

Pace Barrington Road Station  
Transit Service and Land Use Study

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April 2016

**Prepared for**  
Pace Suburban Bus  
Village of Hoffman Estates  
Regional Transportation Authority

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## 1. Executive Summary

Pace is constructing a bus station and transit center at Interstate 90 (I-90) or Jane Addams Tollway at Barrington Road in conjunction with a new interchange that is being constructed. The Pace Barrington Road Station (Station) will serve the new I-90 express bus service. This study examines the feasibility of providing a transit shuttle service to the Station, examines how pedestrian and bicycle infrastructure around the station could be improved, and suggests transit-supportive land use strategies.

A population and employment analysis of the study area showed that the area southeast of I-90 and Barrington Road has demographic characteristics that would support transit use. In addition, an online survey of residents and workers in the area was conducted and more than 650 responses were received - 83% of the survey respondents expressed interest in the shuttle service and 51% stating a very high interest. Almost 27% of the respondents both live and work in the study area, suggesting that a circulator type transit service in addition to a feeder service to the Station should be considered. A meeting also was conducted with major employers in the area to determine their interest in working with the Village of Hoffman Estates (Village) and Pace in providing the shuttle service.

A fixed route bus shuttle is proposed that would start and end at the kiss-and-ride facility south of I-90 and operate south of the Station. It would run during the morning and afternoon peak periods at 20 minute intervals and connect with the express bus service operating along I-90. The service would operate counter-clockwise in the morning and clockwise in the evening. The bi-directional flow would provide more direct trips because the west half of the route primarily serves employment locations while the east half primarily serves residential locations.

In addition to the bus shuttle, a demand response call-n-ride service is proposed that would operate throughout the day on weekdays and Saturdays. The service would operate south of I-90 and serve a much larger area than the fixed route peak period service. Two buses would be needed to serve both the fixed service and the call-n-ride service. The call-n-ride service will provide more flexibility to workers and residents who will not be served by fixed route service during the peak hour periods.

The online survey also suggested that 75% of respondents would be interested in walking to the Station if conditions were improved. Improvements are already underway that will allow walking to and from the Station. Additional sidewalk and intersection improvements are recommended to promote safety and comfort in walking within a ½ mile area around the Station. There are some nearby employment locations north of I-90 that are not in the transit shuttle service area. For example, employees of Claire's, which have expressed an interest in the bus service, are within walking distance of the Station. It will be important to ensure that they have a safe and comfortable walking environment to the Station.

There may be some employment locations that are not within walking distance of the Station or within the shuttle/call-n-ride service area. One example is DMG/Mori at 2400 Huntington, which is northeast of the Station. In these cases, Pace can work with employers to provide them with a van that can be used to shuttle employees.

Finally, land use characteristics in the area were reviewed and strategies suggested to make the area more transit-supportive. Land use change is a long-term process that needs to be coordinated through the Village's comprehensive planning process. In the near future, the Village is expected to start a process to update its comprehensive plan and the land use strategies presented in this study will be considered during that planning process.

## 2. Introduction

### 2.1. Background

Pace will be constructing a bus station and transit center at Interstate 90 (I-90) or the Jane Addams Tollway (Tollway) at the new full access interchange at Barrington Road (**Figure 1**) to serve the new Pace I-90 express bus service. The Barrington Road Station will include:

- A park-n-ride with 150 parking spaces and several bus bays on the north side of the Tollway
- A kiss-n-ride facility on the south side of the Tollway
- Bus stations with shoulder platforms along both sides of I-90
- A pedestrian bridge over I-90 and tunnels under the on/off ramps

This study presents a plan for a feeder transit service to connect to the I-90 express bus service. The study also recommends bicycle and pedestrian improvements, and suggests transit-supportive strategies for the area surrounding the Station.

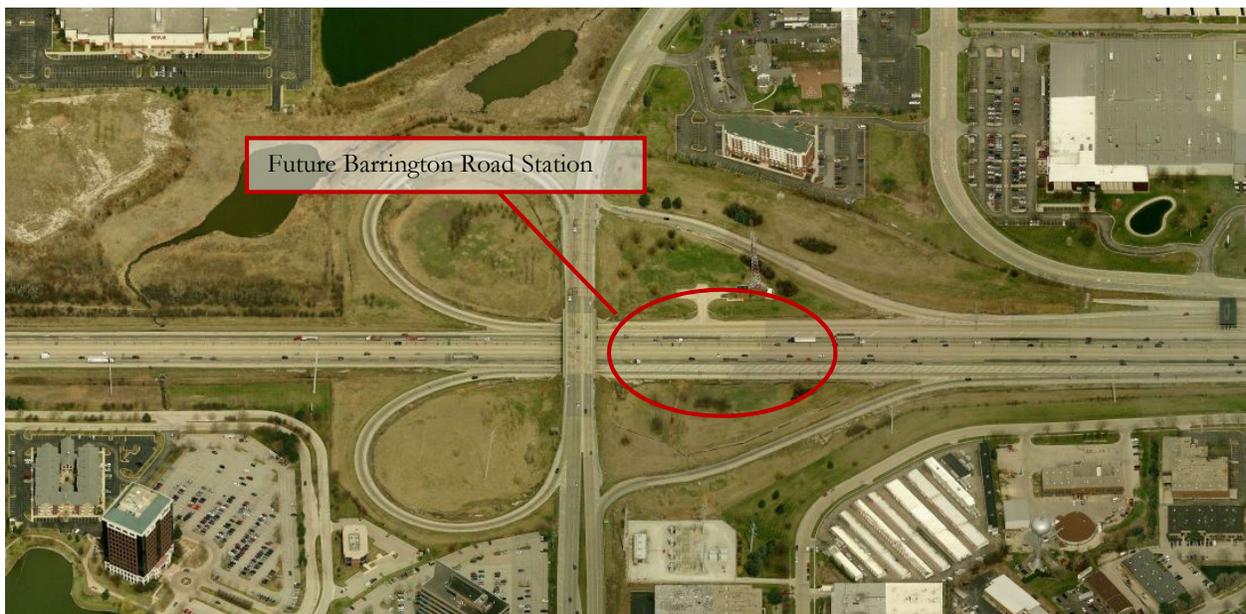


Figure 1 - Birdseye View of I-90 at Barrington Road in 2013

Source: Microsoft

## 2.2. Project Goals and Objectives

### Project Goals:

- Increase transit ridership.
- Develop land use practices that will encourage the use of alternative forms of transportation.
- Improve streets in a complete manner that encourages safety for all users including bicyclists, drivers, pedestrians and transit users.

### Project Objectives:

- Suggest how land use density, diversity and design around Barrington Road Station can be changed to encourage walking and the use of transit.
- Evaluate and recommend improvements for a safe pedestrian network within one mile of the Barrington Road Transit Station.
- Recommend bicycle network improvements to the Barrington Road Station.
- Evaluate the need and develop alternatives for feeder transit service to connect to the Barrington Road Station.
- Recommend transit service, land use and infrastructure improvements around the Barrington Road Station that will help promote the I-90 express bus service.

## 2.3. Study Area

The study area is focused on the future Barrington Road Station; the study area's boundaries are not explicitly defined. Two maps were prepared to illustrate the study area. The first is **Figure 2**, the Area Map, which shows municipal boundaries and the general roadway context of the study area. This study is primarily focused on employment and residential locations that are likely to use a transit feeder service to the Station. All of these major destinations are in the Village of Hoffman Estates. Other municipalities that are seen on the Area Map include Inverness, South Barrington, Schaumburg, Streamwood, Palatine, Hanover Park, and Barrington Hills.

Major roadways within these study areas include The Jane Addams Memorial Tollway (I-90), Barrington Road, Illinois Route 59, Dundee Road (IL 68), Golf Road (IL 58), Bartlett Road, Roselle Road, Higgins Road (IL 72), and Algonquin Road (IL 62).

**Figure 3**, Focus Map, illustrates the walking area around the Station. Generally, the walking distance to a Station is no more than a ½ mile. A 1-mile area is shown to provide a fuller context of the area around the Station.

Figure 2 – Area Map

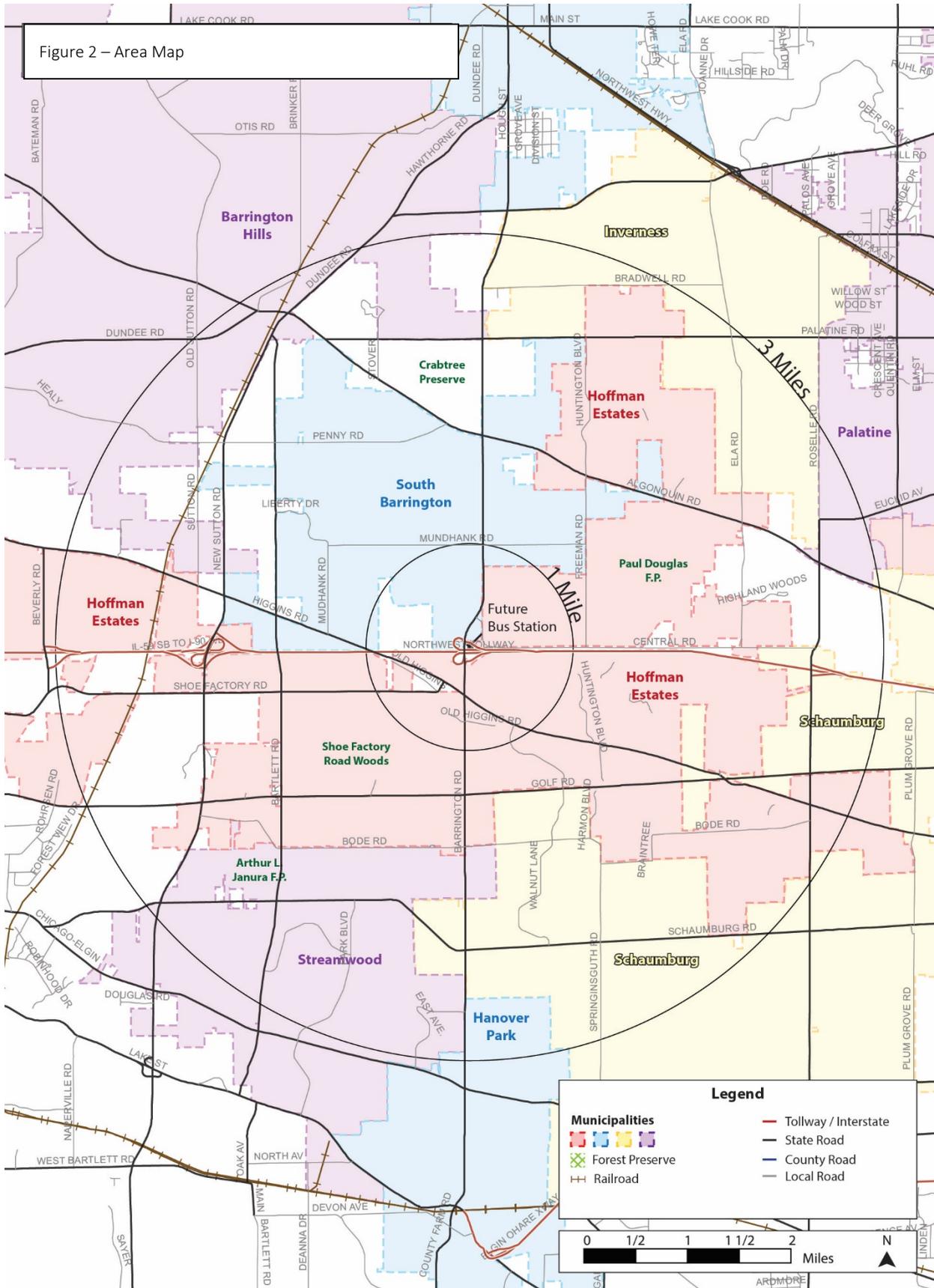


Figure 3 - Focus Map



## 2.4. Plans and Studies Review

Transportation investments are supported by the goals of existing regional and local planning efforts. Improved access to public transportation and an expansion of transportation options are consistent themes in regional and local planning documents that are summarized below.

### 2.4.1 Regional

#### Chicago Metropolitan Agency for Planning GO TO 2040

*GO TO 2040* is organized into four themes as presented below. The plan recognizes expanded access to public transportation as essential for the success of the region.

- 1) **Livable Communities** – Investments in communities that create more compact, walkable, and mixed-use development with a range of housing options are essential for the future of the region. Land use that emphasizes improved access to transit and other transportation alternatives can help to reduce congestion and transportation costs for residents throughout the region.
- 2) **Human Capital** – Investments in public transportation infrastructure help attract a talented workforce for communities and the region. Improved transportation access to employment centers is critical to support the regional investments being made in education and workforce development.
- 3) **Efficient Governance** – Coordinated efforts between municipal, regional, and state government on transportation and land use plans is essential to meeting the recommendations of the Go to 2040 Plan. Investments in transportation that transcend boundaries will improve economic vitality and environmental quality.
- 4) **Regional Mobility** – Improvements to economic, environmental, and quality of life conditions are dependent upon an expansion of the regional bus system and investments in Transit Oriented Development (TOD). Recommendations include an expansion of park-and-rides, high quality bus stations, and express service on the region’s multi-modal corridors, including I-90.

#### CMAP Land Use Policies and Strategies for Expressway-Based Bus Rapid Transit

This guide offers strategies for municipalities, transit providers, and transportation agencies to use when planning for land use around expressway-based bus rapid transit (BRT) systems. The report includes an introduction to the potential BRT projects in the region, as well as basics about BRT systems. The second section provides policies and strategies for BRT supportive land use in an expressway environment and pedestrian and bicycle connectivity.

#### Pace Vision 2020

The purpose of *Pace Vision 2020* is to improve efficient mobility throughout northeastern Illinois to meet the long range needs of the region by implementing new services and improved infrastructure. Improvements include expanding line-haul expressway/tollway routes to improve inter-suburban connections to transportation centers and major regional activity centers. Improved suburban mobility will assist in achieving local and regional transportation, economic and quality of life goals.

### Pace Transit Supportive Guidelines

Pace has prepared *Transit Supportive Guidelines* that serve as a foundation for municipalities to assess their regulations and standards in terms of how well they support transit service and access. The guidelines suggest how barriers can be eliminated from a front door, to the bus, and the final destination. The guidelines address both the public and private realm.

### Regional Transportation Authority Strategic Plan

The Strategic Plan outlines goals and objectives for creating a world-class regional public transportation system that provides connections to employment, increases accessibility, and encourages transit-oriented development. Recommendations include expanding service and targeting marketing efforts at suburban employers near transit stations to grow suburb to suburb commutes. Long-term efforts include partnering with real estate developers and municipalities to promote transit-friendly communities and investments in transit priority treatments, such as transit signal priority and bus-on-shoulder as a cost-efficient alternative to rail expansion.

## **2.4.2 Local**

### Hoffman Estates Comprehensive Plan

Hoffman Estates' Comprehensive Plan was drafted in 2007. At the time, the land use projections were optimistic and were based on the development trends and growth that were occurring in the greater Chicago area. Additional growth was also anticipated because of the potential for two new transit stations associated with the then planned suburban commuter rail called the Suburban Access Transit Route (STAR) Line. The primary themes explored in the Plan focus on ten key initiatives:

- Maintain Strong and Healthy Neighborhoods
- Maintain a High Quality of Life
- Enhance and Update the Retail Environment
- Ensure Quality Housing is Accessible
- Provide Transit Alternatives
- Provide Additional Civic Space
- Preserve Village History
- Encourage New Mixed use Development
- Support Community Resource Centers
- Maintain a Strong Office Market
- Ensure Environmental Sustainability

From a land use and zoning perspective, a vision was established to align with these initiatives and form strategies to address issues that were anticipated to impact development patterns, including vacant parcels, redevelopment of older residential and retail centers, and the implementation of mixed-use TOD. The future land use map reflects the latter by designating large mixed-use parcels surrounding the potential STAR Line stations at both Barrington Road/I-90 and Sutton Road/I-90.

### Hoffman Estates Comprehensive Bicycle Plan

Developed to expand opportunities for bicycle trips, objectives from the Bicycle Plan include providing crossings of the Tollway, providing connections between the Forest Preserves, and improving the Village bicycle network so that all residents are within ¼ mile of a bike facility. The plan identifies the Tollway as a barrier to network connectivity and recommends that bike crossings

be provided during the development of future transit stations. The plan identifies future projects including a bicycle path that parallels Central between Barrington Road and the existing path in the Paul Douglas Forest Preserve, a network of low-stress bike routes connecting the Highlands/High Point neighborhood to existing bike lanes on Hassell Road, and a Tollway crossing in the vicinity of Barrington Road, which was the most frequently requested improvement from the public during the development of the plan.

#### Village of Hoffman Estates Flexible Transit Service Operations Plan

In March 2013, the Village of Hoffman Estates released the Flexible Transit Service Operations Plan. The Regional Transportation Authority (RTA) and Pace supported this effort. The study followed up on recommendations contained in the Joint Transit Plan completed in 2003 for the Villages of Hoffman Estates, Village of Schaumburg, and Schaumburg Township. These recommendations focused on flexible service operations, such as ridesharing, employer shuttles, a taxi discount program, and demand respond services.

In addition, the plan reviewed recommendations from the Joint Transit Plan regarding new fixed route services along Hassell Road and Bode Road. For these two fixed routes, the Flexible Transit Service Operations Plan noted that current land use and population density in these corridors might not support fixed route bus service. Service improvements to route 610 River Road-Prairie Stone Express service were recommended to refocus the route as bi-directional, providing access to the proposed I-90 express bus service for Hoffman Estates residents destined for downtown Chicago. A new call-n-ride service was proposed to support the I-90 express bus service. The proposed call-n-ride area boundaries are I-90 on the north, Golf or Bode Road on the south, Barrington Road to the west, and Jones Road to the east.

#### Hoffman Estates Sustainability Plan (2013)

The Hoffman Estates Sustainability Plan identifies transportation sustainability as a key initiative to improve upon and specifically discusses the expansion of transit options on the Tollway corridor. The Village historically helped fund Pace Route 554 Elgin-Woodfield. Along with participation of other municipalities in the region, Pace has expanded service hours during the weekdays, initiated service on Saturday, and included Paratransit service. Pace now pays the entire cost of Route 554. Since 2011, ridership on Route 554 has increased by 130 percent.

### 3. Transit Service

#### 3.1. I-90 Transit Service

##### 3.1.1 Current

Current bus service on I-90 in the study area is limited to route 610 River Road-Prairie Stone Express. Route 610 provides weekday rush hour, bidirectional express service between the CTA Blue Line Rosemont Station and Sears at Prairie Stone Business Park. This route was originally focused on the reverse commuter, and service was westbound from the CTA Blue Line in the morning and eastbound in the evening. In August 2013, service in the peak direction was added to allow Hoffman Estates area residents the opportunity to ride route 610 to the CTA Blue Line in the morning and from the Blue Line in the evening. Eastbound commuters can park their vehicle at the Sears Centre Park-n-Ride, free of charge, and board route 610 for express service to the CTA Blue Line Rosemont Station. Route 610 also provides limited service (1 trip per direction per day) to Barrington Road. The fare on route 610 is the standard Pace fare of \$1.75 for a full fare and 85 cents for a reduced fare<sup>1</sup>. Transfers cost 25 cents with the use of a Ventra card. Transfers are not granted for cash fare payment.

Average weekday ridership on route 610 in the month of October 2015 was approximately 455 daily passengers. This is a loss of approximately 18 percent as compared to October 2014. This loss is attributable to several factors including modification of work schedules, changes in commute patterns and staff reductions. However, the long term ridership trend has been positive. Service characteristics for route 610 are shown in **Table 1**.

Table 1 – Route 610 Service Characteristics	
Days of Service	Weekday
Hours of Service (approximate)	5:45 am - 9:30 am and 3:00 pm - 7 pm
Frequency	20 minutes

##### 3.1.2 Future

Following successful implementation of bus on shoulder operations on I-55, Pace and the Illinois Tollway are proceeding with plans for express bus service on I-90. Improvements will include wider inside lanes and shoulders to handle bus traffic, flexibility to permit bus on shoulder operations when needed, and new park-n-ride facilities at Randall Road, Illinois Route 25, and Barrington Road. These will be the first park-n-ride lots ever constructed on the Tollway system. Pace will take advantage of these improvements by implementing new express bus service on the Tollway connecting the park-n-ride lots, major employers, retail centers, the CTA Blue Line and Pace hubs in Rosemont and Schaumburg.

#### Illinois Tollway I-90 Expansion and Barrington Road Interchange

The Illinois Tollway is building a new, \$68 million interchange to facilitate travel in all directions to and from Barrington Road and I-90. Construction of this new interchange also will provide access to the Barrington Road Station. Construction currently is underway and is expected to be completed in 2016.

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<sup>1</sup> “Reduced fares are available to customers who present a Reduced Fare Permit when boarding, grammar school ID, or high school ID. The RTA Reduced Fare Permit is available to senior citizens and persons with disabilities, and has the appropriate entitlement already applied to the rider’s Ventra account.” Source: [www.pacebus.com](http://www.pacebus.com)

The Illinois Tollway is rebuilding and widening the Tollway as a 21st century, state-of-the-art corridor linking Rockford to Chicago O'Hare International Airport. The partial interchange at Barrington Road, which only has access to and from the east, is being reconstructed and reconfigured to provide a full-access interchange. In addition, the project includes construction of a multi-use bicycle and pedestrian path.

