

MEMORANDUM

To: StarTran Advisory Board Members
From: Larry Worth
Date: August 16, 2011
Subject: F.Y. 2011-12 StarTran Budget
cc: Greg MacLean

BACKGROUND

July 11, 2011 - The Mayor's proposed F.Y. 2011-12 Budget included a reduction of Saturday transit services from 12 to 8 hours of service.

July 26, 2011 - In compliance with the Lincoln Municipal Code (LMC) this proposal was reviewed, with a public hearing conducted by the Advisory Board on the proposal.

July 28, 2011 - The StarTran Advisory Board met and acted to:

- Disagree with the proposed 4-hour Saturday service reduction
- Recommend that the proposed Saturday service reduction be reduced to 2 hours, and
- Change the route scheduling to "deadheading" 12 routes, six days a week on both ends of the day.

The above was forwarded to the Mayor and Lincoln City Council on August 2, 2011.

August 8, 2011 - City Council conducted a public hearing on the Mayor's proposed 2011-12 Budget. Several attendees testified, expressing opposition to the 4-hour reduction in Saturday service.

August 10, 2011 - City Council met to act on "final" changes to the Mayor's proposed F.Y. 2011-12 Budget. Included in "final" changes was:

- Increase low-income 31-day pass cost to \$10 (regular fixed-route) and \$20 (HandiVan) – expected \$55,000 additional revenue
- Maintain 12 hours Saturday services
- StarTran Advisory Board to recommend other reductions/increased revenues equal to the difference between the budgeted saving and the low-income fare additional revenue – \$212,000 (budgeted savings) - \$55,000 (increased fare revenue) = \$157,000

UPCOMING

August 22, 2011 - City Council to approve final F.Y. 2011-12 Budget Resolution. (Due to inadequate time to comply with City Code for public hearing notice and need for Advisory Board to decide what other reductions/increased revenues to be addressed/recommended, the required public hearing and Advisory Board action will be submitted to the City Council after this date, and can be integrated with the adopted budget at that time.)

August 25, 2011 - Regularly scheduled Advisory Board meeting. Agenda to include an action item for the Advisory Board to agree on other reductions/revenue increases equal to \$157,000 to make up above-indicated difference.

Staff recommends that the Advisory Board re-confirm the July 28th recommendation to “deadhead” 12 routes, but 5 days, instead of 6 days, per week. The remainder to be recently-granted additional State transit operating funding.

- Increase in low-income fare as approved by City Council . = \$ 55,000
- Plus “deadheading” of 12 routes, 5 days/week = \$ 84,100
- Plus State funding = \$ 72,900
- Equals = \$212,000

September 9, 2011 (*pending Board responses to Connie, on availability*) - StarTran Advisory Board public hearing on:

- 1) increase in low-income fare, and
 - 2) deadheading of 12 routes, 5 days/week
- and,

Advisory Board meeting to review/act on recommendations to Mayor and City Council on above two subjects.

September 12, 2011 - Resultant Advisory Board actions forwarded to City Council and Mayor.

October 1, 2011 - Revenue and service changes implemented, with appropriate advertising/notice to patrons/public.

STARTRAN SURVEILLANCE REPORT
A Summary of Service Standards and Performance
June 2010 to June 2011
DRAFT

1. INTRODUCTION:

The Transit Surveillance Report presents the performance status for the period of June 2010 to June 2011. This information affords staff, recommending groups, and decision makers a rational and systematic means for evaluation of current transit services, and for estimating the results of any potential service changes resultant from this evaluation. StarTran staff endeavors to provide the most efficient and effective transit services to the citizens of Lincoln. The transit surveillance program is a key component to furthering that goal.

The preparation of this report is in response to Federal Transit Administration requirements set forth in Circular C4702.1A. Further, per Section 2.38.090 of the Lincoln Municipal Code “the StarTran Advisory Board shall annually review an evaluation of the transit performance standards and service goals described in the current ‘Transit Development Plan’ (TDP). Upon completion of each annual review, the advisory board shall forward its recommendation, if any, to the Director of Public Works and Utilities, who shall forward the recommendations to the Mayor and City Council as appropriate.”

Performance Evaluation:

Evaluating the StarTran system against a set of service standards is the first step in the evaluation process. The process allows one to deal with a variety of issues related to the quality and quantity of transit services. This information provides initial guidance for the development of service strategies, which are discussed at the end of this report.

Page 2 presents StarTran’s performance versus Service Standards.

