blank intentionally.**

## 5.3 Maintenance Facilities Expansion

TriMet's bus maintenance facilities have parking capacity for 760 vehicles (225 at Powell, 285 at Center, 250 at Merlo). Today, TriMet's bus fleet is 646 vehicles (including contingency vehicles). There is parking capacity, therefore, for 99 additional vehicles before additional parking has to be built. There are 55 bus maintenance bays between the three garages. Maximum annual bay hours total 341,880 (55 bays multiplied by 24 hours per day multiplied by 359 days per year). Present annual maintenance requirements are 236,000 work hours.

***Fixed Route Bus Table 5-2***

***Table 5-2 shows the capacity at each bus garage facility and compares it to the current use.***

**Fixed Route Bus Table 5-2. Garage Capacity**

| | Capacity | # Buses Assigned | Additional Capacity |
|---|---|---|---|
| Center | 285 | 266 | 19 |
| Merlo | 250 | 119 | 131 |
| Powell | 225 | 201 | 24 |

***Paratransit***

The Nela location has parking for 90 LIFT buses and 15 LIFT minivans. The Powell LIFT operating facility in SE Portland has parking for 100 LIFT buses. The Merlo LIFT operating facility in Beaverton currently has parking for 80 LIFT buses. Vehicles operating from the two outlying LIFT sites are brought to the Nela location for maintenance.

Table 5-3 shows the capacity at each LIFT facility and compares it to the current use:

**Table 5-3. LIFT Maintenance Capacity**

| | Capacity | Actual | Additional Capacity |
|---|---|---|---|
| Nela | 90 | 71 buses | 19 |
| Powell | 100 | 101 | -1 |
| Merlo | 80 | 80 | 0 |
| | **270** | **252** | **18** |

It would appear from Table 5-3 that TriMet will need to expand capacity at its LIFT facilities within the next few years, as the LIFT fleet has grown and is likely to continue to grow as the demand for paratransit service increases.

However, TriMet is looking at several strategies for LIFT facility expansion in the future. The strategies are:

Purchase smaller vehicles than the 24' LIFT buses.

## 5.4 Planned Bus Procurements

***Vehicle Replacement – Fixed Route***

TriMet replaces 40-foot fixed route buses after approximately 15 years, as the most cost-effective life cycle. The FTA minimum replacement standard for fixed route buses is 12 years. By eight to nine years of age, TriMet's buses have accumulated 350,000 miles and are in need of engine overhauls. Having invested in overhauls, TriMet keeps its buses the additional years to get the full value from the overhaul expense.

In the 80s and 90s, TriMet purchased buses unevenly (108 one year, ten the next, etc.) and found that this caused peaks in maintenance costs. To remedy this, the buses purchased in the 80s and 90s are being replaced in even increments each year, requiring that some buses be kept for 20 – 24 years;

Because of the recent recession, we had to suspend bus purchases for FY10 and FY11. For FY12 replacement we shall purchase 80 buses, then 40 buses per year afterward, meeting the majority of the age standards noted above and better supporting TriMet's financial plan. Appendix C illustrates the fixed route vehicle replacement program included in TriMet's Capital Improvement Plan. Bus replacement is a top priority of the district. Costs of the replacement purchases, as planned, are included in the financial forecast.

***Vehicle Expansion – Fixed Route***

Because of the unforeseen economic recession, plans for fleet expansion have been put on-hold for the next 5 fiscal years.

***Vehicle Replacement - LIFT***

LIFT small buses are currently replaced every ten years but the life cycle of LIFT vehicles is being reduced incrementally over the next ten years to replacement after six years. The replacement of LIFT vehicles is a top priority of the district. LIFT vehicles have been replaced on schedule. Appendix A includes the Accessible Transportation Program LIFT vehicle replacement table from the Capital Improvement Plan. Costs of this replacement schedule are included in Appendix E.

***Vehicle Expansion – LIFT***

In the past, LIFT service increases have required a minimum of eight vehicles per year. TriMet is forecasting minimal increases in LIFT ridership over the next four years, which will not require adding vehicles to the fleet until 2014.

## 5.5 Financial Forecasting

TriMet's financial forecast focuses on whether TriMet has adequate resources to operate and maintain the transit system including current service levels, capital replacement requirements and improvement capital projects, plus increases in bus and MAX service in addition to new rail projects. Financial forecasts are conducted for planning horizons that extend anywhere from five to 25 years, depending on the need.

A recent financial forecast is included in TriMet's September 2010 Portland-Milwaukie Light Rail Project Agency-Wide Capital and Operating Finance Plan. This report covers, in detail, the forecasting process and assumptions for current and future bus, light rail and ATP service increases, including bus maintenance and capital replacement and expansion.

Budgets for these are presented in Appendix A, detailed revenue and expenditure assumptions and analysis are included in Chapter 3.0.