**Figure 4** shows the layout of the interchange, the Barrington Road Station, and the location of pedestrian and transit improvements. To improve connectivity to both sides of I-90, a pedestrian overpass is serving transit customers is to be built.

I-90 Express Bus Service

The I-90 construction improvements at Barrington Road include an express bus stop, a park-n-ride lot for approximately 150 to 175 vehicles north of the Tollway, a kiss-n-ride lot south of the Tollway, a bike path along Barrington Road, and grade separated bike/pedestrian paths connecting local streets to the bus stop.

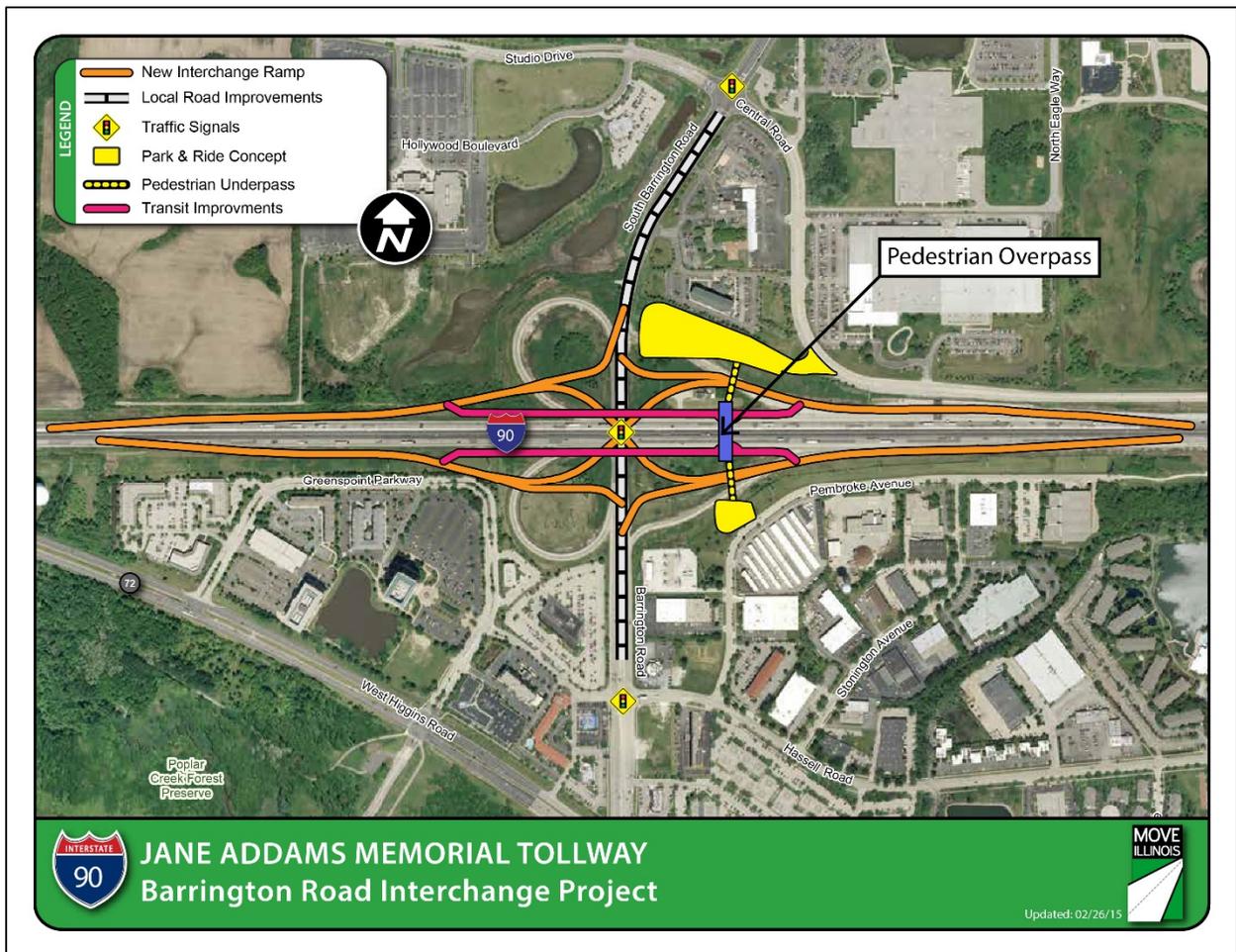


Figure 4 - Jane Addams Memorial Tollway Barrington Road Interchange Improvement Diagram  
Source: Illinois Tollway

Route 610 will not serve the Barrington Road Station and will continue to serve existing park-n-ride lot at Sears Centre and the Prairie Stone Business Park. Two new express bus routes, 605 and 607, will serve the new Barrington Road Station. Both routes will provide bidirectional express service along I-90. Route 605 will operate between the Randall Road Park-n-Ride in Elgin and the CTA Blue Line Rosemont Station. Route 607 will operate between the Randall Road Park-n-Ride in Elgin and the Northwest Transportation Center near Woodfield Mall. Bus routes are shown in **Figure 5**.

These new express bus routes will not leave the Tollway right-of-way to serve the Barrington Road stop, but will utilize special lanes along the Tollway to access the stop. Boarding passengers at the Barrington Road stop may travel west to Illinois Route 25, or Randall Road; but they are more likely to travel east to the Northwest Transportation Center via route 607 or to the CTA Blue Line via route 605. Pace riders may access the express bus stop by automobile, bicycle or by foot. Determining the suitability of connecting bus service at Barrington Road is the subject of this study. Service characteristics for routes 605 and 607 are shown in the **Table 2**.

Table 2 – Service Characteristics, Proposed Routes		
Proposed Route	Days of Service	Frequency (minutes)
605 Randall Road Elgin-Rosemont Express	Weekday	15-20 minutes peak 30 minutes off-peak
	Saturday	30 minutes all day
607 Randall Road Elgin-Schaumburg	Weekday	30 minutes all day
	Saturday	30 minutes all day

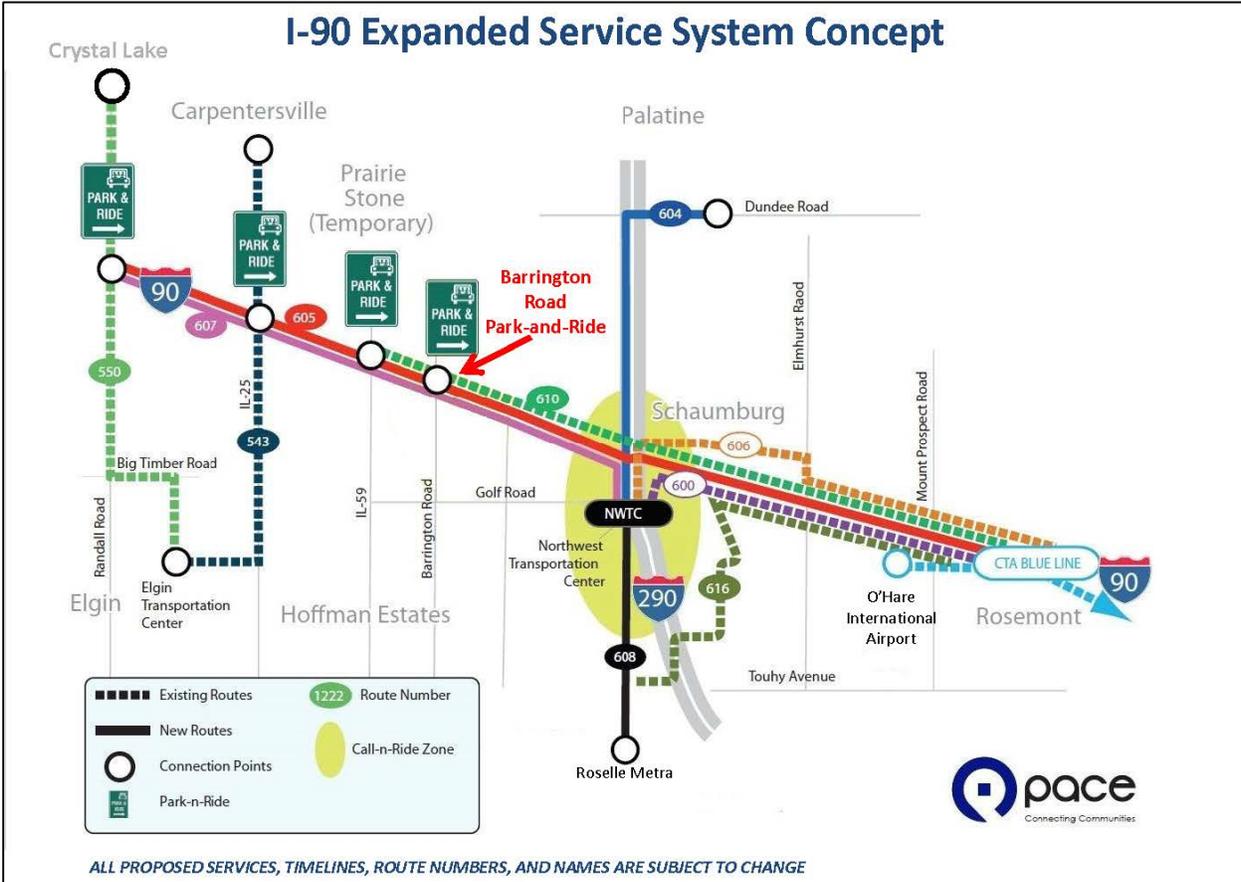


Figure 5 - I-90 Expanded Service System Concept Diagram  
Source: Pace

### 3.2. Local Transit Service

There is no local bus service in the immediate vicinity of the planned Barrington Road Station. The closest local bus route is the 554 Elgin-Woodfield route, which operates approximately one mile to the south, serving St. Alexius Medical Center. **Table 3** shows the service characteristics for route 554.

Route	Days of Service	Hours of Service (approximate)	Frequency (minutes)
554 Elgin-Woodfield	Weekday	6:00 a.m. - 6:30 p.m.	30 minutes peak 60 minutes off-peak
	Saturday	6:30 a.m. - 5:00 p.m.	70 minutes all day

Between 2001 and 2011, route 557 “The Hot Line” Barrington Corridor operated in the study area on Barrington Road connecting employers located near I-90, (ADP, AT&T, Claires, and Siemens), with the Barrington Metra Station. Route 557 focused on Metra reverse commuters providing two trips in the morning and two in the afternoon. Service was partially subsidized by Pace and participating employers. Average weekday ridership peaked in 2005 with approximately 75 passengers per weekday, but gradually declined. In March of 2011, the subsidy was discontinued and the route was eliminated. At that time weekday ridership averaged 40 passengers per day.

The ten-year trend of average weekday ridership for routes 554, 557 and 610 is shown in **Figure 6**. Ridership on route 554 has increased significantly since 2010, and ridership on route 610 has risen steadily over the years.

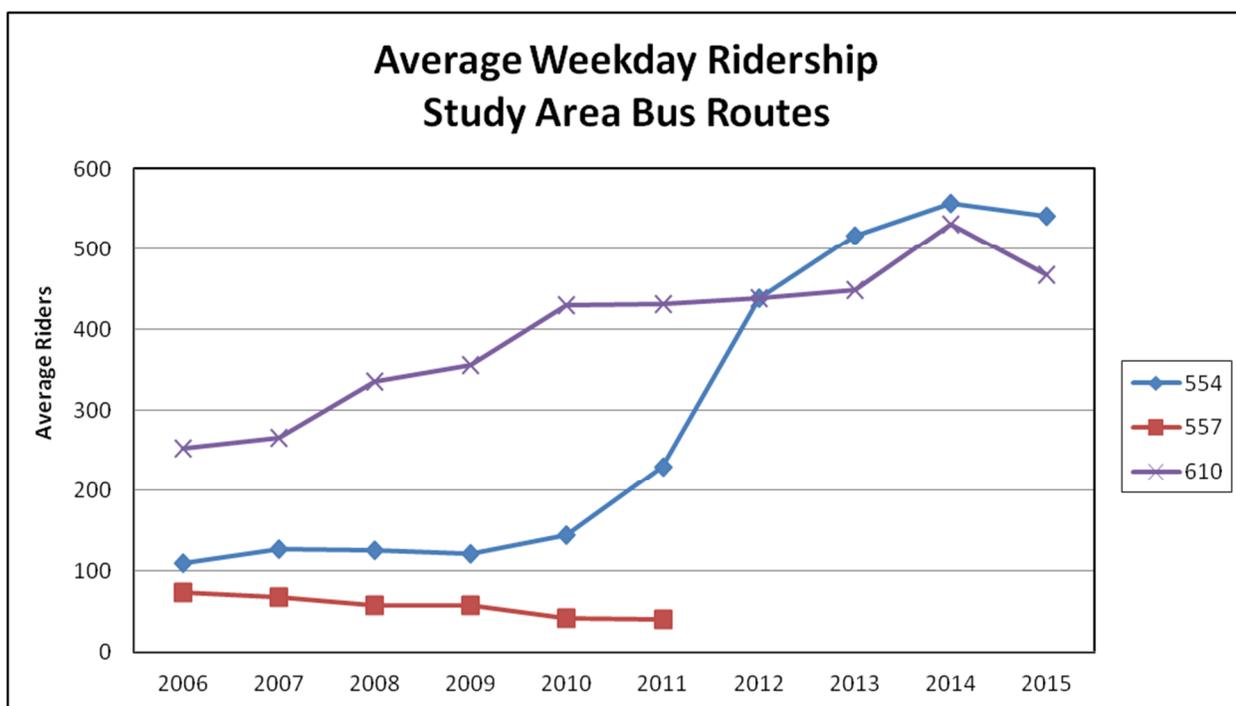


Figure 6 – Average Weekday Ridership, Study Area Bus Routes  
Source: Pace

### 3.3. Barrington Road Station Layout

As shown in **Figure 7**, the Barrington Road Station includes a pedestrian bridge over I-90 and tunnels under the interchange ramps to connect the bus stops to the park-n-ride and kiss-n-ride. The express bus stop platforms in **Figure 7** are located along the side of I-90, which will feature a bus-only pull out lane for buses traveling in each direction. This design facilitates boarding and alighting

passengers without buses having to exit I-90, thereby improving transit speeds. Pedestrian underpasses, shown in yellow in the diagram, provide access to the bus station platforms and separate pedestrians from vehicular traffic entering or exiting I-90 at Barrington Road. A pedestrian overpass provides passengers with the ability to cross I-90. Barrington Road will have sidewalk on the west side and a bicycle path on the east side. The pedestrian overpass will be approximately 600 feet east of Barrington Road as indicated in **Figure 7**.

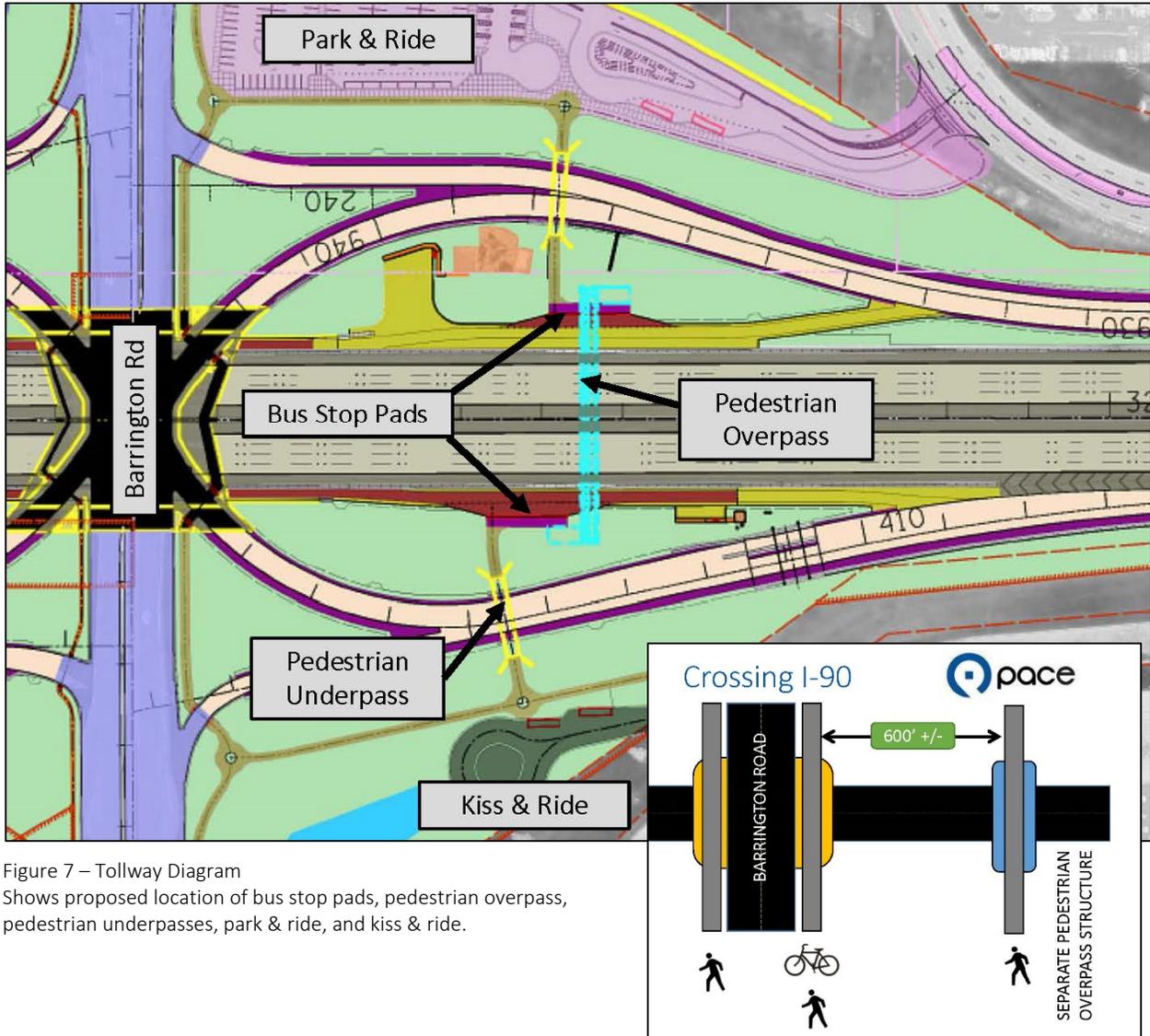


Figure 7 – Tollway Diagram  
Shows proposed location of bus stop pads, pedestrian overpass, pedestrian underpasses, park & ride, and kiss & ride.

## 4. Land Use and Transportation Conditions

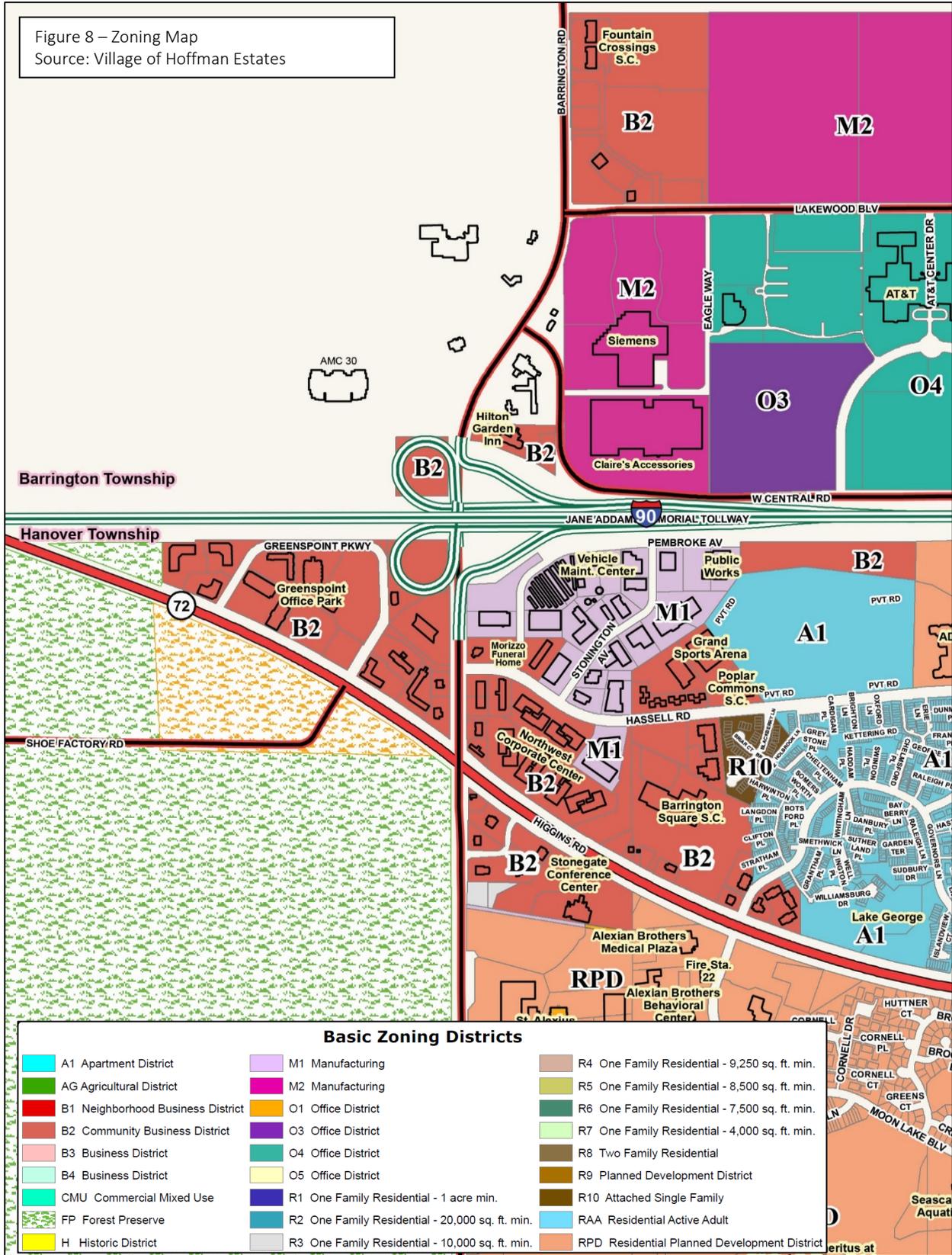
### 4.1. Land Use

In the Barrington Road Station study area, the Village of Hoffman Estates' future land use map envisions large opportunity sites of office/retail mixed use on the north side of the Tollway. The plan narrative also describes the potential for high-rise and mid-rise residential development in this area. On the south side of the Tollway, the plan discusses the potential for redevelopment with additional townhomes and multifamily housing, adding density and a variety of new housing options.