StarTran Performance versus Service Standards

Category	Standard	StarTran Results
<i>Service Coverage</i>		
Availability	Residential Areas - high density areas within ¼ of a bus route - Route spacing guide presented on page 6 ■ Major activity centers - Employers or employment concentrations of 200 or more employees - Health centers - Middle and high schools - Colleges/universities - Shopping centers of over 25 stores - Social service/government centers	- 79.96% of population is located within a quarter mile of a bus route - Routes meet spacing guide - Most activity centers served
Frequency	Arterial Routes - 30 minute peak - 60 minute off-peak Crosstown/neighborhood/shuttle services - 60 minute all day service	- 15 out of 17 weekday routes meet peak & off-peak standard - 11 out of 13 Saturday routes meet standard
Span	-5 AM to 10 PM on weekdays -6 AM to 7 PM on Saturdays	- The weekday routes operate until 7:10 PM, which does not meet the standard. Based on current funding expanding the service span to 10:00 PM is not feasible at this time - All Saturday routes meet standard
Directness	- Maximum 25% of transfer rate	- 35.5% transfer rate, does not meet standard
<i>Patron Convenience</i>		
Speed	-Regular routes maximum of 15 MPH -Maximum of 10 MPH for Downtown Shuttle -12-18 MPH for outlying services depending on layout	-Regular routes slightly exceed standard - Star Shuttle meets standard.
Loading	-25% standees for short periods acceptable *	- Meets standard
Bus Stop Spacing	- 5 to 7 stops per mile in core (every other block) - Fringe 4 to 5 per mile	- Meets standard
Dependability	- No missed trips -95% on-time service (0 to 5 minutes late) - No trips leaving early	- 100% of all trips operated 7 of 17 routes do not meet standard
Road call ratio	- 4,000 to 6,000 miles per road call	- 5,210 miles per road call. Meets standard
<i>Fiscal Condition</i>		
Fare structure	- Qualitative criteria	- Meets standard
Farebox Recovery	- Significantly alter routes less than 60% of average (16% is average) - Review and modify routes between 60% and 80% average	<u>Below 60%</u> - Routes 42/43, 47/48 & 55 <u>Between 60% and 80%</u> - Routes 41/40, 45/46, 53 & 54
Productivity (Pass/Mile)	- Significantly alter routes less than 60% of average (1.3 pass/mile is average) - Review and modify routes between 60% and 80% of average	<u>Below 60%</u> none <u>Between 60% and 80%</u> - Routes 41/40, 42/43, 45/46, 47/48 & 54
<i>Passenger Comfort</i>		
Waiting shelters	- 25 or more boardings	-Evaluated annually and shelters provided within funding parameters
Bus Stop Signs	- Denote StarTran, contact info, and route #	Route numbers are included on approximately 90% of signs
Revenue Equipment	- Clean and good condition	- Meets standard
Public Information	- Timetable, maps, advertising	- Meets standard

* 25 foot vehicles cannot accommodate standees

2. TYPES OF TRANSIT SERVICE:

StarTran provides two types of services in order to better accommodate the various travel market groups in the community. These services are described below.

Local Service:

Local service represents the backbone of public transportation in Lincoln. These routes generally operate throughout the day and make frequent stops. Local service consists of the following groups of routes:

- **Radial** – Radial service operates from downtown Lincoln to the outlying residential neighborhoods of the city. Radial service is presently comprised of seventeen routes.
- **Circulator** – Circulator service operates within a major activity center such as downtown. Circulator service is presently provided on one route.
- **Other** – Other service consists of supplemental operations that do not fall into the categories listed above.

Special service:

StarTran provides two ADA-required complementary paratransit services for eligible disabled residents of the community. One of these services – the brokerage program – is offered by contractual arrangement with a private provider.

The second service is provided by StarTran directly and is known as the “Handi-Van” program. Handi-Van program which is a demand-responsive service that is operated during the entire StarTran service day throughout the entire city.

It should be noted that the Transit Development Plan provides recommendations for fixed route bus service only.

3. PERIODS OF TRANSIT SERVICE:

Most services are provided Monday through Saturday. On weekdays, the nature of the demand for transit service requires the scheduling of more buses during certain hours of the day or during the peak ridership periods. The following definitions are offered for purposes of this report:

Peak Periods:

Peak periods generally extend from 6:00 AM to 9:00 AM and from 3:00 PM to 6:00 PM on weekdays. There are no designated peak periods on weekends.

Other Periods:

Other periods consist of the early morning, midday base and evening hours on weekdays and the entire day on Saturdays.

4. SERVICE STANDARDS

A. Standard: Service Coverage

This includes the categories of:

- 1). Availability
- 2). Frequency
- 3). Span
- 4). Directness

1). Availability deals with determining where service should be provided and the spacing of bus routes. Service coverage and congruency analyses provide a baseline evaluation of StarTran service availability. Service coverage analysis relates to StarTran routes and their relationship to areas of high population density and poverty status and service congruency analysis relates to StarTran routes and their relationship to the locations of major trip generators.

Availability standards are developed for the residential trip end that produces travel and the non-home end that attracts travel. A description of each of these two is provided below:

- Production End (Coverage) – Determination of which residential neighborhoods should be candidates for service is a function of reasonable walking distance. Numerous studies have indicated that the maximum distance an average person can reside from a bus route and still be considered to ‘have service’ is one-quarter mile, which is approximately equivalent to a five-minute walk. However, this rule of thumb must be applied coupled with a surrogate for income and mobility, as well as population density. Figure 1 is a map of coverage region showing a 1/4 mile buffer. Figure 4 is a map showing a Transit Need Score. The transit need score is a relative measure of how successful a route is expected to be in a particular area. It is based on several transit-oriented variables such as population density, percentage of households under age of 18 and over age of 65, median household income, percentage of population living below the poverty level and percentage of zero-car households. The higher the number the higher the transit need.

Comments: Approximately 79.96% of Lincoln population is located within a quarter mile of a bus route. Most areas identified by a high transit need score are served by StarTran bus routes. Meets standard.

- Attraction End (Congruency) – Activity centers deserve transit service if they are large enough to attract an adequate number of transit trips. It should be noted that other factors, such as proximity of the center to existing bus routes, should be considered before providing new service to a major activity center.
 - Employers – Employers or concentration of employers, such as in business or industrial parks, with 200 or more employees are large enough to generate transit ridership.
 - Health Centers – Institutions consisting of hospitals, clinics, rehabilitations, and mental health centers, and nursing homes are significant destinations that should have access to transit services.
 - Educational Facilities – Colleges, universities, vocational schools, and secondary schools have been included in the availability standard. Those institutions with enrollment of at least 1,000 full-time students warrant major consideration for service. All middle and high schools also warrant consideration.
 - Shopping Centers – Shopping centers (including malls and major plazas) with at least 25 stores or more than 100,000 square feet of leased retail space are large enough to warrant consideration for service, as well as the CBD and neighborhood business districts or any other significant commercial attractions.
 - Social Service/Government Centers – Public agencies, government centers, community facilities, and recreational complexes attract some volume of traffic.

