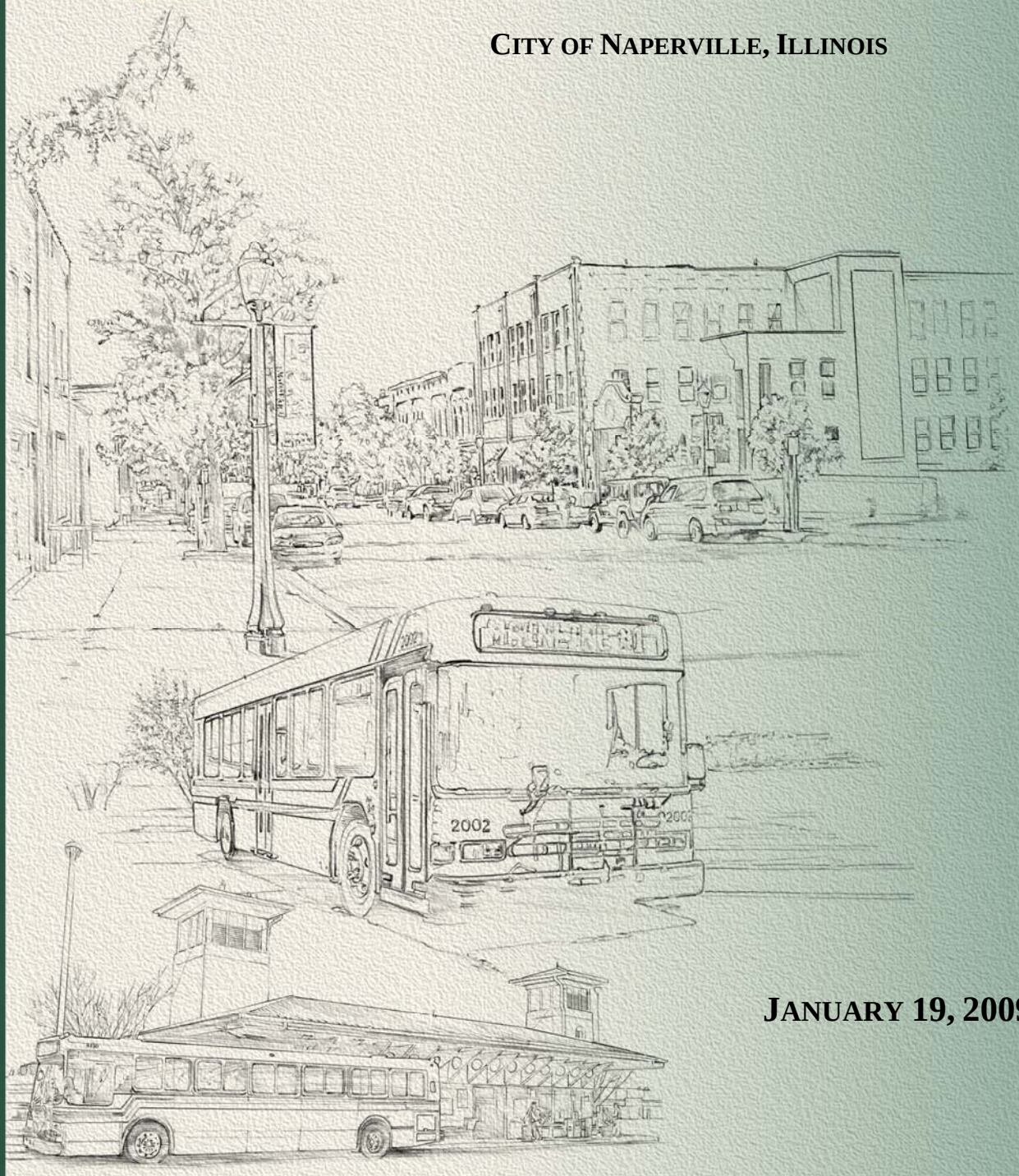
RLS & Associates, Inc.

NAPERVILLE CIRCULATOR STUDY

CITY OF NAPERVILLE, ILLINOIS



JANUARY 19, 2009

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APPENDIX D: PROPOSED RESPONSIBILITIES FOR OPERATION FOR MUNICIPAL LOCAL BUS SERVICES

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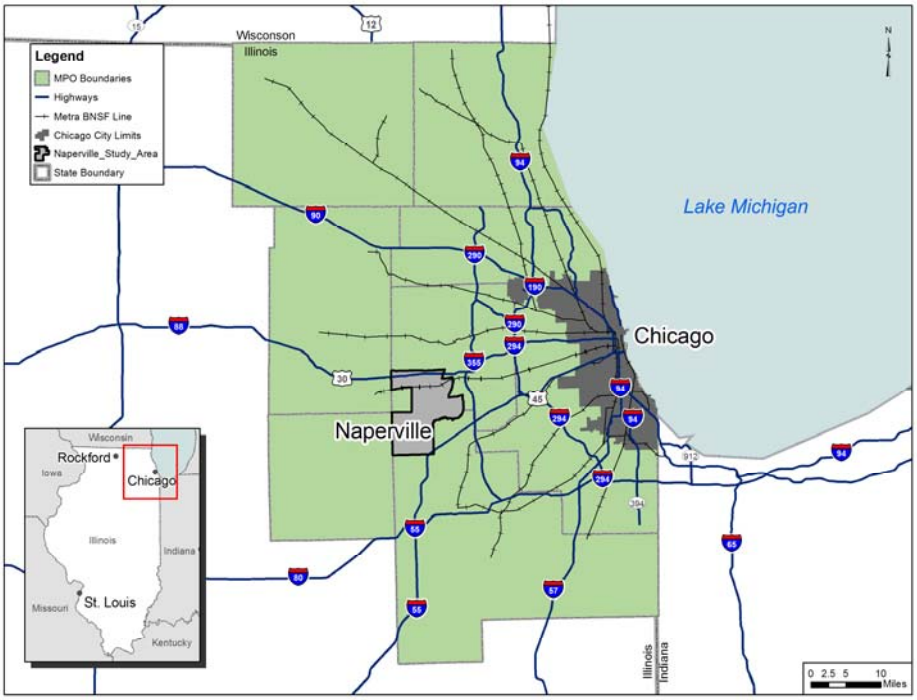
I. INTRODUCTION

The City of Naperville contracted with RLS & Associates, Inc. to conduct a Transportation Circulator study. The primary goal of this effort is to develop a plan for circulator service within the City of Naperville. This study represents an opportunity to evaluate current public transportation service options for the City, estimate costs, and identify potential funding for new services. Included in this report is an analysis of the potential markets for Naperville circulator service, summaries of Circulator Study Steering Committee meetings, public forums, a general public survey, and one-on-one interviews. It also includes relevant information describing existing transportation services. Recommendations for new Circulator routes are included in the final chapters.

Circulators are a type of transportation service that serves local trips. They bring people to local destinations and to places to connect to other regional transit services.

Naperville is located in Will and DuPage Counties approximately 28 miles west of Chicago, as shown in Exhibit 1 below. According to the 2000 Census, the population in block groups partially or fully within the City was approximately 182,649. According to the Illinois Department of Employment Security, Naperville's employment base is about 67,000.

Exhibit 1
Study Area



II. CURRENT PUBLIC TRANSIT SERVICES

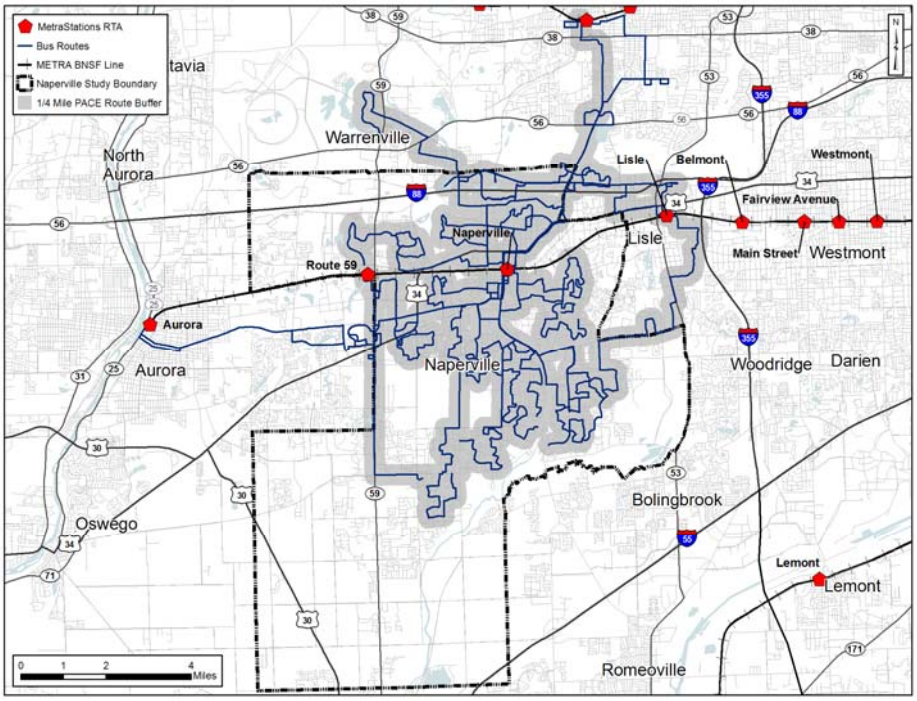
Two transit agencies, Pace Suburban Bus Service and Metra commuter rail service, currently serve Naperville. Pace provides 21 feeder bus routes from Naperville to the Metra rail stations, and two other routes that operate throughout the day. Metra has two stations in Naperville and is the key transit link between Naperville and Chicago. There are no express bus routes between the two cities. Ride DuPage also provides demand response service for older adults and disabled persons in Naperville.

METRA AND PACE TRANSIT SERVICES

Metra and Pace Transit Services

Nearly half of the City of Naperville's geographic area is located within a quarter mile of bus service, as highlighted in Exhibit 2 below.

Exhibit 2
Location of Existing Transit Services in Naperville

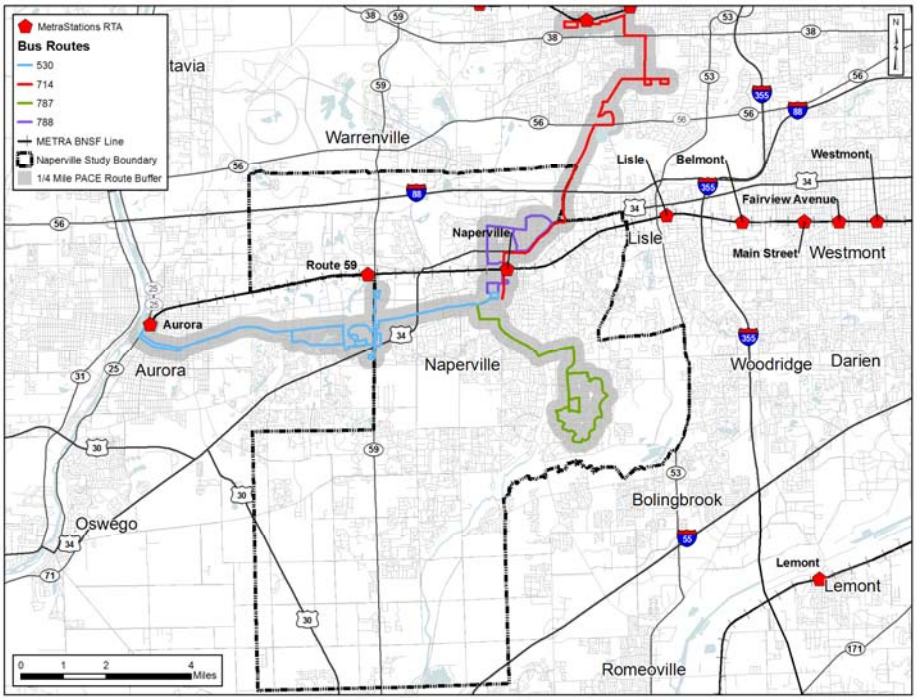


However, 38 percent of the area served by Pace is only served by feeder bus routes to Naperville Metra stations during peak hours. The bus routes provide service to some major shopping centers, major employment centers, high density and low density housing areas, medical facilities, schools and public facilities. A listing of the Pace feeder bus routes is provided in Attachment A.

ALL DAY TRANSIT SERVICE

Of the 23 bus routes in Naperville, two routes provide all day service, running from approximately 6:00 a.m. to 10:30 p.m., and two other routes (787 and 788) provide midday service from 12:15 p.m. to 4:30 p.m. to local services, medical facilities, retail centers, and schools. The two mid-day routes will be eliminated in October 2008 because of low ridership. Only eleven (11) percent of the geographic area of the City of Naperville is located within a quarter mile of an all day or midday bus service route, as shown in Exhibit 3.

Exhibit 3
Location of Existing All-Day and Mid-Day Bus Routes in Naperville



The all day service routes provide service to four Metra Stations in Naperville, Aurora, and Wheaton, more than 20 shopping centers, downtown Naperville, Edward Hospital, four colleges in Naperville and Wheaton, three schools, and three major housing complexes. The midday service routes provide access to the five shopping centers, the Naperville Metra station, and Edward Hospital.

III. MARKET ANALYSIS

The transit market analysis for Naperville is intended to show the largest potential markets, or combination of markets suitable for circulator service in the City of Naperville. Circulator services are most successful when they serve a wide range of market segments. Therefore, the market analysis conducted for the City of Naperville examined several different market segments, including:

- Metra connections for Naperville residents
- Employee trip patterns
- The transportation disadvantaged
- Medical transportation
- Shoppers
- Public school students

A circulator can make it easier for Naperville residents, such as young families, elderly, and youth, to travel to community attractions, schools, medical facilities, and community services throughout the day and evening. Circulator routes can reduce parking demand in congested shopping centers, medical facilities, schools and other locations, and provide reliable all day transportation.

THE COMMUTER MARKET

The Commuter Market

The 2000 U.S. Census Journey to Work data was used to quantify the commuter market to employment locations in Naperville. According to the Illinois Department of Employment Security, Naperville has an employment base of approximately 67,000.

Trips are described as one-way morning peak period trips as reported in the Journey to Work Census data. The trip data was aggregated by municipality; therefore, some census tracts were divided and the number of trips was uniformly divided between cities based on the percent geographic coverage of the tract in each city.

BNSF Metra Market to Naperville

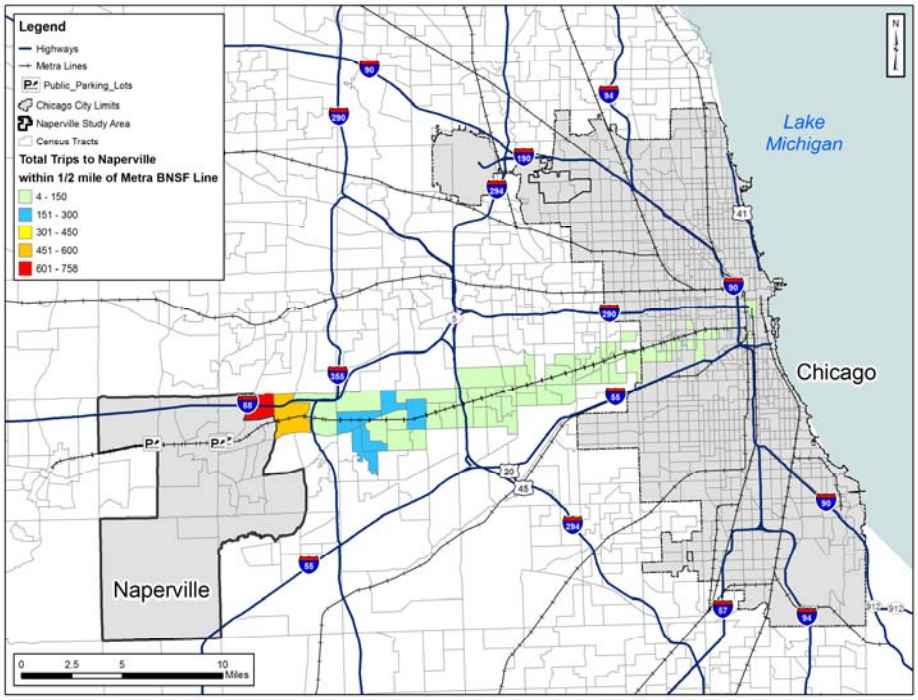
According to the *Preliminary 2008 Metra Program & Budget*, there were approximately 3,200 total daily commute trips in FY 2007 between the Chicago area and Naperville.

The U.S. Census Journey to Work data was evaluated to determine the potential market for additional work commute trips to Naperville on Metra. Exhibit 4 depicts the total number of commute trips to Naperville generated within a half a mile of the BNSF Metra line. This could be a

prime target market, because these commuters would have access to the rail stations and could potentially walk, bike, or take the bus.

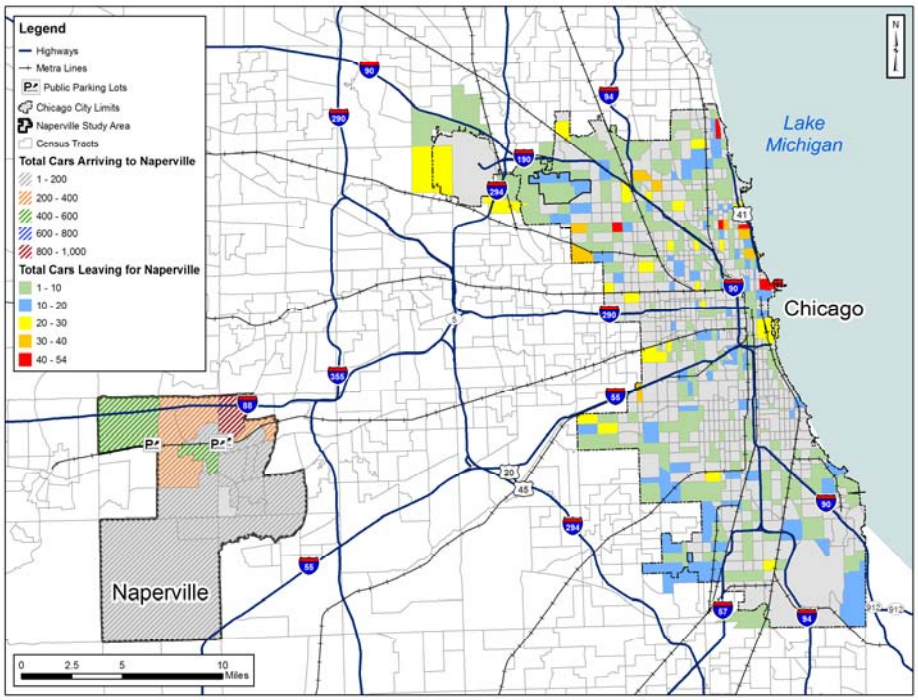
Exhibit 4 shows that the total number of car trips within a half a mile of the BNSF Metra line is approximately 3,500. Most of the trips originate in the neighboring communities of Lisle and Westmont with fewer and fewer trips being generated to the east.

Exhibit 4
Existing Metra Market between Chicago and Naperville



The number of Chicago residents who work in Naperville was also estimated. Nearly 4,000 trips are made from Chicago to Naperville during the morning peak period. As shown Exhibit 5, most of these trips are destined for the northeast section of Naperville, the location of many office and industrial parks.

Exhibit 5
Existing Metra Market from Chicago to Naperville



Pace Ridership

Part of the market for circulator service will depend on the existing Pace bus connections within Naperville. Therefore, the current Pace ridership data was evaluated. This was compared to the U.S. Census Journey to Work data to determine how many trips are being made between Naperville and nearby suburbs that have Pace service. This data will help quantify the number of potential trips that could be served by a circulator. As can be seen from Exhibit 6, the current Pace bus service captures less than 4 percent of the commuter market from the suburbs to Naperville.

Exhibit 6
Pace Ridership between Naperville and Suburbs

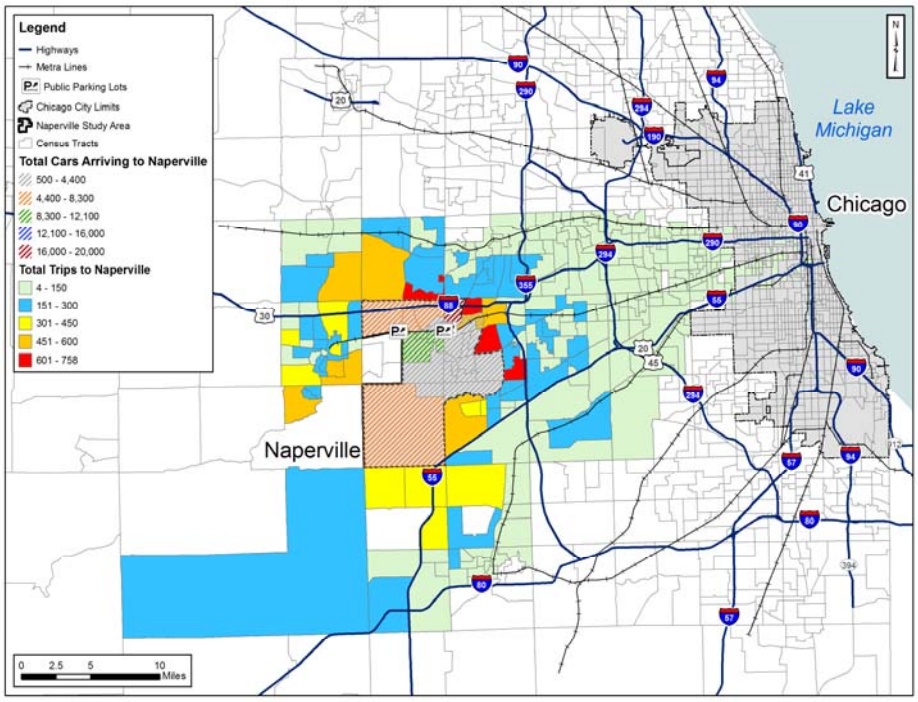
Suburbs with Pace Service	Current AM Peak Bus Trips[1]	Current AM Peak Car Trips[2]
Aurora	300	8,200
Warrenville	50	1,000
Lisle	50	2,100
Wheaton	5	1,219
Total	**405**	**12,519**

[1] 2006 Pace ridership database
[2] 2000 Journey to Work Census Data

Potential Regional Commuter Market to Naperville

The number of commuters traveling between Naperville and adjacent areas was tabulated to evaluate the broader scale market that could potentially connect to a circulator in Naperville. Exhibit 7 includes the Journey to Work data showing the current car trips to Naperville from the areas between Chicago and Aurora, and between the UP-W Metra line and the Heritage Metra line.

Exhibit 7
Potential Transit Market to Naperville



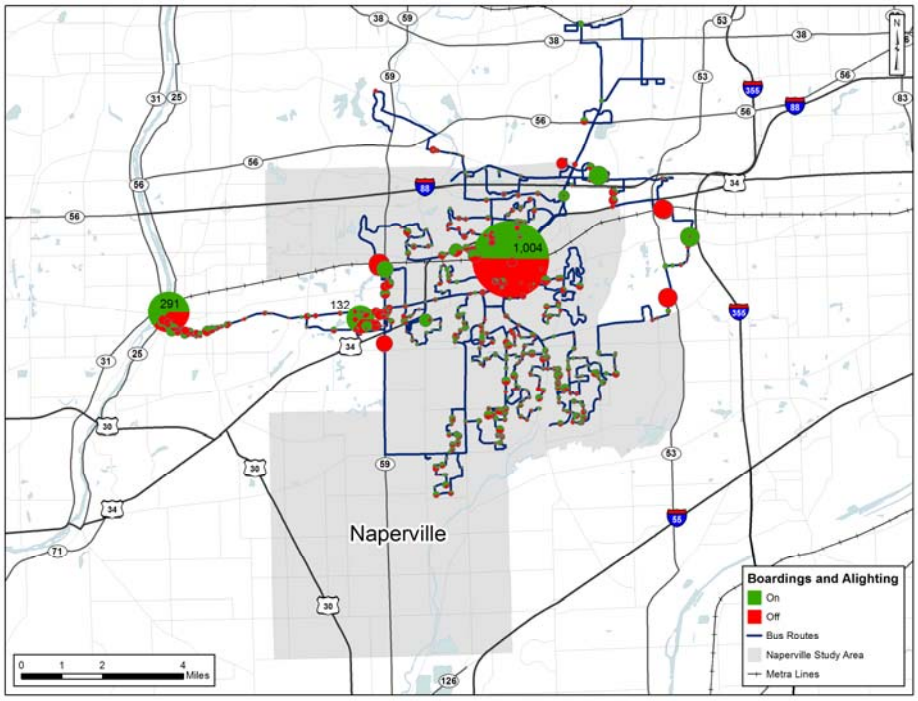
There are approximately 43,000 car trips total in this area to Naperville. Nearly 17,000 of the trips are from unincorporated areas, more than 8,200 trips are from Aurora, more than 3,400 trips are from Bolingbrook, and approximately 2,100 trips are from Lisle. There are more than 1,000 trips from each of the following cities: Joliet, Downers Grove, Wheaton, Woodridge, and Warrenville. When looking at commute trips from east of Naperville, there are approximately 11,000 trips, with most trips originating from Bolingbrook, Lisle, Downers Grove, Wheaton, and Woodridge.

Potential Regional Commuter Market from Naperville to Chicago

According to a 2002 Metra Mode of Access survey, there are approximately 8,300 boardings at Naperville Metra Stations, including the Route 59 and Naperville stations. About 690 people arrive at the stations

on Pace buses, while 5,500 drive to the station. Exhibit 8 depicts average weekday Pace ridership data in and around Naperville. There is a clear trend of people traveling to the Naperville Metra station. A possible reason for this is that it is the last stop on weekday express Metra train trips to and from downtown Chicago.

Exhibit 8
Existing Boarding and Alighting Data from Pace



Potential Regional Commuter Market from Naperville to Chicago Suburbs

In addition to the Chicago market, commuting patterns were examined for trips from Naperville to nearby communities. Each day, there are approximately 7,800 car trips from Naperville destined for other locations within DuPage County. In addition, there are more than 2,000 trips each to Lisle, Oak Brook, Aurora, and Downers Grove. Nearly 8,000 daily car trips are headed to both Will County and Bolingbrook and more than 600 trips to both Lombard and Schaumburg.

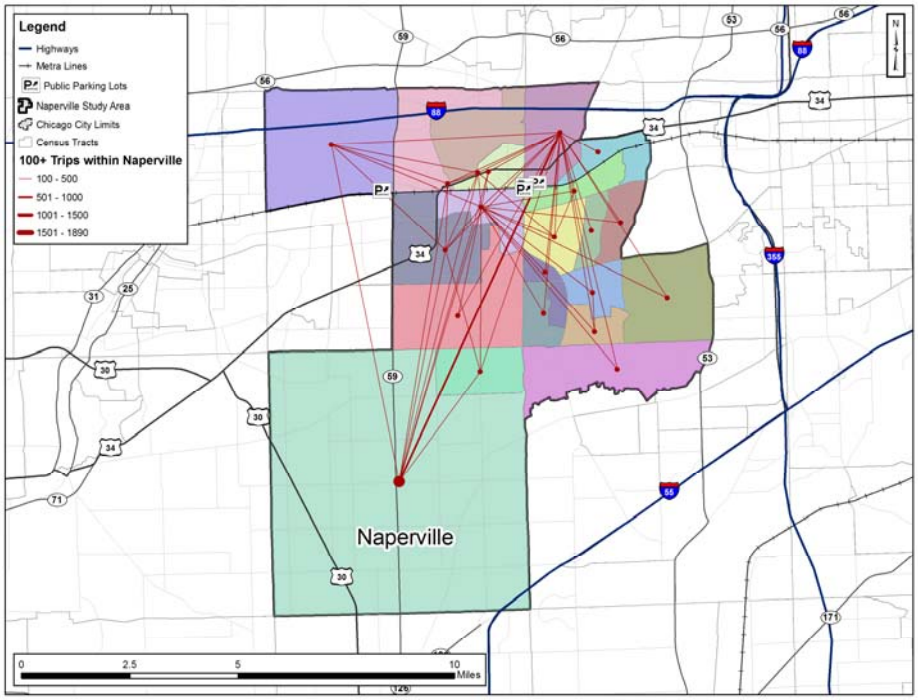
Potential Regional Commuter Market within Naperville

A circulator in Naperville may also potentially serve commuters who live and work in Naperville. Of the approximately 67,000 people working in Naperville, more than 20,000 people also live in Naperville and most drive

The Commuter Market

to work[3]. Exhibit 9 shows commuter car trip trends for people who live and work in Naperville. Downtown Naperville and northeast Naperville along the I-88 Corridor appear to be the largest intra-Naperville commuter markets. Note that this is based on 2000 U.S. Census information, and a number of changes to this employment has occurred. In general, employment has declined in the eastern part of the I-88 corridor and has increased in the western end of the I-88 corridor.

Exhibit 9
Commuter Trips within Naperville



METRA PARKING DEMAND

Metra Parking Demand

The demand for parking lot spaces in Naperville plus current Pace ridership data determine the approximate size of the Metra connections market. Exhibit 10 shows the parking lot capacity and demand in Naperville. There are a total of 1,640 parking spaces available at these parking lots and there are 3,595 people waiting for a space at these lots as of December 2007. This would equate to these lots being more than 300 percent over capacity.

The Pace ridership data, as shown in Exhibit 8, indicates that the Metra Station in Naperville has the most bus activity, with more than 1,000 daily

[3] The 2000 census estimated that approximately 20,000 people work in Naperville.

boardings and alightings. The Route 59 Metra station has approximately 75 daily boardings and alightings. The next most popular stops within the Pace feeder bus system are the other Metra stops, the Fox Valley Center, Wheatland Salem Church, and Community Christian Church. Both of these churches provide remote parking for Metra stations.

Metra Parking Demand

Exhibit 10
Location of Parking Lots and Current Parking Demand

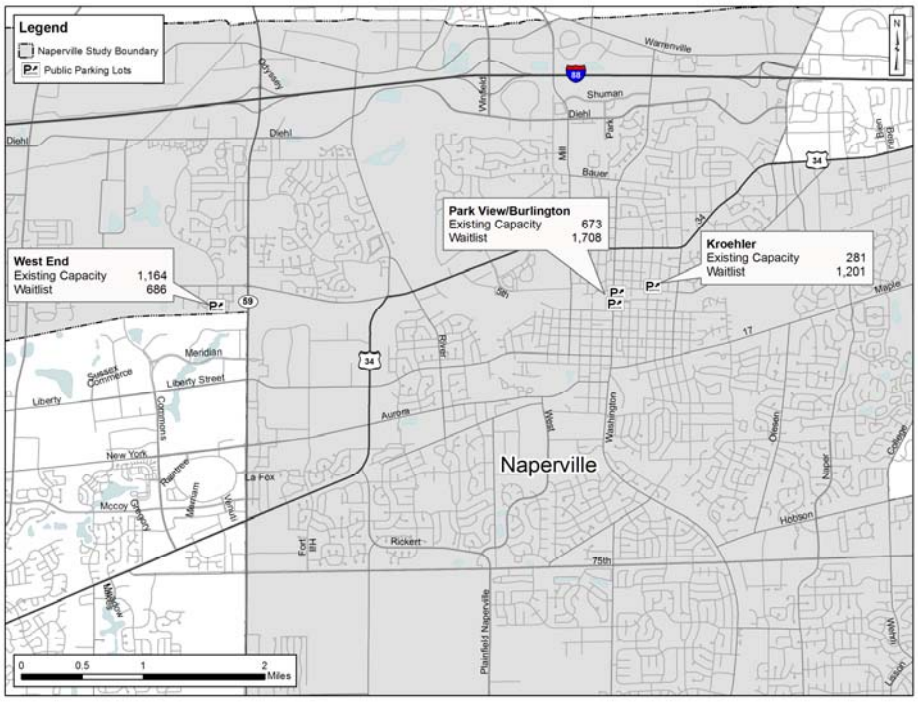


Exhibit 11 compares the morning alightings at Metra stations from Pace buses with the waiting list for parking spaces. The wait list is greater than the number of people using Pace buses to the station. This data suggests that a market for circulator service to Metra stations exists.

Exhibit 11
Parking and Bus Demand by Metra Station

Metra Station	AM Peak Bus Boardings and Alightings	Waiting List for Parking
Naperville	1,004	2,909
Route 59	75	686
Total	**1,079**	**3,595**

TRANSPORTATION DISADVANTAGED

Transportation Disadvantaged

The U.S. Census data was reviewed to determine the location of transportation-disadvantaged persons. They are defined as people who

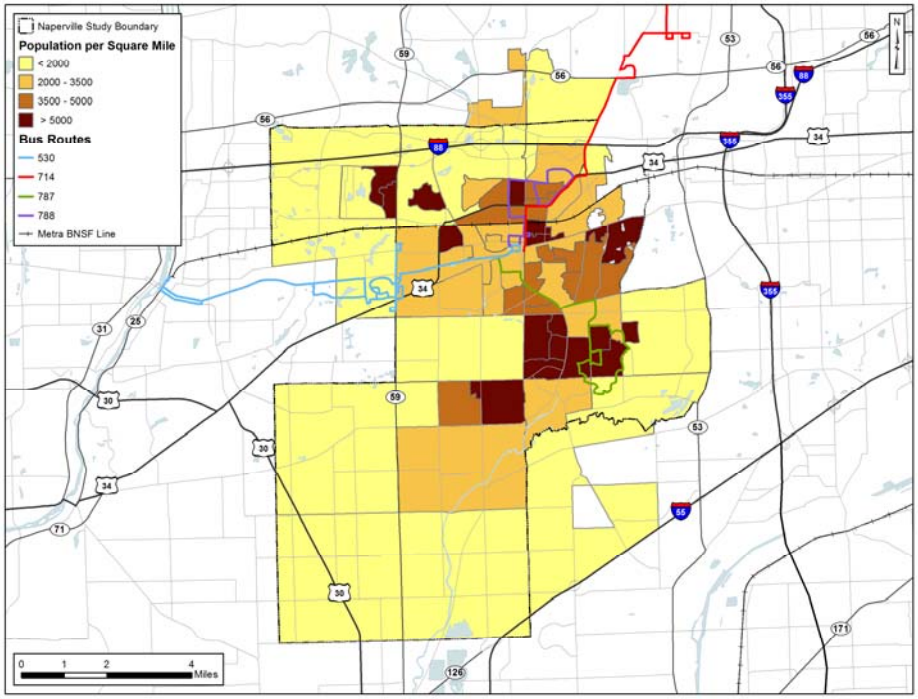
need to use transit as their primary form of transportation due to their inability to drive as a result of a disability or age and their accessibility to a vehicle. The maps in Exhibits 12 through 18 show the location of disabled citizens, people living in poverty, people over the age of 65, people without access to a vehicle, and households with only one vehicle. These exhibits also show the four all day Pace bus routes. The other 19 routes within Naperville are peak only trips bringing commuters to and from Metra stations and are not aimed at serving the non-Chicago employees among the transportation disadvantaged.

