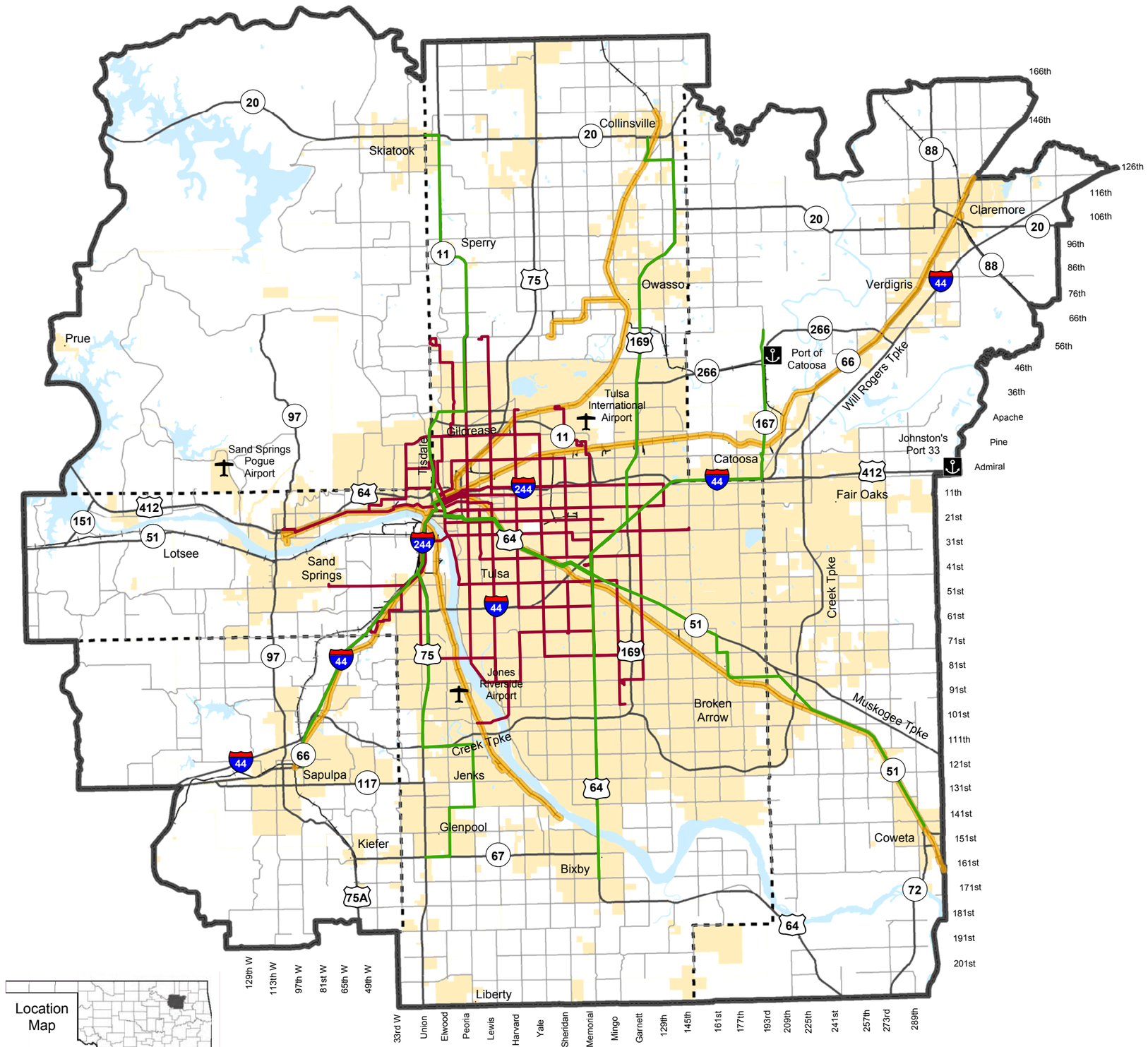
PUBLIC TRANSPORTATION

Chapter 3



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Destination 2030

2030 Public Transportation Plan

- Planned Urban Routes
- Planned Suburban Routes
- Commuter Corridor Study Areas
- Highways
- Arterials
- Rail
- County Boundary
- Transportation Management Area
- Corporate Limits

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Map Scale - 1:275,000

INTRODUCTION

Public transportation is a critically important element of the transportation system that expands capacity and options, and addresses the needs of a growing and aging population. The enhancement of the area's transportation network and the strategic development of a multimodal system will not only respond to the needs of the economically disadvantaged, transit-dependent population, but will also benefit the overall population by providing affordable, safe and convenient transportation alternatives that help alleviate congestion, conserve energy resources, and improve air quality.

The public transportation element of the *Destination 2030* Long Range Transportation Plan (LRTP) reviews the existing conditions of transit in the Tulsa Transportation Management Area (TMA) and recommends the expansion of the system (*2030 Public Transportation Plan* map, Page 41), a step fundamental to the implementation of the LRTP goals and policies for the Tulsa Region. During a public outreach process spanning 3 years, TMA residents named and prioritized transit element recommendations to be included in the LRTP. The resulting priorities are listed below.

Resident Priorities

1. Implement a dependable public transportation system that provides greater frequency of service
2. Secure dedicated funding for public transportation in the region
3. Provide for transit infrastructure in land-use development
4. Improve and increase public transportation facilities (bus shelters, bike racks, security, and electronic fare collection)
5. Increase public education regarding the availability of transit service
6. Greatly increase suburban connectivity to the City of Tulsa
7. Promote and develop park-and-ride service and facilities throughout the region
8. Explore and implement commuter/light rail where feasible
9. Consider alternative modes in the transportation system development (carpooling, bike racks on buses, etc.)

EXISTING PUBLIC TRANSPORTATION SERVICES

Historically, the Tulsa region was served by passenger rail and trolley services, but today public transportation service is provided exclusively by bus. Interregional bus service is operated by Greyhound Bus Lines (one of the largest intercity transportation providers in the country), TNM & O, and Jefferson Lines. They operate from a terminal located in downtown Tulsa, providing services from Tulsa to other Oklahoma communities as well as to other states.

Taxi service, an important source of demand-response transportation, is available primarily in Tulsa and Sand Springs, providing mobility for those who may not have other means of transportation available. Rural public transportation is federally subsidized for eligible local transportation providers in rural areas and communities with population less than 50,000 and is available for some communities in the TMA.

Cimarron Public Transit System, a division of United Community Action Program, Inc. located in Pawnee, provides transportation to and from work destinations for Sapulpa citizens. Within the Claremore city limits, transportation is provided by Pelivan Transit Service for health care, shopping, employment, and recreation.

Within the TMA, bus and paratransit services are operated by the Metropolitan Tulsa Transit Authority (MTTA). The City of Broken Arrow also operates the Broken Arrow Bus System (BABS), a small scale system started in 1998 with 1 bus and 2 vans. BABS provides service to Broken Arrow's Seniors Center, Broken Arrow Neighbors, Department of Human Services (DHS), and the southeast campus of Tulsa Community College. Also included are sites for medical needs, shopping, and other service agencies.