Comments: Figure 2 shows that StarTran routes serve the vast majority of major employers and trip generators in the service area.

A Route spacing guide is presented below that lists the recommended distance between routes given an area's population density and percentage of households without automobiles, which are the surrogates for income and transit dependency.

% of Households without Automobiles	Population Density (Persons Per Square Mile)			
	Over 6,400	4,500 to 6,400	2,500 to 4,449	Under 2,500
Over 15.0	¼ Mile	¼ Mile	3/8 Mile	½ Mile
10.0 – 15.0	¼ Mile	3/8 Mile	½ Mile	1 mile or paratransit
5.0 – 9.9	3/8 Mile	½ Mile	1 mile or paratransit	*
Below 5.0	½ Mile	1 mile or paratransit	*	*

Comments: Figure 3 shows StarTran's spacing guide relative to % of households without automobiles and population density. This figure shows that most routes meet the recommended route spacing guide.

2). Frequency

For a city of Lincoln's size, the goal for headway/frequency for routes is 30 minutes during weekday peak periods, and 60 minute during off-peak periods and Saturdays. Crosstown and neighborhood shuttle services should operate every 60 minutes. These standards and guidelines for headways have to be balanced against the resources of the system and utilization of the routes. On weekdays ¾ of the routes operate on a 30 minute peak headway and 60 minute, or better, off peak headway. The remaining routes operate on a 60 minute peak service all day. Route 24 Holdrege is a contracted service with the University of Nebraska whereby this route provides 10 minute service. On Saturday 12 out of 13 routes operate every 60 minutes.

Table A: Weekday Route Network Frequency

Route Name	Peak Frequency	Midday Frequency	Daily Trips
24 Holdrege	10 minutes	15 minutes	34
41/40 Havelock/Heart Hospital	30 minutes	60 minutes	21
42/43 Bethany/Normal	30 minutes	60 minutes	20
44 O Street Shuttle	30-40 minutes	60-70 minutes	18
45 Arapahoe/46 Arnold Heights	30 minutes	60 minutes	21
47/48 Belmont Salt Valley	30 minutes	60 minutes	20
49/50 University Place/College View	30 minutes	60 minutes	20
51/52 West A/Gaslight	60 minutes	120 minutes	9
53 SouthPointe	30 minutes	60 minutes	20
54 Veteran's Hospital	30 -40 minutes	60 – 70 minutes	16
55 Star Shuttle	20 minutes	20 minutes	38

Comments: The 51/52 West A/Gaslight does not meet the standard for providing peak and midday frequency.

Table B: Saturday Route Network Frequency

Route Name	Frequency	Daily Trips
41/40 Havelock/Heart Hospital	60 minutes	12
42/43 Bethany/Normal	60 minutes	12
44 O Street Shuttle	60 minutes	12
46 Arnold Heights	60 minutes	12
47/45 Belmont /Arapahoe	60 minutes	12
49University Place	60 minutes	12
50 College View	60 minutes	12
51/52 West A/Gaslight	120 minutes	6
54 Veteran’s Hospital	60 minutes	12

Comments: The 51/52 West A/Gaslight does not meet the standard for providing 60 minute Saturday frequency.

3). Span

In cities of Lincoln’s size, evening service is increasingly being requested by current, and potential, StarTran patrons. This is because of the presence of a major university with night classes, entertainment opportunities, and the growth of second and third shift jobs. Later evening service would improve the mobility and access to jobs for transit users in Lincoln. The duration of service needs to consider both need/demand and the availability of funds. The minimum standard for StarTran regular route service should be 5:00 AM to 10:00 PM (16 hours) on weekdays, and 6:00 AM to 7:00 PM on Saturdays. Weekday and Saturday routes generally end service around 7:00 PM.

Nine weekday routes begin service at approximately 5:00 AM and two weekday routes begin service at approximately 6:00 AM. The 24 Holdrege begins service at approximately 7:00 AM.

Seven Saturday routes begin service at approximately 6:00 AM and two begin service at approximately 7:00 AM.

Comments: None of the weekday routes operate until 10:00 PM, which does not meet the standard. Based on current funding such level of service is not feasible at this time. Based on public feedback from the TDP evening transit service is a high priority and will be considered as additional funding becomes available.

4). Directness

This standard identifies the percentage of transfers being made by bus riders. A standard of 25% (transfer trips/revenue trips) is the maximum rate for transferring. Transfer rate for the reporting period was 35.5%.

Comments: Transfer rate does not meet the standard.

B. Standard: Patron Convenience

This includes the categories of:

- 1). Speed
- 2). Loading
- 3). Bus Stop Spacing
- 4). Dependability
- 5) Road Call Ratio

1). Operating speed standards are shown below. These standards are indicators of safety, as routes that are too long require drivers to speed to keep on schedule; and reliability, since very slow routes may create problems with on-time performance and transfers, particularly in a system with radial routes.

- Regular routes shall not exceed 15 MPH
- Shuttle routes should not exceed 10 MPH
- Outlying service should range between 12 and 18 MPH depending on route layout

Table C lists average operating speed by route.

