

CHAPTER FIVE SERVICE STANDARDS

Citilink provides fixed route and ADA paratransit service within the City of Fort Wayne and adjacent areas. This chapter is intended to provide guidance for Citilink to review its performance indicators and service standards. These standards are utilized as a guide in this study to analyze routes and services. They can also serve as a recommendation to Citilink for standards that will improve upon what is already being utilized by the agency.

The Citilink route structure is intended to address transportation needs resulting from a dispersed development pattern with a multi-centered regional transit system that includes connections between neighborhoods and communities within the City. Citilink also provides paratransit service for disabled persons who are unable to use fixed route service. These service factors create the need for standards that address various service delivery methods and provide guidance on a number of factors for the agency.

5.1 Overall Fixed Route Design

This section provides standards for basic route structure for Citilink. These provide a basis for the service standards in the following sections and represent an important element of overall service analysis. The Citilink fixed route system should have elements that are consistent throughout the system. This consistency is important for the public to understand how the system can be used. The following are basic parameters of the design of the system.

- Routes should be separated into functional categories. The level of service on individual routes will vary by its function.
- Citilink routes should be divided into three categories for the purpose of determining route design and performance standards. These are Radial routes, Crosstown routes, and Route Deviation services.
- Routes should be predominantly bi-directional in nature. Large one-way loops should be avoided if possible.
- Travel times between major destinations should be minimized by providing some routes that operate on the fastest and most direct route, and by scheduling timed transfers between routes to minimize wait times. Layover or scheduled recovery time should only be provided at route termini.

The proposed Service Standards follow these general guidelines. They provide a tool for the guidance of those responsible for planning and operating the Citilink system, and can be used to evaluate performance once the routes comprising this system are in operation. In some cases, all design and performance standards may not be met because of cost, personnel, equipment, or other constraints. Every effort should be made to provide service that is in conformance with these standards. The process of identifying routes or portions of routes that either exceed or do not reach these standards should be used to guide decisions in response to decreases or increases in funding for Citilink service.

5.2 Route and Schedule Design Standards

The following standards provide an overview of route and schedule design, including standards for many elements of Citilink service. These standards were utilized as a basic guide for route and schedule design for the Citilink system.

Operating Environment

Citilink routes should operate primarily along major arterials. It should also run on some residential collector streets that are suitable for operation of Citilink buses, and in some cases interstate highways. Because of the need to minimize the impact of buses in residential areas, the use of smaller sized buses will be considered on certain routes that circulate through residential areas.

Service Area

Service coverage should be defined as the area within 1/3 mile walking distance of the nearest bus stop. Citilink shall serve to the extent feasible, all major employers, hospitals, schools, and public housing within the City of Fort Wayne.

Passenger Stops

In order to provide a safe environment for passenger boarding and alighting, Citilink should adopt a policy of formally designating bus stop locations. All bus stops will be designated and have signs indicating their location. Efforts will be made to include route and schedule information at bus stops. The spacing of bus stops will vary by location, but as a general rule, there should be 7 to 8 bus stops per mile in downtown Fort Wayne, and 3 to 6 bus stops per mile in other locations.

Route Spacing

The distance between routes will be guided by the population density and automobile availability according to the standards in the table below.

Automobiles PER HOUSEHOLD	Density (Persons Per Square Mile)			
	Over 5,000	2,501 to 5,000	1,000 to 2,500	Under 1,000
Under 0.40	1/4 mile	1/4 mile	3/8 mile	½ mile
0.40-0.80	1/4 mile	3/8 mile	½ mile	1 mile
0.81-1.50	3/8 miles	½ mile	1 mile	*
1.51-2.00	½ mile	½ mile	*	*
Over 2.00	1 mile	*	*	*

Hours of Operation

The hours of operation should be based on demand and relate to the route’s function. The maximum span of service is from 5:30 a.m. to 9:00 p.m. on weekdays, and from 7:00 a.m. to 7:00 p.m. on Saturdays.

Service Levels

Service levels for each route should be based on demand. To foster a systematic approach, two levels of service are defined for different operating time periods. The service level should be consistent through each time period.

Peak service is generally between the hours of 6:00 a.m. and 9:00 a.m., and between 3:00 p.m. and 6:00 p.m.

Off-peak service is provided at all other times including the mid-day period between 9:00 a.m. and 3:00 p.m. and in the evenings and weekends.

