

A St. Charles County Transit Plan For Intra-County Bus Service

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**A St. Charles County Transit Plan
For
Intra-County Bus Service
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A St. Charles County Transit Plan

I. Introduction

In 2006 the East-West Gateway Council of Governments (the Council) received a request from St. Charles County to update its 2001 Transit Plan report. The updated Transit Plan was to make adjustments to bus routes and schedules to account for increases and changes that have occurred in the County's population and employment, and demand for transit, resulting from an increase in persons who may be dependant on public transportation. Changes in the road system, traffic volumes, other bus systems, and use of commuter park and ride lots, also affect potential transit use. The following report discusses these items and presents a new plan for intra-county bus service.

Unlike previous plans, this updated plan would only consist of bus service in the I-70 corridor from the City of St. Charles to Wentzville. Service would be provided during the day on weekdays on an hourly basis. This report provides details of the transit service suggested, the location of bus routes, a schedule of bus service, and a cost estimate for providing these services.

II. Existing Conditions

Developing a transit plan for bus service in the I-70 corridor required a review of land use changes that had taken place in the County since 2001 when the old plan was completed. These changes were major in many locations. A substantial amount of growth in residential development occurred to the north and especially to the south from Rt. K and Rt. M in O'Fallon west to Wentzville. This increase spurred commercial and business development, especially around the Wentzville area, with increases in development experienced at all of the I-70 interchanges. The increase in employment raised the potential for jobs for persons in lower income brackets who may have little or no access to an automobile. Some of the items that were considered in developing the plan are as follows.

- an increase in population and its geographic distribution
- an increase in jobs and their distribution
- the amount of low income households and their distribution
- the increase in the elderly population and its distribution
- changes in travel patterns and traffic volumes
- existing and potentially new local bus service

A. Population and Employment

Recent Census estimates of population for St. Charles County indicate 329,600 persons in 2005. Employment also has risen and is estimated by the Council at 126,600 jobs. The population estimates do not directly convey changes in the number of persons who have little or no access to an automobile and are transit dependant. However, as the population increases, so do those who fall into this category and also those in an older age group. Persons 65 and over now represent about 11 percent of the total population of the County, up from 9 percent in 2000.

Many persons who would find public transportation quite useful are forced to find some other means of traveling to reach their destination. Some use friends or relatives to take them, change their days and times of travel, or simply do not make the trips. This can place a serious handicap on many persons in the County who need to travel for various reasons including purchasing essential items or to receive medical services.

Employment has continued to increase in the County and provides the opportunity for new jobs in all classification including those in lower paid position. This is especially true in service oriented businesses and other commercial establishments including restaurants. There are more medical facilities where positions are available and shopping facilities have grown adding to job opportunities. Many persons who would be attracted to lower paid positions have no auto or way of getting to these jobs. School enrollment has increased and many students could be served by public transportation. That could be a great help for many families, especially those in a lower income category. The availability of transit service would be a major factor in adding to the quality of life for many persons living in St. Charles County.

B. Land Use Changes

The corridors selected for transit service in earlier studies have had major increases in both residential and commercial development. Rt. 94 from Rt. 364 to Mid Rivers Mall Dr. will become a freeway with adjacent one-way service roads. From there to I-64, development continues at an accelerated pace and in the future will be ripe for transit service. The density of this development will require local bus service to reach into the residential areas and allow persons to travel to the employment opportunities along Rt. 94 and Rt. 364. Such service could also connect to transit service in the highly concentrated I-70 corridor. At this time, no such local service is provided except for the transit service provided by the City of St. Charles.

Along Mid Rivers Mall Dr. from I-70 to I-64 residential and commercial development has been growing, especially in the southern section from Willott Rd. to Central School Rd./Rt. N. The existence of Mid Rivers Mall and all of the adjacent commercial development in this area presents a large amount of employment opportunities and creates a substantial amount of person trips. Now and in the future, person trips generated in this corridor from this development could well be served by local bus service.

Rt. K from I-70 to Rt. N, has grown to be a major retail area. Commercial development now runs continuously in this section of road. Residential development to the east and especially to the west, has grown substantially. From Rt. N south to I-64, more residential development is occurring to the east and west and commercial establishments are growing along Rt. K adding to the potential need for transit service. Again, a local bus system in this area would be quite helpful.

In the Wentzville area, growth in residential and commercial development, especially along the Wentzville Pkwy. from Pearce Blvd. to Meyer Rd., and office development around the I-70/I-64 interchange, has created the need for local bus service.

Although local bus service in all the areas noted above could serve many persons living in those immediate areas, it would not serve longer trips to other areas along the I-70 corridor. Transfer stations from local bus service to an I-70 trunk line, that is, buses that would run between the City of St. Charles and the City of Wentzville, would greatly enhance the travel opportunities for many persons living and working in the I-70 corridor and other densely developed parts of the County .