The *Existing Public Transportation System* map on Page 45 shows the current MTTA system.

METROPOLITAN TULSA TRANSIT AUTHORITY

MTTA was formed in 1968 when the City of Tulsa purchased the Tulsa bus system from MK&O, a private operator in Chicago. As a public trust governed by 7 trustees appointed by the Mayor of Tulsa, it is authorized to plan, finance, construct, and operate a public transportation system either within or without the boundaries of the City of Tulsa.

In May 1998, MTTA opened the Denver Avenue Station in downtown Tulsa. With the opening of the Memorial Midtown Station in June 2001, MTTA was able to implement a dual-center system. This approach to transit service allowed buses to transfer outside the downtown area, providing better transportation to the south and east parts of Tulsa. MTTA also has a centralized call center, with the objective of providing customer information, reservations and dispatch for all MTTA services. Information throughout the Public Transportation element of the LRTP was provided by MTTA or INCOG unless otherwise noted.

Metropolitan Tulsa Transit Authority's Denver Avenue Station

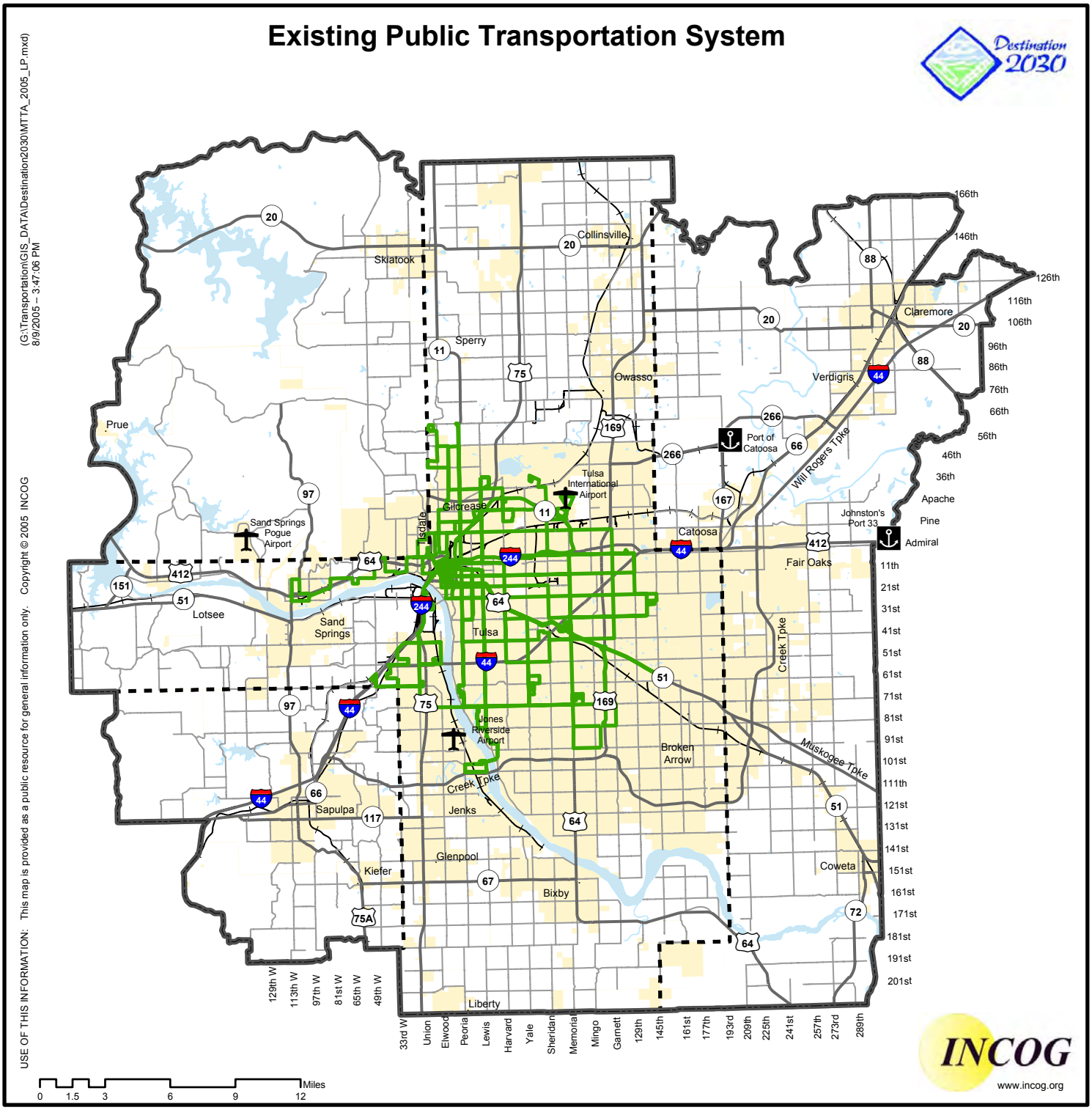
Transit Services

With a fleet of about 100 vehicles, MTTA offers fixed route and paratransit services primarily for most of the City of Tulsa and part of Sand Springs and Jenks. Of these vehicles, 56 traditional transit buses are used for the Fixed Route service. About 32 minibuses/vans and 12 dedicated cars are used for the Lift service. There are approximately 16 fixed routes, 4 nightline routes, and 2 express routes operating 6 days a week. MTTA services consist of the following.

FIXED ROUTE

The fixed route program uses 56 buses. Of these vehicles, 55 traditional buses are used during peak hours and 43 are used during off-peak hours. The service is operated from 5:00 a.m. to 7:00 p.m. on weekdays and 6:30 a.m. to 6:00 p.m. on Saturdays. There is no service on Sundays. Frequency of service varies from route to route, however peak service ranges between 20 - 90 minutes and off-peak ranges from 30 - 120 minutes. The fixed route

Existing Public Transportation System



MTTA Routes

Highways

Arterials

Rail

County Boundary

Corporate Limits

Transportation Management Area

N W E S

Map Scale - 1:410,000

Location Map

buses provide service to major employment, shopping and entertainment locations. The buses are also an important element of the *Ozone Alert!* program, providing 50 cent fares on designated days.

LIFT PROGRAM AND PARATRANSIT SERVICES

The Lift Program offers curb-to-curb paratransit service for people with disabilities who are not able to ride a regular fixed-route bus, have been determined ADA Paratransit Eligible, and are 5 years of age or older. This service utilizes lift-equipped mini-buses and taxi cabs. The Lift Program drivers are trained in the special needs of persons with disabilities and can provide help to passengers getting in and out of the vehicle.

Metropolitan Tulsa Transit Authority's Memorial Midtown Station

NIGHTLINES

MTTA operates 4 nightline services from Monday to Friday. These routes cover the north, south, east, and southeast areas of Tulsa. The bus can deviate ¾ of a mile from the route to pick up passengers who make reservations in advance. Service frequency in each route varies from 1 hour and 25 minutes to 2 hours.

HEALTH CARE TRANSPORTATION SERVICES

Low cost curb-to-curb transportation service is provided to medical appointments for low-income individuals who do not have access to an automobile and who are not satisfactorily served by the fixed-route service.