The existing zoning map shown in **Figure 8** consists of four zoning districts on the north side of I-90, including M2-Manufacturing, O3-Office, O4-Office, and B2-Community Business. On the south side of the Tollway, there are an additional five districts within a mile of the station, including M1-Manufacturing, A1-Apartment District, RPD-Residential Planned Development District, R4-One Family Residential (9,250 square feet minimum), and R10-Attached Single Family. As such, the north and south side of I-90 have been developed in contrasting patterns. The north half includes large zones and parcels that have created a mixture of manufacturing and office uses within big building footprints in a campus-like environment. The southern portion includes a wider variety of uses including the Village Hall, public works facility, industry, a smaller scale corporate center, a mix of office and commercial uses, apartments and single-family homes. The parcels are smaller and the transitions between land uses more frequent.

The current zoning map for the study area does not include a district such as the CMU-Commercial Mixed Use classification that would encourage transit oriented development (TOD) around the future Barrington Road Station. TOD is compact, walkable, mixed-use communities clustered around a transit hub. Rather, the current zoning regulations in this area are conducive to the segregation of land uses in single-use buildings, as evidenced by the existing land use character in the study area. As a result, the existing zoning designations hinder the realization of the Comprehensive Plan's vision to develop denser, mixed-use areas around its transit stations. To achieve this vision, amendments to current zoning will be required that balance the need to modify existing land use patterns without negatively impacting successful developments in the surrounding area. One option to consider is the establishment of an overlay district, which has the capacity to incentivize new development more appropriately in line with the stated vision, without fundamentally changing underlying zoning designations. An added benefit of this approach is that it enables market forces to drive new development incrementally.

Figure 8 – Zoning Map  
 Source: Village of Hoffman Estates



Basic Zoning Districts		
<span style="color: cyan;">■</span> A1 Apartment District	<span style="color: purple;">■</span> M1 Manufacturing	<span style="color: brown;">■</span> R4 One Family Residential - 9,250 sq. ft. min.
<span style="color: green;">■</span> AG Agricultural District	<span style="color: magenta;">■</span> M2 Manufacturing	<span style="color: olive;">■</span> R5 One Family Residential - 8,500 sq. ft. min.
<span style="color: red;">■</span> B1 Neighborhood Business District	<span style="color: orange;">■</span> O1 Office District	<span style="color: darkgreen;">■</span> R6 One Family Residential - 7,500 sq. ft. min.
<span style="color: brown;">■</span> B2 Community Business District	<span style="color: purple;">■</span> O3 Office District	<span style="color: lightgreen;">■</span> R7 One Family Residential - 4,000 sq. ft. min.
<span style="color: pink;">■</span> B3 Business District	<span style="color: teal;">■</span> O4 Office District	<span style="color: brown;">■</span> R8 Two Family Residential
<span style="color: lightblue;">■</span> B4 Business District	<span style="color: yellow;">■</span> O5 Office District	<span style="color: darkbrown;">■</span> R9 Planned Development District
<span style="color: cyan;">■</span> CMU Commercial Mixed Use	<span style="color: blue;">■</span> R1 One Family Residential - 1 acre min.	<span style="color: darkblue;">■</span> R10 Attached Single Family
<span style="color: green;">■</span> FP Forest Preserve	<span style="color: teal;">■</span> R2 One Family Residential - 20,000 sq. ft. min.	<span style="color: lightblue;">■</span> RAA Residential Active Adult
<span style="color: yellow;">■</span> H Historic District	<span style="color: grey;">■</span> R3 One Family Residential - 10,000 sq. ft. min.	<span style="color: orange;">■</span> RPD Residential Planned Development District

## 4.2. Transit Oriented Development

As previously noted, Hoffman Estates' current Comprehensive Plan was drafted in 2007. A major component of the plan focuses on TOD. At the time, a suburban commuter rail line between Joliet and Chicago O'Hare international Airport called the Suburban Transit Access Route, or STAR Line, was in the planning stages and was expected to have a major impact on Hoffman Estates. The Comprehensive Plan addresses the impacts STAR Line and subsequent TOD would have on the Village, and anticipated the creation of a new overlay zoning district to accommodate mixed-use development. The vision included high-rise buildings, groups of mid-rise buildings, and townhomes ringing a series of new open spaces and plazas. An entire section of the plan was dedicated to the benefits and impacts TOD would have, including the possibility that a new "Village Center" would be created around one of the STAR Line/Metra transit stations.

Hoffman Estates is currently working with Pace to implement express bus service and a park and ride station at Barrington Road and the Northwest Tollway. The new express bus station could enable TOD within the station area. Express bus service in this location will provide increased regional access to jobs, shopping, and housing options, and serve as a suitable anchor for potential mixed-use TOD. However, it is important to note that the development market today is much more conservative compared to 2007 and, therefore, TOD around the station would most likely be a scaled-back version of the vision that was originally depicted. Given the realities of slower or more limited growth, new higher-density development should be targeted for strategic locations where it will have the greatest possible impact. In addition, current real estate market conditions suggest that fewer high rises should be expected than originally envisioned and new residential development will most likely include a greater focus on rental units versus owner-occupied options.

Overall, the new circumstances described above are generally consistent with the vision portrayed in the Comprehensive Plan, and still align with many of the ten key initiatives outlined within it. Most notably, the new express service and dedicated station facility will create opportunities for quality housing, provide additional civic space, serve as a catalyst for new mixed-use development, and contribute to environmental sustainability. The following sections summarize how the implementation of an express bus station with park-and-ride facilities aligns with and promotes the Comprehensive Plan vision.

## 4.3. TOD Zoning Analysis

Often one of the major obstacles to TOD is zoning. Many suburban communities, especially if their zoning ordinance is older, do not have provisions for developing compact, mixed-use neighborhoods. Hoffman Estates' zoning ordinance has a Commercial Mixed-Use District (C-MU) that allows "moderate- to high-intensity, mixed-use development" "intended to serve a neighborhood, community and/or regional market." This zoning district appears to have been created with the intention of forming a traditional Village Center with a mixture of complementary land uses including housing, retail, offices, commercial services, and public/civic uses. This district allows multifamily housing up to 125 feet in height and includes a number of provisions to encourage compact, walkable development that promotes "economic and social vitality" with a strong emphasis on density, transit, and meaningful public space. Having this zoning classification already established is a benefit to the Village and the prospects of creating TOD.

Currently, the CMU zoning classification is only found around the Higgins and Sutton Road intersection, and development has not yet taken full advantage of the district's potential. To promote TOD around the Barrington Road Station, the zoning map would need to be modified to include an overlay district like the CMU district.

#### **4.4. TOD Benefits**

Pursuing a TOD strategy around the Barrington Road Station would have a number of benefits as discussed below.

##### Ensure Quality Housing is Accessible

The existing land use pattern within the Station Area south of the Tollway includes several clusters of apartment buildings and attached homes. New TOD would expand upon this existing supply of multi-family housing options within the Station Area, helping to further diversify the Village's housing stock. Providing a variety of housing options will allow Hoffman Estates to appeal to a broader demographic spectrum, and offers a range of price points for both for-sale and rental housing. It helps attract recent college graduates, young professionals, families, as well as empty nesters and more mature demographic groups.

##### Providing Additional Civic Space

Civic spaces are integral to the creation of valuable communities. The Comprehensive Plan shows a number of examples of village greens, pocket parks, plazas, and landscaped streetscapes. These are examples of "placemaking" that should be considered as any new mixed-use development is implemented, even if the development ultimately is not as dense or grandiose as the previous vision.

##### Encouraging New Mixed-Use Development

One of the primary goals that the Comprehensive Plan recommended was to modify the Village's land use pattern, which consists of single family neighborhoods and single use retail and office centers located along arterial roadways. The potential of a transit hub located in the Village provides opportunities to re-evaluate and envision a mixed-use development that can be the catalyst for economic development. The Barrington Road Station offers the same opportunities, which can be incentivized by establishing a zoning overlay district that supports a vertical mix of uses, a balanced street system that promotes walking and biking, and fosters a high-quality physical environment. By encouraging mixed-use development, the Village can consolidate housing, shopping, jobs, and entertainment into a new neighborhood—one that is within walking distance to the Barrington Road Station.

##### Ensuring Environmental Sustainability

An indirect benefit of TOD is how it contributes to creating healthy, sustainable communities. TOD espouses a development pattern that reduces automobile emissions, conserves land, encourages walking, and emphasizes central green spaces and tree-lined streets; in short, TOD promotes sustainability through good planning and design.

##### Summary

The Barrington Road Station provides Hoffman Estates the opportunity to revisit the concept of mixed-use TOD, albeit at a scaled-back version than the vision outlined in the Comprehensive Plan. The benefits of such a development extend beyond a purely physical manifestation that includes

buildings, streets, and parks; TOD also has the potential to enhance the Village's economy, as well as improve the quality of life for current and future residents.

#### **4.5. South Barrington**

The South Barrington 2005 Report (dated July 16, 1992) only includes 2 pages on the desired land use vision for the Village. The Plan acknowledges the Village's land use policy is at odds with Hoffman Estates and reiterates that they do not have the propensity to encourage high-density or high intensity development within Village limits. Instead the Plan promotes the large-scale low density residential around which the Village's character was built. No documentation, including the Village zoning map as described, has since shown a shift in this thinking.

The existing zoning map for South Barrington contrasts with that of Hoffman Estates. Within the study area, there are essentially five districts, including Manufacturing, Office/Research/Special Use, Governmental Use, Limited Office, and two Single Family Residential districts. The residential districts are extremely low density estate lots with minimums of 2.5 acres and 5 acres per lot. The Limited Office designation is intended to be a transitional zone between the residential neighborhoods and property across Barrington Road to the east, which is in Hoffman Estates. The Government Use zone is intended for public structures and is the location of the Village Hall. The Office/Research/Special Use district was established to allow the development of large office, entertainment, or hotel structures. This district is located near the Northwest Tollway. Finally, the Manufacturing district is a relatively small area on the east side of Barrington Road that allows a range of manufacturing, industry, and commercial uses. In summary, South Barrington's zoning structure and desired future land use do not align with the principles of transit supportive development.

Most of the parcels located in South Barrington within the Barrington Road Station Area are built out and would contribute commercial and entertainment options and a limited number of jobs. The existing land use mix consists of some restaurants, a movie theater, a series of professional office spaces, and a few banks. Adjacent to the movie theater, there are some outlot retail parcels yet to be developed that could end up being restaurants or entertainment. However, the Village of South Barrington's policies regarding the development of high density housing and/or mixed-use development hinders the exploration of traditional TOD, such as that desired by Hoffman Estates.

#### **4.6. Surrounding Roadways**

The study area is divided into four quadrants due to major roadways, I-90 and Barrington Road, which create barriers to bicycle and pedestrian movement. The land use characteristics in each of these quadrants is also different as previously described.

I-90 is the responsibility of the Illinois Tollway. Barrington Road is under the jurisdiction of IDOT and also is identified as a Strategic Regional Arterial (SRA), which indicates that it is part of a regional network of major roadways to provide regional connectivity in complement to the interstate system. These other major roadways are shown in **Table 4** and **Figure 9** along with their jurisdiction, current and year 2040 projected and average daily traffic (ADT).

Table 4 – Roadway Jurisdiction and Average Daily Traffic			ADT	
Road	From/To	Jurisdiction	Current	2040 <sup>1</sup>
Barrington Road	Central to I-90	IDOT	30,900	45,000
	I-90 to Hassell		38,100	56,000
Lakewood Boulevard	West of Barrington Rd.	Village of Hoffman Estates	1,200	2,000
	East of Barrington Rd.		3,500	4,000
Central Road	West of Barrington Rd.	Cook County	2,300	3,000
	Barrington to Huntington		6,600	7,000
Hassell Road	Barrington to Huntington	Village of Hoffman Estates	10,700	12,000
Higgins Road	West of Barrington Rd.	IDOT	31,500	41,000
	East of Barrington Rd.		29,700	32,000

1) Year 2040 ADT provided by the Chicago Metropolitan Agency for Planning for the Village of Hoffman Estates Technical Memorandum on Traffic Projections for the Barrington Road Interchange project. December 2012.

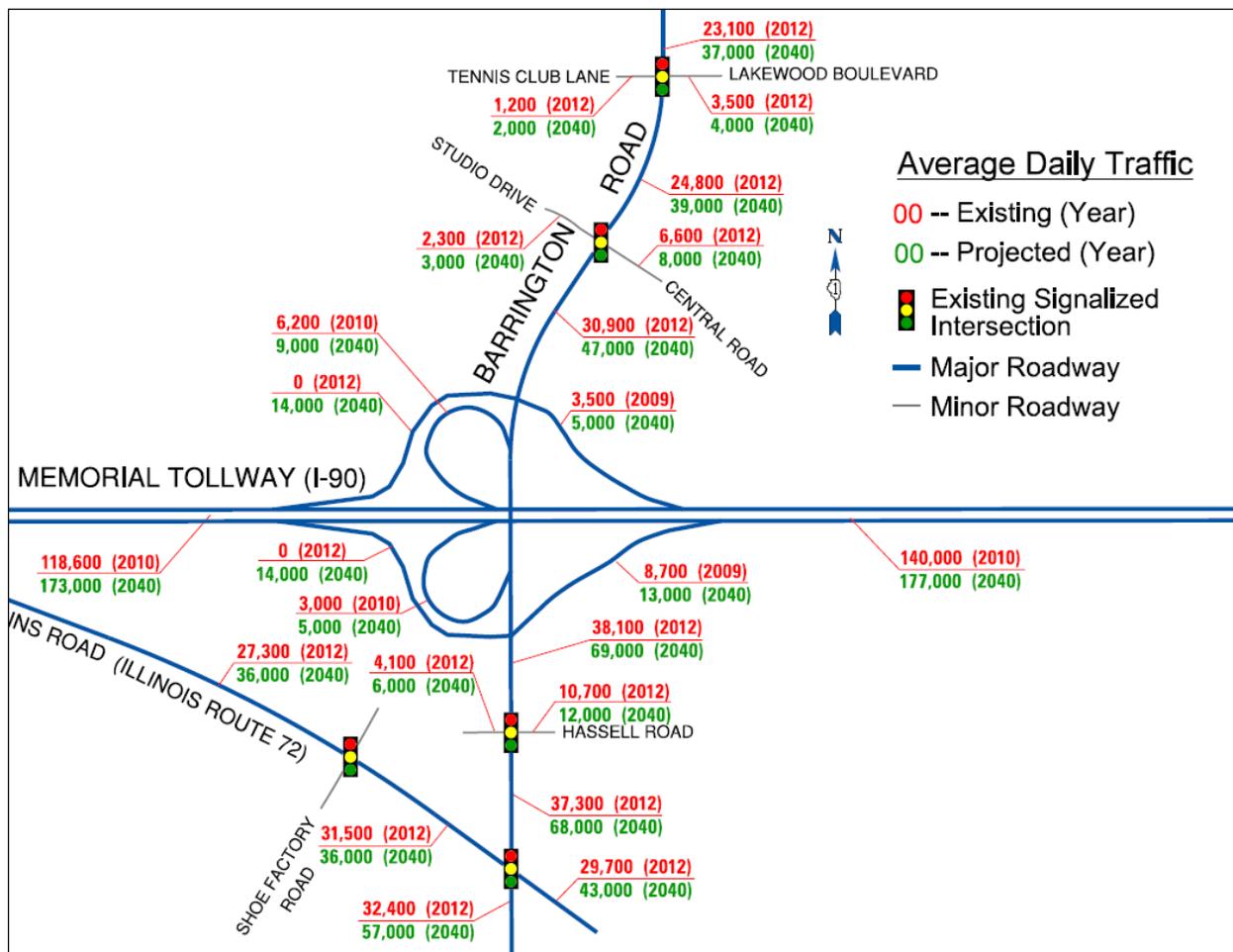


Figure 9 – Average Daily Traffic Projection Map.

Source: Technical Memorandum on Traffic Projections for FAP Route 0362 Barrington Road Interchange at Jane Addams Memorial Tollway (Interstate 90), Cook County. Prepared for the Village of Hoffman Estates by Crawford, Murphy, and Tilly, Inc. December 2012. [Note, the diagram shows a different design than final plans indicate; however all-way access is preserved and traffic projections remain consistent.]

## 4.7. Planned and Programmed Roadway Improvements

### IDOT Improvements

In the vicinity of this interchange, local roadway improvements will include the widening of Barrington Road. From I-90 south to Hassell Road, Barrington Road will expand from six to eight lanes, and from I-90 north to Central Road/Studio Drive, Barrington Road will expand from four to six lanes. Sidewalks are planned along the perimeter of the Barrington Road Station site, and a pedestrian overpass will connect the kiss-n-ride portion of the side on the south side of I-90 with the larger park-n-ride on the north side of I-90. Vehicular access to Barrington Road Station will be via Central Road north of I-90 and via Pembroke Avenue south of I-90.

The only other IDOT planned improvements through 2021 within the study area involves patching, resurfacing, and an accessibility ramp improvements along Algonquin Road (IL 62) between Penny Road and Roselle Road<sup>2</sup>. All of this work is anticipated for completion in 2016.

### Cook County Highway Improvements

Central Road is being reconstructed from Ela Road to Roselle Road in 2016. This section of Central Road is located a half mile east of the study area.