C. Traffic Volumes and Congestion

Traffic volumes and congestion in St. Charles County has continued to increase despite improvements to streets and highways. Vehicle miles of travel, although growing at a slower pace, is still rising and more people are traveling and their trip lengths are longer. The reasons for this increased travel are many and are related to items discussed above. The growth in population and employment, combined with the travel from outside region, adds to the County's traffic volumes and congestion. These high volumes and congestion are experienced during the morning and afternoon peak hours. Bus service during this time can assist persons who are transit dependant as well as aid in relieving traffic congestion problems.

III. Existing Transit Services

A. Local Bus Service

Presently there is only one local bus system operating in St. Charles County. It is the St. Charles Area Transit (SCAT) system that is operated by the City of St. Charles. It provides bus service on four routes to all parts of the City from 9:00 a.m. until 4:00 p.m. on weekdays. Buses run on one hour schedules and include provisions for route deviations, if requested in advance. This amounts to seven bus runs per day. All routes use the O'Dell Senior Center on Fairgrounds Dr. just south of Boonslick Rd. as a transfer station. In addition to the local city bus service, the city operates four morning and afternoon peak hour commuter buses from the St. Joseph Health Center and three park and ride lots on I-70, Cave Springs Rd., Zumbahl Rd., and Fairgrounds Dr., to and from the N. Hanley MetroLink Station. All of the bus routes are served by 25 passenger buses equipped with a wheel chair lift. The SCAT local buses served about 30,000 passengers in 2006. The commuter bus service to the N. Hanley Rd. MetroLink Station served almost 25,000 passengers in 2006.

B. Paratransit Bus Service

Paratransit service is quite different from fixed route transit. Its primary purpose is to provide transportation services to persons, who are transit dependant and elderly, have developmental and/or mental disabilities, and poor or homeless persons who are disabled. It is demand responsive and persons call a paratransit provider and arrange for transportation on specific days. Transportation is provided using vans or minibuses and the drivers and vehicles must meet the requirements of the Americans with Disabilities Act (ADA) of 1990. Also, some paratransit trips are made on the SCAT system as its service can deviate (within given distances) from its fixed route for persons with special needs. Paratransit services are normally operated by social service or specialized private organizations receiving both public and private funding. Because of ADA requirements, they have

specific service mandates, operating conditions, and operating constraints.

In 2000 a study was conducted by Multisystems, Inc. and RLS & Associates, Inc. for the Council to determine the need for paratransit and transit service in St. Charles County. This report was presented to the Council in October 2000. It contained a detailed examination of the County's population and demographic makeup in order to determine the number of person who were in need of paratransit and transit services. Details of the report were referenced in the 2001 transit report prepared by the Council and was once again used in the development of this report.

IV. Transit Plan Development

Based on the earlier studies and the discussion above, a new transit plan for St. Charles County was developed. It consists of trunk line bus service in the I-70 corridor from the City of St. Charles to Wentzville. It will contain two sections; an east section that will run from the City of St. Charles to Mid Rivers Mall and a west section that will run from the Mall to Wentzville. The streets and stops of the bus routes for each section are described below. Schedules for the runs in each direction are listed in their Tables. The buses are scheduled to run once an hour from 6:00 am through 7:00 pm. They will make stops for passengers at all locations listed on the schedule, all major intersections, and other locations, such as large commercial developments and medical facilities.

A. STC I-70 East Bus Route Descriptions

The STC I-70 East bus route differs slightly from the one in the 2001 report. The route will start at the O'Dell Senior Center on Fairgrounds Dr. In this manner, it will be able to offer transfers to persons using the SCAT bus system. Starting at this location it will go south and run past the new St. Charles Convention Center and turn right past the park and ride lot and travel west on Veterans Memorial Pkwy. passing through the new Rt. 94 underpass a distance of 1.0 miles. It will continue west to the Regency Shopping Mall and turn left into the main entrance opposite the Wal-Mart Store, a distance of about 0.9 miles. It will turn right on the service road in front of Wal-Mart and travel west to Regency Pkwy. and turn left on Regency Pkwy. to Zumbahl Rd. It will then turn right on Zumbahl Rd. and travel north turning left into the shopping center that includes the Dierbergs store. It will travel the service road and run north to the signal at Veterans Memorial Pkwy. for a total distance of about 1.5 miles. It will turn left at the signal and then right onto Veterans Memorial Pkwy. and travel west to Mexico Rd., a distance of about 1.5 miles. From the intersection of Veterans Memorial Pkwy. and Mexico Rd. it travels west to Jungermann Rd., about 1.0 miles. Just past there, it turns right and enters BJC Hospital and stops at the main entrance. It will exit using the west drive onto Mexico Rd. and run past the St. Peters Government Center and on to Mid Rivers Mall Dr. It will turn right and travel north serving all the commercial development along both sides of the road to Suemandy Dr. opposite the Mall, a distance of 3.7 miles. There it will turn right and travel east around the Mall, serving the Mall and commercial development on the south side and travel to Executive Center Pkwy. There it will serve commercial development to the east of the Mall. It will turn left into the Mall opposite the Sears store, turn right on the service road, and travel north around the Mall, turning into and stopping at the west entrance between Macy's and Dillards,

