

Village of East Dundee

Dundee Crossings Transit and Redevelopment Study



Prepared for:
Village of East Dundee

November 2010

S. B. Friedman & Company
Real Estate Advisors and Development Consultants

DLK Civic Design **HDR LAKOTA** **RWA** CIVIL ENGINEERING CONSULTANTS
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Date: September 30, 2010 (Revised 10/12/10)
To: East Dundee/Dundee Crossings Steering Committee
From: *S. B. Friedman & Company*
Subject: Final Report – Dundee Crossings Transit and Redevelopment Study

Executive Summary

The purpose of this study, conducted under the Regional Transportation Authority (RTA) Community Planning Program, is to guide the redevelopment of the Dundee Crossings area of East Dundee to enable the currently underutilized properties along the Route 72 and Route 25 corridors to become productive generators of employment and tax revenues, as well as providing for enhanced retail and medical services.

This study is the product of the collective efforts of the project's Steering Committee, the Consultant Team, elected and appointed officials of East Dundee, and the citizens of East Dundee who have participated in and provided input to the report during various meetings and presentations. The Steering Committee was comprised of RTA staff (and its Service Boards Pace and Metra) and officials representing East Dundee. The Consultant team consisted of S. B. Friedman & Company, the Lakota Group, HDR, DLK Civic Design, and Regina Webster and Associates. The Consultant Team conducted interdisciplinary work in development economics, land planning, design guidelines, civil engineering and transportation analysis.

The Study Area for Dundee Crossings is centered at the intersection of Route 72 and Route 25 in East Dundee, and encompasses the Santa's Village site, River Valley Shopping Center, Wal-Mart site, Terra Business Park, and vacant land to the north and south of Route 72.

An early finding of the study was that a comprehensive transit center located within Dundee Crossings would not be viable – due to current ridership demand and existing centers in Elgin and Prairie Stone. However, it was determined that there were key strategic parcels within Dundee Crossings that could be redeveloped over time to achieve fundamental economic development objectives of the Village of East Dundee. The key to this redevelopment process is to align the Village's land use policies and financial incentives along with its strategic location within the O'Hare-Rockford market to capture future growth along Routes 25 and 72.

In addition, it was also determined that each of these strategic development parcels should be designed upfront to be transit-friendly in order to make public transportation a viable means of accessing the jobs and services to be provided. It was also determined, based on ridership information and commuting patterns along Route 25 associated with business and industrial development in Carpentersville, that transit access to the single largest assemblage of land within Dundee Crossings would be a key strategic asset enhancing the value of future business and industrial park development targeted for the site.

Since the recommendations indicated in this report involve a variety of public investments and actions, this document is intended as a concise reference source. The intent is to provide East Dundee stakeholders and decision makers with a guide that will focus the Village's land use/development policies and incentives to encourage private sector initiatives. As noted in the Implementation Matrix, there are a number of recommendations for specific sites and projects that, taken together, are intended to develop Dundee Crossings into a mixed use corridor – creating a new environment providing employment, services and tax revenues for East Dundee.

East Dundee is located in a high-growth region in suburban Kane County along the I-90 Corridor. Routes 72 and 25 are key arterial routes, and access to I-90 is relatively close, all of which make the area highly accessible to adjacent communities and the larger region. Multiple bus routes also converge in the area and the Village of East Dundee is serviced by two Metra commuter rail lines.

These factors suggested high potential for a transit-orientated development concept at Dundee Crossings. The approach to this plan considered drivers for transit services and physical development, including the location of a transit center at Dundee Crossings and land use and economic development planning for potential redevelopment sites.

Another key strategic benefit of Dundee Crossings' location is that it is a part of the O'Hare Business Corridor, proximate to the Northwest Tollway and situated within Kane County, which provides a lower-cost environment to both land and business owners. The lower costs of owning property and operating a business will be a key competitive advantage going forward in an environment where businesses are seeking every opportunity to lower costs while being accessible to employees, clients and key modes of transportation.

The planning process included background analysis of existing conditions and the development of a preferred concept plan and design guidelines based on input received from the Steering Committee and public participation. A series of tasks, each of which generated information critical to determining the highest and best use of properties with the study area, were completed during this process. The chapters of this report contain full copies of the Consultant Team reports under each task. A summary of these tasks, as well as their key outcomes and findings, is listed below.

Key Findings and Recommendations

The key findings and recommendations of the Dundee Crossings Plan are:

- The redevelopment of Dundee Crossings will provide a strategic asset for the economic development goals of East Dundee. To implement the Dundee Crossings Preferred Concept Plan and Design Guidelines, the Village will need to create the appropriate regulatory framework, including required zoning changes, prioritizing the use of TIF and BDD proceeds, and proactively communicating policies for partnering with the Village.
- Dundee Crossings holds several locational advantages, including access to I-90 and its position at the Kane/Cook County boarder. However, in light of the current economic environment, the Village will need to monitor market conditions and maintain active communication with area

businesses, land owners, and developers to direct regional growth opportunities to Dundee Crossings as they occur.

- The Village should be prepared to facilitate partnerships to accomplish the goals of this Plan. These partnerships may include private-private partnerships between existing landowners and potential new businesses; public-private partnerships between the Village and private landowners, businesses, and developers; and public-public partnerships between the Village and other potential institutional users of the Cook County site.
- While current ridership demand and the location of existing transit centers limit current potential for a transit center at Dundee Crossings, the Village will need to coordinate adequate transit service levels and amenities with Pace to make the area attractive to both current and future users. Developing an overall area that is easy to navigate, offers multi-modal transportation options that are responsive to demand, and is pedestrian-friendly will create a significant competitive advantage for attracting new businesses, residences, and private investment at Dundee Crossings.

Summary of Individual Tasks and Associated Reports

Task 1: Data Collection and Review

The Consultant Team reviewed existing conditions and existing recommendations addressing the Dundee Crossings Study Area to identify the opportunities and constraints for transit-orientated development. This review included current land use and environmental conditions, regional demographic trends, and existing transit services, transportation patterns and commuting preferences.

Due to the Village's location among high-growth communities along the I-90 Corridor, opportunities were identified for linking the northwest suburbs, Elgin, and new business park development at Dundee Crossings, as well as capturing a share of the region's larger commuting traffic. Constraints include high congestion at Route 72 and Route 25, the proposed Randall Road BRT Line, and limited demand from Prairie Stone and Metra commuters. While the lack of transit services in the far northwest suburbs and area activity generators allow some potential for a transit center at Dundee Crossings, greater potential exists for developing the Study Area as a regional employment center that capitalizes on existing land use patterns and locational advantages at the Cook/Kane County boarder. Subsequent planning tasks explored the transportation needs, as well as supportive land uses and amenities for this area.

Task 2: Transportation Needs Analysis

The goal of this task was to provide a clear understanding of travel demand, trip patterns, modal preferences, and transportation needs at Dundee Crossings. The approach included two focuses: a traffic analysis evaluating traffic patterns and modes of transportation through field observations; and a transit analysis evaluating existing and potential new transit services.

Findings of the transportation analysis indicated that Route 72 is the most trafficked roadway in the Study Area, serving as an alternative regional transportation route to I-90, followed by Routes 25 serving as a regional north-south arterial and Route 68 primarily servicing nearby residential areas. The dominant existing mode of transportation was determined to be regional vehicular traffic, while bicycle

and pedestrian traffic were minimal. Congestion at the intersection of Route 25 and Route 72 caused these roadways to operate at below acceptable levels during the AM and PM peak hours. The results of this analysis informed the transit analysis portion of this task.

Results from the transit analysis indicated that current population, projected population growth, and geographic gaps in transit service could support up to two new bus routes in the area that would alleviate congestion at the 72/25 intersection. These proposed routes would link the northwest suburbs to Dundee Crossings, Prairie Stone, and potentially the Hoffman Estates STAR line Station via Route 72, and link future employment and other activity generators at Dundee Crossings into the regional transportation network. Based on redevelopment opportunities at Dundee Crossings, potential was found for a small-scale transit center accommodating up to six buses and providing other transportation-supporting facilities for park-and-ride users, bicyclists and pedestrians during peak hours to further alleviate congestion.

Task 3: Development Site Assessment and Concepts

The goal of this task was to prepare conceptual redevelopment plans for the study area based upon the finds in Tasks 1 and 2, and Village goals and objectives. Four plans were developed to illustrate the overall potential land uses, layout, density, and orientation of future development as well as potential transit routes and transit supportive site features. Alternative concept plans were also prepared for the River Valley Shopping Center, Santa's Village, and Wal-Mart sites.

Task 4: Public Involvement – Community Input and Visioning

Following the completion of Tasks 1, 2, and 3, a workshop was conducted on January 25, 2010 to receive feedback on the goals and objectives of the study, its general findings, and input on the redevelopment concepts. The community was encouraged to ask questions and comment on the concept plans presented, which was taken into account in developing the preferred concept plan.

Feedback was very positive regarding the proposed land uses and nature of proposed redevelopment. Specific comments included support for increased transit services to the northwest suburbs, maximizing the utilization of the Cook County parcel, and incorporating a health/wellness component in the plan. These comments were used to guide the development of the preferred concept plan and implementation strategies.

Task 5: Area Redevelopment Plan and Design Guidelines

Based on public input, the Steering Committee selected a preferred concept plan from the alternatives presented under Task 4. The Consultant Team developed a final Dundee Crossing Preferred Concept Plan, including an overlay of transportation patterns, and design guidelines to convey the expected level of development quality to potential developers.

The preferred concept plan illustrates opportunities for commercial redevelopment at the Wal-Mart site, residential and health/wellness development at the River Valley Square Shopping Center site, public/institutional uses at the Cook County site, and business park expansion at the Santa's Village site and land located north and south of Route 72.

Design guidelines verbally and graphically communicate standards for buildings, parking, stormwater management, streetscaping, and pedestrian and transit-supportive amenities. Together, these guidelines establish a clear set of expectations to ensure that future development will be consistent with the objectives of the community and to ensure that the sites' strategic location within the overall O'Hare corridor are maximized, including the ability to provide owners of land and companies a lower cost of doing business in a high quality environment with access to transit services and highway transportation.

The results of this task were shared with the community in two public workshops and with private developers through one-on-one meetings to determine implementation strategies for the Dundee Crossings Study Area.

Task 6: Public Workshop – Community Review and Feedback

The Preferred Concept Plan and Design Guidelines were presented, discussed and well-received by the public at a workshop presentation on May 24, 2010.

Task 7: Implementation Strategies

The purpose of this task was to prepare an overall phased implementation strategy to accomplish the objectives for Dundee Crossings. The Consultant Team reviewed outcomes from previous tasks against current plans, zoning, ownership, existing site conditions and available funding sources. The results of this analysis were summarized in a matrix addressing area-wide and site-specific action steps, as well as the initial leads under each strategy.

The implementation strategy is intended to guide the Village in working with other public agencies and the private sector to market the site, identify and obtain funding sources, and manage redevelopment activities at Dundee Crossings. Recommended timeframes and general priority levels indicate a possible course of progression based on current available information and market conditions, but could be adapted to respond to changing market conditions and actual redevelopment activities.

The Village should continue devoting staff resources to usher this report and its recommendations through the public approval process. Continued outreach and proactive communication on the part of the Village with other public agencies, land owners, and the development community will be a key factor in implementing the Dundee Crossings Preferred Concept Plan and Design Guidelines.

Date: October 2, 2009 (Revised 10/12/2010)
To: East Dundee/Dundee Crossings Steering Committee
From: *S. B. Friedman & Company*
Subject: Task 1 Summary Memorandum

INTRODUCTION

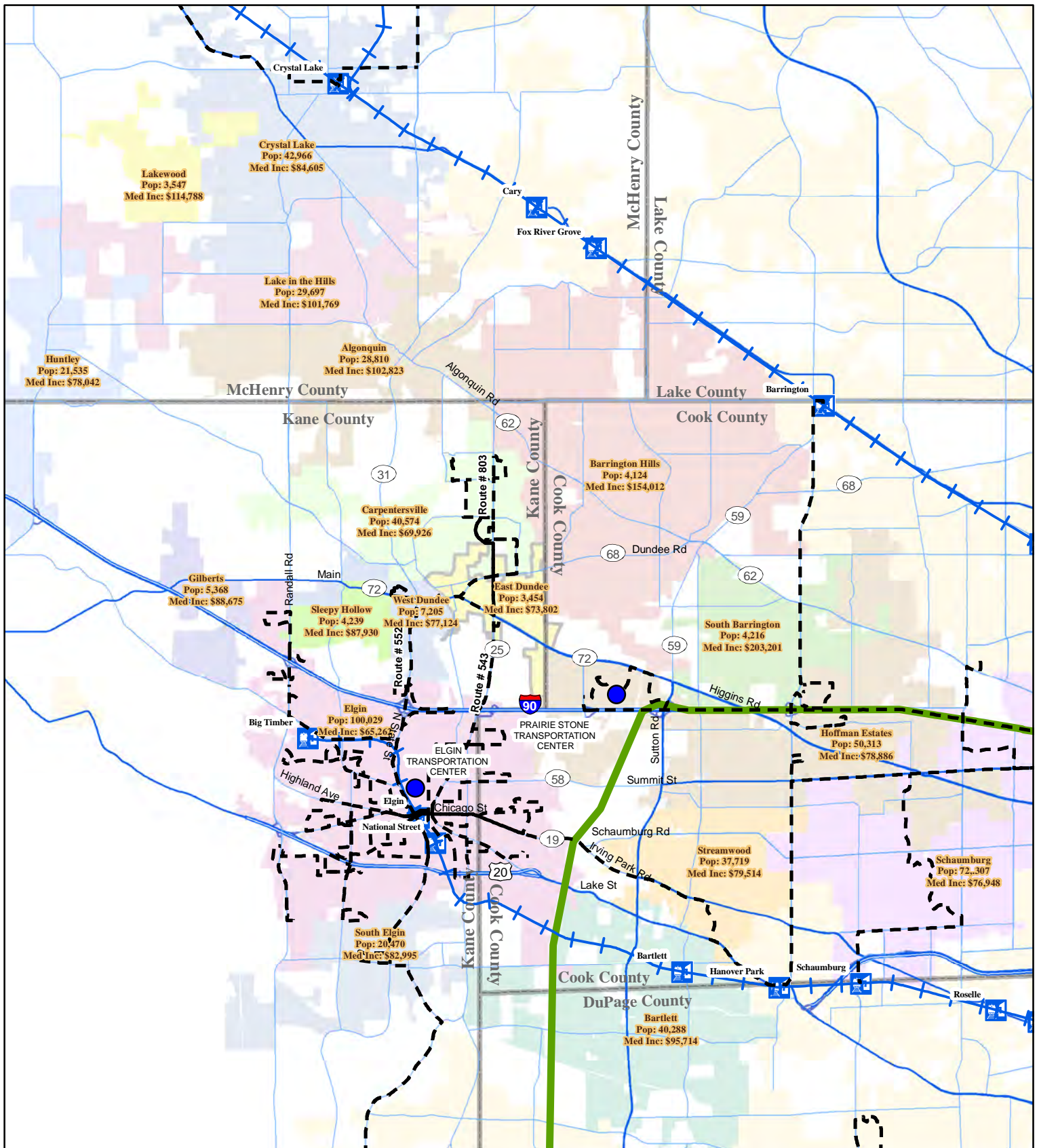
The consultant team led by *S. B. Friedman & Company* has been engaged to study the feasibility of a transit center development in East Dundee to promote public transportation and economic development. The Village's vision for the Dundee Crossings Transit Center is based on the potential to capture traffic and activity generated by a growing regional population and employment base. Kane County is one of the fastest growing counties in Illinois and has a strong economic base that includes health care, manufacturing, and retail businesses. Northwest Cook County includes several corporate employers and retail centers that attract people from across the region. East Dundee lies at the crossroads of both counties, which potentially allows the Village to become a prime candidate for creating a transit center.

The focus of the transportation center is bus transit. However, multi-modal transportation options will be considered if opportunities to support them exist. Multiple development sites where the Dundee Crossings transit center can be located are under consideration; most are concentrated at or near the intersection of IL Route 72 and IL Route 25.

This technical memorandum provides a summary of our findings under Task 1: Data Collection and Review. The key considerations under this task include a demographic profile of the East Dundee region; an overview of area activity generators and existing transit lines; study area identification and overview; and opportunities and constraints for an East Dundee transit center development. Each of these considerations is discussed in the following sections below.

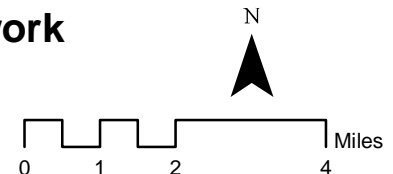
DEMOGRAPHIC PROFILE

A demographic profile was analyzed for East Dundee and surrounding communities in Kane County, DuPage County, McHenry County and Cook County that are located along the I-90 northwest regional development corridor. **Map 1** illustrates the municipal boundaries and the estimated 2009 population and median income for each community.



MAP 1: Regional Demographics & Transportation Network

- Pace Transportation Centers
- + Metra Lines
- Pace Bus Routes
- Proposed STAR Line (CN/EJ&E Corridors)
- Metra Stations



Population and income data was obtained through ESRI, a nationally recognized provider of demographic data, for communities located primarily north and west of East Dundee. A large amount of development and comparatively lower availability of existing public transit options in these communities suggests the potential for additional regional demand. These communities are listed in Table 1 below. According to ESRI, these communities experienced an overall growth rate of 20 percent from 2000 to 2009. The fastest growing communities in the region were Gilberts (320 percent) and Huntley (276 percent). By 2014, the total population in this region is projected to grow 368,533 with the largest amount of population growth contributed by Huntley and Carpentersville. Together, these two communities are projected to add approximately 9,538 people to the region. These population trends are detailed in Table 1 below.

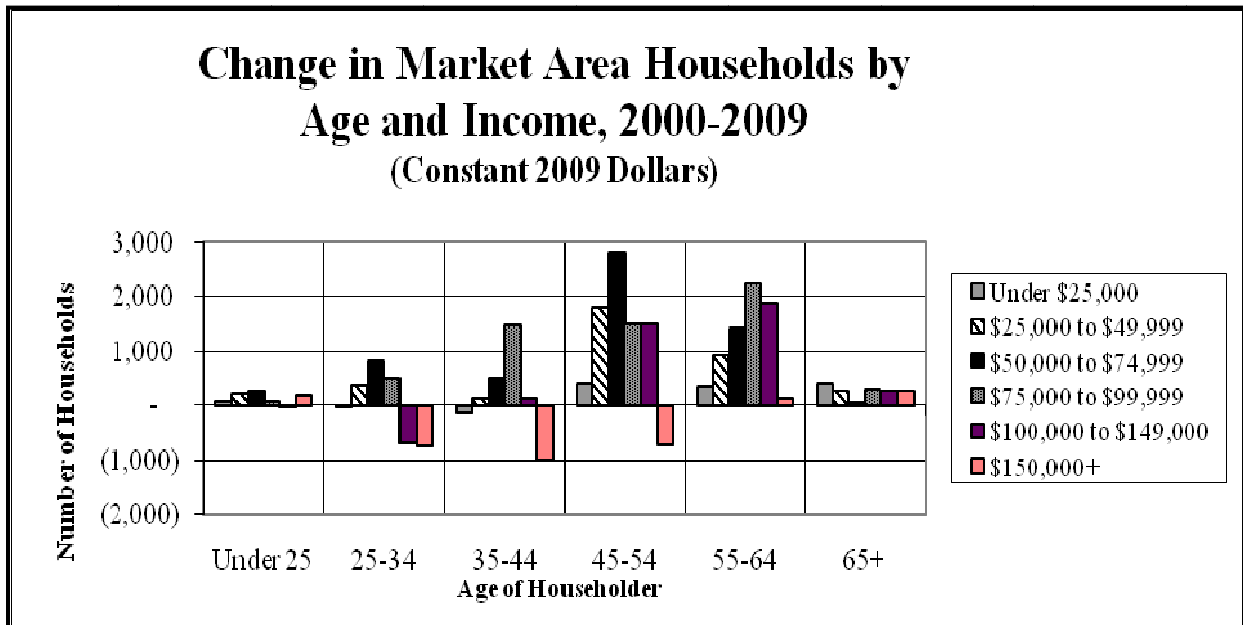
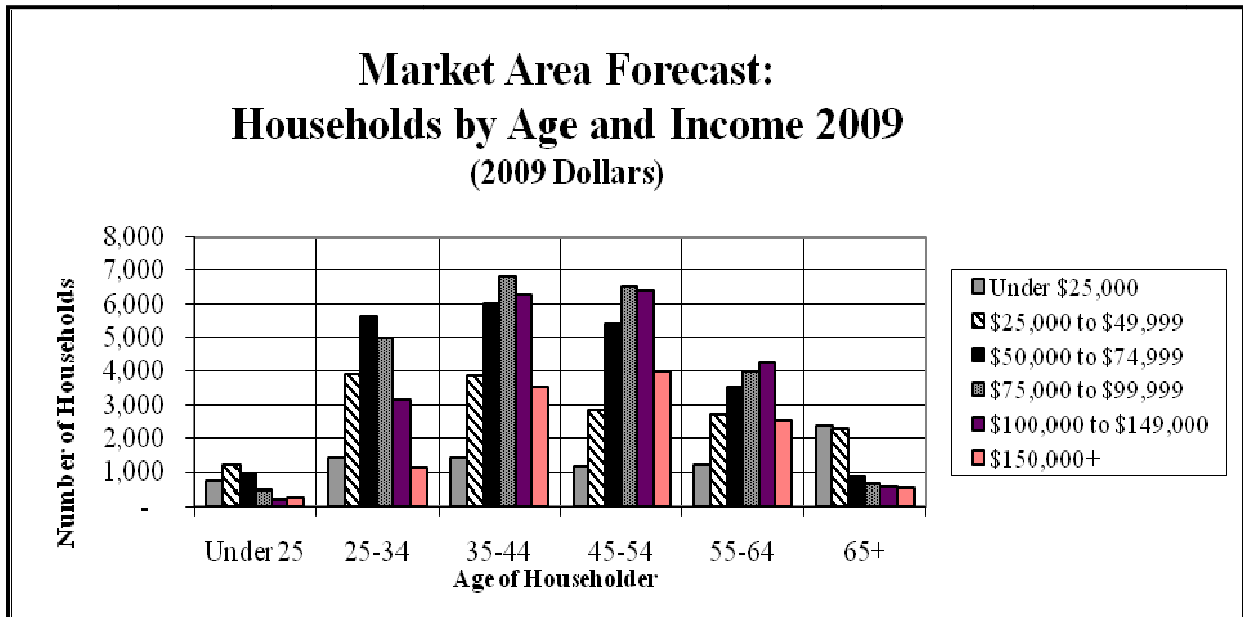
Table 1. Population Change in East Dundee and Surrounding Communities.

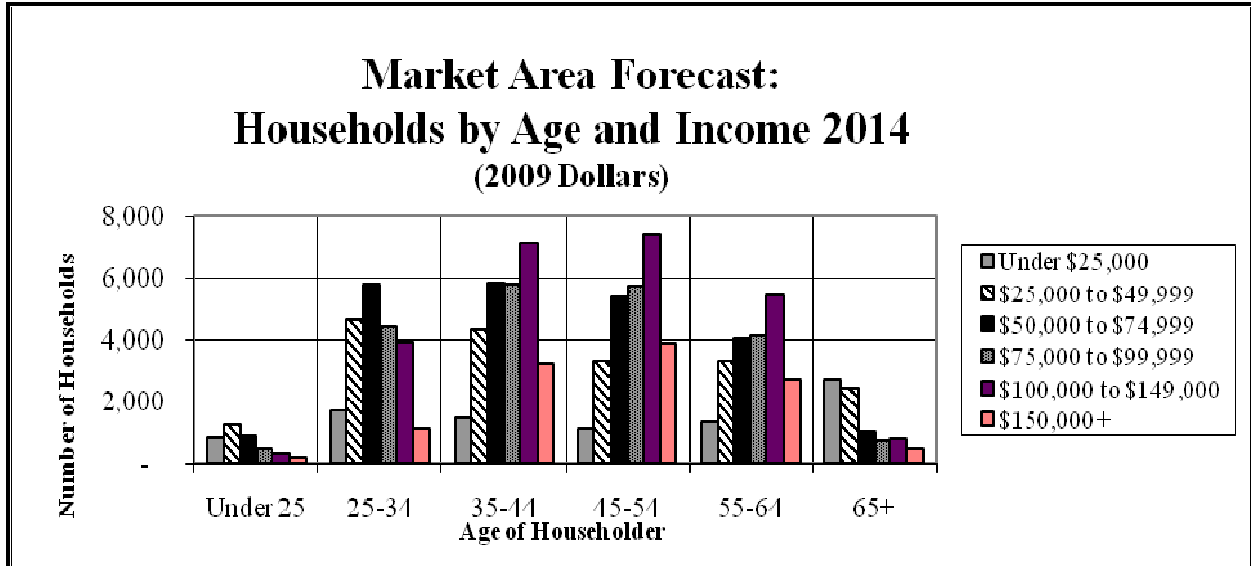
Community	2000 Population	Est. 2009 Population	Est. 2014 Population	% Change (2000-2009)	% Change (2009-2014)
Algonquin	23,275	28,810	31,633	24%	10%
Barrington Hills	3,915	4,124	4,424	5%	7%
Carpentersville	30,585	40,574	44,571	33%	10%
Crystal lake	37,999	42,966	45,242	13%	5%
East Dundee	2,955	3,454	3,659	17%	6%
Elgin	94,486	100,029	103,724	6%	4%
Hoffman Estates	49,495	50,313	49,876	2%	-1%
Gilberts	1,279	5,368	8,739	320%	63%
Huntley	5,730	21,535	27,076	276%	26%
Lake in the Hills	23,152	29,697	32,961	28%	11%
Lakewood	2,337	3,547	4,083	52%	15%
Sleepy Hollow	3,553	4,239	4,686	19%	11%
West Dundee	5,428	7,205	7,859	33%	9%
Total	284,189	341,861	368,533		

According to industry studies on public transit in the suburbs, a significant portion of bus ridership is comprised of lower income residents, youth/students, the elderly, and disabled persons. Based on this conclusion, several demographic factors were identified that could potentially influence demand for transit services. These factors include age cohorts under 25 years and over 65 years, household income levels below 60 percent Area Median Income (AMI), and disability status.

According to ESRI, much of the population growth experienced in this area between 2000 and 2009 has been among households earning between \$50,000 and \$100,000 per year. The 2009 median income for East Dundee and surrounding communities listed in **Table 1** above was reported as \$78,200. Over this same period, the number of affluent households earning more than \$150,000 has also decreased. ESRI data estimates that in 2009, the number of households by income that are at or below 60 percent AMI (approximately \$49,000) in East Dundee and surrounding communities was 28,326 households. This number is expected to grow by 3.9% to

29,417 households by 2014, with the largest increase projected for households headed by individuals in the 25 to 34 year cohort. The charts below illustrate these trends in further detail.





The most current information on disability status is available through the 2008 American Community Survey at the township level. The Dundee Township boundary contains Carpentersville, East Dundee, West Dundee, Sleepy Hollow, and portions of Barrington Hills, Elgin, Hoffman Estates, and Algonquin. According to this data, the total number of individuals reporting a disability was 4,321, and approximately 2,349 of these individuals reported having ambulatory difficulty. Although persons with disabilities are likely users of public transit, many utilize paratransit services and would not be a significant demand generator for general bus travel.

Commuting preferences were analyzed using journey to work data provided by the American Community Survey for East Dundee and surrounding communities. At the township level, which includes Dundee Township, Elgin Township, and Algonquin Township, the majority of all workers surveyed (94 percent) drove to work, while approximately three percent used public transportation (including train and bus transit). The remaining three percent traveled to work by other means.

EXISTING AND PROPOSED TRANSIT SERVICES

Currently, there are two Pace bus routes that travel through East Dundee: Route 803 and Route 543. Major destinations along the two lines include the Wal-Mart and the River Valley Square at Dundee Crossings and the Elgin Metra Station. Outside of East Dundee, the neighboring suburbs have more than 20 bus routes that serve multiple locations throughout Kane and Northwest Cook County. Thirteen of these routes travel through or are located wholly within the City of Elgin.

In addition to individual bus routes, there are two Pace bus depots within the East Dundee region. The largest depot, located in downtown Elgin, is adjacent to the Elgin Metra Station. The depot provides connections with 13 local area routes to Elgin, Carpentersville, East Dundee, Geneva, St. Charles, Aurora, and Schaumburg. One of the 13 bus routes that converge here is the 543 route that travels through East Dundee. The Elgin Transit Center is also served by

Greyhound, which travels to 36 locations in Illinois and numerous other national and international locations. Rockford is the closest location to East Dundee at approximately 50 minutes in travel time.

The second Pace depot, which is the closest to Dundee Crossings, is the Prairie Stone Transit Center. The transit options at this location include three Pace Routes (Routes 610, 1012, and 767), with pick up locations reaching as far as the south suburbs. Additionally, the Prairie Stone Transportation Management Association (TMA) provides alternative transportation options from Chicago and area suburbs. Over 30 active and successful Pace-sponsored vanpools and an employee carpooling organization are available to employees of Prairie Stone. These options also provide connections to area Metra train stations; however, these routes do not currently provide direct local access to East Dundee.

Rail transit lines providing service to the regional study area include the Metra Union Pacific Northwest Line and the Metra Milwaukee District West Line. The closest Metra stations to East Dundee are located in Barrington and Fox River Grove along the Union Pacific Northwest Line; and in Elgin along the Metra Milwaukee District West Line. Metra's 2006 Origin-Destination Survey indicated that the largest number of passengers on these lines originate from Carpentersville, Huntley, Gilberts, Elgin, South Elgin, Barrington, and Lake Zurich. Passengers originating from East Dundee account for approximately one percent of ridership at the Big Timber Station and Elgin Station, and approximately two percent of ridership at the National Street Station on the Metra Milwaukee District West Line. Passengers from East Dundee account for less than one percent of the ridership at the Barrington Metra Station on the Metra Union Pacific Northwest Line.

Metra mode of access data for all passengers on these rail lines indicated similar preferences to the American Community Survey journey to work data. Approximately 92 percent (3,392 passengers) accessed train stations by car or taxi, approximately one percent (35 passengers) by bus, and approximately seven percent walked.

Existing bus and train transit lines in the regional study area are shown on **Map 1**.

There are two proposed major transportation projects that will have an impact on the development of the transit center in East Dundee. Currently, there is a proposal to create another commuter transit line along the Canadian National Railway/Elgin-Joliet-Eastern (CN/EJ&E) right-of-way south of I-90. This line would primarily serve commuters in "outer-ring" suburbs and provide a public transportation option for commuters traveling from suburb to suburb. As proposed, the potential commuter line would have a train station adjacent to the Prairie Stone Business Park. The second planned project includes a Pace Bus Rapid Transit (BRT) line along Randall Road. This bus route would be a limited stop service that provides rapid transit between Crystal Lake and Algonquin, the west side of Elgin, and the City of Aurora. While both projects are in the early planning stages, their formation could significantly impact the development potential for a transit center in East Dundee.