Regular Routes – Standard: 15 MPH	Average Speed (mph)
24 Holdrege	10.9
42/43 Bethany/Normal	14.1 / 15.5
44 O Street Shuttle	14.2
45 Arapahoe	14.1
49/50 University Place/College View	13.6 / 14.0
51/52 West A/Gaslight	12.2 / 14.9
54 Veteran’s Hospital	16.1
Shuttle Routes – Standard: 10 MPH	Average Speed (mph)
55 Star Shuttle	9.2
Outlying Service – Standard: 12-18 MPH	Average Speed (mph)
41/40 Havelock/Heart Hospital	14.1 / 16.0
46 Arnold Heights	20.2
47/48 Belmont Salt Valley	17.4 / 17.5
53 SouthPointe	15.5

Comments: Routes 43, 54 and 46 slightly exceed the standard.

2) Loading refers to the number of passengers carried on a segment of a route. Passengers should be seated except for short periods of time associated with peak load periods. 25% standees for short periods are acceptable.

StarTran seating capacity differ according to size of vehicle as follows:

- 35 foot bus: 32 passenger seating capacity
- 29 foot bus: 27 passenger seating capacity
- 25 foot bus: 17 passenger seating capacity

Route 24 Holdrege, inter-campus shuttle, is the only route that does not meet this standard. This route has, on average, 6 trips that have 25% or more standees. Routes 41 and 44 also experience standees on select trips.

Comments: Meets standard.

3). Bus Stop Spacing – the spacing of stops should balance patron convenience and speed of operation. The standard calls for a stop every other block, while in fringe areas stops can be as far apart as .2 to .25 miles (4 to 5 per mile), based on need. For customer convenience and as an incentive to ride, StarTran allows flagging of buses at any safe street corner except the downtown area where stops are designated.

Comments: Meets standard

4). Dependability refers to service that arrives on time. The standard should be two-fold: 100% of all trips should be operated (i.e., no missed trips), and 95% of the trips should run on-time (i.e., not more than 5 minutes late). Finally, no trip should run ahead of schedule at any point along a route.

Route Name	% On - Time
24 Holdrege	92%
41/40 Havelock/Heart Hospital	95% / 91%
42/43 Bethany/Normal	96% / 92%
44 O Street Shuttle	93%
45 Arapahoe/46 Arnold Heights	97% / 97%
47/48 Belmont/ Salt Valley	97% / 98%
49/50 University Place/College View	91% / 96%
51/52 West A/Gaslight	98% / 94%
53 SouthPointe	98%
54 Veteran's Hospital	80%
55 Star Shuttle	98%

Comments: 7 of the 17 routes do not meet the standard.

5) Road Call Ratio is a measure of dependability and quality for the customer, as the fewer the road calls, the fewer times customers are inconvenienced. The standard for road calls is between 4,000 and 6,000 miles per road call. For the one year period StarTran operated 1,411,910 miles and had 271 mechanical failures, resulting in a road call ratio of 5,210 miles per call.

Comments: Meets standard

C. Standard: Fiscal Condition

This includes the categories of:

- 1). Fare Structure
- 2). Farebox Recovery
- 3). Productivity

1). Fare Structure – The fare structure should meet qualitative considerations set by City policy. A fare structure should be simple to understand, offer convenience to the user, and generate reasonable revenues for the system.

StarTran has a very simple fare policy. The base cash fare is \$1.75 with a fare of .85 for elderly and disabled patrons. StarTran also has multi-ride options and transfers between routes is free.

Comments: Meets standard

2). Farebox Recovery measures the percent of operating cost covered by fares and is an outcome heavily influenced by the ridership productivity of a route against its total operating cost, as well as the fare policy of the system. Standards for farebox recovery are as follows:

- Significantly alter routes less than 60% of average (16 % is average).
(Note: 60% of system average is 9.6%)
- Review and modify routes between 60% and 80% of average.
(Note: 60% - 80% of system average is 9.6% - 12.8%)

Table D: Farebox Recovery

Route Name	Farebox Recovery
24 Holdrege	68.8%
41/40 Havelock/Heart Hospital	10.4%
42/43 Bethany/Normal	9.1%
44 O Street Shuttle	18.2%
45 Arapahoe/46 Arnold Heights	10.3%
47/48 Belmont Salt Valley	9.0%
49/50 University Place/College View	13.1%
51/52 West A/Gaslight	14.4%
53 SouthPointe	11.0%
54 Veteran's Hospital	11.1%
55 Star Shuttle	5.6%
System Average	16.0 %

As a comparison, June 2009 – June 2010 farebox recovery for fixed route services was 14.1%.

Comments:

Routes that are less than 60% of the system average are 42/43 Bethany/Normal, 47/48 Belmont/Salt Valley, and 55 Star Shuttle

Routes that are between 60% and 80% of the system average are 41/40 Havelock/Heart Hospital, 45/46 Arapahoe/Arnold Heights, 53 SouthPointe and 54 Veteran's Hospital.

3). Productivity is measured in passengers per mile. The standards for productivity are as follows:

- Significantly alter routes less than 60% of average (1.3 % is average).
(Note: 60% of system average is .78%)
- Review and modify routes between 60% and 80% of average.
(Note: 60% - 80% of system average is .78% - 1.04%)

Table E: Passengers per mile

Route Name	Passengers Per Mile
24 Holdrege	3.48
41/40 Havelock/Heart Hospital	1.01
42/43 Bethany/Normal	.99
44 O Street Shuttle	1.87
45 Arapahoe/46 Arnold Heights	1.01
47/48 Belmont/ Salt Valley	.83
49/50 University Place/College View	1.43
51/52 West A/Gaslight	1.10
53 SouthPointe	1.09
54 Veteran's Hospital	.89
55 Star Shuttle	2.26
System Average	1.3

Comments:

There are no route(s) that are less than 60% of the system average.