a distance of about 1.5 miles. The total distance of the STC I-70 East bus route is about 11.0 miles. This will be the west terminus of the STC I-70 East route and the east terminus of the STC I-70 West route where passengers can transfer from one bus to the other. The bus will travel this same route back to the O'Dell Senior Center except upon leaving the Mall on Suemandy Dr. it will cross Mid Rivers Mall Dr. and circle through the commercial area on the west side of the road. It will leave this area turning right on Mid Rivers Mall Dr. This will lengthen the eastbound route to a total of about 12 miles before it returns to the O'Dell Senior Center. This bus route is shown in Figure 1.

B. STC I-70 West Bus Route Descriptions

The STC I-70 West bus route will start at the Mid Rivers Mall west entrance between Macy's and Dillards. It will leave the Mall, turn right on Suemandy Dr. and travel across Mid Rivers Mall Dr. serving the commercial area on the west side of the road. It will leave the commercial area, turn right and travel south on Mid Rivers Mall Dr. serving the adjacent commercial development to Mexico Rd., for a distance of about 1.4 miles. There it will turn right and proceed west on Mexico Rd. to Rt. K, a distance of 4.0 miles. It will turn right on Rt. K and travel north to the entrance of the Wal-Mart commercial area on the west where it will turn left, and travel the service road around to the west at Woodlawn Ave. and turn left to Mexico Rd., a distance of 0.6 miles. There it will turn right and travel west to Bryan Rd. and turn right and travel north to Veterans Memorial Pkwy. a total of 3.0 miles. There it will turn left to Lake Saint Louis Blvd., a distance of 2.1 miles. It will continue west on Veterans Memorial Pkwy. serving St. Joseph's Hospital West and commercial development to Rt. A, a distance of 2.1 miles. It will turn right on Rt. A and travel past the GM plant stopping at entrances and other commercial development, if needed, and on to U.S. 61, a distance of 3.4 miles. It will continue west on Wentzville Pkwy. stopping at intersections as needed and on to the Wentzville St. Joseph Hospital and turn right into the Hospital, a distance of 1.9 miles, which will be the west terminus of the STC I-70 West bus route. The total length of the STC I-70 West bus route is about 19 miles. This bus route is shown in Figure 2.