AREA ACTIVITY GENERATORS

Based on the data derived about transit dependent populations, the consultant team identified key “activity generators” that are more likely to yield bus transit ridership. Area activity generators were identified as senior and affordable housing communities, post-secondary schools, major employment centers, and shopping centers. Each of these is outlined below:

Senior and Affordable Housing Communities: Large senior housing communities containing more than 30 units per community were identified in the regional study area. Thirteen senior communities were identified in Elgin, Algonquin, Hoffman Estates, West Dundee and Carpentersville that contain a total of 1,429 units. Affordable housing communities affiliated with the U. S. Department of Housing and Urban Development (HUD), the Illinois Housing Development Authority (IHDA), and Elgin Housing Authority were also identified in the regional study area. Another 13 affordable housing communities were identified in Elgin and Carpentersville that contain a total of 999 units. **Map 2** shows the location of senior and affordable housing communities in the regional study area.

Post-Secondary Schools: Elgin Community College’s main campus is located at the intersection of Route 20 and McClean Boulevard in Elgin. The college currently has an enrollment of 12,000 students and employs more than 1,000 faculty and staff. The college is expanding their campus and is in the process of building and planning for multiple on-site and off-site facilities. Judson University is located at the Intersection of Route 31 and I-90 in Elgin. The university has a student body of over 1,200 students and employs approximately 200 faculty and staff. The locations of both schools are shown on **Map 3**.

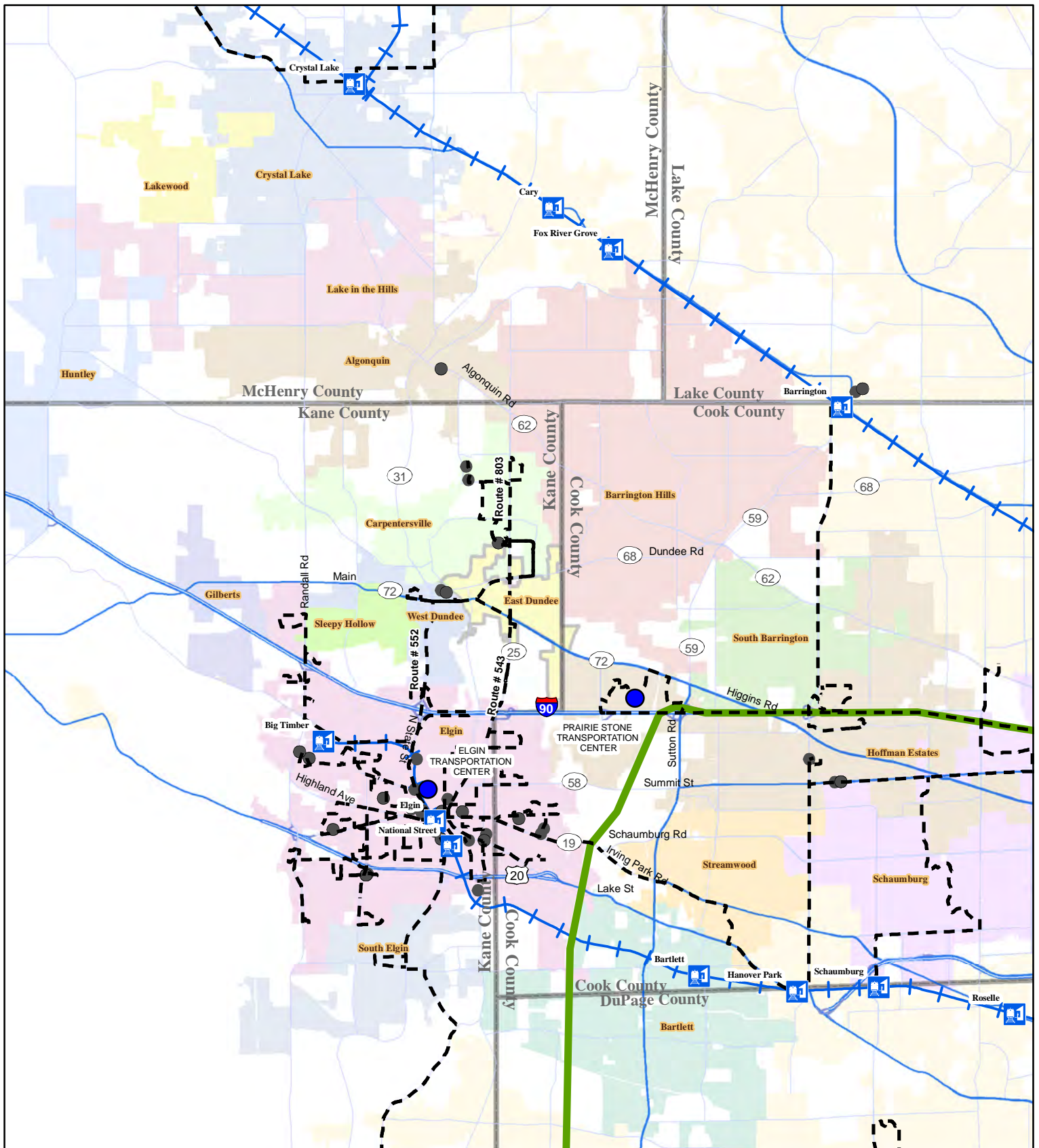
Major Employment Centers: Major employment centers were defined as single businesses that employ over 500 individuals per business and clusters of businesses that each employ over 100 individuals per business. Employment data was obtained through ESRI Business Analyst software.

Clusters of businesses employing 100 or more individuals per business are located in and adjacent to the Prairie Stone Business Park (9,300 employees), near the Barrington Metra Station (3,780 employees), Spring Hill Mall (400 employees), Crystal Point Mall (5,980 employees) and the intersections of Route 72 and I-90; Route 31 and I-90; Randall Road and I-90; and Randall Road and Algonquin Road. Additional clusters are located in Elgin near Larkin High School, downtown Elgin, and adjacent to Elgin Community College.

The largest individual employers in this region include Sears Center and Kmart (7,800), St. Alexius Medical Center (2,100), and Sherman Hospital (2,000). An additional 32 large businesses contribute 22,800 jobs to the regional economy. **Map 3** shows the location of these employment centers within a 10-mile radius from the potential transit center location in East Dundee. **Table 2** on the following page outlines the name, location, and number of employees at each of these businesses.

Shopping Centers: One of the largest shopping centers in the region, Woodfield Mall, is located immediately east of East Dundee along Route 72. Additionally, Springhill Mall and Algonquin Commons are located west and northwest of Dundee Crossings. The locations of these shopping centers are shown on **Map 4**. A variety of smaller scale community and neighborhood shopping centers are also clustered along arterial corridors and around intersections throughout the regional area.

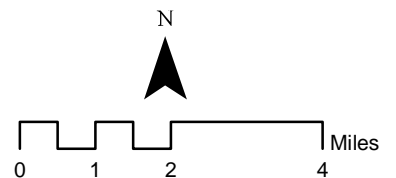
The largest shopping centers in the area include Springhill Mall, Algonquin Commons, The Arboretum of South Barrington, and Poplar Creek Crossing. Springhill Mall is located approximately two miles west of Dundee Crossings on Route 72, and is anchored by Sears, J. C. Penney, Macy's, and Carson's. Algonquin Commons is located approximately seven miles northwest and is one of the largest lifestyle centers in Illinois. The Arboretum of South Barrington and Poplar Creek Crossing are located adjacent to the Prairie Stone Business Park at the intersection of Route 72 and Route 59 (Sutton Road). The Arboretum of South Barrington is a lifestyle center containing over 600,000 square feet of retail space and upscale tenants such as Gold Class Cinema and Pinstripes Bowling, Bocce, and Bistro. Year-round community events at the center add to its regional draw as a destination place. Poplar Creek Crossing is a power center located directly south of The Arboretum. This shopping center contains over 400,000 square feet and national tenants such as Target, The Sports Authority, and Michael's.

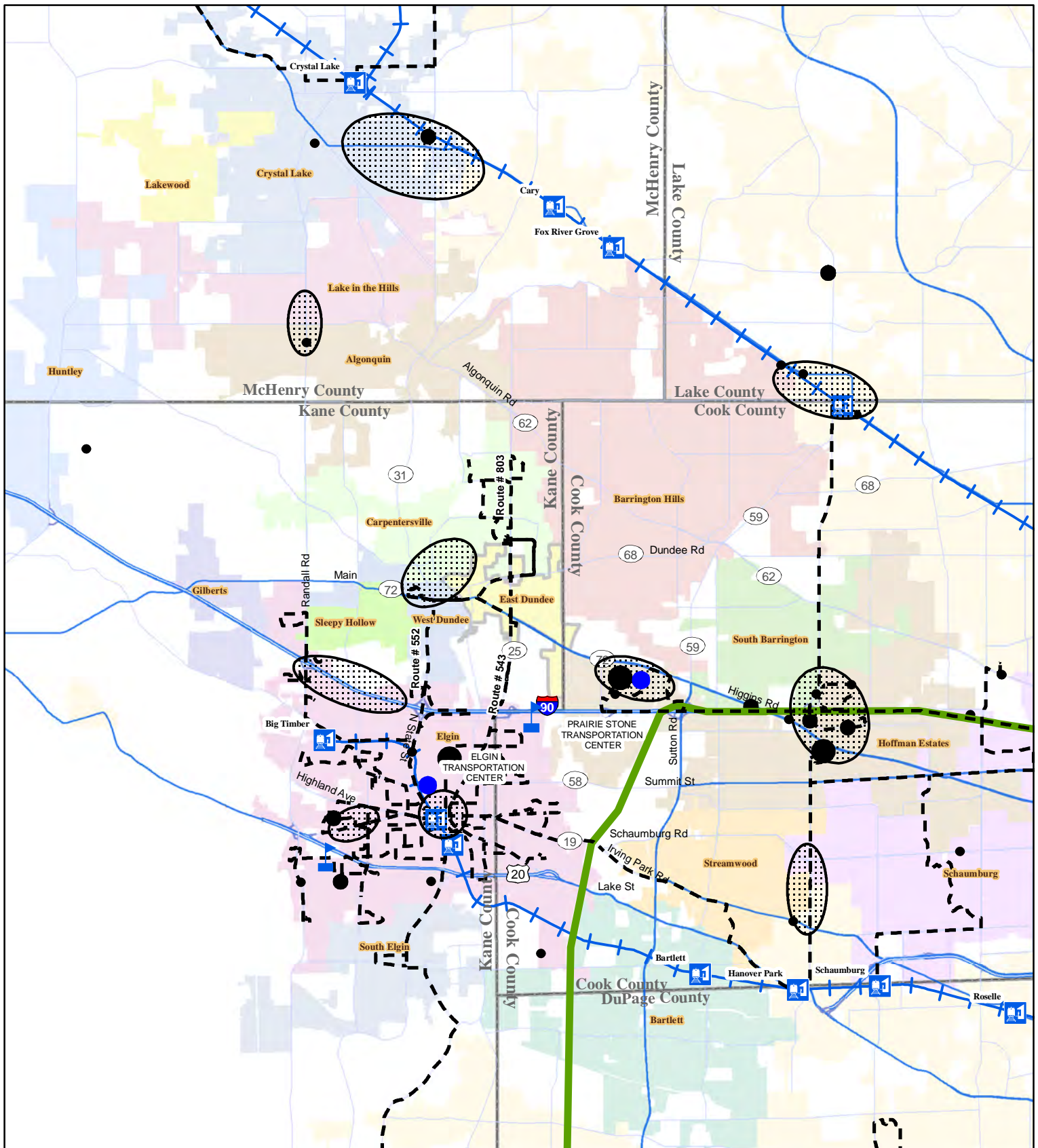


Dundee Crossing Transit Center Study

MAP 2: Senior and Affordable Housing Communities

- Pace Transportation Centers
- +— Metra Lines
- Pace Bus Routes
- Proposed STAR Line (CN/EJ&E Corridors)
- Metra Stations
- Senior and Affordable Housing Communities





Dundee Crossing Transit Center Study

MAP 3: Major Employment Centers

- Pace Transportation Centers
- +— Metra Lines
- Pace Bus Routes
- Proposed STAR Line (CN/EJ&E Corridors)
- 1 Metra Stations

- 1 Post-Secondary Schools
- Clusters of 100+ Employees
- 500 - 999 Employees
- 1,000 - 1,999 Employees
- 2,000 - 4,800 Employees

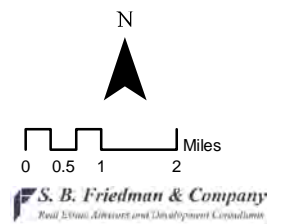
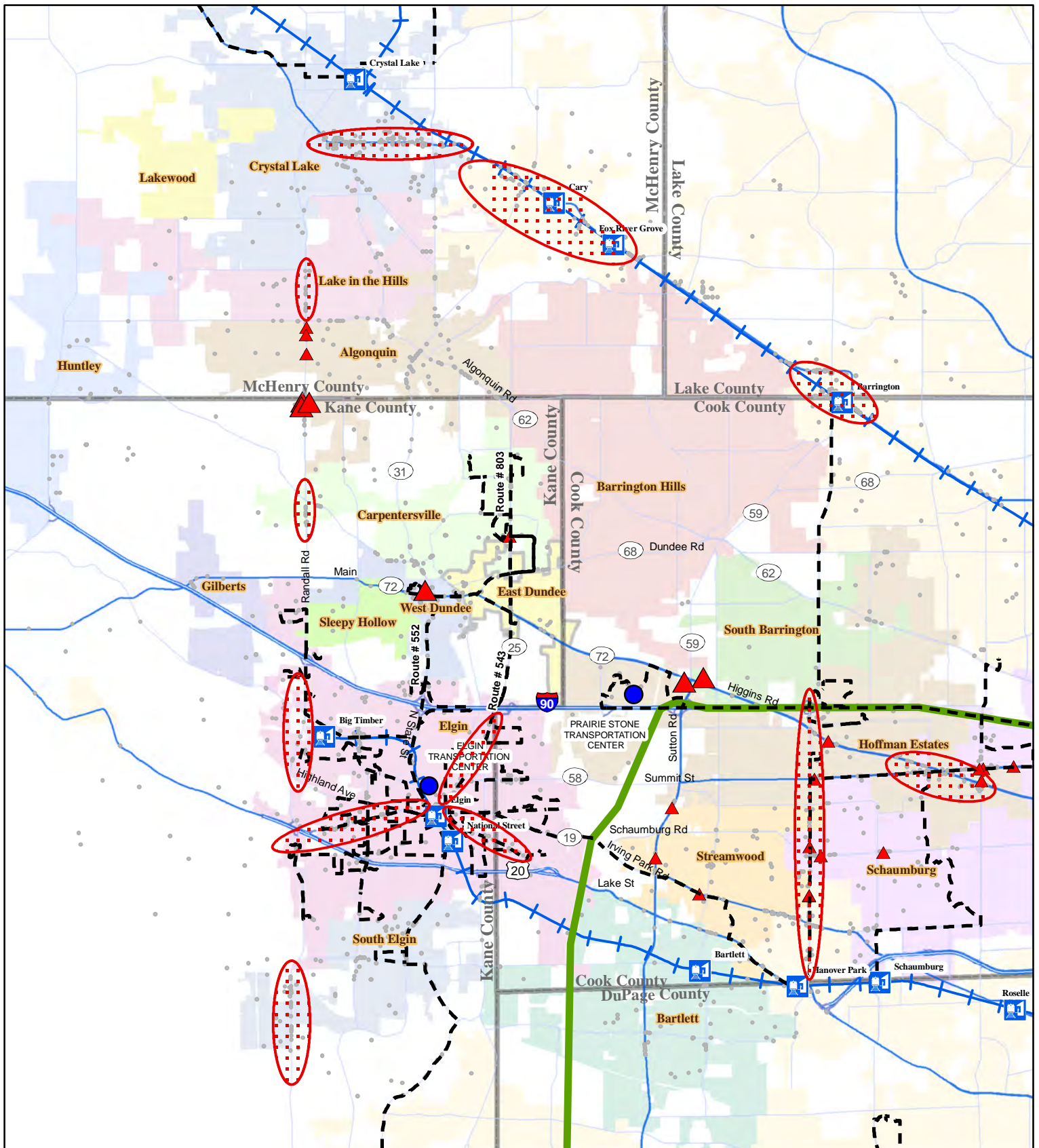


Table 2: Regional Employers Providing Greater Than 500 Jobs [1]

COUNT	COMPANY NAME	EMPLOYMENT
1	SEARS HOLDINGS CORP	4,800
2	KMART HOLDING CORP	3,000
3	ST ALEXIUS MEDICAL CENTER	2,100
4	SHERMAN HOSPITAL	2,000
5	GRAND VICTORIA CASINO	1,800
6	GOOD SHEPHERD HOSPITAL DEVMNT	1,728
7	HARPER COLLEGE	1,558
8	ALLSTATE INSURANCE CO	1,500
9	PROVENA ST JOSEPH HOSPITAL	1,330
10	ADP DEALER SVC	1,000
11	ELGIN COMMUNITY COLLEGE	1,000
12	MENARDS	1,000
13	SIEMENS MEDICAL SOLUTIONS USA	1,000
14	ELGIN MENTAL HEALTH CTR	850
15	ORIOUS CORP	800
16	AUTOMATIC DATA PROCESSING	750
17	PRIME OUTLETS AT HUNTLEY	700
18	CAREER EDUCATION CORP	600
19	GE COMMERCIAL FINANCE	600
20	WILLOW CREEK COMMUNITY CHURCH	600
21	AT&T STORE	500
22	BALL AEROSOL & SPECIALTY	500
23	CRITERION FINANCIAL SVC	500
24	FRIENDSHIP VILLAGE	500
25	GE AUTO FINANCIAL SVC	500
26	ILLINOIS TRANSPORTATION DEPT	500
27	LABOR NETWORK	500
28	LOWE'S	500
29	MEIJER	500
30	R L RETTBERG LTD	500
31	ROSE PACKING CO INC	500
32	SKF USA INC	500
TOTAL REGIONAL EMPLOYMENT:		34,716

Source: ESRI Business Analyst and *S.B. Friedman & Company*

[1] Located within a 10 mile radius from East Dundee



Dundee Crossing Transit Center Study

MAP 4: Regional Shopping Centers

- Pace Transportation Centers
- +—+—+—+— Metra Lines
- Pace Bus Routes
- Proposed STAR Line (CN/EJ&E Corridors)
- M Metra Stations

- Clusters of Community Shopping Centers
- ▲ Regional Shopping Centers
- Super Regional Shopping Centers

N

0 0.5 1 2 Miles

S. B. Friedman & Company
Real Estate Advisors and Development Consultants

The Randall Road corridor contains an array of community and neighborhood shopping centers, many of which also contain large-format national tenants. The Algonquin Commons area is the largest node along this corridor, which contains a conglomerate of three shopping centers located at the intersection of Randall Road and N. County Line Road. Algonquin Commons is a large-scale lifestyle center containing 656,000 square feet of retail and hosting year-round community events. The two adjacent shopping centers are Randall Crossing and Algonquin Galleria. Together these three shopping centers contain 967,000 square feet.

Other smaller-scale community shopping centers are clustered along various arterials and intersections in the regional study area. These clusters generally include the area near Spring Hill Mall in West Dundee; the Route 25 corridor from Algonquin to downtown Elgin; and the corridors of Route 31, Route 19, and Route 20 (Larkin Avenue) in Elgin.

POTENTIAL TRANSIT CENTER LOCATIONS

Potential sites for the transit center study area are generally centered in or near the Dundee Crossings area. Routes 72 and 25 are major arterial roadways that support regional vehicular traffic, provide direct access to I-90, and currently support two Pace transit routes through East Dundee. Several available land sites are also located at this intersection. Site characteristics for each quadrant of the intersection are summarized below.

Northwest Quadrant: The River Valley Square shopping center contains approximately 170,000 square feet of retail space and approximately 14.6 acres of land. This quadrant has strong visibility from Route 25 and Route 72. Dominick's has relocated from the shopping center leaving approximately 50 percent of the total retail space vacant. There is currently no anchor at the site. A market study was conducted for the shopping center that concluded the potential viability for a small-scale grocer as an anchor.

Northeast Quadrant: The former Palumbo quarry site is located in this quadrant. The Terra Business Park is currently under construction at the Palumbo site. One building has been completed that is approximately 53,000 square feet. The entire quarry reclamation area measures 338.9 acres and contains a lake on the northern half of the site, leaving approximately 120 acres of developable land. The southern half of the site is located in the Dundee Crossings Tax Increment Financing (TIF) district; the northern half of the site will be included in a new TIF district.

The *Illinois Route 72 and Illinois Route 25 Business District Development Plan* recommends a mix of retail and industrial uses at this site. Kane County GIS parcel records indicate that three lots have been subdivided for the business park totaling 9.9 acres. These lots front Route 72 and are adjacent to an existing business park located to the east. The Prairie Valley Business Park is also located to the north of the Palumbo site.

Southeast Quadrant: Wal-Mart contains 120,000 square feet of building space on 13.7 acres of land. Two outlot sites fronting Route 72 contain an additional two acres of land.

Wal-Mart is scheduled to close within a one-year timeframe and Farm & Fleet has shown interest in this site. Since the Wal-Mart site is located behind The Community Thrift Store building, it has limited visibility from both roadways. The thrift store is situated directly on the corner and has a large amount of surface parking along both roadways. A vacant land site is located directly south of Wal-Mart and contains 1.7 acres of land marketed for office or retail development. This site has stronger visibility, but is only visible and accessible from Route 25.

Southwest Quadrant: The former Santa's Village amusement park site contains 38 acres of land and a total of 1.5 million square feet of sporting and events space. The topography on portions of the site would require grading for redevelopment. The eastern portion has strong visibility and level topography along Route 72 where a large parking lot currently exists; however, visibility on the northern portion along Route 25 is limited by dense vegetation and sloping topography.

All of the aforementioned sites (unless specified otherwise) are located in the Dundee Crossings TIF district.

OPPORTUNITIES AND CONSTRAINTS

There are several opportunities and constraints associated with the potential location of a transit center within Dundee Crossings. The following outlines the rationale for each prospect.

Opportunities

- **New Industrial Development and Connection to Northwest Suburbs.** New industrial park development in East Dundee, combined with regional population growth in the communities located northwest of East Dundee could generate ridership for potential extensions and/or relocations of the regional Pace bus route network. In particular, the Terra Business Park is a large industrial development that has the potential to draw several employees from neighboring and area suburbs. Although much of the area is reliant on private vehicles as a primary mode of transportation, many of the communities northwest of East Dundee have similar demographic profiles but have limited or no access to bus transit. Current suburb to suburb travel is only possible through private vehicle means. Depending on the development scale, Dundee Crossings could demand an internal transportation center focused on business park tenants similar to what has been arranged at Prairie Stone.
- **Northwest Suburbs' Connection to Elgin.** Public transit connections from the far northwest suburbs to Elgin present a potential opportunity for an East Dundee transit center. Currently, there is no public transit connection from the far northwest suburbs to Elgin. Particularly in the downtown and near I-90 and Randall Road, Elgin is a key employment center for Kane County. Interviews with Elgin Community College unveiled that there are several unskilled labor jobs within companies at I-90 and Randall Road and in downtown Elgin; these workers are target candidates for public transit. A transit center

and transfer point at the intersection of Route 72 and Route 25 can connect far northwest suburban commuters to the existing Pace route 543 that services downtown Elgin and provide an option for travel further along Route 72 to reach Prairie Stone and possibly Schaumburg.

- **Capturing a Share of the Larger Region's Commuter Traffic.** I-90 is the major expressway that provides access to the East Dundee area from the entire Chicago region. While there are existing bus routes that directly serve Prairie Stone that use I-90 as primary route, there are no public transportation options from Prairie Stone to other employment centers in the area. Our research has identified there are more than 25,000 jobs among 40 of the area's largest employers. This figure does not take into account other smaller businesses or other activity generators in and around East Dundee. Per interviews with Elgin Community College, many of these businesses, particularly industrial businesses along Route 25 in Carpentersville and Elgin that hire unskilled laborers, have workers that travel from Chicago. Similar to the potential opportunity connecting the northwest suburbs to Elgin, workers from the balance of the region (whose end destination is not Prairie Stone) can utilize an East Dundee terminal as transfer point to get access to other employment centers in the area north and south of Dundee Crossings area.

Constraints

- **Traffic Congestion at Routes 72 and 25.** According to the traffic study conducted by Regina Webster & Associates (RWA), the Dundee Crossings intersection is highly congested at peak travel times. During the morning rush hour, the intersection had the worst level of service (LOS F). The evening rush hour traffic conditions are better but there is still considerable congestion during the evening hours (more details can be found in RWA's traffic analysis memorandum). Adding bus traffic during peak hours on already congested roads could make bus transit less desirable to potential commuters.
- **Proposed Randall Road BRT Line.** Randall Road is a major thoroughfare connects the northwest suburbs to two of the largest cities in Illinois- Elgin and Aurora. The Randall Road BRT threatens the viability of a Dundee Crossings transit center because of its direct connection to employment centers in Elgin and Aurora. Although the Randall Road BRT would service the western edge of Elgin, the balance of Elgin is well served by bus transit and connections to the downtown could be made using existing routes. East Dundee would no longer serve as a rational transfer point for northwest suburban commuters traveling to Elgin.
- **Prairie Stone is a Limited Demand Source.** With 9,300 employees just five minutes southeast of the Dundee Crossings area, Prairie Stone Business Park was initially seen as a strong potential demand source for bus transit in East Dundee. After interviewing the Executive Director of the Prairie Stone TMA, it appears that existing Pace services as well as collaborative van and car pools are very successful and are adequately serving the business park's employees (more details can be found in HDR's existing conditions

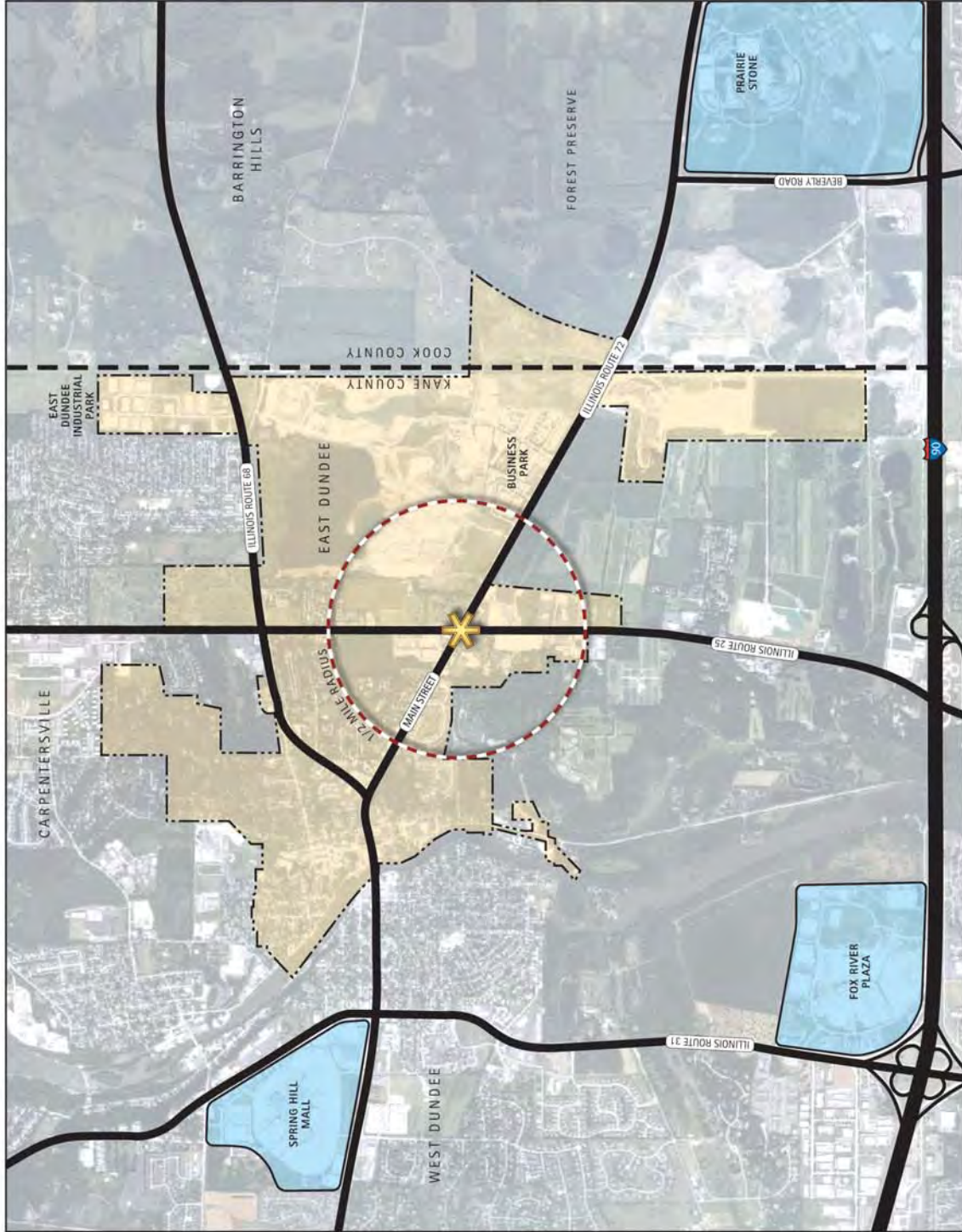
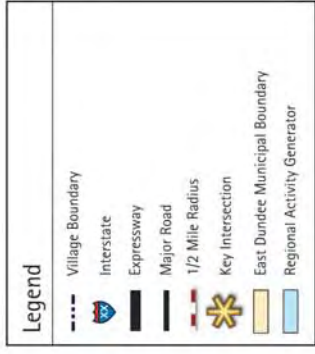
memorandum). While improvements to better service employees coming from the far northwest suburbs was considered, the direct access and the short distance between Dundee Crossings and Prairie Stone would not necessarily require a transfer point in East Dundee.

- **Limited Demand Source via Existing Metra Service.** Initial findings do not show Metra as a significant demand generator for a bus transit center in the Dundee Crossings area. The Dundee Crossings intersection is equidistant from the two area train lines. Commuters alighting the train from the Barrington Station on the Union Pacific line are likely working in office clusters in Barrington. Commuters at the Elgin stations along the Metra Milwaukee District West Line have access to existing bus transit to get to area employment centers without transfers into East Dundee. This finding was further substantiated by our interview with the Prairie Stone TMA. The TMA ran a pilot program for shuttle service from the existing Metra stations at Bartlett and Barrington. The Executive Director said the program, at best, received a total of five riders on a daily basis. The program was ultimately discontinued.

FINDINGS AND NEXT STEPS

The lack of public transportation options in the far northwest suburbs, the area's activity generators, and new industrial development allows for some opportunities to potentially develop a transit center in the Dundee Crossings area. However, there are notable barriers and potential constraints to Dundee Crossings being the prime location for this type of center. In moving forward, more emphasis should be placed on identifying local transit dependent populations. To the extent available, we will look to review data from Pace related to the origin and destination of commuters on existing area Pace routes. East Dundee business parks and their commuter needs should also be considered. An interview with representatives of the Terra Business Park to understand their master plan and tenant mix may prove to be useful in understanding the demographics of their workforce and their transit needs.