CONTRACTING SERVICES

MTTA contracts with a variety of local businesses and organizations to provide specialized transportation services, tailored to users' needs, depending on vehicle and driver availability. Service is provided to organizations, such as Community Care (HMO/PPO), DHS-TANF, Southern Hills Retirement Village, INDEX, OASIS, Broken Arrow Medical Center, and Healthy Start.

OTHER PROGRAMS

SafePlace Program, offered in conjunction with Youth Services of Tulsa, takes children to a safe place when they feel they are lost or in danger. Kids can catch any bus and ask to be taken to a safe place.

Bonus Bucks Program is offered to companies of all sizes to help their employees pay for transit fares by providing Bonus Bucks transit vouchers. This program allows employers to pay half or all an employee's monthly bus fares and deduct the cost as a business expense.

Reduced Fare Programs are offered to senior citizens (age 62 or older) and persons with disabilities. A special photo ID card is issued, with proof of age and/or disability, which permits holders to use the city bus system at half price. Senior citizens 75 years of age and older can receive free bus rides for life on MTTA's fixed-route bus system.

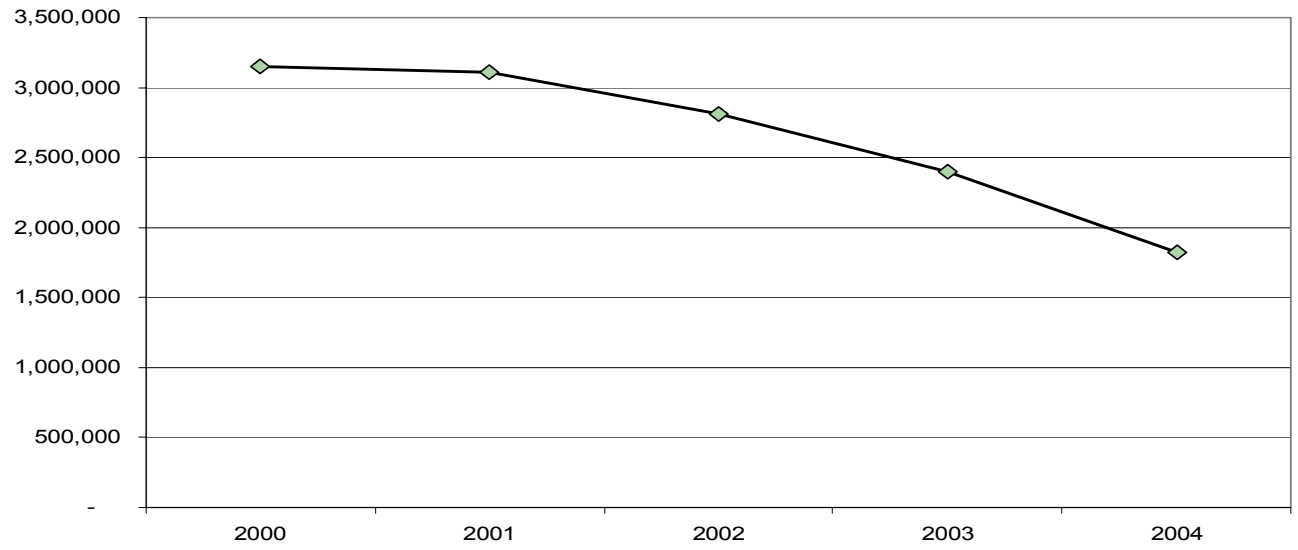
In addition to these public transportation services, INCOG operates *Tulsa Commuter Choice*, a free carpool matching service. A computer system matches customers that live in the same area and have a similar commute. Currently, there are 428 people listed in the database and 63 operating carpools.

Performance Measures

Over the past few years, MTTA ridership has fallen after a period of modest growth. Ridership between 2000 and 2001 was over 3.2 million (*Figure 15*). Economic constraints forced a significant reduction in services implemented in Fall 2002 and Spring 2003. Between 2001 and 2004, MTTA was forced to cut fixed route service hours by almost 50%, and as a result, ridership decreased 41%. Average daily ridership is approximately 6,000 users for the fixed route service and under 650 for the lift service (*Figure 16*).

Another measure of performance is the annual transit vehicle miles of travel, which is the average trip length times the total number of trips. According to MTTA data,

FIGURE 15
MTTA Ridership – 2000 to 2004



from 2000 to 2004, the annual transit vehicle miles of travel decreased 24%, going from 5.17 million to 3.93 million. Total transit vehicle revenue miles decreased from 4.69 million in 2000 to 3.62 million in 2004. The Lift Program only decreased 10% of the total transit vehicle revenue miles from 2000 to 2004, while the fixed route program decreased 30%. Total passenger miles also decreased considerably from 2000 to 2002 when service reductions were implemented (*Figure 17*).

Evaluating costs and revenue can indicate the effectiveness of transit service. According to MTTA data, total operating

FIGURE 16
Daily Average Ridership by Service – 2000 to 2004

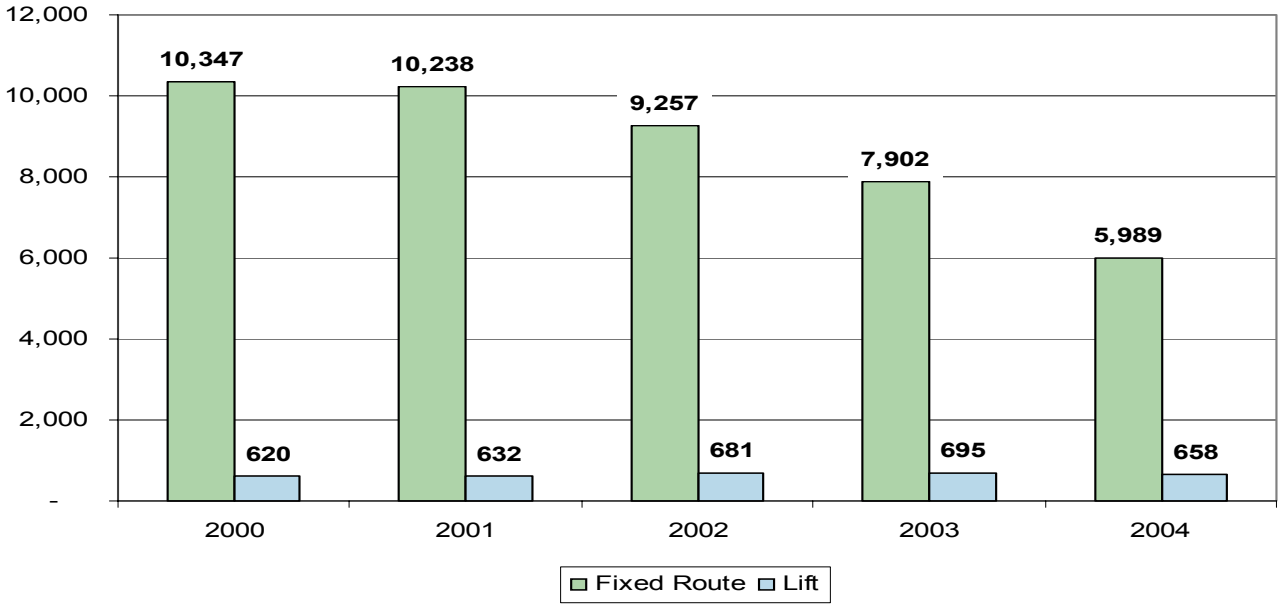
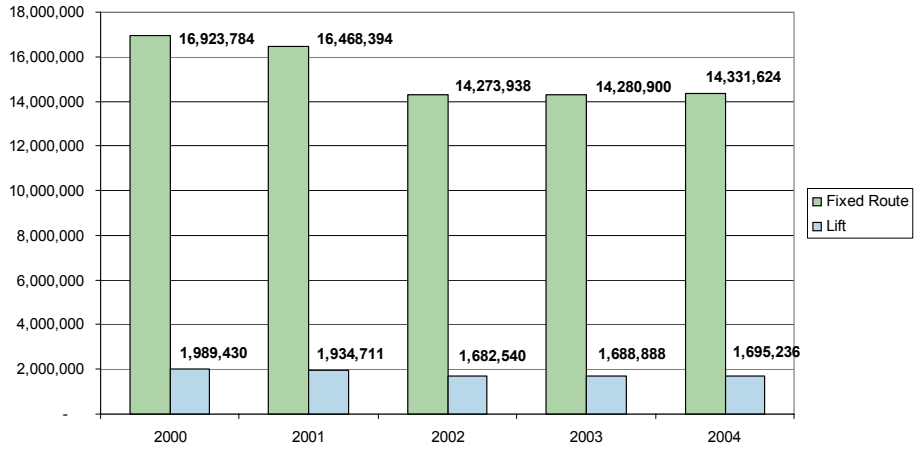