There is a demand for all day routes to more adequately cover the areas where the transportation disadvantaged live and serve areas that they need to travel to such as commercial centers, medical centers, and community services. The following subsections show various demographic data that relate to the propensity of people in Naperville to use bus transit services.

Population

Exhibit 12 shows the population density within Naperville. The total 2000 population for all U.S. Census block groups that are partially or fully inside Naperville was approximately 182,649.

Exhibit 12
Population Density



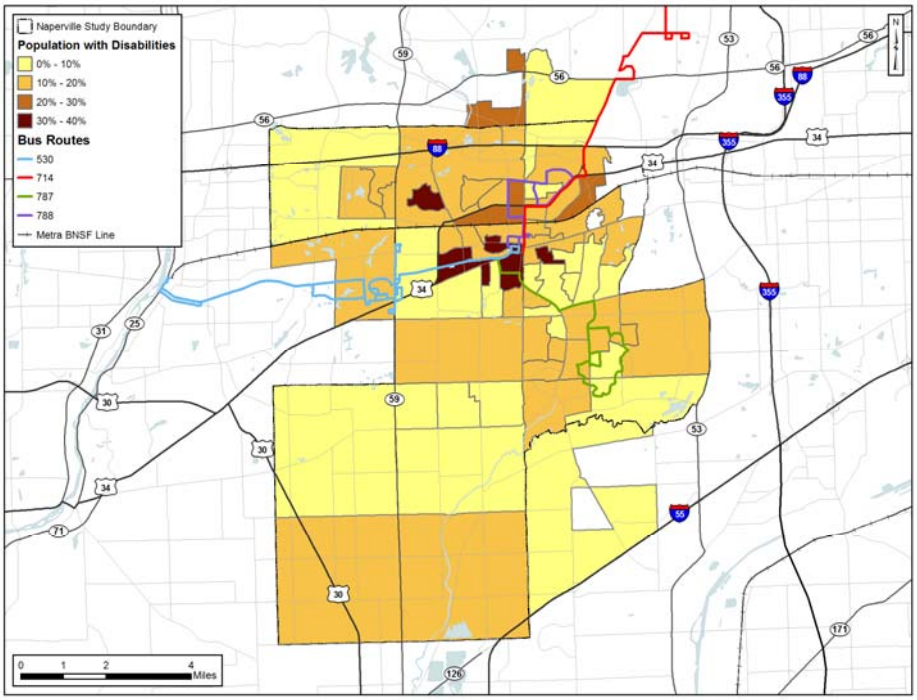
The densest concentrations of residents within Naperville are located between Aurora Avenue and North Aurora Road, between Fairway Drive

and Route 59, along Brookdale Road, near the intersection of Ogden Ave and North Aurora Road, south and east of city center, and near Route 34 and Aurora Avenue.

Disabled Citizens

Exhibit 13 shows the location of the disabled citizens in Naperville, according to the 2000 U.S. Census.

Exhibit 13
Location of Disabled Citizens in Naperville



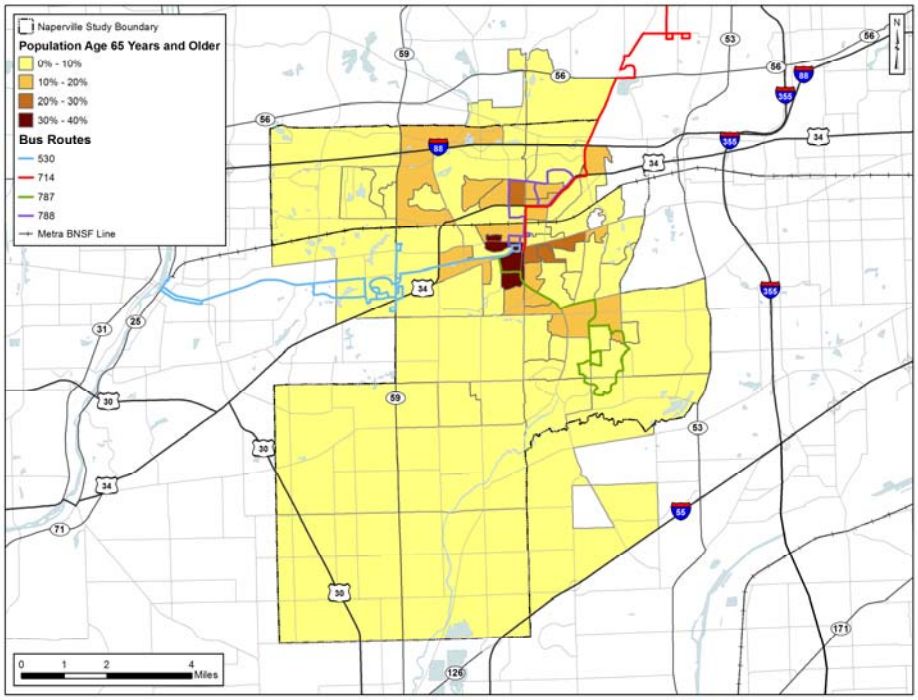
Most of the areas where high densities of disabled people live are in the vicinity of Pace routes providing midday service, except near the Brookdale Road area and in the area east of Washington Street and south of East Chicago Avenue. In addition, bus service is not available in southern Naperville, south of 75th Street, or the far eastern portion of Naperville between College Road and Route 53, where 10 to 20 percent of the population is disabled.

Citizens Over 65 Years Old

Exhibit 14 shows the location of the 10,000 people over 65 years old. The highest densities of people over 65 years old live near downtown Naperville, where there is all day Pace bus service available on Routes 530, 714, and 787/788. The largest concentrations of un-served senior citizens are in the northwestern part of Naperville near Interstate 88.

There are at least four senior living apartment communities that are outside of the daytime Pace service area.

Exhibit 14
Location of People over 65 Years Old in Naperville

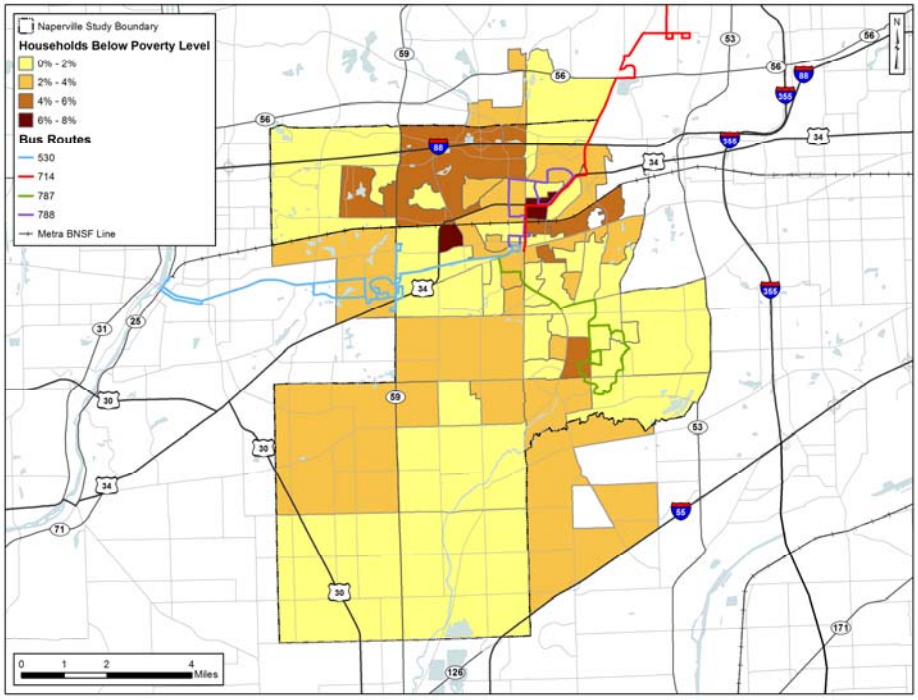


Population Below Poverty Level

Exhibit 15 shows the location of the 1,400 households living below poverty in Naperville, according to the 2000 U.S. Census. This is defined by the U.S. Census based on household income level and size of the household. For a family of three, household income levels below $17,000 annually are categorized as below poverty level. The citizens of Naperville on average make more than the average Illinois population and have a lower poverty rate. As of 2005, the median household income in Naperville is $93,338; approximately 2.5 percent of the population lived below the poverty level. As of September 2007, about 3.4 percent of the population was unemployed. In general, the market shift toward driving alone increases as income increases.

The highest densities of households living in poverty are located north of downtown and near Ogden Avenue and North Aurora Road. There is all day Pace bus service currently available near Ogden Avenue, but not in the North Aurora Road area. Areas that have a higher than average poverty rate that have limited transit services are located west of Route 59, north of Interstate 88, and south of 75th Street.

Exhibit 15
Location of People Living Below Poverty in Naperville

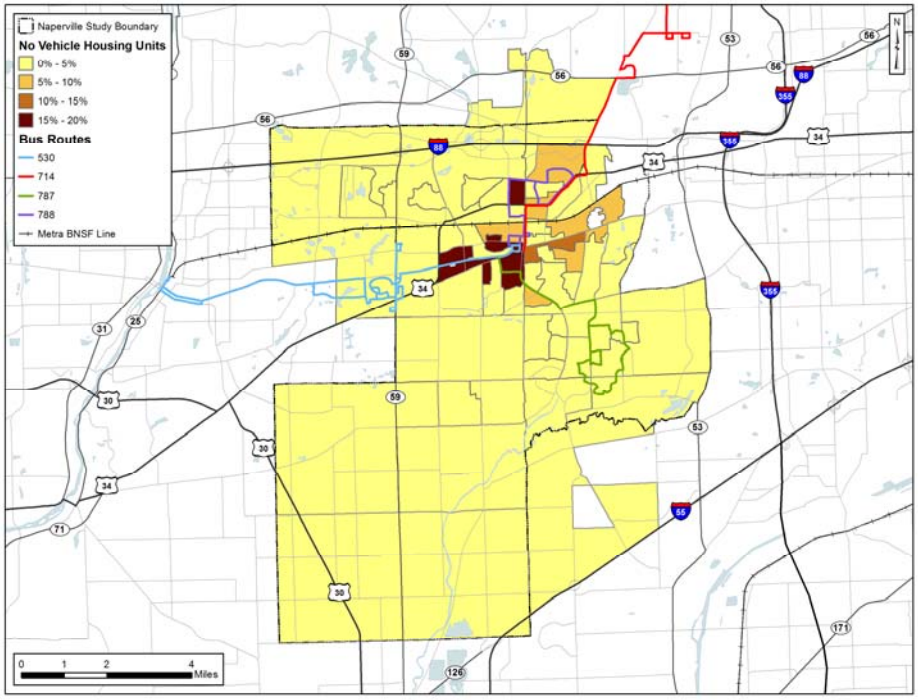


Persons Without a Vehicle

Exhibit 16 shows the location of the 1,500 households that do not own a vehicle in Naperville. This is about 2.7 percent of all Naperville households.

The highest densities of households that do not own a vehicle are located west and north of downtown Naperville or along Aurora Avenue and near North Aurora Road and Ogden Avenue. There is all day Pace bus service currently available on Ogden Avenue but not along North Aurora Road.

Exhibit 16
Location of People Without a Vehicle in Naperville

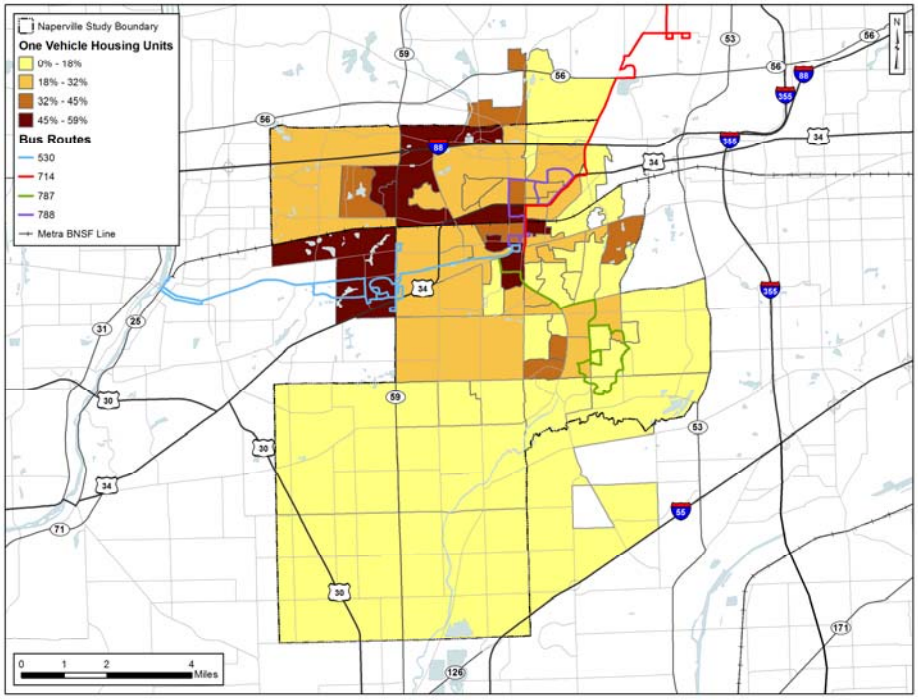


Persons with One Vehicle

Exhibit 17 shows the location of households with only one vehicle, which may make transportation difficult for some members of the household. There are a total of 10,423 households with one vehicle in Naperville.

The highest densities of households with only one vehicle are more widespread across Naperville, with some living near the downtown, many living near Aurora Avenue and Route 59, and others straddling the neighborhoods along and near North Aurora Road near Route 59. There is all day Pace bus service available along Aurora and part of Route 34 and Route 59, in and near downtown Naperville. There is peak hour Pace bus service currently available in many of these neighborhoods. However, bus service may be more than a half-mile walk for some people to reach the nearest bus stop, especially in the areas west of Route 59 and south of Route 34. In addition, there is little or no all day bus service south of downtown and in the northwest part of Naperville.

Exhibit 17
Location of People with One Vehicle in Naperville



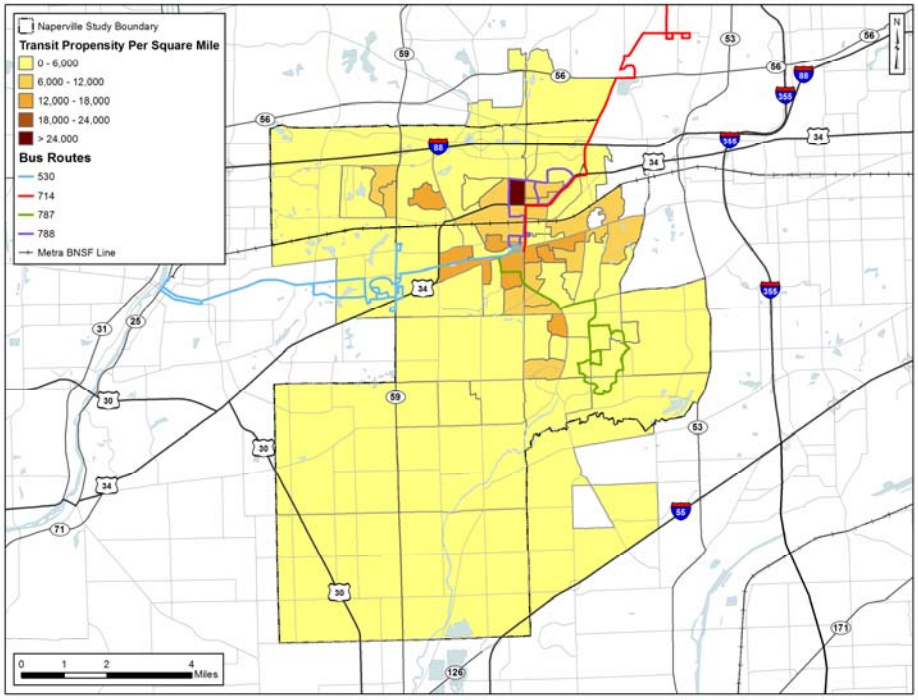
Transit Propensity

Predictive equations were used to calculate the transit propensity estimate for each U.S. Census block group using the methodology described in the paper, "Demand Estimating Model for Transit Route and System Planning in Small Urban Areas," Transportation Research Board, 730, 1979. The calculation takes into account the total population, land area, and number of people that fall into the following categories by census block:

- People over 65 years old
- People that are disabled
- Households without a vehicle
- Households below poverty level

The greatest single factor in the formula is the number of households without a vehicle. The transit propensity data will be used to identify underserved and over-served areas within the study area. Exhibit 18 shows the calculated transit propensity estimates by census block group.

Exhibit 18
Transit Propensity



The highest propensity for transit use appears to be along Aurora Avenue and Ogden Avenue, and in some developments outside this area. There is currently some level of transit service in all of the block groups that have a high propensity to use transit, except the area east of Yackley Road/College Avenue heading toward Lisle. However, nearly all of this current bus service is feeder service to Metra stations and is not designed to serve the transit dependent population to bring them to social services, to run errands, or to medical facilities. The all day service bus routes generally serve Aurora Avenue, the downtown area, and Naperville Wheaton Road. The midday routes serve Iroquois Center, Metra, Edward Hospital, Naperville Plaza, Fox Square Run, schools, and the neighborhood south of downtown Naperville. Areas with a higher propensity to use transit that have no midday or all day bus service are around Washington Street, southwest of Edwards Hospital, along Fairway Drive and Brookdale Road, and on the east end of Aurora Avenue.

Demographic Composite

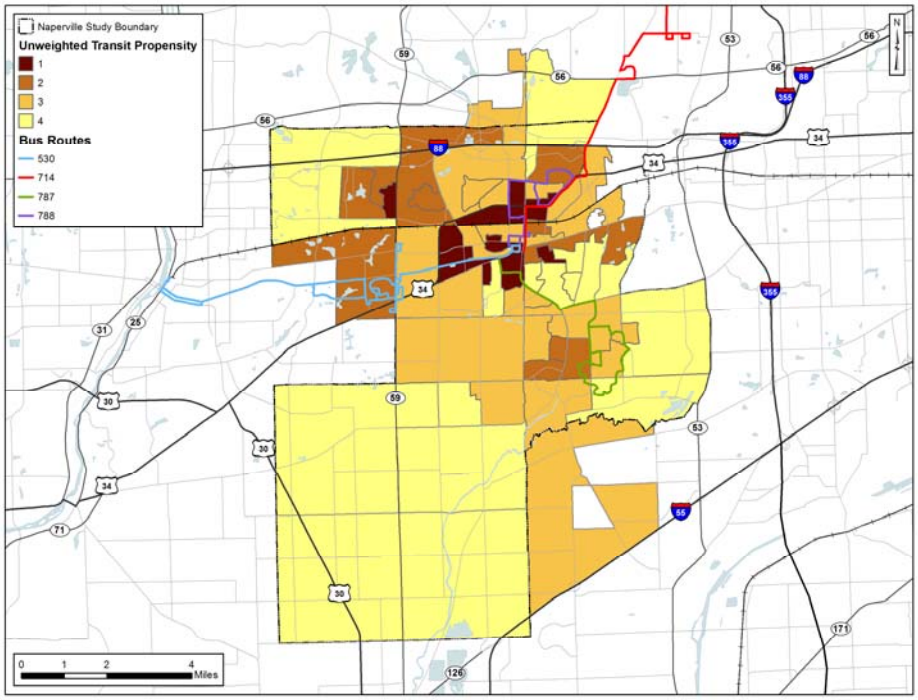
Exhibit 19 shows a composite of all demographic information previously presented. This differs from the transit propensity in that it gives equal weight to all demographic factors and is, therefore, a composite map.

As can be seen, clusters of block groups in the highest category are located along Ogden Avenue, Washington Street and Aurora Avenue near

downtown Naperville. There is also a block group in the highest category along Route 59 north of North Aurora Avenue. Block groups in the second highest category tend to be located along Route 59 and East Chicago Avenue.

Transportation Disadvantaged

Exhibit 19
Demographic Composite



CURRENT AND POTENTIAL DEMAND GENERATORS

Current and Potential Demand Generators

The existing and proposed land use plans were evaluated to determine areas of growth. These plans were then compared to current trip generators, provided by the City of Naperville, which include:

- Airports
- Attractions (i.e.; parks, YMCA)
- Retail Centers
- Multifamily Housing (i.e.; apartment or condominium complexes)
- Medical Facilities
- Schools
- Universities
- Churches
- Government Offices

The maps will be utilized in conjunction with the transit potential density map to assist in the development of circulator recommendations. Exhibits 21 and 22 (on pages 22 and 23) show the current trip generators overlaid onto the existing land use map and then over the future changes to the current land use map. The current land use map shows that most of the trip generators for weekdays are from high density housing areas, the office space off of Interstate 88, medical facilities in the downtown area, and schools.

Employment Centers

The major area employers in the area are listed in the following exhibit below.

Exhibit 20
Major Employers in Naperville

Employer	Employees
Edward Hospital	4,600
Nicor Gas	3,700
Indian Prairie School Dist. #204	3,100
Naperville School Dist. #203	2,425
Lucent Technologies	1,943
BP	1,800
OfficeMax	1,500
Tellabs	1,338
City of Naperville	1,043
Nalco	1,000
Laidlaw	450
North Central College	450
ConAgra Foods	380
Calamos Investments	450
Phoenix Closures	230
Solar Communications	230
Trizetto Group	225
Kraft Foods	200
Total	25,064

The major employment centers are located in:

- Interstate 88 Corridor, where there are offices, industrial businesses, and commercial areas,
- Route 59 Corridor, including the area between North Aurora Road, Route 34 and Route 59, where there are industrial businesses and commercial areas,
- The industrial park near Normantown Road and 91st Street, and

- Downtown Naperville including Edwards Hospital and North Central College.

Areas with large employers and little to no service include the northwest Naperville business park area in the Interstate 88 Corridor off of River Road, the Route 59 Corridor, or the industrial park of Normantown Road and 91st Street.

Area Trip Attractions

Downtown Naperville - Downtown Naperville includes a large number of retail establishments and over 40 restaurants. It has a walkable downtown, with a diverse mix of establishments. The estimated downtown Naperville population is approximately 1,500 people per square mile and the number of people that work in the area is about 5,000 per square mile.

Congestion, and more importantly parking, is perceived to be an issue in downtown Naperville. Downtown Naperville is growing, as new residences, commercial, and retail establishments are being constructed. The existing parking capacity concerns are likely to continue into the future. There are several parking lots and structures throughout the downtown area, but on-street parking in particular is perceived to be limited. Downtown employees must pay $5 for a parking permit to park in designated areas. Otherwise, the parking in Downtown Naperville is free.

Shopping Centers – There are three main shopping centers in Naperville, including downtown Naperville, the Ogden Avenue Corridor, and the Route 59 Corridor in the vicinity of the Fox Valley Mall. There is limited all day service to downtown Naperville shopping area on Washington Street. Pace all day or midday bus routes serve some shopping centers within the Ogden Avenue Corridor and the Route 59 Corridor.

Colleges – There are a number of colleges and campuses located throughout Naperville. Colleges with some all day or midday bus service include North Central College. Some of the other colleges without service include Northern Illinois University-Naperville, University of Illinois Cooperative Extension Service, DePaul University, and a number of trade schools and specialty schools.

Medical Facilities – Edward Hospital is the largest single employer in Naperville. Like most other regional medical facilities, it has limited parking and has been expanding as a destination. Pace service is available to Edward Hospital, but the frequency of service is unlikely to attract many employees, because of shift times and the frequency of Pace service.

Other attractions – There are a number of other attractions where bus service is not available all day or midday such as parks, schools, senior citizen living complexes, and some medical facilities.

Exhibit 21 shows the current land use in Naperville along with the location of some trip generators.

Residential Areas

Most of the densely populated residential areas have peak hour bus service to the Metra stations. However, most residential areas do not have midday service. One midday route runs through the south end of Naperville. The main all day routes run from Aurora to Wheaton, including Pace Routes 530 and 714.

Future Land Use

Exhibit 22 shows the changes in the planned future land use. The major changes include:

- Northwest Naperville, along Interstate 88 and adjacent to the EJ & E Railroad, will have additional commercial and office space.
- Northeast Naperville, along Interstate 88, will have more office space.
- Western Naperville, between North Aurora Road, Route 34 and Route 59 and Route 34, will have more commercial space.
- Southwestern Naperville, including the area from 75th Street south to the end of town and from the west side of town to Book Road, will have more commercial space and some additional residential and open space.

The expansion of businesses in these areas suggests that there will be additional demand for peak hour service. The addition of commercial and residential areas will likely increase the demand for all day service.

Exhibit 21
Existing Land Use and Trip Generators

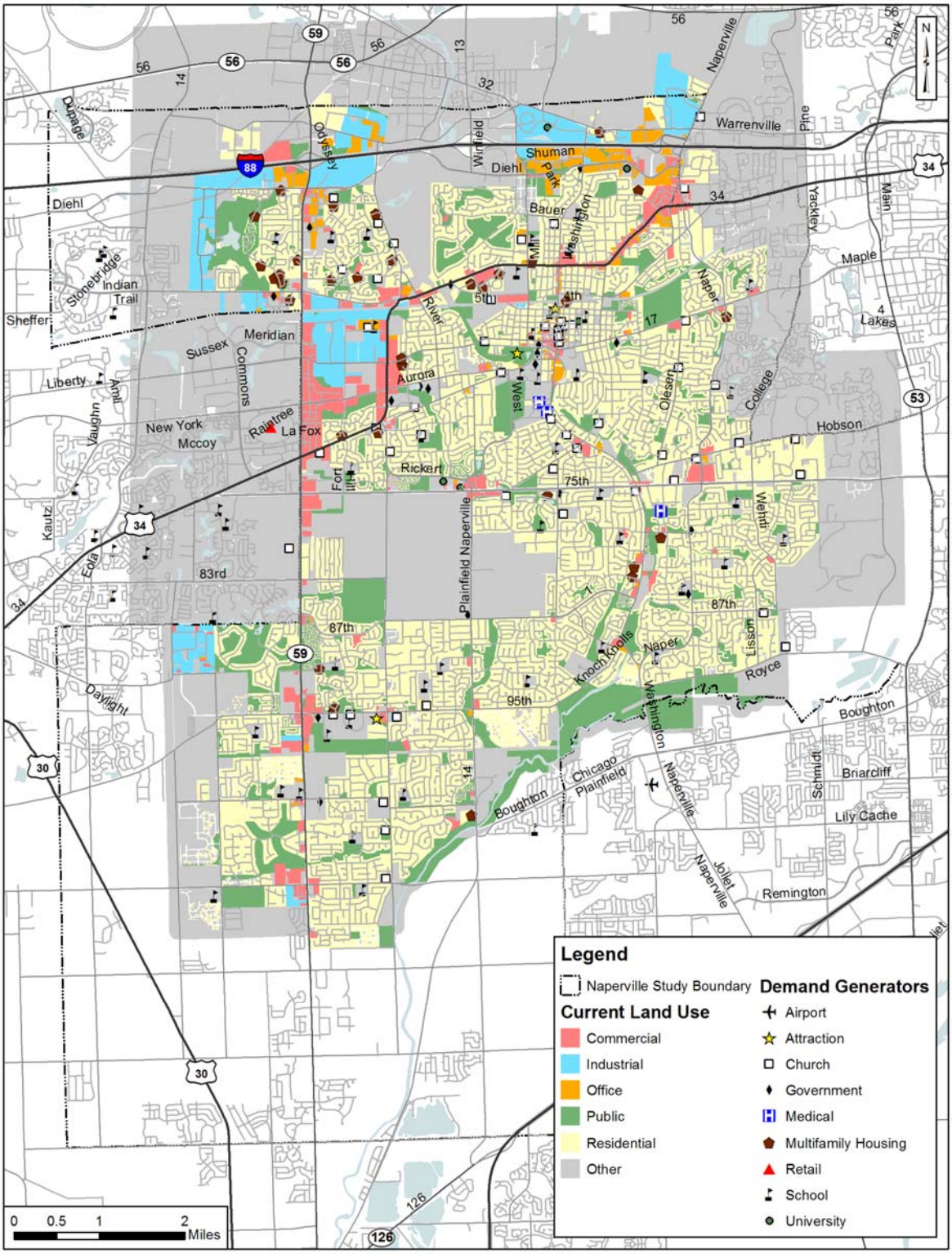
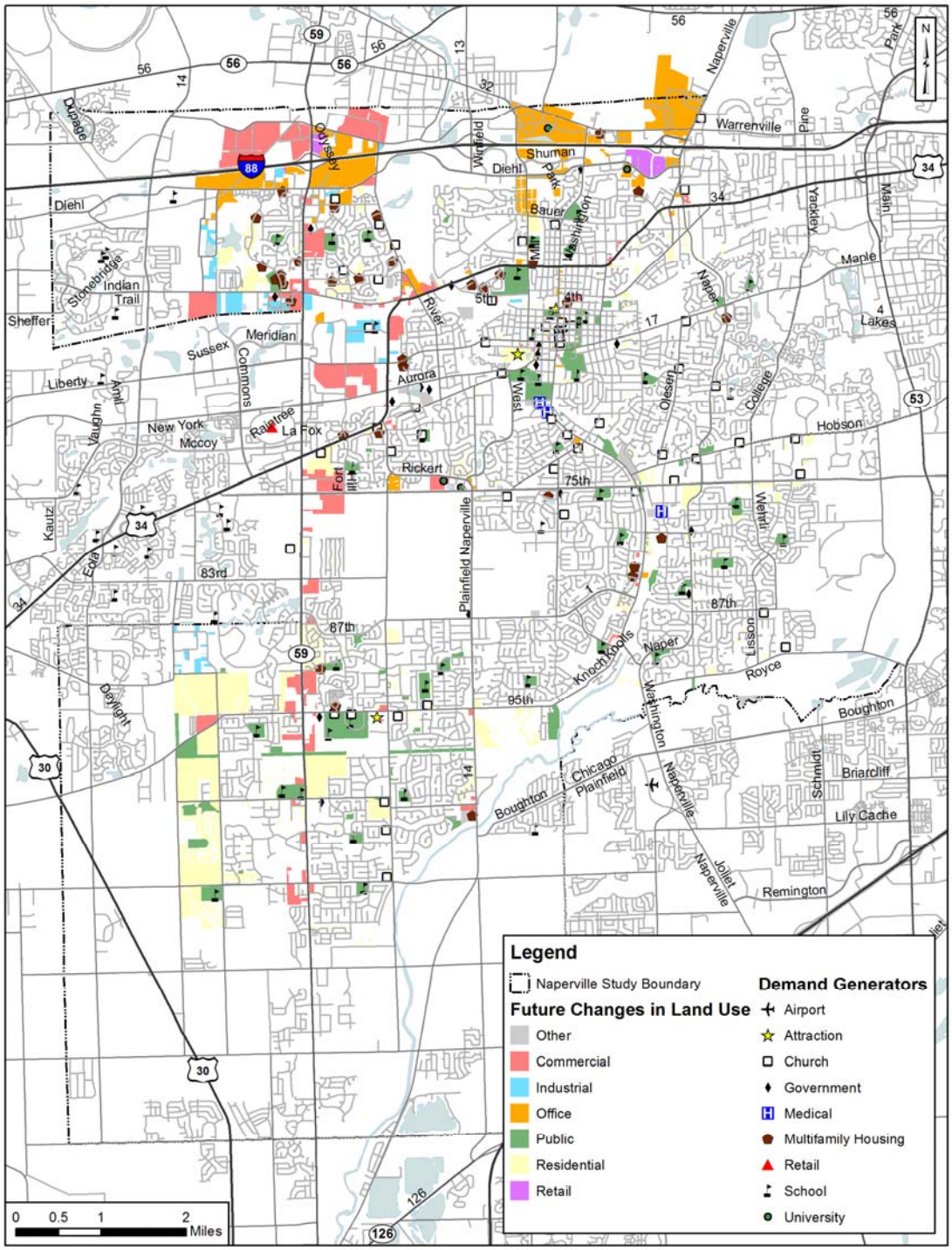


Exhibit 22
Future Changes to Existing Land Use and Existing Trip Generators



Public School Districts

Exhibit 21 shows the location of schools in Naperville. The City has two school districts that serve its residents. Naperville Community Unit School District 203 includes the eastern half of Naperville. School District 203 schools and their enrollment are included in Exhibit 23. School District 203 has fourteen (14) elementary schools, five (5) junior high schools, and two (2) high schools. All of its schools are within the City of Naperville.