Additional Exhibits



Village of East Dundee, Illinois

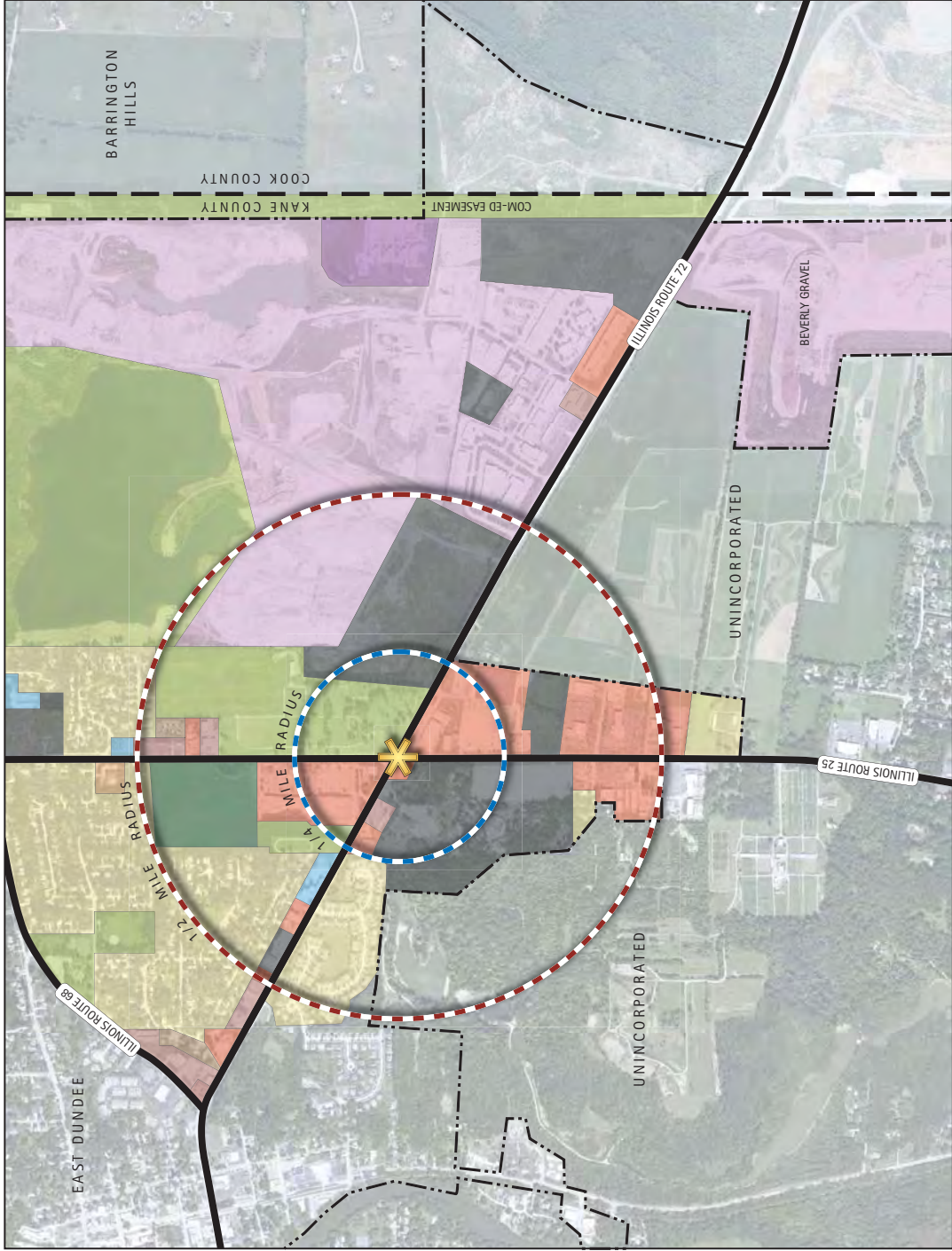
Dundee Crossing - Transit Center Study

Regional Context



LAKOTA
THE LAKOTA GROUP INC

October 2, 2009









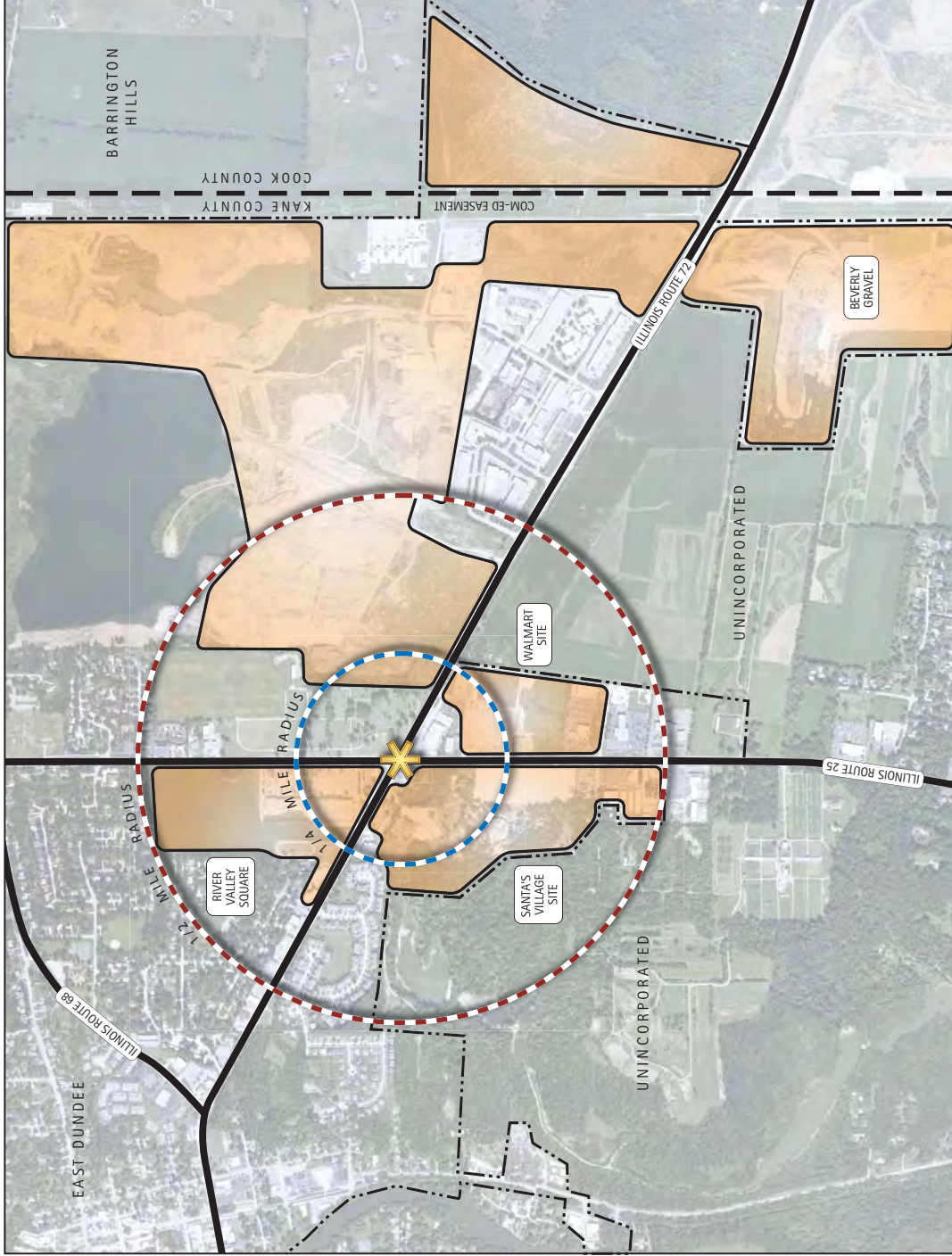
Legend	
--- (dashed line)	Village Boundary
— (solid line)	Major Road
✖ (yellow X)	Key Intersection
○ (blue dashed circle)	1/4 Mile Radius
○ (red dashed circle)	1/2 Mile Radius
○ (yellow solid circle)	Single-Family
○ (tan solid circle)	Multi-Family
○ (brown solid circle)	Commercial
○ (red solid circle)	Service-Commercial
○ (orange solid circle)	Office
○ (blue solid circle)	Institutional
○ (pink solid circle)	Light Industrial
○ (purple solid circle)	Heavy Industrial
○ (grey solid circle)	Vacant
○ (dark green solid circle)	Parks, Open Space + Natural Areas
○ (light green solid circle)	Agricultural

Village of East Dundee, Illinois

Dundee Crossing - Transit Center Study

Existing Land Use

Legend	
	Village Boundary
	Major Road
	Key Intersection
	1/4 Mile Radius
	1/2 Mile Radius
	Development Opportunity



Village of East Dundee, Illinois

Dundee Crossing - Transit Center Study

Development Opportunities



LAKOTA

THE LAKOTA GROUP INC

October 2, 2009

To: S. B. Friedman & Company	
From: Robin Martel	Project: East Dundee
CC: East Dundee Steering Committee	
Date: 9/25/2009, revised -9/29/2010	Job No: 000000000113633

RE: East Dundee – Dundee Crossings, 2009: Existing Conditions Summary

1.0 INTRODUCTION

The Village of East Dundee is located approximately 40 miles northwest of Chicago. The community is located in the path of suburban development that is continuing to spread into the northwest suburbs of Cook, Kane, and McHenry Counties. Considering the fact that the Fox River runs through the downtown area, as well as binding the community on the west, opportunities for economic and residential growth exist.

The purpose of this Summary is to help determine a location for the “Dundee Crossings Transit Center” within the Village of East Dundee. The Dundee Crossings area is a strategic location that will become increasingly important to the region and the transit network. This area is located around the IL 72/IL 25 Intersection, which is centrally located in relation to the Village’s Planning Units. This proposed Transit Center could be considered an important hub in the regional transportation network in order to plan for transit-oriented development that would encourage ridership and promote economic development in the Village of East Dundee. A transit center would also provide greater transit access to major employment centers, growing residential areas, and new regional transit investments. This proposed Transit Center could include a park-and-ride facility, a transfer point for multiple converging bus routes, and transit-oriented redevelopment of vacant and underused properties around the Center.

OVERVIEW

The Village of East Dundee has undertaken a number of planning studies, surveys, and development plans within the last ten years. These planning efforts have identified new land uses, transportation infrastructure investments, proposed business development districts, as well as, local transit needs.

This memorandum provides an inventory of existing land uses, demographics, transportation facilities, proposed infrastructure improvements and a summary of previous studies specific to East Dundee and more specifically, Dundee Crossings.

2.0 DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS

VILLAGE OF EAST DUNDEE

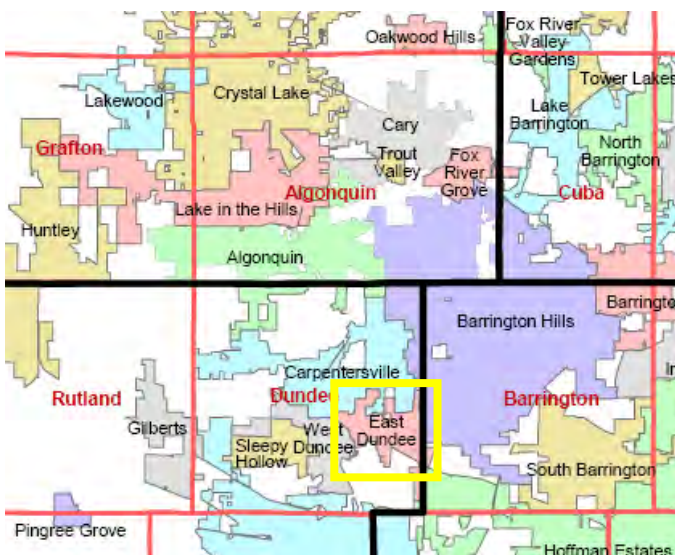
According to U.S. Census Bureau, the Village's population was documented at just fewer than 3,000 residents in 2000. Of this 3,000 population, approximately 94 percent were of white race and 1.7 percent was of Asian race. According to the ESRI 2006 estimates, within three miles of Dundee Crossings, the population was estimated to reach 56,830; however, ESRI data indicates that this three-mile radius population will increase by approximately 2.8 percent by 2011. According to the U.S. Census Bureau statistics, year 2000 employment was approximately 1,810 people, which equates to approximately 76 percent of the Village's population.

From Northeastern Illinois Planning Commission's (currently Chicago Metropolitan Agency for Planning, CMAP) endorsed 2030 population forecast, East Dundee is projected to comprise of approximately 8,000 residents and 4,400 employed, which reflects an increase of 1,500 employees since 2000.. This growth is comparable to the growth rates of neighboring communities like West Dundee and Carpentersville.

According to the U.S. Census Bureau statistics, travel to employment centers average around 27 minutes.

In 2006, the Village had a total of over 240 registered businesses ranging from food and restaurant establishments to light industrial manufacturing. Leading majority of the businesses located in the vicinity of Dundee Crossings is Service Businesses, Retail, and Manufacturing encompassing 40 percent, 19 percent, and 18 percent, respectively.

SURROUNDING COMMUNITIES



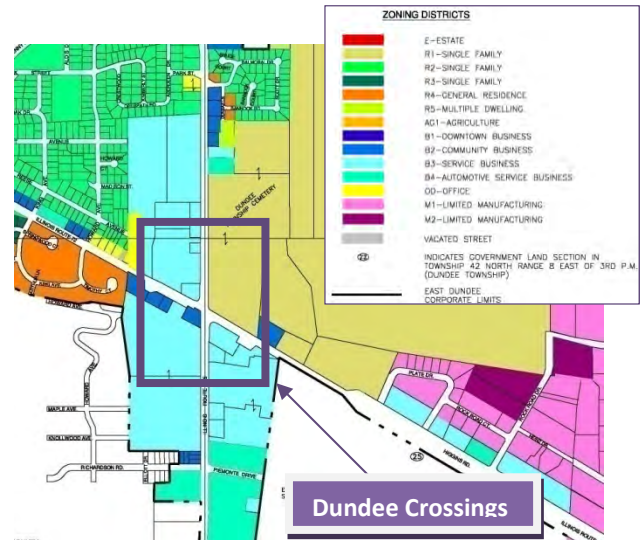
Municipalities, Minor Civil Divisions, and Chicago Community Areas Map, Northeastern Illinois Planning Commission, 2001

The communities to the north and west of East Dundee include some of the most rapidly growing municipalities in the Region including Algonquin, Lake in the Hills, Huntley, and Crystal Lake. According to projections from CMAP, these four communities alone will add over 70,000 in population and grow by over 50 percent between now and 2030. This rapid population growth to the northwest combined with the major employment centers and job growth down the I-90 corridor to the southeast highlights the need for additional transit service through East Dundee to connect the area's growing population to the emerging job centers.

3.0 LAND USE AND ZONING

The Village of East Dundee plans land use by planning units, which are portions of the community that share common characteristics. The Dundee Crossings area is made up of parts of Planning Units Three, Four, and Seven, since it is located at an intersection near the general origin of the Village boundaries. The insert below was taken from the Village of East Dundee Official Zoning Map, dated September 2007, and identifies all four quadrants of Dundee Crossings. The northwest, southwest, and southeast quadrants are zoned as B3: Service Business with small pockets of B2: Community Business along IL 72. The northeast corner, of which majority is not redeveloped, is zoned for S1: Single Family use.

Village-wide, the land use ranges from residential to commercial to industrial. Although current quarry activity takes place, land use within the vicinity of Dundee Crossings is underutilized vacant retail, as well as, undeveloped property. On the northeast corner is the Pal Property development at 120 acres. Considering that approximately 54,000 vehicles per day traverse through the intersection of IL 72 / IL 25, retail and office land uses would best suit the Village’s intentions. Future development on another 100 acres north includes residential development. The underutilized retail strip is the River Valley Mall located on the northwest corner of Dundee Crossings. Due to changes in market trends, the mall would potentially shift its front image to IL 72 and remain as retail land use. The existing Wal-Mart on the southeast corner of Dundee Crossings will be available for development since the newly proposed site is in West Dundee. The Village’s vision for this corner maintains retail and office users looking to increase traffic along IL 72 and IL 25. The southwest corner was home to Santa’s Village for over 50 years until recently. The Village is pursuing redevelopment consistent with their vision of commercial land uses for this parcel.



Village of Dundee Zoning Map, September 2007

As stated in the Village’s Comprehensive Plan, any redevelopment shall continue to maintain the Village’s focus for promoting integration of multiple uses, existing natural resources, and variety of user needs. (See Section 5.0 for further details on this Plan).

RECREATION LANDS

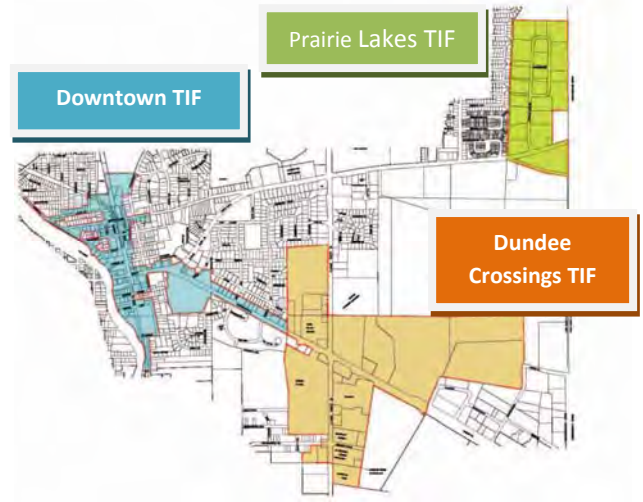
The Dundee Township Park District maintains and proposes any recreational areas and facilities within the Village. As of September 2009, East Dundee’s major community recreation facility is Lion Park located south of Main Street in downtown East Dundee. Recently added since the last update to the Village’s Comprehensive Plan in October 2002 is Bartels Park located at River Street, south of Barrington Avenue.

TIF DISTRICTS

EAST DUNDEE TAX INCREMENT FINANCING DISTRICTS

As of 2008, East Dundee has designated three TIF districts within the Village limits, including the Downtown TIF District, Dundee Crossings TIF District, and Prairie Lake TIF District.

- *Downtown TIF District:* Spanning from the Fox River east until the western boundary of Dundee Crossings near Howard Avenue, this area is proposed for redevelopment.
- *Dundee Crossings TIF District:* Located in the southeastern corner of the Village limits, the Dundee Crossings TIF District spans from the eastern boundary of the Downtown TIF District just west of River Valley Square east until Rock Road Drive on the north side of IL 72 and just east of the commercial property adjacent to IL 25 and south of IL 72. This District was created in 2006 in an attempt to bring economic development to the community.
- *Prairie Lakes TIF District:* This District is home to the Prairie Lakes Industrial Park located in the northeast corner of the Village.
- *Proposed TIF District:* In an effort to increase development in the area, the Village is currently considering another District in the Palumbo 120-acre gravel pit property, which is located near the commercial corridor along IL 25, just north of the existing Dundee Crossings TIF District. If the proposal is approved, it would essentially connect two existing District together - Dundee Crossings TIF District and Prairie Lakes TIF District. If the TIF districts at Dundee Crossings and Prairie Lakes become contiguous, any revenue created from either district can be used in the other District.

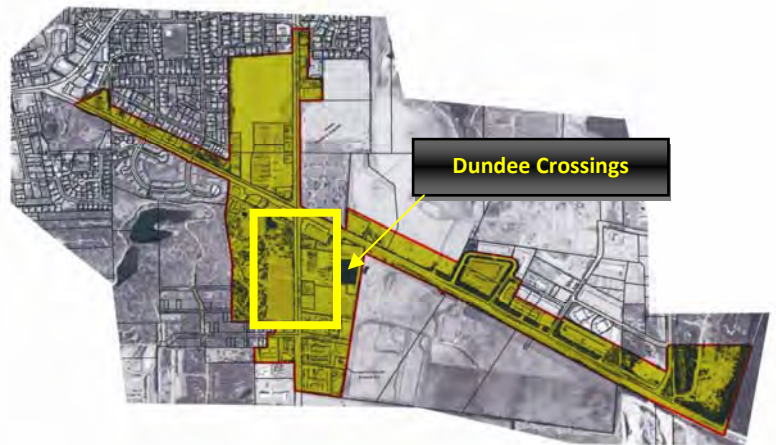


BUSINESS DEVELOPMENT DISTRICTS

As noted in the Village’s Comprehensive Plan, employers tend to concentrate in areas with excellent transportation access. New office, retail, and service businesses are seeking locations that are highly accessible to a transportation system prior to commitment of development. As of 2002, over 80 percent of the employment in East Dundee is retail and trade services.

As seen in the Business Development District Map insert, Dundee Crossings, with the exception of the northeast quadrant is located within the Village’s Business Development District boundaries.

A business development district is similar to a tax increment financing district, or TIF district, but is sales-tax driven. In the business development district, an additional half percent in



East Dundee Business Development District Map, Gerald L. Heinz & Associates, 2008

sales taxes is applied, bringing sales taxes in the district to 9 percent. If approved, the additional sales tax would go into effect Jan. 1, 2010. Any revenue generated by the half-percent increase will be used to improve the business district. In a TIF District, as the value of properties increases, the extra tax revenue properties generate are used to redevelop the district.

Dundee Crossings

As previously mentioned, the Village has branded the commercial redevelopment intersection of IL 72 and IL 25 as Dundee Crossings. The Village has prepared this intersection for development and investment as it was created in 2006 as an attempt to bring economic development tools to the area, the Village offers incremental property taxes to developers as an incentive for new construction. Revenues from Dundee Crossings will also help upgrade inadequate infrastructure in the Crossings vicinity. In May of 2008, the Village applied for ITEP funding for initial streetscape enhancements to portions of IL 72 and IL 25, including a 0.8 mile commuter bicycle/pedestrian path connecting the IL 72/IL 25 Intersection to the downtown riverfront, Fox River Trail, and Dundee Crossings.

Dundee Gateway

The approximate 12-acre property at the corner of IL 25 and IL 68 is known as Dundee Gateway. This business development district was created and approved by the Village Board as of September 2009. The Dundee Gateway development is under construction with a Thornton's Gas Station as the first of the outlots. Thornton's is expected to open in the 1st quarter of 2010.

Route 25 and Route 72 Corridor

This District was created in September 2008 in order to generate funds and show a sense of redevelopment urgency to the community. The IL 25 and IL 72 Business Development District is intended to provide upfront financing for more immediate improvements along IL 25, as recommended by the *Route 72 Corridor Improvement Plan*. (See Section 5.0 for further details regarding this Plan).

SURROUNDING MAJOR EMPLOYERS-TRAFFIC GENERATORS

Prairie Stone

Three miles east of the IL 25/IL 72 Intersection, is the Prairie Stone development, a 780-acre master planned business park that employs in excess of 10,000 workers. Prairie Stone includes Sears, K-Mart, Wt Engineering, I-CAR Corporate Headquarters, Mary Kay Cosmetics Regional Office and Distribution Center, and Serta's Research and Development facility. Prairie Stone also includes a 295-room Marriott Hotel, and the Sears Centre, Chicago area's newest sports and entertainment venue. An outdoor musical venue is to be constructed in 2009, and plans are in the works for a water park/hotel complex. A proposed Metra STAR Line Station is planned for Prairie Stone. (See Section 5.0 for further details of this Study).

Wal-Mart Relocation: West Dundee

The existing Wal-Mart at Dundee Crossings on the southeast corner is in the process of being relocated to a potential new site within the Village of West Dundee. This would ultimately re-distribute commercial traffic from Dundee Crossings onto routes to the north and west near Spring Hill Mall, where the new site is proposed.

4.0 EXISTING TRANSPORTATION SYSTEM

ROADWAYS

Interstates and Arterials that serve the Village of East Dundee and make up Dundee Crossings include:

Interstate 90 (I-90) is an interstate that travels in the east and west directions within the northwest suburbs of Chicago. The Village of East Dundee can be accessed from the I-90 interchange at IL 31, IL 25, and IL 59. According to the Dundee Crossings Transportation Summary, I-90 experiences an average daily traffic (ADT) of approximately 110,000 vehicles per day (vpd).

Illinois Route 72 (IL 72) is an east-west principal arterial west of IL 25 and a Strategic Regional Arterial (SRA) east of IL 25. IL 72, also known as Higgins Road, is oriented slightly southeast and northwest that extends from the intersection with Illinois Route 73 north of Lanark, Illinois east to IL 43 (Harlem Avenue) in Chicago. To the east, the roadway serves Prairie Stone Business Park and another regional arterial, IL 59. IL 72 merges with IL 68 in the western portion of East Dundee, providing access to Spring Hill Mall in West Dundee. Within the Village of East Dundee, IL 72 becomes Main Street and experiences an ADT of approximately 29,000 vpd for the year 2007.

Illinois Route 25 (IL 25) is a north-south SRA with a five-lane cross section that runs north from U.S. Highway 34 in Oswego to Illinois Route 62 (Algonquin Road) in Algonquin, but better known as Dundee Avenue to Village residents. Within the Dundee Crossings area, IL 25 carries an average daily traffic of 25,400 vpd as recorded for 2007. As the north-south route through the Crossings, IL 25 connects the area to I-90, to Downtown Elgin, and the Metra's Milwaukee District-West Line connecting to downtown Chicago. Additionally, the Fox River Grove Metra Station on the UP Northwest Line is nine miles north of Dundee Crossings.

Illinois Route 68 (IL 68) is classified as a principal arterial that runs east-west from IL 72 (Higgins Road) in the Dundee area to I-94 in Glencoe. IL 68 serves the north end of the Village and also the northern entry into the Downtown District. To the east, the roadway provides connections to Palatine, Barrington, and other northern suburbs. From recorded 2007 data, IL 68 experiences an ADT of approximately 13,700 vpd.

TRAVEL PATTERNS

By conducting existing peak hour traffic counts at and adjacent to Dundee Crossings, the existing travel patterns can be determined. Focusing on the intersection of IL72 /IL 25, that make up Dundee Crossings, during the weekday morning peak hour, major flow is in the eastbound and southbound directions. Opposite travel patterns, as would expect, occur in the afternoon peak hour, being major flow in the westbound and northbound directions. It is suggested that IL 72, is being utilized as an alternate route for I-90 in the both weekday peak hours.

TRANSIT FACILITIES

Public transportation options for residents within the Village of East Dundee include Metra Commuter Rail, Pace Bus, and the service provided by Prairie Stone's Transportation Management Association.

Metra Commuter Rail

There are two Metra commuter rail lines that serve the northeast Kane County area, including East Dundee residents. The Metra Milwaukee District West Line is located approximately ten minutes from the Village center.

Railroads do not actually run through the Village limits, although to the north, east, and south, railroads provide commuter and freight service. The railroads serving this portion of Northeastern Illinois include:

CN Roadroad (formerly the EJ&E) is a Class I railroad that operates for the movement of freight primarily in the outer-ring suburbs surrounding Chicago and continuing into Lake County, Indiana. The railroad is a link between Class I railroads in northeast Illinois and northwest Indiana. This rail line currently carries freight traffic only.

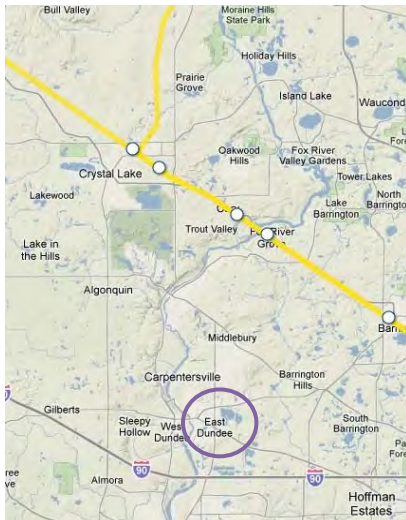
Milwaukee District - West Line operates between Chicago Union Station and Big Timber Station in Elgin and travels through communities near East Dundee, including Schaumburg and Bartlett. According to Metra's 2006 Origin-Destination Survey, the most commonly used stations by East Dundee residents are Big Timber, Elgin, and National Street.



CN Rail Line in relation to the Village of East Dundee, Illinois



Metra Commuter Rail Line – Milwaukee District - West Line in relation to the Village of East Dundee, Illinois



Metra Commuter Rail Line – Union Pacific Northwest Line in relation to the Village of East Dundee, Illinois

Union Pacific – Northwest Line operates between Ogilvie Transportation Center in downtown Chicago and Harvard with a branch to the City of McHenry. The line travels through communities near East Dundee, including Barrington, Fox River Grove, and Crystal Lake. According to Metra's 2006 Origin-Destination Survey, the most commonly used station by East Dundee residents is Barrington.

According to Metra’s 2006 Origin-Destination Study, the number of passengers from East Dundee whose destination is a Metra Line was recorded.

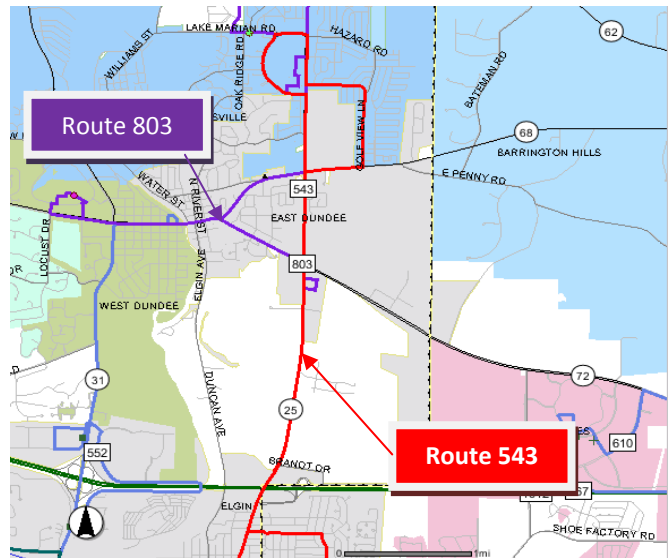
	Destination	East Dundee		Total	
		AM Riders	Percent	AM Riders	Percent
Milwaukee District – West Line	Big Timber Road	4	1%	649	100%
	Elgin	2	1%	289	100%
	National Street	10	2%	607	100%
Union Pacific – Northwest Line	Barrington	2	0.1%	1,388	100%

Metra 2006 Origin-Destination Survey

Pace Bus

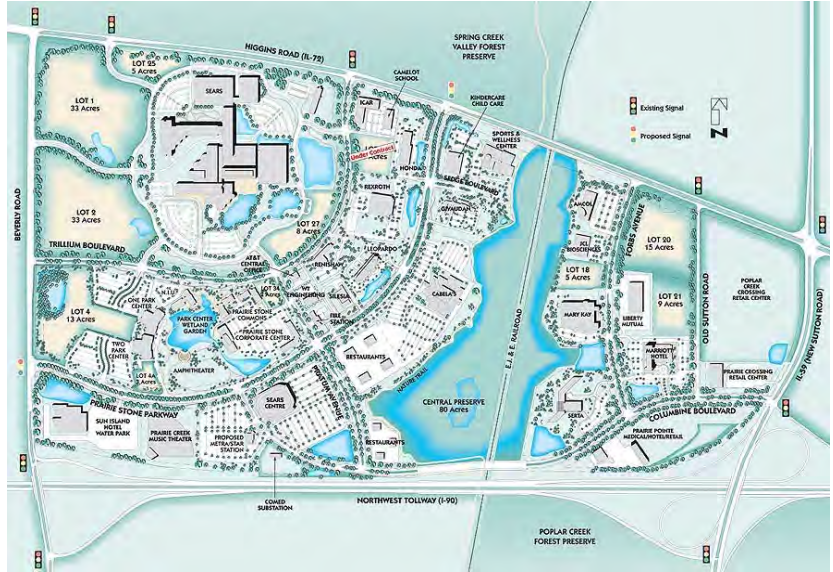
Pace bus service is provided within six counties in Northeastern Illinois. Within the vicinity of East Dundee, Pace provides two service routes.

