

Lawton Area Transit Service Bus Routes Study

Executive Summary



Prepared for:



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Executive Summary

The Lawton Metropolitan Planning Organization (LMPO) is the designated transportation planning agency for the Lawton urbanized area. Part of the



LMPO's responsibility is to provide planning for public transportation services operated by the Lawton Area Transit System (LATS). The LMPO contracted with LSC Transportation Consultants, Inc. to provide transit planning services to ensure LATS is meeting the needs of the community. This study not only provides an evaluation of existing transit service, but also looks at underserved and unserved markets based on demand for the next five years.

PURPOSE OF THE STUDY

LATS began service in 2002 and ridership has increased significantly, from 182,000 passengers in 2003 to 445,000 passengers in the 12 months ending March 2015. Although the use of LATS has more than doubled since service began, a detailed evaluation of the service has not been completed. The purpose of this study is to analyze the existing LATS transit service, identify and recommend improvements that should be made to the existing service, and plan future improvements to meet changing needs.



Like most communities, Lawton is dynamic. Neighborhoods change, new growth occurs, and demographic changes take place. Local transit systems must continually adjust to meet the changing market conditions. The service area analysis identifies the changing transit demands in Lawton and identifies unserved or underserved areas that should be considered for new or enhanced services. The evaluation of existing service identifies portions of the system that perform poorly and may indicate a reallocation of resources.

More specifically, current service was evaluated and compared to the current demand and need in the study area to determine how service enhancements should be structured. The final plan recommends changes to LATS transit

service, including recommended modifications to existing service, as well as any proposed new service.

STUDY APPROACH

As in many regions, LMPO and LATS are reexamining public transit services and are seeking to find the most effective means of providing those services. A key element in the plan is to clearly evaluate the needs of the Lawton residents throughout the study area and determine whether or not the existing service can meet this unmet need in a cost-effective manner. The overall approach includes the collection of data, evaluation of current operations, development of alternatives to improve service, public involvement, and recommendation of specific system improvements. Feedback from LATS and LMPO staff, the Steering Committee, and the public is a key element in creating an effective transit plan, which was focused on heavily throughout the study process.

VISION AND GOALS

An important element of evaluating existing transit service and developing a plan to improve the service is to identify a vision, goals, and objectives. The vision and goals will set the direction for the outcomes to be achieved by the local transit service and the objectives will help determine how well those goals are achieved. LATS has adopted the following vision:

To safely provide friendly and efficient public transportation service to the citizens and visitors of the Lawton-Ft. Sill community and to enhance the quality of life by continually improving the service.

Goal 1: Effectively serve the population of Lawton.

- Objective 1a: Serve 85 percent of the population living in areas identified as having the greatest transportation needs.
- Objective 1b: Serve major destinations including Ft. Sill, medical facilities, shopping centers, schools, and major employment centers.
- Objective 1c: Provide service Monday through Saturday.
- Objective 1d: Add service to the Industrial Park.
- Objective 1e: Develop the Downtown Transit Center or an alternate Transfer Center location with passenger amenities and protection from the weather.
- Objective 1f: Improve stops to meet accessibility standards.

Goal 2: Operate LATS efficiently.

- Objective 2a: Increase fixed-route productivity to a system average of 15 passengers per hour.
- Objective 2b: Increase productivity on individual routes to an annual average of at least 10 passengers per hour.
- Objective 2c: Increase demand-response productivity to 2.8 passengers per hour.
- Objective 2d: Operate fixed routes so they never leave early and are no more than five minutes late at least 95 percent of the time at all designated time points.
- Objective 2e: Adjust service schedules to meet changing levels of demand and achieve productivity goals.

Goal 3: Publicize and promote LATS.

- Objective 3a: Improve descriptive names of routes to make it easier for passengers to understand.
- Objective 3b: Set up and implement Google Transit data.
- Objective 3c: Identify and increase marketing to specific target markets such as school and university students.

Goal 4: Establish sustainable funding for LATS.

- Objective 4a: Identify private sector funding partners including major employers.
- Objective 4b: Develop a student pass program with Cameron University and the Great Plains Technology Center.

PUBLIC OUTREACH

A key element in the plan is to provide opportunities for participation in the process. As part of the planning process, an onboard survey of LATS passengers was conducted over a period of two days. There were 557 responses received through the onboard survey out of 1,559



passenger boardings, yielding a 36 percent response rate. Table ES-1 shows the response rate by route. The highest response rates came from the Red 1 (52 percent) and Red 2 (65 percent) Routes, and the lowest response rate came from the Green 1 (15 percent) and Yellow East (15 percent) Routes.