FIGURE 17
Total Passenger Miles by Service – 2000 to 2004



costs for the fixed route service have increased considerably (25%) from 2000 to 2002 and decreased 15% from 2003 to 2004. However, from 2000 to 2004, there was a total increase of 1.37%. The lift service, as well as the nightline service, have remained relatively flat (*Figure 18*). About 72% of the costs are for the fixed-route system and 28% for the Lift Program.

Capital costs have averaged $7.9 million annually. However, in 2001, because of the Midtown Memorial Station construction, capital costs reached $13.2 million.

MTTA has several sources of revenue including fares, advertising, contracts, federal assistance, and City of Tulsa general funds. Total revenues from 2000 to 2004 averaged $16.9 million. From 2000 to 2001, revenues increased 39% but decreased 24% from 2001 to 2003.

In 2004, total revenue reached $16.2 million, a 2% increase from the previous year. MTTA revenue projections from 2006 to 2010 assume an annual growth of 3.2%. MTTA projects a steady increase for each revenue source (*Figures 19a and b*).

FIGURE 18
Total Operating Cost by Service – 2000 to 2004

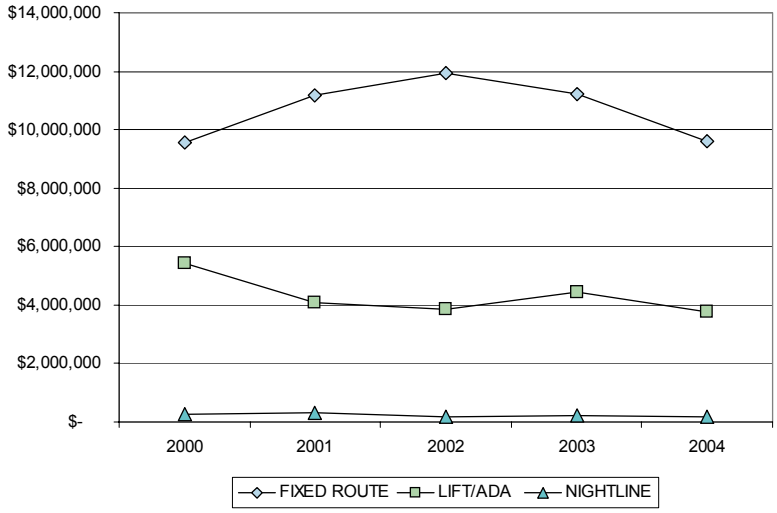


FIGURE 19A
2000 to 2004 Average Revenue by Source

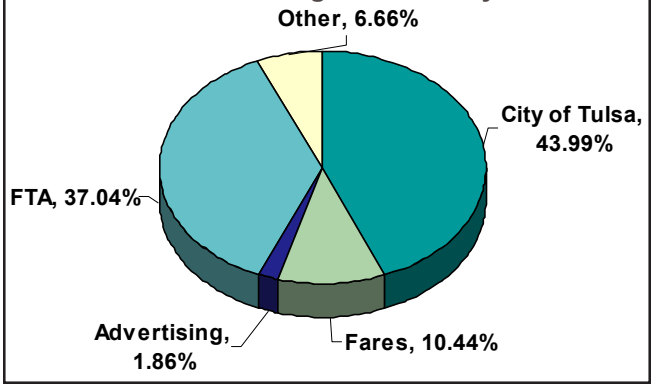
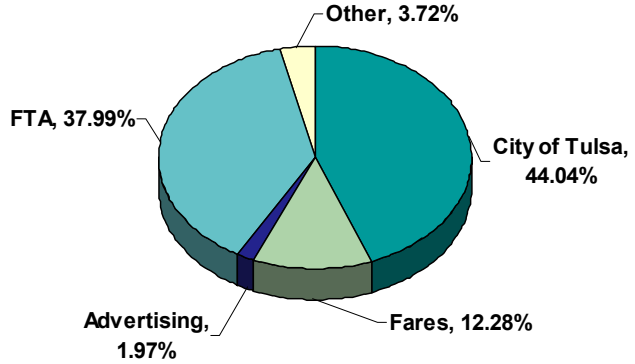


FIGURE 19B
2006 to 2010 Projected Revenue by Source



Public Opinion

In December 2002, for the purpose of analyzing the existing transit network, a telephone survey was undertaken to identify Tulsa residents' perceptions and attitudes about transit. The random sample of 201 households provides data that may be projected to the total population with an error range of +/- 7% and a 95% confidence level.[2]

MAJOR FINDINGS[3]

From those surveyed, 88% believe that "a good public transportation system is important to the economic vitality of the area." Most people (64%) say they live 4 or more blocks from a bus stop, have no bus available, or simply do not know where a bus stop is in relation to where they live.

Only 10% of those interviewed have someone in the household who has used the bus system within the last 6 months. Sixty-four percent of Tulsa residents believe that people use transit due to lack of choice. Other major reasons given for transit usage include: it saves money (29%); and is convenient for those who use it (19%). Many suggested improvements for MTTA were supported, with the majority of the respondents (69%) choosing more bus shelters and benches (*Table 4).*

TABLE 4
Most Desired Transit Improvements

IMPROVEMENT	PERCENT
More bus shelters and benches	69
Express service to major employers	67
Service to outlying areas	63
Better route and schedule information	56
Make the bus system easier to understand	55
Light rail transit where feasible	54
More frequent bus service	53

Forty-eight percent of the people surveyed say they are very (15%) or somewhat likely (33%) to begin riding MTTA buses if the improvements they believe are important are made. Twelve percent say they are somewhat unlikely and 40% say they are very unlikely to use transit. When it comes to willingness to support transit with tax dollars, 52% would be somewhat or very likely to vote for funding to provide transit improvements. Thirty-four percent of the respondents have experience using transit in other cities in the previous 5 years, and 41% say they have ridden light rail in another city.