- Route 543:** This route serves the commercial and residential area along IL 25 (also known as Dundee Avenue) and connects with Route 803, at Walmart for service to Carpentersville and Spring Hill Mall. Major destinations include, the Elgin Terminal, Meadowdale Shopping Center, Walmart, Larsen Middle School, and the Elgin Metra Station. Besides Route 803, this bus route connects with 11 other Pace bus routes.
- Route 803:** This route connects with Route 543 at Walmart for service to Elgin as well as Route 552 at Spring Hill Mall for service to Elgin. Major destinations along this route include Foxview Apartments, Meadowdale Shopping Center, Target, Best Buy, and Walmart.



Prairie Stone: Transportation Management Association (TMA)

The Prairie Stone Transportation Management Association (TMA) is a program that was implemented to transport employees to, from, and within the Prairie Stone development utilizing and coordinating with Pace, Metra, CTA, and CATS methods of travel. Working primarily with Pace, their successful operation provides a cohesive, cooperative approach to internal traffic mitigation. By using a suburban bus company, Pace, the number of cars entering Prairie Stone is essentially reduced by 20%. The transportation system at Prairie Stone is unprecedented for a suburban business park. A Transportation Center has been built at the Park Center to service the extensive transportation modes listed below:



Prairie Stone development Site Plan, www.prairiestone.com, 2009.

Two fixed-route bus lines (Pace Route 610 and 767) provide direct express service to/from Rosemont CTA Station (Blue Line), CTA 54th Avenue Station (Blue Line), Cermak Plaza Shopping Center, CTA Forest Park Transit Center, and Park-n-Ride West Point. Pace Bus 1012 provides direct service from 95th - Dan Ryan CTA Station, Oak Lawn Metra Station, and Chicago Ridge Mall to Prairie Stone. More than fifty Pace-sponsored van pools currently service Prairie Stone from a variety of communities South, West and Northwest of the Prairie Stone Business Park. A Metra station for Prairie Stone is proposed on the potential STAR Line.

PEDESTRIAN/BICYCLE FACILITIES

According to current observations, minimal pedestrian/bicycle activity occurs at Dundee Crossings, as well along other area roadways including IL 68. The Village maintains one existing bicycle trail, of which, is a valuable resource in the eyes of the residents that plans to be maintained and yet expanded (as part of the Kane County 2009 Bike Plan). This is one functional way that the community actually brings people into their limits. The existing routes within the Village of East Dundee include a regional bicycle trail that runs parallel to the Fox River just west of Van Buren Road. Other existing local bicycle routes are located north of IL 68 just west of IL 25.

5.0 PREVIOUS STUDIES

The Village has undertaken a number of planning studies to enhance economic development, improve the link between East Dundee and Chicago, and spark potential for future transportation needs. It is evident that any infrastructure improvements and redevelopment proposed for the Dundee Crossings area must take into account the Village's goals and existing plans.

EAST DUNDEE COMPREHENSIVE PLAN

Dundee Crossings



Prepared by *Teska Associates* on October 21, 2002, this Plan is an update to the Village's 1991 Comprehensive Plan although the planning area has remained the

same, in that the boundaries have not further expanded due to annexation. As noted, the most significant growth opportunity for the Village, other than the redevelopment of existing quarries, is the southern half of the planning area, generally bounded by IL 72 (Higgins Road) to the north. The Plan indicates a significant amount of growth for the Dundee Crossings area and the eastern end of the Village, as well. Between 2002 and 2020, the Village considers themselves to be a "maturing community". The Village is likely to reach near full development during this planning period. Future land use at Dundee Crossings includes Planned Development Mixed Use in the southwest quadrant, General Business in the southeast and northwest quadrants, and Institutional and General Business in the northeast quadrant.

EAST DUNDEE DOWNTOWN PLAN

Written by *Vandewalle & Associates* and published on November 13, 2007, this Plan identifies the opportunities for development within Downtown East Dundee. Several redevelopment sites line the river, where the Village is considering new housing, business and a riverwalk system to allow pedestrian access. Downtown revitalization will be greatly influenced with the redevelopment of three key sites: Route 72 Corridor, the Riverfront Redevelopment Sites, and the North End.

DOWNTOWN TIF REDEVELOPMENT PLAN

Developed and published by *Vandewalle & Associates* on January 25, 2008, the Downtown TIF Redevelopment Plan's goal was to provide a comprehensive program for the Village to promote growth and development. The Downtown Project Area is composed of 114 acres (including roadway infrastructure) located in the Village's downtown along IL 72 and adjacent to the Fox River. Land uses in the Area consist of retail and industrial business, institutional uses, single family homes, as well as vacant parcels. The land uses that are proposed for the Downtown Project Area include, but are not limited to: professional office, multi-family residential, mixed-use commercial, office/residential developments, institutional, and recreational uses.

ROUTE 72 CORRIDOR PLAN & STREETScape ENHANCEMENTS

The purpose of the Plan, written by *Vandewalle & Associates* in August 2008, was to illustrate and promote the ongoing redevelopment work to make public improvements and increase multi-modal transit accessibility along the Route 72 corridor.

KANE COUNTY TRANSIT OPPORTUNITY ASSESSMENT STUDY

This Study was prepared in October 2002 headed up by *Land Strategies, Inc* for transit use in the urban, suburban, and rural environment in Kane County. Extensive discussion of land use and travel characteristics

were included as well as a priority listing of potential Metra commuter rail service extensions. Transit recommendations were made based on a comprehensive system of transit opportunities required to provide residents with transportation options. These options included establishing transportation hubs, transportation centers, and park-n-ride lots that are strategically placed throughout the County to support multi-modal transportation including pedestrians/bicyclists, carpool, bus service, light rail, and commuter rail.

KANE COUNTY BICYCLE AND PEDESTRIAN PLAN

Adopted in December 2002, the Kane County Bicycle and Pedestrian Plan presenting a network that would improve public safety and encourage alternative modes of transportation. Recommendations included a safer environment with connections between origins and destinations in order to encourage pedestrian and bicycle access to future transit centers.

KANE COUNTY 2030 TRANSPORTATION PLAN

Several transit and pedestrian/bicycle recommendations from this Plan are proposed within or surrounding the Village of East Dundee. Published in October 2004, transit recommendations from the Kane County 2030 Transportation Plan included a focus on five transit service areas, two of which are the Upper Fox Transit Area and the Greater Elgin Transit Area. The Upper Fox Transit Area includes the Village of East Dundee and surrounding areas. This area currently provides Pace bus service within East Dundee, although the focus is to provide this area with connections to Elgin, the I-90 corridor, IL 72 corridor, and O'Hare Airport. This Plan identifies the main objective to develop a local community shuttle to serve the retail and employment centers.

The focus in the Greater Elgin Transit Area is to enhance transit services to surrounding communities to the north, south, and east. Although this area does not specifically include East Dundee, the Village could potentially feed off of any transit enhancements as part of this area's objectives.

As part of the Bikeway Considerations, the Plan suggests IL 68 as a conceptual bikeway corridor. Extending from its east limit of the Cook County line, this corridor would provide bicycle accommodations along IL 68 west to the Fox River. Ultimately, this corridor would pass through the downtown East Dundee.

PACE VISION 2020

Published in March 2002 by Wilbur Smith Associates, the purpose of the Pace Vision 2020 plan is to provide an acceptable level of efficient suburban mobility. Due to Pace's projected service area to be projected at more than 6.2 million by 2020, it was necessary to plan for the increase and enhance its transit services to meet the needs of suburban economic development and travel markets. The closest Regional Transportation Center that exists as part of this plan is located in Elgin at the existing Elgin Metra Milwaukee District West Station. This Center has existing Pace bus fixed-route service that travels to and from the Village of East Dundee. The closest existing Community Transportation Center to the Village of East Dundee is at Spring Hill Mall where existing Pace bus fixed-route service.

REALIZING THE VISION, 2040 REGIONAL FRAMEWORK PLAN

Prepared by HNTB in 2005 for the Northeastern Illinois Planning Commission (NIPC), this Plan guides land use in the six counties and over 250 communities, including East Dundee and Kane County. The Regional Framework Plan defines specific strategies to guide future growth. Using implementation strategies, a

geographic framework of Centers, Corridors, and Green Areas were used to guide regional planning through 2040. According to the 2040 Regional Framework Map, East Dundee (as well as West Dundee) is classified as a Community Center. The closest Metropolitan Centers to East Dundee are Elgin to the south and Crystal Lake to the north. The NIPC definition of a “Center” is compact developments that reflect a close relationship between economic and livability goals. These centers should provide efficient access to residential, employment, retail and civic activities. To achieve the goal of a community center, three activities are suggested: 1) Growth should be redirected from undeveloped areas at the urban fringes to vacant and underutilized land within the existing urban area, 2) Transit Oriented Development/Redevelopment should be provided access to a variety of transportation options and mix of land uses, and 3) Employment centers should be concentrated near affordable housing and multiple modes of transportation, providing quick access to government, service and other support functions.

STAR LINE FEASIBILITY STUDY

METRA is proposing an interconnecting rail line that links 110 communities in the southwest, west, and northwest suburban regions of northeast Illinois. The STAR Line fills a critical void for inter-suburban commuter rail service that will intersect and complement Metra's existing rail lines that currently serve as hub and spoke lines from the City of Chicago to the suburban communities.

The proposed interconnection of the CN (formerly the EJ&E) Railroad and the proposed Northwest Corridor Line that will run from O'Hare Airport along the I-90 Illinois Tollway will interconnect at Prairie Stone Business Park. This interconnection will allow easy transitions to O'Hare airport and into the City of Chicago and with other rail lines that run from Chicago west and southwest. This connection will access communities and industrial parks from Joliet north through Naperville, Aurora, West Chicago, Bartlett to businesses and residents along the NW Corridor including Hoffman Estates, Schaumburg, Arlington Heights, Rolling Meadows, Elk Grove Village and Des Plaines.

The STAR Line would extend from O'Hare up to I-90 corridor to Prairie Stone and then bend southward through the western suburbs to Joliet. Located at the “elbow” of the proposed route, Prairie Stone will be a key location along this major regional transportation investment. There is currently, however, no transit connectivity to Prairie Stone from the north or west.

According to Metra, the proposed expansion of O'Hare, alone, will result in new economic output of \$8-\$10 billion annually for the region and approximately 455,000 new jobs. After the completion of the STAR Line Feasibility Study, Metra began, and is still undergoing, an Alternatives Analysis for the STAR Line.

6.0 PROPOSED TRANSPORTATION IMPROVEMENTS

As noted in the Village's Comprehensive Plan, one of their goals is to provide safe, convenient, and pleasant access between residential areas, employment districts, and supporting business, education, civic, and leisure activities.

Infrastructure improvements have been proposed by the participating transportation agencies in cooperation with the Village's goal.

TRANSIT IMPROVEMENTS

A lack of connection along IL 72 between East Dundee and the Prairie Stone Business Park exists in the region's transit system. As previously mentioned, PACE bus service currently connects East Dundee and Elgin, as well as, express bus service connecting the CTA Blue Lines to Prairie Stone, although, no transit service exists along IL 72 between Dundee Crossings and Prairie Stone. There are several factors that make adding transit service on this section of IL 72 worthwhile and important. As mentioned in the Route 72 Corridor Plan, these factors include

- *Residential Growth in the Northwest Suburbs:* The communities north and west of East Dundee are seeming to become some of the fastest growing communities in Northeastern Illinois, although currently have limited transit service. Creation of a transit hub at IL 72 and IL 25 along with a connection along the IL 72 corridor would make transit a residents' transportation option.
- *Employment Centers in the I-90 Corridor:* A transit connection along IL 72 would help connect employment centers between O'Hare and the Fox River (including Prairie Stone Business Park) to growing residential areas.
- *Randall Road Commercial Corridor:* Since Randall Road is a fast growing commercial corridor, transportation investments will be needed for transport to and from the corridor. A connection along IL 72 through East Dundee from Randall Road to Prairie Stone would be ideal in order to provide some support to the commercial development.
- *Non-Motorized Connection to Fox River Trail:* The Village of East Dundee intends to create a bicycle/pedestrian connection between Dundee Crossings and the Fox River Trail allowing communities along the Fox River to utilize this new connection for access to Dundee Crossings.
- *STAR Line:* The Prairie Stone stop will be a key stop for the Village of East Dundee. Additional bus service along with this major transportation investment from METRA (See Section below for details) will enhance its value and ridership.

METRA Proposed Prairie Stone Station (STAR Line)

Metra's proposed STAR Line, which is slated to travel from O'Hare International Airport to the Joliet area, would a station to Prairie Stone. Plans are underway to locate a station on property and to service this station with an internal shuttle service. Utilization of the CN rail line offers a cost-effective north-south commuter link and access to O'Hare International Airport and into the City of Chicago accessing employees from all over Northeastern Illinois. Federal funding is being sought for this project.

Prairie Stone TMA Connection

Future endeavors and service improvements are currently being considered. The TMA identified that there is a missing connection between Prairie Stone and the northwest. Additional service to the northwest, primarily Lake In The Hills, Crystal Lake, and Huntley, may generate ridership. After an internal survey, the TMA uncovered that some of the employment centers have approximately 60-70% of their employees traveling from the Rockford area. Potential transportation service to and from this area would be a future consideration if the area was expanded.

Pace Bus Service Improvements

As indicated in PACE's Vision 2020 Plan, express routes on major roadways connecting with smaller communities are proposed. At the existing Elgin Regional Transportation Center, four types of Pace bus service are proposed including: 1) Line-Haul Express Routes, 2) Line-Haul Arterial Routes, 3) Community-Based Service Hubs, and 4) Historic Trolley Circulator Hub. At the existing Community Transportation Center located at Spring Hill Mall in West Dundee, three types of Pace bus service are proposed including: 1) Line-Haul Arterial Routes, 2) Community-Based Service Hubs, and 3) Historic Trolley Circulator Hub.

These improvements are consistent with the Village's objective that they would like to work with Pace to expand public transportation services and facilities.

ROADWAY IMPROVEMENTS

As part of the Village of East Dundee's Comprehensive Plan, includes the Transportation Plan, where new roadway alignments, bridges and traffic signals were proposed. Since the Comprehensive was published in October 2002, it is understandable that the identification of a potential transit center was not indicated. Need to get status of this plan from Village.

As part of the East Dundee Downtown Plan's redevelopment sites (see Section 5.0 for details), transportation improvements are proposed in order to improve traffic circulation. These improvements include:

- *Extend Hill Street*
- *Re-direct Water Street*
- *Re-align River Street*
- *Enhance Bike Path along River*

As part of East Dundee's Downtown TIF Redevelopment Plan, the existing roadway network, particularly, at the intersection of IL 72 and River Street will require new roadway infrastructure to improve access to the future developments in the Study Area. (See Section 5.0 for further details on this Plan).

Within the Village's 2009 Street Improvement Program, are several local road improvements proposed within the next five years. Of these improvements, none of them are located within the vicinity of Dundee Crossings.

Overall roadway enhancements from the Route 72 Corridor Plan include enhanced crosswalks and pedestrian push-button signals, new street lighting, bus stops/shelters, landscaped medians, and gateway features.

Roadway improvements are proposed as part of the Dundee Gateway development. These improvements would include extending IL 68, adding turn lanes and installing curbs and gutters. The developer will initially construct various lane widening, median and pavement improvements on IL 25 and IL 68, as well as mass grading, utility and landscape improvements of the 6.5-acre development.

PEDESTRIAN/BICYCLE ENHANCEMENTS

A pedestrian and bicycle facility was proposed as part of the Route 72 Corridor Plan. A commuter bike path along IL 72 stretching from the Fox River Trail in downtown East Dundee east to Dundee Crossings commercial area, and eventually east to Prairie Stone and the Sears headquarters would be an essential enhancement to

the Route 72 Corridor. The trail would provide a safe route for both bicyclists and pedestrians where today one currently does not exist.

As noted in the Village's Comprehensive Plan, dated October 2002, one of their objectives is to expand the bike trail system along IL 68 from downtown continuing to the eastern boundary, as well as other bike routes throughout the Village.

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U.S. Census Bureau Website: www.census.gov

CMAP Website: www.cmap.illinois.gov

Pace Website: www.pacebus.com

Metra Website: www.metrarail.com

Village of East Dundee Website: www.eastdundee.net

Prairie Stone Website: www.prairiestone.com

Dundee Crossings Website: www.dundeecrossings.com

Dundee Township Park District Website: www.dtpd.org

Prairie Stone development: www.prairiestone.com

To: SB Friedman	
From: HDR	Project: East Dundee
CC: East Dundee Steering Committee	
Date: 11/24/2009, revised 9/29/2010 and 10/13/2010	Job No: 113633

RE: Transit Needs Technical Memorandum

1.0 Introduction

The purpose of this technical memorandum is to review and assess the potential needs and opportunities for transit services in the Dundee Crossings area that would support the planning and design of a potential transit facility. Tasks in this activity include developing information on socioeconomic demographic, market data, land use patterns, and existing and proposed transit service. This assessment was conducted using existing conditions information and data compiled in the *Task 1.0 Existing Conditions Summary*.

This needs assessment report includes a review of socio-economic characteristics of the population and journey to work data (Section 2.0), major destinations and activity centers in the study area (Section 3.0), land use patterns (Section 4.0), and existing and proposed transit service (Section 5.0) to provide an understanding of the potential transit market in the Dundee Crossings area. Section 6.0 identifies potential transit routes to serve identified transit markets and the potential transit facility. Section 7.0 provides an evaluation and recommendations.

2.0 Socioeconomic Demographics

Socioeconomic demographics are a primary indicator of potential need for transit. Conditions related to population and land use may influence potential transit use by both the transportation disadvantaged and choice markets. These factors are consistent for most U.S. transit systems with higher transit usage in areas with larger populations and population densities. Other measures were developed to determine the size and location of transportation dependent persons in the study area, including persons with disabilities, the elderly, low-income households, and households with zero auto ownership.

This analysis includes the identification of potential transit riders in the study area. Potential transit riders are typically comprised of transit dependent riders and choice riders. Transit dependent riders are those persons who rely on the use of public transportation on a regular basis for travel to work, school, medical, shopping and other related trips. Transit dependent riders have few or no other transportation options. Choice riders are those persons that have access to other means of transportation (i.e. private vehicle) that is readily available. Choice riders may choose to take transit based on convenience and cost in comparison to driving.

Transit dependent riders possess specific demographic characteristics such as a lower income status, physical and/or mental disability, or age (i.e. elderly population) that may limit their use of private vehicle transportation. In a suburban environment that is primarily auto-dependent, such as the Dundee Crossings area, transit dependent riders would be the primary users of local transit services. Choice riders rely more on transit as an option, based on issues related to traffic congestion and travel time, population density, and employment location.

This analysis provides a review of transit needs in the Dundee Crossings study area identifying transit dependent populations based on age, disability, income, or automobile availability, based on data derived from the 2000 U.S. Census Bureau.

Total Population

The total population for the Dundee Crossings area communities was approximately 284,000 in 2000 and is estimated to grow to by 20% to about 341,000 by 2009 and 369,000 by 2014. The communities that make up this statistic include:

- Algonquin
- Barrington Hills
- Carpentersville
- Crystal Lake
- East Dundee
- Elgin
- Hoffman Estates
- Gilberts
- Huntley
- Lake in the Hills
- Lakewood
- Sleepy Hollow
- West Dundee

The communities of Gilberts and Huntley are projected to grow the fastest in the region. Figure 1 displays the total population at a Census tract level.

Population Density

Population density is one variable that measures potential transit needs. The denser the population, the greater the likelihood there is for increased ridership from potential transit dependent and choice riders. Most of the population density is centered within Elgin. Figure 2 displays the population density in the study area.

Elderly Population

The elderly population is another potential market to use transit service. Elderly is considered persons 65 years and older by the U.S. Census Bureau. The elderly often do not drive or have access to a vehicle due to physical limitations and growing dependence on family and caregivers. Availability and access to transit services provide elderly individuals opportunities to make trips related to health care, social services, shopping, errands, and community activities. Figure 3 displays the elderly population in the study area.

Disabled Persons

Persons with disabilities have a high rate of usage of both fixed and paratransit (i.e. door-to-door) services. Figure 4 provides a map of the disabled population for Year 2000, which includes all disabled persons above the age of 16 years that have mental, physical, self-care, sensory, employment, or a go-outside-of home disability.

Median Household Income

Median household income is an important indication in determining transit dependence. Median household income divides households into two equal segments with the first half of households earning less than the median household income and the other half earning more. Figure 5 shows the median household income throughout the study area.

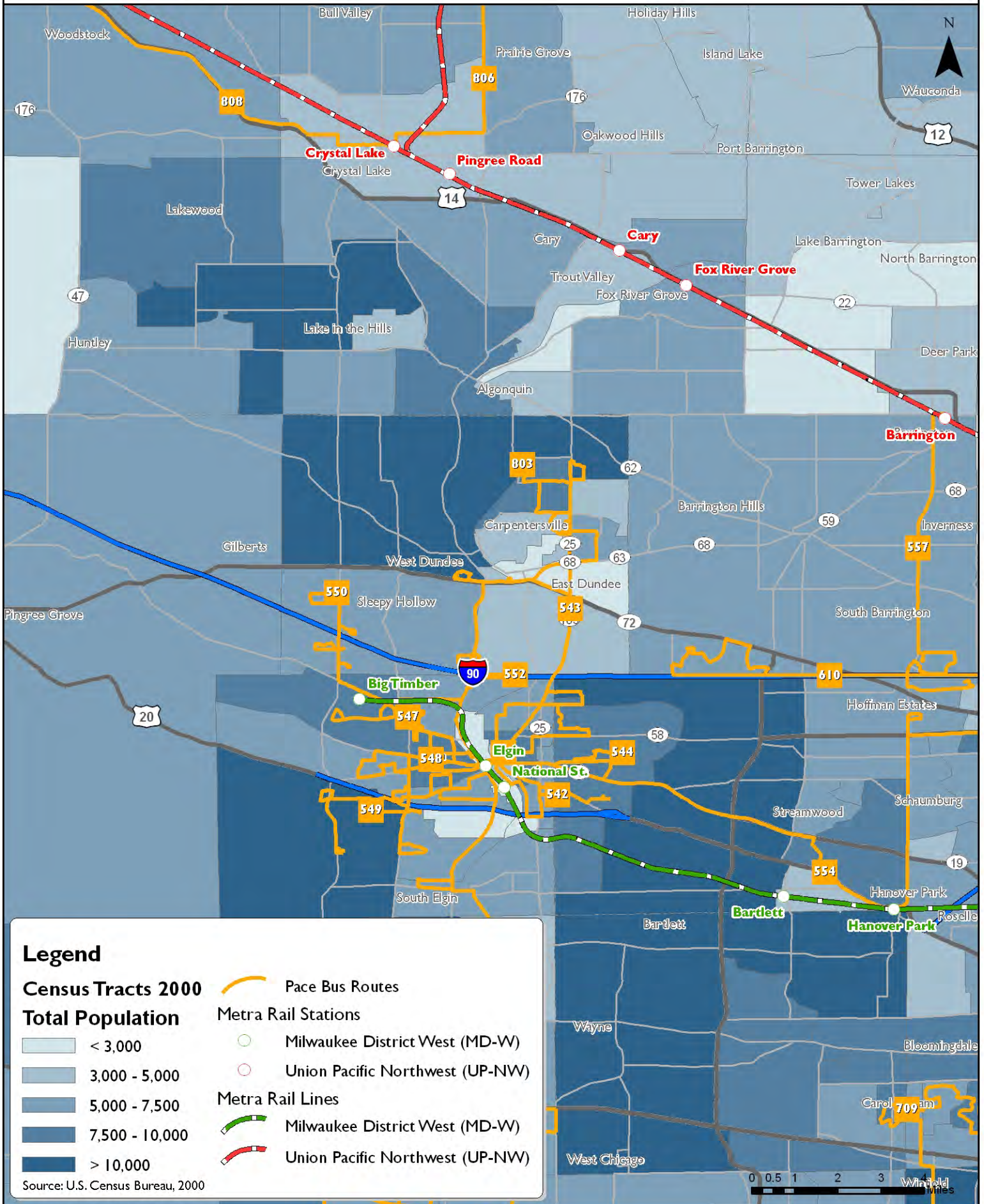
Zero Auto Households

Concentrations of households with no autos are vital in identifying potential transit needs. Persons with no access to a vehicle must rely on alternate modes of transportation such as walking, biking, carpooling, taxis and public transportation to access employment, shopping and other related trips. Figure 6 provides a percentage of zero auto ownership for all households.

Dundee Crossing Transit Center Study

Total Population

Figure 1



Legend

Census Tracts 2000

Total Population

- < 3,000
- 3,000 - 5,000
- 5,000 - 7,500
- 7,500 - 10,000
- > 10,000

— Pace Bus Routes

Metra Rail Stations

- Milwaukee District West (MD-W)
- Union Pacific Northwest (UP-NW)

Metra Rail Lines

- Milwaukee District West (MD-W)
- Union Pacific Northwest (UP-NW)

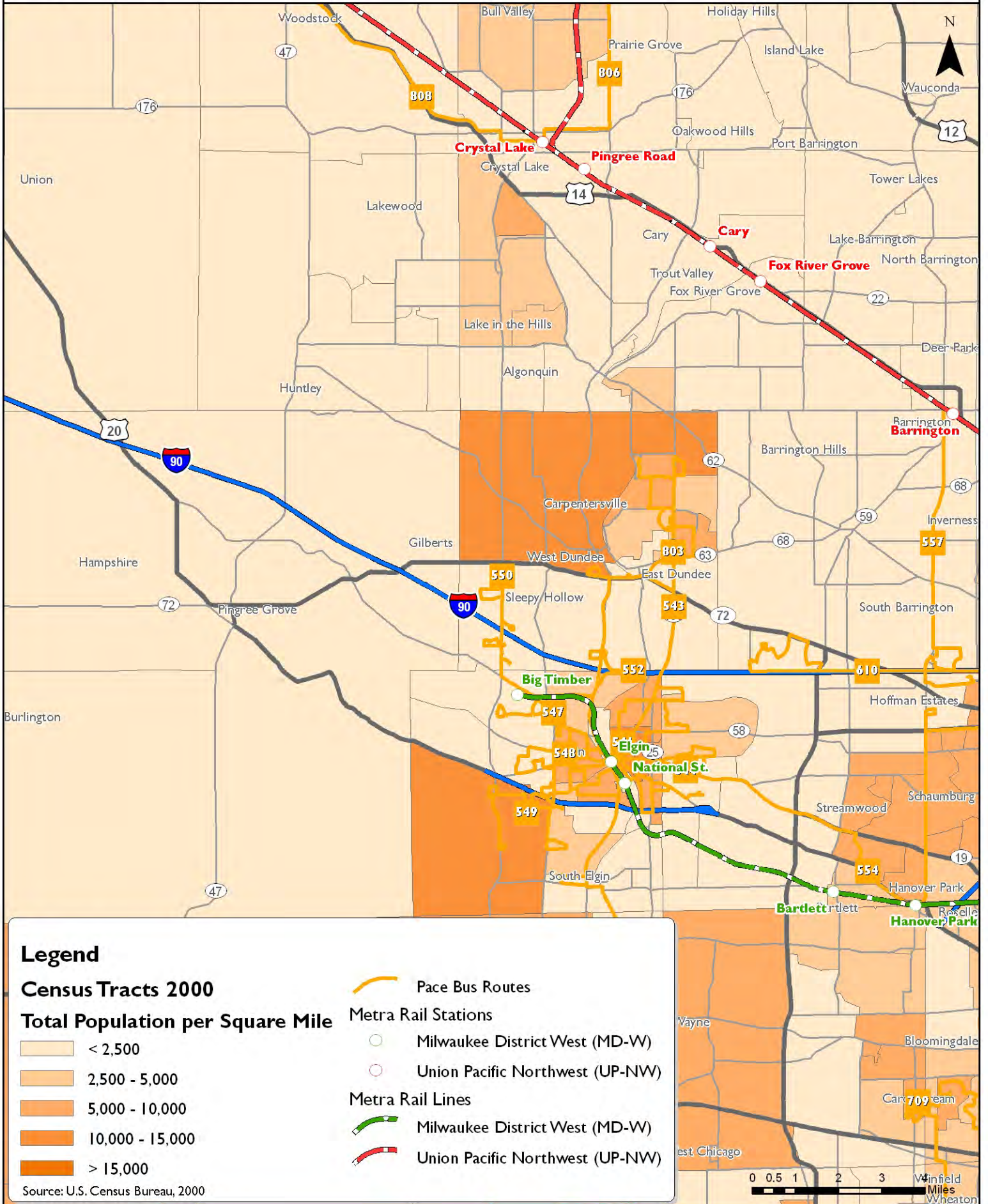
Source: U.S. Census Bureau, 2000

0 0.5 1 2 3 Winfield

Dundee Crossing Transit Center Study

Population Density

Figure 2



Legend

Census Tracts 2000

Total Population per Square Mile

Lightest Orange	< 2,500
Light Orange	2,500 - 5,000
Medium Orange	5,000 - 10,000
Dark Orange	10,000 - 15,000
Darkest Orange	> 15,000

Source: U.S. Census Bureau, 2000

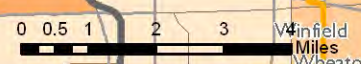
Pace Bus Routes

Metra Rail Stations

- Milwaukee District West (MD-W)
- Union Pacific Northwest (UP-NW)