**This page intentionally left blank.**

# APPENDICES

**This page left blank intentionally.**

# Appendix A. LIFT Vehicle Fleet Details

| TABLE 3A. ATP/LIFT VEHICLE REPLACEMENT & EXPANSION | | | | | | | | | 3/4/10 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ATP BUSES - ACTIVE FLEET | | | | | | | | | | | | | | | | | | |
| FLEET | FY | FLEET | BUS MAKE & | AGE END FY | REPLACE | CURRENT | ACTIVE ATP FLEET SIZE AT END OF FISCAL YEAR | | | | | | | | | | | |
| NBR | BUILT | SIZE | DESCRIPTION | 2010 | END FY | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| 25 | 1999 | 27 | Eldorado | 11 | 2009 | 27 | 0 | | | | | | | | | | | |
| 26 | 2001 | 33 | Eldorado | 9 | 2011 | 33 | 16 | 0 | | | | | | | | | | |
| 27 | 2001 | 47 | Eldorado | 9 | 2011 | 47 | 47 | 23 | 0 | | | | | | | | | |
| 28 | 2002 | 8 | Eldorado | 8 | 2012 | 8 | 8 | 8 | 0 | | | | | | | | | |
| 29 | 2005 | 15 | 4 Door Sedan | 5 | 2011 | 15 | 0 | | | | | | | | | | | |
| - | 2006 | - | - | - | - | | | | | | | | | | | | | |
| 30 | 2006 | 39 | Cut Away | 4 | 2014 | 39 | 39 | 39 | 39 | 39 | 0 | | | | | | | |
| 31 | 2007 | 49 | Cut Away | 3 | 2015 | 49 | 49 | 49 | 49 | 49 | 49 | 0 | | | | | | |
| 32 | 2008 | 1 | Cut Away | 2 | 2016 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | | | | | | |
| 33 | 2009 | 50 | Cut Away | 1 | 2017 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 0 | | | | | |
| 34 | 2011 | 44 | Cut Away | 0 | 2018 | | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 0 | | | | |
| 35 | 2011 | 15 | MiniVans | 0 | 2016 | | 15 | 15 | 15 | 15 | 15 | 0 | | | | | | |
| 36 | 2012 | 40 | Cut Away | 0 | 2019 | | | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 0 | | | |
| 37 | 2013 | 31 | Cut Away | 0 | 2020 | | | | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 0 | | |
| 38 | 2014 | 6 | MiniVans | 0 | 2019 | | | | | 6 | 6 | 6 | 6 | 6 | 0 | | | |
| 39 | 2015 | 45 | Cut Away | 0 | 2021 | | | | | | 45 | 45 | 45 | 45 | 45 | 45 | 0 | |
| 40 | 2016 | 56 | Cut Away | 0 | 2022 | | | | | | | 56 | 56 | 56 | 56 | 56 | 56 | 0 |
| 41 | 2016 | 15 | MiniVans | 0 | 2021 | | | | | | | 15 | 15 | 15 | 15 | 15 | 0 | |
| 42 | 2017 | 57 | Cut Away | 0 | 2023 | | | | | | | | 57 | 57 | 57 | 57 | 57 | 57 |
| 43 | 2018 | 50 | Cut Away | 0 | 2024 | | | | | | | | | 50 | 50 | 50 | 50 | 50 |
| 44 | 2019 | 15 | MiniVans | 0 | 2024 | | | | | | | | | | 15 | 15 | 15 | 15 |
| 45 | 2019 | 46 | Cut Away | 0 | 2025 | | | | | | | | | | 46 | 46 | 46 | 46 |
| 46 | 2020 | 39 | Cut Away | 0 | 2026 | | | | | | | | | | | 39 | 39 | 39 |
| 47 | 2021 | 15 | MiniVans | 0 | 2026 | | | | | | | | | | | | 15 | 15 |
| 48 | 2021 | 50 | Cut Away | 0 | 2027 | | | | | | | | | | | | 50 | 50 |
| 49 | 2022 | 60 | Cut Away | 0 | 2028 | | | | | | | | | | | | | 60 |
| | | | **Fleet Size** | | | **269** | **269** | **269** | **269** | **275** | **281** | **287** | **294** | **300** | **315** | **323** | **328** | **332** |
| | | | | | | | | | | | | | | | | | | |
| | | | | ***Weighted Fleet Age*** | | 5.62 | 4.26 | 3.75 | 3.35 | 4.20 | 3.78 | 3.07 | 2.56 | 2.41 | 2.22 | 2.37 | 2.41 | 2.26 |
| | | | WD Ridership % Increase | | | | 0.0% | 0.1% | 0.1% | 0.2% | 0.2% | 0.25% | 0.25% | 0.25% | 0.25% | 0.25% | 0.25% | 0.25% |
| | | | Peak Pullouts | | | | 236 | 238 | 240 | 245 | 250 | 256 | 262 | 268 | 274 | 280 | 287 | 294 |
| | | | Spare Ratio** | | | | 13.98% | 13.03% | 12.08% | 12.24% | 12.40% | 12.11% | 12.21% | 11.94% | 14.96% | 15.36% | 14.29% | 12.93% |
| | | | **Total Fleet Requirement** | | | | **269** | **269** | **269** | **275** | **281** | **287** | **294** | **300** | **315** | **323** | **328** | **332** |
| | | | | | | | | | | | | | | | | | | |
| | | | Replacement Bus | | | | 44 | 40 | 31 | 0 | 39 | 50 | 50 | 44 | 40 | 31 | 45 | 56 |
| | | | Expansion Bus | | | | 0 | 0 | 0 | 0 | 6 | 6 | 7 | 6 | 6 | 8 | 5 | 4 |
| | | | **Total Bus Purchase** | | | | **44** | **40** | **31** | **0** | **45** | **56** | **57** | **50** | **46** | **39** | **50** | **60** |
| | | | | | | | | | | | | | | | | | | |
| | | | Replacement Vans* | | | | 15 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 6 | 0 | 15 | 0 |
| | | | Expansion Van | | | | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 |
| | | | **Total Van Purchase** | | | | 15 | 0 | 0 | 6 | 0 | 15 | 0 | 0 | 15 | 0 | 15 | 0 |
| | | | Note: | | | | | | | | | | | | | | | |
| | | | * Sedans will exceed 200,000 miles in FY2010. Replacing sedans with wheelchair accessible vans by FY2011. | | | | | | | | | | | | | | | |
| | | | ** Does not reflect separate spare ratios for bus and van fleets. | | | | | | | | | | | | | | | |