C. STC I-70 East Bus Route Schedule

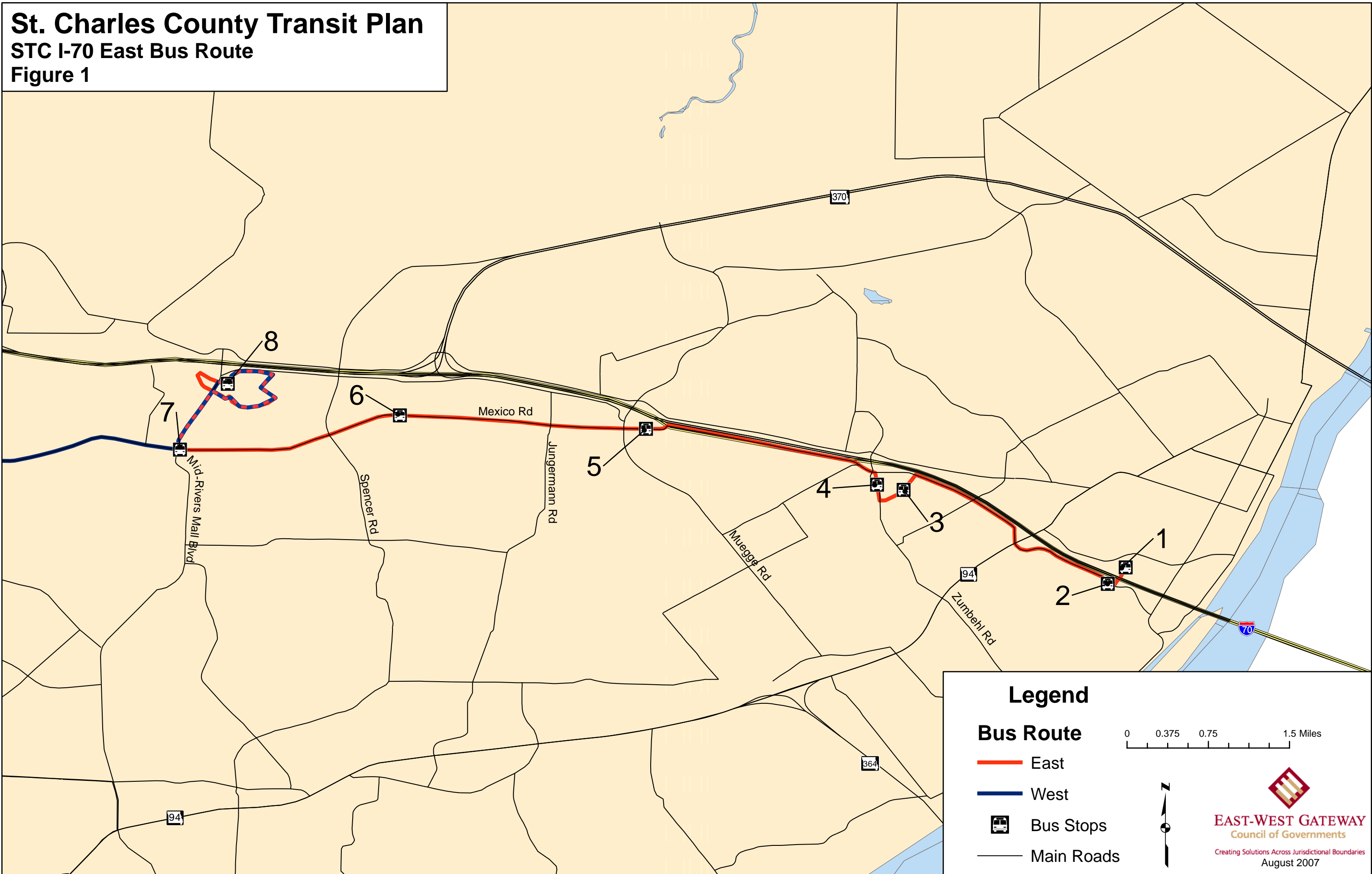
Bus schedules for the STC I-70 East bus route were developed by driving the route during the morning and evening peak hour periods. Bus schedules were developed for the westbound and eastbound runs and are shown in Tables 1 and 2. They show the time that the bus leaves key locations along the route. The buses will run once an hour from 6:00 am through 7:00 pm. on weekdays, and will make stops at all major intersections and other selected locations. The bus schedules provide time for drivers to have 15 minutes breaks every hour. It also allows for the I-70 East and I-70 West routes to transfer passengers at Mid Rivers Mall so they can continue their travel along the corridor. The eastbound run will simply follow the same route as the westbound run with a minor addition in the vicinity of Mid Rivers Mall.

The I-70 bus routes provide the opportunity for cities along the corridor to provide local bus service similar to that of the SCAT service. Local buses can serve residential and commercial areas along many major routes including Rt. 94, Mid Rivers Mall Dr., Rt K, and Bryan Rd. around the City of Wentzville, considerable commercial development has occurred along the Wentzville Pkwy. from