Exhibit 23
School District 203 Enrollment

School	Enrollment
Beebe Elementary School	765
Ellsworth Elementary School	284
Elmwood Elementary School	612
Highlands Elementary School	607
Kingsley Elementary School	604
Maplebrook Elementary School	542
Meadow Glens Elementary School	562
Mill Street Elementary School	804
Naper Elementary School	290
Prairie Elementary School	530
Ranch View Elementary School	520
River Woods Elementary School	544
Scott Elementary School	500
Steeple Run Elementary School	606
Jefferson Junior High School	927
Kennedy Junior High School	1143
Lincoln Junior High School	934
Madison Junior High School	799
Washington Junior High School	589
Naperville Central High School	3074
Naperville North High School	3124

Indian Prairie School District 204 serves the western part of Naperville along with a portion of Aurora. The enrollment of the District 204 schools that are located in Naperville is included in Exhibit 24 below. Within Naperville, School District 204 operates thirteen (13) elementary schools, four (4) middle schools, and one (1) high school.

Exhibit 24
School District 204 Enrollment for Naperville Schools

School	Enrollment
Clow Elementary School	484
Cowlishaw Elementary School	597
Fry Elementary School	855
Graham Elementary School	675
Kendall Elementary School	711
Longwood Elementary School	473
May Watts Elementary School	544
Owen Elementary School	554
Patterson Elementary School	746
Spring Brook Elementary School	660
Welch Elementary School	826
Peterson Elementary School	445
White Eagle Elementary School	565
Crone Middle School	1189
Gregory Middle School	1129
Hill Middle School	930
Scullen Middle School	1449
Neuqua Valley High School	4474

Current and Potential Demand Generators

Bus transportation is provided to all students living outside a 1½-mile radius from their school. These districts provide limited late bus service for those students involved in extracurricular activities.

Stakeholder Interviews

STAKEHOLDER INTERVIEWS

A number of stakeholders were interviewed to help determine where and for whom the potential markets for circulator service will include. A summary of these interviews follows.

Naperville Park District

The Naperville Park District is a special purpose district with an elected board of directors. The District maintains a number of parks located throughout the City. The Riverwalk/Centenial Beach, located in downtown Naperville, is one of the Park District's primary parks. The Park District also operates the Rubin Recreation Center which is located in downtown Naperville. The District also runs a number of programs for Naperville residents. These include youth sports, senior citizen day trips, summer camps, and other activities at the Rubin Center. It also helps to organize special events, which are mostly held in the downtown area.

Transportation, Engineering and Development Group

The role of this Department in the provision of local circulator service will likely be in the area of planning, service design, marketing and communications. It was felt that the funding of local circulator service should come from a ¼ percent sales tax that was recently passed in DuPage and Will Counties. The service should be designed for what high potential/high density transit markets exist in the Naperville area. Major shopping centers should also be served. There are also gaps in train station feeder service that Pace provides.

Naperville Chamber of Commerce

The Chamber of Commerce has over 2,000 businesses as members. Several employers have employees with transportation issues. Transportation needs that currently exist include connections between employers in the I-88 corridor and downtown Naperville, and for employees commuting by Metra to the I-88 corridor. Other potential destinations for a circulator service include shopping centers in South Naperville, North Central College, and the performing arts center in downtown Naperville.

DuPage Mayors and Managers Conference

The DuPage Mayors and Managers Conference staff has been working with several municipalities to plan for local circulator service. Four of these municipalities have advanced to the implementation phase. The type of service chosen for each community was route deviation service. It was the desire of the Conference to coordinate their efforts with the Naperville study and to help build a coalition of municipalities to promote local circulator service.

DuPage County

The County supports a coordinated transportation service for seniors and disabled persons known as Ride DuPage. The County provides funding for the call center that is used to reserve rides for passengers. The City of Naperville also provides funding to Ride DuPage based on the number of trips provided to City residents. Because of high demand for the service, Ride DuPage has encouraged its sponsors to adopt a distance-based fare structure and an overall increase in fares is scheduled for March 2008. The County supports the start of Naperville Circulator service to help address the increasing demand for transportation services in Naperville and throughout DuPage County.

Public School Districts 203 and 204

Both school districts have a total of 39 schools in Naperville. They both provide bus service for their students who live outside a 1½-mile radius from each school. The perceived potential for use of a circulator service by students of these districts are for trips home from extracurricular and

after school activities, trips to and from schools for those living within 1½ miles of their school, and trips to jobs and community service for special education students.

Naperville Township

Naperville Township, Lisle Township, the City of Naperville, and PACE partnered together to form the Ride DuPage Program. Originally these municipalities had their own paratransit vehicles that they used for seniors, disabled, and low-income persons. The Townships are responsible for eligibility for the Ride DuPage program. Service provided by this program is considered good, but improvements in funding would allow continuation of the current level of service. There has been a 10 percent ridership growth in the township over the previous year. They feel some of the growth in demand could be directed toward a circulator. Other comments include:

- There are at least four (4) senior living apartment communities that need circulator service;
- Edward Hospital has expanded to include heart and lung specialties, so demand for transportation to that facility will grow;
- The Riverwalk area and the Rubin Center houses day activities for seniors;
- The Country Lakes area (Route 59 and North Aurora Road) has high density of households with transportation needs;
- Township funding is restricted and would be difficult to provide funding for transportation; and
- DuPage County should contribute to circulator service. Some of the newly initiated State sales tax is dedicated to counties for transit and public safety.

Colleges and Universities

Several colleges and universities are located in Naperville. Representatives from five were interviewed, which resulted in the following comments:

North Central College

- There are about 2,500 students, with approximately 1,200 living on campus. About 58 percent of these students do not have a car;
- Students prefer their cars, but use them almost exclusively to visit home. The College has a "Zip Car" program, where students can rent a car from the College;
- Adult learners will need transportation during evening and weekend hours to access campus;
- Routes from the train stations to campus would be helpful; and
- Connection from senior housing sites throughout the city would be helpful for evening events open to the city residents.

Illinois University Extension

- Off-site training is mostly provided, but some training is provided at its facility on Naperville Road near I-88; and
- Citywide transit would help citizens get to training sites, particularly if there were connections to senior housing complexes.

Northern Illinois University – Naperville Campus

- There is an average enrollment of 3,000 students with about 20 percent being Naperville residents; and
- Routes from train stations would benefit commuting students.

College of DuPage – Naperville Campus

- Fewer than 1,000 students are enrolled;
- Evening and weekend classes are primary student choices as the College serves a number of employed persons; and
- A vocational skills program is provided in association with public school districts 203 and 204.

DePaul University

- Primarily evening and weekend classes are provided;
- No undergraduate programs at this time, but some will be added in the future;
- School District 203 meetings are held in their facility, attendees come from all over Naperville;
- Contract shuttle service would be most beneficial as they often lease space for multi-day mass attendance style conferences; and
- Evening connection service to downtown would be beneficial as most attendees stay in hotels located near the facility but not close to dining or entertainment.

General Comments

- There is a 9 percent poverty rate in Naperville with no available transportation to grocery stores or food pantries; and
- The city does not currently plan to expand parking at train stations, so a circulator route will be helpful to address current parking demands.

Pace Suburban Bus Service

Pace is focusing efforts on making sure their community based transportation program is responsive to local needs. They are flexible with the type of service selected for local circulator service and would have no issues with innovative services such as route deviation. They would welcome the use of technology as part of a local circulator service and would consider it a part of the capital costs. Route 714 currently uses

advanced technology, including Automated Vehicle Locator (AVL) systems. Recent market research conducted by Pace suggests that seniors prefer fixed routes to deviated routes or demand response. Recently approved funding for Pace is at a level to maintain status quo, and it currently has no plans to expand services in the first year. PACE's research also indicates that recent fare increases are not a deterrent to ridership, and commuters feel funding should be directed into convenience rather than lower fares. Pace is looking into using its buses that provide peak-only service to also provide some midday service. There is currently no Pace facility in DuPage County; space is leased at a local lot for overnight storage. Pace is currently investigating 26 corridors for enhanced service. The 75th Street corridor has the most potential in Naperville. An additional North/South corridor is also being investigated (in addition to Route 59), in the Naperville area. Pace would like to potentially provide 26-30 foot buses for community designed service.

Stakeholder Interviews

Commuter Representatives

Two Naperville commuters were interviewed. One lives in Naperville and uses Metra to commute to Chicago, and the other lives in Chicago and works in Naperville. Both felt that adequate transit connections to and from Metra train stations are essential. In addition, a circulator route that hits the common "errand" locations (grocery, drug store, etc.) would be useful. The City should have goals aimed at reduced parking as opposed to building more parking. Use of the train station parking lots on the weekends with a shuttle that circulates to the downtown area would be helpful for relieving congestion. Also, trips from employment sites to downtown Naperville should be provided during the mid-day periods for meetings and lunch trips.

STEERING COMMITTEE MEETINGS

Steering Committee Meetings

A Naperville Circulator Study Steering Committee was organized to provide input throughout the study process. The first meeting of this Steering Committee was held on January 23, 2008, at Naperville Municipal Center. Committee members were asked to provide a list of issues/goals they would like to see addressed in the study. The following responses were made:

- Target Audience - The Committee would like the study to clearly identify the Naperville population segments that the circulator route(s) should be targeted toward.

- Defined Route/Service Design Logic - The Committee would like any service design to provide an easy to understand methodology.

Steering Committee Meetings

- Identify Community/Student Needs - The Committee would like the study to clearly identify the needs of the community as well as the specialized needs of the student population, such as middle schools, high schools, colleges, and universities located within the city.

- Flexible Service Options - In identifying the needs of the community, the Committee would like the study to identify flexible options for service such as varying hours of operation, and flexible routes.

- Identify Potential Incentives - The Committee would like the study to address various individual incentives to using public transportation such as a low/no fares and discount passes.

- Community Buy-in - The Committee would like strategies for increasing community interest in the use of public transportation as well as potential strategies for community fund raising.

- Well Defined Routes - Each route created for planned implementation should be clearly defined and easy to navigate.

- Identify Pace Services - All Pace services currently operated in the City should be identified as well as opportunities for supplementation, and potential connection with routes to/from other communities.

- Seasonal Shift in Ridership - The Committee would like the study to identify potential seasonal shifts in ridership that would reflect a decreased student population or increased tourist/visitor population.

- Environmental Impact - The Committee would like the study to identify the positive environmental impact of citizens choosing public transportation over use of individual vehicles, specifically in the areas of decreased congestion and improved air quality.

- Funding streams - The Committee would like the study to identify all available funding sources for public transportation dollars and the viability of acquiring the necessary funding.

- Service Quality - The Committee would like the study to identify various service options ranging from a route or routes that cover only high interest destinations to a series of routes that would allow citizens to traverse the city at will. The Committee would also like the study to identify available on board amenities such as

AVL (automated vehicle locator systems), ITS (intelligent transportation systems), and possible broadband internet access.

- Standard Ride Duration - The Study should also identify the time duration that a passenger will spend on common tasks such as scheduling a ride, waiting for a bus, and the amount of time spent riding from origin to destination.

Steering Committee Meetings

A second Steering Committee meeting was held on March 26, 2008. This meeting was held to review Technical Memorandum #1 which included the Market Analysis. A third Steering Committee meeting was held on June 19, 2008. At this meeting, input was provided on circulator service alternatives and priorities.

PUBLIC MEETINGS

Public Meetings

A public meeting was held on January 22, 2008 at the Naperville Municipal Center to solicit input on the proposed Naperville circulator service. Following a description of the purpose of the study, a presentation was made of examples of other circulator services that are operating in other communities. The following comments were made.

- No transit service is currently available to grocery stores that offer economic choices in downtown Naperville;
- The Pace bus that goes to Wheaton only runs on weekdays;
- Attitudes toward buses need to change in Naperville in order for the circulator service to be successful;
- Teenagers may be impacted due to changes in the driver's license issuance requirements, and may tend to use circulator service;
- People are afraid to get on the bus because they're unsure when/where stops are or afraid the bus won't show up for the return trip;
- The Pace system has stranded passengers in the past, driving by a passenger waiting at a designated stop;
- Weekend hours do not seem to be as important as expanded weekday hours;
- Mid-day and evening demand will vary based on the time of year;
- Current special event buses are always full;
- Naperville seems to have a higher incentive to drive because it would appear to be cheaper to park than it is to ride the bus;
- There are a number of trips generated in town for children, and it may be wise to market to parents; and
- Technology may be useful in helping plan itineraries, letting riders know where the bus is located, and when it will be arriving at their desired stop.

A second public meeting was held on June 19, 2008. Attendees provided their comments and input on circulator service alternatives.

WEBSITE SURVEY

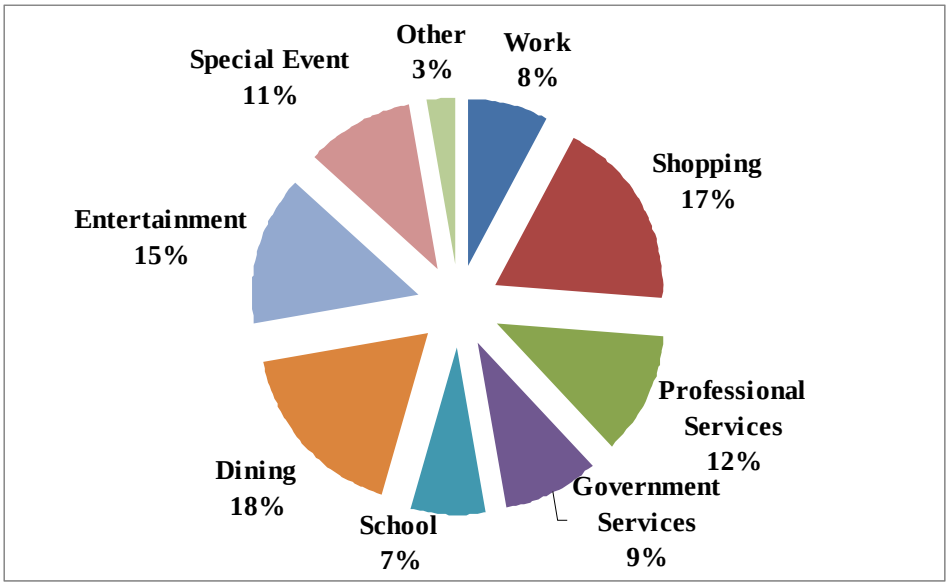
Website Survey

A survey of potential users of the proposed Naperville Circulator service was conducted during the months of January and February, 2008. While copies of the survey were available at the public meeting held on January 23, 2008, all participants completed the survey on-line on the City of Naperville website. A total of 108 surveys were completed. A summary of the survey results follows.

Demographics

Most survey respondents (91.7 percent) are residents of Naperville. Trip purposes within Naperville were divided among several categories. Exhibit 25 shows the breakdown of the trips that survey respondents currently take within Naperville. Shopping, dining, and entertainment comprised the three highest percentages of trips. A question was also included in the survey regarding the mode of transportation used for these trips. Persons driving alone comprised 90.3 percent of these trips.

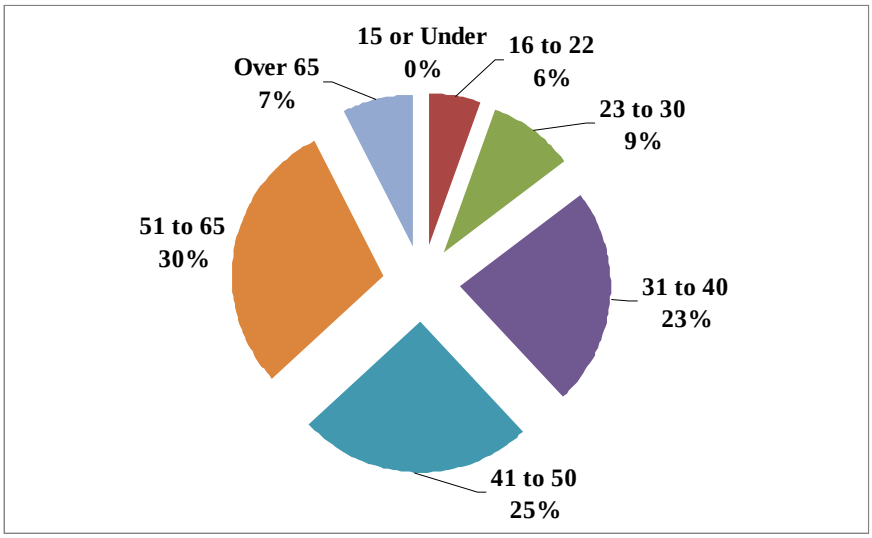
Exhibit 25
Naperville Trip Purposes



The survey participants were asked to select one of seven age groups. The majority appeared in one of three age groups between 31 and 65 years of age. The greatest portion were between the ages of 51 and 65 years. Nine (9) percent of the respondents were over 65 years, and 9 percent were between 23 and 30 years of age. The age group between 16 and 22 years

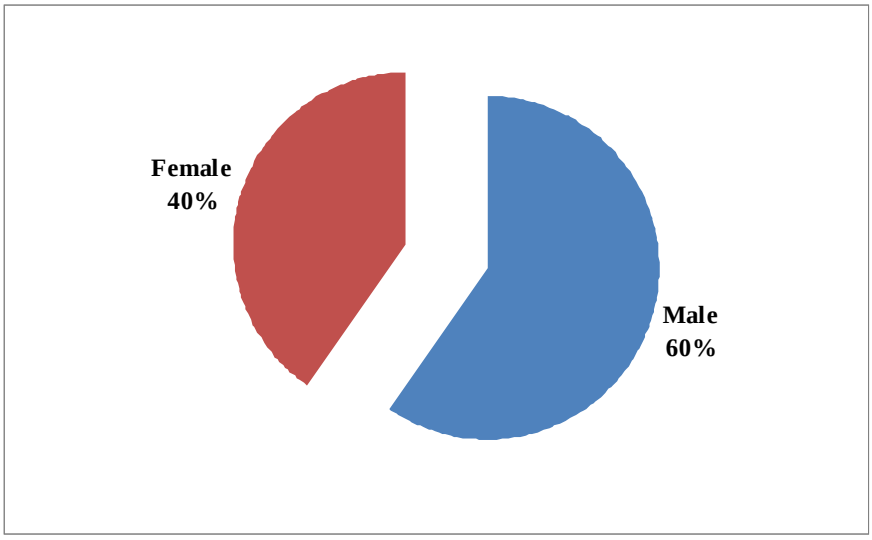
comprised 6 percent of the survey respondents. There were no respondents 15 years or under. Exhibit 26 shows the distribution of these age groups.

Exhibit 26
Age of Survey Respondents



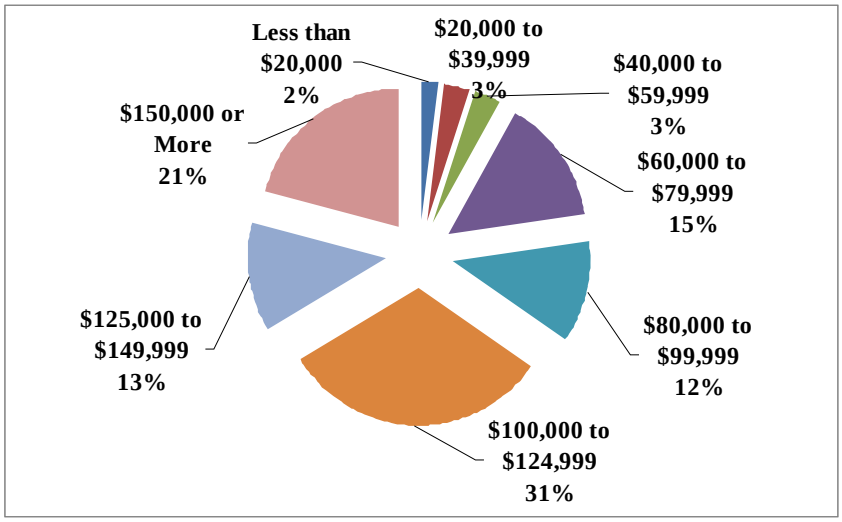
The gender of sixty (60) percent of the survey respondents was male, while 40 percent were female. Exhibit 27 graphically depicts this distribution.

Exhibit 27
Gender of Survey Respondents



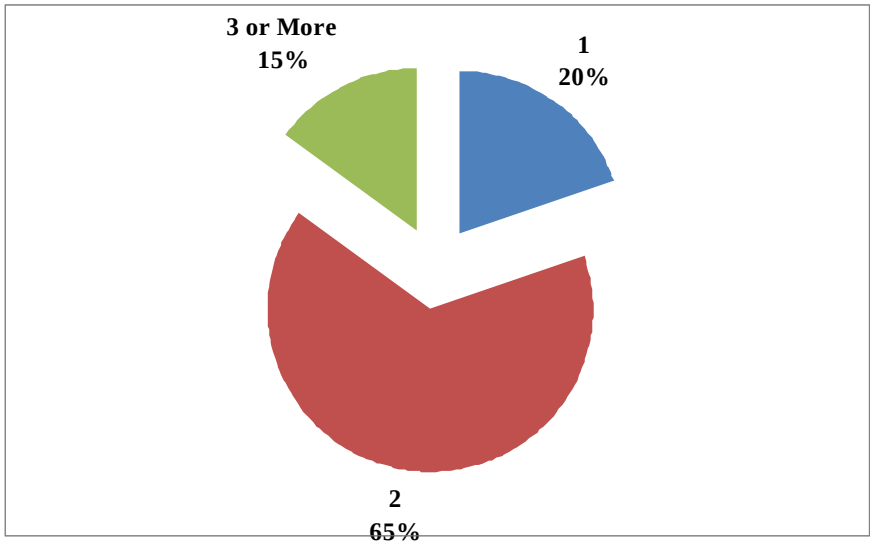
Individuals with higher income levels tend to have more transportation choices. The greatest proportion of people (31 percent) had incomes between $100,000 and $124,999 annually. The next highest category was the $125,000 to $149,999 income level, which totaled 13 percent. Exhibit 28 summarizes the income levels of the survey respondents.

Exhibit 28
Income of Survey Respondents



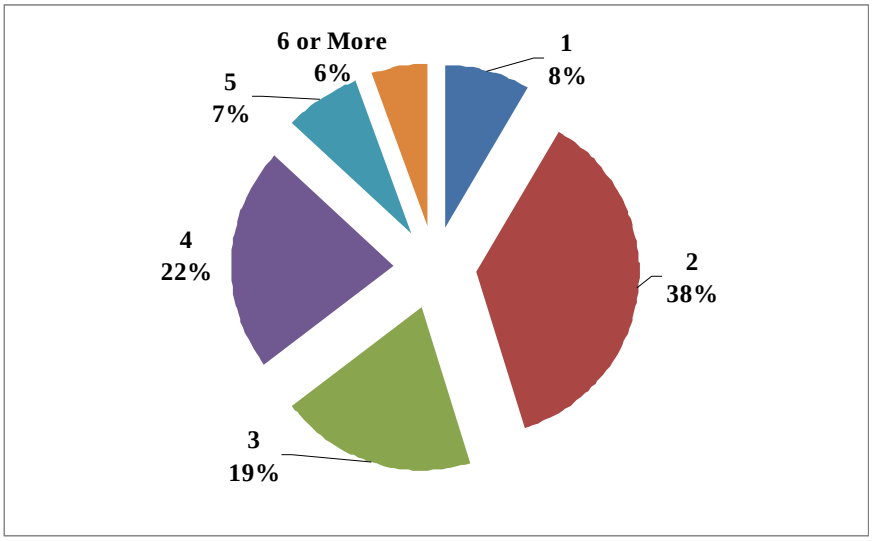
Auto availability has a direct affect on the propensity to use public transportation. Over half of the survey respondents had two vehicles available to them in their household, while twenty percent had only one vehicle available. Exhibit 29 shows the household vehicle availability.

Exhibit 29
Vehicles Available to Survey Respondents



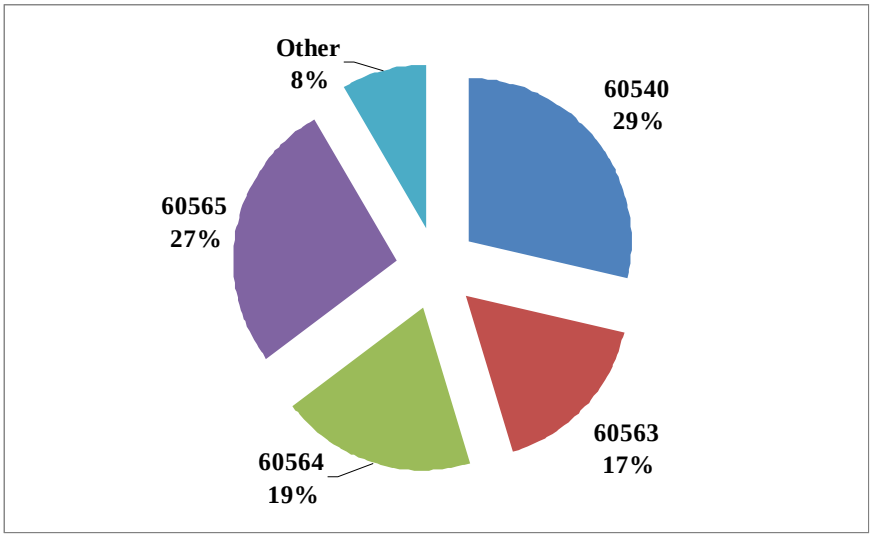
The number of people living in the household of the survey respondents is summarized in Exhibit 30. As can be seen, 79 percent of respondents live in households with 2, 3 or 4 persons residing in it.

Exhibit 30
Number of Persons Living in Household



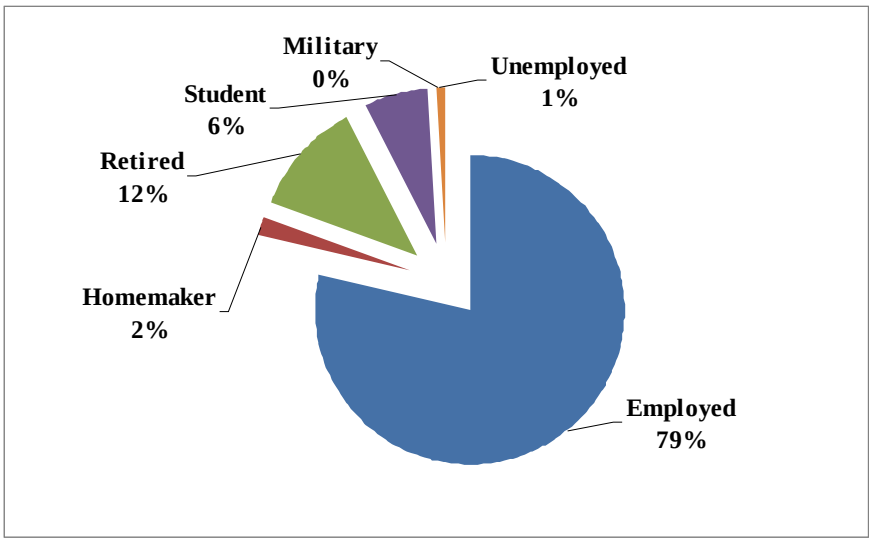
The zip code of where the survey respondents live appears in Exhibit 31. Nearly all reside in one of four zip codes comprising at least a part of the City of Naperville.

Exhibit 31
Residence Zip Code



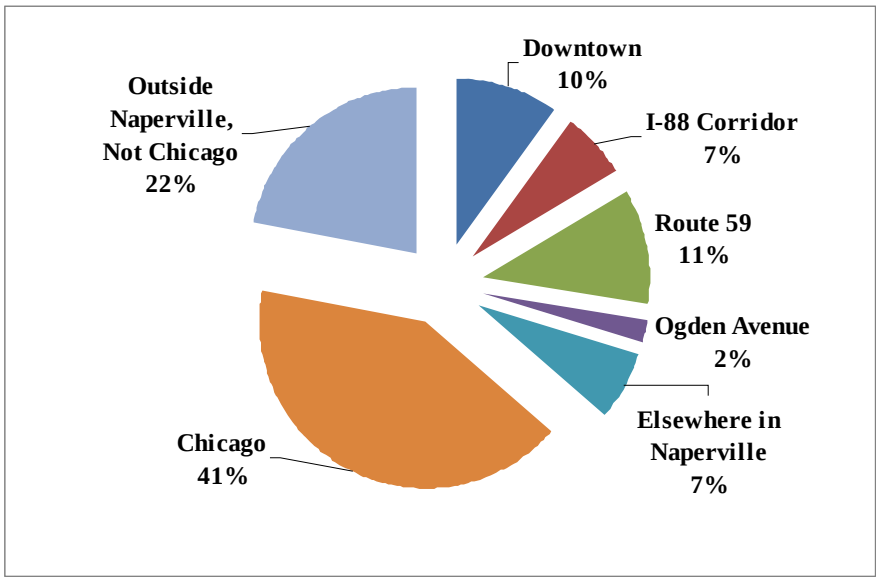
The employment status of the survey respondents is summarized in Exhibit 32. The greatest majority are employed, either outside or inside their home; the next highest group was retired, which comprised 12 percent of the respondents. About 6 percent were students, and 2 percent were full time homemakers. Unemployed persons comprised about 1 percent while military personnel were less than 1 percent of the total.

Exhibit 32
Employment Status



The breakdown of the general location of employment sites is included in Exhibit 33. The greatest portion (41 percent) is those employed in Chicago. Those who are employed outside of Naperville, but not in Chicago, comprised the second highest group. Together the different sections of Naperville were over one third of the employment locations. Among these, Downtown Naperville and the Route 59 corridor had the most employees at over 10 percent of the survey respondents each.

Exhibit 33
Employment Location



Current Transportation Habits

The most common modes of transportation among the survey respondents are depicted in Exhibit 34. Driving alone, followed by Metra train and Pace bus, were the most common responses. The majority of these commuters use the same transportation mode five or more days each week.

Exhibit 34
Current Transportation Mode to Work

	1 Day	2 Days	3 Days	4 Days	> 5 Days	Total Responses
Drive Alone	6	5	7	8	37	63
Carpool	6	3	0	1	2	12
Metra Train	0	1	3	2	30	36
Pace Bus	1	2	4	3	8	18
CTA Bus or "El"	1	0	0	1	6	8
Bicycle	0	0	1	0	0	1
Walk	1	1	1	0	5	8
Do Not Commute	8	2	1	0	3	14

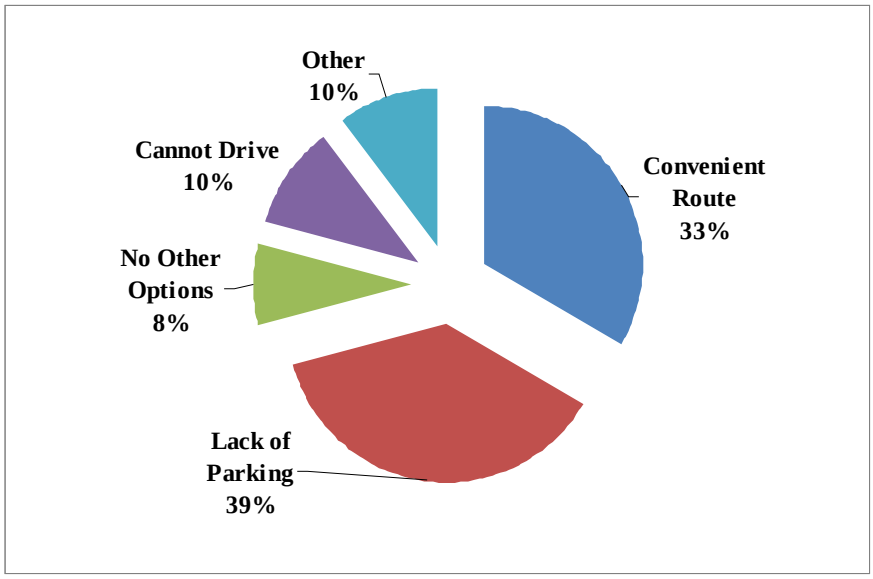
The transportation modes that are currently used for non-work trips are summarized in Exhibit 35. These types of trips can include shopping, social visits, personal business, and a variety of other purposes. For non-work trips, driving alone, carpooling and walking were most common.

Exhibit 35
Non-work Trip Transportation Mode

	1 Day	2 Days	3 Days	4 Days	> 5 Days	Total Responses
Drive Alone	4	13	15	13	47	92
Carpool	4	8	7	7	11	37
Metra Train	6	0	1	1	1	9
Pace Bus	1	0	0	0	1	2
CTA Bus or "El"	2	2	1	0	0	5
Bicycle	8	3	2	0	0	13
Walk	14	11	3	1	6	35

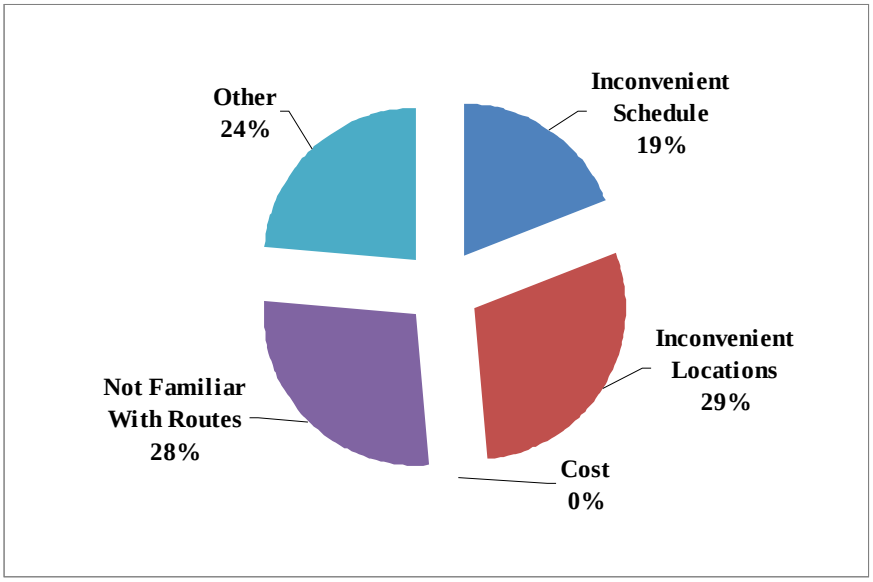
The reasons that current Pace riders use this service are indicated in Exhibit 36. The greatest numbers of survey respondents cite the lack of parking or the convenience of the route for using Pace bus service. It is likely that the majority of these persons are traveling to a Metra train station for their commute.