**This page left blank intentionally.**

# Appendix B. Detailed Fleet Management Sheets

TABLE 1A. FIXED ROUTE BUSES - ACTIVE FLEET

| BUS FLEET | FY ACQ | BUS LNGTH | FLEET SIZE | BUS MAKE & DESCRIPTION | AGE FY11 | REPLACE END FY | BUSES 9/5/2010 | ACTIVE FLEET SIZE AT FISCAL YEAR END 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 37 | 1990 | 40 | 63 | Gillig 1400s | 21 | 2013 | 35 | 35 | 20 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 38 | 1991 | 30 | 30 | Gillig 1600s | 20 | 2015 | 13 | 13 | 13 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 39 | 1991 | 30 | 13 | Gillig 1600s | 20 | 2015 | 12 | 12 | 12 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40 | 1992 | 40 | 108 | FlxMetro 1700's | 19 | 2013 | 65 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 41 | 1993 | 30 | 10 | FlxMetro 1900's | 18 | 2013 | 10 | 10 | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 44 | 1995 | 40 | 27 | FlxMetro 1800's | 16 | 2014 | 26 | 26 | 26 | 26 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 46 | 1998 | 40 | 22 | New Flyer (Low Floor) | 13 | 2018 | 22 | 22 | 22 | 22 | 22 | 22 | 17 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 47 | 1998 | 40 | 60 | Gillig 2100s | 13 | 2017 | 60 | 60 | 60 | 60 | 60 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 48 | 1998 | 40 | 5 | Gillig 2100s | 13 | 2016 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 49 | 1999 | 40 | 58 | New Flyer (Low Floor) | 12 | 2019 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 51 | 1999 | 40 | 60 | New Flyer (Low Floor) | 12 | 2021 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 52 | 2001 | 40 | 60 | New Flyer (Low Floor) | 10 | 2022 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 51 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 53 | 2002 | 40 | 2 | New Flyer (Diesel-Electric) | 9 | 2022 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 54 | 2003 | 40 | 55 | New Flyer (Low Floor) | 8 | 2024 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 55 | 2004 | 40 | 25 | New Flyer (Low Floor) | 7 | 2024 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 13 | 0 | 0 | 0 | 0 | 0 | 0 |
| 56 | 2006 | 40 | 39 | New Flyer (Low Floor) | 5 | 2025 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 12 | 0 | 0 | 0 | 0 | 0 |
| 57 | 2009 | 40 | 40 | New Flyer (Low Floor) | 2 | 2026 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 12 | 0 | 0 | 0 | 0 |
| 58 | 2012 | 40 | 80 | New Flyer (Low Floor) | 0 | 2028 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 52 | 12 | 0 | 0 |
| 59 | 2014 | 40 | 80 | Low Floor | 0 | 2030 | 0 | 0 | 0 | 0 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 32 | 0 |
| 60 | 2016 | 40 | 80 | Low Floor | 0 | 2032 | 0 | 0 | 0 | 0 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 12 |
| 61 | 2018 | 40 | 80 | Low Floor | 0 | 2034 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| 62 | 2020 | 40 | 40 | Low Floor | 0 | 2036 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| 63 | 2021 | 40 | 40 | Low Floor | 0 | 2037 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| 64 | 2022 | 40 | 40 | Low Floor | 0 | 2038 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| 65 | 2023 | 40 | 40 | Low Floor | 0 | 2039 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| 66 | 2024 | 40 | 40 | Low Floor | 0 | 2040 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| 67 | 2025 | 40 | 40 | Low Floor | 0 | 2041 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| 68 | 2026 | 40 | 40 | Low Floor | 0 | 2042 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 40 | 40 | 40 | 40 | 40 |
| 69 | 2027 | 40 | 40 | Low Floor | 0 | 2043 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 40 | 40 | 40 | 40 |
| 70 | 2028 | 40 | 40 | Low Floor | 0 | 2044 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 40 | 40 | 40 |
| 71 | 2029 | 40 | 40 | Low Floor | 0 | 2045 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 40 | 40 |
| 72 | 2030 | 40 | 40 | Low Floor | 0 | 2046 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 40 |
| 73 | 2031 | 40 | 0 | Low Floor | 0 | 2047 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| 74 | 2032 | 40 | 0 | Low Floor | 0 | 2048 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 75 | 2033 | 40 | 0 | Low Floor | 0 | 2049 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 75 | 2034 | 40 | 0 | Low Floor | 0 | 2045 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total Fleet Size (Without Expansion or Special Services* Buses)** | | | | | | | 586 | 586 | 586 | 586 | 590 | 590 | 595 | 595 | 605 | 605 | 605 | 612 | 612 | 612 | 612 | 612 | 612 | 612 | 612 | 612 | 612 |