St. Charles County Transit Plan

STC I-70 East Bus Route

Figure 1



Legend

Bus Route

— East

— West

 Bus Stops

— Main Roads

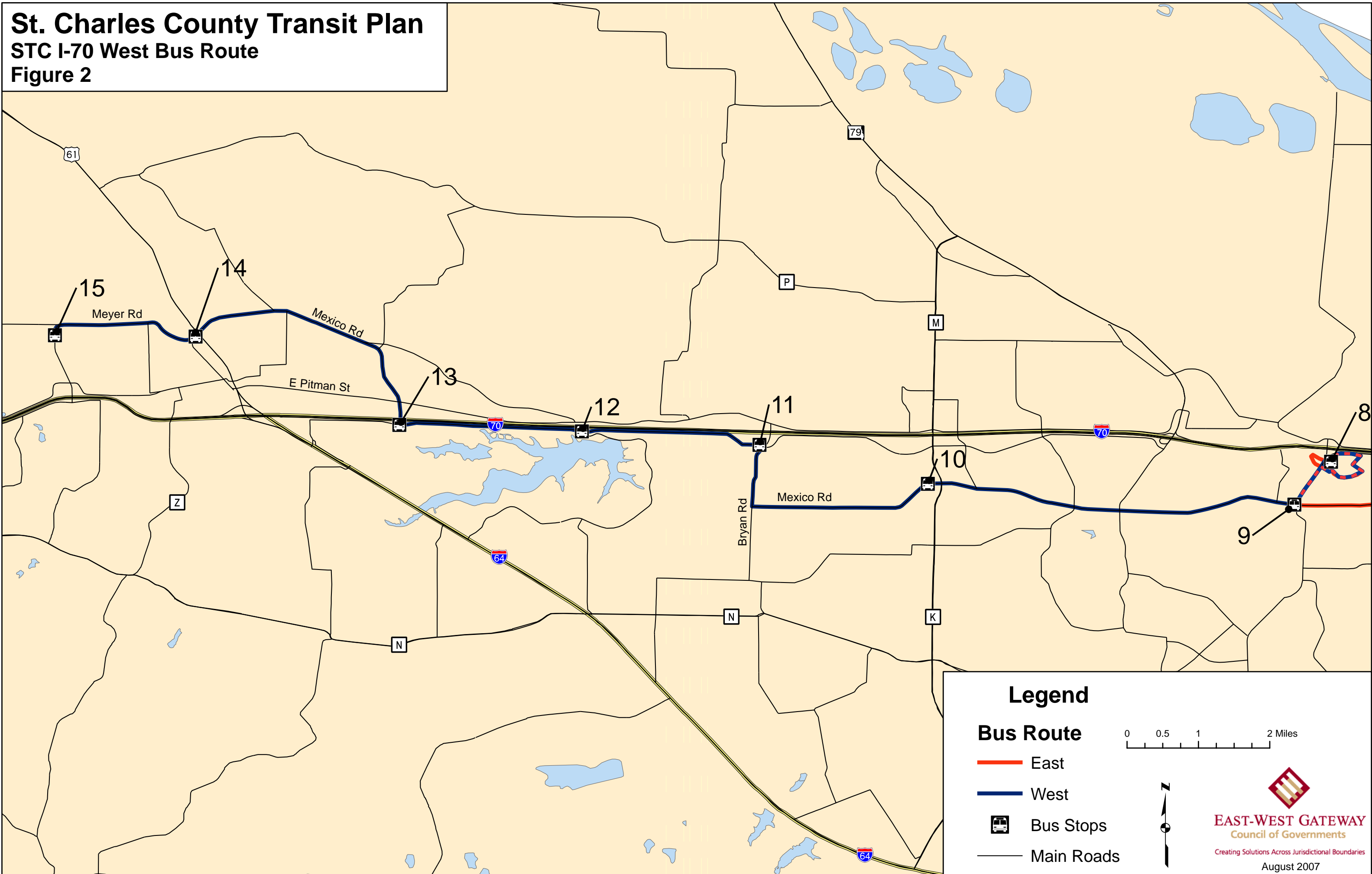
0 0.375 0.75 1.5 Miles



EAST-WEST GATEWAY
Council of Governments

Creating Solutions Across Jurisdictional Boundaries
August 2007

St. Charles County Transit Plan
STC I-70 West Bus Route
Figure 2



Legend

Bus Route

- East
- West
- Bus Stops
- Main Roads

0 0.5 1 2 Miles



Pearce Blvd. north to West Meyer Rd. and now continues east to U. S. 61. Residential development all around the city has grown at a fast pace. Local bus service in these corridors will allow persons to connect to the I-70 trunk line bus routes to travel east and west for work or other trip purposes. They can also connect to the SCAT commuter buses to the MetroLink Station. With continued growth along the I-64 corridor at all the interchanges, north-south bus service on many of these roads could enhance job opportunities that are presently developing there.

Table 1
STC I-70 East Bus Route
Westbound Schedule
Monday through Friday

O'Dell Senior Center	St. Charles Convention Ctr.	Regency Sq. Mall Wal-Mart	West Zumbahl Rd. Shopping Center	Veterans Mem. Pkwy. Cave Spgs. Rd.	St. Peters Government Ctr.	Mid Rivers Mall Dr.	Mid Rivers Mall West Entrance
1	2	3	4	5	6	7	8
6:00	6:03	6:08	6:12	6:20	6:28	6:35	6:45
7:00	7:03	7:08	7:12	7:20	7:28	7:35	7:45
8:00	8:03	8:08	8:12	8:20	8:28	8:35	8:45
9:00	9:03	9:08	9:12	9:20	9:28	9:35	9:45
10:00	10:03	10:08	10:12	10:20	10:28	10:35	10:45
11:00	11:03	11:08	11:12	11:20	11:28	11:35	11:45
12:00	12:03	12:08	12:12	12:20	12:28	12:35	12:45
1:00	1:03	1:08	1:12	1:20	1:28	1:35	1:45
2:00	2:03	2:08	2:12	2:20	2:28	2:35	2:45
3:00	3:03	3:08	3:12	3:20	3:28	3:35	3:45
4:00	4:03	4:08	4:12	4:20	4:28	4:35	4:45
5:00	5:03	5:08	5:12	5:20	5:28	5:35	5:45
6:00	6:03	6:08	6:12	6:20	6:28	6:35	6:45
7:00	7:03	7:08	7:12	7:20	7:28	7:35	7:45