Many residents have difficulties finding transportation. Twelve percent have a member of the household who has a health condition making it difficult to travel in the area. Because of lack of transportation, some reported having someone in their household who has experienced difficulty seeking employment (9%) and some have reported having someone stranded in their household (18%). Residents that experienced difficulties with transit access were more likely to say they are willing to ride the bus if improvements are made. Detailed survey results, tables and findings, and a copy of the survey questionnaire can be found in The New System Design plan in the *Supporting Documents*.

[2] Tulsa Transit New System Design - Perteet Engineering, Inc, September 2003
[3] Ibid

COMPARABLE SYSTEMS IN OTHER COMMUNITIES

For the purpose of evaluating the performance of MTTA's service, twelve cities of similar size, based upon their population, were identified for comparison. The comparison was made using the National Transit Database for 2003, the year of most recent available data (*Table 5)*.

Most of the transit systems in comparable communities have a higher percentage of revenue sources when compared to MTTA. Eight of the 12 systems used for comparison have a dedicated source of funding. It is noteworthy that comparable transit systems with the highest amount of dedicated funding also generally have the highest annual passenger trips and annual passenger miles. Because MTTA has no dedicated funding source, passenger trip and mile levels are far below the median.

Most of the dedicated funding comes from sales taxes, but some comes from property taxes, income taxes and/or gasoline taxes. Using the National Transit Database, INCOG identified several other transit agencies using local taxes dedicated at their source for operating funds.

In 2002, the National Transit Database (NTD) ranked the top 10 transit agencies considered the most cost-effective transit providers in the nation that have achieved the highest passenger growth rates. The majority of the transit providers listed by the NTD have competitive contracts. Instead of cutting services, increasing fares and demands for subsidies, these transit service providers have chosen to utilize competitive contracting to provide transit services in a more cost-efficient manner. The private sector has been very successful in reducing costs and increasing the quality of services provided.[4] Competitive contracting services have resulted in operating cost savings well below public costs, increased ridership on the contracted routes, increased bus service levels, and improved service resulting in reduced passenger complaints.

TABLE 5

Comparable Communities Transit Systems

City	Service Area Population (UZA)	Service Area (sq. mi.) (UZA)	Annual Passenger Trips (Millions)	Annual Passenger Miles (Millions)	Annual Vehicle Revenue Miles (Millions)	Total Vehicles	Dedicated Funding (Thousands)
Wichita, KS	422,301	526	2.51	11.31	3.19	42	-
Toledo, OH	426,230	149	4.43	20.64	4.79	155	$6,217
Colorado Springs, CO	466,122	197	3.36	12.3	3.62	50	-
Albuquerque, NM	498,000	124	7.8	21.41	5.54	135	$4,537
Omaha, NE	544,292	193	4.7	16.5	3.9	114	$9,499
Fresno, CA	554,923	133	11.3	38.1	4.9	83	$43
Tulsa, OK	**558,329**	**261**	**3**	**16**	**4.2**	**66**	**-**
Long Beach, CA	573,734	96	26.37	71.35	7.44	169	$26,143
Tucson, AZ	720,425	291	16.87	62.44	8.81	147	-
Oklahoma City, OK	747,003	322	4.12	21.42	4.45	80	-
Kansas City, KS-MO	756,557	396	13.55	53.65	10.16	264	$26,909
Cincinnati, OH	845,303	262	24.14	132.21	13.92	359	$38,651
Sacramento, CA	1,393,498	369	28.9	124.7	12.6	197	$61,534
MEDIAN	558,329	261	7.8	21.42	4.85	141	$17,821

[4] An Analysis of Proposed CTA Service Cuts: New Public Sector Management Alternatives, Anthony M. Pagano, May 1997.

PROPOSED PUBLIC TRANSPORTATION SERVICES

Several long-range studies and reports have been completed, including the *Tulsa Transit New System Design* and the *High Speed Passenger Rail Service Study*. In addition, a commuter rail service study has also been contemplated.

Tulsa Transit New System Design

In October 2002, MTTA conducted a study to identify a modified design for its public transit service network. With this study, MTTA aimed to restructure and revitalize public transportation in the Tulsa region and be an element of the City of Tulsa's plans to redevelop and stimulate downtown Tulsa.

The New System Design plan was redesigned and developed to, initially, operate with existing resources and improve travel times to major destinations, increase ridership and operating cost efficiency, support and promote the initiatives included in the City of Tulsa's visioning process, and serve as the basis for an improved service network as available funding resources expanded in the future.

A detailed number of demographic analyses were conducted to assist in the identification of important transit corridors. Regions of the Tulsa region with high concentrations of demographic sub-groups were identified as significant sources of transit riders. These sub-groups included households having no access to private vehicles, households with incomes below the defined poverty level, elderly citizens, youth (less than 16 years old), non-English-speaking individuals or households and areas having a higher-than-average population density.

The sub-groups were outlined on the map of the region and then overlaid with existing and proposed bus route alignments to make sure that the transit dependent population was represented in the modified service system. Existing transit rider groups were also outlined to minimize impacts and ensure they would continue to be served by the new system.

Current MTTA riders include a significant number of hospitality industry employees and low-income residents. A second major commuter group is represented by the healthcare industry. These commuters tend to live in similar areas of the region. Transit access to other major employment locations was also maintained for the convenience of another significant proportion of MTTA riders.

It was determined that the network should concentrate on employment and retails centers, as well as existing transit facilities, while taking advantage of the grid street network. This approach was the basis for the design of the system of routes included in the modified route network.

The modified system design combines pure grid-designed routes following Tulsa's existing street grid network, straight-line routes beginning and ending at the Tulsa CBD and L-shaped routes connecting neighborhoods and frequent destinations with the 2 bus stations – Denver Avenue Station and Memorial Midtown Station

The urban system is composed of 22 routes serving the City of Tulsa, Jenks, and Sand Springs. The system is conceived to operate between 5:30 a.m. and midnight on weekdays, between 7 a.m. and midnight on Saturdays, and between 8 a.m. and 11 p.m. on Sundays and holidays. Frequency of service varies from 2 trips per hour to more frequently depending on peak hours. Operating speeds were assumed to be 15 miles per hour with the exception of the fast track service via the Broken Arrow Expressway that is assumed to operate at 25 miles per hour over its entire alignment.

The demand response service, in the demand response zones (*Figure 20*), is assumed to operate at an average speed of approximately 10 miles per hour. These zones have insufficient transit demand potential for fixed route services and, therefore, transportation is provided by advance request within the same zone or by connecting individual origins within each region to the nearest transfer station or major transfer points.

These MTTA buses, added to the fleet in 2005, are more fuel-efficient.