ACTIVE FLEET CONTINUED

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Weighted Average Replacement Fleet Age At Year End | | | | | | | | 12.13 | 10.35 | 11.35 | 9.38 | 10.38 | 8.72 | 9.72 | 8.05 | 9.05 | 8.60 | 8.26 | 7.83 | 7.42 | 7.00 | 6.65 | 6.41 | 6.31 | 6.20 | 6.11 | 6.52 |
| Weighted Average Active (Replacement + Expansion) Fleet Age At Year End | | | | | | | | 12.13 | 10.35 | 11.35 | 9.38 | 10.38 | 8.72 | 9.72 | 8.05 | 9.05 | 8.57 | 8.20 | 7.74 | 7.30 | 6.86 | 6.49 | 6.24 | 6.11 | 5.98 | 5.87 | 5.73 |
| Low Floor Fleet (w/o Expansion Buses) => | | | | | | | 360 | 360 | 440 | 440 | 520 | 520 | 595 | 595 | 605 | 605 | 605 | 612 | 612 | 612 | 612 | 612 | 612 | 612 | 612 | 612 | 612 |
| Standard (High Floor) Fleet (w/o Expansion Buses) => | | | | | | | 226 | 226 | 146 | 146 | 70 | 70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Replacement Buses | | | | | | | | 0 | 80 | 0 | 80 | 0 | 80 | 0 | 80 | 0 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| Expansion Buses | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 4 |
| **Total Buses Purchased** | | | | | | | | **0** | **80** | **0** | **80** | **0** | **80** | **0** | **80** | **0** | **42** | **43** | **42** | **43** | **42** | **43** | **42** | **43** | **42** | **43** | **44** |
| Average # of Buses Purchased Annually: | 39 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Average # of Replacement Buses Annually: | 38 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Total Fleet Size Including Expansion Buses** | | | | | | | | **586** | **586** | **586** | **590** | **590** | **595** | **595** | **605** | **605** | **607** | **617** | **619** | **622** | **624** | **627** | **629** | **632** | **634** | **637** | **640** |

**This page left blank intentionally.**

# Appendix C. Fixed Route Vehicle Fleet Details

**TABLE 1B. VEHICLES SYSTEMS - FIXED ROUTE BUSES**

CAPITAL REQUIREMENTS

| ITEM REQUIRED | # OF VEHICLES | YEAR NEEDED | OPTIMUM REPLACEMENT CYCLE | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | FY11-FY20 TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Replacement Buses** | | | | | | | | | | | | | |
| Low Floor 40-foot Buses | 80 | 2012 | 16 Yrs/675,000 | $35,200,000 | | | | | | | | | $35,200,000 |
| Low Floor 40-foot Buses | 60 | 2014 | 16 Yrs/675,000 | | | $26,400,000 | | | | | | | $26,400,000 |
| Low Floor 30-foot Buses | 20 | 2014 | 16 Yrs/675,000 | | | $6,600,000 | | | | | | | $6,600,000 |
| Low Floor 40-foot Buses | 80 | 2016 | 16 Yrs/675,000 | | | | | $35,200,000 | | | | | |
| Low Floor 40-foot Buses | 80 | 2018 | 16 Yrs/675,000 | | | | | | | $35,200,000 | | | |
| Low Floor 40-foot Buses | 40 | 2020 | 16 Yrs/675,000 | | | | | | | | | $17,600,000 | |
| **Total Replacement** | | | | **$35,200,000** | **$0** | **$33,000,000** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$68,200,000** |
| **Expansion Buses** | | | | | | | | | | | | | |
| Low Floor 40-foot Buses | 2 | 2020 | 16 Yrs/675,000 | | | | | | | | | $880,000 | $0 |
| | | | | | | | | | | | | | $0 |
| | | | | | | | | | | | | | $0 |
| | | | | | | | | | | | | | $0 |
| | | | | | | | | | | | | | $0 |
| **Total Expansion** | | | | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$880,000** | **$0** |
| **Total** | | | | **$35,200,000** | **$0** | **$33,000,000** | **$0** | **$0** | **$0** | **$0** | **$0** | **$880,000** | **$68,200,000** |

| | | |
|---|---|---|
| Low Floor Replacement Bus* | $440,000 | (Based on FY11 dollars) |
| Low Floor Expansion Bus* | $440,000 | |
| Diesel-Electric Hybrid | $600,000 | |