Exhibit 36
Reasons for Using Pace



The reasons that current non-Pace riders do not use this service are indicated in Exhibit 37. The greatest number of survey respondents cited inconvenient boarding locations and not being familiar with the routes or schedules.

Exhibit 37
Reasons for Not Using Pace



Desired Service Characteristics

Survey respondents were asked to rate several different time periods relative to their likely use of circulator service. Respondents were limited to four responses. The trip purposes include trips to/from work, retail stores and services, medical facilities, restaurants and entertainment venues, and social/sports activities. Exhibits 38 through 42 summarize the results. The highest rated time periods are the morning and afternoon peak periods for the work trips; the weekday mid-day, evening and Saturday hours for the shopping trips; weekday mornings and afternoons for medical trips; weekday evenings and Saturdays for restaurant/entertainment trips; and a variety of times for social/sports trips.

Exhibit 38
Rating of Trip Time/Day for Work Trips

Trip Time	Number
6:00a-9:00a, Weekdays	**55**
3:00p-6:00p, Weekdays	14
9:00a-3:00p, Weekdays	**37**
6:00p-10:00p, Weekdays	**26**
10:00p-2:00a, Weekdays	2
6:00a-6:00p, Saturdays	11
6:00p-10:00p, Saturdays	5
10:00p-2:00a, Saturdays	3
8:00a-6:00p, Sundays	13
6:00p-10:00p, Sundays	2

Exhibit 39
Rating of Trip Time/Day for Shopping Trips

Trip Time	Rating
6:00a-9:00a, Weekdays	3
3:00p-6:00p, Weekdays	**28**
9:00a-3:00p, Weekdays	18
6:00p-10:00p, Weekdays	24
10:00p-2:00a, Weekdays	3
6:00a-6:00p, Saturdays	**45**
6:00p-10:00p, Saturdays	25
10:00p-2:00a, Saturdays	6
8:00a-6:00p, Sundays	**34**
6:00p-10:00p, Sundays	8

Exhibit 40
Rating of Trip Time/Day for Medical Trips

Trip Time	Rating
6:00a-9:00a, Weekdays	6
3:00p-6:00p, Weekdays	**28**
9:00a-3:00p, Weekdays	**21**
6:00p-10:00p, Weekdays	10
10:00p-2:00a, Weekdays	1
6:00a-6:00p, Saturdays	**17**
6:00p-10:00p, Saturdays	4
10:00p-2:00a, Saturdays	1
8:00a-6:00p, Sundays	7
6:00p-10:00p, Sundays	3

Exhibit 41
Rating of Trip Time/Day for Restaurant/Entertainment Trips

Trip Time	Rating
6:00a-9:00a, Weekdays	1
3:00p-6:00p, Weekdays	11
9:00a-3:00p, Weekdays	12
6:00p-10:00p, Weekdays	**40**
10:00p-2:00a, Weekdays	5
6:00a-6:00p, Saturdays	**30**
6:00p-10:00p, Saturdays	**47**
10:00p-2:00a, Saturdays	13
8:00a-6:00p, Sundays	29
6:00p-10:00p, Sundays	13

Exhibit 42
Rating of Trip Time/Day for Social/Sports Trips

Trip Time	Rating
6:00a.m.-9:00a.m., Weekdays	1
3:00p.m.-6:00p.m., Weekdays	10
9:00a.m.-3:00p.m., Weekdays	16
6:00p.m.-10:00p.m., Weekdays	**23**
10:00p.m.-2:00a.m., Weekdays	2
6:00a.m.-6:00p.m., Saturdays	**32**
6:00p.m.-10:00p.m., Saturdays	**23**
10:00p.m.-2:00a.m., Saturdays	5
8:00a.m.-6:00p.m., Sundays	**26**
6:00p.m.-10:00p.m., Sundays	10

Survey respondents were asked to indicate which part of Naperville they would most likely originate a trip from using a circulator service. The City was divided into 11 zones for that purpose. The results are depicted in Exhibit 43. The area where the highest number of persons would like to start a trip is in zones 1, 3, 6, and 9. The first two zones are in South Naperville, while zone 6 is southwest of Downtown Naperville, and zone 9 is the eastern portion of the Downtown area.

Survey respondents were also asked to indicate which part of Naperville they would most likely end a trip using a circulator service. The results are depicted in Exhibit 44. The area where the highest number of persons would like to end a trip is zones 6 and 9. Both of these zones include portions of Downtown Naperville. A significant number of destinations are also located in zone 5, which is east of Downtown, and zone 10, which is north of Downtown.

Survey participants were asked how far they would walk to board a circulator. The greatest number responded two blocks. The second greatest number of responses was either three or four blocks. A much smaller portion indicated that they were willing to walk five or more blocks. Exhibit 45 shows the responses for how far a potential passenger would walk to access a circulator service.

Exhibit 43
Trip Origins

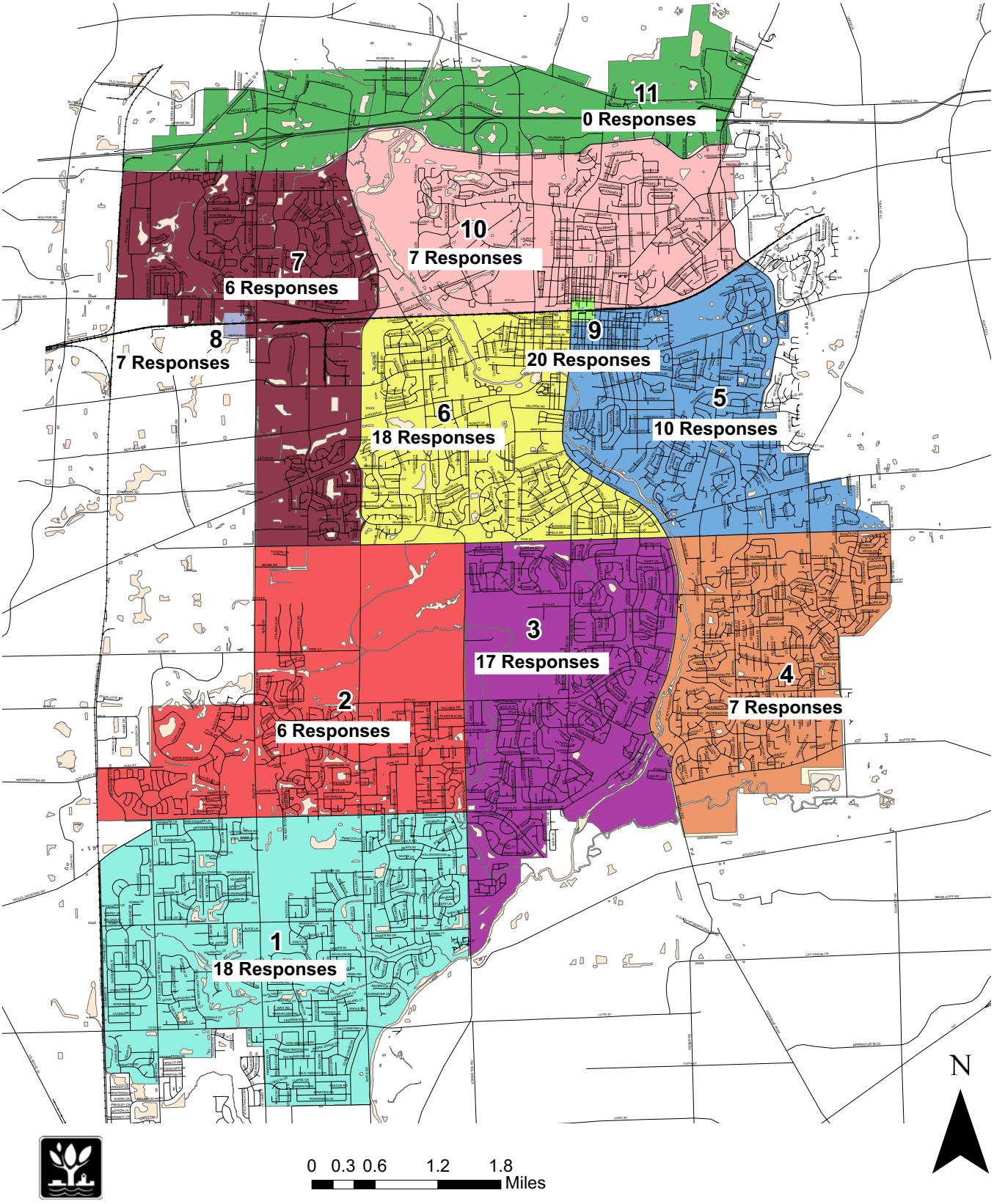


Exhibit 44
Trip Destinations

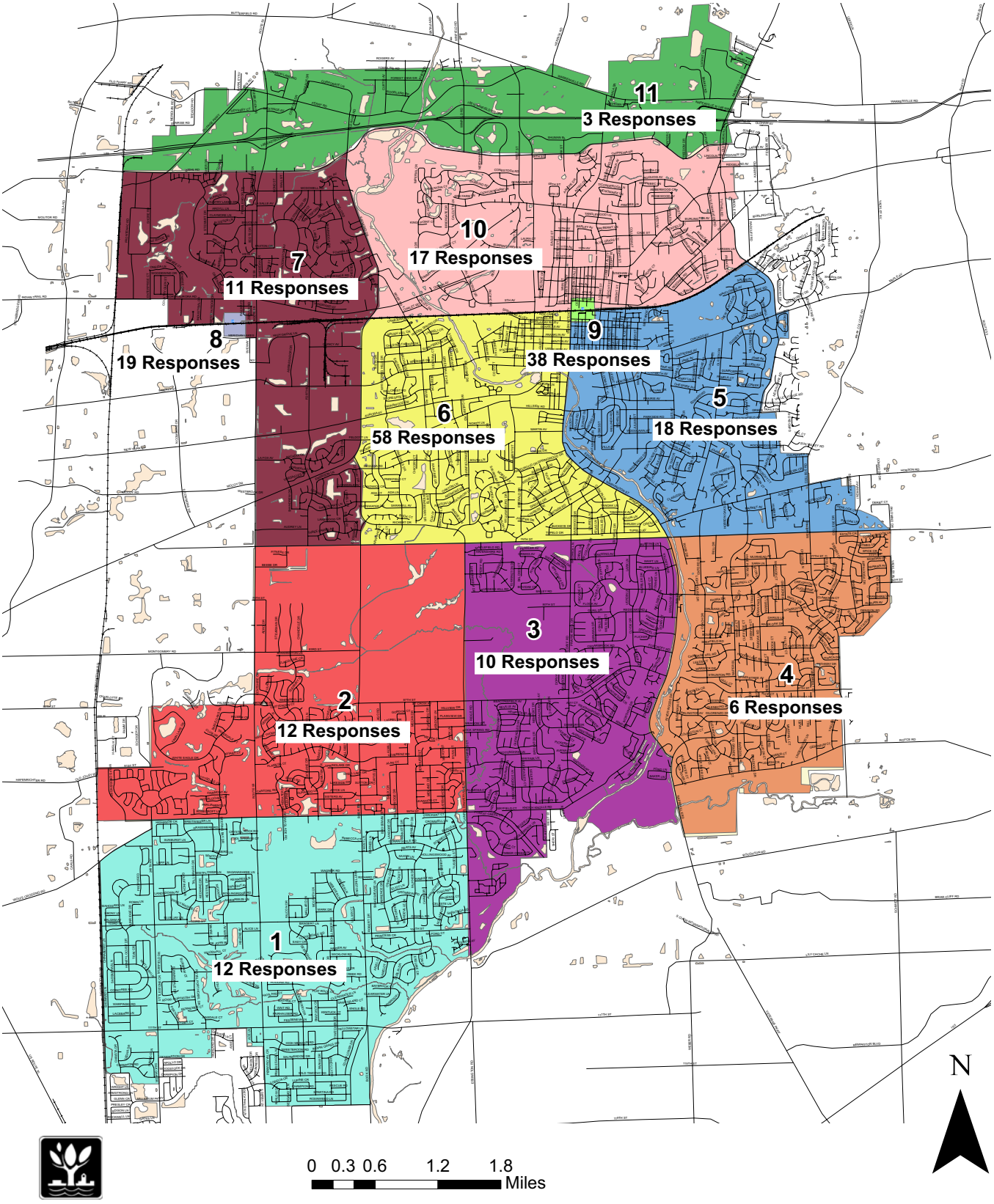
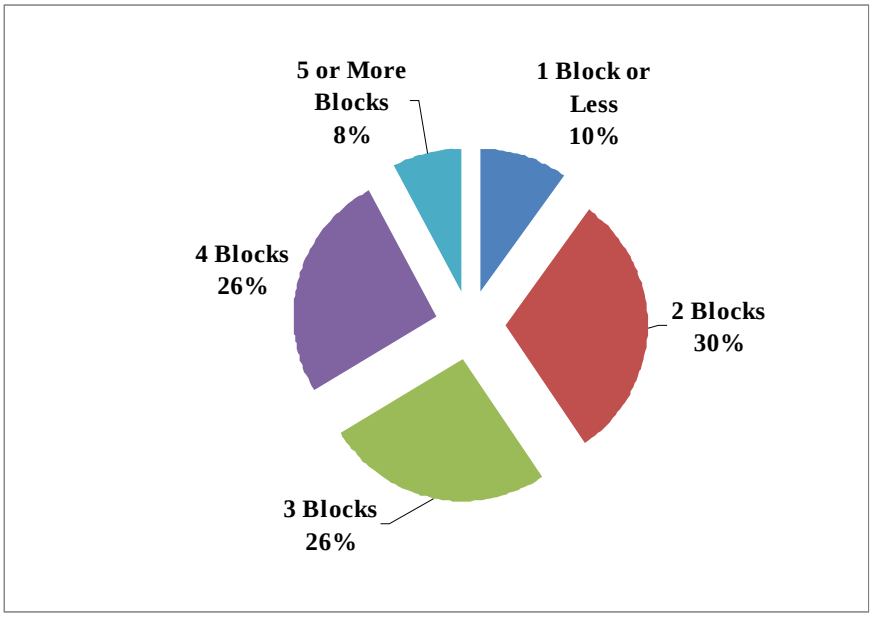
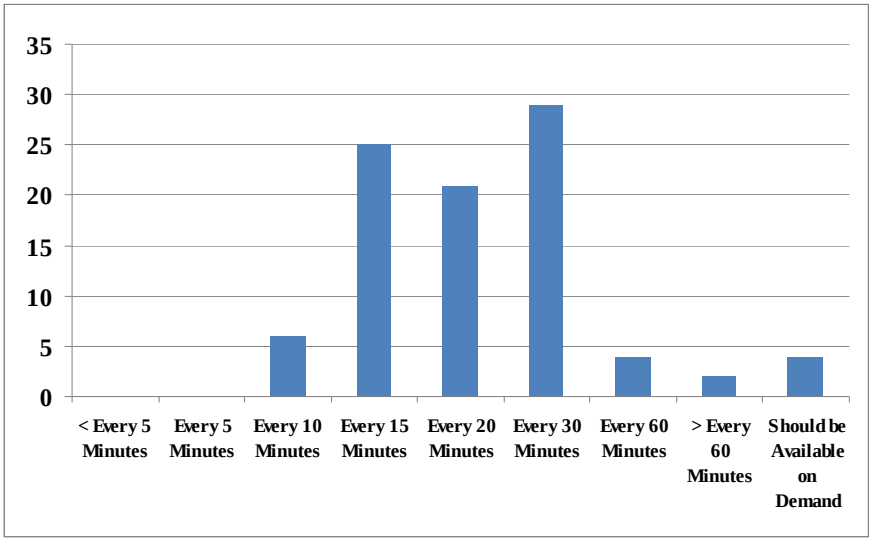


Exhibit 45
Access Distance Desired by Survey Respondents



The desired frequency of a circulator was between 15 and 30 minutes. About 29 respondents indicated that a route operating every 30 minutes was sufficient. The next highest number of responses was for every 15 minutes, followed by every 20 minutes. Together these comprised about 80 percent of the responses. Exhibit 46 graphically depicts the desired frequencies of the survey respondents.

Exhibit 46
Desired Frequency of Survey Respondents



Respondents indicated that they would likely use a circulator service at many different times. Weekday hours were rated on a scale of 1 to 10, with 10 being the most desirable. Separate ratings were requested for Saturday and Sunday hours. The weekday time span with the highest rating was the weekday morning and afternoon peak periods with a rating of 8.4. On Saturdays and Sundays, the daytime hours received the highest rating. Exhibit 47 summarizes the desired service hours by weekday, Saturday, and Sunday.

Exhibit 47
Desired Service Hours

Weekday Time Span	Average Score
6:00am to 9:00am and 3:00pm to 6:00pm	8.4
10:00am to 2:00pm	5.2
6:00pm to 10:00pm	7.3
10:00pm to 2:00am	3.3
No Weekday Service	2.1
Saturday Time Span	**Average Score**
6:00am to 6:00pm	8.0
6:00pm to 10:00pm	7.1
10:00pm to 2:00am	5.0
No Saturday Service	1.6
Sunday Time Span	**Average Score**
6:00am to 6:00pm	7.7
6:00pm to 10:00pm	6.2
10:00pm to 2:00am	3.4
No Sunday Service	1.9

The type of service preferred by these potential passengers was fixed route, however, a significant number of respondents indicated that they prefer flexible route service. Exhibit 48 depicts the breakdown of survey responses.

Exhibit 48
Desired Service Type

Service Type	Number
Fixed Route	47
Flexible Route	35
On-Demand	6
Total Responses	88

The three service types were defined as follows:

Website Survey

- Fixed Route - Bus service that operates along a defined route on a defined schedule with designated stops.
- Flexible Route - Bus service that picks passengers up from a scheduled bus stop and drops them off at a requested location within a designated service area. As a passenger boards the bus, he or she tells the driver his or her destination.
- On Demand - On demand service is a reservation based curb-to-curb bus service that picks up and drops off passengers at the curb in front of their home or destination. This service often requires advanced reservations.

The fare that potential passengers are willing to pay to ride a circulator was spread among the choices between $5.00 and a free fare. This was also divided by transportation service type. The greatest number of responses for fixed route service was for a $2.00 fare, with the $1.00 fare close behind. People were willing to pay a higher fare for flexible route service, and an even higher fare for curb-to-curb on-demand service. Exhibit 49 shows the desired fare by desired service type.

Exhibit 49
Desired Service Type

	$5	$4	$3	$2	$1	Free	Total Response
Fixed Route	2	1	19	**34**	26	5	87
Flexible Route	4	16	**22**	21	7	3	73
On-Demand	**33**	7	13	7	3	3	66

CONCLUSIONS

Conclusions

The markets for local circulator service in Naperville are divided into two categories. The first relates to the geographic areas where concentrations of potential users of this service are located. The second are the groups of people that reside in Naperville that are potential markets for this service.

Geographic Areas

Current transit services within Naperville could be successfully augmented by circulator routes that would meet not only the needs of the transportation disadvantaged, but also attract new choice riders. The geographic areas where data shows significant potential for circulator markets are summarized in Exhibit 50.

Exhibit 50
New Recommended Geographic Coverage of Circulator Market

Area Recommended for Circulator Service	Market		
	High Transit Propensity	High Density Employment Area	High Density Residential Area
Downtown Naperville	✔	✔	✔
N. Washington Street/ N. Mill Street	✔		✔
East Chicago Avenue/	✔	✔	✔
S. Washington Street	✔	✔	✔
I-88 Corridor		✔	

Downtown Naperville
Downtown Naperville has several factors that make it attractive for a circulator. The employee density within the downtown area is sufficient to support a circulator service. There are a number of services in the downtown area, such as stores and restaurants, which could be used by residents and employees within Naperville if a circulator connected them to the downtown area.

In addition, the downtown area has some parking management strategies in place, requiring many employees to pay for parking. In addition, the City has examined the idea of creating remote park-and-ride spaces with frequent bus service to help free up downtown parking spaces and congestion. Potential locations for remote parking include but are not limited to North Central College, Centennial Beach, Naperville Central High School, St. Johns Catholic Church, All Saints Academy, and the Martin/Mitchell properties. A circulator could help free up additional close-in parking spots for store patrons and improve access.

North Washington Street/North Mill Street
This area extends from downtown Naperville north to West Bauer Road. The area between West Ogden Avenue and West Bauer Road has the highest transit propensity in the city of Naperville. This area has a high population density and a moderate number of disabled citizens, residents over 65 years old, and people living below the poverty level. This area also has one of the highest number of households without access to a vehicle. This area shows a high probability of using circulator service to the Metra Station, downtown Naperville, and Edward Hospital.

East Chicago Avenue
East Chicago Avenue stretches between downtown Naperville near North Central College to the west and Benedictine College to the east. The East Chicago Avenue area has a fairly high transit propensity rating for the city. This road has a number of apartment buildings along it and, therefore, has one of the highest densities of residents in Naperville. The area also has a moderate number of people who live below the poverty

level and without a vehicle. This area is not served by all day or midday transit service.

South Washington Street
This area under consideration consists of the segment from downtown to Edward Hospital, Naperville's largest employer, and further south to 87th Street. More than 4,000 employees work at this hospital, and parking lots are nearly full. If the employees had access to circulator service, they could travel to downtown Naperville for meals and errands and may be less likely to drive to work. In addition, adding more service to the hospital will improve access to the hospital for the transportation dependent users of the hospital. The area in the vicinity of South Washington and 87th Street has a high residential density.

I-88 Corridor
The I-88 Corridor is generally defined as the area along Warrenville Road between Winfield Road and North Naper Boulevard. This is a high density employment area. Thousands of people commuting to work in this area from within and outside Naperville could have better access to their jobs via bus, if a circulator served the I-88 Corridor. Exhibit 9 shows the commuting patterns within Naperville, and Exhibits 5 and 7 show the commuting patterns to the I-88 Corridor from outside of Naperville.

The corridor currently has some peak hour bus service, but no all day or midday service. If all day circulator service becomes available in this area, it would allow thousands of workers to use transit and maintain a flexible schedule. If midday only circulator service became available to this area, it would allow employees to use transit during the day to reach shopping centers and restaurants.

Market Groups
Several groups of people appear to exhibit a higher propensity to use local circulator service. These include the following:

Senior Citizens
Many senior citizens have fixed or limited incomes, or have diminishing capabilities to drive an automobile. A circulator would likely be attractive to seniors if it provides transportation between concentrations of senior residences and necessary shopping, personal business, nutrition, and recreational destinations.

Commuters
There are primarily three groups of commuters: Naperville residents commuting to Chicago and other locations; reverse commuters traveling to Naperville to work; and suburb-to-suburb commuters. By far, the largest group is the traditional commuters living in Naperville. For these

commuters, the shortage of parking space at the Metra stations has created a large market for service that would augment existing Pace peak hour feeder routes. This market can be served in a number of ways, including meeting more Metra trains on existing routes, providing Metra station feeder service to unserved areas, and providing more extensive mid-day service. Reverse commuters and most suburb-to-suburb commuters would be served by scheduling buses to meet outbound morning and inbound afternoon/evening Metra trains.

Students
Based on parking shortage and vehicle availability, college and high school students should be a target market for circulator service. The greatest potential for high school students appears to be for those living inside the school bus transportation limit and for extracurricular or other after school trips. Both commuting and resident college students exhibit potential to use circulator service.

Local Naperville Employees
Resident and non-resident employees of local Naperville employers exhibit some demand for circulator service because of transit dependency, parking shortages, and traffic conditions. Those commuting to Naperville by bus or train need a connection to their employment site.

General Population
A growing number of people are seeking an alternative to driving an automobile because of high fuel costs and environmental considerations.

Other Findings

There are a number of other findings from the market research that will affect the design of circulator service alternatives. Three noteworthy findings include:

- While fixed route was the preferred type of service, there are a significant number of survey respondents who indicated a preference for flexible route service, enough to warrant further evaluation.
- Different levels of service, and their associated costs, should also be included in the alternatives evaluation phase of the study.
- Southwest Naperville is an area of growth since the 2000 U. S. Census. It has new residential and commercial areas. It is also believed to have a relatively high concentration of disabled persons.

IV. SERVICE IMPROVEMENT ALTERNATIVES

Service alternatives were created to assist the City of Naperville to arrive at the optimum design of transit services in Naperville. These alternatives were based on background information collected related to the demand for transit services and actual experiences of stakeholders for transportation needs that exist in Naperville. Several potential routes were created and are described below. They were then grouped into three service alternatives, two of which include fixed route service improvements. The third involves employing route deviation, which is a type of demand response service.

The Steering Committee members reviewed these alternatives in June 2008. Comments, submitted subsequent to the review of this technical memorandum, were used to create the recommended service improvements. The potential routes and the three alternatives are described below. It is preceded by an evaluation of the current Pace fixed route services in Naperville.

EVALUATION OF NAPERVILLE PACE SERVICE

Evaluation of Naperville Pace Service

A primary objective for the planned Naperville Circulator is to complement current public transportation services. A review of current Pace bus service in Naperville was conducted to determine its strengths, weaknesses, and gaps.

Ridership for the Pace routes operating in Naperville were compiled and appear in Exhibit 51. The majority of these routes are feeders to the Naperville and Route 59 Metra train stations and run during the weekday peak periods only. Four other routes operate throughout the day and on Saturdays.

Pace Feeder routes with the highest ridership include 673, 675, and 678. Routes 673 and 675 both serve park and ride lots and stop at the Route 59 station. Route 678 serves a neighborhood located about two miles east of the Naperville Train Station. Routes 680 and 683 also average over 100 passengers daily. Both of these routes operate to the south side of Naperville. Routes 682 and 686 average just under 100 passengers daily. Route 682 operates through the northwestern part of Naperville, while route 686 serves the south side of the City. Two routes, Pace Routes 787 and 788, with low ridership run during the weekday mid-day period.

Exhibit 51
Ridership Levels for Naperville Pace Routes

Route	# Trips	Daily Passenger Boardings	Maximum Load	Trip
530	54*	n/a	n/a	n/a
673	14	211	29	7:50a.m.
675	7	149	39	5:42p.m.
676	11	90	20	4:20p.m.
677	10	58	16	6:31a.m.
678	9	124	30	7:14a.m.
680	10	105	23	5:56p.m.
681	6	58	20	6:54a.m.
682	7	98	26	6:34a.m.
683	11	114	30	6:52a.m.
684	6	71	20	6:31a.m.
685	7	80	20	6:26a.m.
686	6	94	24	7:22a.m.
687	6	73	19	7:24a.m.
688	6	80	18	5:54a.m.
689	6	57	15	5:56p.m.
714	23*	n/a	n/a	n/a
787	4	16	14	3:02p.m.
788	3	2	2	1:45p.m.

*Weekday trips only; route also runs on Saturdays

The majority of Pace routes in Naperville are designed to meet Metra commuter trains to Chicago. Metra operates train service to the Naperville Station and the Route 59 Station throughout the day on weekdays and weekends. It runs a combination of local and express trains between Naperville and Union Station in downtown Chicago. Express trains are generally preferred by those commuting to downtown Chicago because travel times are significantly lower.

During weekday mornings, Metra operates eight (8) express trips from Naperville to downtown Chicago. On these trips, the last stop before arriving at Union Station is the Naperville Metra station. The second to last stop on these trips is the Route 59 station. Exhibit 52 shows the express trains that are met by the Pace feeder routes. All of these bus routes operate to the Naperville Station with the exception of routes 673 and 675 which stop at the Route 59 station. As shown, nearly all Pace feeder routes meet the 6:25 a.m., 7:06 a.m., and 8:00 a.m. trains.

Exhibit 52
Naperville Pace Feeder Routes to Metra Stations
Inbound AM Express Trains Met

Route	Naperville Station Train Departure							
	6:05a	6:25a	6:45a	7:06a	7:26a	7:40a	8:00a	8:24a
673			X	X	X	X	X	X
675			X		X		X	
676		X		X			X	
677		X		X			X	
678		X		X			X	
680		X		X			X	
681*		X	X		X			
682		X		X			X	
683		X		X		X	X	
684		X		X			X	
685		X		X			X	
686		X		X			X	
687		X		X			X	
688		X		X			X	
689		X		X			X	

* Reverse commuter distributor route

Metra operates four weekday afternoon outbound express trips from Union Station to Naperville. As shown in Exhibit 53, all Pace feeder routes meet all four of these trains with two exceptions.

Exhibit 53
Naperville Pace Feeder Routes to Metra Stations
Outbound PM Express Trains Met

Route	Naperville Station Train Arrival			
	5:32p	5:54p	6:17p	6:45p
673	X	X	X	X
675	X		X	X
676	X	X	X	X
677	X	X	X	X
678	X	X	X	X
680	X	X	X	X
681*	X		X	X
682	X	X	X	X
683	X	X	X	X
684	X	X	X	X
685	X	X	X	X
686	X	X	X	X
687	X	X	X	X
688	X	X	X	X
689	X	X	X	X

* Reverse commuter distributor route

Evaluation of Naperville Pace Service

The following conclusions are drawn from this review:

- There is significant ridership on the Metra Station feeder routes. Ridership is low on the two routes that operate only in the mid-day period. There were no data available for Routes 530 and 714 in Naperville, but according to Pace, ridership is steady;
- There are some gaps in service to the Metra Stations. Very few or no Pace feeder routes meet five (5) of the eight (8) weekday morning express trains to Chicago; and
- The Route 59 Station has limited feeder service. Some neighborhoods surrounding this Station have feeder service to the Naperville Station.

POTENTIAL NEW ROUTES

Potential New Routes

Some potential routes were identified through data analysis, interviews, public comments, and Steering Committee input. The following parameters were used in their design:

- The service should be designed for a variety of groups of people and a variety of trip purposes;
- Operating hours should extend beyond the weekday peak periods and potentially include weekday mid-day, evenings and weekend hours;
- The service should not duplicate other public transit services provided by Ride DuPage and Pace;
- Routes should connect residential areas in Naperville with various destinations including employment locations, schools, commercial areas, and transfer points to Pace and Metra lines; and
- The routes should be designed as neighborhood circulators that have convenient access to/from residential areas.

Potential routes are described on the following pages. Maps of these routes appear in Appendix B as Exhibits 54 through 60.

Diehl Road

This route would operate between the Naperville Metra Station and the Route 59 Metra Station. It would run along Washington Street, Ogden Road, Mill Street, Diehl Road, Country Club Boulevard, and Fairway Drive. It would serve the Route 59 Metra station from the north. It also serves high density residential areas along Fairway Drive and Mill Street, and numerous employment and commercial areas along Diehl Road. This route is 7.3 miles long in one direction. Exhibit 54 depicts the potential Diehl Road route.

Brookdale Road

This route would also run between the Naperville Metra Station and the Route 59 Metra Station. It would use Washington Street, 6th Street, Mill Street, Ogden Road, Brookdale Road, and Fairway Drive. It would serve residential areas, some with high density, along Brookdale and Fairway Drive. It would also serve the Naperville North High School at Ogden Road and Mill Street. This proposed route's one-way length is 5.5 miles. Exhibit 55 shows the alignment of the Brookdale route.

Columbia Street/Ogden Mall

This route would operate from the Naperville Metra Station to the Ogden Mall, a major shopping center located at the intersection of Iroquois Drive and Ogden Avenue. It serves residential areas along North Avenue (inbound), School Street (outbound), Columbia Street, and Iroquois Drive. During peak hours it would connect the Plank Road area with the Naperville Metra Station. This route is 5.3 miles long in one direction. Exhibit 56 includes the proposed alignment of this route.

Washington Street/Rickert Drive

Serving the area southwest of downtown Naperville, this route would run primarily on Washington Street, Aurora Avenue, Gartner Road, Modaff Road, 75th Street, and Rickert Drive. It serves mostly residential areas and some commercial centers near the intersection of West Street and Rickert Drive. It also serves Naperville Central High School on Aurora Avenue and Edwards Hospital on Washington Street. This route's one-way distance is 7.0 miles. Exhibit 57 shows the alignment of this route.

95th Street

This route would connect the south end of Naperville with downtown Naperville and the commercial area in the vicinity of the Fox Valley Mall. It would operate along Washington Street, Gartner Road, Modaff Road, Bailey Road, Kildeer Drive, Town Drive, 87th Street, Knoch Knolls Road, 95th Street, and Route 59. In addition to downtown Naperville and the Fox Valley Mall, this route serves Nequa Valley High School, the 95th Street Library, and high density residential areas along Modaff Street, Kildeer Drive, and Town Drive. This route is 13.7 miles long in one direction. Exhibit 58 shows the alignment of this route.

Modaff Road

This is a shortened version of the proposed 95th Street route described above. Instead of operating to 95th Street, it ends in a terminal loop using Modaff Road, Gateshead Drive, Plainfield-Naperville Road, and 87th Street. This route's one-way length is 7.5 miles. Exhibit 59 depicts this alignment.

Potential New Routes

Rickert Drive/95th Street

This route would operate to 95th Street by way of Washington Street, Aurora Road, West Street, Rickert Drive and Book Road. It would serve Naperville Central High School, Nequa Valley High School, the 95th Street Library, and high density housing along Rickert Drive. This route is 8.0 miles long in one direction. Exhibit 60 depicts the alignment of this route.