Route(s) that are between 60% and 80% of the system average are 41/40 Havelock/Heart Hospital, 42/43 Bethany/Normal, 45 Arapahoe/46 Arnold Heights, 47/48 Belmont/Salt Valley & 54 Veteran's Hospital

D. Standard: Passenger Comfort

This includes the categories of:

- 1). Waiting Shelters
- 2). Bus Stop Signs
- 3). Revenue Equipment
- 4). Public Information

1). Waiting Shelters – the standard for bus waiting shelters at any location is generating 25 or more daily boardings, generally spread throughout the day. StarTran has approximately 60 shelters located throughout the community.

Comments: Evaluated annually and shelters provided within funding parameters.

2). Bus Stop Signs – the standard for bus stop signs is to denote the name of the system and the route/routes served, as well as to provide a telephone number for schedule information.

Comments: Route numbers are included on approximately 90% of signs. The rest of signs will be done based on staff availability.

3). Revenue Equipment – this standard refers the condition and cleanliness of the buses and other revenue vehicles. General examination of the buses indicated that all are clean

and in good working order. Provided below is a fleet roster of StarTran's revenue equipment:

Full-Size Coaches		HandiVans	
2001 Gillig	20	2010 Ford Glaval	13
2004 Gillig	10	Total.....	13
2006 Gillig	15		
2011 Gillig	13		
Total.....	58		

The average age of the full-size fleet is 5 years. The economic life of such a coach is 12 years. While there is no standard for fleet age it is important to have a replacement program that maintains as low average age as possible within federal guidelines.

Comments: Meets standard

4). Public Information refers to timetables, maps and advertising that should be widely available and easy to read and understand. StarTran's routes and schedules are available in hard copy format and available online. Such information is clear and easy to read.

Comments: Meets standard

5. SERVICE STRATEGIES

The information presented in this report represents one year of data derived from the implementation of the new route structure that began June 5, 2008. Provided below are service strategies developed for those standards that were not met:

1. Standard: Service Coverage

Category: Frequency

Service Strategy: The Weekday and Saturday 51/52 West A/Gaslight will be analyzed for potential reduction of time between trips.

2. Standard: Service Coverage

Category: Span

Comment: None of the weekday routes operate until 10:00 PM. Based on current funding such level of service is not feasible at this time. Based on public feedback from the TDP evening transit service is a high priority and will be considered as additional funding becomes available.

Service Strategy: None

3. Standard: Service Coverage

Category: Directness

Comment: The transfer rate for the reporting period was 35.5%. This number was derived by using an on-board survey conducted in June and July 2011. The last time a survey method was utilized to capture transfer rate was in Spring 2006 and at that time the transfer rate was 30.15%. The “old routes” were in effect in 2006 and in 2008, through the Transit Development Plan routes were revised, with some routes that were aligned with one another in an effort to reduce the amount of transfers. It should be noted that farebox data does provide not an overall picture of transfer rate. The farebox captures only transfers issued to patrons, particularly cash paying and ride ticket users. Since the majority of fare usage is the monthly passport a transfer is not issued from the farebox. For example, the transfer rate for the reporting period from the farebox is 2.4%.

The key factor is the collection method used. A survey should capture all transfers, regardless of fare device used. Since there were not a survey done after the “new” routes went into effect in June 2008 there is no true basis of comparison. In regards to the transfer rate of 35.5% for the reporting period a number of possible factors that could attribute to that high rate are as follows:

- Timing of survey. The 2011 survey was conducted when school was not in session whereas the 2006 survey was done in May, when schools were in session.
- Neighborhood routes eliminated in 2008. These “crosstown” routes provided service to eastern portion of city that did not travel to downtown. Those patrons who utilized these routes may have switched to using other routes and thus increasing the number of transfers.
- Changing travel patterns, employment, and residential locations. From 2006 to 2011 employment centers may have relocated or patrons have changed residences.
- Ridership has increased by 9% from previous year. Some of these riders may transfer at a higher rate.
- Survey question error. How questions structured may have not captured a true picture of transfer rate. Recommend adding a question to next survey.

Service Strategy: Conduct another on-board survey, with revisions, next year to obtain transfer data and develop a strategy at that time.

4. Standard: Patron Convenience

Category: Speed

Comments: Routes 43, 54 and 46 slightly exceeded the standard. The average speed of individual routes is very much a function of the type of roadways and stop spacings of the route. All the individual routes identified as exceeding the speed standards are only slightly greater than the standard, with the exception of route 46. This route would be expected to

have a higher average speed due to the utilization of West “O” Street, with higher posted speeds and fewer stops on that portion of the route.

Service Strategy: The routes identified above that exceed the standard have been analyzed for areas for improvement and determined that no changes made to these routes. This analysis is based on complaints and vehicle accidents for these routes. Records were reviewed for these routes and found no “speeding” complaints and no vehicle accidents, due to speed.

5. Standard: Patron Convenience

Category: Dependability

Comments: 7 of 17 routes do not meet the standard of 95% on-time performance. With the exception of route 54 the other routes fall slightly below the standard with the lowest route, 40, having an on-time performance of 91%. Route 54 on-time performance was 80%, which is 15% below the standard.

Service strategies: Since most of the identified routes fell only slightly below the standard they should continued to be monitored such that route performance does not decrease further. It is recommended to review route 54 to identify reasons for the low on-time performance, and determine schedule, and other modifications, which would improve such performance.