* Includes auto stop announcement

**This page left blank intentionally.**

# Appendix D. Preventive Maintenance Budgets

ACCESSIBLE TRANSPORTATION PROGRAMS - PERSONNEL SERVICES

| Position Title | 07/08 Actual Total | 08/09 Actual Total | 09/10 Budget Total | 09/10 Estimate Total | 10/11 Budget Total |
|---|---|---|---|---|---|
| **LIFT Program:** | | | | | |
| Director, ATP | $ 34,496 | $ 118,059 | | | |
| Mgr, LIFT Performance & Systems Analyst | 89,591 | 84,101 | $ 87,550 | $ 87,550 | $ 87,550 |
| Manager, ATP | 73,965 | 70,824 | 72,120 | 72,120 | 72,120 |
| Senior Eligibility Specialist | 94,401 | 85,997 | 85,149 | 85,149 | 85,149 |
| ATP Operations Administrator | 71,748 | 68,350 | 69,614 | 69,614 | 69,614 |
| LIFT Service Quality Administrator | 61,807 | 58,343 | 59,195 | 59,195 | 59,195 |
| Coordinator - LIFT Eligibility | 56,805 | 56,296 | 157,477 | 157,477 | |
| Coordinator - LIFT Eligibility | | | | | 153,954 |
| Coordinator - LIFT Eligibility | 48,580 | 49,247 | 49,486 | 49,486 | 51,318 |
| Administrative Specialist - ATP | 21,178 | 61,482 | 103,982 | 103,982 | 103,719 |
| Administrative Specialist - ATP | 54,945 | 41,842 | 42,645 | 42,645 | 42,645 |
| Fringe Benefits | 408,130 | 315,000 | 299,249 | 299,249 | 294,011 |
| UAAL Management Pension | | | 75,326 | 75,326 | |
| Workers' Compensation | 259 | 282 | | | |
| **Medical Transportation Program (MTP):** | | | | | |
| Manager, Transportation Brokerage | 79,483 | 78,982 | 84,522 | 84,522 | 84,522 |
| Administrative Specialist - ATP | 21,885 | 36,369 | 41,509 | 41,509 | 41,487 |
| Administrative Specialist - ATP | 19,678 | 19,461 | 20,796 | 20,796 | 20,744 |
| MTP Contract Administrator | 58,961 | 58,291 | 58,223 | 58,223 | 60,237 |
| MTP Programmer/Analyst | 125,302 | 108,267 | 92,394 | 92,394 | 92,394 |
| Fringe Benefits | 114,529 | 114,310 | 107,981 | 107,981 | 111,634 |
| Workers' Compensation | 132 | 136 | | | |
| Overtime | | 1,531 | | | |
| Capitalized Labor/Fringe | (149) | | | | |
| Total | $ 1,435,725 | $ 1,427,170 | $ 1,507,217 | $ 1,507,217 | $ 1,430,293 |

ACCESSIBLE TRANSPORTATION PROGRAMS - MATERIALS & SERVICES

| Expense Category | Actual 07/08 | Actual 08/09 | Budget 09/10 | Estimate 09/10 | Budget 10/11 |
|---|---|---|---|---|---|
| **LIFT Program:** | | | | | |
| LIFT Central Dispatch | $ 1,913,314 | $ 2,016,885 | $ 2,226,660 | $ 2,050,000 | $ 1,987,788 |
| Professional & Technical | 2,469 | 49,840 | 10,000 | 21,000 | 10,000 |
| Office Equipment Service/Repair | 1,315 | 1,432 | 1,000 | 750 | 1,000 |
| ATP Accident Repair | 3,628 | 1,102 | 1,000 | 2,835 | 1,000 |
| ATP Central Maintenance Contract | 2,025,525 | 2,234,918 | 2,382,668 | 2,085,211 | 1,983,785 |
| Background Check Services | 12,850 | 12,217 | 14,000 | 10,750 | 11,040 |
| Printing Services | 13,324 | 15,294 | 26,235 | 12,500 | 19,650 |
| Accessibility Services - NE RideAbout | 4,452 | | | | |
| Other Services | 140,996 | 16,189 | 8,225 | 13,500 | 8,000 |
| Other Services-Revenue Vehicle Maintenance | | 103,713 | 100,200 | 100,200 | 100,200 |
| Diesel Fuel - Revenue Vehicles | 2,898,366 | 2,162,197 | 1,905,124 | 1,905,124 | 2,216,000 |
| Oil & Lubricants | 42,622 | 58,614 | 90,000 | 90,000 | 90,000 |
| Gasoline - Revenue Vehicles | 120,207 | 93,109 | 116,000 | 116,000 | 116,000 |
| Tires, Lease/Purchase Revenue | 66,136 | 72,507 | 73,584 | 73,584 | 73,584 |
| Office Supplies | 23,431 | 19,336 | 19,000 | 16,500 | 16,320 |
| Furniture & Equipment <$5,000 | 6,970 | 6,323 | 9,175 | 6,000 | 7,875 |
| Other Materials | 14,681 | 4,547 | 11,200 | 7,500 | 7,220 |
| Postage | 17,056 | 23,635 | 10,000 | 14,450 | 9,600 |
| ATP Maintenance Materials | 10,360 | 12,267 | 11,588 | 11,588 | 11,588 |
| Telephone | 41,599 | 46,746 | 45,000 | 41,000 | 36,840 |
| Insurance Premium | 548,026 | 597,851 | 367,745 | 525,692 | 1,163,861 |
| Region 2 Insurance Premium | 403,038 | 452,067 | 282,583 | 437,212 | |
| Region 3 Insurance Premium | 585,241 | 632,376 | 389,200 | 546,035 | |
| PI/PD | | 17,266 | | 15,000 | |
| LIFT Transportation | 6,706,757 | 6,961,008 | 6,989,356 | 6,950,000 | 17,353,961 |
| LIFT Transportation - Region 2 | 4,659,782 | 5,042,002 | 5,061,536 | 5,000,000 | |
| LIFT Transportation - Region 3 | 5,851,910 | 6,304,255 | 6,499,510 | 6,450,000 | |
| LIFT Supplemental Cab Service | 3,679,095 | 3,105,845 | 3,735,204 | 3,250,000 | 3,103,806 |
| Quick Response Cab Service | | 690 | | | |
| Local Travel & Meetings | 464 | 725 | 500 | 500 | |
| Education & Training | 2,035 | 1,846 | 2,000 | 1,200 | 800 |
| Out-of-Town Travel | 5,256 | 4,146 | 5,000 | | |
| Special Events Service | | | 4,000 | 3,100 | |
| CAT Committee | 29,151 | 34,370 | 34,264 | 30,400 | 34,475 |
| Leases | 44,733 | 53,191 | 51,145 | 49,000 | 31,600 |
| **Sub-Total LIFT Program:** | 29,874,792 | 30,158,508 | 30,482,702 | 29,836,631 | 28,395,993 |