FIGURE 20
Recommended Demand Response Service Zones

Sixteen routes serve the Denver Avenue Station while 10 routes serve the Memorial Midtown Station. Five routes serve both stations and only 1 does not serve either transfer station.

Annual variable operating costs for the urban network are estimated at $17.6 million in constant 2003 dollars. Another $4.3 million represents the system fixed costs, a total annual operating cost of $21.9 million (in 2003 dollars) for the urban network.

The urban system provides approximately 485,000 annual platform hours of service, using 95 buses in service during peak periods and 75 buses during weekday off-peak periods. Refer to *Table 6* for a summary of the urban network.

Service to a number of communities adjacent to the City of Tulsa is possible through a secondary network (*2030 Public Transportation Plan* map, Page 41), which is to be funded by the individual communities that it is designed to serve.

This secondary, suburban network consists of routes serving 7 additional suburban corridors:

- Catoosa
- Owasso / Collinsville
- Skiatook
- Sapulpa
- Jenks / Glenpool
- Bixby
- Broken Arrow / Coweta

The suburban routes frequency of operation is 30 minutes during peak hours and hourly during off-peak hours. Owasso, Jenks, Bixby and Broken Arrow routes are designed to operate from 6 a.m. to 8 p.m. weekdays, from 7 a.m. to 7 p.m. on Saturdays and from 8 a.m. to 6 p.m. on Sundays (*Table 7).* Reduced services are offered to Catoosa, Skiatook and Sapulpa—communities farther away from the City of Tulsa.

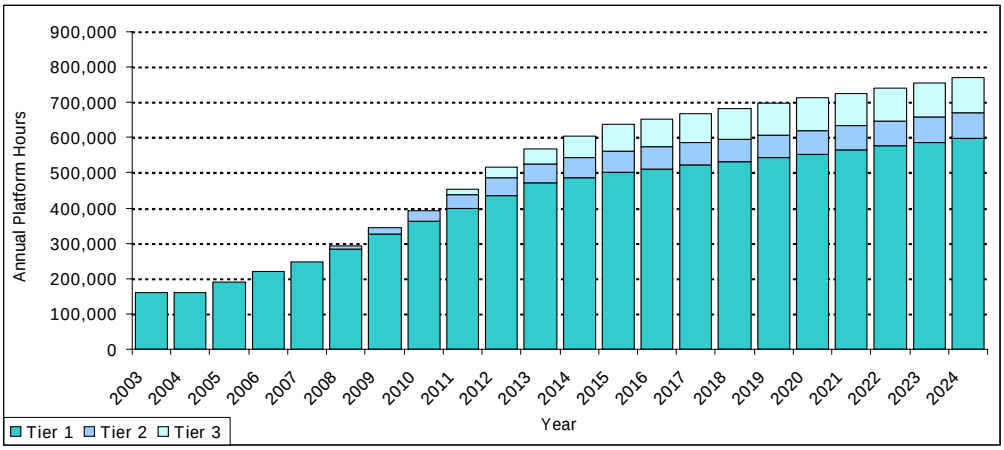
TABLE 6
Urban Network Summary

Service Span	Weekday	5:30 a.m. to midnight
	Saturday	7 a.m. to midnight
	Sunday	8 a.m. to 11 p.m.
One-Way Route Miles		249.1
Revenue Hours	Weekday	1,345
	Saturday	1,101
	Sunday	965
Maximum Vehicles	Weekday	95
	Saturday	72
	Sunday	69
Variable Operating Cost	Weekday	$13,300,000
	Saturday	$2,200,000
	Sunday	$2,100,000
Fixed Costs		$4,300,000
Total Cost		$21,900,000

TABLE 7
Suburban Network Summary

Service Span	Weekday	5:30 a.m. to 8 p.m.
	Saturday	7 a.m. to 7 p.m.
	Sunday	8 a.m. to 6 p.m.
One-Way Route Miles		161.9
Revenue Hours	Weekday	410
	Saturday	217
	Sunday	168
Maximum Vehicles	Weekday	43
	Saturday	19
	Sunday	19
Variable Operating Cost	Weekday	$4,300,000
	Saturday	$433,000
	Sunday	$380,000
Fixed Costs		Included in urban system costs
Total Additional Cost		$5,126,000

FIGURE 21
Proposed Service Implementation Schedule



The new System Design is recommended for implementation in relatively small incremental stages beginning in 2005, as depicted in *Figure 21.* Tier 1 includes all the urban routes. Tier 2 includes the suburban routes connecting to Jenks, Bixby, Broken Arrow and Owasso. Tier 3 includes the suburban routes connecting to Catoosa, Skiatook, Sapulpa, Collinsville, and Coweta.

INCOG compared the New System Design with the existing service provided by MTTA, calculating the employment and population served by the 2 systems using the Traffic Analysis Zone (TAZ) data (*Table 8*).

With the implementation of the New System Design, almost 50% of the TMA population and almost 80% of the employment will be served by public transportation with a quarter-mile radius. Detailed individual routes and detailed operation, costs, and implementation plans can be found in the Tulsa Transit *New System Design – Report of Findings* in the *Supporting Documents.*

Commuter Rail Service

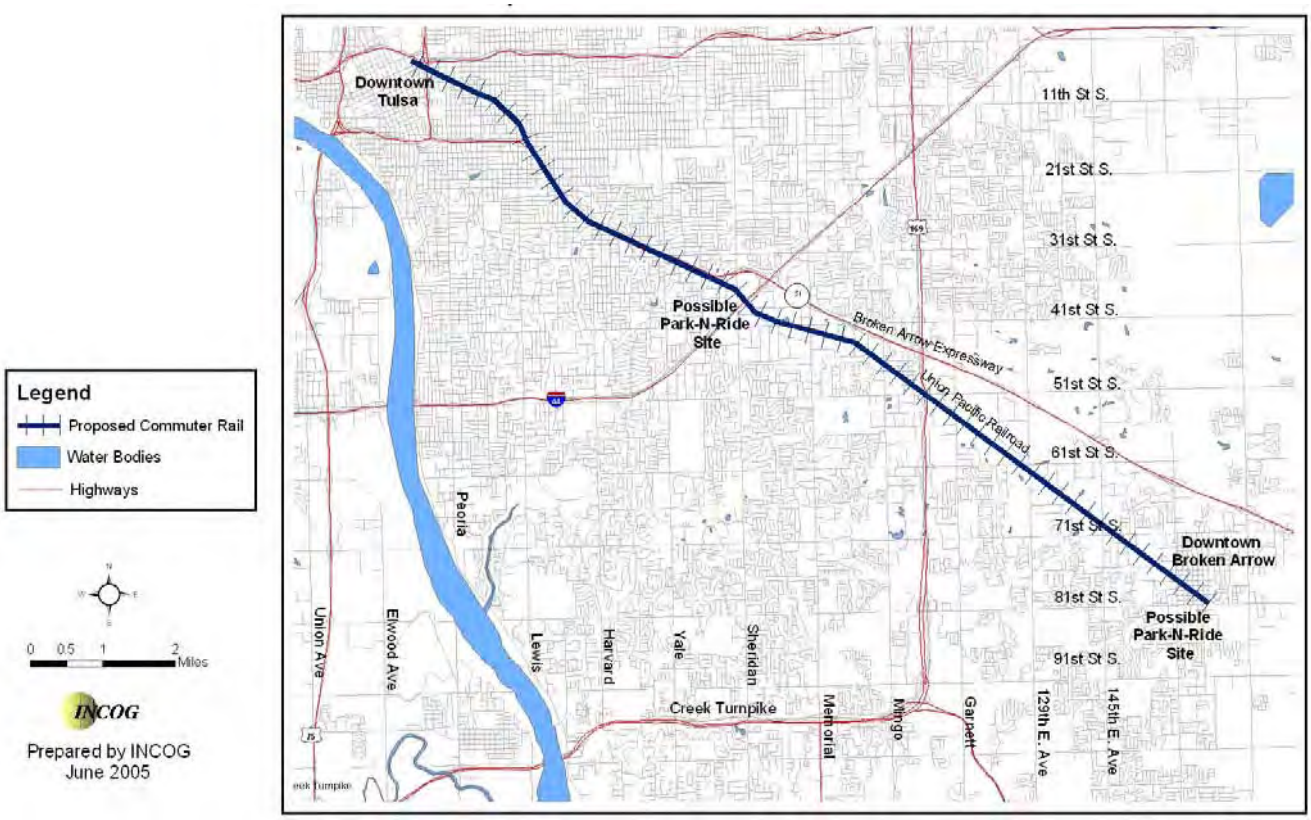
A commuter rail line between Broken Arrow and downtown Tulsa has been contemplated for over 10 years. Detailed engineering studies to determine the feasibility of the plan have not been conducted but the Regional Mobility Plan, a study developed by consultants in June 1993 for the MTTA, recommends implementation of the system. According to the plan, enough riders would likely be attracted to the system to support the capital and operating investment required to build it.

