



**DRAFT**

## **Ten Year - Bus Fleet Plan**

**South Central Regional Transit District**

**April 24, 2019**

## Ten Year Bus Fleet Plan

### Purpose

This plan serves as a guideline or overview of anticipated ten-year bus fleet growth and facility capacity. The plan will serve as a planning document to guide bus fleet management and facility development. Further, the plan will guide business decisions and meet Federal Transit District (FTA) and New Mexico Department of Transportation (NM DOT) requirements for future bus purchase and facility expansion.

### Key Assumptions

The ten year planning document will evaluate transit service demand within the SCRTD service area and the financial capacity to support that demand. The benefit of the fleet plan is to identify funding requirements to support existing services within the framework of the fleet life cycle for service.

### Fleet Requirements

Factors affecting demand for fleet growth will include the following:

1. Ridership growth of 5 to 10 percent annually in the next ten years
2. Expansion of service north to Hatch and Sierra County and south to Santa Teresa
3. Routine adjustments to relieve crowding and to improve service reliability
4. Multiple fleet types with smaller and large fleet capacity



Figure 1: 14 passenger bus



Figure 2: 28 passenger bus

Factors affecting fleet supply include:

1. Bus replacement to achieve an average fleet age of 5.0 years of service
2. Service requirements affecting the type of buses used in service
3. Fleet purchases assume a standard fleet vehicle size and associated cost for each bus with a factor for inflation included in the fleet projection
4. Fiscal constraints in the FY2019-FY2029 Capital Improvement Program

Facility Capacity:

1. Acquisition of Anthony bus facility with ½ acre of surface area
2. Five bus bays and office space
3. Rehabilitation of Anthony bus facility to maximize bus and employee parking
4. Purchase of equipment and supplies to support bus and support vehicles



**Figure 3: Anthony Bus Facility**

**Demand and Supply**

Fleet Demand:

Need 23 buses including expansion and replacement buses to meet the projected demand for fleet growth by FY2020.

Fleet demand is based on the assumption that there is limited fiscal capacity to support both present service requirements as well as expansion of service within the District service area.

Fleet Supply:

Current Bus Expansion plan includes two additional buses in FY2019-FY2020. These buses will support service to Northern Doña Ana County and to Sierra County.

In FY2021-FY2029 three additional buses will be needed to meet the fleet bus expansion and retirement schedule.

Bus replacement for the ten-year term will include 19 buses to coincide with the need to replace 19 buses. The number of buses is dependent upon the cost of the vehicles, the life cycle cost and service

life of the buses as well as the number of miles operated. Smaller buses have a shorter service life and will require the need to replace these buses more often during the term. Fewer buses in the fleet will require more miles per bus and an earlier retirement schedule. A larger fleet will extend the life of the individual buses and extend the time horizon or life cycle of the bus fleet.

### **Gap Between Fleet Demand and Supply**

A lack of investment in expansion of the fleet during the ten year fleet plan may hinder the District's ability to deploy new buses or meet the retirement schedule of current and future buses.

Average fleet age will increase during the fleet plan term and will result in higher operating cost. Retaining older buses to fill the gap between fleet demand and supply will likely increase the age of the fleet while increasing the associated cost to maintenance the fleet.

### **Bus Facility Capacity**

The capacity of the fleet is dependent on three factors: garage bays to maintenance buses; parking space for the buses; and parking for employees at the facility. The facility area space is roughly one half acre and can park between 12-15 buses. There are four bus bays with sufficient space to service the current fleet and to handle fleet expansion in the ten year fleet term.

The system will approach capacity for bus storage and maintenance during the next five years or between FY2019-FY2024. Planned new facilities or expansion of the current facility to increase the system's storage and maintenance capacity is warranted.

The additional of alternative fuels or electric buses may be considered. Alternative fuel buses using natural gas or propane may be considered. Natural gas would be the more expensive alternative, but a cost benefit analysis may be conducted to determine. Smaller electric buses are not yet available and may be considered later in the fleet plan.

### **Funding**

The District will be executing a planning study that will generate a ten year long range plan. That plan will address funding requirements to support the bus system operation and maintenance as well as the financial requirements to support the ten year fleet plan. Further, the budget assumptions for the fleet plan are focused on the length of time the buses may operate in service given the current service cycle (e.g., 48,000 miles per average bus) and the type of bus used in service. This could change should the District seek to use alternative fuel or electric buses in the future. A smaller 18 passenger electric bus has been introduced into the market that may have potential for use in the District fleet. Consequently, the cost of the ten year fleet plan may change given these and other conditions.

## Summary of Bus Fleet and Facility Growth

Fiscal Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total 2020 to 2029
<b>Current Fleet</b>	5															
Expansion		1	2	1	1	1					1	1		1		4
Replace							2	3	2	1	1	2	3	3	2	19
Retire					-1	-1	-1	-3	-2	-1	-1	-2	-3	-3	-2	-19
<b>Fleet Total</b>	5	6	8	9	9	9	10	10	10	10	11	12	12	13	13	
<b>Bus Capital Cost</b>						\$92,000	\$240,000	\$360,000	\$270,000	\$140,000	\$290,000	\$450,000	\$450,000	\$600,000	\$320,000	\$3,212,000
<b>Funding Source</b>																
100% NM State Funds						\$92,000										\$92,000
20% Local Match							\$48,000	\$72,000	\$54,000	\$28,000	\$58,000	\$90,000	\$90,000	\$120,000	\$64,000	\$624,000
80% Federal Funds							\$192,000	\$288,000	\$216,000	\$112,000	\$232,000	\$360,000	\$360,000	\$480,000	\$256,000	\$2,496,000
<b>Total</b>																\$3,212,000
<b>Assumptions</b>																
Hatch					X											
Sierra						X										
Replace 2011 Bus						X	X									
Replace 2012 Bus																
Replace 2015 Buses								X								
Replace 2015 Buses									X							
Replace 2016 Bus										X						
Replace 2019 Bus											X					
Replace 2020 Buses												X				
Replace 2021 Buses													X			
Replace 2022 Buses														X		
Replace 2023 Buses															X	

### Issues to Address

Impact of planned expansions of local bus and connectivity with other transit providers. The District may introduce new bus routes and or consolidate other routes and work with regional providers to partner in addressing demand for these services. New service to Hatch and Sierra County will pose new challenges and opportunities. Expansion of service with Sunland Park and Santa Teresa will offer an opportunity for the southern portion of Dona Ana County to meet and mitigate air quality conditions.

Funding availability to increase fleet expansion and complete planned facility development.

### Plan Summary

The ten year plan documents the process and procedures for operating and maintaining the bus fleet through 2029. It identifies the gap between the required fleet growth (demand driven) and the anticipated fleet purchase (supply driven). Connects the need for facility development with fleet growth. And, provides support for the expansion and update of the ICIP planning document to reflect this planning document.