ACCESSIBLE TRANSPORTATION PROGRAMS - MATERIALS & SERVICES

| | | | | | |
|---|---|---|---|---|---|
| **LIFT Program Eligibility:** | | | | | |
| Contracted Eligiliby Assessment | | | 372,780 | 155,000 | 330,000 |
| Professional & Technical | | | 20,000 | 6,081 | 2,000 |
| Office Equipment Service/Repair | | | 800 | 300 | 1,000 |
| Printing Services | | | 40,000 | 7,300 | 7,500 |
| Other Services | | | 5,745 | 5,745 | 7,500 |
| Office Supplies | | | 15,000 | 10,000 | 13,000 |
| Furniture & Equipment <$5,000 | | | 320,399 | 368,000 | 2,500 |
| Other Materials | | | 4,000 | 4,000 | 2,000 |
| Postage | | | 15,000 | 7,500 | 13,000 |
| Telephone | | | 1,800 | 6,670 | 11,400 |
| Eligibility Transportation | | | 158,771 | 157,971 | 300,000 |
| Local Travel & Meetings | | | 500 | 100 | |
| Education & Training | | | $ 1,900 | $ 4,236 | 300 |
| Out-of-Town Travel | | | 6,500 | 4,800 | 1,300 |
| Leases | | | 135,000 | 91,407 | 135,000 |
| **Sub-Total LIFT Program:** | | | 1,098,195 | 829,110 | 826,500 |
| **Medical Transportation Program (MTP):** | | | | | |
| MTP Central Dispatch | $ 1,213,700 | $ 1,229,390 | 1,408,720 | 1,408,720 | 1,220,731 |
| OMAP Survey | 43,027 | | | | 45,000 |
| Temporary Staff | | | 1,900 | 500 | 1,900 |
| Background Checks | 27,956 | 32,395 | 38,190 | 30,000 | 34,600 |
| Printing Services | 572 | 4,172 | 4,875 | 5,000 | 7,440 |
| Other Services | 63,785 | 3,464 | 25,000 | 12,000 | 25,000 |
| Tickets | | 57,743 | 42,000 | 105,430 | 108,593 |
| Passes | | 115,380 | 106,450 | 100,000 | 111,333 |
| Office Supplies | 5,217 | 5,346 | 5,871 | 6,000 | 7,125 |
| Furniture & Equipment <$5,000 | 17,002 | 7,236 | 21,185 | 21,185 | 24,509 |
| Other Materials | | 30 | 950 | 200 | 950 |
| Postage | 9,278 | 9,684 | 12,413 | 12,000 | 14,288 |
| Software Enhancements | 483 | | 9,500 | 7,000 | 9,500 |
| Telephone | 45,780 | 47,576 | 52,079 | 42,000 | 50,920 |
| MTP Transportation | 11,349,795 | 12,285,942 | 13,597,715 | 12,685,330 | 13,065,890 |
| Local Travel | 1,130 | 1,323 | 2,356 | 1,300 | 1,640 |
| Education & Training | 1,936 | 2,999 | 4,560 | 2,000 | 5,130 |
| Out-of-Town Travel | 5,286 | 4,069 | 10,165 | 3,000 | 6,850 |
| Building Expense Transfer - ATP | 49,202 | 46,997 | 50,725 | 50,000 | 51,745 |
| **Sub-Total MTP:** | 12,834,151 | 13,853,745 | 15,394,654 | 14,491,665 | 14,793,144 |