Metra Rail Lines

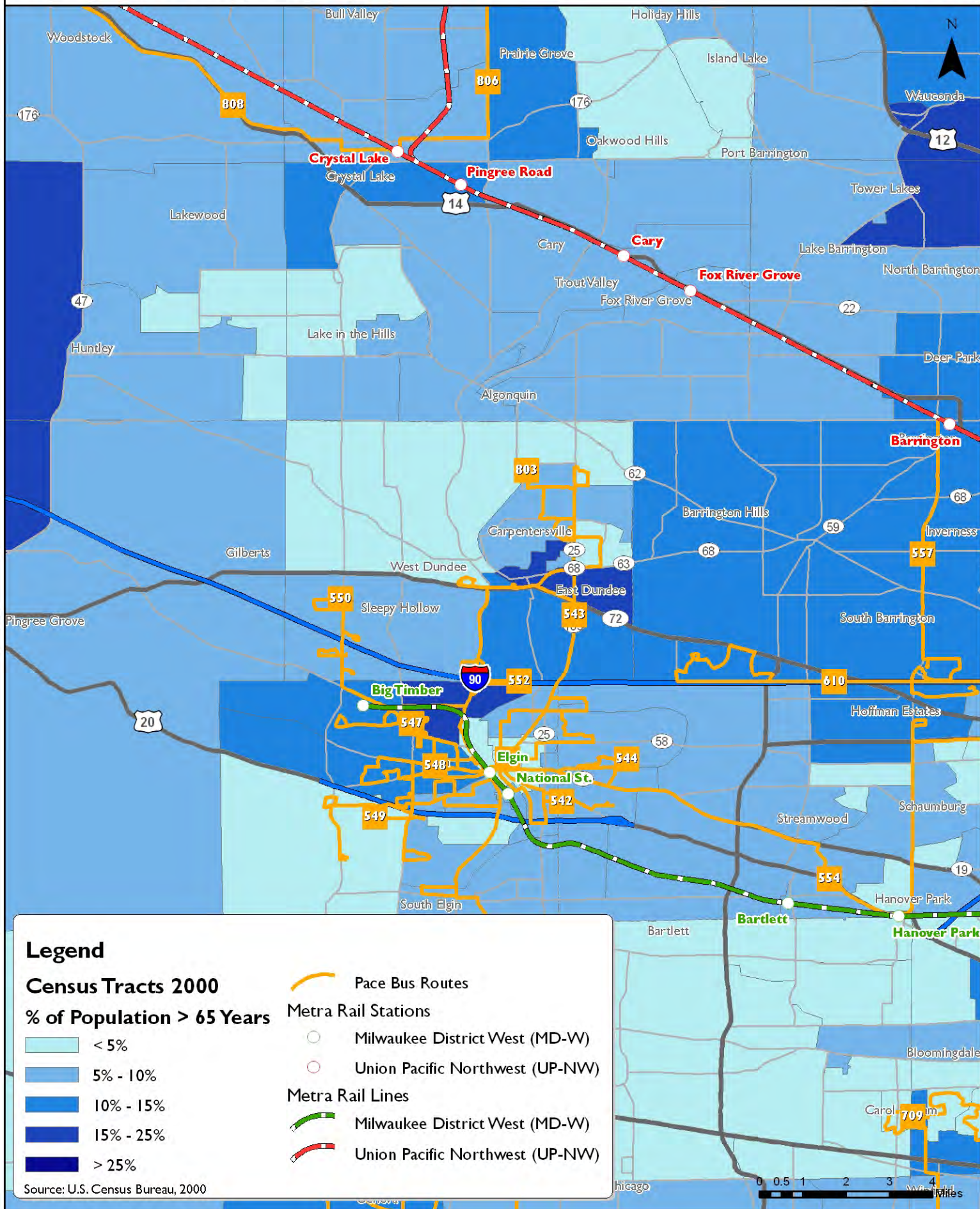
- Milwaukee District West (MD-W)
- Union Pacific Northwest (UP-NW)



Dundee Crossing Transit Center Study

Elderly Population (>65 Years)

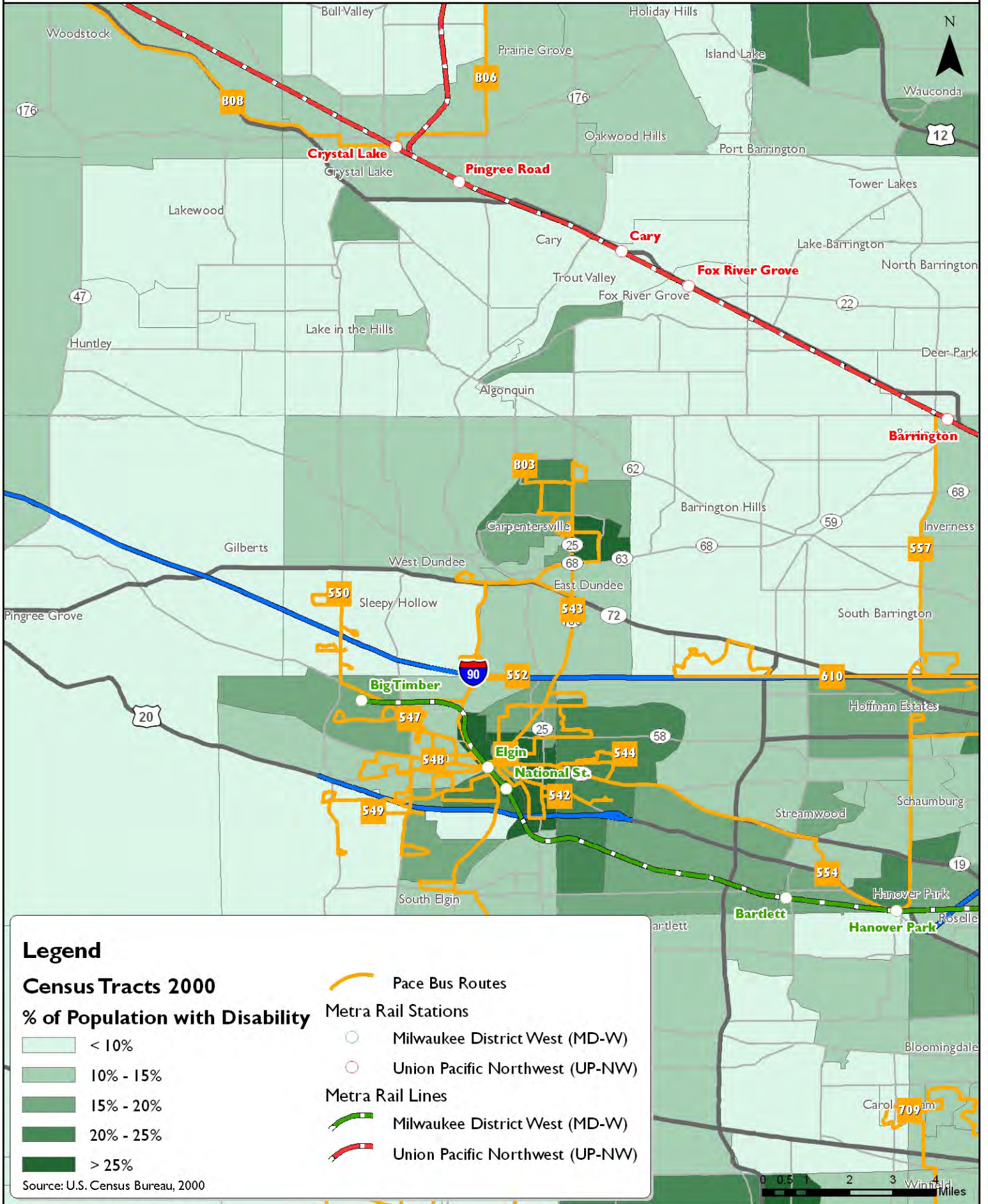
Figure 3



Dundee Crossing Transit Center Study

Persons with Disabilities (Ages 16 to 64 Years)

Figure 4



Legend

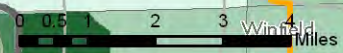
Census Tracts 2000

% of Population with Disability

- < 10%
- 10% - 15%
- 15% - 20%
- 20% - 25%
- > 25%

- Pace Bus Routes
- Metra Rail Stations**
 - Milwaukee District West (MD-W)
 - Union Pacific Northwest (UP-NW)
- Metra Rail Lines**
 - Milwaukee District West (MD-W)
 - Union Pacific Northwest (UP-NW)

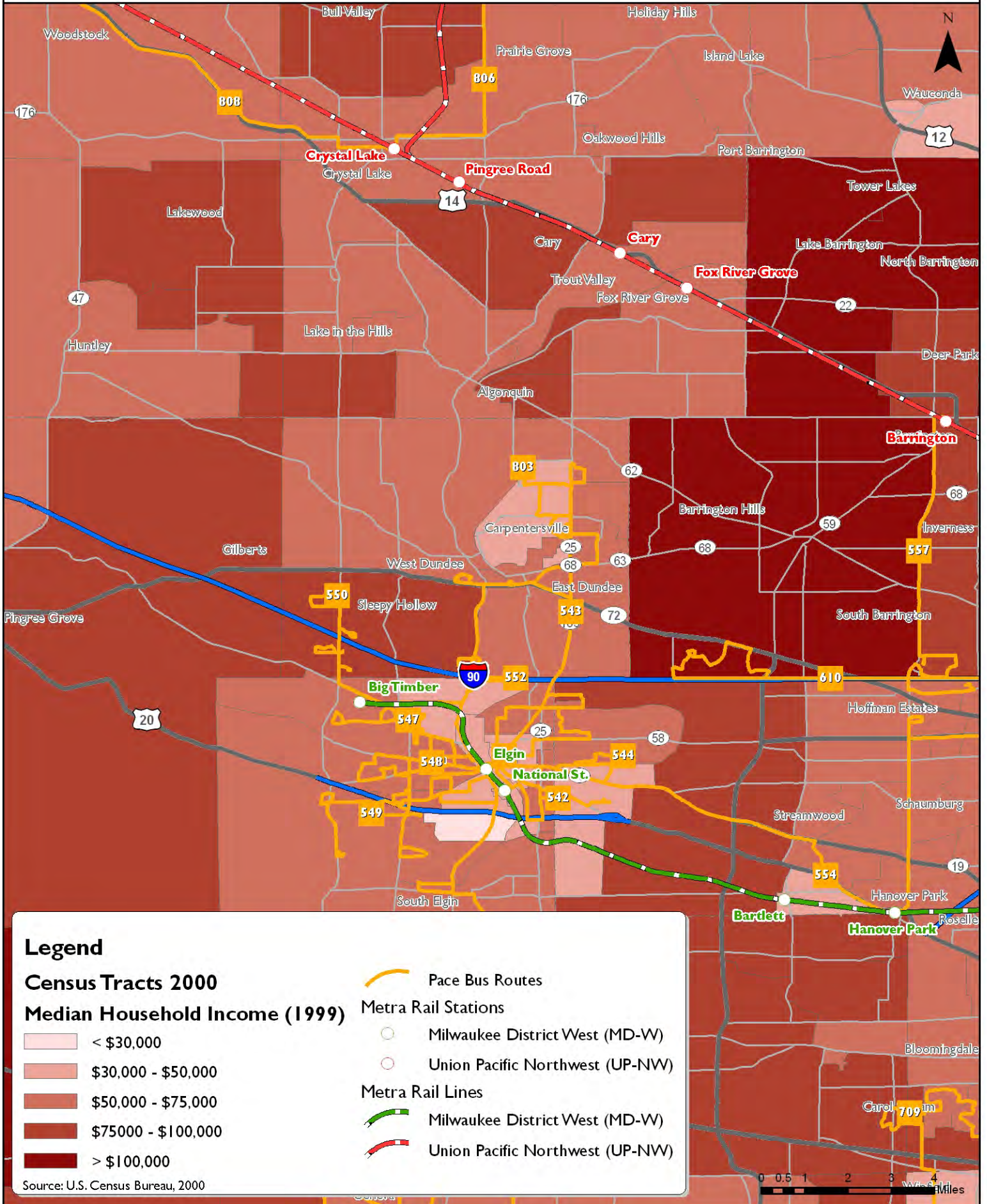
Source: U.S. Census Bureau, 2000



Dundee Crossing Transit Center Study

Median Household Income (1999)

Figure 5



Legend

Census Tracts 2000

Median Household Income (1999)

- < \$30,000
- \$30,000 - \$50,000
- \$50,000 - \$75,000
- \$75,000 - \$100,000
- > \$100,000

— Pace Bus Routes

Metra Rail Stations

- Milwaukee District West (MD-W)
- Union Pacific Northwest (UP-NW)

Metra Rail Lines

- Milwaukee District West (MD-W)
- Union Pacific Northwest (UP-NW)

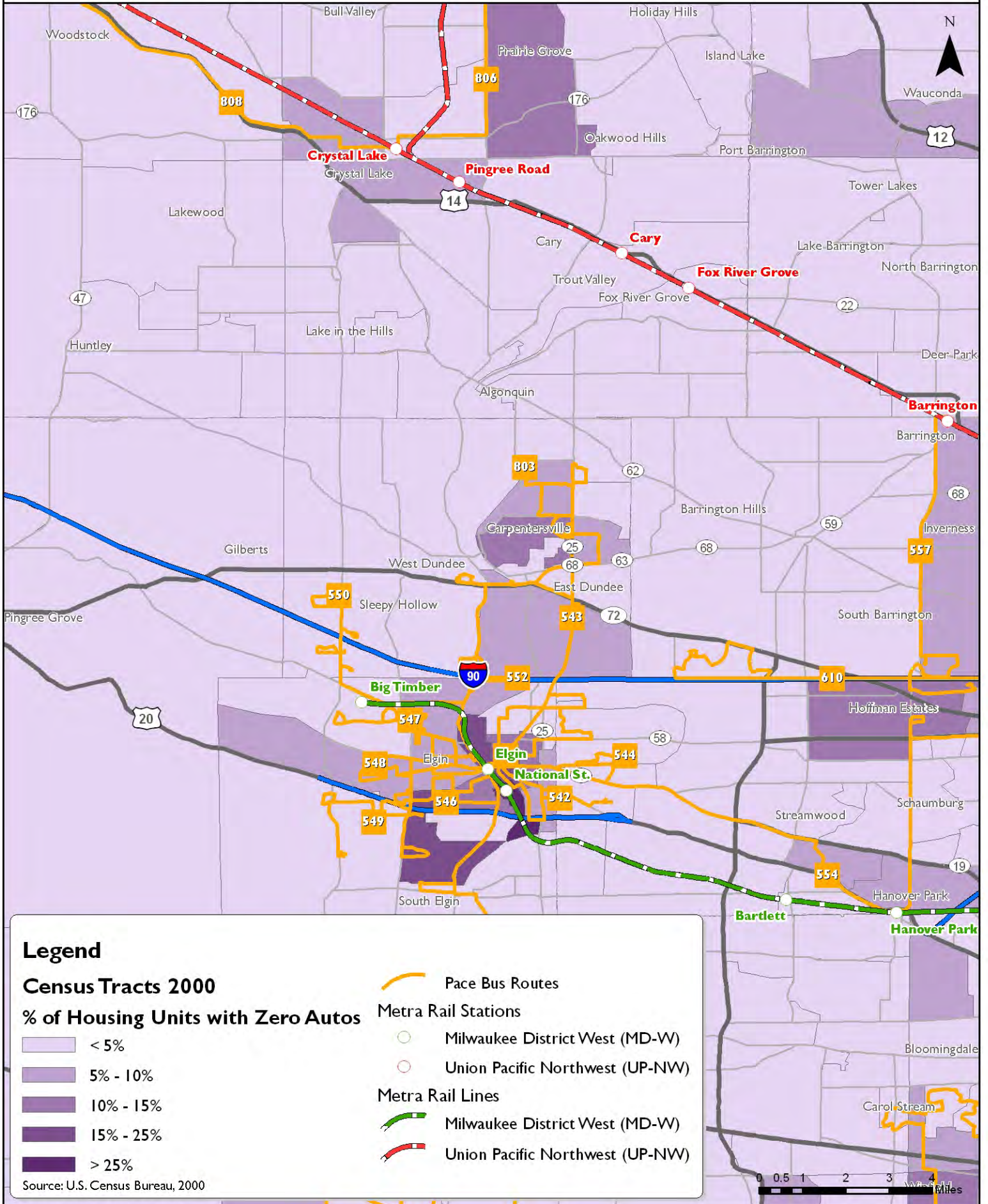
Source: U.S. Census Bureau, 2000



Dundee Crossing Transit Center Study

Zero Auto Housing Units

Figure 6



Journey to Work

Journey to work data was collected as part of Census 2000, based on information regarding the place-of work and journey-to work characteristics of employed workers 16 years and older. Data includes information regarding commuting patterns and characteristics of commuter travel to understand commuting patterns and volume of travel flows between origins and destinations. Tables 1 through 4 provide journey to work information for Kane County and the neighboring counties based on data derived from the Census Transportation Planning Package (CTPP) 2000. The data presented below is based on the total number of work trips for each county.

Table 1 Kane County Residence Journey to Work Flows

Workplace County	Count	% of Total Count
Cook County	34,361	18%
DuPage County	34,318	18%
Kane County	107,807	56%
Lake County	3,012	2%
McHenry County	5,056	3%

Table 2 Kane County Workplace Journey to Work Flows

Residence County	Count	% of Total Count
Cook County	18,345	10%
DuPage County	16,539	9%
Kane County	107,807	61%
Lake County	1,383	1%
McHenry County	8,877	5%

Table 3 Transportation Mode to Work

County	Percentage by Transportation Mode					
	Drive Alone	Carpool	Transit	Bike/Walk	Work at Home	Other
Cook County	63%	12%	17%	4%	3%	1%
DuPage County	80%	7%	6%	2%	4%	1%
Kane County	80%	11%	2%	2%	3%	1%
Lake County	76%	10%	5%	3%	4%	2%
McHenry County	82%	8%	3%	1%	4%	2%

Table 4 Average Travel Time to Work

County	Travel Time (minutes)		
	Drive/Carpool	Transit	Bike/Walk
Cook County	37.4	51.2	14.3
DuPage County	35.0	55.9	12.2
Kane County	28.6	47.2	12.5
Lake County	28.8	53.5	13.2
McHenry County	30.6	57.4	10.9

Kane County captures a majority of its residents that live and work within the county. More residents leave Kane County for jobs in neighboring counties, than workers that travel to Kane County from other counties. Mode choice is mostly auto-oriented with average travel times reported the lowest in Kane County. This could be due to a higher portion of internal commuting trips and shorter work trips being made to neighboring communities, compared to other counties in the region.

3.0 Major Destinations and Activity Centers

Key activity generators were identified including senior and affordable housing communities, post-secondary schools, major employment centers and shopping centers. Below is an analysis of existing transit coverage and unmet needs that present opportunities for additional transit service. Data was analyzed based on the *Task 1.0 Existing Conditions Summary*, which was compiled from ESRI Business Analyst and S.B. Friedman & Company.

Affordable and Senior Housing Communities

Elderly and low income individuals typically rely on transit for access from concentrated housing communities to social centers, shopping, medical services and jobs. Thirteen large senior housing communities containing 1,429 units and thirteen affordable housing communities containing 999 units are located in the study area. Based on existing transit service, only one community (in Algonquin) is greater than 0.75 miles from an existing Pace bus route. Fixed route bus service receiving federal funding for operations is required by law, to be paired with complementary Americans with Disabilities Act (ADA) paratransit service, which Pace provides.

Post-Secondary Schools

Students are another potential transit user for trips related to schools. Elgin Community College and Judson University are the main post-secondary schools located in the area, with enrollment, faculty and staff totaling approximately 14,400. Pace Bus Routes 543 and 552 currently serve both universities.

Major Employment Centers

Job access is key for both transit dependent and choice riders. Areas with a high concentration of employment are candidates for transit services to access those businesses. Within the study area, clustered employment centers containing businesses that employ 100 or more individuals per business, and single employers of 500 or more per businesses were identified. These include Prairie Stone Business Park (including Sears and Kmart), St. Alexius Medical Center, Sherman Hospital, Spring Hill Mall, Crystal Point Mall and other areas adjacent to major transportation corridors. A majority of business centers are currently served by either Pace or Metra. There are clusters of employment on Randall Road in Algonquin and Lake in the Hills and an employment center adjacent to IL Route 47 in Huntley that currently are not served by transit.

Shopping Centers

Transit is important to provide access to individuals without means of other forms of transportation to buy goods and access services. Major shopping centers in the area include Algonquin Commons, Randall Crossing, and Algonquin Galleria on Randall Road; Spring Hill Mall; The Arboretum of South Barrington; and Popular Creek Crossing. With the exception of Spring Hill Mall, these shopping centers do not have direct access to transit.

4.0 Land Use Patterns

The development and land use patterns in the study area are traditional of a suburban environment with population and employment shifting from denser city centers to low density developments. These patterns have supported more automobile oriented transportation usage. Public transportation operators have tried to provide expanded services to effectively serve these areas. With the exception of the core areas of the older communities and larger satellite cities (i.e. Elgin), most of the service area consists of new subdivisions and dispersed employment centers. There are many land uses scattered throughout the study area that are common in suburban areas. With the potential to redevelop the area around IL Routes 25 and 72, there could be an opportunity to create a more mixed land use with additional employment centers and higher density developments that may encourage more transit usage in the area.

The *Pace Development Guidelines* manual provides direction for new developments that encourages transit-oriented design that would, in turn, improve job accessibility.

These guidelines are designed by Pace to compliment local zoning codes and land use requirements to encourage the reduction of traffic congestion and mitigate regional development. The benefits to transit users include:

- *Enhanced access to transit by the pedestrian and mobility limited population*
- *Improved passenger convenience and comfort*
- *Increased accessibility to needed services and work places by public transportation*
- *Increased travel alternatives*

Residential, retail, office, mixed-use and industrial land uses are encouraged to provide design and access treatments that promote the use of transit. The design of roadways, sidewalks and other supporting facilities (i.e. bicycle routes and park and ride facilities) are essential to support transit within and connecting to different land use types.

5.0 Existing and Proposed Transit Services

It is important to understand the existing transit service in order to determine areas of deficiency and opportunities for connections to areas that currently do not have transit service. Transit services that are currently provided in the study area include Metra Commuter Rail and Pace Bus (local and express service) and sponsored vanpools, as identified in the *Task 1.0 Existing Conditions Summary*.

Existing Transit Services

There are more than 20 Pace bus routes that serve the area, with two of these routes (Routes 543 and 803) that are directly adjacent to the potential sites for a transit center. Pace offers three express bus routes (Routes 610, 1012, and 767) to Prairie Stone Business Park and provides vanpool service through the Prairie Stone Transportation Management Association (TMA), which sponsors employee carpooling programs. Metra provides commuter rail service in the regional study area including the Union Pacific Northwest Line and Milwaukee West Line, with the closest stations in Barrington, Fox River Grove and Elgin. As part of the transit analysis, operating characteristics (i.e. span of service and service frequency) and existing ridership were documented to determine the need and potential characteristics of new local and circulator routes to serve the potential transit center and areas with unmet service. Table 5 provides a summary of existing transit service adjacent to the Dundee Crossings site and details regarding operating characteristics. Pace's current bus route provides service for the transit dependent populations in the area.

Pace currently has two transit centers in the study area as transfer points for local buses. The Elgin Transit Center functions as a regional bus-to-bus transfer center with 13 local bus routes that feed into the facility. This transit center also provides a direct connection to Greyhound and Metra, with the Elgin Station directly adjacent to the facility. The Prairie Stone Transit Center is closest to the potential Dundee Crossings Transit Center. This transit center serves more as a terminus location for the three Pace express bus routes that provide direct service to Prairie Stone.

Proposed Transit Services

Two major transit projects are proposed near the Dundee Crossings study area. The STAR Line is a proposed commuter rail line along the CN/Elgin-Joliet-Eastern (CN/EJ&E) railroad and I-90 corridor, with a potential station adjacent to Prairie Stone. A Pace Bus Rapid Transit (BRT) is also being proposed along Randall Road south of Interstate 90 with a potential to expand the BRT north on Randall Road into Crystal Lake. While both the STAR line and the future expansion of the BRT north of Interstate 90 present opportunities for greater transit connectivity in the northwest suburban region, it may not fully justify a transfer center in East Dundee. *Task 1.0 Existing Conditions Summary* discussed the potential of an East Dundee transit center to function as a transfer point for commuters traveling to Elgin and Prairie Stone. The presence of the BRT north extension would not allow the Dundee Crossings area to reasonably serve as a transfer point for far northwest suburban commuters traveling to Elgin. However, the presence of the BRT and STAR Line could strengthen the feasibility of a bus route through East

Dundee. A bus IL along Route 72 connecting the north extension of the BRT to Prairie Stone and the potential STAR Line station could be established. This route would likely warrant a stop in the Dundee Crossings area at a minimum. The potential for a transit center would greatly depend on the ridership of this line and the need to transfer to other existing and potential routes at or near Dundee Crossings.

Table 5 Existing Transit Service

Transit Operator	Service Type	Bus Route/ Rail Line	Limits	Span of Service	Service Frequency	Average Daily Ridership
Pace	Local Fixed- Route Bus Service	Route 543 Dundee-Carpentersville	Pace Elgin Transportation Center - Meadowdale Shopping Center	Weekday: 6:00 AM – 7:41 PM Saturday: 7:45 AM – 6:34 PM Sunday/Holiday: None	Peak: 30 min; Off-Peak: 60 min; Weekend: 60 min	326
		Route 552 North State – Spring Hill Mall	Pace Elgin Transportation Center – Spring Hill Mall	Weekday: 5:45 AM – 8:36 PM Saturday: 7:15 AM – 7:05 PM Sunday/Holiday: None	Peak: 30 min Off-Peak: 30 min Weekend: 30 min	397
		Route 803 Carpentersville Local	Spring Hill Mall – Foxview Turnaround	Weekday: 5:30 AM – 9:18 PM Saturday: 6:55 AM – 6:18 PM Sunday/Holiday: None	Peak: 30 min; Off-Peak: 60 min; Weekend: 30/60 min	357
	Express Fixed- Route Bus Service	Route 610 River Road – Prairie Stone Express	Rosemont CTA Station – Prairie Stone Transit Center I-90 (Northwest Tollway)	Weekday: 5:48 AM – 8:45 AM; 3:15 PM – 6:50 PM Saturday: None Sunday/Holiday: None	Peak: 20-40 min	330
		Route 767 Congress/Douglas – Prairie Stone Connection (Limited Stop Service)	54 th Avenue CTA Station – Prairie Stone Transit Center	Weekday: 5:35 AM – 6:48 AM; 4:10 PM – 5:45 PM Saturday: None Sunday/Holiday: None	AM Peak: 1 trip; PM Peak: 1trip	46
		Route 1012- Sears/Prairie Stone	Evergreen Park – Prairie Stone Transit Center	Weekday: 5:18 AM – 7:00 AM; 4:15 PM – 6:00 PM Saturday: None Sunday/Holiday: None	AM Peak: 1 trip; PM Peak: 1trip	NA ^(b)
Metra	Commuter Rail	Milwaukee District – West Line	Big Timber (Weekends/Holidays- Elgin) – Chicago Union Station	Weekday: 5:27 AM – 1:59 AM Saturday: 5:55 AM – 1:53 AM Sunday/Holiday: 5:55 AM – 1:53 AM	Peak: 20-40 min; Off-Peak: 60 min; Weekend: 60-120 min	22,382
		Union Pacific – Northwest Line	Harvard – Ogilvie Transportation Center	Weekday: 5:47 AM – 2:20 AM Saturday: 6:35 AM – 2:20 AM Sunday/Holiday: 8:35 AM – 2:20 AM	Peak: 15-45 min; Off-Peak: 180 min; Weekend: 120 min	34,396

- (a) Average Daily Ridership for Pace is based on 2008 annual ridership and Metra is based on 2006 Boarding and Alighting Counts.
- (b) Route 1012 is a subscription bus service, the average daily ridership values fluctuates.

6.0 New Transit Concepts

This section of the report documents general operating assumptions and concepts for potential bus routes that could serve the Dundee Crossings study area. Potential routes are based on existing service levels and geographic gaps in transit service. While transit dependent populations were considered, emphasis was placed on identifying gaps in transit service.

Existing local bus services in the Dundee Crossings study area are operated by Pace. It is assumed that Pace would be the operating agency for the potential bus routes. These assumptions include span of service, vehicle capacity, vehicle performance, and operating characteristics.

Huntley-Dundee Route

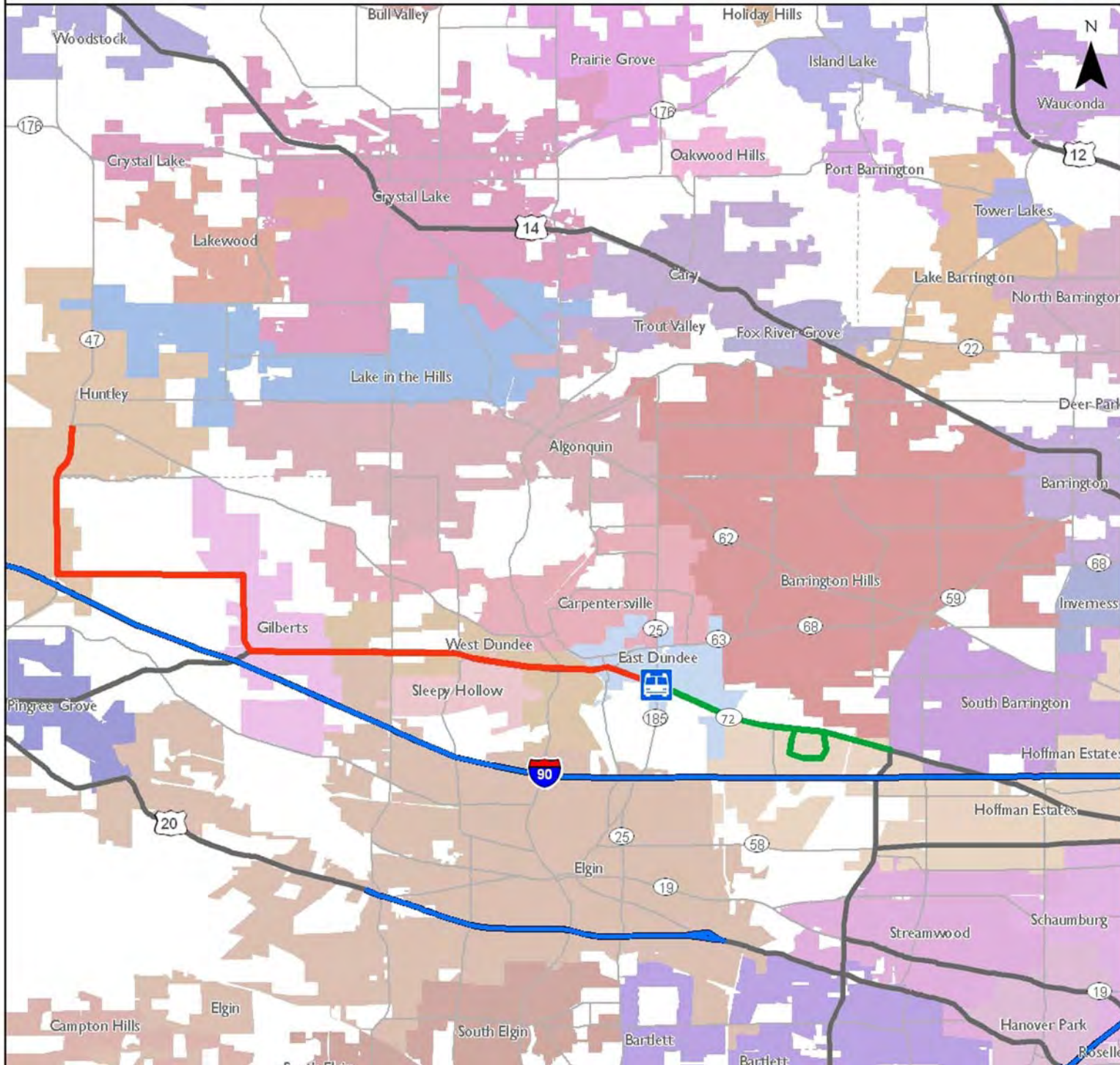
A potential new fixed bus route could be established to connect the growing northwest communities to Dundee Crossings area and to employment centers in Kane County (i.e. downtown Elgin) and Prairie Stone. Currently, there is no existing fixed route transit that directly serves Huntley and Gilberts. This potential route could fill the gap in transit service for this area. The potential route would begin in downtown Huntley and proceed south on IL Route 47. The route would continue east on Freeman Road and provide bus service for employees and shoppers to the Prime Outlets-Huntley shopping center. The route would proceed south on Galligan Road to the center of Gilberts. The route would then proceed east on Higgins Rd. (IL Route 72). The potential route would provide service to the newer residential development of Gilberts Town Center, Northwest Corporate Park (adjacent to IL Route 72 and Randall Road), Spring Hill Mall, West Dundee and East Dundee. The potential route would terminate at Dundee Crossings. Transfer opportunities would exist to connect to the existing Routes 543, 552 and 803 and the proposed Randall Road BRT. Figure 7 displays the alignment of the potential route.