Table ES-1 Onboard Survey Response Rate by Route				
Route Name	Direction	Survey Respondents	Boardings	Response Rate
Blue 1	Counter Clockwise	37	174	21%
Blue 2	Clockwise	88	186	47%
Green 1	Counter Clockwise	17	114	15%
Green 2	Clockwise	65	158	41%
Orange 1	Counter Clockwise	29	101	29%
Orange 2	Clockwise	33	87	38%
Red 1	Counter Clockwise	110	210	52%
Red 2	Clockwise	113	174	65%
Yellow East		25	162	15%
Yellow West		40	193	21%
TOTAL		557	1,559	36%

Source: LSC Onboard Survey, 2015.

Passengers were asked to rate the quality of service provided by LATS. The choices were Poor, Fair, Good, and Very Good. Each category was given a numerical value from one to four (one being Poor and four being Very Good), with the average response then calculated for each attribute. The middle point of responses would be 2.5, so an average score of 3 or higher would indicate positive perceptions for that particular attribute. The responses from the onboard survey are shown in Table ES-2. LATS received a score of 2.7 or more on all of the attributes, and an average score of 3.0 across all eight attributes. The attributes having the highest score were appearance of drivers (score of 3.3), schedules easy to understand (score of 3.2), and friendliness of drivers (score of 3.2). The attributes scoring a low value were hours of operation (score of 2.7), condition of buses (score of 2.9), and buses on time (score of 2.9).

Table ES-2 Quality of Service	
Attribute	Average Score
Appearance of drivers	3.3
Schedules easy to understand	3.2
Friendliness of drivers	3.2
Reliability of service	3.1
Location of bus stops	3.0
Buses on time	2.9
Condition of buses	2.9
Hours of operation	2.7

Source: LSC Onboard Survey, 2015.

Meetings were held with LATS drivers to obtain input regarding issues and changes to consider. The service options which were developed were provided to drivers to obtain input regarding specific options.

A stakeholder forum was held during November 2015 to obtain input from community members regarding service changes to consider. The input from the stakeholder forum supplemented the information obtained through the onboard survey effort.

SERVICE RECOMMENDATIONS

The recommended service plan is intended to guide LATS in implementing service improvements. As the recommendations are implemented, refinements may be needed to address operational issues. These may include changes in the route alignment, schedules, interlining, and bus stop locations. Changes in community conditions may require adjustments to the plan as well. Implementation of the plan should consider community needs and operational requirements at the time the changes are made.

The recommended service plan is illustrated in Figure ES-1 and presented in Table ES-3. The recommended service plan includes 10 fixed routes with designated stops, operating Monday through Friday from approximately 6:00 a.m. to 7:30 p.m., and Saturday from approximately 9:00 a.m. to 7:30 p.m.

Compared to the status quo, the recommended service plan would reduce Saturday service by approximately two hours because of low demand for service and low ridership, which will in turn improve productivity across the entire system. Routes 3 through 10 would run hourly Monday through Saturday during operating hours, while Routes 1 and 2 would each be a half hour in length and would be interlined to run hourly. A description of each of the recommended service plan routes is included below:

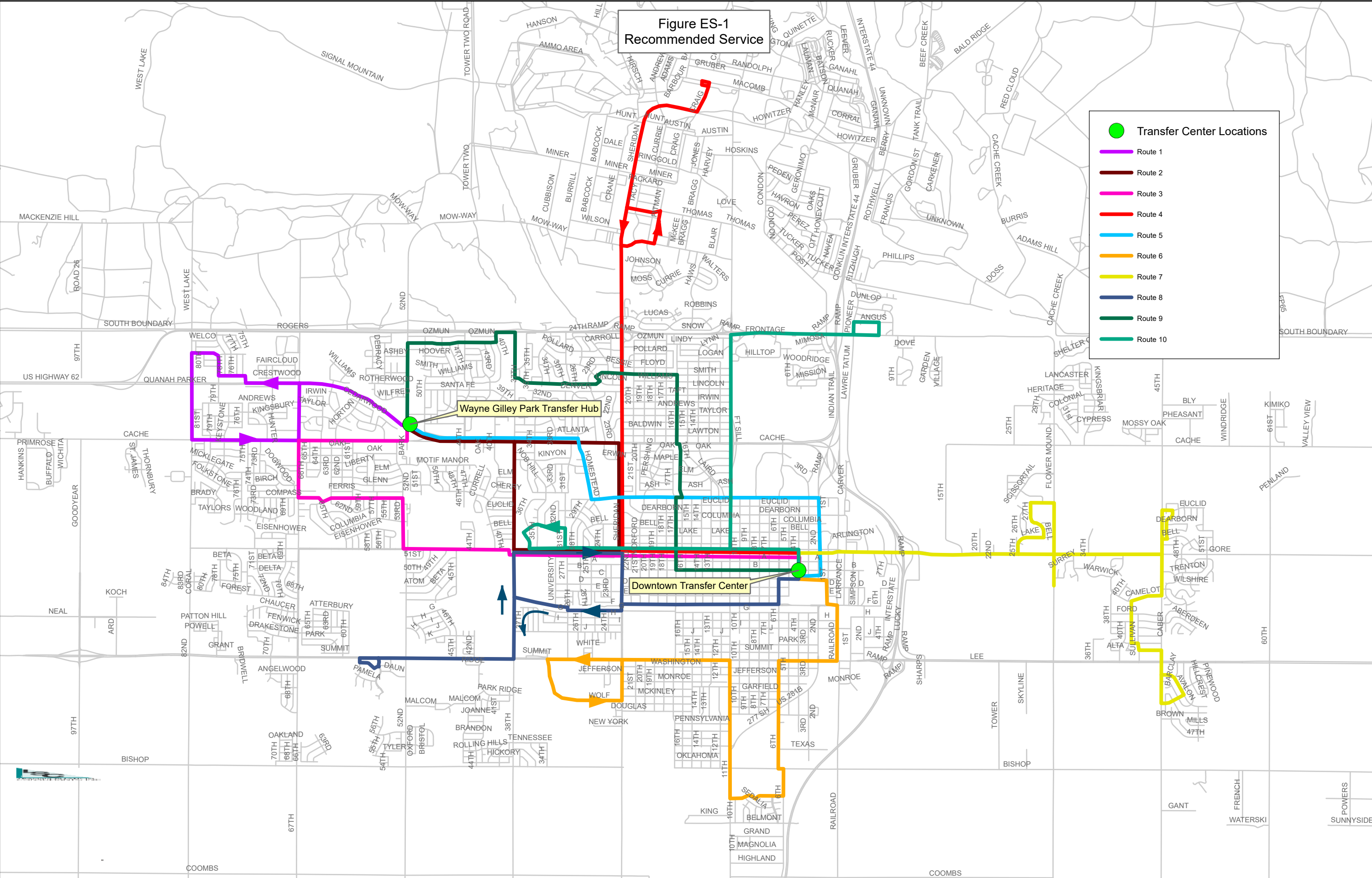
Route 1 - would start at the Wayne Gilley Park Transfer Hub, serve the Walmart on NW Quanhah Parker Trail Way, the residential neighborhoods along NW Tango Rd. and NW Terrace Hills Blvd., NW 82nd St., NW Cache Rd., and NW 67th St.

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Figure ES-1
Recommended Service

Transfer Center Locations

- Transfer Center Locations
- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6
- Route 7
- Route 8
- Route 9
- Route 10



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Table ES-3

Recommended Service Plan

Service Description	# of Vehicles (Maximum)	Annual Operating Cost	Annual Hours	Annual Miles	Annual Ridership	Passengers per Hour	Cost per Passenger
<i>Fixed Route (M-F): 6:00 a.m. to 7:30 p.m., 60 minute frequency</i>							
Route 1, 30 minute run time	1	\$65,790	1,651	19,482	38,506	23.3	
Route 2, 30 minute run time	1	\$69,136	1,651	20,472	22,362	13.5	
Route 3, 60 minute run time	1	\$156,113	3,302	46,228	55,071	16.7	
Route 4, 60 minute run time	1	\$161,688	3,302	47,879	43,733	13.2	
Route 5, 60 minute run time	1	\$120,430	3,302	35,662	35,118	10.6	
Route 6, 60 minute run time	1	\$154,998	3,302	45,898	62,847	19.0	
Route 7, 60 minute run time	1	\$161,688	3,302	47,879	34,938	10.6	
Route 8, 60 minute run time	1	\$126,005	3,302	37,313	46,288	14.0	
Route 9, 60 minute run time	1	\$158,343	3,302	46,888	70,618	21.4	
Route 10, 60 minute run time	1	\$157,228	3,302	46,558	50,340	15.2	
SUBTOTAL	10	\$1,331,419	29,718	394,259	459,820	15.5	\$2.90
<i>Fixed Route (Sat): 9:00 a.m. to 7:30 p.m., 60 minute frequency</i>							
Route 1, 30 minute run time	1	\$5,180	260	1,534	2,947	11.3	
Route 2, 30 minute run time	1	\$5,444	260	1,612	2,076	8.0	
Route 3, 60 minute run time	1	\$24,585	520	7,280	5,114	9.8	
Route 4, 60 minute run time	1	\$25,463	520	7,540	4,061	7.8	
Route 5, 60 minute run time	1	\$18,965	520	5,616	3,575	6.9	
Route 6, 60 minute run time	1	\$24,409	520	7,228	5,836	11.2	
Route 7, 60 minute run time	1	\$25,463	520	7,540	3,559	6.8	
Route 8, 60 minute run time	1	\$19,843	520	5,876	4,298	8.3	
Route 9, 60 minute run time	1	\$24,936	520	7,384	6,557	12.6	
Route 10, 60 minute run time	1	\$24,760	520	7,332	4,674	9.0	
SUBTOTAL	10	\$199,048	4,680	58,942	42,698	9.1	\$4.66
Fixed Route TOTAL	10	\$1,530,468	34,398	453,201	502,518	14.6	\$3.05
Paratransit TOTAL	4	\$310,888	7,250	92,060	19,050	2.6	\$16.32
Recommended Service Plan TOTAL	14	\$1,841,356	41,648	545,261	521,568	12.5	\$3.53