East Chicago Avenue

East Chicago Avenue runs through the east side of Naperville through the North Central College campus. While this area contains some medium density housing and small shopping centers, this route does not appear to have as much potential to attract ridership as the other proposed routes. The largest concentration of high density housing in the block of East Chicago Ave, Benedictine Parkway, Abbeywood Drive, and Naper Boulevard is outside of the city of Naperville. The Butera Market is not a large enough destination for Naperville residents to warrant an all-day circulator route. It appears that East Chicago Avenue has the potential to support all-day service if a connection to St. Benedictine College and downtown Lisle is considered.

Route Ratings

These seven (7) proposed routes were evaluated using the five parameters described earlier in this section. Exhibit 61 shows the population within ¾ mile of each route and a rating by route for each parameter. Overall, the Washington Street/Rickert Drive route scored the highest, with 95th Street and Diehl Road scoring next highest.

SERVICE LEVEL OPTIONS

Service Level Options

The above proposed routes are grouped into three alternatives representing differing route combinations. One of the alternatives would operate in a different mode of service, described as route deviation. Alternative service spans and frequencies are also presented. These start with a base level of service with added service listed by priority as ridership warrants.

Service Span

Based on the website survey results and an analysis of Pace and Metra transit service levels, the hours and days of service for the Naperville Circulators were prioritized. The basic level of service and the priorities for additional service hours are listed below. When implementing new service, the City should start with the basic level of service and add additional service as ridership warrants.

- Basic Level of Service – 6:00 a.m. to 8:00 p.m., weekdays.
- Priority One – 6:00 a.m. to 6:00 p.m., Saturdays.
- Priority Two – 8:00 p.m. to 10:00 p.m., weekdays.

Exhibit 61: Route Ratings Using Goals/Parameters

Route	Population Served	0-Vehicle Households	Parameters					Average Score
			Market Variety	Service Span	Duplication	Connections	Residential Convenience	
Diehl Road	25,940	382	3	3	2	2	2	2.4
Columbia Street/ Ogden Mall	6,008	50	2	3	2	2	1	2.0
Washington Street/ Rickert Drive	31,150	521	3	3	3	3	3	3.0
Brookdale Road	26,536	405	2	3	1	2	3	2.2
95th Street	61,903	468	2	3	3	2	3	2.6
Modaff Drive	77,322	338	2	3	2	1	2	2.0
Rickert Drive/ 95th Street	28,743	387	2	3	3	2	1	2.2

3 - Fullfills Goal
2 - Partially Fulfills Goal
1 - Does not Address Goal

- Priority Three – 6:00 p.m. to 10:00 p.m., Saturdays.
- Priority Four – 8:00 a.m. to 6:00 p.m., Sundays.

Frequencies

A basic service standard for fixed route bus service is that frequencies should be no greater than 60 minutes. It has been found that usefulness of bus service for most people diminish when route frequencies are greater than 60 minutes. In addition, when schedules are "clockface" or "memory headways" (departures set at the same number of minutes past each hour), they are easier to learn. The basic level of service and one frequency improvement priority are listed below. Similar to the service span, the City should start with the basic level of service and improve to 30-minute frequencies as ridership warrants.

- Basic Level of Service – 60-minute frequencies.
- Priority One – 30-minute frequencies.

ALTERNATIVE 1

Alternative 1

This alternative includes a group of routes that would operate as a unified system and serve both the north and south ends of Naperville. They can also be implemented separately as part of a phased implementation plan. The following routes are included in this alternative.

- Diehl Road
- Washington Street/Rickert Drive
- 95th Street Route

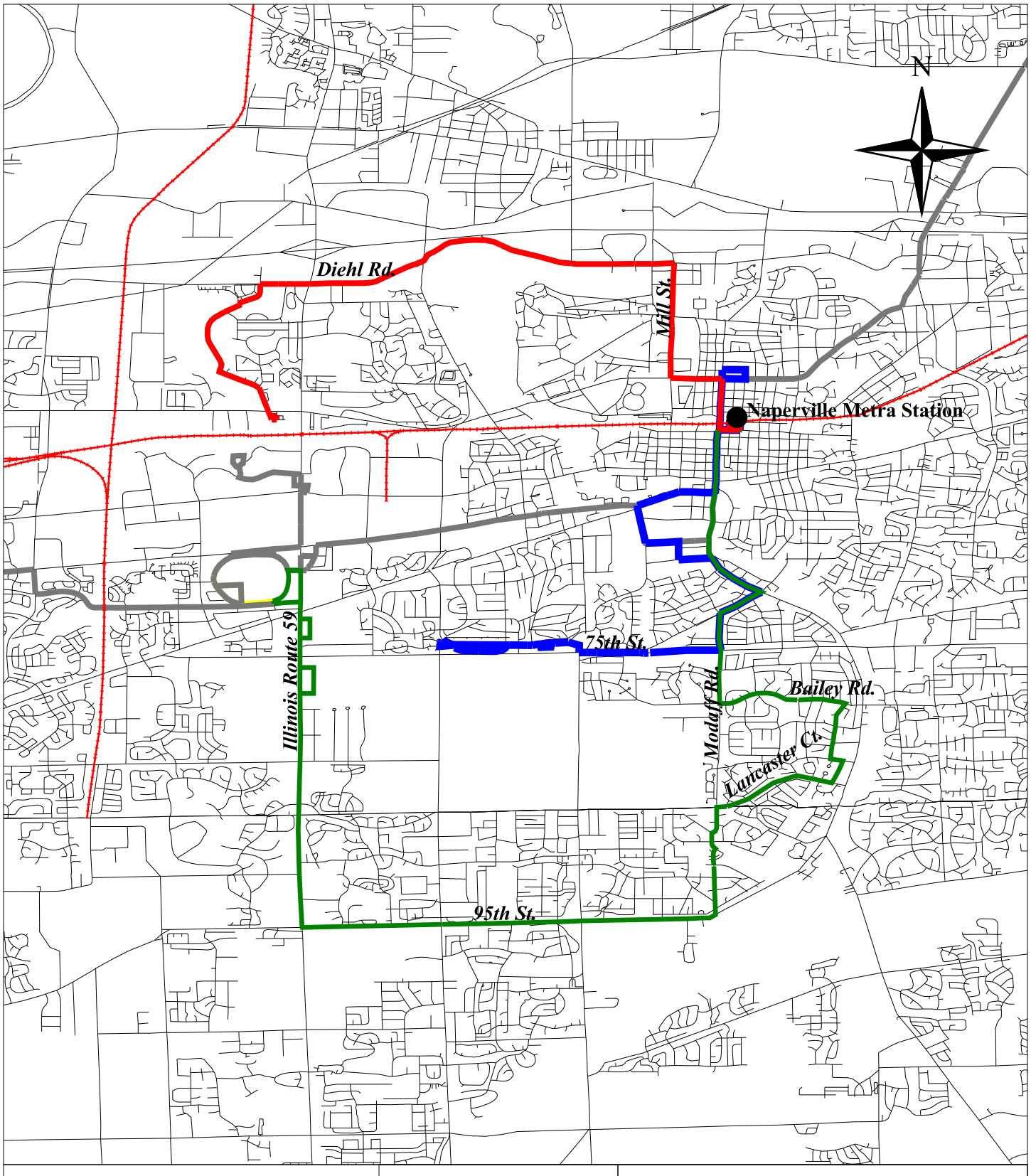
The combination of these three routes is shown in Exhibit 62. A summary profile of the routes in this alternative appears in Exhibit 63. It is assumed that the ADA complementary paratransit service requirements would be assumed by Pace and/or Ride DuPage service.

Exhibit 63
Alternative 1 Route Profile

Route	Service Span	Freq.	Vehicles	Revenue Hours
Diehl Road	6:00a.m.-8:00p.m.	60	1	14.0
Washington/Rickert Drive	6:00a.m.-8:00p.m.	60	1	14.0
95th Street	6:00a.m.-8:00p.m.	60	2	28.0
Total			**4**	**56.0**

Advantages/Disadvantages

There are a number of advantages to this alternative. This set of routes would operate through some of the highest density of housing in



Diehl Road Route
95th Street Route
Washington St,/Rickert Drive Route
PACE Routes (530, 535, and/or 714)

RLS AND ASSOCIATES

Exhibit 62: Alternative 1 Route Network

City of Naperville Circulator Study

Alternative 1

Naperville in the North Aurora Road area. It would also serve apartment complexes on Rickert Drive. A number of employment and education centers would also be served along Diehl Road. Edwards Hospital is also served. It is likely that the Diehl Road route could be scheduled to meet trains at both the 59th Station and the Naperville Station. The existence of the Diehl Road route and the Washington Street/Rickert Drive route could substitute for Route 788 and achieve some cost savings. The service coverage area would be expanded to more of the south side of Naperville in this alternative. The 95th Street area would have connection with both downtown Naperville and the Fox Valley Mall area.

The primary disadvantage of this alternative is cost. The 95th Street is a lengthy route that would require two vehicles to operate 60-minute frequencies.

ALTERNATIVE 2

Alternative 2

This Alternative is comprised of a group of routes with a geographic coverage that includes both the north and the south end of Naperville. This Alternative is comprised of a different set of routes than those included in Alternative 1. It includes the following routes:

- Brookdale Road
- Rickert Drive/95th Street
- Modaff Road
- Columbia Street/Ogden Mall

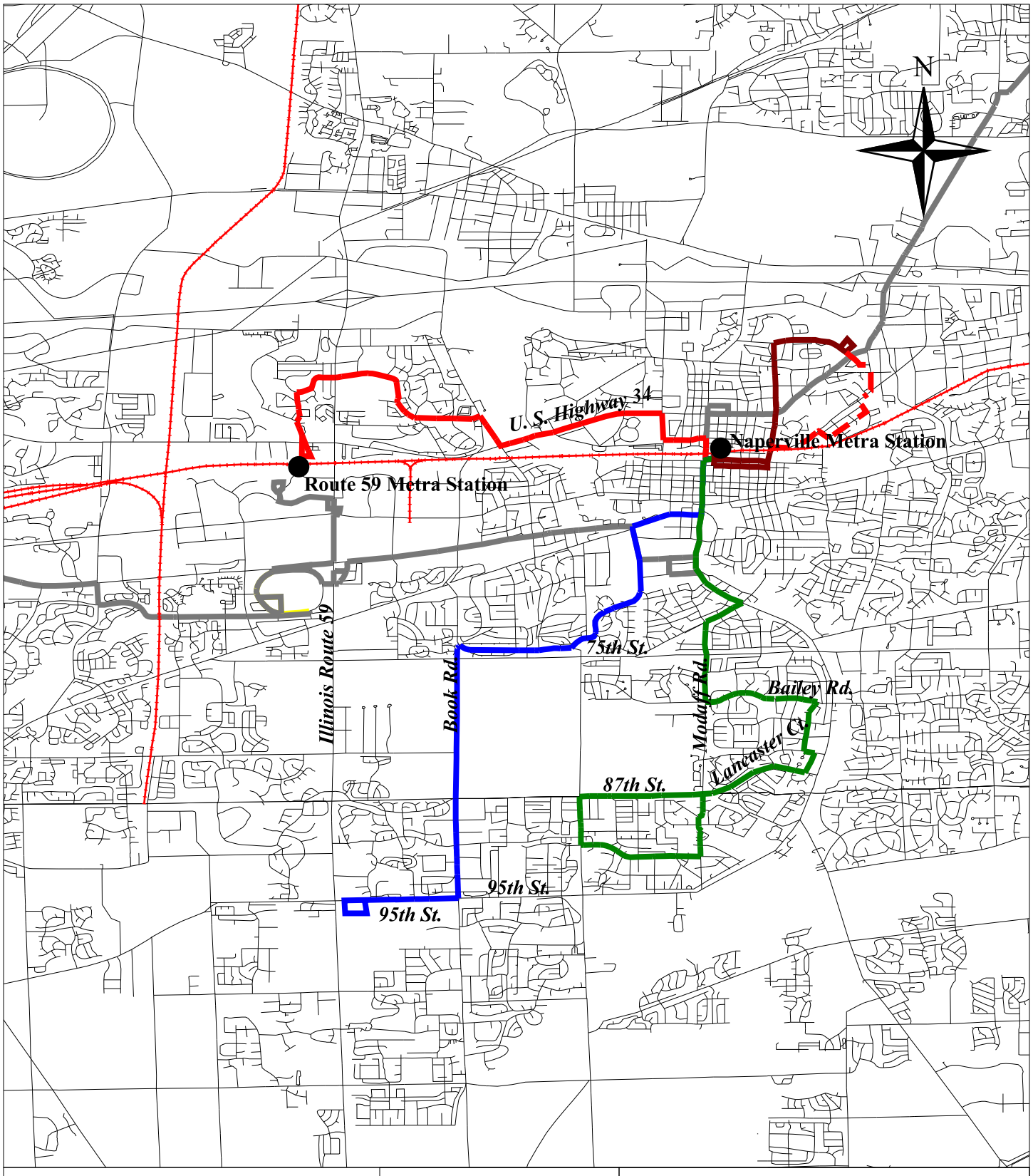
The combination of these four routes is included in Exhibit 64. A summary profile of the routes in this alternative appears in Exhibit 65.

Exhibit 65
Alternative 2 Route Profile

Route	Service Span	Freq.	Vehicles	Revenue Hours
Brookdale Road	6:00a.m.-8:00p.m.	60	1	14.0
Rickert Drive/95th Street	6:00a.m.-8:00p.m.	60	1.5	21.0
Modaff Road	6:00a.m.-8:00p.m.	60	1	14.0
Columbia Street/Ogden Mall	6:00a.m.-8:00p.m.	60	0.5	7.0
Total			**4**	**56.0**

Advantages/Disadvantages

The Brookdale Road area is served in this alternative. Also, the peak hour deviation to the Plank Road area would fill a gap in the service coverage area of the Metra Station feeder routes. However, there is no connection between the southwest Naperville area and the Fox Valley Mall provided by this route.



AM/PM Peak Extension
Columbia St./ Ogden Mall Route
Modaff Road
Rickert Drive/95th St. Route
Brookdale Road Route
PACE Routes (530, 535, and/or 714)

RLS AND ASSOCIATES

Exhibit 64: Alternative 2 Route Network

City of Naperville Circulator Study

Employment sites on Diehl Road would also not be served in this alternative.

ALTERNATIVE 3 - ROUTE DEVIATION

Alternative 3 - Route Deviation

Description

Route deviation refers to a type of transit service where a vehicle arrives at designated stops in accordance with a schedule but does not have a specific route to follow between these stops. It allows the vehicle to provide curb-to-curb service for those who request it. In this alternative, any of the routes included in Alternatives 1 or 2 can be operated with route deviation service.

Route deviation service can serve residents within a reasonable proximity of the route. Passengers can make trip reservations in advance, but same-day trip requests can also be accepted. It operates according to a schedule and will deviate off the route at the request of a passenger.

Route deviation could include curb-to-curb service that require vehicles to be operated on narrow streets and driveways. This would necessitate the use of a small bus or van for added maneuverability. Also, the schedule must include time for deviations. Another option is to limit the deviations off the route to specific streets. This would mean that a person requesting a pick up may have to walk to the nearest street where the vehicle is permitted to deviate, rather than having a pick up in front of his or her home or destination. This will require less time to be built into the schedule for deviations, and a larger vehicle could be assigned to the route.

The designated bus stops on these routes should be based upon locations of major trip generators. Route deviation service could also be designed to serve subscription service, standing orders, and existing agency contracts.

Route Deviation Alternative Profile

Exhibit 66 shows a profile of this Alternative using the routes that are a part of Alternative 2. Because time must be built in the schedule for deviations, shortened versions of these routes would be required.

Exhibit 66
Route Deviation Alternative
Route Profile

Route	Service Span	Freq.	Vehicles	Revenue Hours
Brookdale Road	6:00a-8:00p	60	1	14.0
Rickert Drive/95th Street	6:00a-8:00p	60	1	14.0
Modaff Road	6:00a-8:00p	60	1	14.0
Total			**3**	**42.0**

Advantages/Disadvantages

Route deviation service can expand the geographic coverage area of a route, which is its primary advantage. ADA complementary paratransit service would not be required, which may result in cost savings. However, its schedule can be inconsistent and passenger travel times unpredictable. This is also not a widely used type of service, and the general public may have some difficulty understanding how it operates. It is, therefore, not recommended for further consideration.

V. SERVICE STANDARDS

The City of Naperville will provide local transit circulator service within the City limits. This service is designed to provide intra-community connections and local circulation. Its routes are intended to address transportation needs resulting from a dispersed regional development pattern with a multi-centered regional transit system that includes connections between neighborhoods and communities within the City. While the service may consist of one route initially, these service standards are created for a service that consists of multiple routes for future expansion.

OVERALL DESIGN

Overall Design

The Naperville Circulator service has elements that are consistent throughout the system. 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:

- The service is designed for a variety of groups of people and a variety of trip purposes;
- Operating hours extend beyond the weekday peak periods and potentially include weekday mid-day, evenings and weekend hours;
- The service should not duplicate other public transit services and should complement service provided by Ride DuPage and Pace;
- Routes are designed to connect residential areas in Naperville with various destinations including employment locations, schools, commercial areas, and transfer points to Pace and Metra lines;
- The routes are designed as neighborhood circulators that have convenient access to/from residential areas as a priority; and
- Routes will be predominantly bi-directional in nature. Large one-way loops should be avoided, if possible.

The Service Standards follow these general guidelines. They provide a tool for the guidance of those responsible for planning and operating the Naperville Circulator service, and can be used to evaluate performance once the routes comprising this service are in operation. In some cases, all design and performance standards may not be met because of cost, personnel, equipment, or other constraints. However, 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 the Naperville Circulator service.

OPERATING STANDARDS

Operating Environment

Naperville Circulator routes will primarily operate along arterials and residential streets. Because of the need to minimize the impact of buses in residential areas, the use of smaller sized buses will be considered.

Route Directness

The "Coefficient of Directness" should not exceed 1.75 for Circulator routes. This is computed by dividing the travel time by transit between two major generators by the travel time by automobile between the same two locations. For example, if the travel time by car between the Naperville Train Station and the College of DuPage is 15 minutes, and the travel time by circulator bus is 25 minutes, then the coefficient of directness is 1.67.

Passenger Stops

In order to provide a safe environment for passenger boarding and alighting, the Naperville Circulator will 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.

Loading Standard

The objective of the Naperville Circulator is to provide a seat for every passenger. However, this may not be feasible at certain times, such as the weekday peak period. Maximum loading standards are designed to 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. (max. load= #passengers on-board/#seats) Since this is an average, individual trips may exceed the standard. The loading standard for the Naperville Circulator routes is a maximum average load factor of 1.0. For individual trips, this should not be exceeded for time periods greater than 15 minutes.

Hours of Operation

The hours of operation should be based on demand and relate to the route's function. The base span of service will be from 6:00 a.m. to 8:00 p.m. weekdays. As ridership warrants, hours will be increased on weekdays evenings/nights, Saturdays, and Sundays, on a prioritized basis.

Service Levels

Service levels for each route will be based on demand. To foster a systematic approach, three 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.

- Base service is provided in the mid-day period between 9:00 a.m. and 3:00 p.m. and in the early evening period between 6:00 p.m. and 8:00 p.m. on weekdays, and between 6:00 a.m. and 8:00 p.m. on weekends.

- Reduced service is between 8:00 p.m. and the end of the service day on weekdays and weekends.

Every effort will be made to provide coverage throughout most of the service area during the Reduced Service periods. But since lower ridership is experienced 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 in the peak period. Maximum policy headways for Circulator routes are below.

Exhibit 67
Maximum Headways by Time Period

Peak	Base	Reduced
60 minutes	60 minutes	60 minutes

These maximum headways in the base and reduced periods should not be exceeded if the route is to be operated during any particular time period. However, if ridership warrants headways may be reduced during the appropriate time period. The website survey indicated a preference for 30-minute headways. This should, therefore, be a high priority for increasing service. Also, headways should conform to regularly recurring clock intervals.

Passenger Amenities

Since a large percentage of Naperville Circulator passengers can be expected to transfer, passenger amenities should be provided at all major transfer locations. 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.

Operating Standards

Transfers and Timed Transfers

Scheduled arrival and departure times for Naperville Circulator routes having common transfer points will be coordinated to the maximum extent feasible. Timed transfers should also be designed with Pace routes and Metra Commuter Train service. Primary transfer locations include the Naperville Train Station, the Route 59 Train Station, and downtown Naperville. Routes should be designed to link in patterns that are consistent with consumer needs and desires, but also meet acceptable travel times.

Layover

Layover time is the break time built into a route's schedule to provide a cushion to help keep buses running on-time. 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.

PERFORMANCE STANDARDS

Performance Standards

Passenger Productivity

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 are listed below.

Exhibit 68
Local Circulator Routes

Category	Passengers/ Revenue Hour	Passengers/ Revenue Mile	Revenue/Cost
Good	>15	>1.2	>15%
Satisfactory	10-15	1.0-1.2	10-15%
Marginal	7-10	0.7-1.0	7-10%
Unsatisfactory	<7	<0.7	<7%

Minimum standards for operating time periods will be used to help determine the service span for individual routes. Routes that have time periods with average ridership levels below these standards will be candidates for reduced service. The trial period is 24 months in duration. With adequate marketing, it is assumed that a new route will reach 40 percent of its potential ridership by the end this 24 month trial period.

Ridership trends will also be used in their evaluation. Standards for time periods are listed in Exhibit 69.

Exhibit 69
Local Circulator Productivity Goals

Category	Pass./Hour
Peak	15.0
Base	10.0
Reduced	5.0

Schedule Adherence

It is expected that a critical success factor for Naperville Circulator 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.

Exhibit 70
Local Circulator Schedule Adherence Rating

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

On-Going Evaluation

Route evaluation will 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 revenue/cost ratio. These measures are readily understandable, easy to calculate, and widely used by transit systems. 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. Therefore, they will 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 will be used to identify trends.

Underperforming 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.

Each route will be reviewed annually. Routes will be reviewed more often if ridership trends are negative, special requests for service are received, or other special circumstances are noted. The evaluation process will also include routes with good performance. These will be candidates for more frequent service or some other kind of service increase. These service increases will be considered when ridership exceeds the "good" category in all standards. After the additional service is implemented, the ridership is estimated to maintain at least the "marginal" category initially.

VI. INSTITUTIONAL ANALYSIS

COORDINATION WITH OTHER SERVICE PROVIDERS

Coordination with Other Service Providers

The Naperville Circulator service will need to be coordinated with at least three primary public transportation providers that currently serve Naperville residents: Pace, Ride DuPage, and Metra.

Pace

Transit Services

Pace currently provides fixed route and ADA paratransit services within the City of Naperville. The proposed Naperville Circulator schedules are coordinated with the Pace routes as much as possible to facilitate convenient transferring. Of the twenty-one (21) Pace routes that serve a part of Naperville, fifteen (15) are Metra Station feeders. These are specialized routes that are designed to meet Metra commuter trains, and they operate during the weekday peak periods only. It will not be necessary to attempt to coordinate the schedules of these routes with the Naperville Circulator routes.

Pace routes 530 and 714 operate throughout the day on weekdays and Saturdays. Route 530 runs to the Fox Valley Mall on Route 59 and to Aurora. Route 714 runs from Naperville to Wheaton. Both routes operate to the Naperville Metra Station and Edwards Hospital. Connections with the Naperville Circulator service could be made at either of these locations.

Because the Naperville Circulator is contemplated as a fixed route service, ADA paratransit service must be provided. Pace is currently obligated to provide ADA paratransit service in Naperville within ¾ mile of routes 530, 535, and 714. The two routes that only operate during the weekday mid-day period also require ADA paratransit service with the ¾ mile band. These are routes 787 and 788. Pace is not obligated to provide ADA paratransit service in the vicinity of the fifteen (15) Metra station feeder routes, since these are considered commuter service.

Pace Community Based Program

Pace recently completed a "Locally Based Transit Service Plan" that describes methods that municipalities can work with Pace to plan and implement local transportation services, including Circulator routes.

When this program is fully implemented, Pace will provide municipalities with a single point of contact for requesting local transit service

improvements. The envisioned steps for addressing municipal service requests are as follows:

- The municipality contacts Pace with a request for service;
- Pace's locally-based service staff reviews the goals the municipality has for the transportation service;
- Pace requests background information from the municipality that supports their request;
- Pace staff conducts an analysis of the request;
- Pace notifies the municipality of its decision;
- If favorable, final service design is completed; and
- Pace and municipality conduct a Request for Proposals process, and select contractor.

Providing this assistance to municipalities helps assure that local transit services are fully coordinated with Pace arterial bus routes and other services it provides. It is uncertain when all elements of this program will be implemented. Currently, Pace's policy is to encourage local municipalities to provide local transportation services by providing vehicles and related capital costs.

Ride DuPage

Ride DuPage is a demand response service provided throughout DuPage County. It also provides a separate service for the City of Naperville that includes the portion of Will County within City limits. The Countywide program provides subsidized taxi and lift equipped bus transportation for income eligible DuPage County residents.

Naperville Program

The local Ride DuPage program in Naperville provides transportation for any seniors over 65 years of age and people with disabilities. Ride DuPage provides curb-to-curb service, and a person must be a resident of Naperville, including the DuPage and Will County portions of the City, to use the program. Passengers can travel 24 hours per day on weekdays and weekends. There are no restrictions on trip purposes or trip locations. The fare is currently one dollar plus one dollar per mile travelled.

County Program

The DuPage County program is primarily used for visits to medical facilities and government offices within the County limits. The following eligibility requirements have been determined for this service:

- "Any resident of DuPage County who has income at or below 125% of the federal poverty guidelines, or a Senior Citizen, or person with a disability whose income is at or below 200% of the federal poverty level;

- Clients cannot have their own transportation;
- Clients cannot use the transportation for trips outside of DuPage County without prior approval;
- Ride DuPage will not transport to doctors if the client has Medicaid. (Public Aid will pay for these clients.);
- Will transport all ages (Minors must be accompanied by an adult.);
- Transportation is provided for eligible clients only if services are not available through PACE, township or municipal transit programs;
- Eligibility may be revoked for non-payment of $4.00 fee, failure to cancel a reserved ride, or any violation of the program guidelines;
- Clients traveling to dialysis appointments are allowed 3 round trips per week. Other clients are limited to 2 round trips per week. Clients requiring additional trips for chemotherapy appointments may be authorized for up to 5 trips per week for 3 weeks with a supervisor's or manager's approval;
- Clients traveling to dialysis appointments are not allowed additional trips; and
- Clients that have two or more no shows/no loads or late cancellation of the cab will be terminated from the program. Payment for the no shows or late cancellations is required prior to reinstatement."

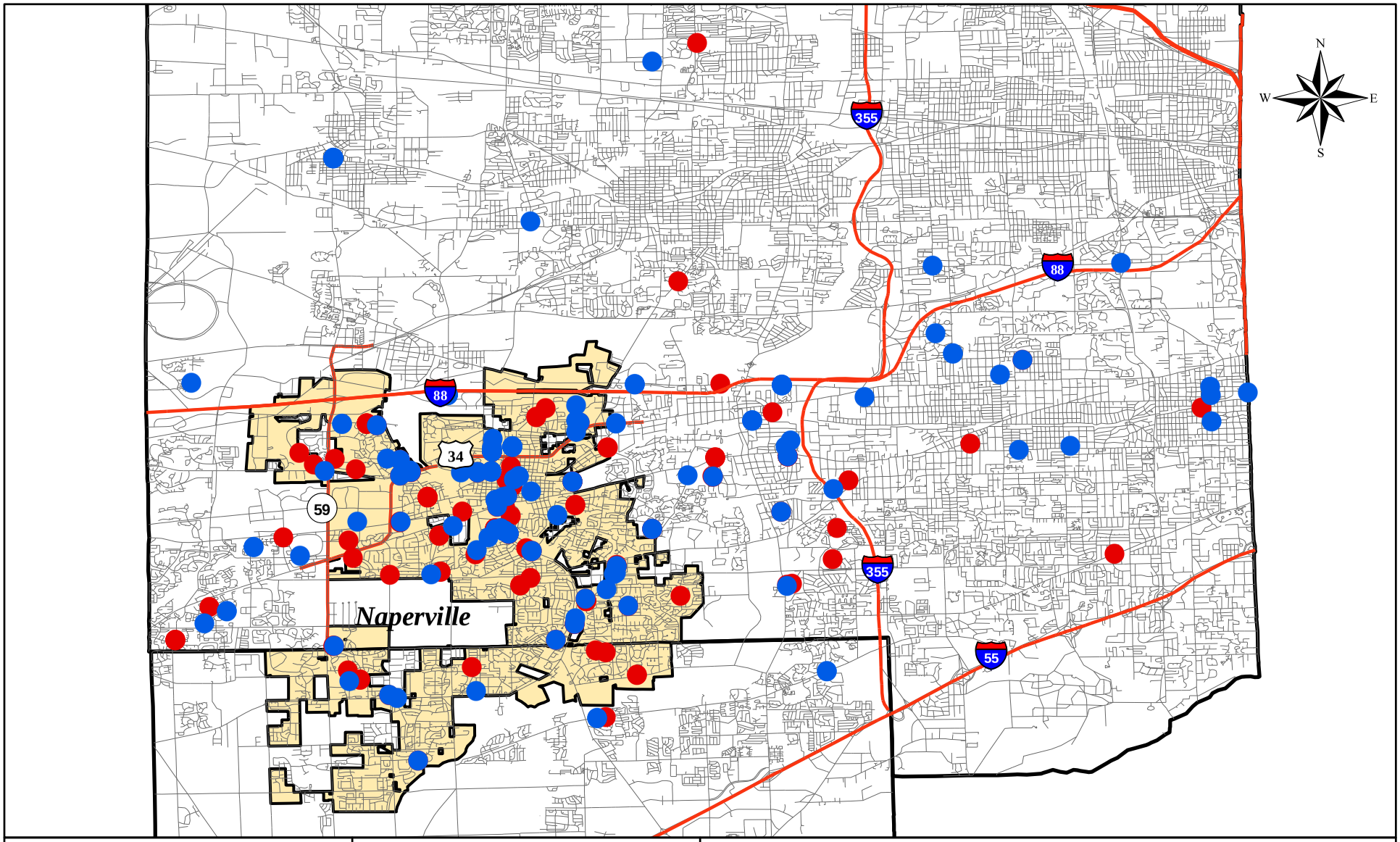
Ride DuPage service is limited to the following trip purposes:

- Dialysis
- Doctors' appointments
- Dentists' appointments
- Hospitals
- DuPage County Human Services
- DuPage County Health Department and its Public Health Centers
- Adult Day Care

It is likely that Ride DuPage transports many of the persons who would be eligible for ADA paratransit service. It is possible that Ride DuPage could provide the required ADA paratransit for the Naperville Circulator service, but it would need to provide a special program that meets all of the ADA requirements. Origins and destinations of persons using Ride DuPage in the Naperville area for a two-week period are included in Exhibit 71.

Metra

As discussed in previous sections, the Circulator service would likely attract commuters if it served one or both of the Metra stations in Naperville. It can avoid duplication with Pace feeder routes if it were scheduled to meet different trains or if it served different areas than the Pace routes.



Destinations

Origins

Naperville City Limits

RLS AND ASSOCIATES

Exhibit 71 Origins and Destinations for October 1-14, 2007

Naperville Area

INTERMUNICIPAL SERVICE ISSUES

Intermunicipal Service Issues

Some destinations for Naperville Circulator service may be located outside of municipal boundaries. For example, the Fox Valley Mall is located along Route 59 in Aurora at the Naperville border. Potential issues relating to operating Naperville Circulator service in nearby communities pertain to cost sharing and gaining the authority to operate in these communities.

Some municipalities will control use of street right-of-ways to ensure safe and adequate traffic flow, and sometimes for aesthetic purposes. If a Circulator bus stop is desired in a neighboring municipality's street, it is likely that approval will be needed. If the bus stop is desired in a privately owned location, such as a shopping center, then it is not likely that municipal approval is needed, but permission from the owner of the property should be sought.

Establishing stops for the Circulator service in other communities may result in residents of another municipality to use the service. This normally cannot be prevented, but it justifies the argument that the neighboring municipality shares the cost of providing the Circulator. These cost sharing arrangements can be based on a number of different factors. For example, some are based on the amount of service operated in each jurisdiction, such as the number of vehicle hours or vehicle miles, while others are based on usage, such as passenger boardings.

POTENTIAL FUNDING SOURCES

Potential Funding Sources

Federal Funding

The Federal Transit Administration (FTA) has several regulations that directly or indirectly affect transit service design. These apply whether federal funding is used for operating costs or capital costs such as vehicles. While it is unlikely that the City of Naperville will be named a direct recipient of FTA formula funding, it is possible that the City will benefit from this, or other federal funding programs indirectly through Pace or the Regional Transit Authority (RTA).

The triennial review is one of the Federal Transit Administration's management tools for examining local transit system performance and adherence to current FTA requirements and policies. Mandated by Congress in 1982, the triennial review occurs once every three years. It examines how recipients of Urbanized Area Formula Program funds meet statutory and administrative requirements. The review currently examines 23 areas, which are described in Appendix C.

State Funding

The Illinois Department of Transportation, Division of Public and Intermodal Transportation, administers funding programs to assist with operating and capital costs of public transportation systems. These programs follow the federal regulations with one notable exception. With a recent passage of the Mass Transit Funding and Reform legislative package (P.A. 95-0708) enacted in January 2008 by the State of Illinois, a requirement that senior citizens ride free on fixed route bus service throughout Illinois was implemented.