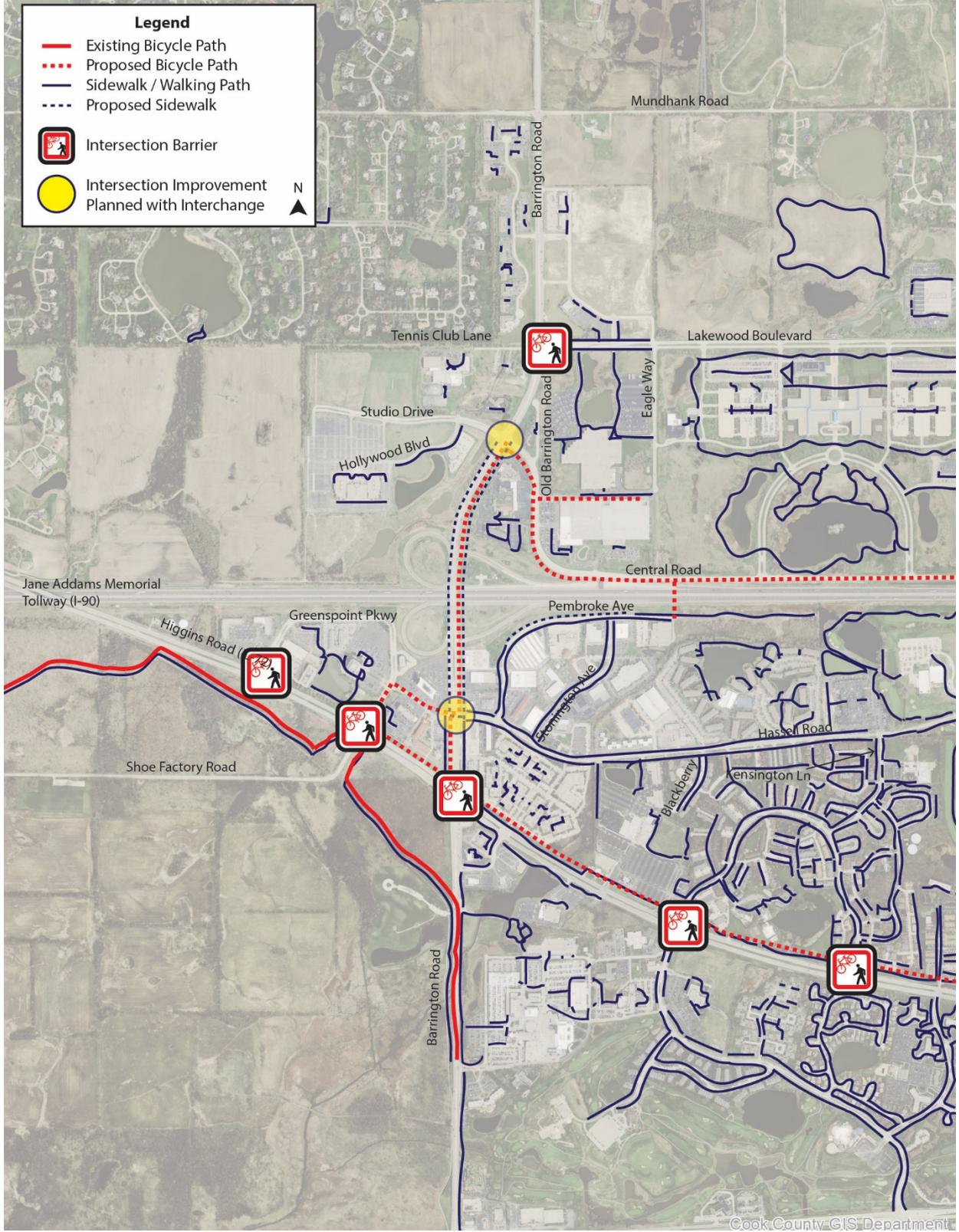
## 4.8. Pedestrian Network Assessment

Sidewalks, pedestrian crossings, and traffic control devices were reviewed to determine the size and connectivity of the existing walkable area. **Figure 10** on the following page shows the bicycle and pedestrian circulation network. As shown in the figure, the pedestrian network contains gaps that limit connectivity across major roads, at intersections, and shows developments that are difficult to access as a pedestrian.

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<sup>2</sup> Source: IDOT FY 2016-2021 Highway Improvement Program.

Figure 10 – Bicycle and Pedestrian Facilities Map



Cook County GIS Department

The spacing and design of intersections play a major role in the connectivity of a transportation network, and large intersections can be barriers to walking and bicycling. Intersection barriers were identified where one or more of the following conditions were observed:

- Signalized intersections without pedestrian signal heads or pedestrian push buttons
- Signalized or unsignalized intersections without marked crosswalks
- Signalized or unsignalized intersections with crossings more than four lanes wide without a pedestrian refuge
- Intersections with free-flow right turns

For a more detailed review of the pedestrian network, the study area was split into northwest, northeast, southeast and southwest quadrants centered on I-90 and Barrington Road.

### Northwest

The pedestrian network in the northwest quadrant is primarily the responsibility of the Village of South Barrington and includes Hollywood Boulevard, Studio Drive, Tennis Club Lane, and the west side of Barrington Road. When the I-90 Barrington Road interchange project is completed, sidewalks will be constructed on the west side of Barrington Road between Hassell Road and Central Road. Studio Drive does not have sidewalks. Hollywood Boulevard has sidewalks on the south side of the road which provides access to the Lucky Monk Restaurant, the South Barrington AMC Theatres, and BMO Harris Bank.

Tennis Club Lane, which provides access to the South Barrington Club and the South Barrington Police Department, does not have sidewalks. The intersections of Barrington Road with Tennis Club Lane and Studio Drive/Central Drive are signalized. Currently, there are no pedestrian signal heads nor pedestrian crossings, but the Central Road intersection will include pedestrian signal heads when construction on Barrington Road is complete. The two photographs below are representative of typical sidewalk conditions in this quadrant; there are no marked crosswalks in the area.



Above Left: Hollywood Boulevard facing southwest toward the AMC theaters has sidewalks on the south side of Road.  
Above Right: Hollywood Avenue facing north toward Studio Drive.

## Northeast

The pedestrian network in the northeast quadrant consists of Central Road, Eagle Way, Old Barrington Road, Lakewood Boulevard, and the east side of Barrington Road north of I-90. Lakewood Boulevard has sidewalks between Barrington Road and Eagle Way. Old Barrington Road does not have sidewalks and end in a cul-de-sac at the Hoffman Estates Animal Hospital.

Eagle Way separates Siemens Healthcare from AT&T and does not have sidewalks. Siemens and AT&T have extensive internal pedestrian circulation networks, but these do not connect out to the main roadways. Central Road provides access to Claire's Boutique Midwest Distribution Center, but does not have sidewalks. The intersection of Barrington Road and Lakewood Boulevard is signalized, it has sidewalks on the northeast and southeast corners, but does not have marked crosswalks or pedestrian signal heads. Typical roadways and sidewalk gaps for this quadrant are shown in the following two photographs.



Above left: Looking east from Old Barrington Road, sidewalk on Siemens Healthcare site terminates on private property. Above right: Old Barrington Road, looking south toward Central Road, has no sidewalks.

### Southeast

The southeast quadrant contains the densest roadway network and includes Hassell Road, Pembroke Avenue, Stonington Avenue, Blackberry Lane, Governors Lane, Kensington Lane, Higgins Road, and the east side of Barrington Road south of I-90. Stonington, Huntington, Kensington, and Blackberry have sidewalks on both sides. Hassell Road has sidewalks on both sides of the road as well as bike lanes.

Pembroke has sidewalks on both sides except for an undeveloped segment on the north side of the road adjacent to I-90. When the kiss and ride is completed on the south side of I-90, sidewalks will be constructed on the north side of Pembroke Avenue to the kiss and ride entrance drive. Typical roadway and sidewalk conditions are shown in the following two photographs.



Above left: Looking west on Pembroke Avenue near the Hoffman Estates Public Works Facility. The sidewalks at this location are located only on the south side since the kiss and ride has not yet been constructed. Above right: Sidewalks are located on both sides of Hassell Road and bike lanes are located on both sides of the road from Pembroke Avenue to just east of Huntington Boulevard.

## Southwest

The southwest quadrant includes the privately owned portion of Hassell Road west of Barrington Road, the west side of Barrington Road south of I-90, Greenspoint Parkway, Higgins Road, and a series of internal circulation drives for various office and commercial developments.

Sidewalks are located on the west side of Barrington Road between Hassell Road and Higgins Road. There are sidewalks on the north side of Higgins Road between Greenspoint Parkway and Barrington Road. However, Greenspoint Parkway only has sidewalks from its eastern intersection with Higgins Road to the first commercial drive (Hyatt, Clover Technologies). Pedestrian crosswalks are marked on all four legs at the intersection of Barrington Road and Hassell Road, and three of the legs are marked at the intersection of Higgins Road and Greenspoint Parkway / Shoe Factory Road.

There is an internal pedestrian circulation network connecting the Hampton Inn & Suites, Omron Electronic Components, and AccuQuest Hearing Centers properties. No other roadways within this quadrant contain sidewalks or marked crosswalks. However, a new sidewalk will be installed along both sides of Barrington Road with the interchange project from Hassell Road to Central Road.



Above left: Internal circulation drive looking north. Above right: Hassell Road looking east toward Barrington Road.

### Barrington Road Station Pedestrian Network

Proposed improvement plans were reviewed for the pedestrian network on Barrington Road and at the Barrington Road Station. **Figure 11** shows the planned pedestrian network for the station area. The only east-west crossings of Barrington Road will be at Central Road and Hassell Road. These intersections are approximately 5/8-mile (3,300 feet) apart. Thus, Barrington Road will continue to be a barrier to east-west travel for walking and bicycling.

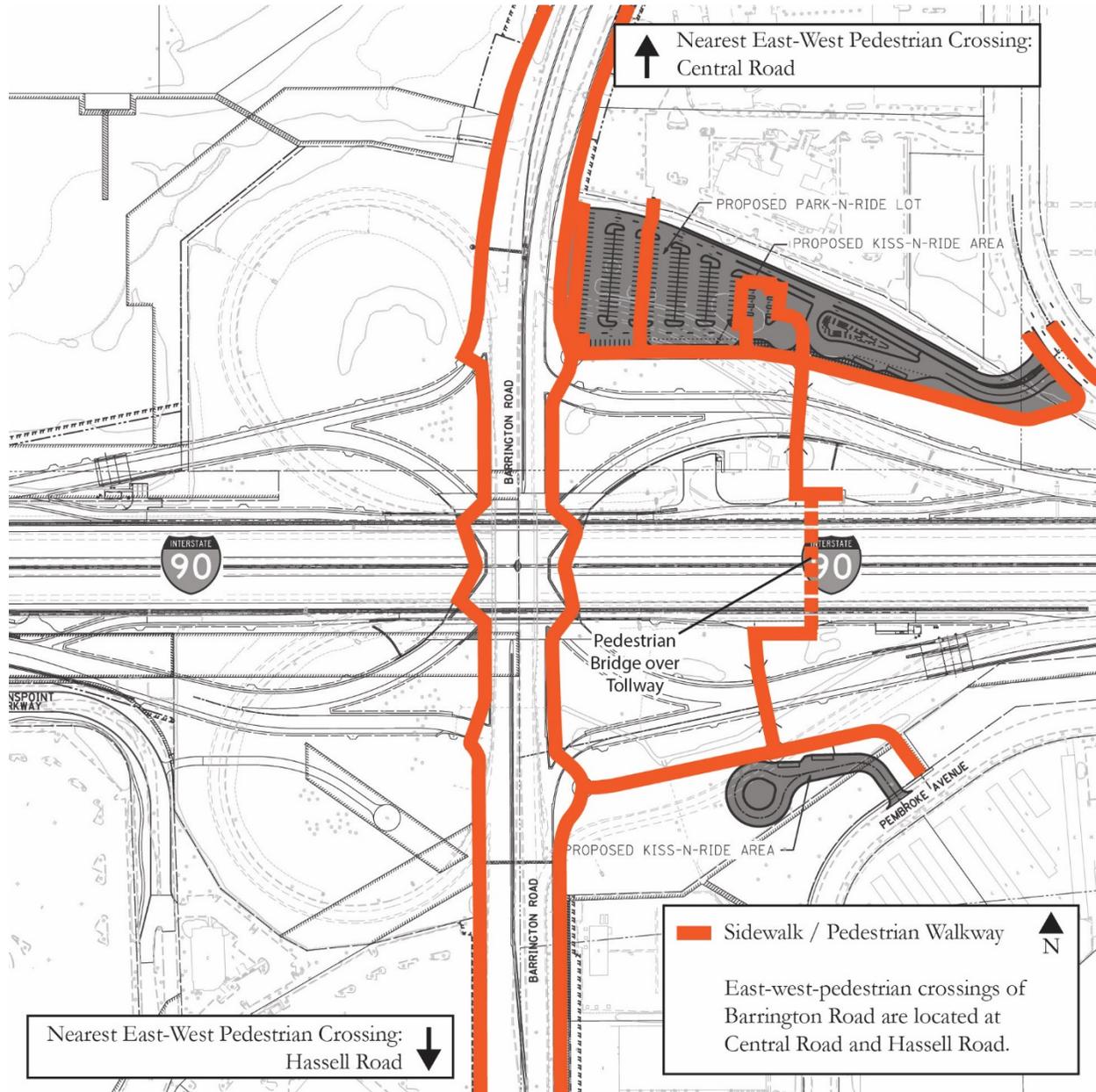


Figure 11 - Barrington Road Park-n-Ride Facility Overview. Not to scale. Source: Pace

## 4.9. Bicycle Network Assessment

The Village of Hoffman Estates Comprehensive Bicycle Plan identifies a combination of on-street bike lanes, on-street bike routes, and off street trails in the area surrounding the Barrington Road Station (see **Figure 12**). Included in the network is the proposed bike path on the east side of Barrington Road over I-90.

Local bicycle facilities will require coordination. Cook County has jurisdiction over Central Road, while Hoffman Estates controls Hassell Road and Pembroke Avenue. The figures below show planned and programmed bicycle improvement near and around Barrington Road and I-90. Estimated construction dates are shown for each improvement.

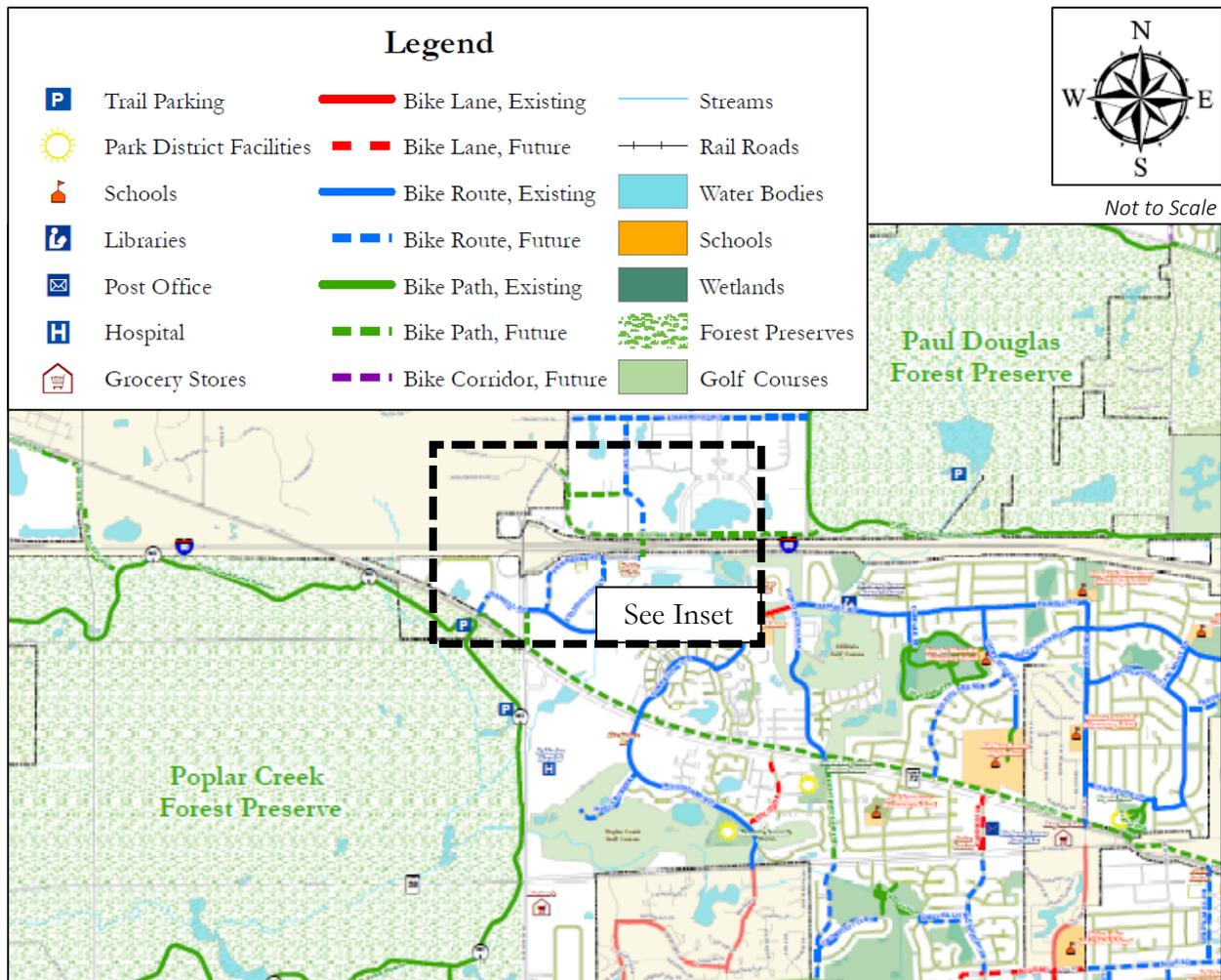
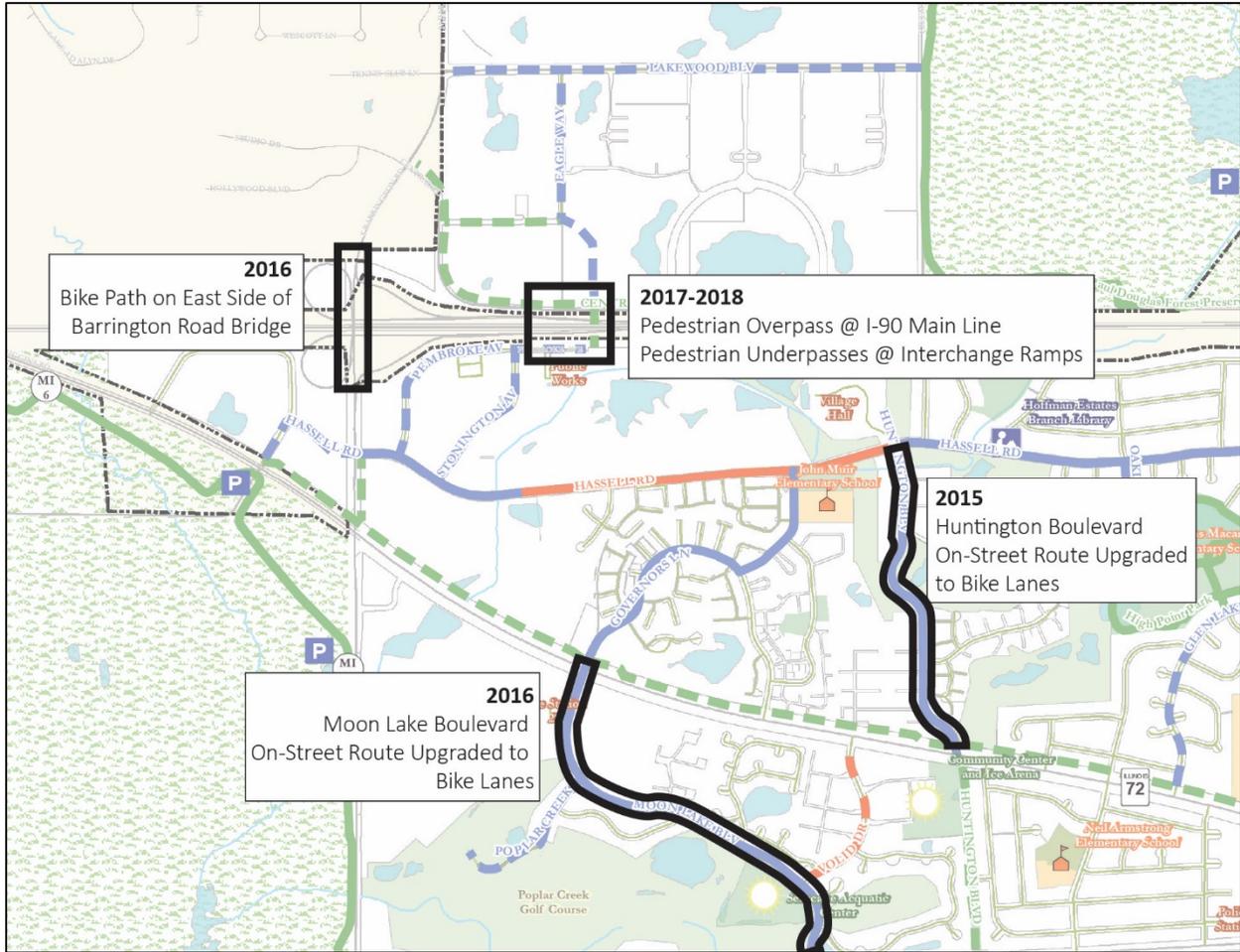


Figure 12 – Hoffman Estates Bicycle Plan Map.



Village of Hoffman Estates Bicycle Plan Map (inset)

The development of bicycle facilities over I-90 will provide a critical link within the bicycle network and connect trails within the Shoe Factory Woods, Poplar Creek, and Paul Douglas Forest Preserves.

## 5. Population and Employment Analysis

Demographic and socio-economic data are important indicators for determining what type of public transportation service will be beneficial and to identify geographic areas with highest potential for transit use. The Barrington Road Station will serve commuters using I-90 express bus service to access jobs in the study area and residents who make trips to other locations. The Hoffman Estates Flexible Transit Service Operations Plan identifies the area surrounding Barrington Road and I-90 as having potential to support public transit due to a high concentration of jobs that employ workers living throughout the region and a demographic of Village residents that are more likely to support public transportation.

### 5.1. Destination Trips

“On the Map” is a U.S Census web-based reporting application that uses Journey to Work data to show where workers are employed. **Figure 13** indicates the area surrounding Barrington Road Station has a high concentration of jobs within the Village. These employees will need a means of getting from the Barrington Road Station to their place of employment. In addition to a feeder service, it will be important to provide continuous sidewalks and other pedestrian infrastructure within this area to promote walking trips from the Barrington Road Station to the various employers.