Prairie Stone Circulator

Establishing a circulator bus route connecting Prairie Stone to Dundee Crossings could potentially be supported. This route would provide better connected transit service for employees of Prairie Stone to other parts of the surrounding area. The route would begin at Dundee Crossings and proceed east on Higgins Rd. (IL Route 72). The route would circulate in the Prairie Stone site and provide a direct connection to the existing Prairie Stone Transit Center, including the proposed STAR Line station, then proceed east to provide service for workers and shoppers at the Arboretum at South Barrington. Figure 7 displays the alignment of the potential route.

Dundee Crossing Transit Center Study

Potential Bus Routes



Span of Service

The span of service for the potential bus routes should be comparable to the weekday, Saturday and Sunday and holiday schedules for the existing bus routes in the service area. There would not be service provided on Sundays and holidays to be consistent with the current Pace local bus service in the study area. Table 6 below, summarizes the assumed span of service.

Table 6 Proposed Span of Service

Day of Week	Time Period	Hours
Monday-Friday	Peak	5:30 AM - 9:00 AM 3:00 PM – 7:00 PM
	Base	9:00 AM - 3:00 PM
	Evening	7:00 PM – 9:30 PM
Saturday	Base	7:00 AM - 6:30 PM
Sundays/Holidays	None	None

Service Frequency

Service frequencies for the potential routes are assumed to be comparable to the existing bus service for consistency and connectivity for transfers. Table 7 below, summarizes the assumed service frequency.

Table 7 Proposed Span of Service

Day of Week	Time Period	Frequency	
		Huntley-Dundee	Prairie Stone Circulator
Monday-Friday	Peak	30 minutes	30 minutes
	Base	60 minutes	30 minutes
	Evening	60 minutes	60 minutes
Saturday	Base	60 minutes	60 minutes
Sundays/Holidays	None	None	None

Vehicle Capacity and Passenger Load Standards

A 40 foot bus is recommended for the new bus service, based on Pace’s current bus fleet. Vehicle capacity and passenger loading standards have been established in order to determine the service frequency and fleet requirements for the new local bus routes. Table 8, summarizes the assumed vehicle capacity (seats) and passenger loading standards.

Table 8 Proposed Vehicle Capacity and Load Standard

Bus Route	Length	Seats	Load Standard
Huntley-Dundee	30'	38	174% of seats
Prairie Stone Circulator	30'	38	174% of seats

- (a) Load factor based on Pace bus combined seating capacity and standing capacity
- (b) Source: Pace Development Guidelines, Figure III-1 Transit Vehicle Components
(Revised November, 1999.)

Operating Requirements

Operating plans were developed to determine the operating requirements for the potential routes. The operating requirements were estimated based on a similar level of service (i.e. service hours and frequencies) for existing Pace routes in the study area. Estimating operating requirements assists a transit operator with estimating the potential costs to operate and maintain new service. Costs are typically driven by the number of buses, annual bus-miles and annual bus-hours required to operate the new routes. Tables 10 and 11 provide the detailed operating requirements.

Potential Ridership

Many factors influence ridership for transit including: land use patterns, socioeconomic demographic factors, access to transit, service frequency, span of service and quality of service. Estimated ridership for the potential bus routes is assumed to be comparable to ridership of the existing routes in the service area due to similar route characteristics (i.e. coverage, span of service, service frequency). Based on the average daily ridership of the existing local fixed-route bus service, Pace Routes 543, 552, and 803 for 2008, the potential ridership can be estimated. The average daily ridership for the existing routes is 360 riders. By applying a factor for the percent in population change for the area for 2009 through 2014, the potential ridership could be 440 daily riders by 2014 for the potential new routes. The percent population change estimated for the area is 23 percent for Gilberts, Huntley, Sleepy Hollow, East Dundee and West Dundee. Potential ridership may also be projected by using the existing AADT for IL Route 72 and applying a 2 percent factor for mode shift. However, the value obtained from this method is approximately 580 riders, considerably higher than the existing ridership on established routes in the area.

Future land use and other proposed transit improvements would have some impact on the ridership of the potential routes. Ridership for transit routes that would utilize a potential Dundee Crossing Transit Center will also depend on the redevelopment and employment generated in the area surrounding the center.

Bus Bay Requirements

The number of bus bays is important take into account when designing a bus transfer facility. The amount is typically based on the frequency of bus service, scheduling of bus arrivals (i.e. timed transfers), need for operator layovers for terminating routes, and number of routes that pass through the facility (inbound and outbound travel). Pace determines the number and location of bus bays at transfer center, based on service volume and transfer needs. The bus bay size should be at least 50 feet in order to accommodate a 40-foot bus. There would be a total of 4 routes that would serve the Dundee Crossings area, which includes the existing Routes 543 and 803 and the two potential routes. It would need to be determined by Pace if the existing route alignments and schedules would be restructured to terminate and layover at a proposed transit facility. It is recommended to assign one bus bay for each terminating route with a peak

period service frequency of 30-minutes or less. Four bus bays are recommended to accommodate existing and proposed bus routes and provide additional capacity for future bus routes that would serve a transit facility. Table 9 provides recommended bus bay assignments.

Table 9 Proposed Bus Bay Assignments

Bus Bay	Bus Route	Peak Hour Frequency	Terminus/ Pass-Through
A	Huntley-Dundee	30 minutes	Terminus
B	Prairie Stone Circulator	30 minutes	Terminus
C	Route 543	30 minutes	Pass-Through
	Route 803	30 minutes	Pass-Through
D	Future Route(s)	N/A	N/A

Table 10 Potential Huntley-Dundee Route Operating Requirements

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	----Annual Revenue----		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Huntley-Dundee Route	Huntley	Dundee	17.0	51.2	14.5	M-F	30.0	60.0	60.0	4	221,000	13,970	8.8	120.0	4	2	2
						Sat	60.0	60.0	60.0		17,300	1,200			2	2	2
						Sun	No Service										
ESTIMATED TOTALS:										4	238,300	15,170					

Table 11 Potential Prairie Stone Circulator Route Operating Requirements

Project	From	To	Avg. Speed (mph)	Run Time (min)	Distance (Miles)	---Headway---				Peak Buses	----Annual Revenue----		Lay Over	Cycle Time	---Buses---		
						Day	Peak	Base	Eve.		Bus-Miles	Bus-Hours			Peak	Base	Eve.
Prairie Stone Circulator Route	Dundee Crossings Transit Center	Prairie Stone	15.0	16.0	4.0	M-F	30.0	60.0	60.0	2	61,000	6,990	4.0	40.0	2	1	1
						Sat	60.0	60.0	60.0		4,800	600			1	1	1
						Sun	No Service										
ESTIMATED TOTALS:										2	65,800	7,590					

- (a) Average Speed – The average speed the bus covers the distance of the route in one direction, including time to make stops and intersections delays
- (b) Run Time - The time it takes for a bus to travel one-way from the beginning of the route to the end of route during revenue service.
- (c) Distance – The one-way distance from the beginning of the route to the end of the route.
- (d) Headway - The scheduled time interval between any two revenue buses operating in the same direction on a route and can vary based on ridership demand, typically more frequent during the AM and PM peak periods.

- (e) Peak Buses – The minimum number of buses required in operation during the peak periods of revenue service.
- (h) Annual Revenue Bus-Miles – The miles operated by buses available for passenger service estimated per year.
- (f) Annual Revenue Bus-Hours - The measure of scheduled hours of service available to passengers for transport on the routes estimated per year.
- (g) Lay Over - Layover time serves as recovery time for the schedule to ensure on-time departure for the next trip and often the operator rest or break time between trips.
- (h) Cycle Time – The time it takes for a bus to make a round-trip in revenue service before departing for the next trip.
- (i) Annual revenue bus-miles and bus-hours include layover time and do not include deadhead time.
- (j) Annual operating requirements are based on 254 weekdays, 52 Saturdays, and 59 Sundays and holidays per year.

7.0 Transit Need Evaluation

Based on the above analysis, there are opportunities for new transit service to support a Dundee Crossings transit facility. The results identified that existing Pace local bus service provides coverage to areas and populations that support transit usage. Pace currently serves the area’s transit dependent populations. There are opportunities for expanded service in growing areas of populations and expanded industrial businesses in the area that are unserved by transit at this time. There are also identified constraints with the limited existing demand source from Prairie Stone and Metra stations to serve the transit center. An evaluation matrix was developed to evaluate potential transit routes on the measures to determine transit need.

Evaluation Matrix

The matrix below summarizes the evaluation of the key criteria for comparison between the potential bus routes. Ratings were developed based on the analysis conducted in this report. :

Table 12 Transit Need Evaluation Matrix

Criteria	Potential Bus Routes	
	Huntley-Dundee	Prairie Stone Circulator
Transit Dependent Populations	o	-
Choice Riders	+	o
Major Employment Centers	o	+
Major Activity Centers	o	+
Land Use Patterns	o	+
Transfer Opportunities	+	+
Potential Ridership	o	o

The following symbols are used in the Table 12:

- + Positive rating with regard to criterion
- o Neutral rating with regard to criterion
- Negative rating with regard to criterion

8.0 Conclusion

Current population, projected population growth, and geographic gaps in transit service could support up to two new bus routes in the area. The proposed routes would link the northwest suburbs to Dundee Crossings, Prairie Stone, and potentially the Metra STAR Line Station via Route 72. Additional public transit in the Dundee Crossings area would have the benefit of relieving congestion at the intersection of Route 72 and Route 25, and of providing opportunities to link future economic development opportunities and other activity generators at Dundee Crossings into the regional transportation network. Future strategic development sites at Dundee Crossings should be planned to enable transit accessibility, allowing for bus ingress and egress and clear drop off locations as well as appropriate building locations and layouts. Future land uses at Dundee Crossings and population growth in the northwest suburbs could warrant a smaller-scale transit center in this area within on of these strategic development sites accommodating up to 6 buses during peak hours along with other transportation-supportive facilities for park-and-ride users, bicyclists and pedestrians.

Within the next steps of the planning study, the consultant team will further examine the key strategic development locations with the Dundee Crossings area and develop plans that will support transit access and development. The development plans will include accommodations for existing bus transit in the area and short term demand as well as flexible capacity to accommodate additional transit service that may result from future development activity and demand with the immediate area and the subregion.



Memorandum

From: Charles H. Teuer, PE

Date: September 23, 2009

To: Jewell Walton

Subject: Dundee Crossings Existing Conditions Traffic Analysis

SUMMARY

This memorandum presents the findings of traffic analyses conducted as part of the planning for a multimodal center to be located in the Village of East Dundee, Illinois. As shown in Figure 1, the study area included the intersections of Illinois State Route 25 (IL 25) with Illinois State Route 72 (IL 72) and Illinois State Route 68 (IL 68) as well as the intersection of IL 72 and IL 68.

STUDY METHODOLOGY

Peak hour turning-movement counts were conducted at the intersection of IL 25/IL 72 on Tuesday, September 9, 2009, from 6:00 to 9:00 AM and from 3:30 to 6:30 PM. The intersections of IL 68 with IL 25 and IL 72 were conducted from 6:30 to 8:30 AM and from 4:00 to 6:00 PM on Tuesday and Wednesday, September 15 and 16, 2009, respectively. The two-hour periods of these latter two counts match the observed peak period of the former three-hour counts. The data was analyzed using Synchro and SimTraffic to assess existing Level of Service (LOS).

EXISTING CONDITIONS

RWA conducted a field reconnaissance to collect relevant information pertaining to adjacent land uses, the surrounding roadway network, traffic controls, and existing traffic volumes on IL 25, IL 72 and IL 68. The land uses within the study area vary from residential to commercial and retail in addition to the existing and former quarry sites.

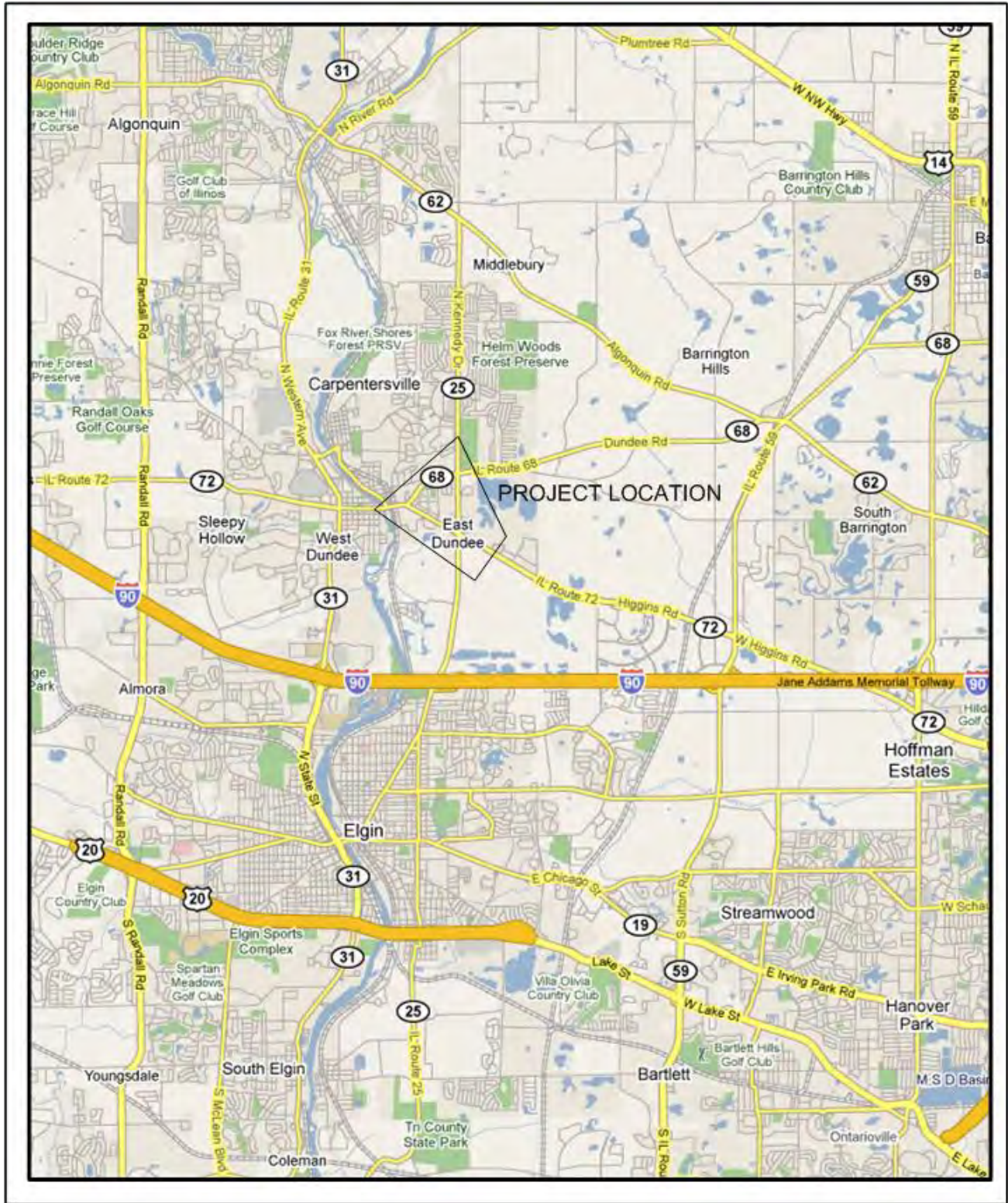


Figure 1 – Site Location Map

Roadway Network

Illinois State Route 25 is a north-south arterial with a five-lane cross section of two lanes in each direction separated by a raised or painted median which accommodates left turn lanes at intersections and driveways. IL 25 is designated a Strategic Regional Arterial (SRA) by the Illinois Department of Transportation (IDOT) south of IL 68. The roadway, which extends to Elgin and Aurora, has an interchange with the Interstate 90 Northwest Tollway (I-90) to the south of the study area. To the north, IL 25 provides connections to Carpentersville, Algonquin, Crystal Lakes and other northwest suburbs. IL 25 has an Annual Average Daily Traffic (AADT) volume of 25,400 vpd (vehicles per day) for the year 2007 within the study area. The posted speed limit is 45 miles per hour (mph).

Illinois State Route 72 is an east-west arterial that is oriented slightly southeast and northwest with a five-lane cross section of two lanes in each direction divided by a median that accommodates left-turn lanes at intersections and driveways. IL 72 is designated as an SRA east of IL 25. To the east, the roadway provides connections to Prairie Business Park, Schaumburg and other regional arterials including IL 59. IL 72 joins with IL 68 in the western portion of the study area and provides access to West Dundee, Springhill Mall and an interchange with I-90 further west. The AADT for 2007 was 29,000 vpd. The posted speed limit varies from 30 mph in the western portion of the study area to 40 mph in the eastern portion

Illinois State Route 68 is an east-west arterial that is oriented slightly northeast and southwest. Within the study area, IL 68 generally has one lane in each direction divided by a drivable median with residential driveways on either side of the street. East of IL 25, the roadway operates as a two-lane undivided highway. To the east, the roadway provides connections to Barrington, Palatine and other northern suburbs. The AADT for 2007 was 13,700 vpd. The posted speed limit is 35 mph.

Field Observations

RWA made field observations during the week of September 7, 2009. Key observations included:

1. Access management features, such as frontage roads for access to residential streets, are in place along IL 25. This is indicative of this roadway's SRA status and the desire to limit the number of intersections along the main roadway.
2. Limited pedestrian accommodations exist within the study intersections and along much of the study roadways, especially IL 25 and IL 72. Pedestrians were observed walking along the roadside where sidewalks did not exist.
3. Queuing at the study intersections was generally processed within one signal cycle except for the IL 72/IL 68 intersection. Queuing from signals on IL 72 to the west of IL 68 had the tendency to back through this intersection, especially in the PM peak hours.
4. The resurfacing of IL 25 south of IL 72 was completed prior to conducting the data collection and field observations.
5. At the time of these counts, the planned Thornton Gas Station development, to be located on the southeast corner of IL 25 and IL 68, was under construction. The construction activity did not include any lane closures and did not appear to materially influence traffic patterns.

Existing Traffic

RWA collected peak hour turning-movement volumes at the study intersections as described above. The set of count data is included in Appendix A. The peak hours at the intersection occurred from 7:00 AM to 8:00 AM and from 4:30 PM to 5:30 PM for the AM and PM peak hours, respectively. Figure 2 indicates the existing lane configurations at the study intersections and Figure 3 shows the existing traffic volumes. The recorded 15-minute Peak Hour Factors for all intersections were 0.95 or greater, on average. This indicates that throughout the peak hour, traffic is fairly consistent. A closer look at the data indicates that the traffic volume levels actually continue outside of the peak hour, both earlier and later. In other words, the traffic “peak” experienced in the study area is more of a plateau that lasts 60 to 90 minutes.

One observation of note is the consistency of traffic volumes from one intersection to the next along IL 25 and IL 72. In general, the volumes in a given direction from one intersection were within 10% of the volumes at the next intersection, suggesting that a large percentage of the traffic within the study area is through traffic as opposed to traffic destined to or originating from the land uses within the study area. This is consistent with anecdotal evidence received from the Steering Committee and the Village. It is also consistent with the expected function of these regional routes as well as the existing level and type of development in the study area. Along IL 68, approximately 40% to 50% (during the AM and PM, respectively) of the traffic is generated from between the intersections with IL 72 and IL 25. This traffic generation is likely associated with Barrington Avenue and other residential streets and driveways along IL 68 in this area.

The percentage of truck traffic at the study intersections averaged at typical levels of 2% or less, except for a decidedly higher percentage from the east on IL 72 in the morning peak hours. For example, trucks accounted for 17.9% of all westbound traffic turning left from IL 72 to southbound IL 25 during the three-hour morning traffic count. Nine percent of right-turning traffic was trucks. This higher-than-typical percentage of trucks could be attributed to ongoing quarry activity and the construction of the Terra Business Park to the east on IL 72.

Pedestrian and bicycle activity was observed mainly at the intersection of IL 25/IL 68, but volumes were minor.

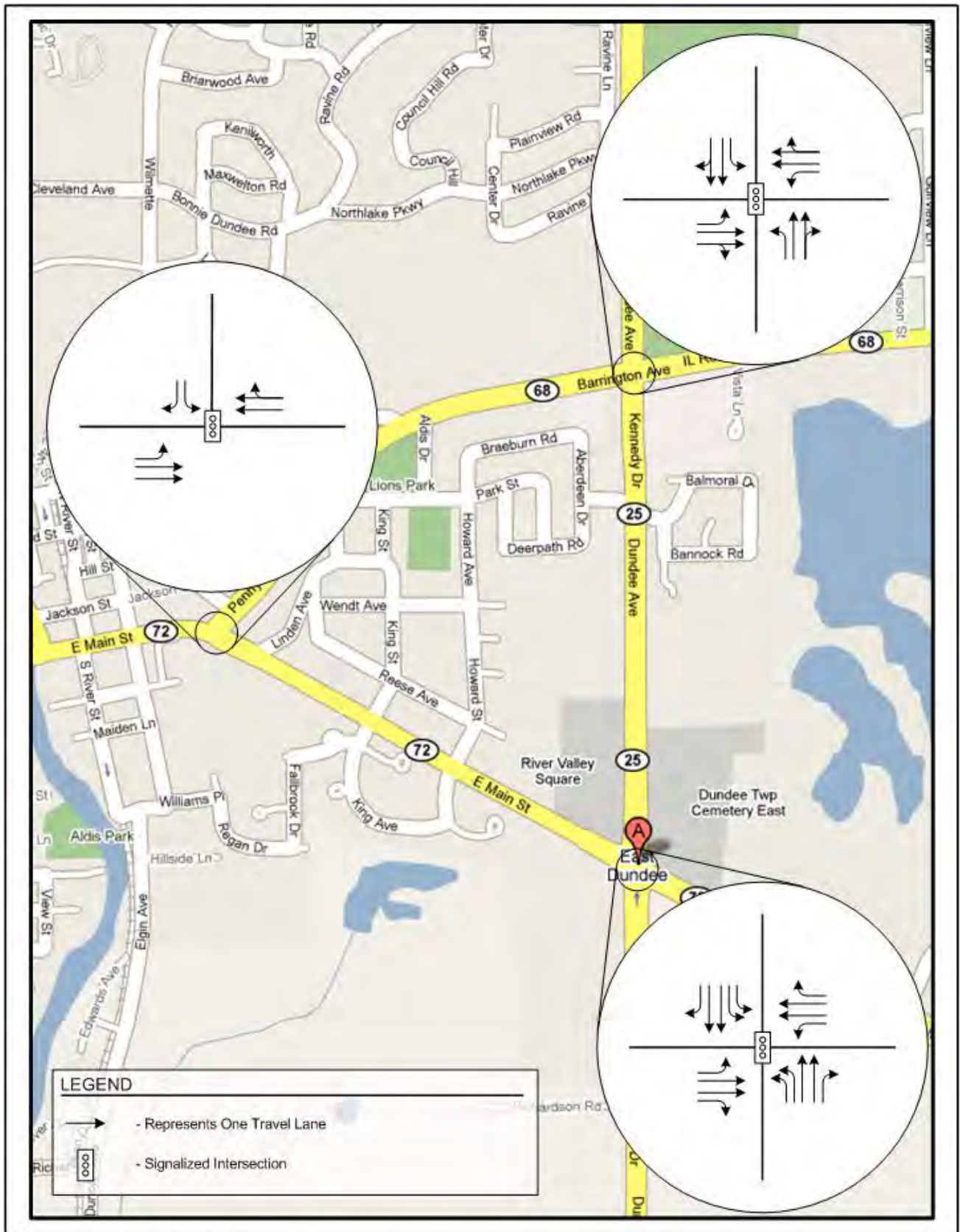


Figure 2 – Existing Lane Configuration

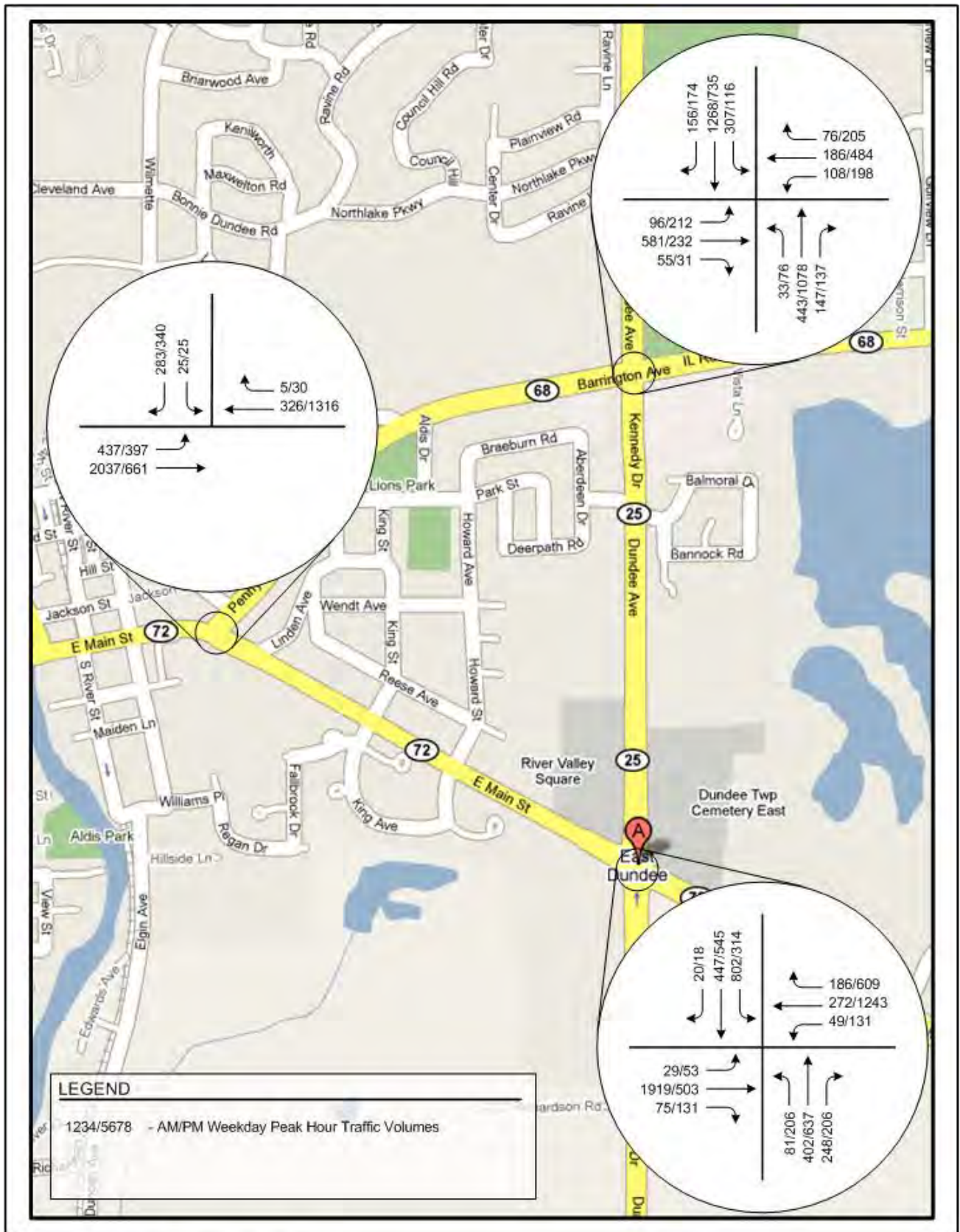


Figure 3 – Existing Traffic Volumes

Directional Distribution of Traffic

Distinct directional volume patterns exist at each of the study intersections that differ inversely between the AM and PM. In the AM, the predominant traffic flow directions are eastbound and southbound with the opposite true in the PM. In this area, Illinois Route 72 appears to operate as an alternative for drivers to the Illinois Tollway with significant east-west traffic patterns during the peak hours. IL 25 operates as a significant north-south roadway in the region as perceived from the traffic volumes and from the percentage of vehicles turning onto IL 25 from both IL 68 and IL 72.

Expected Traffic Growth

With the downturn in the economy that began in 2006, significant development within or adjacent to the study area is not expected in the near future. One development mentioned previously, the Thornton Gas Station, is currently under construction. While the traffic study for this development was not available for review at the time of this analysis, the station and an associated convenience store that is assumed to be part of the development may increase traffic volumes, especially turning movements, at the IL 25/IL 68 intersection. However, much of the traffic associated with the development is expected to be pass-by or diverted trip traffic. This development is not expected to significantly increase the number of vehicles on the study roadways, but merely to add some turning movements and slightly shift some patterns.

A request is being submitted to the Chicago Metropolitan Agency for Planning (CMAP) for traffic growth forecasts within the study area. The expected response will provide the Team with traffic projections for the study roadways in the year 2030, the current horizon year for CMAP forecasts. The counts will be based on projected population trends, development patterns and assumed regionally-significant transportation network improvements as described in CMAP's 2030 Regional Transportation Plan which was originally adopted in 2003 and last updated in October 2008.

CAPACITY ANALYSIS

Intersection capacity analyses were conducted at the study intersections for the AM and PM peak hour Existing Conditions to determine a Level of Service (LOS). Operational LOS reflects delays experienced by the motorist and are measured from A through F. LOS A is the best and LOS F the worst, which is considered a failed condition. LOS D or better is considered to be within acceptable limits.

The capacity analyses results are tabulated below. Detailed worksheets are included in Appendix B.

Table 1 – Intersection Capacity Analysis Results		
Approaches	Existing Traffic LOS (delay in sec.)	
	AM	PM
Illinois 25 & Illinois 72		
Eastbound	F (123.0)	D (35.0)
Westbound	C (27.1)	D (48.4)
Northbound	F (132.5)	D (51.4)
Southbound	F (115.8)	D (52.0)
Intersection	F (110.8)	D (47.8)
Illinois 25 & Illinois 68		
Eastbound	D (51.9)	F (83.2)
Westbound	D (44.6)	E (67.1)
Northbound	D (38.5)	D (38.8)
Southbound	D (35.5)	D (48.0)
Intersection	D (40.6)	D (54.0)
Illinois 68 & Illinois 72		
Eastbound	A (4.0)	B (19.6)
Westbound	A (6.5)	C (22.5)
Southbound	D (49.7)	D (51.7)
Intersection	A (9.1)	C (25.6)

The capacity analysis shows that the intersection of IL 25 and IL 72 operates at unacceptable levels during the morning peak hour. The remaining time periods at the study intersections operate at acceptable levels with the exception of the eastbound approach of the IL 25/IL 68 intersection. A closer review of that intersection approach indicated that the key movement during that time period is the eastbound left turn to northbound IL 25.

CONCLUSIONS

The above analysis of existing conditions resulted in the following findings:

1. IL 72 is the most trafficked of the study roadways, serving as an alternative to I-90 for commuters.
2. IL 72 operates near or above capacity which results in an extension of peak hour traffic volume levels that continue for 60 to 90 minutes.
3. IL 25 is the second-most trafficked of the study roadways serving regional north-south commuting traffic.
4. IL 68 serves much of the residential development in the study area.
5. The study intersections operate at acceptable levels of service during weekday peak hours with the following exceptions:
 - a. The intersection of IL 25/IL 72 operates below acceptable levels during the AM and PM peak hours, and;
 - b. The eastbound approach to the intersection of IL 25/IL 68 operates below acceptable levels during the PM peak hour.
6. Regional commuting traffic, through traffic not associated with East Dundee, appears to be the dominant travel type on the study roadways during peak hours.
7. Existing pedestrian and bicycle activity was not found to be significant.