RTA Grants

The RTA administers three grant programs for which the Naperville Circulator may qualify.

Innovation, Coordination and Enhancement (ICE) Program

The Innovation, Coordination and Enhancement (ICE) program was established as part of the Mass Transit Funding and Reform legislative package (P.A. 95-0708). P.A. 95-0708 authorizes the Regional Transportation Authority (RTA) to establish a new competitive funding program (with a $10 million annual appropriation in 2008) to enhance the coordination and integration of public transportation, and to develop and implement innovations to improve the quality and delivery of public transportation. ICE program funds are for operating or capital grants or loans that advance the goals and objectives of the RTA's strategic plan. Eligible recipients include the RTA's Service Boards (Chicago Transit Authority, Metra and Pace), transportation agencies, or units of local government.

There is a two-year limit for operating funding through the ICE program. Therefore, the potential for sustainability and self-sufficiency beyond the grant period will be a major determining factor for operating projects. In order to achieve the most benefit with available resources, project readiness and local match percentage will also be considered for all project types. Project elements funded through the ICE program must be initiated within one year of grant execution. The local match goal is twenty (20) percent for capital projects and fifty (50) percent for operating projects.

Job Access Reverse Commute (JARC) Program

JARC is a federally funded program that RTA administers. The RTA JARC Program provides financial assistance for transportation services planned, designed, and carried out to meet the employment transportation needs of eligible low-income individuals and of reverse commuters regardless of income. Access to funds from this program requires coordination with federally-assisted programs and services in order to

make the most efficient use of federal resources. Examples of such projects include fixed-route services oriented to reverse commuters and/or at times specific to access lower wage jobs; shuttle services to/from rail stations; ridesharing activities such as vanpool or carpools, and mobility management efforts.

New Freedom

New Freedom is also a federally funded program that RTA administers. The RTA New Freedom Program seeks to reduce barriers to transportation services and expand the transportation mobility options available to persons with disabilities beyond the requirements of the ADA. Examples of public transportation services that go beyond the ADA requirements include expansion, spatially or temporally, beyond what is minimally required; the provision of same-day service; door-through-door service; vehicles and equipment that accommodate larger mobility aids; feeder services; accessibility improvements at non-key stations; and travel training.

Congestion Mitigation and Air Quality (CMAQ) Improvement Program

The Chicago Metropolitan Agency for Planning (CMAP) administers the CMAQ program. The CMAQ Program is a federally-funded program of surface transportation improvements designed to improve air quality and mitigate congestion. It provides funds to invest in projects that reduce air pollutants from transportation-related sources. Funding is available for areas that do not meet the National Ambient Air Quality Standards (nonattainment areas), which Northeast Illinois is one. It funds the following types of transit projects.

- Transit System Start-up – These projects are new rail systems, bus service, or vanpools. Operating expenses for new systems can be reimbursed for up to three years;
- Transit Transfer Facilities – These projects increase the convenience of transferring on transit service;
- Transit Facility Improvements – CMAQ funds can be used for projects to enhance the existing transit system through adding or improving facilities such as stations; and
- Transit Service and Equipment – These projects enhance the existing transit system through improvements such as increasing the frequency or operating speed of service on bus routes or rail lines. Operating expenses can be reimbursed for up to three years. Bus and bus engine replacements above and beyond standard fleet replacement schedules are eligible for CMAQ funding.

Potential Funding Sources

County Sales Tax

With the recent passage of a ¼ percent sales tax increment to help fund transit in the Chicago area, there is another potential source of funding for the Naperville Circulator. Each County in the Chicago region collects and administers these funds. Naperville would have to make a request for these funds to DuPage County and/or Will County, depending on where the proposed Circulator service is located.

Other Fees and Contributions

Funding from other sources could include local businesses, area colleges and universities, the local chamber of commerce, human service agencies, local foundations, or other organizations. These can be in the form of a straight contribution or a fee for services provided.

SERVICE OPERATIONS

Service Operations

Three approaches to managing and operating Circulator service are described. The first is if the City of Naperville directly managed and operated the service with City employees. The second is if the City contracted the operations and day-to-day management to a private sector provider. The third approach involves the use of an existing public transit operator, such as Pace or Ride DuPage.

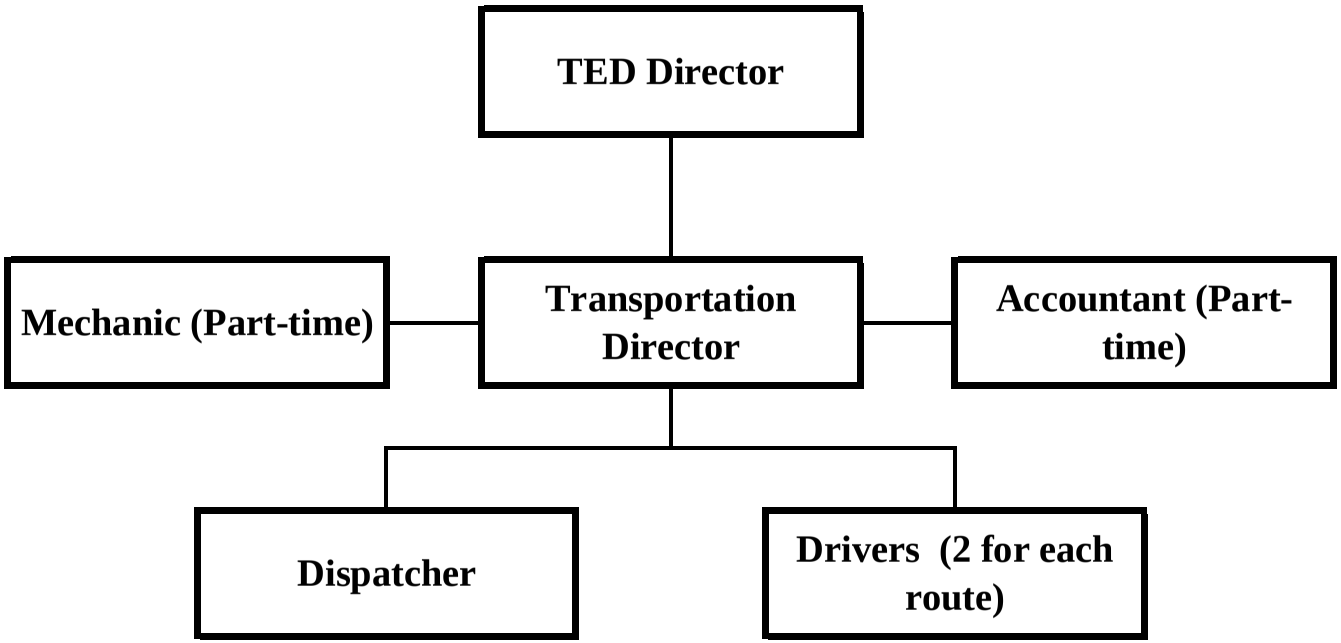
Directly Operated Service

In this approach, the City of Naperville would directly operate the local circulator services. In order to accomplish this, a new department would need to be created within the City government structure. This can be a stand-alone department or created within another department such as the Transportation, Engineering and Development (TED) Business Group.

The City would employ all operations, maintenance, and management personnel necessary to provide the Circulator service. As City employees, they would be entitled to all benefits, the salary structure, and other applicable policies that are received by other City employees.

Exhibit 72 includes an organizational chart that depicts what a transportation section within TED would entail. Accounting and maintenance services would be provided by other departments within the City. This would likely require only part of a person's total work time within each department, as would the Transportation Director position. A full-time dispatcher(s) would be needed to provide dispatching services whenever a bus is in operation. This person would also be responsible for cash handling, reporting, and several other administrative functions. It is expected that the equivalent of two full-time drivers would be needed for every route that is operated.

Exhibit 72
Organizational Structure



This approach provides the City with the most control over the Circulator service. Nearly all management and operational functions will be the responsibility of the City. However, City staff must become familiar with the myriad of laws, regulations and other requirements involved with operating public transportation. Adequate policies and procedures to comply with these rules must be implemented.

Privately Contracted Service

Responsibilities for the operation and day-to-day supervision of the Circulator service would be contracted to a private sector provider in this approach. Other functions would be the responsibility of the City, or shared with Pace, if Pace is part of the Community Based Program.

This approach would provide the City with an experienced transit operator with relevant technical knowledge and an understanding of applicable federal and state regulations. The City would be able to maintain control over the service design, and be responsible for other oversight and administrative functions. If Pace were to participate by providing the vehicle, then management functions would be shared among the City, the contractor, and Pace. Appendix D depicts an example of how these functions could be shared.

Current Public Provider Operated Service

Current public transportation providers, i.e. Pace and Ride DuPage, could potentially be used to provide the Circulator service. The capability and willingness of these organizations will need to be determined.

Evaluation

The decision to use a private contractor to provide transit services has both advantages and disadvantages. This section includes an analysis of these advantages and disadvantages and some best practices used in other locations. The source for much of this information is from the Transportation Research Board (TRB) publication titled *"Contracting for Bus and Demand-Responsive Transit Services."* This is a survey of practices and experience throughout the U.S. In addition, information was also obtained from two additional studies: *"Effects of Contracting on Cost Efficiency in U.S. Fixed Route Bus Transit Service"* and *"Transit Service Contracting: Experience and Issues."*

Advantages/Disadvantages

The primary advantages to contracting with a private provider include the following:

- Starting new services

- Reducing costs
- Increasing cost efficiency

Starting a new service can be costly. There are normally significant capital costs for vehicles and an operations/maintenance facility. There are specialized skills required for drivers, maintenance personnel, and system management. Contracting much of this work is a direct way to utilize personnel who are already trained and experienced in key areas. The decision of what service is provided can remain with the City, but the day-to-day operations can be the responsibility of a private contractor.

By contracting with a private provider, the City can reduce costs and increase cost efficiency. Compared to public agency operation, private sector contracting can produce cost savings of 15 to 60 percent, and subsidy savings of 50 percent or more.[1] Some results show that the combined effects of contracting lower operating costs by $4.09 and $2.89 per vehicle hour for partial and full contracting agencies. This is a 7.8 percent and 5.5 percent savings, using an average operating cost per vehicle hour of $53.06[2]. Such numbers depend on many cost efficiency factors such as peak-to-base ratio, agency size, the wage gap between bus operators in the public and private sectors, and agency type. Currently in the Chicago area, the cost will likely be significantly higher, but is still likely to be lower than public agencies.

However, some entities feel that contracting with a private provider will result in:

- Loss of control over services and management;
- Poor service quality; and/or
- Problems with customer service.

Most organizations want to maintain control over the services provided and management. Using the services of a private contractor requires a city delegate many of the day-to-day operations of running a transit service. The day-to-day operations do not have to be a main concern for the city desiring transit service. With the proper contract and a good line of communication with the contractor, the city can be knowledgeable in the services provided and maintain an acceptable level of control.

Poor service quality and problems with customer service are also issues that agencies have encountered when contracting with a private company.

[1] Teal, R.F., Transit Service Contracting: Experiences and Issues, pg. 28-36
(TRB: 1985)
[2] Iseki, Hiroyuki, Effects of Contracting on Cost Efficiency in U.S. Fixed Route Bus Transit Service, pg. 24
(TRB: 2007)

A well written contract that outlines the expectations and performance standards with consequences and rewards for meeting those expectations and performance standards will enable the agency to meet the needs of its customers.

Contracting Approach

There are many facets to the process of selecting a private contractor. These facets include looking at the qualifications and capabilities of the private contractor, and an evaluation of bid prices with the help of an internal cost analysis to identify rational bids. The price alone should not be the only deciding factor.

Structuring a Contract

Defining the duties and responsibilities of the contractor and the agency in a clear and detailed manner will reduce future problems. It is important to identify and define as many of the city's expectations as possible. This includes performance standards. In addition, the contract should outline how changes to the contract will be made. This will allow the City to make changes as necessary.

When defining performance standards, the city may include incentives as rewards when standards are met and consequences when standards are not met. Lastly, to attract and retain drivers the city may want to have a provision for the utilization of comparable wage rates in bid proposals.

The City should also consider various approaches to structuring the contract, including the option to provide the vehicles, facilities, and other costly assets. The contract should be structured to allow the city to take control of the service if the contractor does not meet the expectations and performance standards of the city.

Contract Management

Active monitoring and communication with the contractor is the most important responsibility that the city will have. By actively monitoring and communicating with the contractor, the City will be able to ensure that its expectations and performance standards are being met.

A clear channel of communication is important to build a positive relationship with the contractor and team. A positive relationship with the contractor will help the City to communicate its expectations and to hold the contractor to the expectations set forth in the contract in a fair and reasonable manner. It is important that there is a clear understanding of the division of responsibilities in providing the circulator service. Appendix D shows one approach in dividing these responsibilities. If a conflict arises, there should be a pre-determined procedure to resolve it in a fair and equitable manner.

VII. IMPLEMENTATION PLAN

The recommended implementation program is described in this section. This program includes priorities determined by the study Steering Committee. The various components of the Implementation Plan are described in the following pages, followed with a chronological listing of how these actions should occur. The final section is a projection of costs and revenues over a five-year period from 2009 through 2013.

PROPOSED ROUTES

Proposed Routes

Three routes were identified as the preferred alternative routes. They are described and listed in priority order below, and are refinements of routes that were reviewed in the Alternatives Analysis section.

Washington Street/Rickert Drive

This route will operate between the Jewel Osco Store at Ogden Avenue/ Washington Street, and Rickert Avenue in the vicinity of 75th Street. Because it met the most goals of the Steering Committee members, this has the highest priority of all proposed routes. It will serve the following locations:

- Ogden/Washington Shopping Center
- Naperville Metra Station
- Downtown Naperville
- Naperville Central High School
- Edwards Hospital
- Gartner Plaza Shopping Center
- Hobson West Commons Shopping Center
- College of Dupage
- Bay Scott Center

Exhibit 73 displays a profile of the Washington Street/Rickert Drive route. It will operate every 60 minutes using one vehicle. Its weekday span of service is from 6:25 a.m. to 8:26 p.m. On Saturdays it will start approximately one hour later at 7:20 a.m. and run to 8:26 p.m.

Exhibit 73
Washington Street/Rickert Drive Route Profile

Route	Span of Service		One-Way Length (mis.)	Frequency	Vehicles
	Weekdays	Saturdays			
Washington/ Rickert	6:25a.m.-8:26p.m.	7:20a.m.-8:26p.m.	7.0 miles	60 minutes	1

Exhibit 74 shows the proposed alignment and Exhibit 75 shows a draft schedule for this route. Using this schedule, this route will meet the 7:26 a.m. and the 8:24 a.m. express trains to Chicago in the mornings, as well as the 5:32 p.m. and 6:17 p.m. express trains from Chicago. On Saturdays, the departure times are adjusted to meet the majority of the inbound trains that leave the Naperville Station at 33 minutes past the hour, and the outbound trains at 27 minutes past the hour. It will also make connections on weekdays and Saturdays at the Naperville Station with Pace Route 530 at 12 and 40 minutes past each hour, and on weekdays with Pace Route 714 once hourly.

95th Street

This route will operate between the Naperville Train Station and the Fox Valley Mall along Route 59. This has the second highest priority of all proposed routes among Steering Committee members, based on how well the members felt this route met the goals set for it. It will serve the following locations:

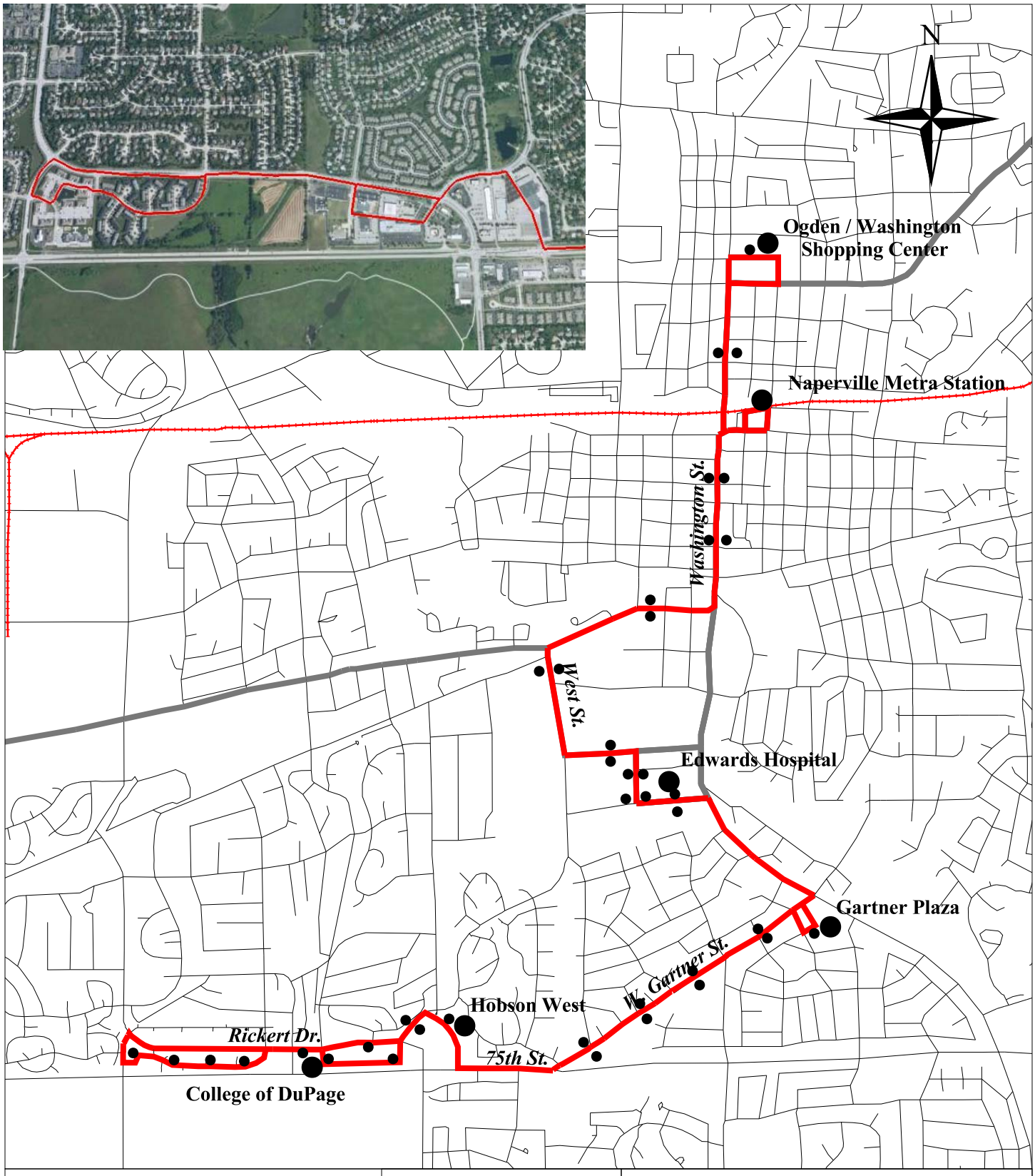
- Naperville Metra Station
- Downtown Naperville
- Edwards Hospital
- Gartner Plaza Shopping Center
- Nequa Valley High School
- Naperville YMCA
- Naperville Public Library
- Several shopping centers along Route 59
- Fox Valley Mall (Westfield)

Exhibit 76 displays a profile of the 95th Street route. It will operate every 60 minutes using two vehicles. Its span of service is from 6:25 a.m. to 8:20 p.m. on weekdays.

Exhibit 76
95th Street Route Profile

Route	Span of Service		One-Way Length	Frequency	Vehicles
	Weekdays	Saturdays			
95th Street	6:25a-8:20p	6:25a-8:20p	15.0 miles	60 minutes	2

Exhibit 77 shows the proposed alignment and Exhibit 78 shows a draft schedule for this route. Using this schedule, this route will meet the 7:26 a.m. and the 8:24 a.m. express trains to Chicago from the Naperville Station. In the afternoons, this route will meet the 6:17 p.m. train from Chicago at the Naperville Station. It will also make connections on weekdays and Saturdays at the Naperville Station with Pace Route 530 at



Revised Washington-Rickert Route
Railroad
PACE Routes (530, 535, and/or 714)
Bus Stops
Landmarks

RLS AND ASSOCIATES

Exhibit 74 Washington Street/ Rickert Drive Route

City of Naperville Circulator Study

Exhibit 75
Draft Schedule

Route: Washington Street/Rickert Drive

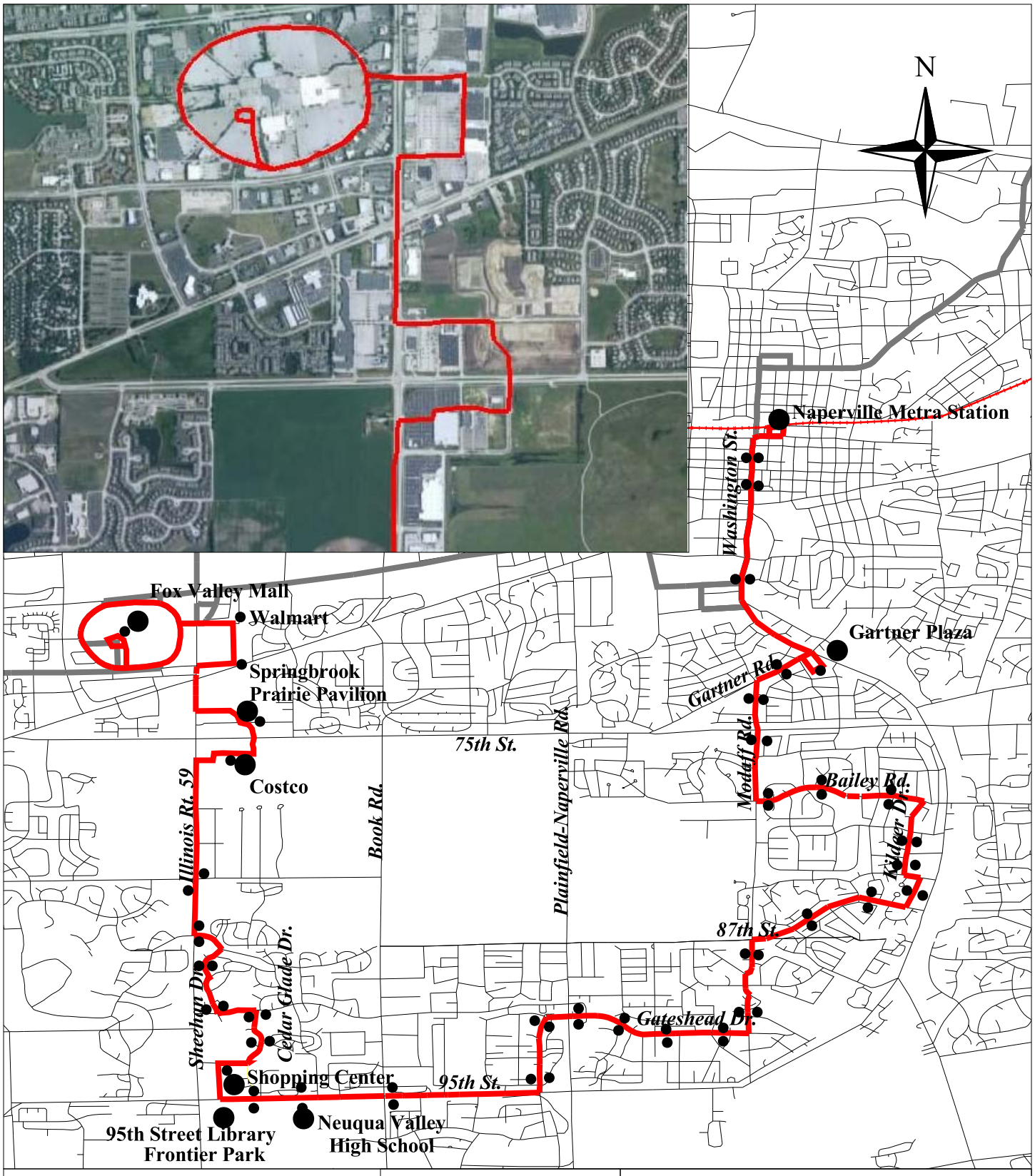
Regular Weekdays **Weekday**

Pullout	Ogden/ Washington SC	Naperville Station	Aurora/ West	Edwards Hospital	Washington/ Gartner	75th/ Hobson West SC	Rickert/ Book	Rickert/ Book	75th/ Hobson West SC	Washington/ Gartner	Edwards Hospital	Aurora/ West	Naperville Station	Ogden/ Washington SC
6:20	6:25	6:29	6:35	6:38	6:42	6:48	6:51	6:55	6:58	7:04	7:08	7:11	7:17	7:21
	7:25	7:29	7:35	7:38	7:42	7:48	7:51	7:55	7:58	8:04	8:08	8:11	8:17	8:21
	8:25	8:29	8:35	8:38	8:42	8:48	8:51	8:55	8:58	9:04	9:08	9:11	9:17	9:21
	9:25	9:29	9:35	9:38	9:42	9:48	9:51	9:55	9:58	10:04	10:08	10:11	10:17	10:21
	10:25	10:29	10:35	10:38	10:42	10:48	10:51	10:55	10:58	11:04	11:08	11:11	11:17	11:21
	11:25	11:29	11:35	11:38	11:42	11:48	11:51	11:55	11:58	12:04	12:08	12:11	12:17	12:21
12:25	12:30	12:34	12:40	12:43	12:47	12:53	12:56	13:00	13:03	13:09	13:13	13:16	13:22	13:26
	13:30	13:34	13:40	13:43	13:47	13:53	13:56	14:00	14:03	14:09	14:13	14:16	14:22	14:26
	14:30	14:34	14:40	14:43	14:47	14:53	14:56	15:00	15:03	15:09	15:13	15:16	15:22	15:26
	15:30	15:34	15:40	15:43	15:47	15:53	15:56	16:00	16:03	16:09	16:13	16:16	16:22	16:26
	16:30	16:34	16:40	16:43	16:47	16:53	16:56	17:00	17:03	17:09	17:13	17:16	17:22	17:26
	17:30	17:34	17:40	17:43	17:47	17:53	17:56	18:00	18:03	18:09	18:13	18:16	18:22	18:26
	18:30	18:34	18:40	18:43	18:47	18:53	18:56	19:00	19:03	19:09	19:13	19:16	19:22	19:26
	19:30	19:34	19:40	19:43	19:47	19:53	19:56	20:00	20:03	20:09	20:13	20:16	20:22	20:26

Route: Washington Street/Rickert Drive

Saturdays **Saturday**

Pullout	Ogden/ Washington SC	Naperville Station	Aurora/ West	Edwards Hospital	Washington/ Gartner	75th/ Hobson West SC	Rickert/ Book	Rickert/ Book	75th/ Hobson West SC	Washington/ Gartner	Edwards Hospital	Aurora/ West	Naperville Station	Ogden/ Washington SC
7:15	7:20	7:24	7:30	7:33	7:37	7:43	7:46	7:50	7:53	7:59	8:03	8:06	8:12	8:16
	8:20	8:24	8:30	8:33	8:37	8:43	8:46	8:50	8:53	8:59	9:03	9:06	9:12	9:16
	9:20	9:24	9:30	9:33	9:37	9:43	9:46	9:50	9:53	9:59	10:03	10:06	10:12	10:16
	10:20	10:24	10:30	10:33	10:37	10:43	10:46	10:50	10:53	10:59	11:03	11:06	11:12	11:16
	11:20	11:24	11:30	11:33	11:37	11:43	11:46	11:50	11:53	11:59	12:03	12:06	12:12	12:16
	12:20	12:24	12:30	12:33	12:37	12:43	12:46	12:50	12:53	12:59	13:03	13:06	13:12	13:16
13:15	13:20	13:24	13:30	13:33	13:37	13:43	13:46	13:50	13:53	13:59	14:03	14:06	14:12	14:16
	14:20	14:24	14:30	14:33	14:37	14:43	14:46	14:50	14:53	14:59	15:03	15:06	15:12	15:16
	15:20	15:24	15:30	15:33	15:37	15:43	15:46	15:50	15:53	15:59	16:03	16:06	16:12	16:16
	16:20	16:24	16:30	16:33	16:37	16:43	16:46	16:50	16:53	16:59	17:03	17:06	17:12	17:16
	17:20	17:24	17:30	17:33	17:37	17:43	17:46	17:50	17:53	17:59	18:03	18:06	18:12	18:16
	18:20	18:24	18:30	18:33	18:37	18:43	18:46	18:50	18:53	18:59	19:03	19:06	19:12	19:16
	19:20	19:24	19:30	19:33	19:37	19:43	19:46	19:50	19:53	19:59	20:03	20:06	20:12	20:16



Revised 95th Street Route
Railroad
PACE Routes (530, 535, and/or 714)
Bus Stops
Landmarks

RLS AND ASSOCIATES

Exhibit 77
95th Street Route

City of Naperville
Circulator Study

Exhibit 78
Draft Schedule

Route: 95th Street

Regular Weekdays **Weekday**

Pullout	Naperville Station	Washington/ Gartner	Kildeer/ Bailey	Modaff/ Knoch Knoll	95th Street/ Library	Route 59/ 75th Street	Fox Valley Mall (Arrive)	Fox Valley Mall (Depart)	Route 59/ 75th Street	95th Street/ Library	Modaff/ Knoch Knoll	Kildeer/ Bailey	Washington/ Gartner	Naperville Station
6:00								6:25	6:40	6:48	6:56	7:06	7:12	7:20
6:20	6:25	6:33	6:39	6:49	6:57	7:05	7:20	7:25	7:40	7:48	7:56	8:06	8:12	8:20
	7:25	7:33	7:39	7:49	7:57	8:05	8:20	8:25	8:40	8:48	8:56	9:06	9:12	9:20
	8:25	8:33	8:39	8:49	8:57	9:05	9:20	9:25	9:40	9:48	9:56	10:06	10:12	10:20
	9:25	9:33	9:39	9:49	9:57	10:05	10:20	10:25	10:40	10:48	10:56	11:06	11:12	11:20
	10:25	10:33	10:39	10:49	10:57	11:05	11:20	11:25	11:40	11:48	11:56	12:06	12:12	12:20
	11:25	11:33	11:39	11:49	11:57	12:05	12:20	12:25	12:40	12:48	12:56	13:06	13:12	13:20
	12:25	12:33	12:39	12:49	12:57	13:05	13:20	13:25	13:40	13:48	13:56	14:06	14:12	14:20
	13:25	13:33	13:39	13:49	13:57	14:05	14:20	14:25	14:40	14:48	14:56	15:06	15:12	15:20
	14:25	14:33	14:39	14:49	14:57	15:05	15:20	15:25	15:40	15:48	15:56	16:06	16:12	16:20
	15:25	15:33	15:39	15:49	15:57	16:05	16:20	16:25	16:40	16:48	16:56	17:06	17:12	17:20
	16:25	16:33	16:39	16:49	16:57	17:05	17:20	17:25	17:40	17:48	17:56	18:06	18:12	18:20
	17:25	17:33	17:39	17:49	17:57	18:05	18:20	18:25	18:40	18:48	18:56	19:06	19:12	19:20
	18:25	18:33	18:39	18:49	18:57	19:05	19:20	19:25	19:40	19:48	19:56	20:06	20:12	20:20

Route: 95th Street

Saturdays **Saturday**

Pullout	Naperville Station	Washington/ Gartner	Kildeer/ Bailey	Modaff/ Knoch Knoll	95th Street/ Library	Route 59/ 75th Street	Fox Valley Mall (Arrive)	Fox Valley Mall (Depart)	Route 59/ 75th Street	95th Street/ Library	Modaff/ Knoch Knoll	Kildeer/ Bailey	Washington/ Gartner	Naperville Station
7:00								7:25	7:40	7:48	7:56	8:06	8:12	8:20
6:20	6:25	6:33	6:39	6:49	6:57	7:05	7:20	7:25	7:40	7:48	7:56	8:06	8:12	8:20
	8:25	8:33	8:39	8:49	8:57	9:05	9:20	9:25	9:40	9:48	9:56	10:06	10:12	10:20
	8:25	8:33	8:39	8:49	8:57	9:05	9:20	9:25	9:40	9:48	9:56	10:06	10:12	10:20
	10:25	10:33	10:39	10:49	10:57	11:05	11:20	11:25	11:40	11:48	11:56	12:06	12:12	12:20
	10:25	10:33	10:39	10:49	10:57	11:05	11:20	11:25	11:40	11:48	11:56	12:06	12:12	12:20
	12:25	12:33	12:39	12:49	12:57	13:05	13:20	13:25	13:40	13:48	13:56	14:06	14:12	14:20
	12:25	12:33	12:39	12:49	12:57	13:05	13:20	13:25	13:40	13:48	13:56	14:06	14:12	14:20
	14:25	14:33	14:39	14:49	14:57	15:05	15:20	15:25	15:40	15:48	15:56	16:06	16:12	16:20
	14:25	14:33	14:39	14:49	14:57	15:05	15:20	15:25	15:40	15:48	15:56	16:06	16:12	16:20
	16:25	16:33	16:39	16:49	16:57	17:05	17:20	17:25	17:40	17:48	17:56	18:06	18:12	18:20
	16:25	16:33	16:39	16:49	16:57	17:05	17:20	17:25	17:40	17:48	17:56	18:06	18:12	18:20
	18:25	18:33	18:39	18:49	18:57	19:05	19:20	19:25	19:40	19:48	19:56	20:06	20:12	20:20
	18:25	18:33	18:39	18:49	18:57	19:05	19:20	19:25	19:40	19:48	19:56	20:06	20:12	20:20

12 and 40 minutes past each hour, and on weekdays with Pace Route 714 once hourly.