Table 2
STC I-70 East bus Route
Eastbound Schedule
Monday through Friday

Mid Rivers Mall West Entrance	Mid Rivers Mall Dr.	St. Peters Government Ctr.	Veterans Mem. Pkwy. Cave Spgs. Rd.	West Zumbuhl Rd. Shopping Area	Regency Sq. Mall Wal-Mart	St. Charles Convention Ctr.	O'Dell Senior Center
8	7	6	5	4	3	2	1
6:00	6:10	6:17	6:25	6:33	6:37	6:42	6:45
7:00	7:10	7:17	7:25	7:33	7:37	7:42	7:45
8:00	8:10	8:17	8:25	8:33	8:37	8:42	8:45
9:00	9:10	9:17	9:25	9:33	9:37	9:42	9:45
10:00	10:10	10:17	10:25	10:33	10:37	10:42	10:45
11:00	11:10	11:17	11:25	11:33	11:37	11:42	11:45
12:00	12:10	12:17	12:25	12:33	12:37	12:42	12:45
1:00	1:10	1:17	1:25	1:33	1:37	1:42	1:45
2:00	2:10	2:17	2:25	2:33	2:37	2:42	2:45
3:00	3:10	3:17	3:25	3:33	3:37	3:42	3:45
4:00	4:10	4:17	4:25	4:33	4:37	4:42	4:45
5:00	5:10	5:17	5:25	5:33	5:37	5:42	5:45
6:00	6:10	6:17	6:25	6:33	6:37	6:42	6:45
7:00	7:10	7:17	7:25	7:33	7:37	7:42	7:45

D. STC-I-70, West Bus Route Schedule

Bus schedules for the STC I-70 West bus route were also developed by driving the route during the peak hours. Bus schedules have been developed for the westbound and eastbound runs of the I-70 West bus route and are shown in Tables 3 and 4. The bus routes for the I-70 West is almost the same as in the 2001 report. The route will serve a larger amount of commercial and residential development which have taken place since the last report. The schedules show the time that the buses leaves key locations on the route. They will make stops at major intersections and other locations to better serve commercial, residential, and medical facilities. As noted earlier, the buses

will run once an hour from 6:00 am through 7:00 pm., on weekdays. The bus schedules provide sufficient time for drivers to have a 10 minute break every hour. They will also allow transfers to the I-70 East buses at Mid Rivers Mall. The eastbound run will simply follow the same route as the westbound run.

Table 3
STC I-70 West Bus Route
Westbound Schedule
Mondays through Friday

Mid-Rivers Mall	Mid Rivers Mall Dr. & Mexico Rd.	Mexico Rd. & Rt. K Wal-Mart	Bryan Rd. & Veterans Mem. Pkwy.	Lake Saint Louis Blvd. & Veterans Memorial Pkwy.	Veterans Memorial Pkwy. & Rt. A	Rt. A & U.S. Rt. 61	St. Joseph Hospital
8	9	10	11	12	13	14	15
6:00	6:06	6:16	6:26	6:32	6:40	6:45	6:50
7:00	7:06	7:16	7:26	7:32	7:40	7:45	7:50
8:00	8:06	8:16	8:26	8:32	8:40	8:45	8:50
9:00	9:06	9:16	9:26	9:32	9:40	9:45	9:50
10:00	10:06	10:16	10:26	10:32	10:40	10:45	10:50
11:00	11:06	11:16	11:26	11:32	11:40	11:45	11:50
12:00	12:06	12:16	12:26	12:32	12:40	12:45	12:50
1:00	1:06	1:16	1:26	1:32	1:40	1:45	1:50
2:00	2:06	2:16	2:26	2:32	2:40	2:45	2:50
3:00	3:06	3:16	3:26	3:32	3:40	3:45	3:50
4:00	4:06	4:16	4:26	4:32	4:40	4:45	4:50
5:00	5:06	5:16	5:26	5:32	5:40	5:45	5:50
6:00	6:06	6:16	6:26	6:32	6:40	6:45	6:50
7:00	7:06	7:16	7:26	7:32	7:40	7:45	7:50

Table 4
STC I-70 West Bus Route
Eastbound Schedule
Mondays through Friday

St. Joseph Hospital	Rt. A & U.S. Rt. 61	Veterans Memeorial Pkwy. & Rt. A	Lake Saint Louis Blvd. & Veterans Memorial Pkwy.	Bryan Rd. & Veterans Mem. Pkwy.	Mexico Rd. & Rt. K Wal-Mart	Mid Rivers Mall Dr. & Mexico Rd.	Mid-Rivers Mall
15	14	13	12	11	10	9	8
6:00	6:05	6:10	6:16	6:24	6:34	6:44	6:50
7:00	7:05	7:10	7:16	7:24	7:34	7:44	7:50
8:00	8:05	8:10	8:16	8:24	8:34	8:44	8:50
9:00	9:05	9:10	9:16	9:24	9:34	9:44	9:50
10:00	10:05	10:10	10:16	10:24	10:34	10:44	10:50
11:00	11:05	11:10	11:16	11:24	11:34	11:44	11:50
12:00	12:05	12:10	12:16	12:24	12:34	12:44	12:50
1:00	1:05	1:10	1:16	1:24	1:34	1:44	1:50
2:00	2:05	2:10	2:16	2:24	2:34	2:44	2:50
3:00	3:05	3:10	3:16	3:24	3:34	3:44	3:50
4:00	4:05	4:10	4:16	4:24	4:34	4:44	4:50
5:00	5:05	5:10	5:16	5:24	5:34	5:44	5:50
6:00	6:05	6:10	6:16	6:24	6:34	6:44	6:50
7:00	7:05	7:10	7:16	7:24	7:34	7:44	7:50