Every effort should be made to provide coverage throughout most of the service area during the off-peak service periods. But since lower ridership is experience during these times, a reduced number of routes may be operated.

Frequency of Service

The route’s frequency should correspond to demand. Some routes may only operate during the weekday peak period while others may run at all times with relatively high frequencies. Maximum policy headways for Radial, Crosstown, and Connector routes are below.

MAXIMUM HEADWAYS BY TIME PERIOD

Peak	Off-Peak
30 minutes	60 minutes

These maximum headways in the off-peak periods should not be exceeded if the route is to be operated. The maximum peak period standard of 30 minutes should only be implemented if sufficient ridership and funding exists. Headways should conform to regularly recurring clock intervals. Currently, all but two of the routes in the system operate on 60-minute headways throughout the service day. This will need to be addressed through the service design plan.

Transfers and Timed Transfers

Scheduled arrival and departure times for Citilink routes having common transfer points should be coordinated to the maximum extent feasible. Dwell time should be avoided on trunkline routes for mid-route transfer points. Routes should be designed to link in patterns that are consistent with consumer needs and desires, but also meet acceptable travel times.

Free transfers are provided by Citilink drivers upon request by passengers when boarding buses. The main transfer location is Superior Transit Facility. Transfers are accepted at other locations where routes intersect. The transfer ticket is only valid on the next scheduled trip to which the passenger is transferring. Transfers cannot be used for return trips.

Layover

The amount allocated for layover time will be a minimum of 7 percent of the total cycle time. Additional layover time may be provided as necessary to achieve clock headways. Layover should be avoided at locations where through passengers are expected. This includes mid-route locations and along one-way loops.

Loading Standard

Maximum loading standards ensure that most passengers will have a seat for at least the majority of their trip. The maximum average load factor is calculated by dividing the total number of passengers passing the maximum load point by the number of seats passing the maximum load point during the operating period being considered. Since this is an average, individual trips may exceed the standard. The loading standard for Citilink routes should be a maximum average load factor of 1.2 during the weekday peak periods, and 1.0 at all other time periods. For individual trips, this should not be exceeded for time periods greater than 15 minutes.

5.3 Passenger Amenities and Information

Passengers amenities and information are an important part of the service standards review of a transit network. These facets of Citilink operation relate to the user-friendly nature of the service provided. This is an important element of a transit network as a public service.

Bus Shelters and Benches

Bus stops with more than 25 passengers boarding on a daily basis should have a bus shelter. Benches should be provided at bus stops with more than 15 passengers per day.

In addition, since a large percentage of Citilink passengers transfer, passenger amenities should be provided at all major transfer locations. Special facilities may be provided, if necessary, at hospitals and clinics. These key bus stops should have bus shelters or other means of weather protection for passengers. Schedule information for all routes should be displayed or available to passengers.

Public Timetable Availability

Route and Schedule brochures will be available upon request from bus drivers and from Citilink office clerks. They will also be displayed and made available at the Superior Transit Facility and a number of other employment and activity centers throughout the City as determined appropriate by Citilink staff.

Bus Color and Logo

For easy identification of Citilink services, a Citilink color scheme and logo will be designed and updated from time to time. This will be used consistently on Citilink buses, letterheads, tickets, bus stop signs, and other printed materials or objects. The current logo and bus color are recent and were developed as part of an effort to “re-brand” the system. These colors and the logo should be maintained at the present time.

Vehicle Identification Sign

Identification signs will display the route the bus is traveling on at all times. When routes are interlined at the Superior Facility, the signs will be changed upon entering the downtown area and before reaching the Superior Facility.

Vehicle Accessibility

All Citilink vehicles should be lift equipped and all Citilink vehicles and facilities will be accessible to disabled persons as required by the Americans with Disabilities Act.

5.4 Performance Standards

These standards are intended to review the performance of each route and service in the system. Performance standards have generally been separated into route categories to provide separate standards by route function. It is important for Citilink, its board, and local decision-makers to understand that all routes cannot be expected to operate with the same efficiency. These standards are presented as an effort to classify routes for performance evaluation.

Passenger Productivity

Citilink should regularly evaluate the performance of individual bus routes based upon the revenue to cost ratio, passengers per revenue hour and passengers per revenue mile. It will assure that each route performs at a rate equal to at least 50% of the systemwide average for that transit mode. Other performance standards, such as on-time performance, should also be monitored.