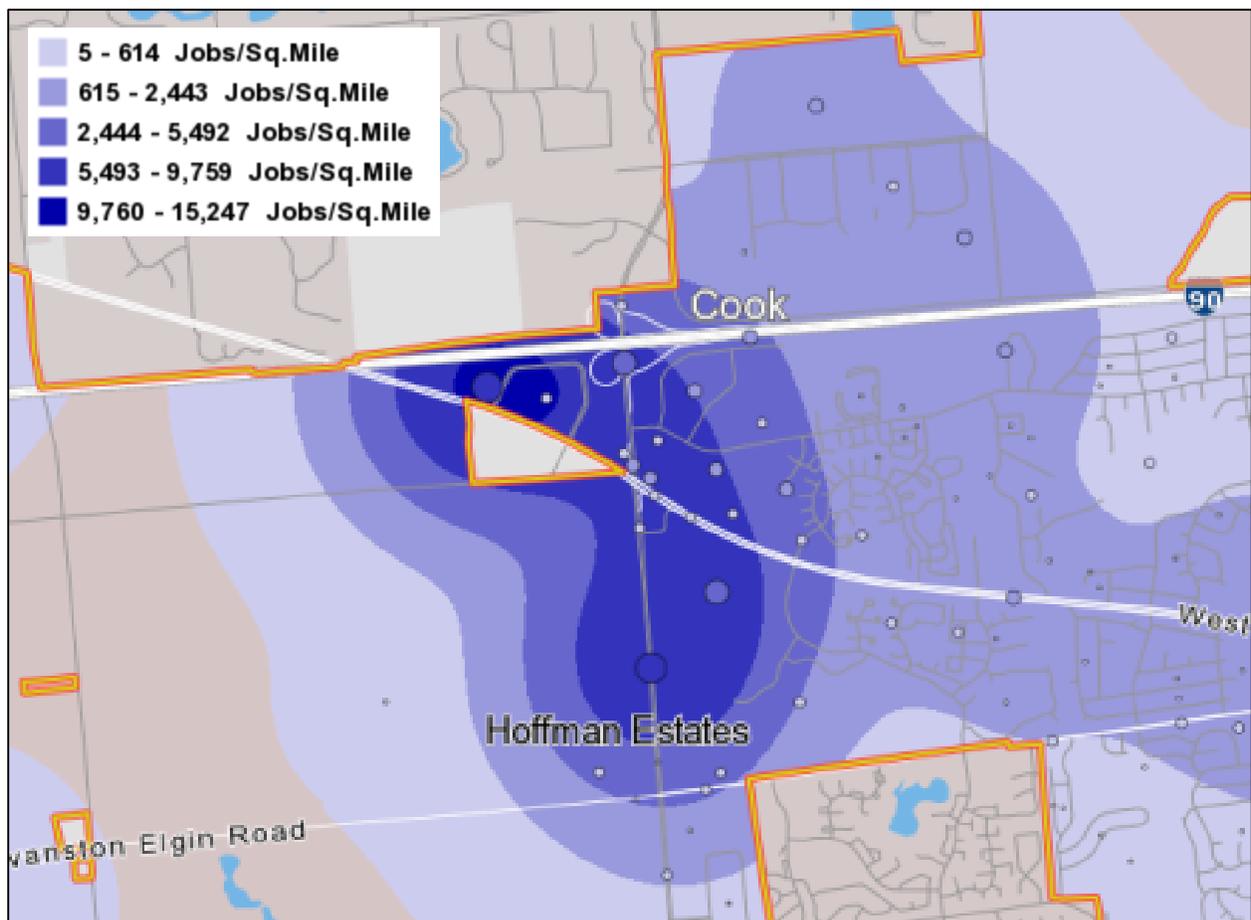


Figure 13 – Job Density Map

Source: United States Census Bureau

Over 90% of people working in Hoffman Estates live outside of the Village and the majority of those workers travel over 10 miles to their job. The Barrington Road Station could serve employees from outside the Village travelling to the retail, office, and institutional employers in the study area. Study area employers with over 100 employees include:

- AT&T Office Park<sup>3</sup>
- St. Alexius Medical Center
- CDK Global
- Siemens Medical Solutions
- Claire's Accessories
- FANUC America
- DMG Mori Seiki

## 5.2. Origin Trips

The Hoffman Estates Flexible Transit Service Operations Plan relied upon the following demographic data to identify areas within the Village that will most likely benefit from access to public transit:

- Household and Population Density
- Median Household Income
- Number of Vehicles per Household
- Youth and Senior Population

The Plan also used the Regional Transportation Authority's Transit Demand Index (TDI) to assess the likelihood of transit use. The TDI incorporates data on population density, senior and youth density, quantity of existing transit service, auto availability, and employment locations. The area south of the Barrington Road Station is shown in **Figure 14** as high TDI and identifies locations most likely to benefit from public transit.

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<sup>3</sup> AT&T is vacating the building. The future user of the property has not been determined.

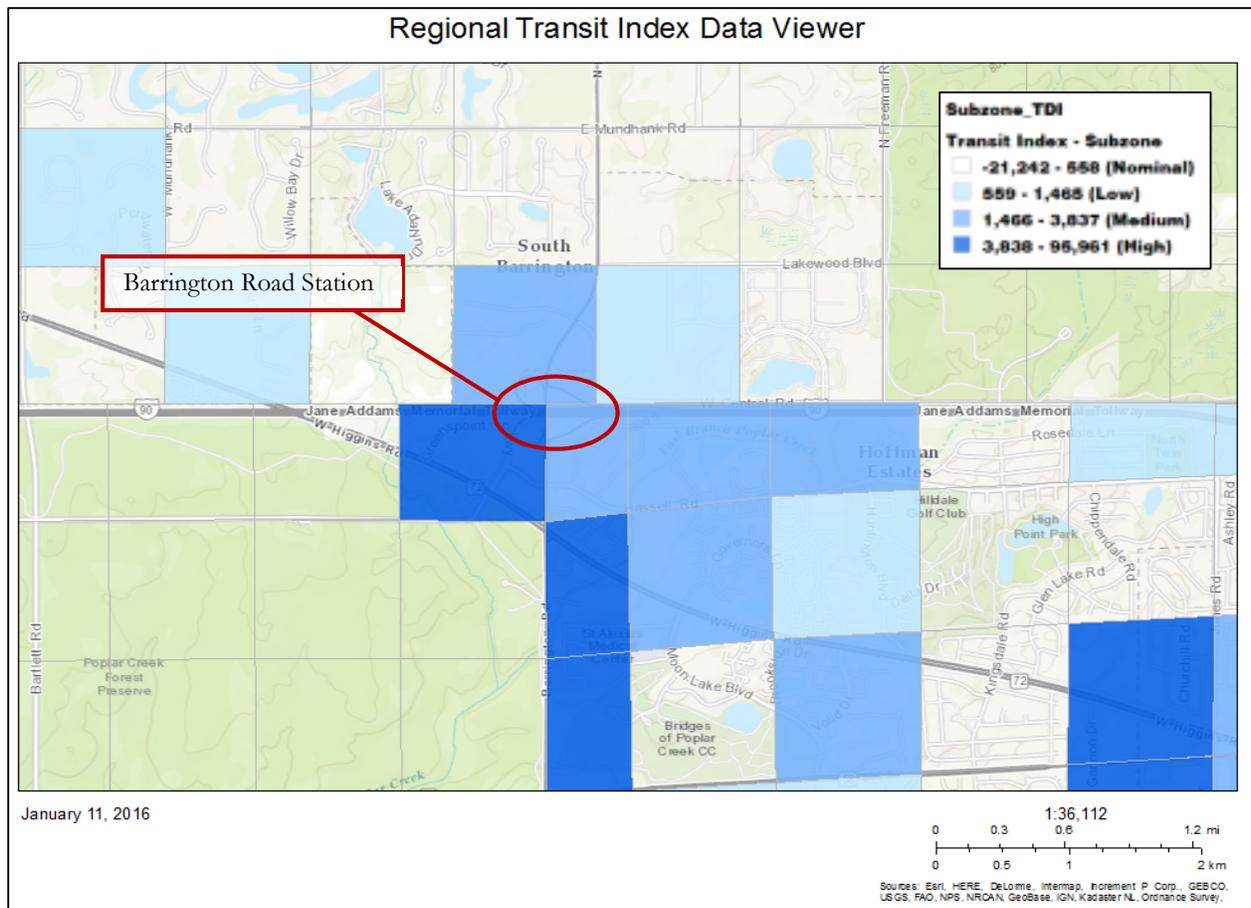


Figure 14 – Transit Data Index Map  
 Source: Regional Transportation Authority

Demographic and socio-economic indicators show residents near the Barrington Road Station have the highest likelihood to benefit from public transit and live within approximately 3.0 miles southeast of Barrington Road. This area has higher household densities, lower median household incomes, and limited access to a vehicle which are the primary demographic data associated with higher public transit use.

U.S. Census data was examined to identify surrounding census tracts that had characteristics that would benefit for transit use. The figure below shows the census tracts and the table provides demographic characteristics for the tracts. Five census tracts southeast of the Barrington Road Station have population characteristic that would support transit, primarily higher population densities. The highlighted census tracts south of the Barrington Road Station include approximately 9,000 households.

**Table 5** shows that the population density in census tract 8042.01 is only 0.8 households per acre. However, when one subtracts the forest preserve area and the area west of Barrington Road, which is non-residential, the density increases to 2.8 households per acre, which is the average for the Village of Hoffman Estates. The other eight census tracts have a density ranging between 3.0 and 5.8 households per acre. The Transit Capacity and Quality of Service Manual considers a density of

3.0 households per acre the desired minimum for a fixed route transit service. Census tracts within the study area are shown below in **Figure 15**.

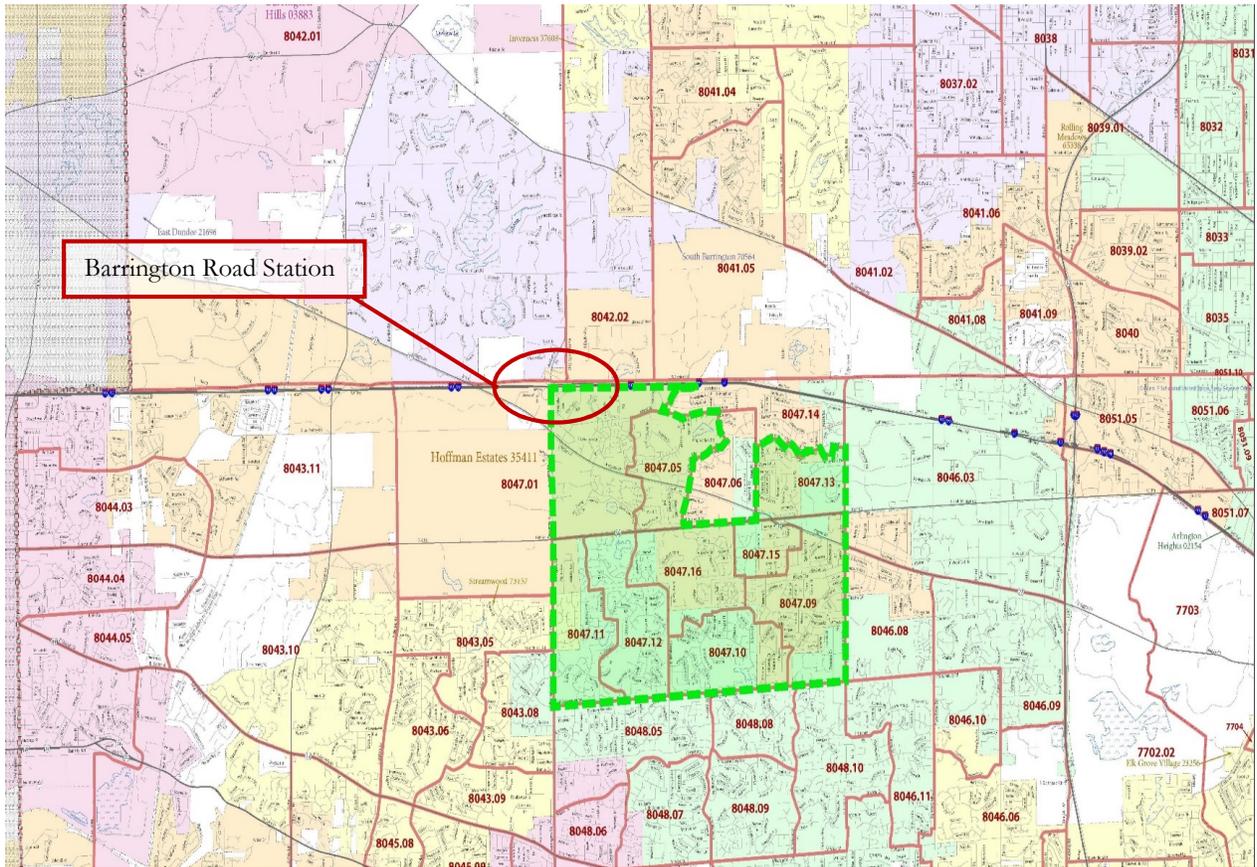


Figure 15 - Study Area Census Tracts  
Source: United States Census American Community Survey, 2013

Two of the census tracts have higher percentages of population without access to a vehicle and may be more likely to take advantage of public transit.

The distribution of youth population, senior population, and workers currently using public transportation around the Barrington Road Station are close to the Village averages. These demographic data are not considered to represent a significant range that impacts public transit benefit.

Major employers, property managers for housing developments, developers, hotels, and shopping centers were surveyed to collect feedback regarding proposed feeder transit service to the Barrington Road Station. Addresses for these stakeholders also were mapped to identify the potential geographic distribution of potential feeder transit users within the study area.

Census Tract	Acres	Population	% Population Over 65	% Population Under 18	Number of Households	Population/Occupied Household	Household Density (per Acre)	Median Household Income	% of Households with No Vehicle Available	% of Households with 1 Vehicle Available	% Commuting on Public Transportation
8041.05	3,177	4,000	5.6%	25.5%	1,357	3.0	0.4	\$ 122,228	0.0%	10.5%	3.0%
8042.01	19,564	8,173	16.0%	26.6%	2,997	2.9	0.2	\$ 141,688	1.9%	14.1%	2.1%
8042.02	3,486	7,463	13.4%	25.6%	2,888	2.7	0.8	\$ 120,625	6.4%	20.2%	5.0%
8047.01	3,143	6,837	14.5%	21.7%	2,840	2.6	0.9	\$ 61,108	7.7%	42.7%	1.5%
8047.05	484	3,976	9.3%	23.1%	1,720	2.5	3.6	\$ 59,833	1.1%	42.2%	2.3%
8047.06	417	2,472	14.6%	23.6%	821	3.1	2.0	\$ 99,688	2.4%	18.0%	2.4%
8047.09	760	6,510	20.4%	21.4%	2,982	2.4	3.9	\$ 53,045	14.8%	45.2%	1.1%
8047.10	553	4,350	10.9%	23.1%	1,659	2.7	3.0	\$ 79,091	8.4%	22.7%	1.1%
8047.11	533	7,442	7.1%	25.5%	3,022	2.6	5.7	\$ 62,756	5.1%	42.2%	0.5%
8047.12	603	5,392	7.9%	23.1%	1,973	2.9	3.3	\$ 98,368	1.6%	19.3%	6.0%
8047.13	404	4,694	6.5%	19.3%	2,337	2.2	5.8	\$ 77,551	3.8%	57.1%	4.2%
8047.14	574	3,480	10.5%	21.3%	1,376	2.6	2.4	\$ 89,469	0.0%	29.8%	3.7%
8047.15	210	3,292	7.0%	28.3%	1,173	3.0	5.6	\$ 58,542	3.2%	41.2%	1.3%
8047.16	573	5,490	7.1%	25.0%	1,837	3.1	3.2	\$ 85,880	20.0%	26.0%	2.4%
Tracts with household density greater than 3.0 per acre											

Source: United States Census American Community Survey, 2013.

## 6. Online Survey and Stakeholder Meeting

### 6.1 Online Survey

An online survey was conducted to determine interest in a transit connection to the Barrington Road Station. The intent of the survey was to identify the potential market for feeder transit service supporting work trips within the study area which would connect to the Barrington Road I-90 Express Bus Station. The online survey and survey results are provided in **Appendix A**.

Stakeholder engagement activities included an online survey that was targeted to major employers and apartment complexes within the study area, a transit focus group meeting with area employers, and oversight provided by the study's technical committee, which consisted of representatives from Pace, the Village of Hoffman Estates, and the Regional Transportation Authority.

The online survey prepared for this study received more than 650 responses from employers and residents within the study area. The survey was made available online through employers and apartment complex managers, who were requested to distribute a notification about the online survey. Follow up emails and telephone calls were made to encourage survey participation. Additionally, the Village of Hoffman Estates posted a link to the survey in its January 2016 newsletter and on the Village's local cable access channel. This resulted in a large response from Village residents. Survey questions were asked that provided information on the following:

- Respondent level of interest in potential transit service
- Geographic location (home, work)
- Characteristics desired to use a shuttle transit service
- Barriers to walking to the station
- Experience with transit and frequency of use
- Commute times
- General comments, open response

#### Survey Results

83% of survey respondents expressed interest in transit service that would connect to the Station; 51% stated that they were "very interested" and 32% were "interested." Survey respondents were split into three groups: those who live, work, and both live and work in the study area. 31% of survey respondents live within the study area and 38% work within the study area, which indicates that there may be support for transit service to and from the Barrington Road Station during the peak work periods.

A surprising result was that 27% of the respondents both live and work within the study area. Respondents who live and work in the study area are not likely to use the Barrington Road Station during work periods. However, these type of respondents may be interested in a circulator style transit service that would take them from their residence to place of employment. It should be noted that the people who live and work in the area may be interested in using the service for non-work trips.

**Figure 16** shows locations for survey respondents who live or work within the study area. For privacy purposes, respondents were asked to provide the major intersection nearest their home as a proxy for a home address. **Figure 17** shows the locations for survey respondents who live *and* work within the study area.