It is recognized that the STC I-70 East bus route is 12 miles long while the west route is 19 miles, seven miles further. The travel time for the east route is estimated at about 45 minutes based on the number of stops that it will serve. The west route is 50 minutes, only five minutes longer. However, the roads that the east route travel have lower speed limits, more traffic signals and congestion, and more bus stops. The west route has higher speeds, less traffic signals and congestion, and fewer bus stops. Trial runs were made for each run to assure that the travel times would be close to what can be expected when the buses are placed into operation. They proved to be quite accurate.

V. Transit System Implementation and Costs

The means for implementing the transit system and determining the cost for providing the bus service were two very important factors that had to be considered in this study. Management of the transit system would be provided by the St. Charles County Transit Authority which was established in 1992 by action of the Missouri General Assembly. Methods of implementation and estimating the cost to provide the bus service are discussed below.

A. Methods of Implementation

Two methods were considered for implementing the bus service described. The first was for the St. Charles County Transit Authority to purchase the buses, hire the necessary personnel, and operate the bus system. The second was for the Transit Authority to contract with a bus company and pay them for supplying the buses and personnel to provide the described bus services. The 2001 study recommended that the Transit Authority contract for these services. Since this was to be the first effort on the part of the Transit Authority and since no other bus facilities, equipment, or personnel are in place, this report also recommends hiring a company to provide these services.

B. Cost for Bus Service

The following items were reviewed in order to develop a cost estimate for providing the bus services as outline in the STC I-70 East and West descriptions and schedules.

- the type of buses to be used,
- the number of buses and yearly bus hours required,
- an estimate of the cost per bus hour for providing the described bus service,
- an estimate of the cost to provide maintenance facilities for the buses,
- administrative and operational costs,
- initial start-up costs, and,
- an estimate of bus patronage and anticipated fare-box revenue

B-1. Bus Type

The type buses used for the SCAT bus system was used as a guide since they provide the same type of services that will be needed for the I-70 trunk line service. They meet the Federal and State requirements for operating buses under the ADA law, carry 25 passengers, and can operate on all streets as well as on highways. Therefore, the same type of buses, 25 passenger, wheel chair lift equipped, is recommended for the I-70 trunk line system.

B-2. Number of Buses Needed

Based on the tables that show the East and West bus routes and their time schedules, the number of buses required was determined. Since the buses would run on an hourly basis, one bus in each direction for each route would be needed. One bus in a standby mode would be required in case of a mechanical breakdown and the need for a replacement on either of the routes. That means a total of five buses would be needed to operate the bus system.

B-3. Number of Bus Operation Hours

Since the buses will operate for 14 hours a day and there are four bus runs, a total of $(14 \times 4 \times 5 \times 52) = 14,560$ bus hours will be needed each year. This is based on a five day week and 52 weeks per year.

B-4. Number of Bus Operator Hours

Since each bus route will operate for 14 hours a day, two shifts of drivers will be needed. Drivers will be required to be at the bus terminal at least thirty minutes in advance of their bus runs to allow them to travel to the starting point of the bus run. They will also be given thirty minutes to travel back to the terminal at the conclusion of their runs. This amounts to an eight hour day. Based on the bus run hours, eight operators each day will be needed. This will amount to a total of $(8 \times 8 \times 5 \times 52) = 16,640$ bus driver hours each year. No spare driver will be needed for the spare bus.

C. Estimated Yearly Cost

In the 2001 report an estimate was provided for contracting with a bus operator for the services as shown on the schedules. The cost were based on a company providing 25 passenger buses, wheel chair equipped, and the qualified drivers for the number of yearly hours. For this report the same procedure was followed. Discussions were held with a major company that supplies buses throughout the St. Louis area and drivers who pass all requirements for the type of services requested. The cost estimates suggested by the company indicated the same arrangement as in 2001 but the hourly cost had increased.

C-1. Contractor Cost

The cost for providing the four buses for a total of 14,560 hours would be \$65 per hour or a total of \$946,400. The cost for providing a spare bus for 3,640 hours, the number of hours a bus would operate in one year, would be 25% of the cost of operating the bus. That would equal $(0.25 \times 3,640 \times \$65 = \$59,150)$ or about \$60,000. The total cost for contracting for the bus service described above for one year would be slightly over one million dollars. This would include the cost to provide the buses and drivers, maintain the vehicles, and keep them at a location that would be provided and paid for by the Transit Authority.