6. Standard: Fiscal Condition

Category: Farebox Recovery

Comments: Routes that are less than 60% of system average are 42/43 Bethany/Normal, 47/48 Belmont/Salt Valley, and 55 Star Shuttle. All of these routes have slightly lower farebox recovery compared to last review. The 55 Star Shuttle route would be expected to have lower farebox recovery due to the lower fare on that route.

Routes that are between 60% and 80% of the system average are 41/40 Havelock/Heart Hospital, 45/46 Arapahoe/Arnold Heights, 53 SouthPointe and 54 Veteran’s Hospital. The 41/40 and 54 had slightly higher farebox recovery compared to last review and the 45/46 and 53 had slightly lower recovery compared to last review.

Service Strategy: Although some of the above mentioned routes had slight decreases in farebox recovery the overall farebox recovery increased compared to last review it is recommended that no service strategies be implemented, but will continue to monitor.

7. Standard: Fiscal Condition

Category: Productivity

Comments: There are no routes that are less than 60% of the system average. Routes that are between 60% and 80% of the system average are 41/40 Havelock/Heart Hospital, 42/43 Bethany/Normal, 45 Arapahoe/46 Arnold Heights, 47/48 Belmont/Salt Valley & 54 Veteran’s Hospital. Compared to last review none of these routes had minimal shifts in productivity, either slight increases or slight decreases in productivity.

Service Strategy: Although some of the above mentioned routes had slight decreases in productivity the overall passengers per mile increased compared to last review it is recommended that no service strategies be implemented, but will continue to monitor.

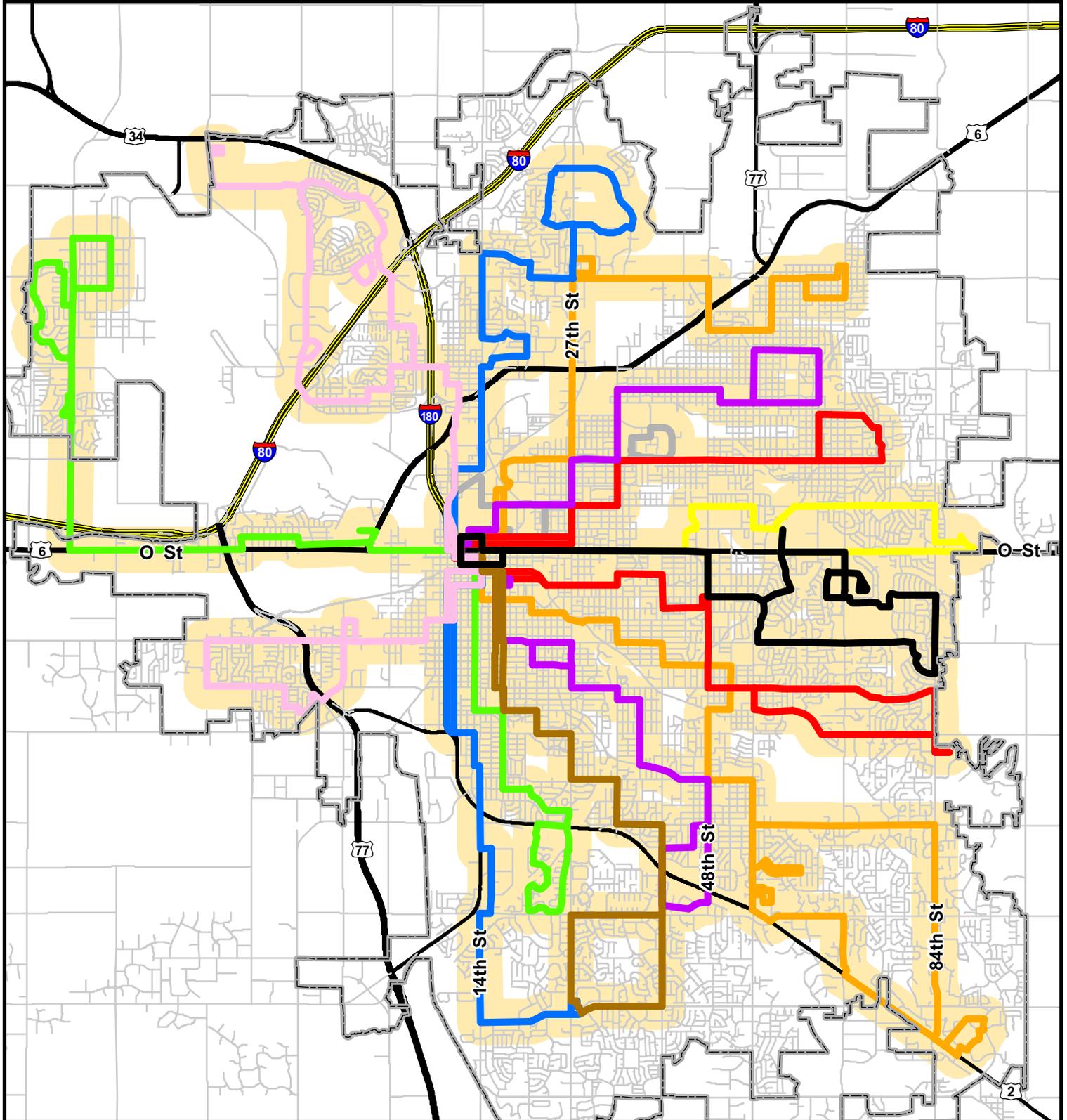
Other Comments:

For the period of June 2010 to June 2011 ridership increased by 9% from previous year. For last year, June 2009 – 2010 ridership decreased by approximately 1%. Possible influences for the 9% increase could be as follows:

- Increased gas prices
- Technology improvement for patrons
- Improved economy
- No Fare increases
- Increased use of low-income program
- Increased UNL ridership after route #24 schedule revisions

Figure 1

StarTran Service Area: Coverage (79.96%)



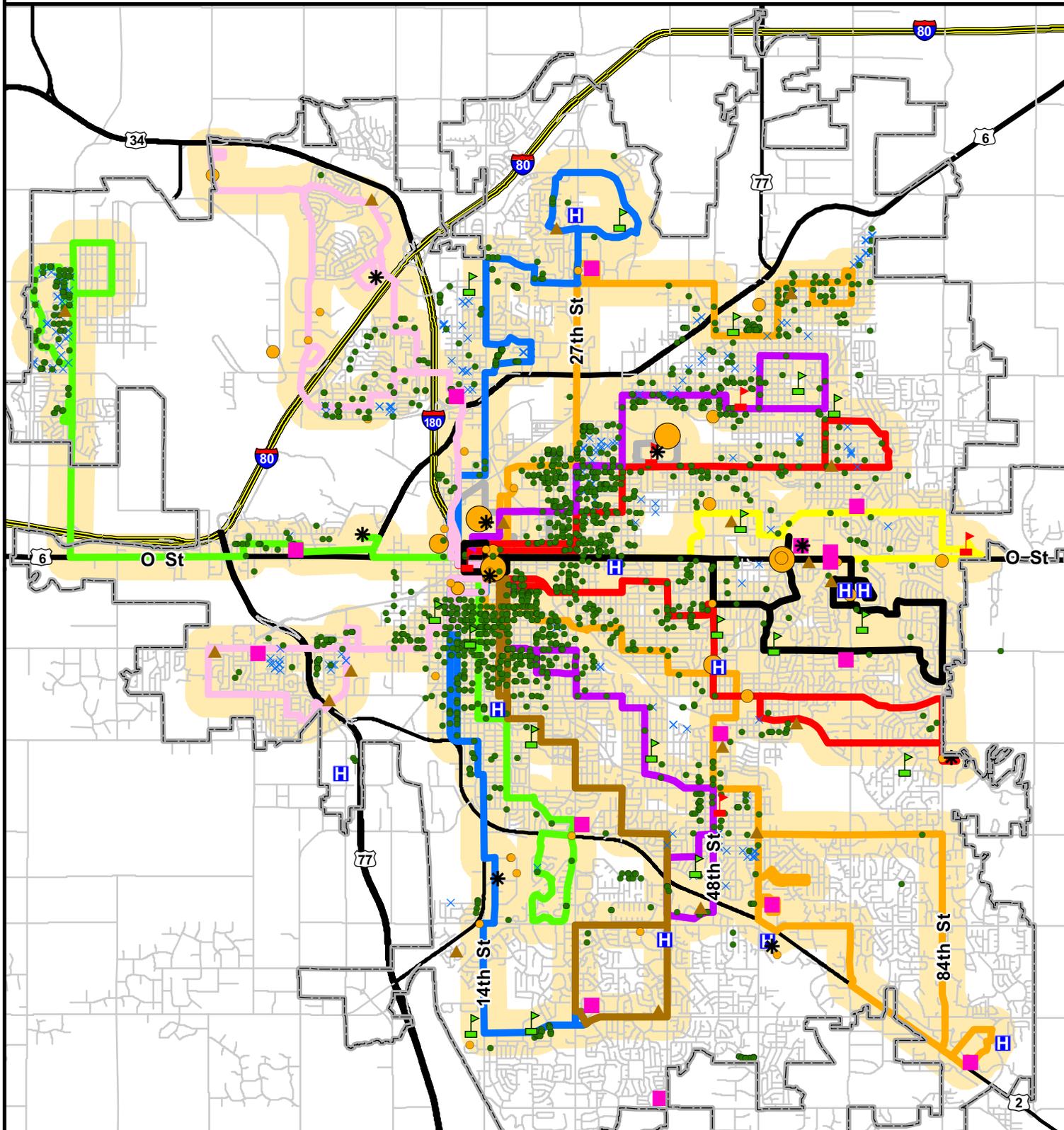
LEGEND

- | | | |
|---------------------|-------------------------|-------------------------|
| INTERSTATE HIGHWAY | BELMONT/SALT VALLEY | HAVELOCK/HEART HOSPITAL |
| US HIGHWAY | ARAPAHOE/ARNOLD HTS | VETS HOSPITAL |
| STATE HIGHWAY | "O" STREET/SCC | SOUTHPOINTE |
| LOCAL ROADS | BETHANY/NORMAL | WEST A/GASLIGHT |
| CITY LIMITS | UNIV PLACE/COLLEGE VIEW | |
| QUARTER MILE BUFFER | HOLDEGE | |