Figure 16 – Respondents Who Live or Work in Study Area

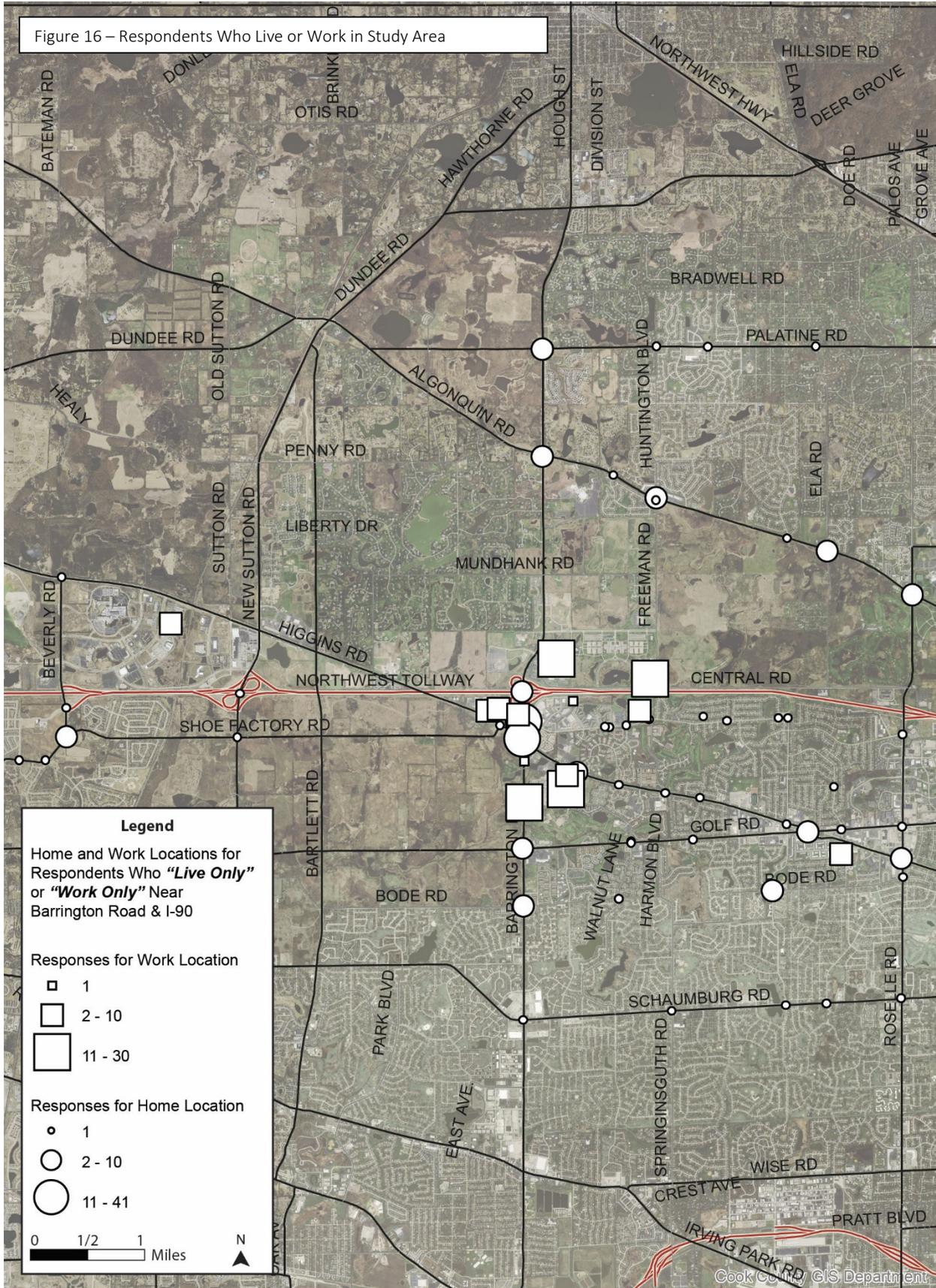
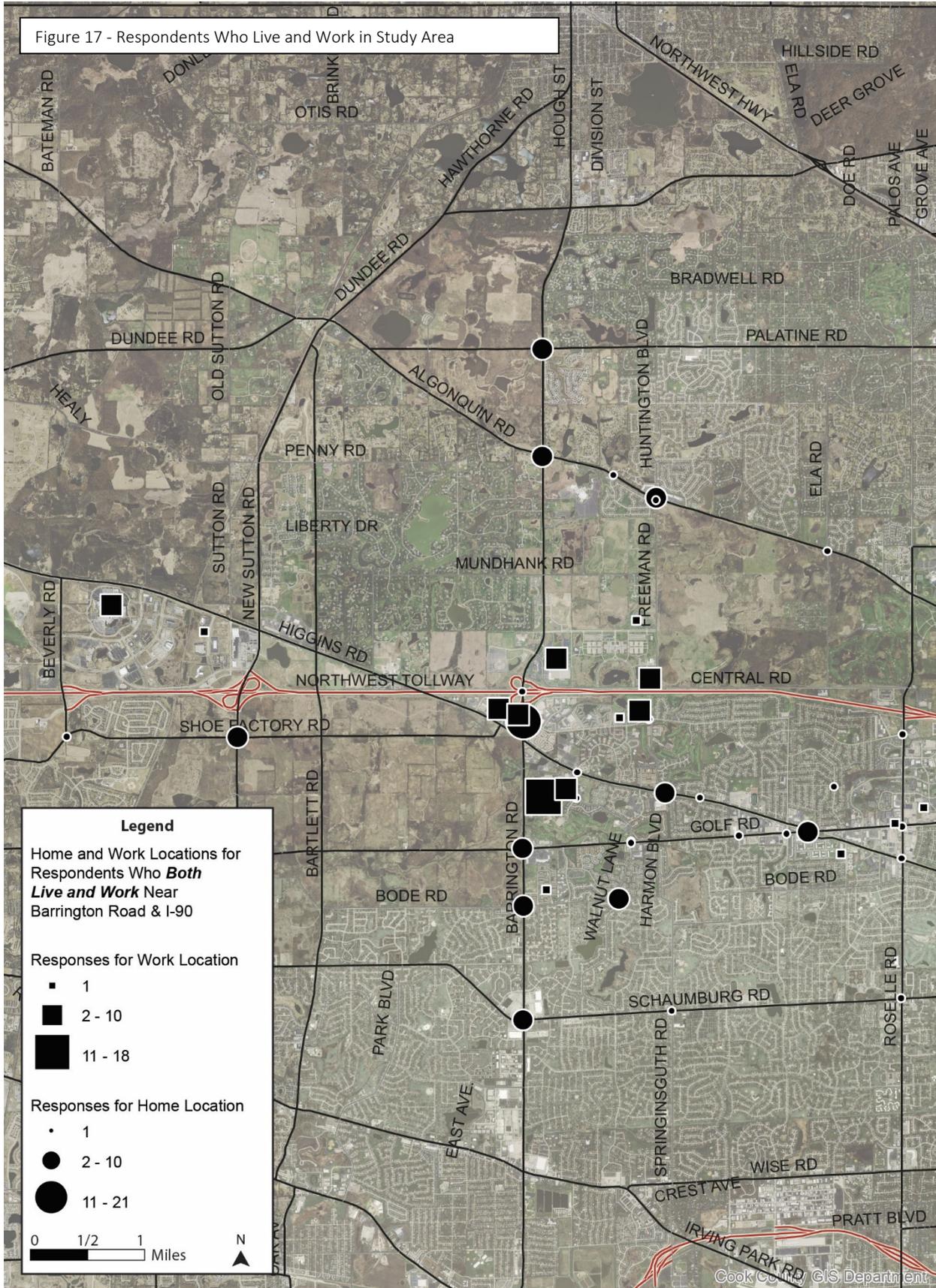


Figure 17 - Respondents Who Live and Work in Study Area



**Table 6** shows the employer contact list that was used for survey outreach. Employers are listed by quadrant, number of employees (where data are available), and number of survey respondents.

Table 6 – Key Employers				
Organization	Address	Study Area Quadrant	# of Employees	Survey Responses
Alden Poplar Creek	1545 Barrington Road	Southeast	Unknown	-
Alexian Brothers Behavioral Health	1650 Moon Lake Blvd	Southeast	Unknown	75
Alexian Brothers Medical Plaza	1786 Moon Lake Blvd.	Southeast	Unknown	74
AMITA	1555 Barrington Road	Southeast	Unknown	19
AT&T	2000 AT&T Center Drive	Northeast	1200	2
Barrington Square Mall	2302 West Higgins Rd.	Southeast	Unknown	-
Big Kaiser	2600 Huntington Blvd.	Northeast	Unknown	-
CDK Global	1950 Hassell Road	Southeast	600	2
Claire's	2400 W. Central Road	Northeast	400	3
Clover Technologies	2700 W. Higgins Rd, Ste. 100	Southwest	Unknown	-
Core Orthopedics	2380 Lakewood Blvd.	Northeast	Unknown	-
DMG/Mori	2400 Huntington	Northeast	100	23
Fanuc	1800 Lakewood Blvd.	Northeast	363	1
Hampton Inn	2825 Greenspoint Pkwy.	Southwest	Unknown	-
Hawthorn Suites	2875 Greenspoint Pkwy.	Southwest	Unknown	-
High Voltage Software	2345 Pembroke Ave.	Southeast	100	-
Hilton Garden Inn	2425 Barrington Road	Northeast	Unknown	-
Himmelstein	2490 Pembroke Ave.	Southeast	Unknown	-
Hyatt Place	2750 Greenspoint Pkwy.	Southwest	Unknown	-
Jersey's	2360 Lakewood Blvd.	Northeast	Unknown	-
La Quinta (To become a Days Inn)	2280 Barrington Road	Southwest	Unknown	-
Level 10	2495 Pembroke Ave.	Southeast	Unknown	-
Marianos (Roundys)	2575 W. Golf Road	Southeast	Unknown	-
NSK America	1800 Global Parkway	Northeast	26	-
NXP	2800 W. Higgins Road	Southwest	Unknown	4
Omron Corporation	2895 Greenspoint Pkwy.	Southwest	200	18
Pluymert	2300 Barrington Road	Southwest	Unknown	2
Poplar Creek Office Plaza (Moon Lake Office)	1721 Moon Lake Blvd.	Southeast	Unknown	-
Quality Inn	2075 Barrington Road	Southeast	Unknown	-
Red Roof Inn	2500 Hassell Road	Southeast	Unknown	-
Sears	3333 Beverly Road	Northwest	Unknown	20
Sensient	5115 Sedge Boulevard	Northwest	Unknown	14
Siemens Healthcare	2501 Barrington Road	Northeast	500	40
St. Alexius	1555 Barrington Road	Southeast	2550	75
Stonegate Conference Center	2500 W. Higgins Rd.	Southeast	Unknown	1
Thyssenkrupp Materials	2800 W. Higgins Rd.	Southwest	Unknown	2

### Desirable Transit Characteristics

Respondents stated that the three most important characteristics of transit service would be that 1) transit matches working hours, 2) reduces the hassle of driving, and 3) provides transit riders with the ability to return home in the event of an emergency. The cost of transit fare was the least important characteristic as identified by survey respondents.

Responses to the open response question indicate that several survey respondents want express bus service to Chicago O'Hare International Airport or the CTA Blue Line as an alternative to driving. Some stated that these trips would be for recreation, tourism, or other non-work trips.

### Existing Transit Use

The majority (82%) of respondents currently do not use transit for work purposes. 6% of respondents use transit three or more days a week for non-work trips and an additional 8.5% of respondents use transit for non-work trips one or two days a week. 36% of respondents use transit once or twice a year, and when surveyed for which types they have used, Metra (85%) was the most commonly cited mode, followed by CTA Train (58%), and CTA bus (33%). The majority of survey respondents (83%) stated that they drive alone to work, 5% carpool, and 6% take the train.

### Improved Access to Transit

75% of survey respondents stated that busy roads and a lack of sidewalks would prevent them from walking to the Express Bus Station, but the same proportion of respondents (75%) stated that improving these conditions would cause them to consider walking to the Express Bus Station and use the I-90 Express Bus Service. Many respondents cited walking and crossing distances as a barrier in the open response section of the survey, as Greenspoint Parkway and several major intersections are mentioned as barriers.

### Potential Service Hours

For survey respondents who provided data on their work commute, 65% arrive at work during the peak period of 7 a.m. to 9 a.m., and 64% leave work between 4 p.m. and 6 p.m.

A review of open responses indicated that regular and reliable service are desirable characteristics, and that weekend service is desired for non-work trips as indicated above in "Desirable Trait Characteristics."

### Findings

- There is a strong level of support for a shuttle service to the Barrington Road Station. The shuttle service could support both outbound express bus patrons going to a place of employment and residents going inbound to a place of employment.
- The respondents are not currently frequent users of transit. Of those who did report using transit, most are familiar with Metra.
- There may be a demand for circulator service based on the large number of survey respondents that both live and work within the study area. The shuttle should have a circular route that could also serve people that live and work in the area.
- Pedestrian comfort and safety is a barrier to walking within the study area, and respondents are supportive of improving pedestrian access and connectivity.
- Avoiding roadway congestion is a key factor in deciding to use the service. Transit fares do not appear to be a major factor in influencing respondents' support of transit service.

## 6.2 Stakeholder Meeting

Subsequent to the online survey and prior to formulating the shuttle service options, a meeting was conducted with major employers to present the results of the survey and discuss shuttle service options. The summary notes from this meeting are provide in **Appendix B**.

## 7. Shuttle Service Options

This section recommends options for providing a feeder service to the Barrington Road Station to support two new I-90 express routes: 605 -Randall Road Elgin-Rosemont and 607 - Randall Road Elgin-Schaumburg. These new express bus routes will operate weekdays and Saturdays. Route 605 will operate with 15 to 20 minute service in the peak and 30 minutes in the off-peak, while route 607 will operate with 30 minute service. The online survey results indicate a high degree of interest in a feeder service. The survey also found that roughly one-third of respondents live and work in the study area, suggesting support for a circulator route serving both employer sites and residential areas, in addition to the feeder service. Eighty-two percent of respondents do not currently commute to work via transit. The addition of a feeder service would help to attract new Pace customers that do not regularly use transit.

The population and employment analysis conducted for this study indicates that the area to the southeast of the Station could support public transit. There is a high concentration of employment in the area with job classifications that typically support public transit including a large medical facility, hotels and manufacturing. In addition, the area's population density, lower median household incomes, and relatively low access to automobiles are all conducive to higher public transit use.

The transit analysis was concentrated in the immediate area surrounding the Barrington Road Station. The overall total time of a passenger trip from a Chicago origin could be up to one hour or more and, therefore, the time spent on the feeder service should be short to reduce the travel time and make the service competitive with automobile travel time. Several transit options were examined to provide feeder service to the Station. These included a fixed route, demand response service, and vanpools. Following are descriptions of three transit options.

### 7.1. Option 1: Fixed-Route Shuttle Service

This proposed route serves both area employees and residents south and east of I-90 and Barrington Road. It is designed to pick up employees from the Barrington Road Station, transport them to work locations, and then pick up residents to transport them to the Station. The travel time for this route is approximately 15 minutes and serves the area approximately 1 mile from the Station, in the southeast direction. Since the route will serve the southeast quadrant, it will begin and end at the kiss-n-ride on the south side of the Tollway.

The shuttle operates along the path listed below, as shown in **Figure 18**.

- Exit the kiss-n-ride onto southbound Pembroke, and continue to Hassell Road, making a stop at Hassell;
- Turn west on Hassell Road and cross Barrington Road, making a service stop in front of the Hyatt Place Hotel on the Hassell Road extension;
- Continue to 2800 W. Higgins in the Greenspoint Hotel and Office complex, making a service stop at the entrance to serve the entire complex, and utilizing the building's circular drive to turn around and exit onto Greenspoint Parkway;
- Turn right onto Greenspoint Parkway and continue to Higgins Road;
- Turn left onto Higgins Road, and continue to Moon Lake Boulevard;
- Turn right onto Moon Lake Boulevard and continue to St Alexius driveway;

- Turn right onto St. Alexis driveway, make service stops at Alexian Brothers Behavioral Health, Alexian Brothers Women and Children’s Hospital, and the Medical Center main entrance (Note: the emergency vehicles use this driveway to access the emergency entrance.)
- From the Medical Center main entrance return east on St. Alexis driveway to Moon Lake Boulevard;
- Turn left on Moon Lake Boulevard and continue across Higgins Road onto Governors Lane, making at least one stop in this residential area;
- Turn left on Kensington Lane, making at least one stop;
- Turn left on Hassell Road, making one or two stops to serve Barrington Lakes Apartment Complex and Barrington Square neighborhood;
- Turn right on Stonington Avenue, making one stop to serve this employment area;
- Turn left on Pembroke Avenue, and continue to the kiss-ride.

This routing proposes operating onto private property at the Greenspoint Office/Hotel Complex and St. Alexis Medical Center. Agreements with property owners to allow access to driveways and to detail maintenance of transit facilities, if any, will be required. Normally, Pace prefers to stop on-street and utilize public right-of-way. However, while the Greenspoint Office is public property the roadway through the property allows public access. The St. Alexis Medical Center provides an opportune location for turning around the feeder service route.

Several variations of this option could be adopted. The recommended variation is to operate this route only during rush hours. In off peak times, demand will be lower while a greater variety of destinations will be desired. A call-n-ride service, presented as Option 2, would cover a larger service area and provide mobility in the off peak.

A second variation is to operate counter-clockwise in the morning rush hour, and clockwise in the afternoon rush. This action will provide more direct trips for employees and residents because the west half of the route primarily serves employment sites while the east half primarily serves residential neighborhoods. By operating counter-clockwise in the morning, employees that are picked up at the Station in the morning will be transported directly to employment sites before residents are picked up. In the afternoon, the route operates clockwise, picking up residents at the Barrington Road Station and traveling east to drop them off in the residential area before arriving at the employment sites to pick up employees. If the route continued to operate counter-clockwise in the afternoon rush hour, then residents would still be on the bus as it was picking up employees from the work locations. This would result in unnecessary crowding on the vehicle and longer travel times for both residents and employees.

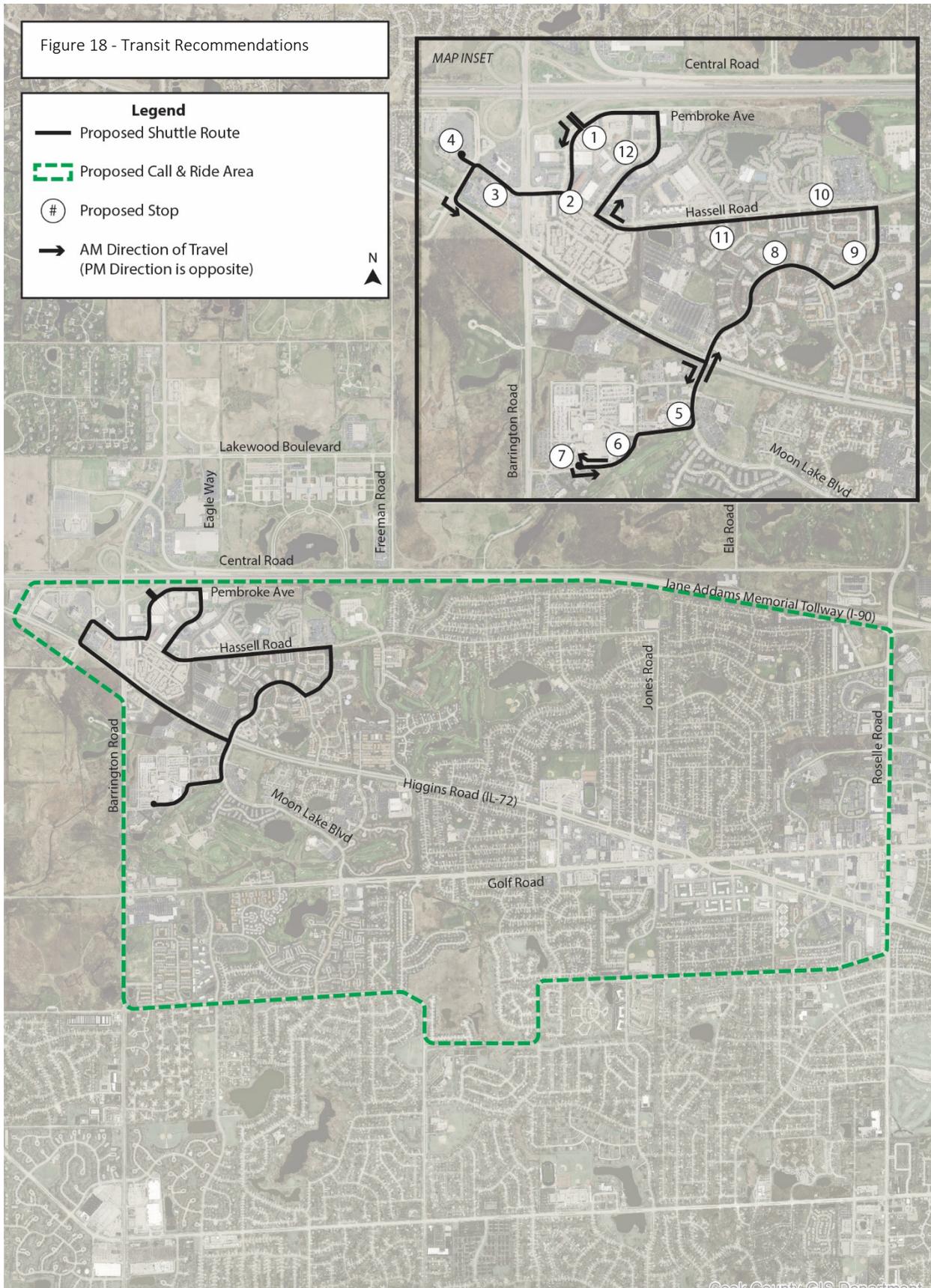
A third variation is to operate the shuttle route as a route deviation service. Route deviation service operates as a fixed route but can deviate from the fixed path to serve requested destinations. Passengers may request a deviation from the driver while on board the bus, or by calling for a pick-up in advance. When a deviation from the fixed route has been made, the bus must return to the same point on the route where it left. Route deviations can result in longer travel times and may adversely affect the route’s reliability. To minimize these impacts, the number and location of deviations on a route can be specified. This will also ensure that deviation locations provide sufficient space to turn the bus around. As an alternative, route deviation service could be operated in the off-peak only, when round trip travel times are less of an issue.

Figure 18 - Transit Recommendations

**Legend**

-  Proposed Shuttle Route
-  Proposed Call & Ride Area
-  Proposed Stop
-  AM Direction of Travel  
(PM Direction is opposite)

N  
▲



Route deviation is not recommended for the initial implementation of service due to potential impacts on travel time and reliability. Once it has been determined that specific deviations should be accommodated, then route deviation service could be added. This variation could be considered if a second vehicle is secured for the feeder service.

### Vehicle Type and Number Required

The vehicle type envisioned for this fixed route are small transit buses built on a cutaway chassis. Pace uses this type of vehicle for their call-n-ride and dial-a-ride services (see photos). These smaller vehicles are able to negotiate residential streets, and access areas where standard Pace buses cannot operate. The capacity of these vehicles can range from 15 to 33 passengers. The provision of two wheelchair positions would reduce regular seating by approximately three seats. A minimum capacity of 15 passengers is recommended for this service. Because the round trip travel time is only about 15 minutes, one vehicle will be sufficient. A longer route would require additional vehicles to minimize wait time.



Pace Call-n-Ride Vehicle



Pace Dial-a-Ride Vehicle

### Bus Stop Locations

In order to minimize travel time on the fixed route service, most service stops will be made on the street, as opposed to providing service to each business entrance. The exceptions to this are stops at the St. Alexius Medical Center main entrance and at the Greenspoint tower building, 2800 W. Higgins. Both of these locations provide circular drives for vehicles to turn around.

Based on the locations of the major employers and apartment complex and the results of the online survey, 24 bus stops at 12 locations are proposed as shown in **Figure 18** and listed in **Table 7**. Each location would need 2 bus stops with a pole and sign to designate the route and stop to serve the clockwise and counter-clockwise traffic flow.

Pace normally implements new service using a flag stop policy as opposed to fixed bus stop. That means that riders can hail a bus anywhere along the route where it is safe to stop. The ability to flag stop a bus, especially in the early stages of a new bus route can be a useful means of building ridership. Transit riders are more likely to use the service if they can board and alight close to their employment or residential locations.