Diehl Road

This route will operate between Naperville Train Station and the Route 59 station via Diehl Road. This has the third highest priority of all proposed routes among Steering Committee members. It will serve the following locations:

- Naperville Metra Station
- Apartments at Mill/Ogden
- Shopping Centers and Offices on Diehl Road
- Apartment complexes along Fairway Drive
- Route 59 Station

Exhibit 79 displays a profile of the Diehl Road route. It will operate every 60 minutes using one vehicle. Its span of service is from 6:25 a.m. to 8:20 p.m. on weekdays.

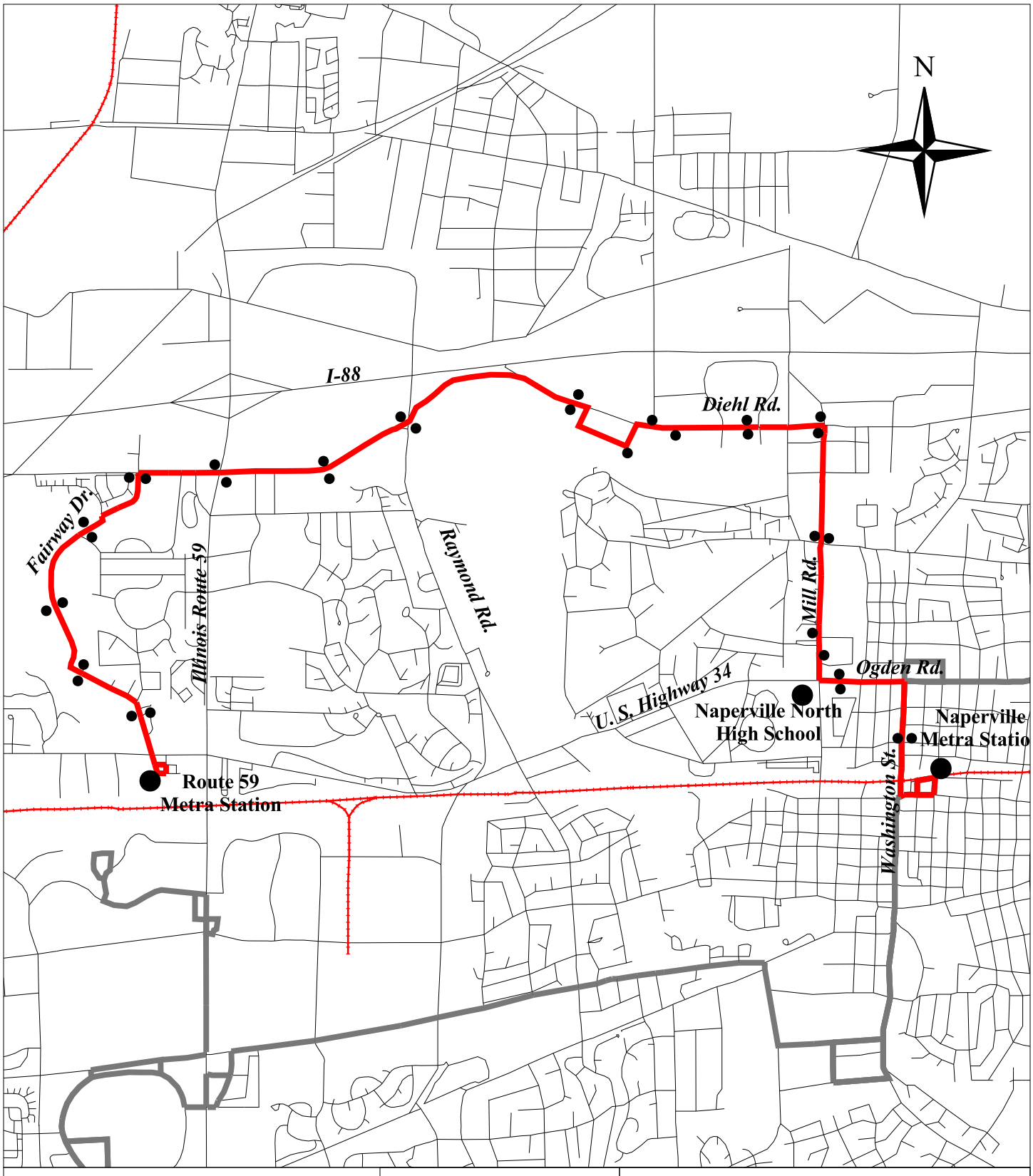
Exhibit 79
Diehl Road Route Profile

Route	Span of Service		One-Way Length	Frequency	Vehicles
	Weekdays	Saturdays			
Diehl Road	6:25a-8:20p	7:25a-8:20p	7.3 miles	60 minutes	1

Exhibit 80 shows the proposed alignment and Exhibit 81 shows a draft schedule for this route. Using this schedule, this route will meet trains at both the Route 59 and the Naperville stations. This includes the 6:57 a.m. and the 7:52 a.m. express trains to Chicago from the Route 59 Station, as well as the 6:25 a.m., 7:26 a.m., and the 8:24 a.m. express trains to Chicago from the Naperville Station. In the afternoons, this route will meet the 5:40 p.m. and the 6:52 p.m. trains arriving from Chicago at the Route 59 Station, and the 6:17 p.m. train from Chicago at the Naperville Station. It will also make connections on weekdays and Saturdays at the Naperville Station with Pace Route 530 at 12 and 40 minutes past each hour, and on weekdays with Pace Route 714 once hourly.

ADA Paratransit Service

It is not likely that any of these circulator routes would be considered as "commuter" service. Since portions of these routes fall outside of the current Pace routes (other than the Merta Station feeder routes), it will be necessary to provide ADA paratransit service to complement the circulator service. Pace and Ride DuPage currently provide paratransit service in the Naperville area. Pace limits its service to the operating times and the ¾ mile distance from its non-commuter fixed routes. Ride DuPage will



Revised Diehl Road Route
Railroad
PACE Routes (530, 535, and/or 714)
Bus Stops
Landmarks

RLS AND ASSOCIATES

Exhibit 80
Diehl Road Route

City of Naperville
Circulator Study

Exhibit 81
Draft Schedule

Route: **Diehl Road**
Regular Weekdays **Weekday**

Pullout	Naperville Station	Ogden/Mill	Diehl/Mill	Diehl/Winfield	Diehl/Raymond	Diehl/Rt. 59	Fairway/Burke	Route 59 Station (Arr.)	Route 59 Station (Dep.)	Fairway/Burke	Diehl/Rt. 59	Diehl/Raymond	Diehl/Winfield	Diehl/Mill	Ogden/Mill	Naperville Station
6:20	6:25	6:30	6:33	6:35	6:41	6:43	6:47	6:50	6:55	6:58	7:02	7:04	7:10	7:12	7:15	7:20
	7:25	7:30	7:33	7:35	7:41	7:43	7:47	7:50	7:55	7:58	8:02	8:04	8:10	8:12	8:15	8:20
	8:25	8:30	8:33	8:35	8:41	8:43	8:47	8:50	8:55	8:58	9:02	9:04	9:10	9:12	9:15	9:20
	9:25	9:30	9:33	9:35	9:41	9:43	9:47	9:50	9:55	9:58	10:02	10:04	10:10	10:12	10:15	10:20
	10:25	10:30	10:33	10:35	10:41	10:43	10:47	10:50	10:55	10:58	11:02	11:04	11:10	11:12	11:15	11:20
	11:25	11:30	11:33	11:35	11:41	11:43	11:47	11:50	11:55	11:58	12:02	12:04	12:10	12:12	12:15	12:20
	12:25	12:30	12:33	12:35	12:41	12:43	12:47	12:50	12:55	12:58	13:02	13:04	13:10	13:12	13:15	13:20
	13:25	13:30	13:33	13:35	13:41	13:43	13:47	13:50	13:55	13:58	14:02	14:04	14:10	14:12	14:15	14:20
	14:25	14:30	14:33	14:35	14:41	14:43	14:47	14:50	14:55	14:58	15:02	15:04	15:10	15:12	15:15	15:20
	15:25	15:30	15:33	15:35	15:41	15:43	15:47	15:50	15:55	15:58	16:02	16:04	16:10	16:12	16:15	16:20
	16:25	16:30	16:33	16:35	16:41	16:43	16:47	16:50	16:55	16:58	17:02	17:04	17:10	17:12	17:15	17:20
	17:25	17:30	17:33	17:35	17:41	17:43	17:47	17:50	17:55	17:58	18:02	18:04	18:10	18:12	18:15	18:20
	18:25	18:30	18:33	18:35	18:41	18:43	18:47	18:50	18:55	18:58	19:02	19:04	19:10	19:12	19:15	19:20
	19:25	19:30	19:33	19:35	19:41	19:43	19:47	19:50	19:55	19:58	20:02	20:04	20:10	20:12	20:15	20:20

Route: **Diehl Road**
Saturdays **Saturday**

Pullout	Naperville Station	Ogden/Mill	Diehl/Mill	Diehl/Winfield	Diehl/Raymond	Diehl/Rt. 59	Fairway/Burke	Route 59 Station (Arr.)	Route 59 Station (Dep.)	Fairway/Burke	Diehl/Rt. 59	Diehl/Raymond	Diehl/Winfield	Diehl/Mill	Ogden/Mill	Naperville Station
7:20	7:25	7:30	7:33	7:35	7:41	7:43	7:47	7:50	7:55	7:58	8:02	8:04	8:10	8:12	8:15	8:20
	8:25	8:30	8:33	8:35	8:41	8:43	8:47	8:50	8:55	8:58	9:02	9:04	9:10	9:12	9:15	9:20
	9:25	9:30	9:33	9:35	9:41	9:43	9:47	9:50	9:55	9:58	10:02	10:04	10:10	10:12	10:15	10:20
	10:25	10:30	10:33	10:35	10:41	10:43	10:47	10:50	10:55	10:58	11:02	11:04	11:10	11:12	11:15	11:20
	11:25	11:30	11:33	11:35	11:41	11:43	11:47	11:50	11:55	11:58	12:02	12:04	12:10	12:12	12:15	12:20
	12:25	12:30	12:33	12:35	12:41	12:43	12:47	12:50	12:55	12:58	13:02	13:04	13:10	13:12	13:15	13:20
	13:25	13:30	13:33	13:35	13:41	13:43	13:47	13:50	13:55	13:58	14:02	14:04	14:10	14:12	14:15	14:20
	14:25	14:30	14:33	14:35	14:41	14:43	14:47	14:50	14:55	14:58	15:02	15:04	15:10	15:12	15:15	15:20
	15:25	15:30	15:33	15:35	15:41	15:43	15:47	15:50	15:55	15:58	16:02	16:04	16:10	16:12	16:15	16:20
	16:25	16:30	16:33	16:35	16:41	16:43	16:47	16:50	16:55	16:58	17:02	17:04	17:10	17:12	17:15	17:20
	17:25	17:30	17:33	17:35	17:41	17:43	17:47	17:50	17:55	17:58	18:02	18:04	18:10	18:12	18:15	18:20
	18:25	18:30	18:33	18:35	18:41	18:43	18:47	18:50	18:55	18:58	19:02	19:04	19:10	19:12	19:15	19:20
	19:25	19:30	19:33	19:35	19:41	19:43	19:47	19:50	19:55	19:58	20:02	20:04	20:10	20:12	20:15	20:20

likely have to modify its eligibility requirements to include the ADA definitions. The specific arrangements must be defined before circulator service is begun.

FARE STRUCTURE

Fare Structure

Fare structures should be considered fair and equitable, easy to understand and administer. Fare structures are usually based upon distance, service quality, time period, customer characteristics and ability to pay, transfer/travel patterns, and/or farebox recovery ratio goal.

Local circulator service is designed for shorter passenger trips and the fares should reflect that. While the community survey suggests that potential passengers will pay a higher fare, a $1.00 base fare is recommended. In addition, half fares are recommended for persons over 65 years of age, those with disabilities, and students.

MARKETING

Marketing

On-going marketing activities are an important part of building ridership for new transit services. A marketing program is recommended to effectively communicate the City's circulator services provided to all members of the general public. At least one percent of the transit system's budget should be designated for marketing. The funds will be used to update and print system brochures and Ride Guides, print and distribute flyers, participate in high profile special events, and create a marketing plan that focuses on educating potential passengers on how to use the system, and developing community support. The marketing plan will also include periodic, low cost assessments of customer satisfaction such as surveys or focus groups that will help system management target service improvements and customer relations.

The number and type of advertising and promotions should also be included in the marketing plan. For a local circulator service, these will typically include low cost/no cost techniques. Branding, including a color scheme and logo, should also be part of the marketing program. The color scheme and/or logo should appear consistently throughout the elements of the Circulator service including the buses, bus stop signs, shelters and other amenities. The marketing plan should be updated each year with the year's timeline and budget.

VEHICLES AND EQUIPMENT

Vehicles and Equipment

Vehicles will need to be acquired if they are not to be provided by the contractor. Other capital improvements include bus stop signs, passenger shelters, fareboxes, radios, and other related equipment.

Vehicles

Smaller buses are envisioned for the Naperville Circulator service. These can range from 18 to 28 passenger "cutaway" vehicles with a useful life of five to seven years, to 30 to 32 passenger buses with a useful life of 12 years. The smaller vehicle is less obtrusive in residential area, but has fewer seats and must be replaced more often. The larger vehicle has a greater capacity but a larger size and weight. The City may purchase the vehicles and assume ownership, or it can have a contract service provider include vehicles as part of the contract price. Many private contractors provide vehicles and spread the cost over the contract's duration. Another option is to request Pace to provide the vehicles under one of their local assistance programs. Pace currently provides vehicles to a number of municipalities in the region if most or all of the operating and maintenance costs are borne by the municipality.

Bus Stop Signs, Shelters and Bicycle Racks

Other capital costs include stop signage that is needed to designate bus stops. In addition, additional bus shelters should be purchased. The locations for these shelters should be based on actual passenger boarding and alighting counts. Pace currently maintains shelters at several locations in Naperville. But, some additional stops are identified as potential shelter locations. These include:

- Fox Valley Mall
- Costco - Route 59
- Frontier Park Shopping Center – Route 59
- College of DuPage
- Hobson West Shopping Center – 75th Street
- Ogden-Washington Shopping Center – Route 59 and Ogden Avenue

It should be noted that many of the higher passenger volume locations are in shopping centers. The feasibility of a shelter at these locations will depend on property owner or shopping center management approval. Permission is typically sought by directly contacting the owner and/or manager of these centers.

Bicycle use can also be an integral part of the Circulator service. Bicycle racks can be placed on the buses and at key destinations and transfer locations to facilitate their use.

Vehicle Location Equipment

As a convenience to passengers, the circulator service should provide real time information at remote locations. The vehicles should be equipped with Global Positioning Satellite (GPS) systems to assist in providing

passengers with the location of the vehicles and an estimated time of arrival at a particular bus stop. There is computer software available that would provide access to this information on the City's website. This system can be included as a part of the Request for Proposals to procure transportation services.

Vehicles and Equipment

OVERSIGHT AND MONITORING

Oversight and Monitoring

If the City decides to contract the circulator service, then the City needs to assure that adequate oversight and monitoring is performed. Currently, the City provides funding for and shares oversight and monitoring functions of the current Metra station feeder routes in Naperville with Pace. These routes are operated by a private contractor. In this case, Pace addresses the day-to-day operational issues, and the City takes the lead in service planning issues. Both Pace and the City share in the cost of the service. Sharing these oversight and monitoring functions in this manner for the circulator service is advantageous to both parties.

IMPLEMENTATION PLAN

Implementation Plan

A plan to implement the desired service changes is described below. The assumed implementation dates should be viewed as flexible and could change based on local desires and changing conditions. The Implementation Plan is divided into six major categories:

1. Approval and Budgeting
2. Service Procurement
3. Fare Structure and Public Process
4. Marketing
5. Equipment Purchases
6. Oversight and Monitoring

Approval and Budgeting

The following actions will need to be accomplished:

- City decision to pursue Pace funded assistance;
- If so, City submits request to Pace for assistance under one of their local assistance program;
- Pace decision on whether it will provide assistance with capital and/or operating costs for the circulator service;
- City applies for grants and other funding assistance as appropriate (i.e., RTA and CMAP);
- Decision on grant funding made;

- City decision to fund part or all of the estimated cost of the circulator service, depending on the level of outside funding assistance;
- City Council approves funding for Circulator service; and
- City assigns staff to oversee the start-up of the new circulator service.

Service Procurement

The following actions will need to be accomplished for both the circulator service and the ADA paratransit service:

- City Decision that Circulator services will be provided in-house by City employees, or by an existing public transportation provider, or by a private contractor.

If a current public transportation provider is selected (i.e. Pace or Ride DuPage):

- A request is submitted by the City to the public transportation provider;
- Contract is negotiated with public transportation provider defining division of responsibilities;
- Final routes and schedules are determined; and
- Service is implemented.

If a private contractor is selected:

- City prepares specifications and bid documents;
- City decision on whether to conduct a solicitation on its own, or to conduct a joint solicitation with Pace or some other entity that purchases transportation services;
- The final selection of a service provider includes the advertisement of a request for proposals, a review of the proposals by the City, and the negotiation of final terms and conditions with the preferred firm
- Final routes and schedules are determined; and
- Service is implemented.

If in-house by City employees is selected:

- Hire and train employees;
- Assign responsibilities among new and existing staff;
- Final Routes and schedules are determined;
- Service is begun.

Fare Structure and Public Process

The following actions will be needed to establish a fare structure:

- City staff recommends a fare structure to the Transportation Advisory Board;
- The Transportation Advisory Board holds a public hearing on the proposed fare structure;
- The Transportation Advisory Board reviews and recommends the fare structure;
- If necessary, a public hearing is held at a City Council meeting;
- A concurrence is reached on a proposed fare structure by the Naperville City Council;
- City Council votes to adopt the fare structure.

Marketing

The following actions are suggested to establish an effective marketing program:

- The Naperville Circulator is branded with a color scheme, logo and related items;
- A brochure/public timetable is designed and printed, and a distribution plan is created;
- Special promotions and advertising are implemented for the period leading to the service start-up;
- Special promotions are conducted during the initial start-up period, such as free ride days, etc. to encourage ridership; and
- An annual marketing plan is created that takes advantage of no cost/low cost opportunities, such as participation in major community events.

Equipment Purchases

The following actions will be needed to acquire necessary vehicles and equipment:

- City decision to purchase vehicles for the circulator service, or to have them provided through the contracted service provider, or to have Pace provide them through one of their local assistance programs;
- If vehicles are purchased by the City, then related equipment such as radios and fareboxes must also be procured. Also, research GPS equipment and related software and conduct procurement;
- Acquire vehicle and/or liability insurance;
- If provided by a service contractor, develop specifications for vehicles, fareboxes, radios, insurance requirements, and GPS equipment and software, and include in the service provider RFP;

- Design bus stop signs using color scheme and logo, purchase, and install; and
- Purchase bus shelters and obtain approval from land owners and shopping center managers for installation.

Oversight and Monitoring

An effective oversight and monitoring program will need to be implemented regardless of who and how the Circulator service is implemented. The monitoring program should be based, in a large part, on the measures included as performance standards (i.e. on-time performance, passengers per hour, cost per passenger, etc.). Monthly reporting of these key statistics is recommended. The following actions will be needed to establish and effective oversight and monitoring program:

- Finalize the performance indicators that will be used to measure the success of the Circulator service;
- Design data collection methods;
- Create monthly report of service statistics; and
- Implement monitoring program as Circulator service begins.

Exhibit 82 includes a chart showing the phased implementation of these action steps.

PROJECTED OPERATING COSTS

Operating costs for the three proposed circulator routes were estimated and projected over a five year period. Based on Pace's contracted service experience, an average per vehicle revenue hour rate of $95 was used. This was increased over the next five years using a four (4) percent annual inflation factor. Exhibit 83 displays the results.

Exhibit 83
Projected Operating Costs

Route	Annual Revenue Hours	Annual Operating Costs				
		2009	2010	2011	2012	2013
Washington/ Rickert (Wk.)	3,749	$356,107	$370,351	$385,165	$400,572	$416,595
Washington/ Rickert (Sat.)	712	$67,678	$70,385	$73,200	$76,128	$79,173
95th Street	7,140	$678,300	$705,432	$733,649	$762,995	$793,515
95th Street (Sat.)	1,352	$128,440	$133,578	$138,921	$144,478	$150,257
Diehl Road	3,647	$346,417	$360,274	$374,685	$389,672	$405,259
Diehl Road (Sat.)	692	$65,702	$68,330	$71,063	$73,905	$76,862

Exhibit 82
Implementation Timeline

Action	2009				2010				2011			
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Approval and Budgeting												
- City decision to pursue Pace assistance												
- Request to Pace for assistance												
- Create Capital and Operating Budget												
- City Council Approval												
- Assign Staff for Oversight												
Service Procurement												
- City Decision on Who Will Operate Circulator Service												
If City directly operates-												
- Hire and Train Employees												
- Assign Responsibilities												
- Implement Service												
If Current Publilc Transportation Provider-												
- Aprroach Service Provider												
- Negoiate Terms and Costs												
- Finalize Routes and Schedules												
- Implement Service												
If Private Sector Provider-												
- Prepare Bid Documents												
- City Decision on Whether to Request Pace Assistance												
- Advertisement, Review and Selection												
- Finalize Routes and Schedules												
- Implement Service												
Fare Structure and Public Process												
- Create Proposed Fare Structure												
- Transportation Advisory Board Review												
- City Council Review and Advertise Public Hearing												
- Public Hearing												
- City Council Adopts Fare Structure												
Marketing												
- Create Circulator Brand												
- Create and Produce Brochure and Public Timetables												
- Special Promotions												
- Create Annual Marketing Plan												
Equipment Purchases												
- Acquire Vehicles and Equipment												
- Acquire Insurance												
- Produce and Install Bus Stop Signs and Shelters												
Oversight and Monitoring												
- Finalize Performance Indicators												
- Define Data Collection Methods												
- Design Monthly Report Format												
- Implement Program						**on-going**						

Exhibit 82
Implementation Timeline

Action	2012				2013			
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Approval and Budgeting								
- City decision to pursue Pace assistance								
- Request to Pace for assistance								
- Create Capital and Operating Budget								
- City Council Approval								
- Assign Staff for Oversight								
Service Procurement								
- City Decision on Who Will Operate Circulator Service								
If City directly operates-								
- Hire and Train Employees								
- Assign Responsibilities								
- Implement Service								
If Current Publilc Transportation Provider-								
- Aprroach Service Provider								
- Negoiate Terms and Costs								
- Finalize Routes and Schedules								
- Implement Service								
If Private Sector Provider-								
- Prepare Bid Documents								
- City Decision on Whether to Request Pace Assistance								
- Advertisement, Review and Selection								
- Finalize Routes and Schedules								
- Implement Service								
Fare Structure and Public Process								
- Create Proposed Fare Structure								
- Transportation Advisory Board Review								
- City Council Review and Advertise Public Hearing								
- Public Hearing								
- City Council Adopts Fare Structure								
Marketing								
- Create Circulator Brand								
- Create and Produce Brochure and Public Timetables								
- Special Promotions								
- Create Annual Marketing Plan								
Equipment Purchases								
- Acquire Vehicles and Equipment								
- Acquire Insurance								
- Produce and Install Bus Stop Signs and Shelters								
Oversight and Monitoring								
- Finalize Performance Indicators								
- Define Data Collection Methods								
- Design Monthly Report Format								
- Implement Program								

The total operating costs for the Washington Street/Rickert Road route are estimated at $356,107 annually for weekdays. For Saturdays, the total annual operating costs are estimated to be $67,678. The 95th Street route would cost about double. Its annual operating cost for weekday service is $678,300 and for Saturdays it is $128,440. The Diehl Road route is expected to cost about $346,417 annually for weekdays and $65,702 for Saturdays. None of the above figures include the costs of providing the ADA paratransit service, which is estimated to be $50,000 annually.

Service Implementation

Three options for phased implementation of the proposed Circulator services were created. These are as follows:

Implement all proposed service in 2000 – Option 1

If all proposed Circulator routes and services were implemented in 2009, then the five-year cost projections are included in Exhibit 84 below.

Exhibit 84
Projected Operating Costs, All Service Implemented in 2009

Route	Annual Operating Costs				
	2009	2010	2011	2012	2013
Washington/ Rickert (Wk.)	$356,107	$370,351	$385,165	$400,572	$416,595
Washington/ Rickert (Sat.)	$67,678	$70,385	$73,200	$76,128	$79,173
95th Street	$678,300	$705,432	$733,649	$762,995	$793,515
95th Street (Sat.)	$128,440	$133,578	$138,921	$144,478	$150,257
Diehl Road	$346,417	$360,274	$374,685	$389,672	$405,259
Diehl Road (Sat.)	$65,702	$68,330	$71,063	$73,905	$76,862
TOTAL	**$1,642,645**	**$1,708,351**	**$1,776,685**	**$1,847,752**	**$1,921,662**

Phased Implementation – Option 2

The following phased implementation of the propose services would occur over a four year period.

- Washington/Rickert Route – 2009
- Washington/Rickert Route Saturday Service – 2010
- 95th Street Route Weekday and Saturday – 2011
- Diehl Road Route Weekday and Saturday – 2012

The projected operating costs for this phasing are included in Exhibit 85.

Exhibit 85
Projected Operating Costs, Phased Option 2

Route	Annual Operating Costs				
	2009	2010	2011	2012	2013
Washington/ Rickert (Wk.)	$356,107	$370,351	$385,165	$400,572	$416,595
Washington/ Rickert (Sat.)	---	$70,385	$73,200	$76,128	$79,173
95th Street	---	---	$733,649	$762,995	$793,515
95th Street (Sat.)	---	---	$138,921	$144,478	$150,257
Diehl Road	---	---	---	$389,672	$405,259
Diehl Road (Sat.)	---	---	---	$73,905	$76,862
TOTAL	**$356,107**	**$440,736**	**$1,330,935**	**$1,847,752**	**$1,921,662**

Phased Implementation - Option 3

The following phased implementation of the propose services would also occur over a four year period.

- Washington/Rickert Route Weekday and Saturday – 2009
- 95th Street Route Weekday and Saturday – 2011
- Diehl Road Route Weekday and Saturday – 2012

The projected operating costs for this phasing are included in Exhibit 86.

Exhibit 86
Projected Operating Costs, Phased Option 3

Route	Annual Operating Cost				
	2009	2010	2011	2012	2013
Washington/ Rickert (Wk.)	$356,107	$370,351	$385,165	$400,572	$416,595
Washington/ Rickert (Sat.)	$67,678	$70,385	$73,200	$76,128	$79,173
95th Street	---	---	$733,649	$762,995	$793,515
95th Street (Sat.)	---	---	$138,921	$144,478	$150,257
Diehl Road	---	---	---	$389,672	$405,259
Diehl Road (Sat.)	---	---	---	$73,905	$76,862
TOTAL	**$423,785**	**$440,736**	**$1,330,935**	**$1,847,752**	**$1,921,662**

APPENDIX A

PACE ROUTES IN NAPERVILLE

Route 530 - West Galena-Westfield Shoppingtown Fox Valley Center
Provides service between West Galena in West Aurora and Naperville Metra Station via the Aurora Transportation Center, Westfield Shoppingtown Fox Valley Center and downtown Naperville. Serves Cub Foods, Wal-Mart, West Plaza, Dreyer Clinic, Constitution House, Centennial House, Jewel, Hollywood Casino, Paramount Arts Centre, Aurora West High School, Jefferson Middle School, Aldi, Naper West Plaza, Edward Hospital, downtown Naperville and the Naperville Metra Station.

Route 672 – 95th Street Park and Ride Express (Begins 10/6/08)
Provides rush hour service to and from the 95th Street Park and Ride to Route 59 Metra Station.

Route 673 - Fort Hill Express
Provides rush hour feeder service to and from the Naperville Park and Ride (Community Christian Church) lot and Route 59 Metra Station.

Route 675 - Route 59 Express
Provides rush hour service to and from the Naperville Park and Ride (Wheatland Salem Church) and Route 59 Metra Station.

Route 676 - Cress Creek
Provides rush hour feeder service from north and central Warrenville and northwestern Naperville to the Naperville Metra Station and reverse service to Cantera Business Park. Commercial service is provided to International and BP Cantera. Residential service to Cress Creek, Emerald Green, Mill Orchard Condominiums, Summerlakes, and Mill Crossing Condominiums.

Route 677 - Naperville-West Glens
Provides rush hour feeder service from south central Naperville to the Naperville Metra Station. Residential service is provided to Brighton Ridge, West Glens, The Mill Ponds Apartments, West Highlands and Hobson West.

Route 678 - Naperville-Carriage Hill
Provides rush hour feeder service from south central Naperville to the Naperville Metra Station. Residential areas served include Walnut Ridge, Farmington, Heritage Knolls, Naper Carriage Hill, Naper Trails, and Olive Trees.

Route 680 - Naperville-Knoch Knolls
Provides rush hour feeder service from south central Naperville to the Naperville Metra Station. Residential areas served include Knoch Knolls, Old Sawmill Condos, Brookwood Trace and Cedar Glen.

Route 681 - Naperville-Saybrook
Provides rush hour feeder service from northern Naperville to the Naperville Metra Station. Residential areas served include Eagle Chase, Indian Hill, Saybrook and Lincoln at the Parks.

Route 682 - Naperville-Brookdale
Provides rush hour feeder service from northwestern Naperville and southern Warrenville to the Naperville Metra Station. Residential areas served include South Warrenville, Brookdale, Country Lakes, Brookdale Village Apartments, Cress Creek Condos and The Preserves of Cress Creek.

Route 683 - Naperville-Ashbury
Provides rush hour feeder service from southwestern Naperville to the Naperville Metra Station. Residential areas served include Ashbury, Brook Crossing Estates, Springbrook Crossings, The Fields, Buttonwood and Devonshire.

Route 684 - Naperville-Maplebrook
Provides rush hour feeder service from southwestern Naperville to the Naperville Metra Station. Residential areas served include Foxcroft, Old Sawmill Condos, Maplebrook I, and Maplebrook II.

Route 685 - Naperville-West Wind Estates
Provides rush hour feeder service from western Naperville to the Naperville Metra Station. Residential areas served include Windbridge, Brittany Springs, West Wind Estates, Wildflower, Lakewood Crossing, Brush Hill and Will-o-way.

Route 686 - Naperville-Old Farm
Provides rush hour feeder service from southwestern Naperville to the Naperville Metra Station. Residential areas served include Winchester Place, Chestnut, Old Farm, Winding Creek, Bay Colony and Maplebrook.

Route 687 - Naperville-Farmstead
Provides rush hour feeder service from southeastern Naperville to the Naperville Metra Station. Residential areas served include The Glens, Farmstead, Hunters Woods, Naper Carriage Hill and Fox Run.

Route 688 - Naperville-Huntington
Provides rush hour feeder service from eastern Naperville to the Naperville Metra Station. Residential areas served include Huntington Commons, Olesen Estates, Century Hill, Huntington, and Pembroke Greens.

Route 689 - Naperville-Hobson Village
Provides rush hour feeder service from east central Naperville to the Naperville Metra Station. Residential areas served include Knolls of Huntington, Huntington Estates, Carriage Way and Hobson Village.

Route 713 - Wheaton-Naperville
Provides reverse rush hour commuter service from the Wheaton Metra Station to Lucent Technologies, BP Research Labs, International and General Motors in Naperville.

Route 714 - College of DuPage-Naperville-Wheaton Connector
This weekday route connects Naperville to Wheaton with direct service to the College of DuPage. Additionally, service along this route is provided to Metra stations at Wheaton, College Avenue, and Naperville, Wheaton College, Ogden Mall, Edward Hospital and Downtown Naperville.

Route 781 - North Naperville Office Complexes
Provides reverse rush hour service between the Naperville Metra Station and Shuman Boulevard, ConAgra, OfficeMax, the BP Research Center 600 Complex, the Naperville Corporate Center, the Naperville Campuses of DePaul University, Northern Illinois University, and DeVry, and the Diehl Road Office Complexes.

Route 787 - Naperville Midday (Eliminated on 10/3/08)
Provides midday service between southeast Naperville and downtown Naperville and serves Madison Junior High School and Edward Hospital.