ACCESSIBLE TRANSPORTATION PROGRAMS - MATERIALS & SERVICES

| | | | | | |
|---|---|---|---|---|---|
| **Waivered Non-Medical Transportation:** | | | | | |
| Contracted Dispatch | 59,185 | 64,705 | 70,436 | 70,000 | 64,249 |
| Temporary Staff | | | 100 | 50 | 100 |
| Background Checks | 1,507 | 1,676 | 2,010 | 1,600 | 1,821 |
| Printing Services | | 69 | 125 | 200 | 260 |
| Other Services | 19 | 7 | | | 20,000 |
| Tickets | | | 500 | 200 | 519 |
| Passes | | | 500 | 200 | 519 |
| Office Supplies | 39 | 42 | 150 | 100 | 375 |
| Furniture & Equipment <$5,000 | 73 | 381 | 1,115 | 400 | 1,291 |
| Other Materials | | 2 | 50 | 50 | 50 |
| Postage | 42 | 76 | 327 | 100 | 752 |
| Software | | | 500 | 200 | 500 |
| Telephone | 3,581 | 3,373 | 2,741 | 4,000 | 2,680 |
| MTP Cab Transportation | 762,621 | 926,023 | 952,629 | 970,000 | 1,003,478 |
| Local Travel | 38 | 6 | 124 | | |
| Education & Training | 329 | 148 | 240 | 100 | 270 |
| Out-of-Town Travel | 117 | 16 | 535 | | |
| Building Expense Transfer - ATP | 2,590 | 2,474 | 2,670 | 2,600 | 2,724 |
| **Sub-Total Waivered Program:** | 830,139 | 998,996 | 1,034,752 | 1,049,800 | 1,099,588 |
| | $ 43,539,081 | $ 45,011,249 | $ 48,010,303 | $ 46,207,206 | $ 45,115,225 |

BUS MAINTENANCE PERSONNEL SERVICES

| Position Title | 07/08 Actual Total | 08/09 Actual Total | 09/10 Budget Total | 09/10 Estimate Total | 10/11 Budget Total |
|---|---|---|---|---|---|
| Director, Maintenance Operations | | | $ 140,000 | $ 140,000 | $ 140,000 |
| Director, Bus Maintenance | $ 107,576 | $ 71,161 | | | |
| MIS Training Analyst - Labor | 55,014 | | | | |
| Maint. Analyst - Performance | 68,399 | | | | |
| Manager, Maint. Analysis | 68,936 | | | | |
| Garage Manager | 248,940 | 274,486 | 279,416 | 279,416 | 279,416 |
| Maintenance Supervisor | 901,286 | 1,051,261 | 997,920 | 997,920 | 997,920 |
| Assistant Supervisor | 835,344 | 569,752 | 551,774 | 551,774 | 568,483 |
| Journeyman/Apprentice Mechanic | 8,808,118 | 8,852,742 | 8,800,056 | 8,800,056 | 8,792,153 |
| Maintenance Mechanic | 472,005 | 539,688 | 420,948 | 420,948 | 433,715 |
| Helper & Spotter | 2,550,571 | 3,195,194 | 3,234,439 | 3,234,439 | 3,066,146 |
| MMIS/Clerk of Maintenance | 290,824 | 257,856 | 355,243 | 355,243 | 366,021 |
| Cleaner/Relief MMIS | 134,515 | 178,074 | | | |
| Cleaner | 287,082 | 269,989 | 259,446 | 259,446 | 267,333 |
| Tire Servicer | 354,449 | 360,962 | 368,330 | 368,330 | 379,501 |
| Manager, Maintenance Training | 77,266 | 86,668 | 88,636 | 88,636 | 88,636 |
| Assistant Manager, Inventory | 64,984 | 71,744 | | | |
| Warranty/Contracts Coordinator | 51,968 | 58,337 | 59,675 | 59,675 | 59,675 |
| Maintenance Trainer | 339,590 | 291,606 | 245,233 | 245,233 | 252,659 |
| Stores Supervisor | 62,612 | 70,518 | 68,382 | 68,382 | 69,175 |
| Senior Storekeeper | 61,193 | | | | |
| Assistant Storekeeper | 112,459 | 264,469 | 286,880 | 286,880 | 295,573 |
| Junior Partsman | 194,679 | 289,548 | 202,635 | 202,635 | 104,391 |
| Partsman | 520,554 | 308,851 | 327,500 | 327,500 | 337,429 |
| NRV Mechanic | 165,762 | 207,459 | 213,350 | 213,350 | 164,865 |
| Fringe | 10,732,428 | 11,055,997 | 8,566,046 | 8,566,046 | 8,892,287 |
| UAAL Union Pension | | | 3,353,659 | 3,353,659 | |
| UAAL Management Pension | | | 238,531 | 238,531 | |
| Workers' Compensation | 415,127 | 739,263 | 450,405 | 450,405 | 428,173 |
| Longevity Premium | | | 683,897 | 683,897 | 645,226 |
| Night Differential | | | 187,865 | 187,865 | 183,950 |
| Training Pay | | | 5,511 | 5,511 | 5,677 |