Pace in conjunction with the Village will need to make a final determination on the bus stop locations. The Village also could work with the major employers and apartment complexes to determine if these parties would be willing to invest in a more comfortable stop that includes a

concrete pad, shelter, and bench. This negotiation might also involve a branding of the stop by the employer or apartment complex within guidelines set forth by the Village and Pace.

Stop Number	Location
1	Kiss-n-Ride
2	On Pembroke at Hassell
3	On Hassell at rear of Hyatt Place
4	2800 W. Higgins, Greenspoint
5	Alexian Brothers Behavioral Health
6	Alexian Brothers Women's and Children's Hospital
7	Medical Center Main Entrance
8	On Governors Lane at Cheltenham Place
9	On Kensington at Abbey Wood Drive
10	On Hassell at Georgetown Ln
11	On Hassell at Holbrook Ln
12	2150 Stonington Ave

\*Stops located on both sides of the street

### Service Hours and Frequency

The hours of service for route 605 is planned for weekdays between 5:30 a.m. and 11:30 p.m., and between 6:30 a.m. and 7:30 p.m. on Saturdays. The planned hours of service for route 607 are from 5:30 a.m. to 10 p.m. on weekdays and between 7 a.m. and 7 p.m. on Saturdays. At least initially, it is proposed that this shuttle service operate only during the rush hours of 6 to 9 a.m. and 4 to 7 p.m. The frequency of the feeder service is proposed to operate with 20 minute frequencies in the peak.

### Operating and Capital Cost

Costs for the feeder service are broken into operating costs and capital costs. Operating costs include expenses related to the driver, fuel, vehicle maintenance, etc. Capital costs include the one-time purchase cost of the vehicle, and costs associated with bus stop sign manufacture and installation. Capital costs for shelters and bus stop concrete pads to accommodate waiting passengers are not included since they will not likely be provided with new service. However, it may be possible to negotiate funding through partnerships with businesses and property owners as part of the new service.

The annual operating cost is estimated at \$130,050 to \$153,000. This estimate is based on one vehicle operating six (6) revenue vehicle hours per weekday, 255 days per year, at \$85 to \$100 per revenue vehicle hour. Since the shuttle is offered in rush hours only, Saturday service is not recommended. However, Saturday service is recommended under Option 2.

The capital costs associated with this fixed route shuttle service include the cost of vehicles and bus stop sign manufacture and installation. According to the 2016 Pace budget, a 15-passenger paratransit bus is estimated at approximately \$62,000. The manufacture and installation of a bus stop sign is estimated at \$150 each. If fixed bus stops are implemented, approximately 24 signs, (12 in each direction), will be required for a total of \$3,600.

## 7.2. Option 2: Demand Responsive Call-n-Ride

Call-n-ride is a shared ride service operated within a designated service area. Call-n-ride service is ideal for providing the first mile/last mile of a transit trip, as well as internal neighborhood trips. Passengers call the driver of the vehicle to make a reservation to get picked up. Reservations are required at least one hour in advance of the trip and are accepted on a first come, first served basis up to 24 hours in advance. It is proposed that the call-n-ride be scheduled to arrive at the Barrington Road kiss-n-ride every 30 minutes to connect with passengers alighting from routes 605 or 607. A reservation would not be needed for these scheduled trips at the kiss-n-ride. Trips that occur on the same day and at the same time on a recurring basis may be scheduled as a subscription trip if the desired time slot is available.

The driver determines the most expeditious route between destinations and may pick-up new customers before dropping off passengers already in the vehicle. The origin and destination of each trip must be within the boundaries of the call-n-ride zone.

Experience has shown that the most successful and efficient call-n-ride zones are less than ten square miles in size. The proposed boundaries for the Station call-n-ride are I-90 on the north, Roselle Road on the east, Bode Road on the south, and Barrington Road, (including the Greenspoint development) on the west (see **Figure 18**). This area is approximately seven square miles, and includes most employment locations in the vicinity of the Station, as well as areas identified as households likely to use transit, as identified by the Regional Transportation Authority's Transit Demand Index.

Connections to and from the call-n-ride can be made with Pace fixed routes 554 Elgin-Woodfield, 602 Higgins-Salem-Cedarcrest, and 696 Randhurst-Woodfield-Harper College, as well as the new express routes 605 and 607. Connections with routes 605 and 607 will be made at the Barrington Road kiss-n-ride, while connections with routes 554, 602, and 696 can be made anywhere along the routes' paths. Harper College lies just outside the proposed area to the northeast and could be included in the call-n-ride area in the future, if warranted by demand.

The recent development of applications such as Uber and Bridj can greatly simplify dispatch operations and are very easy for the customer to use. In the future, Pace and other transit agencies may develop such applications for their operations. Use of such applications could encourage additional ridership.

### Vehicle Type and Number Required

The vehicle type envisioned for the call-n-ride service is the same as those currently used by Pace for existing call-n-ride services. These are small transit buses built on a cutaway chassis as shown in the photos above. It is anticipated that one vehicle will be required for the call-n-ride.

### Bus Stop Locations

Scheduled connection points are proposed at Barrington Road kiss-n-ride and at St Alexius Medical Center. Additional scheduled points may be added as experience with the service is gained. Call-n-ride offers curb to curb service and passengers can be picked up and dropped off anywhere within the call-n-ride zone as long as the vehicle can negotiate the roadway and turn the vehicle around without backing up.

### Service Hours

Service hours for each call-n-ride are determined by community need. The current call-n-rides operated by Pace provide service for at least 12 hours every weekday. It is proposed that the call-n-ride for the Barrington Road Station operate between 6 a.m. and 7 p.m. on weekdays, and between 7a.m. and 7 p.m. on Saturdays.

### Operating and Capital Cost

Costs for call-n-ride service are broken into operating costs and capital costs. Operating costs include expenses related to the driver, fuel, vehicle maintenance, etc. Capital costs include the one-time purchase cost of the vehicle.

The annual operating cost is estimated at \$334,815 to \$393,900 for both weekday and Saturday service. This estimate is based on one vehicle operating 13 revenue vehicle hours per weekday, 255 days per year, at \$85 to \$100 per vehicle revenue hour for a weekday total of \$281,775 to \$331,500. Saturday call-n-ride service will cost an additional \$53,040 to \$62,400 per year based on one vehicle operating 12 hours per Saturday, 52 days per year, at \$85 to \$100 per vehicle revenue hour. The capital cost of the call-n-ride service includes the cost of the vehicle. A 15-passenger paratransit bus is estimated at approximately \$62,000.

## **7.3. Option 3: Employer Vanpool**

Pace started their vanpool program in 1991 and it is the second largest publicly funded vanpool program in the United States. Pace offers several types of vanpools including traditional vanpools, employer shuttles, and Metra feeders. Although a vanpool is not normally considered a feeder service, there may be situations where an employer can benefit from having a van at its disposal to transport workers.

The Pace Employer Shuttle Program provides vans to employers within Pace's service area for work-related passenger trips. Employers provide the driver who must have a good driving record, pass a physical and drug test, and attend a half day training class at Pace. Employers pay \$750 per month for each van and, with prior approval from Pace, may charge riders a fee for the service. The benefit of employer vanpool shuttles is that the employer can tailor the service to their business needs. Employer vanpools can be implemented in addition to, or instead of, a Pace operated service. However an employer vanpool and a Pace operated service may compete for the same riders, and therefore, employer vanpools should be implemented in those locations, and during those time periods, not served by a Pace service. Employer vanpools could be especially useful for businesses operating second and third shifts. An employer vanpool could also be employed by those companies who will not be served directly by the fixed route shuttle option.

## **7.4. Transit Recommendations**

Operating a fixed route shuttle in the southeast quadrant (see **Figure 18**) during the rush hours, (6-9 a.m. and 4-7 p.m.), will provide a reliable, scheduled service for commuters. Approximately 12 fixed bus stops are recommended along the route to serve major destinations and residential areas. Initially, however, the shuttle may operate with flag stops, stopping anywhere along the route where it is safe to do so. Bus stop locations have been proposed, but Pace will work with the Village to

determine placement. The service would begin and end at the kiss-n-ride south of I-90. The route would operate counter-clockwise in the morning and clockwise in the afternoon.

A call-n-ride service is recommended to operate in conjunction with the fixed route shuttle. The call-n-ride will operate between 6 a.m. and 7 p.m. providing feeder service to routes 605 and 607 in addition to the fixed route shuttle, as well as serving internal trips in the area. Both services will require one vehicle, for a total of two vehicles required. The costs associated with this recommendation are shown in **Table 8**.

Table 8 - Bus Options Operating and Capital Costs				
Service	Service Hours	Annual Revenue Vehicle Hours	Annual Operating Cost	Capital Cost <sup>^</sup>
Fixed Route Shuttle	Weekdays 6 - 9 am and 4 - 7 pm	1,530	\$130,050-\$153,000	1 Vehicle: \$62,000 Signs: \$3,600
Call-n-Ride	Weekdays 6 am to 7 pm Saturdays 7 am to 7 pm	3,315 624	\$281,775-\$331,500 \$53,040 - \$62,400	1 Vehicle: \$62,000
Combined Fixed Route & Call-n-Ride	Weekdays 6 am to 7 pm Saturdays 7 am to 7 pm	5,469	\$464,865-\$546,900	\$127,600
<sup>^</sup> Excludes the cost of concrete pads, shelters, sidewalk connections, etc.				

Employer vanpools could be promoted for those locations that would not be served by the fixed route service. The vanpools would operate between the Station and the employment locations. Operating costs for employer vanpools are borne by the employers through the monthly fee of \$750. Employer vanpools also require that the employer provide their own driver so overall would be higher than the monthly \$750 fee. The capital cost of a van is estimated at \$35,000 and is provided by Pace.

## 8. Bicycle and Pedestrian Recommendations

The bicycle and pedestrian recommendations include programmed improvements, planned improvements, and additional recommendations developed for this report.

Programmed improvements refer to improvements that are programmed for construction in conjunction with IDOT and Tollway improvements and are expected to be constructed within the next five years. Planned improvements are unfunded, long term improvements based on Village plans for bicycle and pedestrian infrastructure.

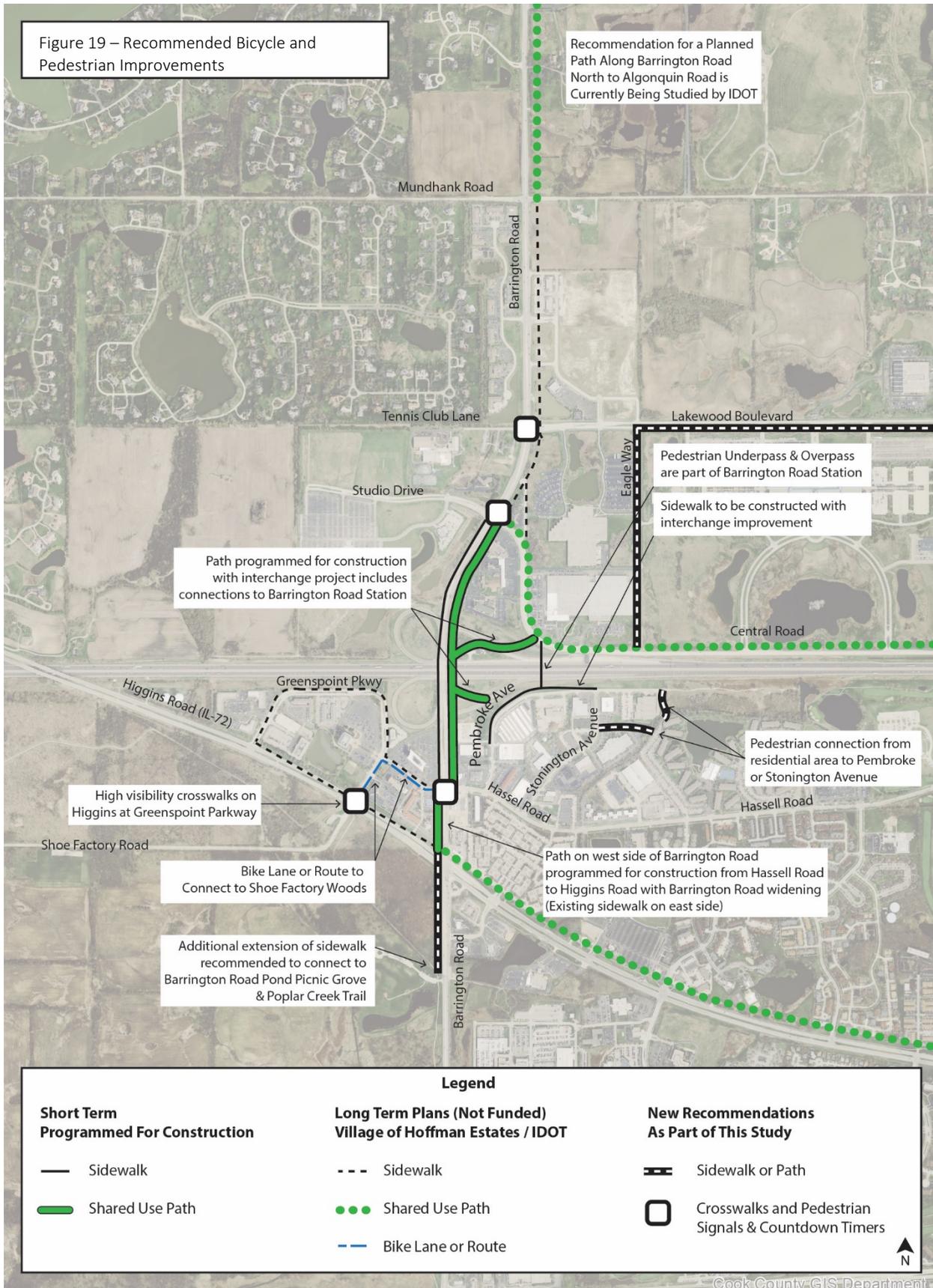
Additional recommendations refer to new improvements or extensions of planned improvements that build upon the Village's plans to improve walking and bicycling conditions for travel to the Barrington Road Station.

For each recommendation, the agency or agencies that would be responsible for construction and maintenance are identified. Recommendations are shown in **Figure 19 Recommended Bicycle and Pedestrian Improvements** and **Figure 10** shows existing bicycle and pedestrian facilities.

### 8.1. Bicycle and Pedestrian Improvements

- a. Complete the connection between the Paul Douglass Forest Preserve and Shoe Factory Woods and across I-90. This will involve the following:
  - Install a shared use path along Central Avenue from Freeman Road to Barrington Road. According to the Village of Hoffman Estates, there is not enough room to implement an off-street trail, and travel speeds are too high to install on-street bike lanes within the Central Road right-of-way due to the presence of wetlands in some locations. The Village intends to work with the three property owners along the north side of Central Road between the park-and-ride and the Paul Douglas Forest Preserve to develop an access agreement for a trail where needed. The Village's objective is to stay within the right-of-way as much as possible. This includes the properties currently occupied by Claire's, AT&T, and DMG Mori.  
Status: Planned: The eastern end from AT&T Center Drive to Freeman Road is currently being designed and is to be built by the developer.  
Responsibility: Village of Hoffman Estates
  - Install a shared use path on the east side of Barrington Road from Central Road south to Hassell Road.  
Status: Programmed for construction with interchange improvement  
Responsibility: IDOT, ISTHA
  - Improve the intersection of Barrington Road and Hassell Road to include a high visibility crosswalk to help bicyclists cross Barrington Road, and include pedestrian signal heads with countdown clocks.  
Status: Programmed for construction with interchange improvement  
Responsibility: IDOT

Figure 19 – Recommended Bicycle and Pedestrian Improvements



- Install a shared use path on the west side of Barrington Road from Hassell Road south to Higgins Road.  
Status: Programmed for construction with interchange improvement  
Responsibility: IDOT
  - Install a shared use path on the north side of Higgins Road from Barrington Road to Greenspoint Parkway.  
Status: Planned  
Responsibility: IDOT
- b. Seek opportunities to work with the property owner for the west (private) leg of Hassell Road between Barrington Road and Greenspoint Parkway to designate this segment as a bicycle route.  
Status: Planned  
Responsibility: Village of Hoffman Estates
  - c. Implement road diet and install sidepath on Greenspoint Parkway from Higgins Road and Shoe Factory Road north to Hassell Road to provide bicycle access to employers located along Greenspoint Parkway.  
Status: Planned  
Responsibility: Village of Hoffman Estates
  - d. Install a shared use path on the north side of Higgins Road from Barrington Road to Roselle Road. This is currently a sidewalk that will be expanded to a shared use path.  
Status: Planned  
Responsibility: IDOT
  - e. Install a crosswalk where the proposed path along the north side of Central Road ends to provide a connection at the entrance to the park-and-ride.  
Status: Planned  
Responsibility: Village of Hoffman Estates
  - f. Include sheltered bicycle parking in the Barrington Road park-and-ride and kiss-and-ride.  
Status: Recommended (Note: bike racks are included in the plans but are not sheltered)  
Responsibility: Pace
  - g. Update development regulations to include sheltered or in-building bicycle parking requirements with new office and residential development within the study area.  
Status: Recommended (Note: current Village code requires bike parking, but does not require it to be sheltered)  
Responsibility: Village of Hoffman Estates

- h. Promote a public-private partnership to implement a bike sharing program. A bike share program could provide an opportunity for people to connect to the Barrington Road Station. The Village could work with developers, employers, and other interested parties to identify potential locations for bike share stations and form agreements with these parties for the installation and maintenance of the bike share stations.

Status: Recommended

Responsibility: Village of Hoffman Estates in coordination with Pace

## 8.2. Pedestrian-Specific Recommendations

- a. Install pedestrian signals with walk phase and countdown timers at signalized intersections within walking distance of Barrington Road Station. An example of a countdown timer is shown in the picture below. Responsibility for implementation varies by intersection.
  - Barrington Road & Central Road  
Status: Programmed for construction with interchange improvement
  - Barrington Road & Hassell Road  
Status: Programmed for construction with interchange improvement
  - Barrington Road & Lakewood Boulevard  
Status: RecommendedResponsibility for all: IDOT

Costs for a typical pedestrian push button range from \$300 - \$800 per signal.<sup>4</sup> With 3 intersections and 4 signals per intersection, the total cost would be \$3,600 - \$9,600. This estimate is planning level opinion of cost. Costs may vary based on site conditions and other work being performed in conjunction with the signal.



Example of a Pedestrian Signal with Countdown Timer

- b. Eliminate pedestrian gaps and barriers in the public right-of-way within the study area. If a sidewalk is missing along the public right-of-way, the Village should add sidewalks. (If a

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<sup>4</sup> *Safe Routes to School Guide in collaboration with the National Highway Traffic Safety Administration, Federal Highway Administration, Centers for Disease Control and Prevention and Institute of Transportation Engineers.*  
[http://guide.saferoutesinfo.org/engineering/traffic\\_signals.cfm](http://guide.saferoutesinfo.org/engineering/traffic_signals.cfm)

sidewalk is missing on a vacant parcel, the Village requires sidewalks at the time of development.). Sidewalks that are recommended in the public right-of-way within a one mile walk of Barrington Road Station are shown in **Figure 19**.

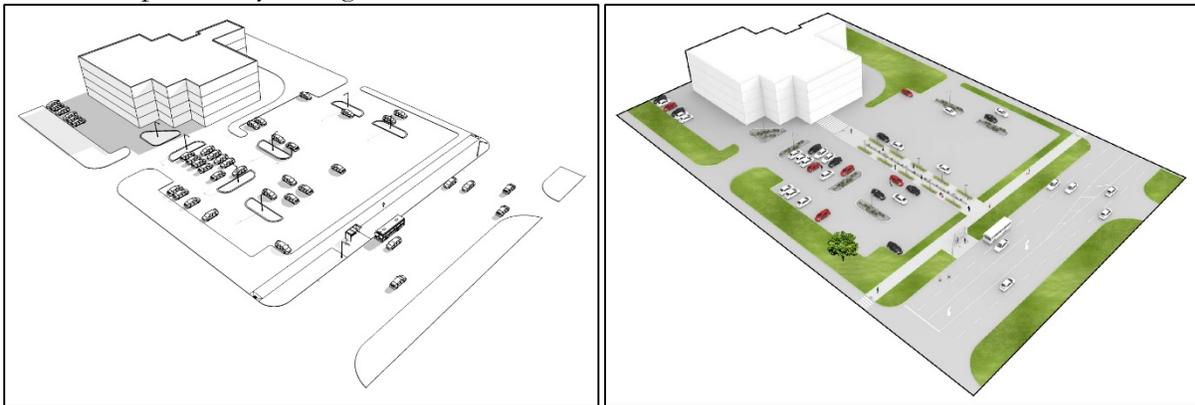
Responsibility: Village of Hoffman Estates

- c. Encourage urban design features in new development that minimize walking distances and improve the quality of the pedestrian environment. This would involve encouraging site design that places main front entrances close to the right-of-way and discourages the buildings to be set back behind parking lots.