C-2. Storage and Maintenance Facilities

In order to provide the above bus service, a storage and maintenance facility will be needed and made available to the bus contractor. It will be from this location that buses will start and end each bus run. The facility will have to have room to store the five buses and a garage for their routine maintenance. Major maintenance will be probably be performed at another location. Rooms will be needed for the drivers to gather before reporting to work and for required work before and after the bus runs. Equipment needed for the maintenance facility would be determined upon negotiations with contractor selected to provide the bus service. The contractor may also be required to provide a person at the maintenance facility to handle telephone service, dispatching, and other routine bus performance matters. It is expected that the maintenance facility would be located somewhere in

the area of the Mid Rivers Mall so as to be centrally located. This facility can either be purchased or leased by the Transit Authority and is estimated to cost about \$300,000 a year. The Transit Authority may be able to reduce this cost by negotiating with local companies to use facilities and services that already exist.

C-3. Administrative and Incidental Operation Costs

It is possible that a full or part time administrative staff will be needed to oversee the bus operations. This person(s) will monitor the contractor, provide communication with the public, handle the printing and distribution of bus schedules, provide for bus advertising, and handle the collection of bus fares. In addition, maintenance will be required to replace bus signs, fix bus shelters (if erected), and handle other miscellaneous business. The Transit Authority will have to pay for the personnel, material, and equipment needed to provide these services. It is estimated that this could cost around \$75,000 per year. Additional costs for maintenance of signs and miscellaneous materials could increase this cost to \$200,000 per year.

C-4. Start-up Cost

It is expected that there will be an initial start-up cost for this project. Equipment will have to be purchased and installed at the bus maintenance facility. This could be quite costly. Signs will have to be erected along the bus routes, advertisement will be required, and inquiries from the public will have to be answered. It is possible that public hearings may be necessary to meet legal requirements of St. Charles County in order to answer questions from the public and inform the public of route locations and schedules. Cost for this could amount to \$400,000 to \$500,000.

C-5. Estimated Bus Patronage and Fare-box Recovery

Since the 2001 report, updated data on ridership for local or intra-county bus service has become available. Nationwide, transit patronage and local bus service has continued a slight decline although in some large metropolitan areas it has grown. In the metropolitan St. Louis area patronage has remained steady and in some cases, has increased slightly. Discussion with City of St. Charles personnel who administer the SCAT operation indicates their local bus patronage has remained steady and patronage on the commuter service on I-70 to the MetroLink Station at N. Hanley Rd. has been increasing.

After much review and considering the data from SCAT, local bus lines in St. Louis, and other metropolitan areas in the United States, it was decided that an average of five boardings per bus would be an appropriate number to use for estimating bus patronage. Obviously, some runs could be low while the peak hours could have sizeable numbers. Since there will be 14 bus runs each day, each way, for both the East and West routes, this amounts to 14x4 or 56 bus runs each day. Using an average of five boardings per bus run, the total daily boardings are estimated to be 280 (5x56). For five days a week and 52 weeks per year, the estimated yearly boarding total is (280x5x52) or 72,800 passengers.

Bus fares have been tentatively set at \$1.00 per person, age 16 and older, and \$0.75 for seniors, those over 65, and for children under age 16 to age 5. It is estimated that 50 percent of the passengers

would be between the ages of 16 and 65. Those over 65 would be 35 percent and those under 16, 15 percent. Using these figures and the patronage forecasts, the fare-box revenue can be expected to be as follows. At 36,400 times \$1.00 equals \$36,400. Another 36,400 at \$0.75 would equal \$27,300. This totals \$63,700 per year.

One item that could add to the fare-box revenue would be the cost to transfer from the East bus run to the West bus run. A decision on charging for transfers has yet to be made but it is possible that at least twenty five cents could be a fair charge. It is possible that seniors and children under 16 would be excluded. Therefore, using a rough estimate of 20 percent of passengers wanting to make a transfer and the same proportions of seniors and children would provide a yearly revenue of \$3,640. This would bring the fare-box revenue to almost \$67,000. Obviously, the fare structure including seniors, children, and transfer costs, will all be set by the Transit Authority and could change the fare-box recovery number cited above.

C-6. Total Yearly Transit System Costs

The cost estimate for the Transit Authority for contracting with a bus company to provide the bus service outlined in this report indicates a yearly figure of about \$1.1 million. The cost for providing a maintenance and storage facility could be around \$300,000. Administration, supervision, and maintenance cost could add another \$200,000. The start-up cost could be about \$500,000 (estimated on the high side). It is expected that there will be unexpected cost in developing and providing bus service as outlined in this report. This could amount to as much as 10 to 15 percent of the total cost or about \$350,000. The total cost, therefore, would be about \$2.5 million. Obviously, the Transit Authority may be able to refine these estimates as mentioned in the leasing of a maintenance facility.

It is recommended that the Transit Authority obtain the services of a company that specializes in determining ways of obtaining funding for the transit system described in this report. In this manner, long-term finances involved in providing funds in the range of \$2.5 million per year, as noted above, can be accurately developed.