Source: LSC, 2018.

Route 2 – would start at the Wayne Gilley Park Transfer Hub, travel along NW Cache Rd., serve the Walmart Supercenter and Sheridan Mall on NW Sheridan Rd., proceed along W Gore Blvd. serving Cameron University and Comanche County Memorial Hospital, and travel along NW 38th St.

Route 3 – would serve the Downtown Transfer Center and the Wayne Gilley Park Transfer Hub. This route would start at the Downtown Transfer Center and travel along W Gore Blvd. serving Cameron University and Comanche County Memorial Hospital. The route then serves the residential neighborhoods along NW 53rd St., NW Euclid Ave., and NW Compass Dr., and proceed along NW 67th St. and NW Cache Rd. to reach the Wayne Gilley Park Transfer Hub.

Route 4 - is a modification to the existing Orange Route. This route starts at the Downtown Transfer Center and enters and exits the Ft. Sill Army Base at only one gate. Route 4 would proceed west from the Downtown Transfer Center along Gore Blvd. and then north along Sheridan Rd. to Fort Sill. Inside Ft. Sill, Route 4 would serve the Reynolds Army Community Hospital, the Main Post Exchange, and the Commissary. Outside Ft. Sill, Route 4 would serve Walmart and the Sheridan Mall.

Route 5 – would serve the Downtown Transfer Center and the Wayne Gilley Park Transfer Hub. This route departs the Downtown Transfer Center serving the Lawton Central Mall, Lawton Town Center, Lawton Senior High School, Tomlinson Middle School, and the Wayne Gilley Park Transfer Hub. After reaching the Wayne Gilley Park Transfer Hub, the bus returns to the Downtown Transfer Center by retracing the route.

Route 6 - would depart the Downtown Transfer Center and would serve the Lawton Central Mall, Great Plains Child Support and Enforcement Office, LATS office, Bellaire Apartments, Lawton Workforce Center, Owens Multipurpose Center, Goodwill, US Social Security Administration, Oklahoma Department of Human Services, and Lawton Food Bank.

Route 7 - would remain similar to the former yellow east route, and would proceed east along Gore Blvd. serving the waterpark (summer), the Apache Casino, Oklahoma Veterans Center, MacArthur Middle and High Schools, Sullivan Village Elementary School, and the residential neighborhoods in eastern Lawton.

Route 8 - would serve the Downtown Transfer Center. It would serve the Lawton Central Mall, US Post Office, Boys and Girls Club, Center For Creative Living, Taliaferro Mental Health Center, Southwest Medical Center, the Great Plains Technology Center, Cameron University, and Comanche County Memorial Hospital.

Route 9 - would serve the Wayne Gilley Park Transfer Hub and the Downtown Transfer Center. Route 9 serves downtown Lawton and the Lawton City Hall along B Avenue, as well as the residential neighborhoods along 17th St., 16th St., NW Smith Ave., NW Lincoln Ave., NW 38th St., NW Lindy Ave., and NW 52nd St.

Route 10 - would depart the Downtown Transfer Center heading west along Gore Blvd. and north along Fort Sill Blvd. serving Lawton High School and Central Middle School, as well as Pioneer Park Elementary School and the surrounding residential area. The bus would then retrace the route back to the Downtown Transfer Center then depart again heading west along Gore Blvd. serving the Sheridan Mall, Comanche County Memorial Hospital, and Cameron University before returning to the Downtown Transfer Center.

Transfer Centers - The existing LATS Downtown Transfer Center, located on the north side of the 400 block of SW B Avenue, will be replaced by a new site at SW 4th Street and Gore Boulevard. The new location is currently home to the Lawton Police Station but will be available when the police station moves. A new transfer hub located near Wayne Gilley Park on NW 52nd Street has been identified and is geographically located within Lawton to maximize public access to LATS.