| BUS MAINTENANCE | PERSONNEL | | SERVICES | | |
|---|---|---|---|---|---|
| Tool Allowance | | | 146,034 | 146,034 | 142,990 |
| Unscheduled Overtime | 739,929 | 1,090,067 | 347,435 | 347,435 | 340,194 |
| Unpaid Absence | | | (76,581) | (76,581) | (72,986) |
| Capitalized Labor/Fringe | (45,739) | (285,400) | | | |
| Attrition Adjustment | | | 357,268 | 357,268 | |
| Budget Reduction | | | (1,051,308) | (1,051,308) | (983,804) |
| Total | $ 28,675,871 | $ 29,870,292 | $ 30,108,623 | $ 30,108,623 | $ 26,244,798 |

BUS MAINTENANCE - MATERIALS & SERVICES

| Expense Category | Actual 07/08 | Actual 08/09 | Budget 09/10 | Estimate 09/10 | Budget 10/11 |
|---|---|---|---|---|---|
| Contracted Bus Maintenance – MAF | $ 276,188 | $ 314,897 | $ 185,223 | $ 320,000 | $ 175,178 |
| Other Services | 170,843 | 146,749 | 111,385 | 130,000 | 110,000 |
| Diesel Fuel - Revenue Vehicles | 17,339,488 | 20,234,480 | 17,120,044 | 17,200,000 | 12,938,921 |
| Office Supplies | 37,855 | 36,167 | 40,000 | 30,000 | 30,000 |
| Telephone | 21,294 | 22,331 | 24,000 | 21,000 | 24,000 |
| Dues & Subscriptions | 2,771 | 2,145 | 4,800 | 2,000 | |
| Local Travel & Meetings | 225 | 405 | 480 | 400 | |
| Out-of-Town Travel | 23,416 | 16,692 | 10,000 | 2,000 | |
| CDL Renewals | 2,718 | 4,148 | 2,800 | 2,400 | 2,800 |
| Employee Recognition | 29,520 | 16,046 | 18,000 | 16,000 | |
| Laundry | 99,369 | 107,335 | 100,000 | 100,000 | 94,577 |
| Oil & Lubricants | 482,447 | 661,438 | 323,642 | 500,000 | 306,090 |
| Tires, Lease/Purchase Revenue | 663,621 | 722,421 | 609,071 | 600,000 | 576,039 |
| Repair Materials - Revenue Equipment | 118,569 | 73,755 | 130,531 | 60,000 | 100,000 |
| Repair Materials - Snow/Ice | | 271 | 5,000 | 1,000 | 5,000 |
| Maint. Materials - Revenue Equipment | 6,281,950 | 6,921,430 | 6,043,455 | 7,000,000 | 5,715,700 |
| Freight - Priority | 48,758 | 68,369 | 66,900 | 53,000 | 66,900 |
| Shop Equipment Replacement | 19,884 | 19,091 | 12,000 | 1,000 | 12,000 |
| Cleaning Supplies | 210,640 | 228,017 | 182,164 | 188,000 | 172,285 |
| Small Hand Tools | 29,929 | 30,092 | 35,374 | 18,000 | 35,374 |
| Other Materials | 35,196 | 19,712 | 27,292 | 20,000 | 25,000 |
| Safety Supplies | 93,769 | 106,342 | 61,329 | 80,000 | 58,003 |
| Winter Supplies | 102,327 | 77,595 | 24,130 | 225,000 | 22,821 |
| Engine Overhaul Program | 195,623 | 461,377 | | | |
| USCC Seats & Cushions | | 57,500 | | | |
| Sardo Seat Insert Replacement Program | 200,550 | 76,440 | | | |
| Education & Training | 13,044 | 9,953 | 20,000 | 5,000 | |
| Operating Expense Transfer | | (107,021) | | | |
| Obsolete Inventory | | 17,446 | | | |
| Average Cost Variance | 1,290 | 61 | | | |
| Inventory Adjustments | 129,192 | 289,783 | | | |
| Invoice Price Variance | (2,665) | (9,201) | | | |
| Body Work - Non Revenue Vehicles | 18,160 | 13,815 | 12,000 | 8,000 | 5,000 |
| Diesel Fuel - Non Revenue Vehicles | 62,699 | 40,380 | 52,000 | 30,000 | 52,000 |
| Gasoline - Non Revenue Vehicles | 479,563 | 387,678 | 360,000 | 390,000 | 360,000 |
| Tires - Non Revenue Vehicles | 28,896 | 24,092 | 16,000 | 14,000 | 16,000 |
| Maint. Materials - NRVs | 293,686 | 323,838 | 264,000 | 250,000 | 264,000 |
| | $ 27,510,816 | $ 31,416,068 | $ 25,861,620 | $ 27,266,800 | $ 21,167,688 |

**This page intentionally left blank.**