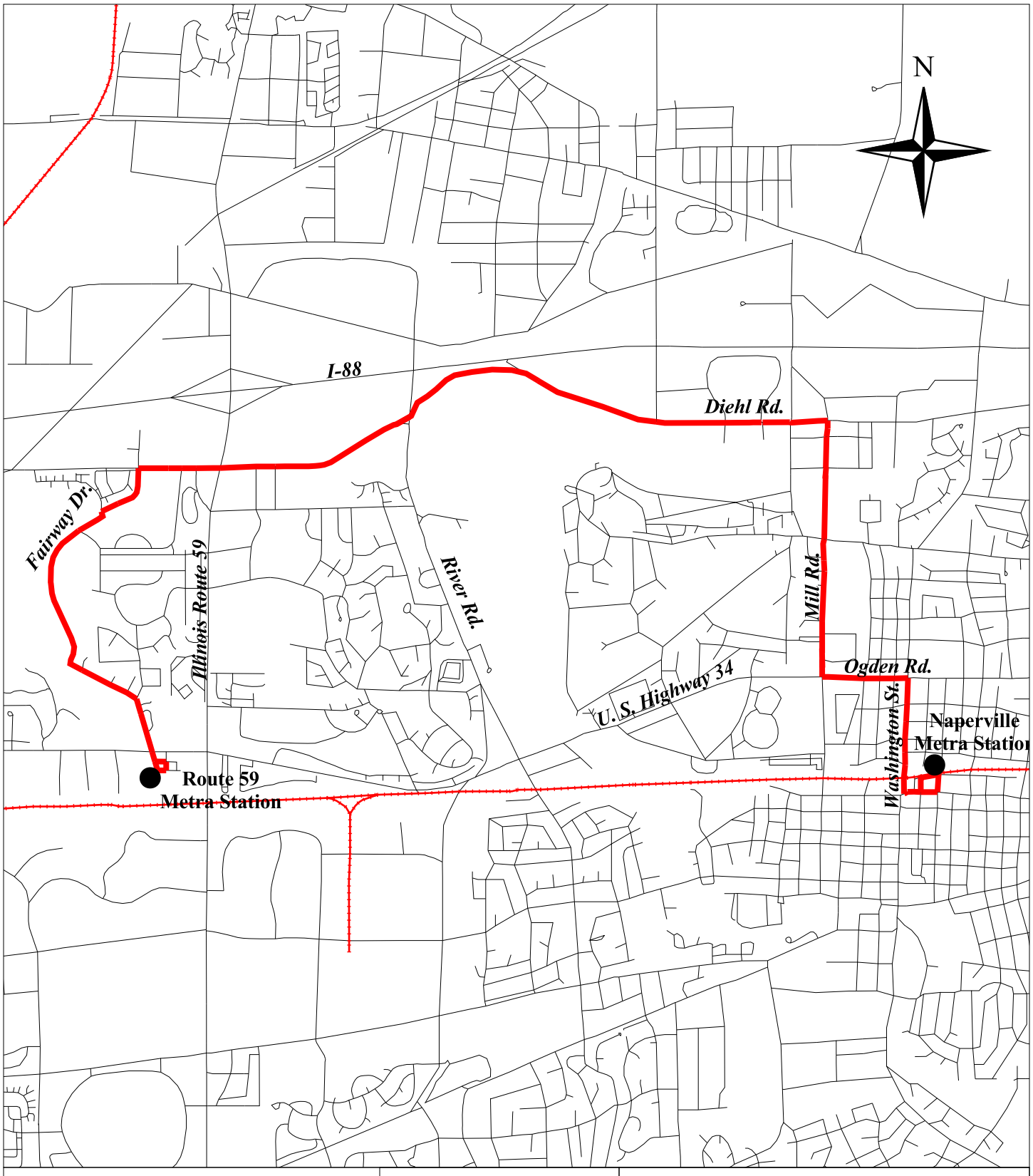
Route 788 - Midday Naperville (Eliminated on 10/3/08)
Provides midday service between northwest Naperville and downtown Naperville. Also serves Ogden Mall, Ogden Manor, Iroquis Center, and Sts. Peter and Paul School.

Route 820 - University Heights-Hobson Creek-Lisle Metra
Provides rush hour feeder service from the University Heights area of southeastern Naperville to the Lisle Metra Station. Residential areas served include Hobson Creek, Village Green Apartments, and The Meadows.

Route 829 - Lisle-Naperville Office Corridor
Reverse commuter service from Lisle Metra Station to Lucent Technologies, Molex, Corporetum Office Campus, AT&T, Corporate West, Arboretum Lakes, Software Center and Corporate Lakes. Also serves Lisle Business Center, Central Park of Lisle and Indian Hill Main.

APPENDIX B

ROUTE MAPS

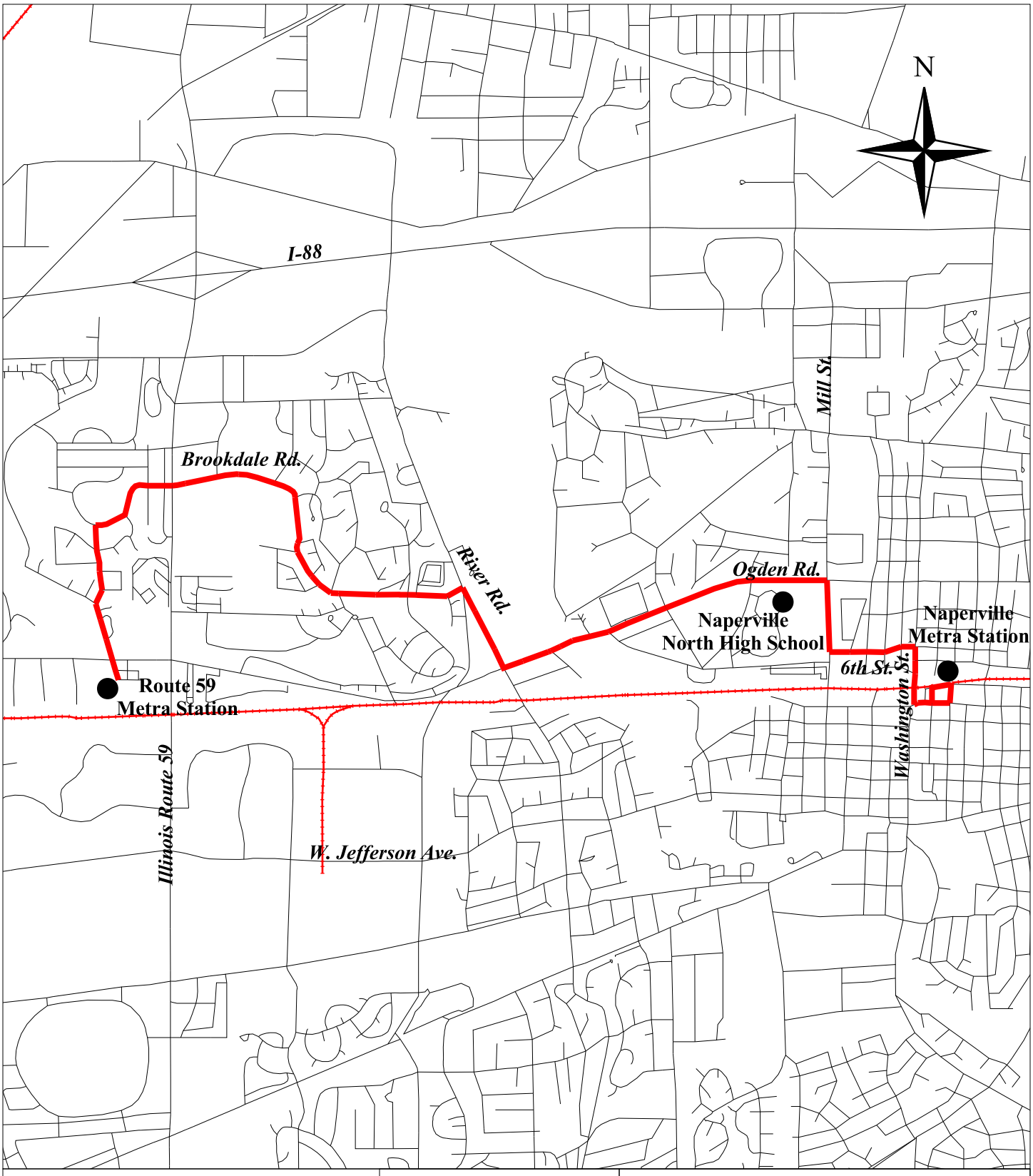


Railroad
Diehl Road Route

RLS AND ASSOCIATES

Exhibit 54:
Diehl Road Route

City of Naperville
Circulator Study

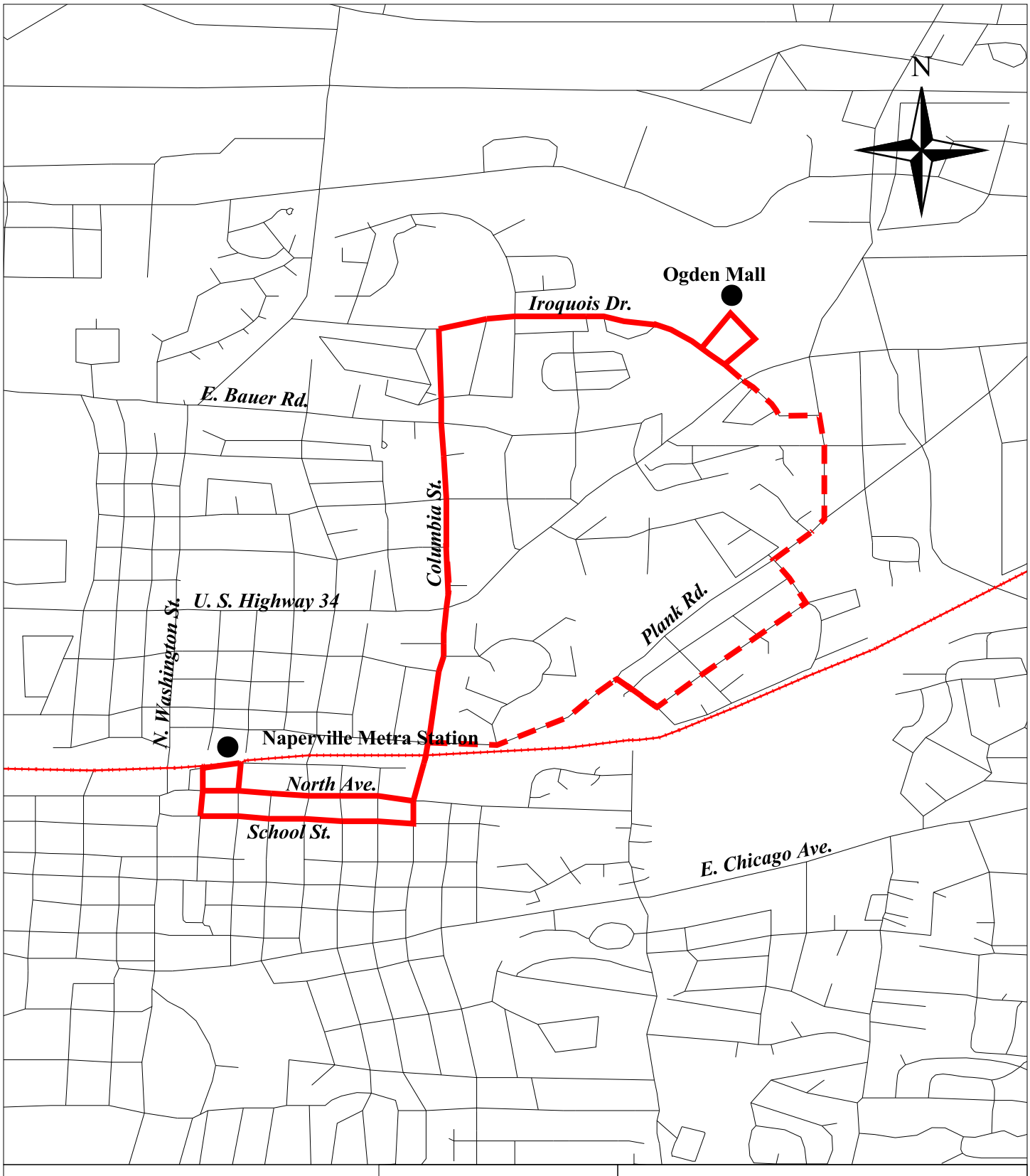


Railroad
Brookdale Road Route

RLS AND ASSOCIATES

Exhibit 55:
Brookdale Road Route

City of Naperville
Circulator Study

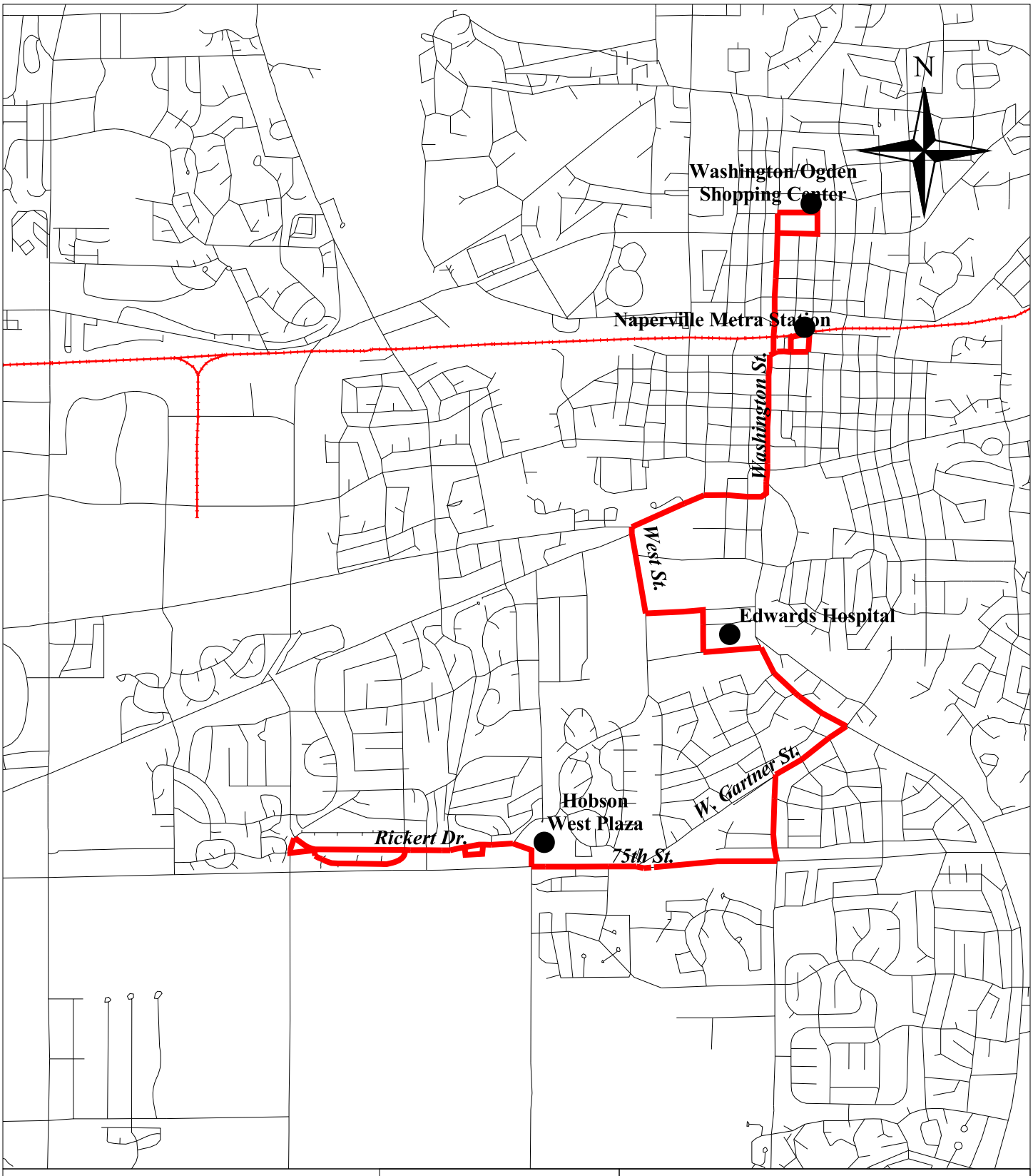


Railroad
Am/PM Peak Extension
Columbia St./ Ogden Mall Route

RLS AND ASSOCIATES

Exhibit 56: Columbia St./ Ogden Mall Route

City of Naperville Circulator Study

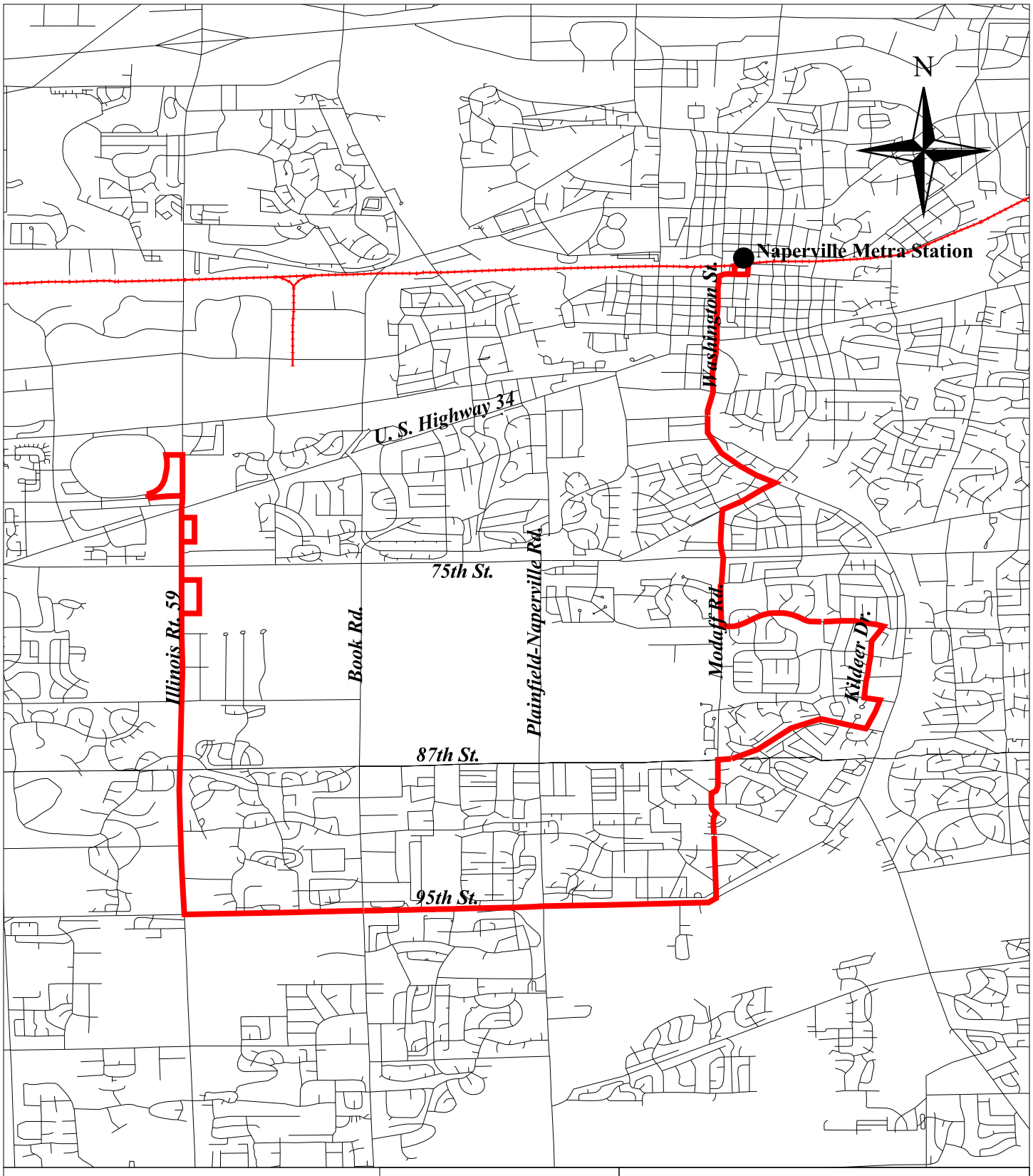


Railroad
Washington St,/Rickert Drive Route

RLS AND ASSOCIATES

Exhibit 57: Washington Street/ Rickert Drive Route

City of Naperville Circulator Study

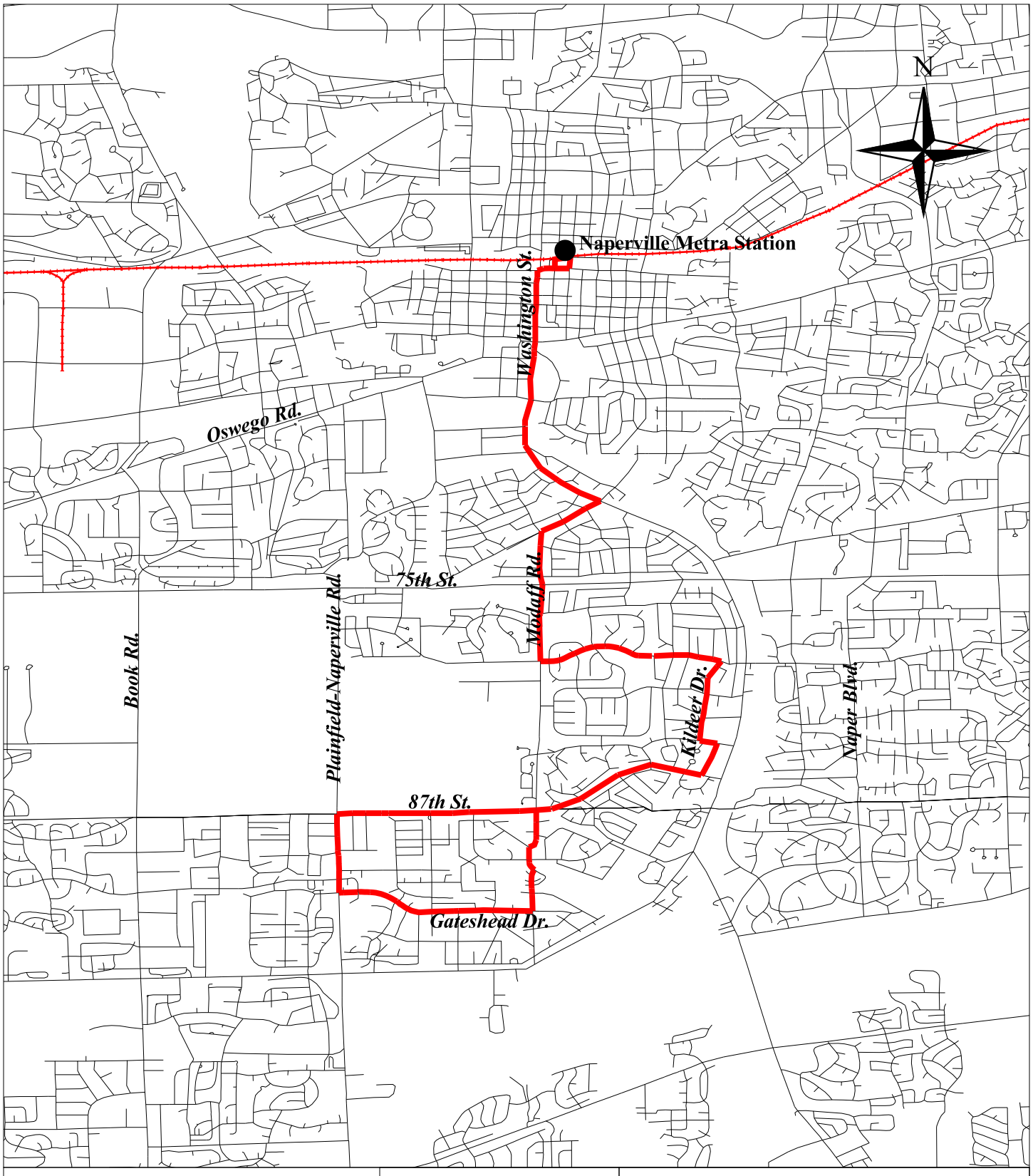


Railroad
95th Street Route

RLS AND ASSOCIATES

Exhibit 58:
95th Street Route

City of Naperville
Circulator Study

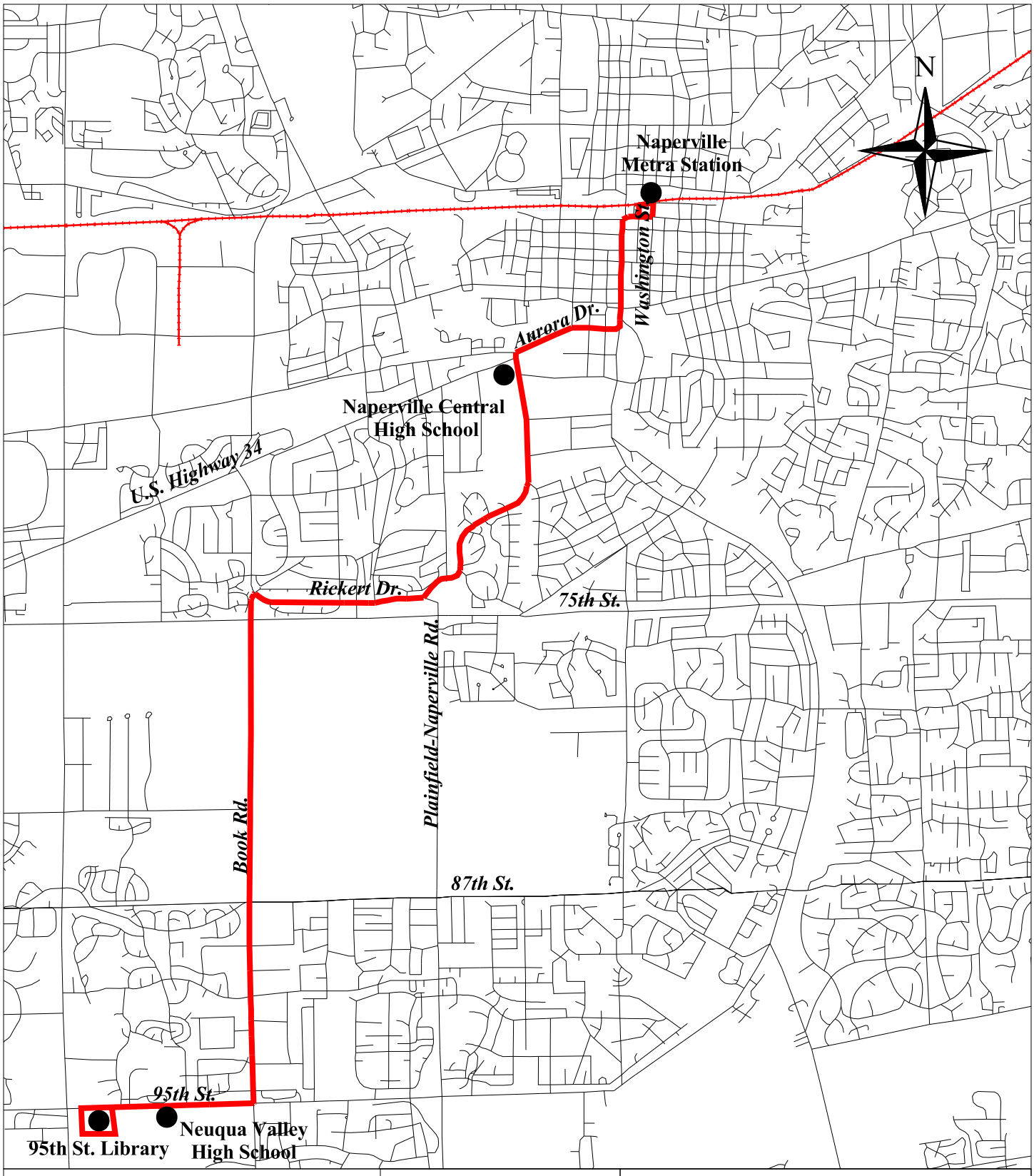


Railroad
Modaff Road

RLS AND ASSOCIATES

Exhibit 59:
Modaff Road Route

City of Naperville
Circulator Study



Railroad
Rickert Drive/95th St. Route

Exhibit 60: Rickert Drive/ 95th Street Route

City of Naperville Circulator Study

APPENDIX C

FEDERAL TRANSIT ADMINISTRATION REGULATORY REQUIREMENTS

Appendix C
Federal Transit Administration Regulatory Requirements

Legal
Each grantee must be eligible and authorized under state and local law to request, receive, and dispense FTA funds and to execute and administer FTA funded projects. The authority to take all necessary action and responsibility on behalf of the grantee must be properly delegated and executed.

Financial
Each grantee must demonstrate the ability to match and manage FTA grant funds, cover cost increases, cover operating deficits through long-term stable and reliable sources of revenue, maintain and operate federally funded facilities and equipment, and conduct an annual independent organization-wide audit in accordance with the provisions of OMB C A-133.

Technical
Each grantee must be able to implement the Urbanized Area Formula Grant Program of Projects in accordance with the grant application, Master Agreement, and all applicable laws and regulations, using sound management practices.

Satisfactory Continuing Control
Each grantee must maintain control over real property, facilities, and equipment and ensure that they are used in transit service.

Maintenance
Each grantee must keep federally funded equipment and facilities in good operating order.

Procurement
FTA grantees will use their own procurement procedures that reflect applicable state and local laws and regulations, provided that the process ensures competitive procurement and that the procedures conform to applicable federal law. Grantees will maintain a contract administration system that ensures that contractors perform in accordance with terms, conditions, and specifications of their contracts or purchase orders.

Disadvantaged Business Enterprise (DBE)
Each grantee must comply with the policy of the U.S. Department of Transportation (DOT) that DBEs are ensured nondiscrimination in the award and administration of DOT-assisted contracts. Grantees also must create a level playing field on which DBEs can compete fairly for DOT-assisted contracts; ensure that only firms that fully meet eligibility standards are permitted to participate as DBEs; help remove barriers to the participation of DBEs; and assist the

development of firms that can compete successfully in the marketplace outside the DBE program.

Buy America

Per "Buy America" law, federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless FTA has granted a waiver, or the product is subject to a general waiver. Rolling stock must have sixty percent domestic content and final assembly must take place in the United States.

Suspension and Debarment

To prevent fraud, waste, and abuse in federal transactions, persons or entities, which by defined events or behavior, potentially threaten the integrity of federally administered programs, are excluded from participating in FTA-assisted programs. Grantees are required to ensure to the best of their knowledge and belief that none of the grantee's "principals" are debarred, suspended, ineligible, or voluntarily excluded from participation in federally assisted transactions.

Lobbying

Recipients of federal grants and contracts exceeding $100,000 must certify compliance with Restrictions on Lobbying, before they can receive funds. In addition, grantees are required to impose the lobbying restriction provisions on their contractors.

Planning

Each grantee must participate in the transportation planning process in accordance with FTA requirements, Metropolitan Statewide Planning Final Rule, and Management Systems Interim Final Rule (Transportation Planning Regulations), as revised.

Title VI

Each grantee must ensure that no person in the United States shall, on the grounds of race, color, or national origin, be subject to discrimination under any program receiving federal financial assistance. Each grantee must ensure that federally supported transit services and related benefits are distributed in an equitable manner.

Public Comment for Fare and Service Changes

Each grantee must have a locally developed process to solicit and consider public comment before raising a fare or carrying out a major reduction of transportation.

Half Fare

Each grantee must ensure that elderly persons and persons with disabilities, or an individual presenting a Medicare card, will be charged during non-peak hours for transportation using FTA Section 5307 funding not more than 50 percent of the peak hour fare.

Americans with Disabilities Act

Titles II and III of the Americans with Disabilities Act of 1990 provide that no entity shall discriminate against an individual with a disability in connection with the provision of transportation service. The law sets forth specific requirements for vehicle and facility accessibility and the provision of service, including complementary paratransit service.

Charter Bus

FTA grantees are prohibited from using federally funded equipment and facilities to provide charter service except on an incidental basis and when one or more of applicable exceptions applies.

School Bus

FTA grantees are prohibited from providing exclusive school bus service unless it qualifies under specified exceptions. In no case can federally funded equipment or facilities be used.

National Transit Database

The grantee must collect, record, and report financial and non-financial data in accordance with the Uniform System of Accounts (USOA) and updated with the National Transit Database (NTD) Reporting Manual.

Safety and Security

Any recipient of Urbanized Area Formula Grant Program funds must annually certify that it is spending one percent of such funds for transit security projects or that such expenditures for security systems are not necessary.

Drug-Free Workplace

FTA grantees are required to maintain a drug-free workplace for all employees and to have an ongoing drug-free awareness program.

Drug and Alcohol Program

Grantees receiving FTA funds under Capital Grant (Section 5309), Urbanized Area Formula Grant (Section 5307), or Non-Urbanized Area Formula Grant (Section 5311) Programs, must have a drug and alcohol testing program in place for all safety sensitive employees.

Equal Opportunity Employment

The grantee must ensure that no person in the United States shall on the grounds of race, color, creed, national origin, sex, age, or disability be excluded from participating in, or denied the

benefits of, or be subject to discrimination in employment under any project, program, or activity receiving federal financial assistance from the federal transit laws.

ITS Architecture

Intelligent Transportation Systems (ITS) projects funded by the Mass Transit Account must conform to the National ITS Architecture, as well as to DOT adopted ITS standards.

APPENDIX D

PROPOSED RESPONSIBILITIES FOR OPERATION FOR MUNICIPAL LOCAL BUS SERVICES

Appendix D – Proposed Responsibilities for Operation for Municipal Local Bus Services

		Pace	Municipality	Operator
Management	1. Management and supervision of system operations and maintenance			x
	2. Hiring and training of drivers			x
	3. Provision of customer service			x
	4. Revenue collection, cash handling, security and reporting		x	x
	5. Accounting controls, reports and analysis	x		
	6. Service audits, ridership counts and performance evaluation	x		
	7. Specialized maintenance and management training	x		x
Operations	1. Shelters, bus stop signs, benches and other facility maintenance		x	x
	2. Compliance with service requirements	x		x
	3. On-street supervision			x
	4. Maintain public access telephone number			x
	5. Maintain log of complaints, suggestions and recommendations			x
	6. Maintain a lost and found			x
	7. Street detour information		x	
	8. Bus advertising	x		
	9. Bus/transit traffic and parking regulations		x	
Vehicles	1. Provide vehicles, fare boxes, and other related equipment	x		
	2. Maintain, service and clean vehicles			x
	3. Conduct maintenance inspections	x		x
	4. Insure vehicles	x		x
Finance/Contract Administration	1. Approve and change fares	x	x	
	2. Create annual operating budget	x	x	x
	3. Approve and amend annual operating agreement	x	x	x
	4. Provide financial and accounting services and support	x		
	5. Provide funding for the transit services	x	x	
Marketing	1. Prepare, provide and control approved marketing plans	x	x	
	2. Provide public timetables and information displays	x		
	3. Conduct market research	x	x	
Service Planning	1. Prepare service improvement plans	x	x	
	2. Create schedules and route alignments	x	x	
	3. Prepare vehicle and capital improvement plans	x		
	4. Compile cost/revenue projections	x		
	5. Review, amend and approve plans		x	