Standards for individual route productivity should be based on actual experience. Those performing marginal or unsatisfactory will be scrutinized for ways to improve productivity. Routes significantly exceeding the “good” standard will be considered for improved service. Different standards for the different route categories are created. These standards, which are based on the September 2002 Citilink passenger count, are listed below.

RADIAL ROUTES

Category	Passengers/ Revenue Hour	Passengers/ Revenue Mile	Farebox Recovery Rate
Good	>20	>1.5	>15%
Satisfactory	15-20	1.0-1.5	10-15%
Marginal	10-15	0.7-1.0	5-10%
Unsatisfactory	<10	<0.7	<5%

CROSSTOWN ROUTES

Category	Passengers/ Revenue Hour	Passengers/ Revenue Mile	Revenue/Cost
Good	>15	>1.2	>10%
Satisfactory	10-15	0.7-1.2	7-10%
Marginal	7-10	0.4-0.7	4-7%
Unsatisfactory	<7	<0.4	<4%

ROUTE DEVIATION SERVICES

Category	Passengers/ Revenue Hour	Passengers/ Revenue Mile	Revenue/Cost
Good	>10	>1.0	>8%
Satisfactory	7-10	0.6-1.0	5-8%
Marginal	4-7	0.3-0.6	3-5%
Unsatisfactory	<4	<0.3	<3%

Schedule Adherence

It is expected that a critical success factor for Citilink routes will be providing convenient and reliable transfers. Therefore, on-time performance will be closely monitored. The routes with unsatisfactory performance will be candidates for corrective action.

Category	Percent Between 0 and 5 minutes Late
Good	90%
Satisfactory	85-90%
Marginal	80-85%
Unsatisfactory	<80%

5.5 On-Going Evaluation

Data determining the total number of passengers, the number of passengers per vehicle mile and vehicle hour, and the revenue/cost ratio, for each route and service should be collected on a monthly basis using farebox records operating records. Other performance indicators such as schedule adherence should also be monitored. Performance information for the system and for each individual route should be provided to the Citilink Board on a monthly basis. This report

should show the actual productivity measures for that particular month and be the basis of an on-going evaluation of individual Citilink bus routes.

Route evaluation should follow a two-step process. The first step is to identify how each route performs in terms of ridership and cost effectiveness compared with the performance standards. Once this screening process is completed, the second step is a detailed evaluation of each route that is either not performing up to standard or is performing well above average. These routes could be subject to a number of actions including frequency reduction, service span revision, realignment, rescheduling, route consolidation or other restructuring, extensive marketing efforts, or elimination.

The first step in the screening process should include all performance indicators but should focus on passengers per revenue hour, passengers per revenue mile, and the farebox recovery rate. The numbers of passengers per hour and per revenue mile are measures of system effectiveness. The expense recovery rate provides an indicator of the cost efficiency of each route, and provides one measure of the adequacy of the fare structure.

The period of time that performance indicators are calculated will relate to internal and external reporting requirements. Typically, they should be compiled on a monthly basis. Comparisons with the previous month, the same month for the previous year, and with a two or three year running average should be included to identify trends.

The performance achieved by Citilink routes should be used to modify the performance standards. For example, routes categorized as “good” can be those that exceed 125 percent of the system average for the particular measure. Acceptable routes are those falling between 75 and 125 percent of the system average. Marginal routes are between 50 and 75 percent of the system average, while unacceptable routes are below 50 percent of the system average. Routes that fall in the unacceptable category in two of the three principle measures will be subject to a detailed analysis.

Unacceptable routes should receive a more detailed analysis in step two. At this level in the performance evaluation process, a route’s performance in all standards is analyzed. This detailed evaluation should examine performance by time period, day of week, and route segment. A variety of measures should be considered for action including redesign, schedule reduction, schedule increase, marketing activity, and other actions.

Each route should be reviewed annually. Routes should be reviewed more often if ridership trends are negative, special requests for service are received, or other special circumstances are noted. The evaluation process should also include routes with good performance. These should be candidates for more frequent service or some other kind of service increase.

New Services

Newly established transit routes, after having operated for two years, should operate with performance standards at no less than 50% of the systemwide average in two of the three categories for its functional category. If a newly established transit route or service fails to

operate at the specified level for three consecutive months, following the initial two year period, then Citilink should evaluate alternative means to achieve the productivity standard or the route shall be terminated.

Service Expansion Policy

Improvements to and expansion of the Citilink system should be based on the Citilink Transit Development Plan.