Figure 22 shows the proposed location of the commuter rail line. The system would have a total of 14 miles running from the vicinity of Main Street in Broken Arrow to the vicinity of Union Station in downtown Tulsa. Park-and-ride lots would be located at the Broken Arrow Station and also at an intermediate stop located near Skelly Drive. The bus system and the paratransit system would support

TABLE 8
Existing and Future Transit Route Analysis Based on a ¼ Mile Buffer

Existing Service		New System Design	
Employment 2000	Population 2000	Employment 2030	Population 2030
313,400	325,600	370,300	422,400

FIGURE 22
Proposed Broken Arrow Commuter Rail



the commuter system connecting the lines with the 3 rail stations, providing convenient feeder transit service.

The proposed commuter rail system would operate during peak periods with 3 trips inbound in the morning and 3 trips outbound in the evening. Service levels would depend on achieved ridership. In 1993, when the report was prepared, preliminary suggested capital costs, based on experience in other cities, ranged from $25 million to $35 million. Currently the capital cost estimate is $40 million and the operation and maintenance cost estimate over the life of the plan is $66 million.

These costs included upgrading the track and signals to Federal Railroad Administration standards, building 3 stations, and buying or leasing 5 vehicles. Operating costs would be in the range of $2 million to $3 million annually.

To operate passenger service on these lines, operating agreements would be required since the tracks are currently being used for freight operations by Union Pacific and Burlington Northern Railroads.

In addition to the Broken Arrow Commuter Rail corridor, several other rail corridors that parallel commuter corridors in the TMA should be analyzed to determine the feasibility of implementing rail, bus rapid transit, high occupancy vehicle lanes, or high occupancy toll alternatives to highway expansion. Those corridors include: the Arkansas River West Bank rail line to Jenks and Bixby to relieve US-75; a northeast Tulsa rail line to the Tulsa International Airport, Catoosa, and Claremore; the SK&O rail line to Owasso, Collinsville and the Cherokee Industrial Park to relieve US-169; the rail line to Sand Springs parallel to US-412; and the rail line to Sapulpa parallel to I-44.

TABLE 9
Travel Time Comparisons (minutes)

	Phase	Signal Phase	Travel Time	Reduction in minutes	Estimated Cost (millions)	Total Cost (millions)
Tulsa to OKC [1]			159		26	
Tulsa to OKC [2]	1		143	16	26	52
Tulsa to OKC [3]	2	1A	130	13	56	108
Tulsa to OKC [4]	3	1B	114	16	35	143
Tulsa to OKC [5]		2	103	11	10	153

[1] Includes initial track resurfacing and the purchase of one conventional train set.
[2] Includes the completion of Construction Phase 1.
[3] Includes the completion of Construction Phase 2 and signal installation Phase 1A.
[4] Includes the completion of Construction Phase 3 and signal installation Phase 1B.
[5] Includes the purchase of two additional train sets and the implementation of Cab Signal Control.
Source: High Speed Passenger Rail Feasibility Study – Final Summary Report - Carter-Burgess, March 2001

High Speed Passenger Rail Service

In March 2001, ODOT completed a study assessing the feasibility of providing high speed passenger rail service throughout the state of Oklahoma and connecting the state with the national passenger rail network. The findings of this study recommended long-term expansion service between Tulsa and Oklahoma City, providing passenger rail connection between the 2 metropolitan areas of the state, and promoting the development of an additional connection to the national passenger rail system east of Oklahoma. Two possible eastern corridors were recommended, Kansas City and St. Louis, with Kansas City being the most feasible since it could potentially be implemented on existing rail routes with only average improvements.

The implementation of a desirable connection service to St. Louis would require vast capital improvements and would only become more feasible if the State of Missouri implemented service between Springfield and St Louis.

The distance between Tulsa and Oklahoma City is slightly over 100 miles, so only 1 stop, in either Stroud or Bristow, is being considered.

The State owns over 80% of the existing track between Tulsa and Oklahoma City, making their rail connection competitive with other transportation modes. Improvements and realignments on the tracks would be required, resulting in a total travel time of 1 hour and 45 minutes using conventional equipment at a speed of 79 mph. The total cost is anticipated to be approximately $139.5 million. According to the study, estimated potential daily ridership for the Oklahoma City – Tulsa corridor is 600 passengers/day.

Services would be implemented incrementally, with a 2 hour 39 minute initial service implemented at the outset. This initial service would be either a basic peak day or daily service with 1 train set providing 1 run in each direction per day of operation. The estimated time of completion for all 3 phases is approximately 7 years. A summary of the travel times and anticipated costs associated with each phase of development are shown in *Table 9*.

Table 10 shows passenger train travel times. The Tulsa to Kansas City corridor is 267.8 miles in length and has a projected travel time of 4 hours 44 minutes with an operating speed of 54 mph, using conventional equipment. Estimated ridership is 700 passengers daily. The implementation of this service is anticipated to take 12 to 18 months and is recommended to be completed after the implementation of the Tulsa to Oklahoma City service.

TABLE 10
Passenger Train Travel Time

Destination	Trip Length (Miles)	Travel Time (Hours, min.)	Average Speed	Projected Daily Ridership
OKC to Tulsa	117	1h, 49min.	64.8	600
Tulsa to Kansas City (MO)	256	4h, 44min.	54	700
Tulsa to St. Louis (MO)	428	8h, 39min.	49.5	500

The Tulsa to St. Louis, Missouri would have a travel time of approximately 9 hours and 30 minutes using conventional equipment in a 400 mile corridor. Estimated ridership is 500 passengers daily.