0 0.5 1 2 Miles

Figure 2

StarTran Service Area: Congruency

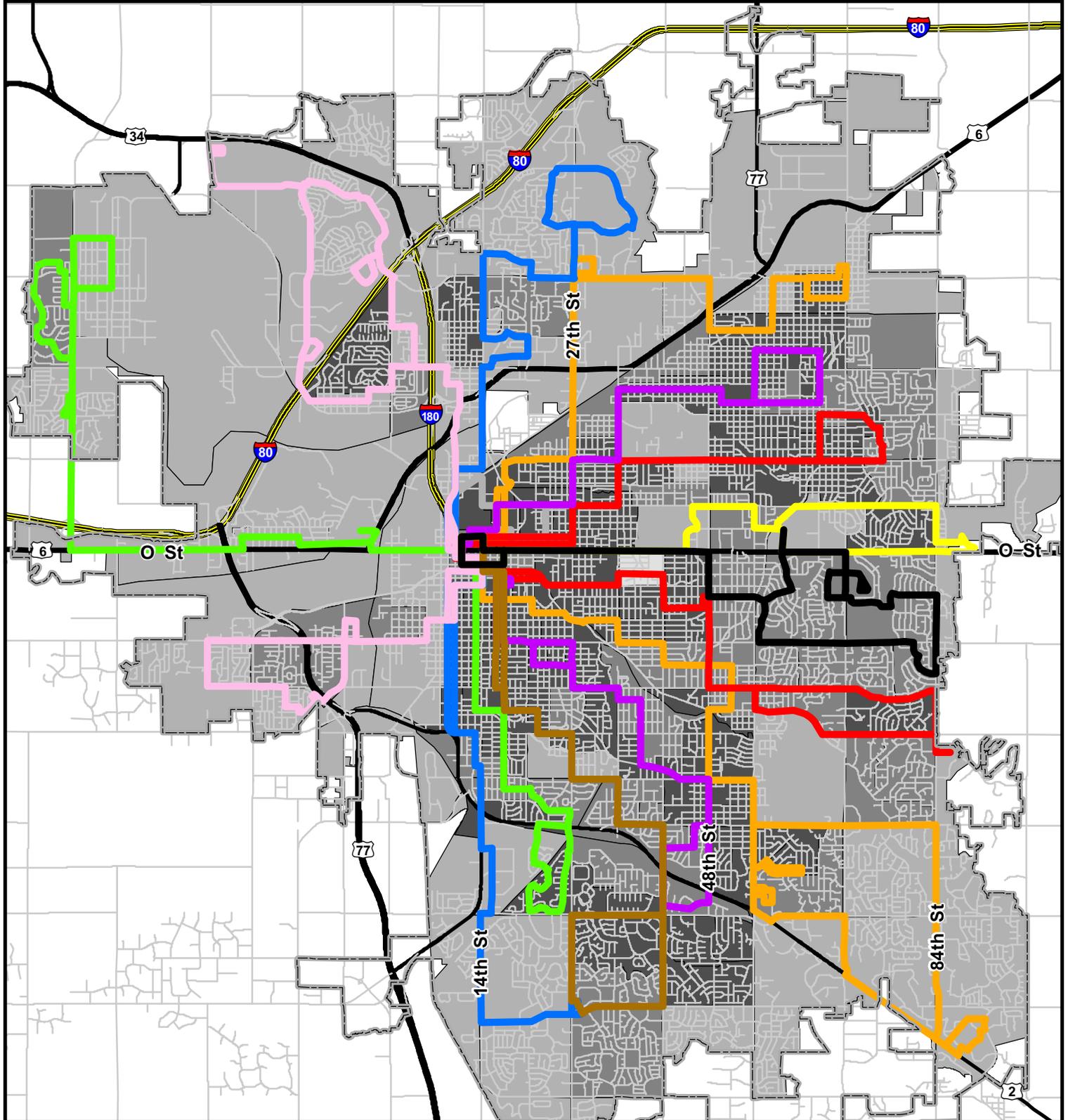


LEGEND

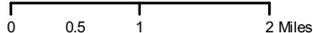
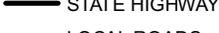
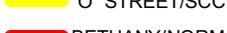
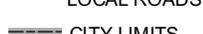
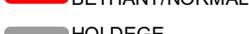
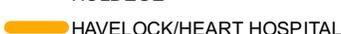
- | | | | | |
|--------------------------|----------------------------|----------------------|---------------------------|---------------------------|
| ● SECTION 8 HOUSING | ■ SHOPPING AREA | — INTERSTATE HIGHWAY | — BELMONT/SALT VALLEY | 0 0.5 1 2 Miles |
| × PUBLIC HOUSING | — MAJOR EMPLOYERS | — US HIGHWAY | — ARAPAHOE/ARNOLD HTS | |
| ● COLLEGE/UNIVERSITY | ▲ MIDDLE/HIGH SCHOOL | — STATE HIGHWAY | — "O" STREET/SCC | |
| ▲ HOUSING/SENIOR HOUSING | * INDUSTRIAL/EMPLOY CENTER | — LOCAL ROADS | — BETHANY/NORMAL | — VETS HOSPITAL |
| ■ MEDICAL CENTER | ■ QUARTER MILE BUFFER | — CITY LIMITS | — HAVELOCK/HEART HOSPITAL | — SOUTHPOINTE |
| | | | — HOLDEGE | — WEST A/GASLIGHT |
| | | | | — UNIV PLACE/COLLEGE VIEW |

Figure 3

StarTran Service Area: Route Spacing Guide



LEGEND

- | | | | |
|---|--|--|---|
|  1 MILE SPACING |  INTERSTATE HIGHWAY |  BELMONT/SALT VALLEY |  |
|  1/2 MILE SPACING |  US HIGHWAY |  ARAPAHOE/ARNOLD HTS |  VETS HOSPITAL |
|  3/8 MILE SPACING |  STATE HIGHWAY |  "O" STREET/SCC |  SOUTHPOINTE |
|  1/4 MILE SPACING |  LOCAL ROADS |  BETHANY/NORMAL |  WEST A/GASLIGHT |
| |  CITY LIMITS |  HAVELOCK/HEART HOSPITAL |  UNIV PLACE/COLLEGE VIEW |
| | |  HOLDEGE | |