NEXT STEPS

The above existing conditions assessment will be taken forward through the planning process. The existing traffic patterns and Levels of Service that are experienced on the roadways will be used to assist in the development of future opportunities for a multimodal center. Alternatives that are developed will be evaluated assuming these existing patterns and expected future growth and changed traffic patterns.

APPENDIX A
Turning Movement Count Data

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IL72 & IL25
East Dundee, IL
Cloudy & Dry
6:00 AM - 9:00 AM

File Name : IL72 & IL25 AM
Site Code : 00000000
Start Date : 9/9/2009
Page No : 1

Groups Printed- PC - SU - MU

Start Time	IL25 From North					IL72 From East					IL25 From South					IL72 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:00 AM	7	72	145	0	224	24	24	3	0	51	24	61	8	1	94	10	220	6	0	236	605
06:15 AM	2	87	170	0	259	41	30	9	0	80	24	65	18	0	107	11	262	4	0	277	723
06:30 AM	4	133	196	0	333	37	39	6	0	82	36	124	14	0	174	10	362	11	0	383	972
06:45 AM	2	105	203	0	310	58	58	7	0	123	54	82	20	0	156	16	446	7	0	469	1058
Total	15	397	714	0	1126	160	151	25	0	336	138	332	60	1	531	47	1290	28	0	1365	3358
07:00 AM	5	103	214	0	322	43	54	10	0	107	48	101	23	0	172	13	427	5	0	445	1046
07:15 AM	9	99	174	0	282	39	71	15	0	125	43	97	15	0	155	16	537	6	0	559	1121
07:30 AM	4	122	220	0	346	57	58	12	0	127	77	86	23	0	186	20	481	9	0	510	1169
07:45 AM	2	123	194	0	319	47	89	12	0	148	80	118	20	0	218	26	474	9	0	509	1194
Total	20	447	802	0	1269	186	272	49	0	507	248	402	81	0	731	75	1919	29	0	2023	4530
08:00 AM	16	121	163	0	300	51	84	17	0	152	48	89	29	0	166	26	374	13	0	413	1031
08:15 AM	6	107	180	0	293	48	71	21	0	140	46	96	41	0	183	22	338	6	0	366	982
08:30 AM	8	96	149	1	254	51	65	14	1	131	26	61	25	0	112	23	294	6	0	323	820
08:45 AM	10	100	123	0	233	39	68	14	0	121	24	74	33	0	131	26	207	16	1	250	735
Total	40	424	615	1	1080	189	288	66	1	544	144	320	128	0	592	97	1213	41	1	1352	3568
Grand Total	75	1268	2131	1	3475	535	711	140	1	1387	530	1054	269	1	1854	219	4422	98	1	4740	11456
Apprch %	2.2	36.5	61.3	0		38.6	51.3	10.1	0.1		28.6	56.9	14.5	0.1		4.6	93.3	2.1	0		
Total %	0.7	11.1	18.6	0	30.3	4.7	6.2	1.2	0	12.1	4.6	9.2	2.3	0	16.2	1.9	38.6	0.9	0	41.4	
PC	73	1201	2044	1	3319	428	625	85	0	1138	486	993	258	1	1738	200	4359	94	1	4654	10849
% PC	97.3	94.7	95.9	100	95.5	80	87.9	60.7	0	82	91.7	94.2	95.9	100	93.7	91.3	98.6	95.9	100	98.2	94.7
SU	2	33	46	0	81	57	59	30	1	147	22	33	11	0	66	17	48	4	0	69	363
% SU	2.7	2.6	2.2	0	2.3	10.7	8.3	21.4	100	10.6	4.2	3.1	4.1	0	3.6	7.8	1.1	4.1	0	1.5	3.2
MU	0	34	41	0	75	50	27	25	0	102	22	28	0	0	50	2	15	0	0	17	244
% MU	0	2.7	1.9	0	2.2	9.3	3.8	17.9	0	7.4	4.2	2.7	0	0	2.7	0.9	0.3	0	0	0.4	2.1

Start Time	IL25 From North					IL72 From East					IL25 From South					IL72 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	5	103	214	0	322	43	54	10	0	107	48	101	23	0	172	13	427	5	0	445	1046
07:15 AM	9	99	174	0	282	39	71	15	0	125	43	97	15	0	155	16	537	6	0	559	1121
07:30 AM	4	122	220	0	346	57	58	12	0	127	77	86	23	0	186	20	481	9	0	510	1169
07:45 AM	2	123	194	0	319	47	89	12	0	148	80	118	20	0	218	26	474	9	0	509	1194
Total Volume	20	447	802	0	1269	186	272	49	0	507	248	402	81	0	731	75	1919	29	0	2023	4530
% App. Total	1.6	35.2	63.2	0		36.7	53.6	9.7	0		33.9	55	11.1	0		3.7	94.9	1.4	0		
PHF	.556	.909	.911	.000	.917	.816	.764	.817	.000	.856	.775	.852	.880	.000	.838	.721	.893	.806	.000	.905	.948

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6:00 AM - 9:00 AM

File Name : IL72 & IL25 AM
Site Code : 00000000
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Page No : 1

Groups Printed- PC

Start Time	IL25 From North					IL72 From East					IL25 From South					IL72 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:00 AM	7	72	137	0	216	21	21	0	0	42	19	57	7	1	84	9	215	6	0	230	572
06:15 AM	2	84	162	0	248	32	25	5	0	62	23	59	17	0	99	11	259	4	0	274	683
06:30 AM	4	127	189	0	320	35	31	3	0	69	32	121	13	0	166	9	361	11	0	381	936
06:45 AM	2	99	195	0	296	50	46	4	0	100	52	79	18	0	149	15	443	7	0	465	1010
Total	15	382	683	0	1080	138	123	12	0	273	126	316	55	1	498	44	1278	28	0	1350	3201
07:00 AM	5	99	207	0	311	36	49	7	0	92	47	95	22	0	164	13	422	5	0	440	1007
07:15 AM	9	91	169	0	269	31	64	6	0	101	38	87	14	0	139	14	531	5	0	550	1059
07:30 AM	4	115	218	0	337	44	52	7	0	103	72	81	23	0	176	20	473	9	0	502	1118
07:45 AM	2	117	186	0	305	36	79	8	0	123	73	109	19	0	201	23	468	9	0	500	1129
Total	20	422	780	0	1222	147	244	28	0	419	230	372	78	0	680	70	1894	28	0	1992	4313
08:00 AM	16	117	153	0	286	36	79	14	0	129	46	86	28	0	160	24	367	11	0	402	977
08:15 AM	6	98	170	0	274	36	60	15	0	111	42	90	40	0	172	19	331	5	0	355	912
08:30 AM	7	86	142	1	236	40	57	7	0	104	21	59	25	0	105	19	289	6	0	314	759
08:45 AM	9	96	116	0	221	31	62	9	0	102	21	70	32	0	123	24	200	16	1	241	687
Total	38	397	581	1	1017	143	258	45	0	446	130	305	125	0	560	86	1187	38	1	1312	3335
Grand Total	73	1201	2044	1	3319	428	625	85	0	1138	486	993	258	1	1738	200	4359	94	1	4654	10849
Apprch %	2.2	36.2	61.6	0		37.6	54.9	7.5	0		28	57.1	14.8	0.1		4.3	93.7	2	0		
Total %	0.7	11.1	18.8	0	30.6	3.9	5.8	0.8	0	10.5	4.5	9.2	2.4	0	16	1.8	40.2	0.9	0	42.9	

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IL72 & IL25
East Dundee, IL
Cloudy & Dry
6:00 AM - 9:00 AM

File Name : IL72 & IL25 AM
Site Code : 00000000
Start Date : 9/9/2009
Page No : 1

Groups Printed- SU - MU

Start Time	IL25 From North					IL72 From East					IL25 From South					IL72 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:00 AM	0	0	8	0	8	3	3	3	0	9	5	4	1	0	10	1	5	0	0	6	33
06:15 AM	0	3	8	0	11	9	5	4	0	18	1	6	1	0	8	0	3	0	0	3	40
06:30 AM	0	6	7	0	13	2	8	3	0	13	4	3	1	0	8	1	1	0	0	2	36
06:45 AM	0	6	8	0	14	8	12	3	0	23	2	3	2	0	7	1	3	0	0	4	48
Total	0	15	31	0	46	22	28	13	0	63	12	16	5	0	33	3	12	0	0	15	157
07:00 AM	0	4	7	0	11	7	5	3	0	15	1	6	1	0	8	0	5	0	0	5	39
07:15 AM	0	8	5	0	13	8	7	9	0	24	5	10	1	0	16	2	6	1	0	9	62
07:30 AM	0	7	2	0	9	13	6	5	0	24	5	5	0	0	10	0	8	0	0	8	51
07:45 AM	0	6	8	0	14	11	10	4	0	25	7	9	1	0	17	3	6	0	0	9	65
Total	0	25	22	0	47	39	28	21	0	88	18	30	3	0	51	5	25	1	0	31	217
08:00 AM	0	4	10	0	14	15	5	3	0	23	2	3	1	0	6	2	7	2	0	11	54
08:15 AM	0	9	10	0	19	12	11	6	0	29	4	6	1	0	11	3	7	1	0	11	70
08:30 AM	1	10	7	0	18	11	8	7	1	27	5	2	0	0	7	4	5	0	0	9	61
08:45 AM	1	4	7	0	12	8	6	5	0	19	3	4	1	0	8	2	7	0	0	9	48
Total	2	27	34	0	63	46	30	21	1	98	14	15	3	0	32	11	26	3	0	40	233
Grand Total	2	67	87	0	156	107	86	55	1	249	44	61	11	0	116	19	63	4	0	86	607
Apprch %	1.3	42.9	55.8	0		43	34.5	22.1	0.4		37.9	52.6	9.5	0		22.1	73.3	4.7	0		
Total %	0.3	11	14.3	0	25.7	17.6	14.2	9.1	0.2	41	7.2	10	1.8	0	19.1	3.1	10.4	0.7	0	14.2	
SU	2	33	46	0	81	57	59	30	1	147	22	33	11	0	66	17	48	4	0	69	363
% SU	100	49.3	52.9	0	51.9	53.3	68.6	54.5	100	59	50	54.1	100	0	56.9	89.5	76.2	100	0	80.2	59.8
MU	0	34	41	0	75	50	27	25	0	102	22	28	0	0	50	2	15	0	0	17	244
% MU	0	50.7	47.1	0	48.1	46.7	31.4	45.5	0	41	50	45.9	0	0	43.1	10.5	23.8	0	0	19.8	40.2

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IL72 & IL25
East Dundee, IL
Cloudy & Dry
3:30 PM - 6:30 PM

File Name : IL72 & IL25 PM
Site Code : 00000000
Start Date : 9/9/2009
Page No : 1

Groups Printed- PC - SU - MU

Start Time	IL25 From North					IL72 From East					IL25 From South					IL72 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	5	130	93	0	228	102	177	25	0	304	16	166	40	0	222	29	112	5	0	146	900
03:45 PM	4	134	73	0	211	130	205	35	0	370	19	118	48	1	186	22	126	15	0	163	930
Total	9	264	166	0	439	232	382	60	0	674	35	284	88	1	408	51	238	20	0	309	1830
04:00 PM	9	145	68	0	222	117	210	25	2	354	12	165	49	1	227	24	104	11	0	139	942
04:15 PM	6	129	72	0	207	145	310	26	0	481	15	135	53	0	203	33	103	8	0	144	1035
04:30 PM	7	136	72	0	215	145	299	33	0	477	13	161	57	0	231	32	118	13	0	163	1086
04:45 PM	2	128	78	0	208	150	319	35	0	504	11	132	51	0	194	33	120	15	0	168	1074
Total	24	538	290	0	852	557	1138	119	2	1816	51	593	210	1	855	122	445	47	0	614	4137
05:00 PM	5	151	69	0	225	158	302	34	0	494	13	173	53	0	239	30	136	14	0	180	1138
05:15 PM	4	130	95	0	229	156	323	29	7	515	13	171	45	2	231	36	129	11	0	176	1151
05:30 PM	9	134	66	0	209	134	284	16	1	435	10	156	47	0	213	21	105	7	0	133	990
05:45 PM	4	135	76	0	215	124	221	22	0	367	13	164	39	0	216	32	104	9	0	145	943
Total	22	550	306	0	878	572	1130	101	8	1811	49	664	184	2	899	119	474	41	0	634	4222
06:00 PM	5	124	60	0	189	127	292	22	0	441	9	130	42	0	181	29	100	10	0	139	950
06:15 PM	4	144	61	0	209	139	224	29	0	392	6	147	36	0	189	30	96	9	0	135	925
Grand Total	64	1620	883	0	2567	1627	3166	331	10	5134	150	1818	560	4	2532	351	1353	127	0	1831	12064
Apprch %	2.5	63.1	34.4	0		31.7	61.7	6.4	0.2		5.9	71.8	22.1	0.2		19.2	73.9	6.9	0		
Total %	0.5	13.4	7.3	0	21.3	13.5	26.2	2.7	0.1	42.6	1.2	15.1	4.6	0	21	2.9	11.2	1.1	0	15.2	
PC	61	1552	832	0	2445	1601	3123	311	10	5045	134	1786	547	4	2471	348	1335	126	0	1809	11770
% PC	95.3	95.8	94.2	0	95.2	98.4	98.6	94	100	98.3	89.3	98.2	97.7	100	97.6	99.1	98.7	99.2	0	98.8	97.6
SU	2	41	28	0	71	18	27	12	0	57	6	22	11	0	39	2	15	0	0	17	184
% SU	3.1	2.5	3.2	0	2.8	1.1	0.9	3.6	0	1.1	4	1.2	2	0	1.5	0.6	1.1	0	0	0.9	1.5
MU	1	27	23	0	51	8	16	8	0	32	10	10	2	0	22	1	3	1	0	5	110
% MU	1.6	1.7	2.6	0	2	0.5	0.5	2.4	0	0.6	6.7	0.6	0.4	0	0.9	0.3	0.2	0.8	0	0.3	0.9

Start Time	IL25 From North					IL72 From East					IL25 From South					IL72 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	7	136	72	0	215	145	299	33	0	477	13	161	57	0	231	32	118	13	0	163	1086
04:45 PM	2	128	78	0	208	150	319	35	0	504	11	132	51	0	194	33	120	15	0	168	1074
05:00 PM	5	151	69	0	225	158	302	34	0	494	13	173	53	0	239	30	136	14	0	180	1138
05:15 PM	4	130	95	0	229	156	323	29	7	515	13	171	45	2	231	36	129	11	0	176	1151
Total Volume	18	545	314	0	877	609	1243	131	7	1990	50	637	206	2	895	131	503	53	0	687	4449
% App. Total	2.1	62.1	35.8	0		30.6	62.5	6.6	0.4		5.6	71.2	23	0.2		19.1	73.2	7.7	0		
PHF	.643	.902	.826	.000	.957	.964	.962	.936	.250	.966	.962	.921	.904	.250	.936	.910	.925	.883	.000	.954	.966

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3:30 PM - 6:30 PM

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Start Time	IL25 From North					IL72 From East					IL25 From South					IL72 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	5	123	90	0	218	98	168	24	0	290	14	158	40	0	212	29	109	5	0	143	863
03:45 PM	3	129	63	0	195	129	204	32	0	365	17	117	47	1	182	22	124	15	0	161	903
Total	8	252	153	0	413	227	372	56	0	655	31	275	87	1	394	51	233	20	0	304	1766
04:00 PM	8	139	61	0	208	109	203	23	2	337	12	164	48	1	225	24	104	11	0	139	909
04:15 PM	6	121	66	0	193	142	307	24	0	473	12	134	49	0	195	33	101	8	0	142	1003
04:30 PM	7	130	67	0	204	142	295	31	0	468	12	158	56	0	226	32	114	13	0	159	1057
04:45 PM	2	125	70	0	197	149	315	34	0	498	11	129	49	0	189	33	118	14	0	165	1049
Total	23	515	264	0	802	542	1120	112	2	1776	47	585	202	1	835	122	437	46	0	605	4018
05:00 PM	5	144	66	0	215	155	298	33	0	486	11	170	53	0	234	29	136	14	0	179	1114
05:15 PM	4	122	92	0	218	156	318	27	7	508	12	171	43	2	228	35	128	11	0	174	1128
05:30 PM	9	131	63	0	203	133	282	16	1	432	9	153	47	0	209	21	104	7	0	132	976
05:45 PM	3	128	73	0	204	123	219	21	0	363	10	161	39	0	210	32	103	9	0	144	921
Total	21	525	294	0	840	567	1117	97	8	1789	42	655	182	2	881	117	471	41	0	629	4139
06:00 PM	5	121	60	0	186	127	291	20	0	438	9	128	41	0	178	29	99	10	0	138	940
06:15 PM	4	139	61	0	204	138	223	26	0	387	5	143	35	0	183	29	95	9	0	133	907
Grand Total	61	1552	832	0	2445	1601	3123	311	10	5045	134	1786	547	4	2471	348	1335	126	0	1809	11770
Apprch %	2.5	63.5	34	0		31.7	61.9	6.2	0.2		5.4	72.3	22.1	0.2		19.2	73.8	7	0		
Total %	0.5	13.2	7.1	0	20.8	13.6	26.5	2.6	0.1	42.9	1.1	15.2	4.6	0	21	3	11.3	1.1	0	15.4	

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IL72 & IL25
East Dundee, IL
Cloudy & Dry
3:30 PM - 6:30 PM

File Name : IL72 & IL25 PM
Site Code : 00000000
Start Date : 9/9/2009
Page No : 1

Groups Printed- SU - MU

Start Time	IL25 From North					IL72 From East					IL25 From South					IL72 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	0	7	3	0	10	4	9	1	0	14	2	8	0	0	10	0	3	0	0	3	37
03:45 PM	1	5	10	0	16	1	1	3	0	5	2	1	1	0	4	0	2	0	0	2	27
Total	1	12	13	0	26	5	10	4	0	19	4	9	1	0	14	0	5	0	0	5	64
04:00 PM	1	6	7	0	14	8	7	2	0	17	0	1	1	0	2	0	0	0	0	0	33
04:15 PM	0	8	6	0	14	3	3	2	0	8	3	1	4	0	8	0	2	0	0	2	32
04:30 PM	0	6	5	0	11	3	4	2	0	9	1	3	1	0	5	0	4	0	0	4	29
04:45 PM	0	3	8	0	11	1	4	1	0	6	0	3	2	0	5	0	2	1	0	3	25
Total	1	23	26	0	50	15	18	7	0	40	4	8	8	0	20	0	8	1	0	9	119
05:00 PM	0	7	3	0	10	3	4	1	0	8	2	3	0	0	5	1	0	0	0	1	24
05:15 PM	0	8	3	0	11	0	5	2	0	7	1	0	2	0	3	1	1	0	0	2	23
05:30 PM	0	3	3	0	6	1	2	0	0	3	1	3	0	0	4	0	1	0	0	1	14
05:45 PM	1	7	3	0	11	1	2	1	0	4	3	3	0	0	6	0	1	0	0	1	22
Total	1	25	12	0	38	5	13	4	0	22	7	9	2	0	18	2	3	0	0	5	83
06:00 PM	0	3	0	0	3	0	1	2	0	3	0	2	1	0	3	0	1	0	0	1	10
06:15 PM	0	5	0	0	5	1	1	3	0	5	1	4	1	0	6	1	1	0	0	2	18
Grand Total	3	68	51	0	122	26	43	20	0	89	16	32	13	0	61	3	18	1	0	22	294
Apprch %	2.5	55.7	41.8	0		29.2	48.3	22.5	0		26.2	52.5	21.3	0		13.6	81.8	4.5	0		
Total %	1	23.1	17.3	0	41.5	8.8	14.6	6.8	0	30.3	5.4	10.9	4.4	0	20.7	1	6.1	0.3	0	7.5	
SU	2	41	28	0	71	18	27	12	0	57	6	22	11	0	39	2	15	0	0	17	184
% SU	66.7	60.3	54.9	0	58.2	69.2	62.8	60	0	64	37.5	68.8	84.6	0	63.9	66.7	83.3	0	0	77.3	62.6
MU	1	27	23	0	51	8	16	8	0	32	10	10	2	0	22	1	3	1	0	5	110
% MU	33.3	39.7	45.1	0	41.8	30.8	37.2	40	0	36	62.5	31.2	15.4	0	36.1	33.3	16.7	100	0	22.7	37.4

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IL68 & IL72
East Dundee, IL
Sunny & Dry
6:30 AM - 8:30 AM

File Name : IL68 & IL72 AM
Site Code : 00000000
Start Date : 9/16/2009
Page No : 1

Groups Printed- PC - SU - MU

Start Time	IL68 From North				IL72 From East				IL68 From South				IL72 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
06:30 AM	79	0	2	81	0	56	0	56	0	0	0	0	0	365	100	465	602
06:45 AM	84	0	2	86	1	75	0	76	0	0	0	0	0	444	92	536	698
Total	163	0	4	167	1	131	0	132	0	0	0	0	0	809	192	1001	1300
07:00 AM	66	0	3	69	0	54	0	54	0	0	0	0	0	531	120	651	774
07:15 AM	76	0	6	82	2	81	0	83	0	0	0	0	0	486	102	588	753
07:30 AM	70	0	11	81	2	95	0	97	0	0	0	0	0	505	111	616	794
07:45 AM	71	0	5	76	1	96	0	97	0	0	0	0	0	515	104	619	792
Total	283	0	25	308	5	326	0	331	0	0	0	0	0	2037	437	2474	3113
08:00 AM	74	0	3	77	3	81	0	84	0	0	0	0	0	479	105	584	745
08:15 AM	92	0	3	95	0	125	0	125	0	0	0	0	0	419	121	540	760
Grand Total	612	0	35	647	9	663	0	672	0	0	0	0	0	3744	855	4599	5918
Apprch %	94.6	0	5.4		1.3	98.7	0		0	0	0	0	0	81.4	18.6		
Total %	10.3	0	0.6	10.9	0.2	11.2	0	11.4	0	0	0	0	0	63.3	14.4	77.7	
PC	586	0	33	619	9	603	0	612	0	0	0	0	0	3652	817	4469	5700
% PC	95.8	0	94.3	95.7	100	91	0	91.1	0	0	0	0	0	97.5	95.6	97.2	96.3
SU	22	0	2	24	0	42	0	42	0	0	0	0	0	64	37	101	167
% SU	3.6	0	5.7	3.7	0	6.3	0	6.2	0	0	0	0	0	1.7	4.3	2.2	2.8
MU	4	0	0	4	0	18	0	18	0	0	0	0	0	28	1	29	51
% MU	0.7	0	0	0.6	0	2.7	0	2.7	0	0	0	0	0	0.7	0.1	0.6	0.9

Start Time	IL68 From North				IL72 From East				IL68 From South				IL72 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	66	0	3	69	0	54	0	54	0	0	0	0	0	531	120	651	774
07:15 AM	76	0	6	82	2	81	0	83	0	0	0	0	0	486	102	588	753
07:30 AM	70	0	11	81	2	95	0	97	0	0	0	0	0	505	111	616	794
07:45 AM	71	0	5	76	1	96	0	97	0	0	0	0	0	515	104	619	792
Total Volume	283	0	25	308	5	326	0	331	0	0	0	0	0	2037	437	2474	3113
% App. Total	91.9	0	8.1		1.5	98.5	0		0	0	0	0	0	82.3	17.7		
PHF	.931	.000	.568	.939	.625	.849	.000	.853	.000	.000	.000	.000	.000	.959	.910	.950	.980

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IL68 & IL72
East Dundee, IL
Sunny & Dry
6:30 AM - 8:30 AM

File Name : IL68 & IL72 AM
Site Code : 00000000
Start Date : 9/16/2009
Page No : 1

Groups Printed- PC

Start Time	IL68 From North				IL72 From East				IL68 From South				IL72 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
06:30 AM	79	0	1	80	0	52	0	52	0	0	0	0	0	361	95	456	588
06:45 AM	80	0	2	82	1	68	0	69	0	0	0	0	0	439	89	528	679
Total	159	0	3	162	1	120	0	121	0	0	0	0	0	800	184	984	1267
07:00 AM	63	0	3	66	0	51	0	51	0	0	0	0	0	517	116	633	750
07:15 AM	73	0	6	79	2	75	0	77	0	0	0	0	0	479	93	572	728
07:30 AM	65	0	10	75	2	82	0	84	0	0	0	0	0	493	108	601	760
07:45 AM	69	0	5	74	1	89	0	90	0	0	0	0	0	500	99	599	763
Total	270	0	24	294	5	297	0	302	0	0	0	0	0	1989	416	2405	3001
08:00 AM	70	0	3	73	3	73	0	76	0	0	0	0	0	463	100	563	712
08:15 AM	87	0	3	90	0	113	0	113	0	0	0	0	0	400	117	517	720
Grand Total	586	0	33	619	9	603	0	612	0	0	0	0	0	3652	817	4469	5700
Apprch %	94.7	0	5.3		1.5	98.5	0		0	0	0	0	0	81.7	18.3		
Total %	10.3	0	0.6	10.9	0.2	10.6	0	10.7	0	0	0	0	0	64.1	14.3	78.4	

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IL68 & IL72
East Dundee, IL
Sunny & Dry
6:30 AM - 8:30 AM

File Name : IL68 & IL72 AM
Site Code : 00000000
Start Date : 9/16/2009
Page No : 1

Groups Printed- SU - MU

Start Time	IL68 From North				IL72 From East				IL68 From South				IL72 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
06:30 AM	0	0	1	1	0	4	0	4	0	0	0	0	0	4	5	9	14
06:45 AM	4	0	0	4	0	7	0	7	0	0	0	0	0	5	3	8	19
Total	4	0	1	5	0	11	0	11	0	0	0	0	0	9	8	17	33
07:00 AM	3	0	0	3	0	3	0	3	0	0	0	0	0	14	4	18	24
07:15 AM	3	0	0	3	0	6	0	6	0	0	0	0	0	7	9	16	25
07:30 AM	5	0	1	6	0	13	0	13	0	0	0	0	0	12	3	15	34
07:45 AM	2	0	0	2	0	7	0	7	0	0	0	0	0	15	5	20	29
Total	13	0	1	14	0	29	0	29	0	0	0	0	0	48	21	69	112
08:00 AM	4	0	0	4	0	8	0	8	0	0	0	0	0	16	5	21	33
08:15 AM	5	0	0	5	0	12	0	12	0	0	0	0	0	19	4	23	40
Grand Total	26	0	2	28	0	60	0	60	0	0	0	0	0	92	38	130	218
Apprch %	92.9	0	7.1		0	100	0		0	0	0	0	0	70.8	29.2		
Total %	11.9	0	0.9	12.8	0	27.5	0	27.5	0	0	0	0	0	42.2	17.4	59.6	
SU	22	0	2	24	0	42	0	42	0	0	0	0	0	64	37	101	167
% SU	84.6	0	100	85.7	0	70	0	70	0	0	0	0	0	69.6	97.4	77.7	76.6
MU	4	0	0	4	0	18	0	18	0	0	0	0	0	28	1	29	51
% MU	15.4	0	0	14.3	0	30	0	30	0	0	0	0	0	30.4	2.6	22.3	23.4

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IL68 & IL72
East Dundee, IL
Sunny & Dry
4:00 PM - 6:00 PM

File Name : IL68 & IL72 PM
Site Code : 00000000
Start Date : 9/16/2009
Page No : 1

Groups Printed- PC - SU - MU

Start Time	IL68 From North				IL72 From East				IL68 From South				IL72 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
04:00 PM	94	0	7	101	4	228	0	232	0	0	0	0	0	149	99	248	581
04:15 PM	71	0	0	71	8	282	0	290	0	0	0	0	0	156	101	257	618
04:30 PM	98	0	5	103	6	351	0	357	0	0	0	0	0	171	80	251	711
04:45 PM	75	0	12	87	8	311	0	319	0	0	0	0	0	162	114	276	682
Total	338	0	24	362	26	1172	0	1198	0	0	0	0	0	638	394	1032	2592
05:00 PM	90	0	2	92	11	338	0	349	0	0	0	0	0	157	98	255	696
05:15 PM	77	0	6	83	5	316	0	321	0	0	0	0	0	171	105	276	680
05:30 PM	62	0	7	69	5	362	0	367	0	0	0	0	0	170	94	264	700
05:45 PM	84	0	8	92	10	307	0	317	0	0	0	0	0	146	84	230	639
Total	313	0	23	336	31	1323	0	1354	0	0	0	0	0	644	381	1025	2715
Grand Total	651	0	47	698	57	2495	0	2552	0	0	0	0	0	1282	775	2057	5307
Apprch %	93.3	0	6.7		2.2	97.8	0		0	0	0	0	0	62.3	37.7		
Total %	12.3	0	0.9	13.2	1.1	47	0	48.1	0	0	0	0	0	24.2	14.6	38.8	
PC	633	0	45	678	56	2470	0	2526	0	0	0	0	0	1256	754	2010	5214
% PC	97.2	0	95.7	97.1	98.2	99	0	99	0	0	0	0	0	98	97.3	97.7	98.2
SU	14	0	2	16	1	18	0	19	0	0	0	0	0	18	21	39	74
% SU	2.2	0	4.3	2.3	1.8	0.7	0	0.7	0	0	0	0	0	1.4	2.7	1.9	1.4
MU	4	0	0	4	0	7	0	7	0	0	0	0	0	8	0	8	19
% MU	0.6	0	0	0.6	0	0.3	0	0.3	0	0	0	0	0	0.6	0	0.4	0.4

Start Time	IL68 From North				IL72 From East				IL68 From South				IL72 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	98	0	5	103	6	351	0	357	0	0	0	0	0	171	80	251	711
04:45 PM	75	0	12	87	8	311	0	319	0	0	0	0	0	162	114	276	682
05:00 PM	90	0	2	92	11	338	0	349	0	0	0	0	0	157	98	255	696
05:15 PM	77	0	6	83	5	316	0	321	0	0	0	0	0	171	105	276	680
Total Volume	340	0	25	365	30	1316	0	1346	0	0	0	0	0	661	397	1058	2769
% App. Total	93.2	0	6.8		2.2	97.8	0		0	0	0	0	0	62.5	37.5		
PHF	.867	.000	.521	.886	.682	.937	.000	.943	.000	.000	.000	.000	.000	.966	.871	.958	.974

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IL68 & IL72
East Dundee, IL
Sunny & Dry
4:00 PM - 6:00 PM

File Name : IL68 & IL72 PM
Site Code : 00000000
Start Date : 9/16/2009
Page No : 1