PROJECTED TRENDS

Various trends play an important role in shaping the future of the transportation system and should be considered when addressing public transit issues. Social factors, environmental issues, economic circumstances, and personal travel behavior are some of the trends that influence the public transportation system.

Social factors influencing transit include population growth, age, employment and the region's development patterns. The region growth, population and employment are increasingly dispersed at activity centers throughout Tulsa and the Metropolitan Area. Tulsa's population is aging and, therefore, more individuals 65 years and older are likely to be using public transit.

From 1995 to 2000, travel purpose has become diversified. The percentage of home trips has remained flat while the percentages of work and shopping trips have increased. Social and recreational trips have decreased somewhat. Public transportation is used primarily for trips to work, so the increase in other trip destinations, as well as the fact that trips are increasingly being spread throughout the day rather than concentrated in traditional morning and evening rush hours, present a challenge to the traditional transit system.

Transit improvements and any resulting reduction in traffic can play an important role in overall air quality. Transit ridership usually increases approximately 30% on *Ozone Alert!* days. According to the Oklahoma Department of Environmental Quality, the region's air quality has improved with only 9 exceedences (days) of the Environmental Protection Agency's (EPA) 8-hour ozone standard in 2003 and no exceedences in 2004. The TMA remains in attainment for national air quality standards.

Fixed-route bus service is expected to continue to carry the largest share of passengers. The demand-response service (lift program and other paratransit service providing curb-to-curb assistance) ridership is continually increasing, as are vehicle miles of travel and operating costs per vehicle.

To meet the increasing demand and to revitalize public transportation in the region, MTTA intends to expand and restructure its transit system, as well as enhance its partnerships with the surrounding communities.

ISSUES AND ACTIONS

Public transportation is essential for the accessibility and mobility of all residents in the region. Although it serves a relatively small segment of the population, the demand for transit services is expected to increase and evolve over the next 2 decades. A number of actions should be taken to meet the challenges and opportunities that are anticipated as the TMA grows and advances.

Dedicated Funding

- Establish a dedicated local source of transit funding that is independent of discretionary appropriations and thus can be used to develop long-term, multiyear capital and operating programs/plans; the funding should be collected at a regional level to support public transit services at a regional scale
- Identify and advance new and innovative revenue sources, particularly dedicated fuel tax and utility fees
- Explore the feasibility of utilizing competitive contracting to provide transit services in a more cost-efficient manner
- Expand partnerships with universities, colleges and businesses to increase revenue
- Be more aggressive in pursuing state and federal grants
- Exercise the option of “flexing” federal transportation funds, as appropriate, to fund public transportation
- Take advantage of opportunities to incorporate transit capital improvements into broader transportation projects
- Implement the *New Transit System Design Plan* in an incremental process, as funding is available

Expanded Public Transportation Service

- Expand the fixed-route system to suburban areas of the region for implementation of a regional service, according to the New System Design plan
- Explore and pursue, where feasible, development of Bus Rapid Transit or commuter rail service in various corridors in the TMA, and passenger rail service to areas outside the TMA
- Encourage public transportation agencies to take a proactive and early involvement in the regional and local land-use development process to integrate public transportation elements into future developments and to preserve corridors as much as possible

Enhanced Services

- Establish and maintain a development strategy of transit services to meet a variety of travel needs/travel patterns. The strategy should include:
    - Local fixed-route/fixed-schedule service
    - Timed-transfer routes providing cross-region travel with minimal transfer delays
    - Demand response/subscription service providing door-to-door service to mobility-impaired citizens as well as to low-density/rural areas of the region
    - Express-route service for long distance, traditional commuters to the central business district and other major employment centers
    - A vanpool program for long-distance, traditional commuters to the central business district and/or outlying employment centers
    - Commuter rail service, beginning in the US-64/SH-51 (Broken Arrow Expressway) corridor, to introduce rail transit to the Tulsa metropolitan area pending completion of a feasibility analysis
    - Expanded service operation to cover early morning, evening, and nighttime; increased service on Saturdays; and the introduction of Sunday service
    - Maintain services to the Tulsa International Airport Terminal
- Establish park-and-ride facilities on the fringes of the region to provide convenient access to the public transit system
- Provide convenient pedestrian and bicycle access to transit facilities and continue implementation of the “bike-on-bus” program
- Coordinate a sidewalk improvement program, emphasizing access to bus stops and sidewalk connections from bus stops to major destinations
- Cooperate in statewide/national efforts to return passenger rail service to the Tulsa region; provide convenient access between any future passenger rail station and the local commuter rail and other public transit services
- Continue to develop and expand Demand-Response service
- Expand the role of the existing transit call center and actively expand contract services

Customer Service

- Continue the implementation of technology enhancements such as real-time passenger information, automated fare payment, etc., as availability and resources allow
- Install streetlights as needed along pedestrian routes to bus stops to enhance security for early morning and evening riders
- Encourage, through appropriate policies and procedures, site design/layout of new development (or redevelopment) that is "transit friendly", *i.e.,* incorporates shelters/ passengers waiting areas, provides safe pedestrian passages, and is oriented to the street to minimize walking distances
- Increase efforts to engage and involve the general public, business leaders, and elected officials in transit issues

INCOG staff discuss the LRTP process with MTTA riders during an open house in May 2005.

AMENDMENT: Coordinated Service

The following were added during the development of the Coordination Transportation Plan for the Tulsa Region, as required by federal law.

- Develop a Mobility Management Center - one scheduling and dispatching center for all trips
  - Community based van program (give accessible vans to non-profit organization for their use if they also transport elders/disabled) estimated $55,000 per van
  - Integrate providers to increase sharing of vehicles, drivers, passengers
  - Joint Service Planning: reduce overlapping, fill in underserved gaps
  - Coordinate with private sector: joint scheduling and sharing of vehicles
  - On-line ride reservation system and companion call-in center
  - Assist users to plan trips with multiple stops and chain trips
  - Projects that utilize technology to share ride demand data between agencies and nonprofits while maintaining rider privacy
  - Allow coordinated trip scheduling and billing among and between school districts, transit agencies, and human service agencies
  - Utilize technology to connect providers to transportation system dispatch
  - Hire drivers to be shared among providers
  - Help small transportation providers with developing quality programs
  - Provide training classes or expand existing programs for new and existing operators, staff, and travel hosts including sensitivity for affected populations
  - Simplify the ability for riders to use multiple systems (such as universal pass/smart card), instead of using different vehicles for different purposes
  - Allow bulk purchase of vehicles and equipment
  - Provide maintenance for all vehicles in pool

- Increase human service agencies capacity for scheduled services

- Encourage provision of Travel Hosts to assist people making transfers or have other transit concerns

- Create and implement an emergency/disaster plan and an inclement weather plan that address the need of those without personal transportation

- Allow mixing of funding so agencies aren't restricted to serving specific target populations or specific destination types

- Increase the ability of school districts and churches to be part of the community transportation provider pool