Responsibility: Village of Hoffman Estates

- d. Encourage retrofits of existing development that incorporate pedestrian urban design features. This could include exclusive pedestrian pathway to connect transit stops from the main building entrance. An example of a retrofit design for an office building and parking lot is shown below.

Responsibility: Village of Hoffman Estates



(Left) Example of conventional site design. (Right) Example of a retrofit design that includes an exclusive pedestrian pathway connecting a transit stop and a building entrance. (Source: T.Y. Lin International)

- e. Implement streetscape improvements that include a pedestrian-level lighting plan in addition to traditional roadway illumination lamps, especially on all roads within 1/2-mile of the transit station.

Responsibility: Village of Hoffman Estates

- f. Participate in Pace’s Shelter Program to install bus shelters at key bus stops. When locations for the most frequently used bus stops are determined by Pace and the Village, the Village should work with Pace to install bus stop pads that connect the bus stop to the sidewalk. Pace’s website states that “Pace staff will review ridership statistics for the recommended site to determine its viability. Locations with existing concrete pads (or a local partner's willingness to pour a new concrete pad) are much easier to accommodate. If a unit of local government or property owner desires a special shelter design apart from those offered by Pace, Pace is willing to work with requestors to subsidize their purchase of a non-standard shelter.”

Responsibility: Village of Hoffman Estates in coordination with Pace

## 9. Transit Supportive Land Use Strategies

This section presents land use strategies that would support transit. Discussions with Village planners and engineers and an analysis of existing conditions were used to identify potential transit-supportive development or redevelopment sites, establish a preliminary land use framework and present development strategies. The land uses in the quadrant divided by I-90 and Barrington Road vary greatly. Thus, the opportunity sites, land use framework and strategies are presented for each quadrant.

## 9.1. Opportunity Sites

The opportunity sites are referenced by call-out letters in **Figures 20**.

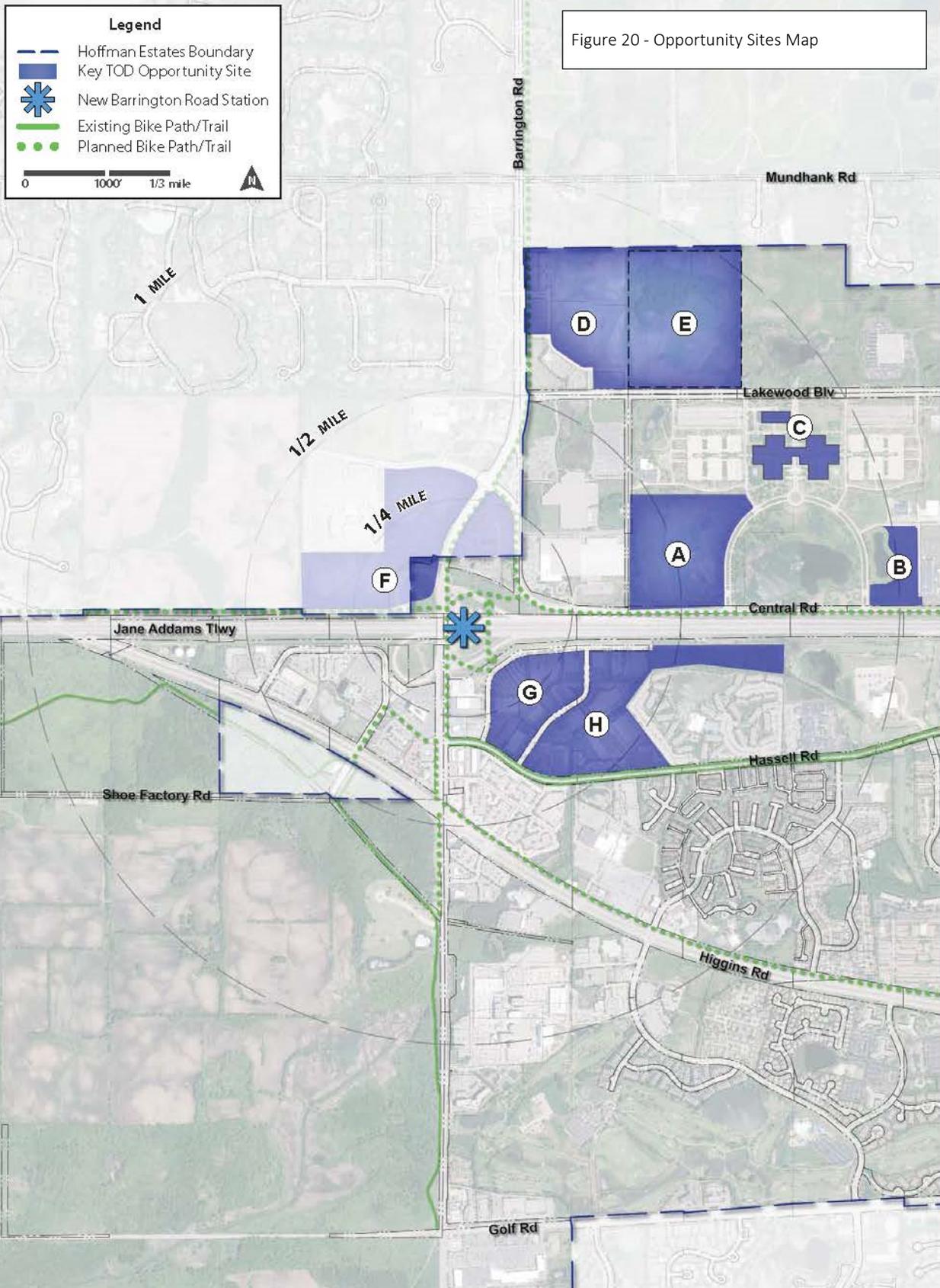
### Northeast

Within the existing office campus northeast of the Station, two large green field parcels (call outs A and B) were identified as development opportunities. Currently, both properties are for sale and planned as office/light industrial uses and offer high visibility from the Tollway. AT&T's existing headquarters (C) will be vacated this year. Efforts to market this property have been ongoing. In addition, a series of undeveloped parcels were identified on the northeast corner of Barrington Road and Lakewood Boulevard (D). These contiguous parcels are actually owned by different parties. A portion of the property adjacent to Barrington Road is bank-owned, while another portion is owned by Meijer, which had planned to locate a new store as the anchor to a larger retail development. As it currently stands, portions of the retail have been built, along with some roads and infrastructure, but Meijer has decided to hold off on further development for the foreseeable future. The large rectangular property east of this parcel (E) is owned by a church and has been actively marketed for development.

### Northwest

As previously noted, the northwest quadrant of the Station area largely falls within the Village of South Barrington. However, there is a portion of undeveloped land within a ¼ to ½ mile of the Station (F), which presents an opportunity to provide transit-supportive land uses. This area has been developed partially as a retail and entertainment center, highlighted by a movie theater and a restaurant at the corner of Hollywood Boulevard and Barrington Road. Given the context, this opportunity site could offer a mix of small professional offices and retail to provide proximate access to shopping, dining, services, and entertainment for nearby residents, as well as capture visitors from nearby suburbs via new Pace Express service.

The prospects of mixed-use or residential in this location—particularly multi-family—are highly unlikely due to the Village of South Barrington's stated intentions to avoid this type of development, as noted in the Village's Comprehensive Plan. The site also currently offers poor east-west pedestrian access across Barrington Road and is therefore isolated from the future Station more so than the other quadrants, although this should improve with new crossings implemented at the Central/Barrington Road intersection as part of the interchange project.



### Southeast

The southeast quadrant is largely built out and contains a broader mix of land uses. However, current land uses immediately adjacent to the Station's kiss-n-ride facility (G) do not align with the principles of Transit Oriented Development (TOD), since they are primarily low activity, single-use, auto-oriented, low density/intensity, and poorly connected. This area contains a series of one and two story commercial, office, and/or light industrial buildings, such as a storage facility and the Village's public works facility. Many of these buildings and properties in these areas are outdated, vacant, or have been repurposed outside of their intended use. Therefore, the entire collection of parcels can be considered a redevelopment opportunity.

A similar mix of land uses is found across Stonington Avenue (H), which is bordered to the east and southeast by relatively high-density, multi-family residential developments both north and south of Hassell Road. Higher-density residential uses are ideal for establishing transit-oriented neighborhoods and attracting ridership. The key strategy for improving the usability of the new Pace service will be to provide better pedestrian and bike access to the Station throughout this entire area.

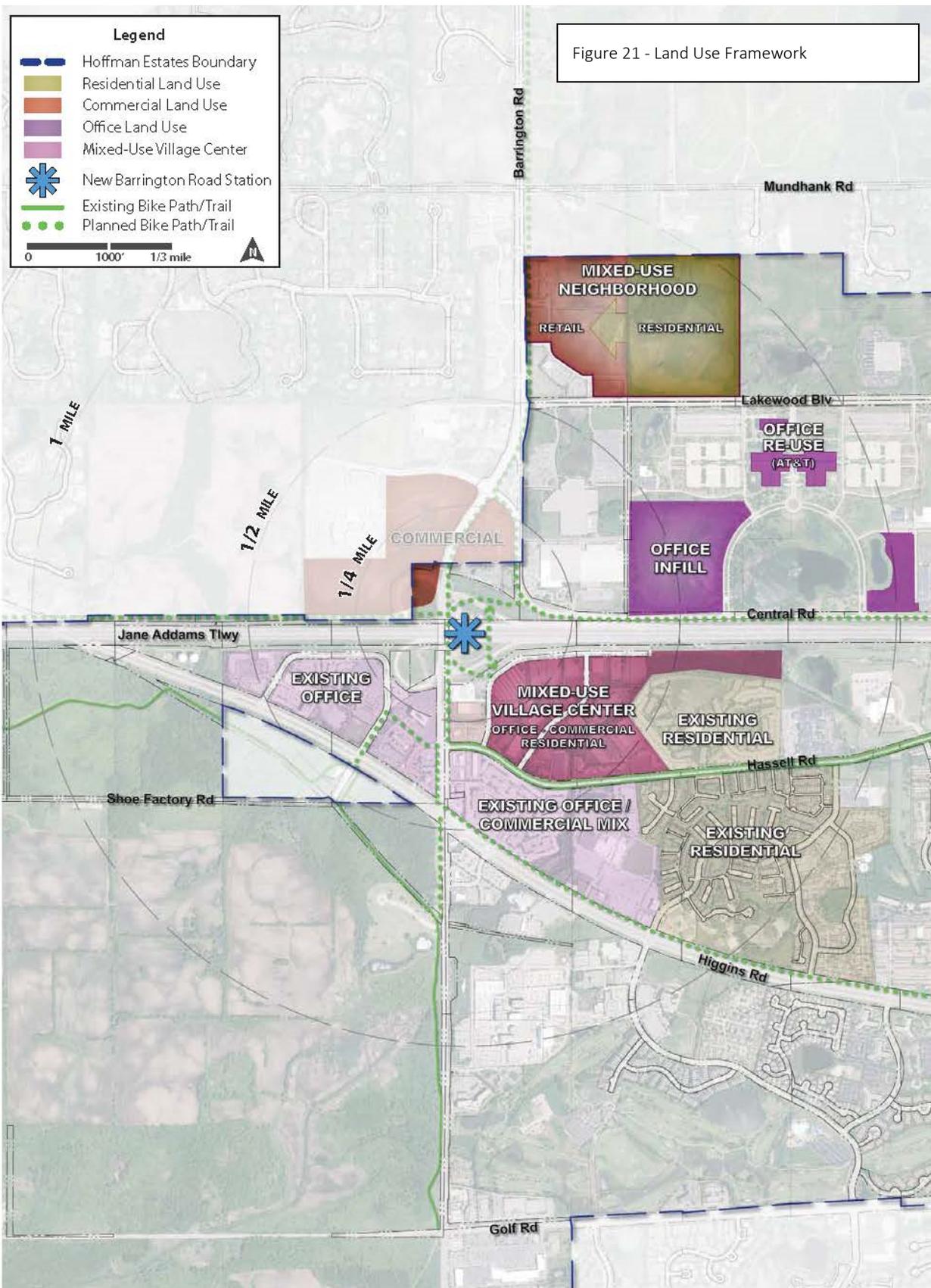
## **9.2. Land Use Framework**

Once the opportunity sites were identified, a preliminary land use framework (**Figure 21**) was developed to show how a shift in thinking could provide a new land use direction for the Village in support of the Pace express bus service and station. A critical component to the successful redevelopment of each opportunity site is creating better multi-modal access, breaking up the long blocks, and providing an enhanced connection between the Station and any new retail, commercial, office, or residential uses. A more detailed look at how specific opportunity sites could be organized is provided in the Development Strategies section.

### Northeast

The northeast quadrant provides an opportunity to develop sizable green field properties. The two sites along Central Road have always been envisioned as large scale office development and nothing currently suggests that the land use strategy for these parcels should be anything else. A major challenge in this area will be addressing the vacant AT&T headquarters, which was the main anchor to this office campus. They are currently zoned O4-Office District, so no zoning changes would need to be made to develop these as planned. These parcels are between a 1/2 and 1 mile from the Station and outside the normal TOD walking area. However, the parcels still provide the Village with an opportunity to promote a walkable development that could be oriented towards the new I-90 express bus service.

The opportunity site north of Lakewood Road and east of Barrington Road, though currently zoned for business and manufacturing use, also has potential as a mix of residential and retail use. This change in land use is based on the realities of the current real estate market and a desire to capitalize on development potential within the Station area. The major frontages would most likely be completed as retail with the eastern parcel developed as multifamily residential, consisting of a mixture of townhomes and apartment or condominium buildings. The zoning for these parcels would need to be addressed prior to their development, either through map amendments or an overlay zoning district.



### Southeast

The land use framework envisions a phased redevelopment of the small-scale office uses within the two opportunity sites shown. Ideally, the western portion of this area would include a mix of retail, commercial, and office uses that capture the commuters from the surrounding residential areas in a more active, higher density environment—a small-scale Village Center. In this scenario, access and visibility for retail or mixed-use development would most likely be oriented along Hassell Road and/or closer to the Station kiss-n-ride. Additional residential development could also be located in the general vicinity on the east side of Stonington Road. These opportunity sites are zoned almost entirely as M1-Manufacturing, so the proposed land use vision would require modifications to the Village’s zoning.

### Southwest

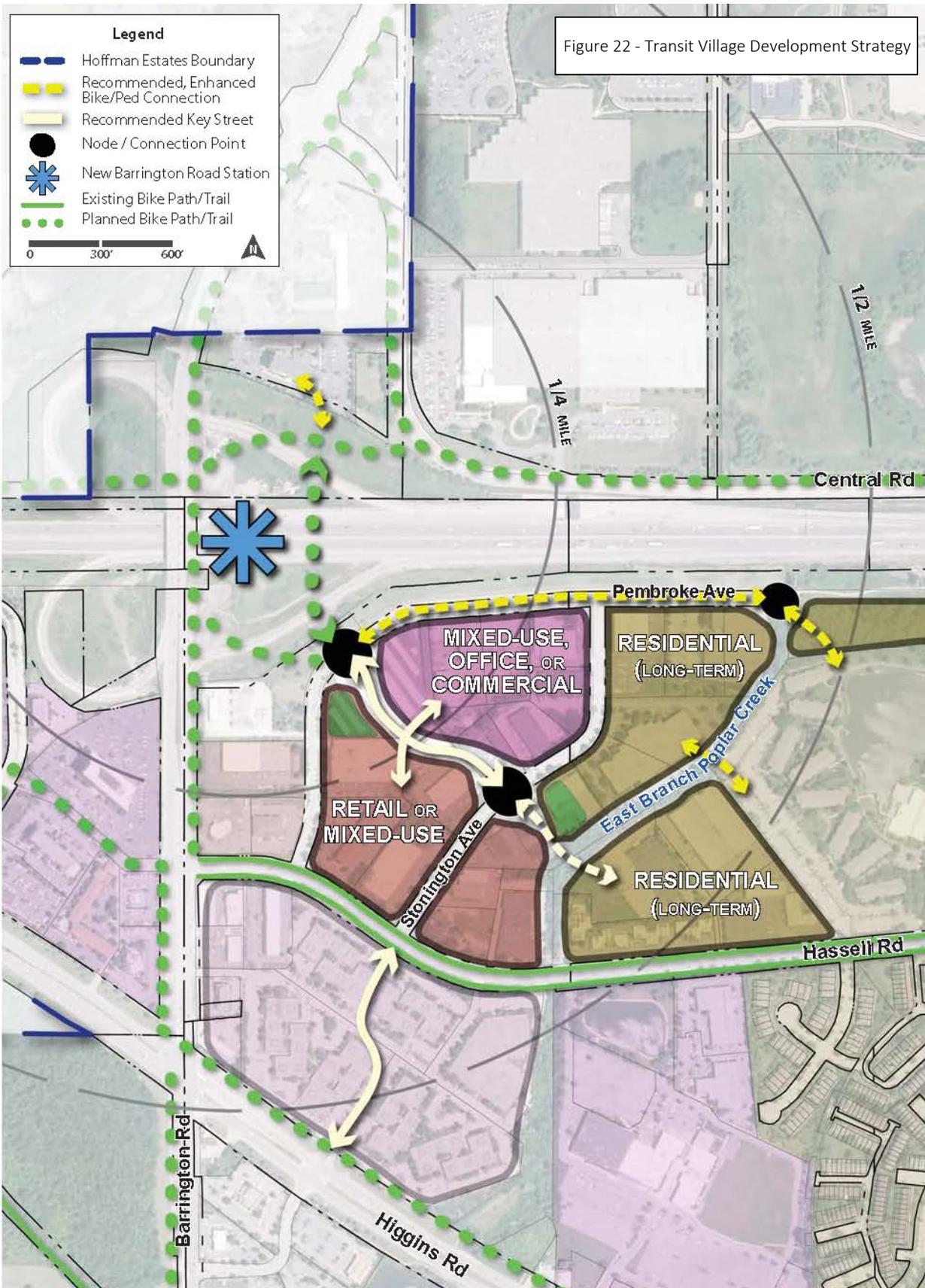
The southwest quadrant of the Station area is fully developed with a variety of uses including office, hotel, and restaurants. The proximity to the kiss-n-ride is very convenient for employees of the office buildings, but better connections are critical to serve this area. The report primarily focuses on establishing these pedestrian and bike connections, as no new development or redevelopment potential exists at this time.

## **9.3. Development Strategies**

The Development Strategy diagrams show how the opportunity sites identified previously can be broken down to enable future TOD in a manner more closely aligned with Pace’s Transit Supportive Guidelines. The Guidelines place a particular importance on land use and urban design principles that foster increased density, a mix of active land uses, better site accessibility, and support access for all modes of transportation, particularly pedestrians and bicyclists. Pace’s Guidelines also provide site specific urban design recommendations and should be consulted when developing or reviewing future redevelopment plans.

### Southeast – Transit Village Development Strategy

The transit village development strategy (**Figure 22**) shows how the large blocks immediately southeast of the Station can be divided into smaller, more walkable development parcels, and better connect the Station with surrounding office and residential areas. The introduction of new streets creates the potential for more frontages for development, which would allow for the creation of stronger and more transit-supportive form. Though not specifically identified as an opportunity site, future redevelopment within the area south of Hassell Road should also include improved street connectivity. The diagram further delineates the potential break down of land uses within the opportunity sites and highlights the primary land use imagined in each area. The strategy depicts a retail core off of the Hassell Road and Stonington Avenue intersection, flanked by a mix of office and/or commercial use. Long-term redevelopment of the remaining parcels into higher density residential use would help to bolster transit ridership and provide a more appropriate transition to the surrounding neighborhoods east and southeast of the site. In addition to providing a more dynamic and relevant mix of land uses, this strategy envisions a higher quality pedestrian environment with a network of open spaces, streetscapes, and trail connections that improve the pedestrian environment near the Station.



### Northeast – Mixed-Use Neighborhood Development Strategy

**Figure 23** shows a strategy for completing the currently stalled retail development, while showing how remaining land could transition to higher density residential that could provide additional riders for the express bus service. The bicycle and pedestrian connections could make residential development in this location attractive to frequent transit riders. Space is maintained for a retail anchor in conjunction with existing commercial uses along the Barrington Road and Lakewood Boulevard frontages. Additional retail or higher density residential development to the immediate north and east of the retail anchor would provide a transition to residential development areas on the eastern portion of the site. The envisioned street network would help to tie the site together, and promote walkability with a high-quality streetscape and pedestrian environment.

On a final note, as the new transit services become established and more people use these services together with bicycling and walking, there will be less of a need for parking. At some point the Village may want to evaluate parking requirements in this area and allow more new development with more floor area than is currently allowed.

### **9.4. Summary**

The Village of Hoffman Estates Comprehensive Plan is primed for an update. Much of the vision portrayed in the document from 2007 relied on a transit mode that was not implemented. With the Village on the brink of having a new interchange and Pace express bus service, a deeper examination of the impacts this will have on the Village is warranted. This includes an overview of current market conditions, land uses, zoning, and infrastructure conditions, as well as a public engagement process. The land use framework and development strategies described above lay the foundation for future study and provide direction for the policy changes within the Station area. To ensure successful implementation, careful coordination between economic development goals and revised zoning/land use policies will be required.