Groups Printed- PC

Start Time	IL68 From North				IL72 From East				IL68 From South				IL72 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
04:00 PM	90	0	6	96	4	224	0	228	0	0	0	0	0	144	97	241	565
04:15 PM	69	0	0	69	8	274	0	282	0	0	0	0	0	151	96	247	598
04:30 PM	97	0	5	102	6	347	0	353	0	0	0	0	0	167	75	242	697
04:45 PM	73	0	12	85	8	310	0	318	0	0	0	0	0	161	112	273	676
Total	329	0	23	352	26	1155	0	1181	0	0	0	0	0	623	380	1003	2536
05:00 PM	86	0	2	88	10	336	0	346	0	0	0	0	0	152	97	249	683
05:15 PM	77	0	5	82	5	316	0	321	0	0	0	0	0	168	103	271	674
05:30 PM	58	0	7	65	5	359	0	364	0	0	0	0	0	169	91	260	689
05:45 PM	83	0	8	91	10	304	0	314	0	0	0	0	0	144	83	227	632
Total	304	0	22	326	30	1315	0	1345	0	0	0	0	0	633	374	1007	2678
Grand Total	633	0	45	678	56	2470	0	2526	0	0	0	0	0	1256	754	2010	5214
Apprch %	93.4	0	6.6		2.2	97.8	0		0	0	0	0	0	62.5	37.5		
Total %	12.1	0	0.9	13	1.1	47.4	0	48.4	0	0	0	0	0	24.1	14.5	38.6	

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IL68 & IL72
East Dundee, IL
Sunny & Dry
4:00 PM - 6:00 PM

File Name : IL68 & IL72 PM
Site Code : 00000000
Start Date : 9/16/2009
Page No : 1

Groups Printed- SU - MU

Start Time	IL68 From North				IL72 From East				IL68 From South				IL72 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
04:00 PM	4	0	1	5	0	4	0	4	0	0	0	0	0	5	2	7	16
04:15 PM	2	0	0	2	0	8	0	8	0	0	0	0	0	5	5	10	20
04:30 PM	1	0	0	1	0	4	0	4	0	0	0	0	0	4	5	9	14
04:45 PM	2	0	0	2	0	1	0	1	0	0	0	0	0	1	2	3	6
Total	9	0	1	10	0	17	0	17	0	0	0	0	0	15	14	29	56
05:00 PM	4	0	0	4	1	2	0	3	0	0	0	0	0	5	1	6	13
05:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	3	2	5	6
05:30 PM	4	0	0	4	0	3	0	3	0	0	0	0	0	1	3	4	11
05:45 PM	1	0	0	1	0	3	0	3	0	0	0	0	0	2	1	3	7
Total	9	0	1	10	1	8	0	9	0	0	0	0	0	11	7	18	37
Grand Total	18	0	2	20	1	25	0	26	0	0	0	0	0	26	21	47	93
Apprch %	90	0	10		3.8	96.2	0		0	0	0	0	0	55.3	44.7		
Total %	19.4	0	2.2	21.5	1.1	26.9	0	28	0	0	0	0	0	28	22.6	50.5	
SU	14	0	2	16	1	18	0	19	0	0	0	0	0	18	21	39	74
% SU	77.8	0	100	80	100	72	0	73.1	0	0	0	0	0	69.2	100	83	79.6
MU	4	0	0	4	0	7	0	7	0	0	0	0	0	8	0	8	19
% MU	22.2	0	0	20	0	28	0	26.9	0	0	0	0	0	30.8	0	17	20.4

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IL25 & IL68
East Dundee, IL
Sunny & Dry
6:30 AM - 8:30 AM

File Name : IL25 & IL68 AM
Site Code : 00000000
Start Date : 9/15/2009
Page No : 1

Groups Printed- PC - SU - MU

Start Time	IL25 From North				IL68 From East				IL25 From South				IL68 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
06:30 AM	38	274	65	377	11	68	29	108	23	97	11	131	13	100	12	125	741
06:45 AM	37	301	54	392	13	50	26	89	26	121	9	156	8	115	25	148	785
Total	75	575	119	769	24	118	55	197	49	218	20	287	21	215	37	273	1526
07:00 AM	30	322	81	433	10	38	30	78	36	119	14	169	9	125	22	156	836
07:15 AM	47	301	76	424	17	48	29	94	29	124	7	160	15	160	33	208	886
07:30 AM	34	323	86	443	21	52	25	98	30	94	8	132	18	162	22	202	875
07:45 AM	45	322	64	431	28	48	24	100	52	106	4	162	13	134	19	166	859
Total	156	1268	307	1731	76	186	108	370	147	443	33	623	55	581	96	732	3456
08:00 AM	42	315	71	428	16	53	22	91	33	126	10	169	19	140	22	181	869
08:15 AM	48	276	69	393	13	55	34	102	37	104	8	149	22	149	32	203	847
Grand Total	321	2434	566	3321	129	412	219	760	266	891	71	1228	117	1085	187	1389	6698
Apprch %	9.7	73.3	17		17	54.2	28.8		21.7	72.6	5.8		8.4	78.1	13.5		
Total %	4.8	36.3	8.5	49.6	1.9	6.2	3.3	11.3	4	13.3	1.1	18.3	1.7	16.2	2.8	20.7	
PC	307	2373	551	3231	124	404	206	734	250	806	62	1118	109	1046	171	1326	6409
% PC	95.6	97.5	97.3	97.3	96.1	98.1	94.1	96.6	94	90.5	87.3	91	93.2	96.4	91.4	95.5	95.7
SU	14	37	14	65	5	7	9	21	11	47	7	65	7	36	14	57	208
% SU	4.4	1.5	2.5	2	3.9	1.7	4.1	2.8	4.1	5.3	9.9	5.3	6	3.3	7.5	4.1	3.1
MU	0	24	1	25	0	1	4	5	5	38	2	45	1	3	2	6	81
% MU	0	1	0.2	0.8	0	0.2	1.8	0.7	1.9	4.3	2.8	3.7	0.9	0.3	1.1	0.4	1.2

Start Time	IL25 From North				IL68 From East				IL25 From South				IL68 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	47	301	76	424	17	48	29	94	29	124	7	160	15	160	33	208	886
07:30 AM	34	323	86	443	21	52	25	98	30	94	8	132	18	162	22	202	875
07:45 AM	45	322	64	431	28	48	24	100	52	106	4	162	13	134	19	166	859
08:00 AM	42	315	71	428	16	53	22	91	33	126	10	169	19	140	22	181	869
Total Volume	168	1261	297	1726	82	201	100	383	144	450	29	623	65	596	96	757	3489
% App. Total	9.7	73.1	17.2		21.4	52.5	26.1		23.1	72.2	4.7		8.6	78.7	12.7		
PHF	.894	.976	.863	.974	.732	.948	.862	.958	.692	.893	.725	.922	.855	.920	.727	.910	.984

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IL25 & IL68
East Dundee, IL
Sunny & Dry
6:30 AM - 8:30 AM

File Name : IL25 & IL68 AM
Site Code : 00000000
Start Date : 9/15/2009
Page No : 1

Groups Printed- PC

Start Time	IL25 From North				IL68 From East				IL25 From South				IL68 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
06:30 AM	37	267	65	369	11	68	29	108	22	84	8	114	12	96	12	120	711
06:45 AM	37	293	52	382	13	48	23	84	25	111	7	143	7	108	24	139	748
Total	74	560	117	751	24	116	52	192	47	195	15	257	19	204	36	259	1459
07:00 AM	28	314	79	421	9	38	29	76	33	104	13	150	8	123	21	152	799
07:15 AM	45	295	71	411	16	47	27	90	27	118	7	152	13	156	30	199	852
07:30 AM	32	314	86	432	20	51	24	95	28	87	8	123	16	154	21	191	841
07:45 AM	43	315	62	420	27	45	24	96	48	89	1	138	13	131	16	160	814
Total	148	1238	298	1684	72	181	104	357	136	398	29	563	50	564	88	702	3306
08:00 AM	38	308	69	415	15	52	20	87	31	114	10	155	19	137	20	176	833
08:15 AM	47	267	67	381	13	55	30	98	36	99	8	143	21	141	27	189	811
Grand Total	307	2373	551	3231	124	404	206	734	250	806	62	1118	109	1046	171	1326	6409
Apprch %	9.5	73.4	17.1		16.9	55	28.1		22.4	72.1	5.5		8.2	78.9	12.9		
Total %	4.8	37	8.6	50.4	1.9	6.3	3.2	11.5	3.9	12.6	1	17.4	1.7	16.3	2.7	20.7	

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IL25 & IL68
East Dundee, IL
Sunny & Dry
6:30 AM - 8:30 AM

File Name : IL25 & IL68 AM
Site Code : 00000000
Start Date : 9/15/2009
Page No : 1

Groups Printed- SU - MU

Start Time	IL25 From North				IL68 From East				IL25 From South				IL68 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
06:30 AM	1	7	0	8	0	0	0	0	1	13	3	17	1	4	0	5	30
06:45 AM	0	8	2	10	0	2	3	5	1	10	2	13	1	7	1	9	37
Total	1	15	2	18	0	2	3	5	2	23	5	30	2	11	1	14	67
07:00 AM	2	8	2	12	1	0	1	2	3	15	1	19	1	2	1	4	37
07:15 AM	2	6	5	13	1	1	2	4	2	6	0	8	2	4	3	9	34
07:30 AM	2	9	0	11	1	1	1	3	2	7	0	9	2	8	1	11	34
07:45 AM	2	7	2	11	1	3	0	4	4	17	3	24	0	3	3	6	45
Total	8	30	9	47	4	5	4	13	11	45	4	60	5	17	8	30	150
08:00 AM	4	7	2	13	1	1	2	4	2	12	0	14	0	3	2	5	36
08:15 AM	1	9	2	12	0	0	4	4	1	5	0	6	1	8	5	14	36
Grand Total	14	61	15	90	5	8	13	26	16	85	9	110	8	39	16	63	289
Apprch %	15.6	67.8	16.7		19.2	30.8	50		14.5	77.3	8.2		12.7	61.9	25.4		
Total %	4.8	21.1	5.2	31.1	1.7	2.8	4.5	9	5.5	29.4	3.1	38.1	2.8	13.5	5.5	21.8	
SU	14	37	14	65	5	7	9	21	11	47	7	65	7	36	14	57	208
% SU	100	60.7	93.3	72.2	100	87.5	69.2	80.8	68.8	55.3	77.8	59.1	87.5	92.3	87.5	90.5	72
MU	0	24	1	25	0	1	4	5	5	38	2	45	1	3	2	6	81
% MU	0	39.3	6.7	27.8	0	12.5	30.8	19.2	31.2	44.7	22.2	40.9	12.5	7.7	12.5	9.5	28

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IL25 & IL68
East Dundee, IL
Sunny & Dry
4:00 PM - 6:00 PM

File Name : IL25 & IL68 PM
Site Code : 00000000
Start Date : 9/15/2009
Page No : 1

Groups Printed- PC - SU - MU

Start Time	IL 25 SB From North				IL 68 EB From East				IL 25 SB From South				IL 68 EB From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
04:00 PM	38	191	26	255	37	90	50	177	34	248	15	297	14	68	43	125	854
04:15 PM	45	158	18	221	37	81	40	158	38	260	22	320	7	57	49	113	812
04:30 PM	35	189	28	252	53	117	51	221	34	237	13	284	6	58	40	104	861
04:45 PM	45	184	23	252	40	114	45	199	34	307	23	364	8	63	61	132	947
Total	163	722	95	980	167	402	186	755	140	1052	73	1265	35	246	193	474	3474
05:00 PM	52	169	38	259	56	123	51	230	27	258	18	303	9	56	61	126	918
05:15 PM	42	193	27	262	56	130	51	237	42	276	22	340	8	55	50	113	952
05:30 PM	43	159	26	228	63	131	46	240	42	310	17	369	6	71	50	127	964
05:45 PM	41	169	20	230	46	126	41	213	37	289	17	343	10	46	41	97	883
Total	178	690	111	979	221	510	189	920	148	1133	74	1355	33	228	202	463	3717
Grand Total	341	1412	206	1959	388	912	375	1675	288	2185	147	2620	68	474	395	937	7191
Apprch %	17.4	72.1	10.5		23.2	54.4	22.4		11	83.4	5.6		7.3	50.6	42.2		
Total %	4.7	19.6	2.9	27.2	5.4	12.7	5.2	23.3	4	30.4	2	36.4	0.9	6.6	5.5	13	
PC	331	1360	198	1889	384	907	368	1659	285	2171	146	2602	68	466	390	924	7074
% PC	97.1	96.3	96.1	96.4	99	99.5	98.1	99	99	99.4	99.3	99.3	100	98.3	98.7	98.6	98.4
SU	5	31	7	43	4	5	7	16	3	12	1	16	0	7	4	11	86
% SU	1.5	2.2	3.4	2.2	1	0.5	1.9	1	1	0.5	0.7	0.6	0	1.5	1	1.2	1.2
MU	5	21	1	27	0	0	0	0	0	2	0	2	0	1	1	2	31
% MU	1.5	1.5	0.5	1.4	0	0	0	0	0	0.1	0	0.1	0	0.2	0.3	0.2	0.4

Start Time	IL 25 SB From North				IL 68 EB From East				IL 25 SB From South				IL 68 EB From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	45	184	23	252	40	114	45	199	34	307	23	364	8	63	61	132	947
05:00 PM	52	169	38	259	56	123	51	230	27	258	18	303	9	56	61	126	918
05:15 PM	42	193	27	262	56	130	51	237	42	276	22	340	8	55	50	113	952
05:30 PM	43	159	26	228	63	131	46	240	42	310	17	369	6	71	50	127	964
Total Volume	182	705	114	1001	215	498	193	906	145	1151	80	1376	31	245	222	498	3781
% App. Total	18.2	70.4	11.4		23.7	55	21.3		10.5	83.6	5.8		6.2	49.2	44.6		
PHF	.875	.913	.750	.955	.853	.950	.946	.944	.863	.928	.870	.932	.861	.863	.910	.943	.981

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IL25 & IL68
East Dundee, IL
Sunny & Dry
4:00 PM - 6:00 PM

File Name : IL25 & IL68 PM
Site Code : 00000000
Start Date : 9/15/2009
Page No : 1

Groups Printed- PC

Start Time	IL 25 SB From North				IL 68 EB From East				IL 25 SB From South				IL 68 EB From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
04:00 PM	37	182	26	245	37	89	48	174	34	245	15	294	14	65	42	121	834
04:15 PM	43	150	18	211	37	80	39	156	37	260	22	319	7	57	49	113	799
04:30 PM	33	177	28	238	52	116	51	219	34	235	13	282	6	55	40	101	840
04:45 PM	45	181	21	247	39	114	45	198	34	305	23	362	8	62	61	131	938
Total	158	690	93	941	165	399	183	747	139	1045	73	1257	35	239	192	466	3411
05:00 PM	50	166	36	252	56	123	50	229	26	255	18	299	9	56	59	124	904
05:15 PM	40	188	25	253	56	128	49	233	41	274	22	337	8	54	48	110	933
05:30 PM	42	153	25	220	62	131	45	238	42	308	17	367	6	71	50	127	952
05:45 PM	41	163	19	223	45	126	41	212	37	289	16	342	10	46	41	97	874
Total	173	670	105	948	219	508	185	912	146	1126	73	1345	33	227	198	458	3663
Grand Total	331	1360	198	1889	384	907	368	1659	285	2171	146	2602	68	466	390	924	7074
Apprch %	17.5	72	10.5		23.1	54.7	22.2		11	83.4	5.6		7.4	50.4	42.2		
Total %	4.7	19.2	2.8	26.7	5.4	12.8	5.2	23.5	4	30.7	2.1	36.8	1	6.6	5.5	13.1	

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IL25 & IL68
East Dundee, IL
Sunny & Dry
4:00 PM - 6:00 PM

File Name : IL25 & IL68 PM
Site Code : 00000000
Start Date : 9/15/2009
Page No : 1

Groups Printed- SU - MU

Start Time	IL 25 SB From North				IL 68 EB From East				IL 25 SB From South				IL 68 EB From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
04:00 PM	1	9	0	10	0	1	2	3	0	3	0	3	0	3	1	4	20
04:15 PM	2	8	0	10	0	1	1	2	1	0	0	1	0	0	0	0	13
04:30 PM	2	12	0	14	1	1	0	2	0	2	0	2	0	3	0	3	21
04:45 PM	0	3	2	5	1	0	0	1	0	2	0	2	0	1	0	1	9
Total	5	32	2	39	2	3	3	8	1	7	0	8	0	7	1	8	63
05:00 PM	2	3	2	7	0	0	1	1	1	3	0	4	0	0	2	2	14
05:15 PM	2	5	2	9	0	2	2	4	1	2	0	3	0	1	2	3	19
05:30 PM	1	6	1	8	1	0	1	2	0	2	0	2	0	0	0	0	12
05:45 PM	0	6	1	7	1	0	0	1	0	0	1	1	0	0	0	0	9
Total	5	20	6	31	2	2	4	8	2	7	1	10	0	1	4	5	54
Grand Total	10	52	8	70	4	5	7	16	3	14	1	18	0	8	5	13	117
Apprch %	14.3	74.3	11.4		25	31.2	43.8		16.7	77.8	5.6		0	61.5	38.5		
Total %	8.5	44.4	6.8	59.8	3.4	4.3	6	13.7	2.6	12	0.9	15.4	0	6.8	4.3	11.1	
SU	5	31	7	43	4	5	7	16	3	12	1	16	0	7	4	11	86
% SU	50	59.6	87.5	61.4	100	100	100	100	100	85.7	100	88.9	0	87.5	80	84.6	73.5
MU	5	21	1	27	0	0	0	0	0	2	0	2	0	1	1	2	31
% MU	50	40.4	12.5	38.6	0	0	0	0	0	14.3	0	11.1	0	12.5	20	15.4	26.5

APPENDIX B

Capacity Analysis Reports

HCM Signalized Intersection Capacity Analysis

3: IL 72 & IL 25

9/23/2009



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1530	3471	1482	3433	3505	1553	3433	3505	1583
Flt Permitted	0.51	1.00	1.00	0.05	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	942	3539	1583	85	3471	1482	3433	3505	1553	3433	3505	1583
Volume (vph)	29	1919	75	49	272	186	81	402	248	802	447	20
Peak-hour factor, PHF	0.81	0.89	0.72	0.82	0.76	0.82	0.88	0.85	0.78	0.91	0.91	0.56
Adj. Flow (vph)	36	2156	104	60	358	227	92	473	318	881	491	36
RTOR Reduction (vph)	0	0	24	0	0	111	0	0	46	0	0	25
Lane Group Flow (vph)	36	2156	80	60	358	116	92	473	272	881	491	11
Heavy Vehicles (%)	2%	2%	2%	18%	4%	9%	2%	3%	4%	2%	3%	2%
Turn Type	pm+pt		Perm	pm+pt		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	80.0	76.0	76.0	80.0	76.0	76.0	7.7	21.0	21.0	32.0	45.3	45.3
Effective Green, g (s)	80.0	76.0	76.0	80.0	76.0	76.0	7.7	21.0	21.0	32.0	45.3	45.3
Actuated g/C Ratio	0.54	0.51	0.51	0.54	0.51	0.51	0.05	0.14	0.14	0.21	0.30	0.30
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	528	1805	807	84	1770	756	177	494	219	737	1066	481
v/s Ratio Prot	0.00	c0.61		c0.02	0.10		0.03	0.13		c0.26	0.14	
v/s Ratio Perm	0.03		0.07	0.36		0.15			0.20			0.02
v/c Ratio	0.07	1.19	0.10	0.71	0.20	0.15	0.52	0.96	1.24	1.20	0.46	0.02
Uniform Delay, d1	16.4	36.5	18.8	73.4	19.9	19.4	68.8	63.6	64.0	58.5	42.0	36.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	93.3	0.1	24.9	0.1	0.1	2.6	31.2	142.2	100.9	1.4	0.1
Delay (s)	16.4	129.8	18.9	98.3	20.0	19.5	71.4	94.8	206.2	159.4	43.4	36.4
Level of Service	B	F	B	F	B	B	E	F	F	F	D	D
Approach Delay (s)		123.0			27.1			132.5			115.8	
Approach LOS		F			C			F			F	

Intersection Summary

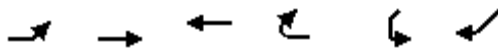
HCM Average Control Delay	110.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	149.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: IL 72 & IL 68

9/23/2009



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations	↔	↑↑	↑↑		↔	↔
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	1.00		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	3539	3495		1770	1583
Flt Permitted	0.49	1.00	1.00		0.95	1.00
Satd. Flow (perm)	914	3539	3495		1770	1583
Volume (vph)	437	2037	326	5	25	283
Peak-hour factor, PHF	0.91	0.96	0.85	0.63	0.57	0.93
Adj. Flow (vph)	480	2122	384	8	44	304
RTOR Reduction (vph)	0	0	1	0	0	278
Lane Group Flow (vph)	480	2122	391	0	44	26
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%
Turn Type	pm+pt			Perm		
Protected Phases	7	4	8		6	
Permitted Phases	4					6
Actuated Green, G (s)	97.2	97.2	78.6		9.9	9.9
Effective Green, g (s)	97.2	97.2	78.6		9.9	9.9
Actuated g/C Ratio	0.84	0.84	0.68		0.09	0.09
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	880	2989	2387		152	136
v/s Ratio Prot	0.07	c0.60	0.11		0.02	
v/s Ratio Perm	0.39					0.19
v/c Ratio	0.55	0.71	0.16		0.29	0.19
Uniform Delay, d1	2.1	3.5	6.5		49.3	48.9
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.7	0.8	0.0		1.1	0.7
Delay (s)	2.8	4.3	6.5		50.4	49.6
Level of Service	A	A	A		D	D
Approach Delay (s)		4.0	6.5		49.7	
Approach LOS		A	A		D	

Intersection Summary

HCM Average Control Delay	9.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	115.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: IL 68 & IL 25

9/23/2009



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.95		1.00	0.96		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3490		1770	3355		1770	3325		1770	3476	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3490		1770	3355		1770	3325		1770	3476	
Volume (vph)	96	581	55	108	186	76	33	443	147	307	1268	156
Peak-hour factor, PHF	0.73	0.92	0.86	0.86	0.95	0.73	0.73	0.89	0.69	0.86	0.98	0.89
Adj. Flow (vph)	132	632	64	126	196	104	45	498	213	357	1294	175
RTOR Reduction (vph)	0	7	0	0	62	0	0	42	0	0	9	0
Lane Group Flow (vph)	132	689	0	126	238	0	45	669	0	357	1460	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	4%	3%	2%	2%	2%
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	12.3	24.1		10.3	22.1		3.9	32.8		24.3	53.2	
Effective Green, g (s)	12.3	24.1		10.3	22.1		3.9	32.8		24.3	53.2	
Actuated g/C Ratio	0.11	0.22		0.10	0.21		0.04	0.31		0.23	0.49	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	203	782		170	690		64	1015		400	1720	
v/s Ratio Prot	c0.07	c0.20		0.07	0.09		0.03	0.21		c0.20	c0.42	
v/s Ratio Perm												
v/c Ratio	0.65	0.88		0.74	0.34		0.70	0.66		0.89	0.85	
Uniform Delay, d1	45.5	40.3		47.3	36.5		51.2	32.5		40.3	23.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.2	11.4		15.9	0.3		29.5	3.4		21.4	5.4	
Delay (s)	52.8	51.7		63.2	36.8		80.7	35.9		61.7	29.1	
Level of Service	D	D		E	D		F	D		E	C	
Approach Delay (s)		51.9			44.6			38.5			35.5	
Approach LOS		D			D			D			D	

Intersection Summary

























HCM Average Control Delay	40.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	107.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: IL 72 & IL 25

9/23/2009

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	3539	1509	3433	3539	1583
Flt Permitted	0.07	1.00	1.00	0.33	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	127	3539	1583	607	3539	1583	3433	3539	1509	3433	3539	1583
Volume (vph)	53	503	131	131	1243	609	206	637	206	314	545	18
Peak-hour factor, PHF	0.88	0.93	0.91	0.94	0.96	0.96	0.90	0.92	0.96	0.83	0.90	0.64
Adj. Flow (vph)	60	541	144	139	1295	634	229	692	215	378	606	28
RTOR Reduction (vph)	0	0	90	0	0	253	0	0	113	0	0	18
Lane Group Flow (vph)	60	541	54	139	1295	381	229	692	102	378	606	10
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	7%	2%	2%	2%
Turn Type	pm+pt		Perm	pm+pt		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	65.6	58.5	58.5	71.2	61.3	61.3	14.8	49.2	49.2	21.5	55.9	55.9
Effective Green, g (s)	65.6	58.5	58.5	71.2	61.3	61.3	14.8	49.2	49.2	21.5	55.9	55.9
Actuated g/C Ratio	0.42	0.38	0.38	0.46	0.40	0.40	0.10	0.32	0.32	0.14	0.36	0.36
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	129	1335	597	353	1399	626	328	1123	479	476	1276	571
v/s Ratio Prot	0.02	0.15		c0.03	0.37		0.07	c0.20		c0.11	0.17	
v/s Ratio Perm	0.18		0.09	0.16		0.40			0.14			0.02
v/c Ratio	0.47	0.41	0.09	0.39	0.93	0.61	0.70	0.62	0.21	0.79	0.47	0.02
Uniform Delay, d1	35.5	35.5	31.2	25.7	44.7	37.4	68.0	44.9	38.8	64.7	38.3	31.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.2	0.1	0.7	10.6	1.7	6.4	2.5	1.0	8.9	1.3	0.1
Delay (s)	38.1	35.7	31.2	26.5	55.3	39.0	74.3	47.5	39.8	73.5	39.5	32.0
Level of Service	D	D	C	C	E	D	E	D	D	E	D	C
Approach Delay (s)		35.0			48.4			51.4			52.0	
Approach LOS		D			D			D			D	

Intersection Summary

HCM Average Control Delay	47.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	155.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: IL 72 & IL 68

9/23/2009



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations	↰	↑↑	↑↰		↰	↰
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	1.00		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	3539	3523		1770	1583
Flt Permitted	0.07	1.00	1.00		0.95	1.00
Satd. Flow (perm)	132	3539	3523		1770	1583
Volume (vph)	397	661	1316	30	25	340
Peak-hour factor, PHF	0.87	0.97	0.94	0.68	0.52	0.87
Adj. Flow (vph)	456	681	1400	44	48	391
RTOR Reduction (vph)	0	0	2	0	0	284
Lane Group Flow (vph)	456	681	1442	0	48	107
Turn Type	pm+pt					Perm
Protected Phases	7	4	8		6	
Permitted Phases	4					6
Actuated Green, G (s)	87.2	87.2	56.1		11.5	11.5
Effective Green, g (s)	87.2	87.2	56.1		11.5	11.5
Actuated g/C Ratio	0.82	0.82	0.53		0.11	0.11
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	524	2892	1852		191	171
v/s Ratio Prot	c0.22	0.19	0.41		0.03	
v/s Ratio Perm	c0.49					0.25
v/c Ratio	0.87	0.24	0.78		0.25	0.63
Uniform Delay, d1	31.0	2.2	20.3		43.7	45.5
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	14.6	0.0	2.1		0.7	7.0
Delay (s)	45.5	2.2	22.5		44.3	52.6
Level of Service	D	A	C		D	D
Approach Delay (s)		19.6	22.5		51.7	
Approach LOS		B	C		D	

























Intersection Summary

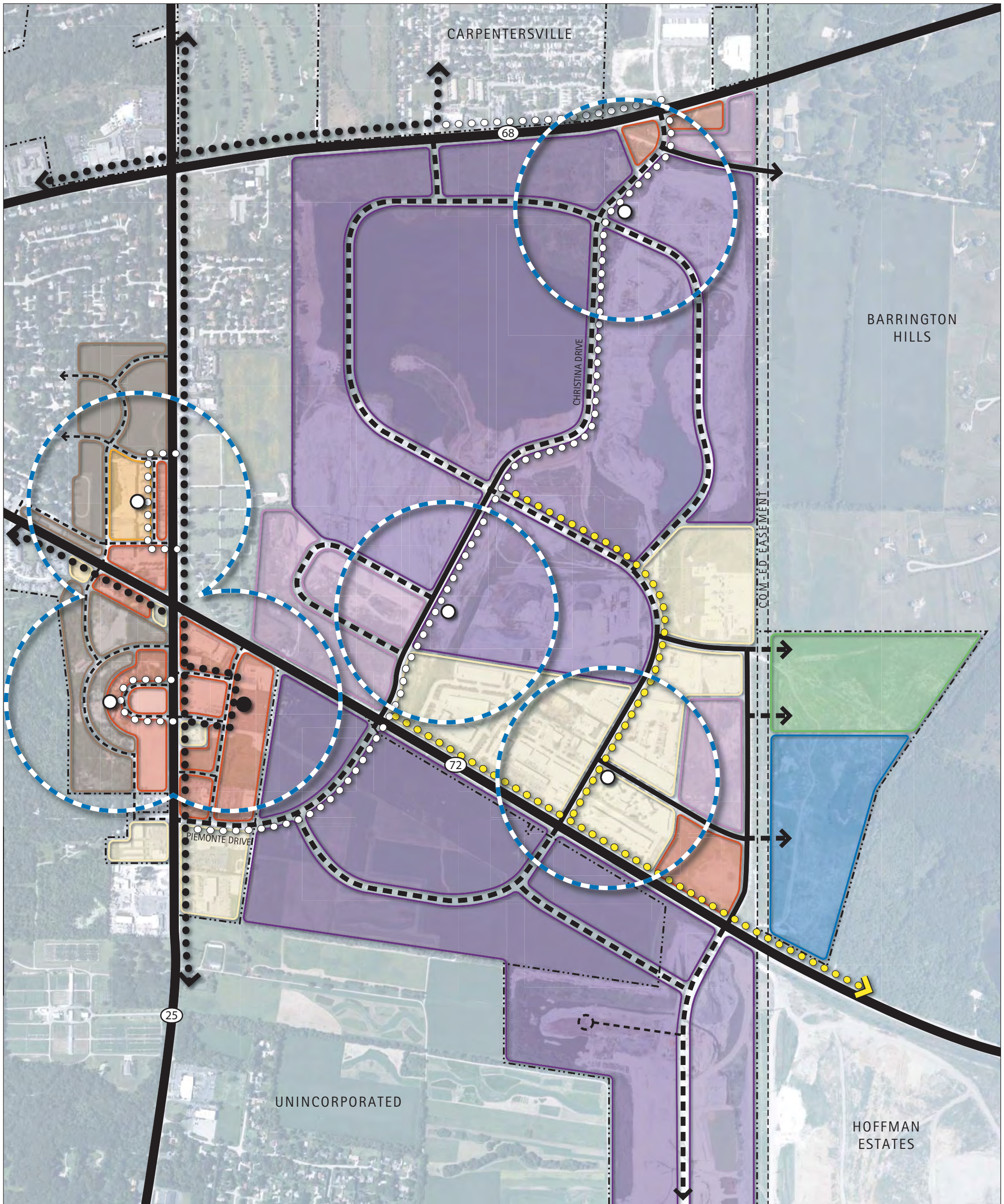
HCM Average Control Delay	25.6	HCM Level of Service	C
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	106.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

6: IL 68 & IL 25

9/23/2009

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	0.95		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3477		1770	3369		1770	3475		1770	3435	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3477		1770	3369		1770	3475		1770	3435	
Volume (vph)	212	232	31	198	484	205	76	1078	137	116	735	174
Peak-hour factor, PHF	0.91	0.86	0.86	0.95	0.95	0.85	0.87	0.93	0.86	0.75	0.91	0.88
Adj. Flow (vph)	233	270	36	208	509	241	87	1159	159	155	808	198
RTOR Reduction (vph)	0	9	0	0	52	0	0	10	0	0	19	0
Lane Group Flow (vph)	233	297	0	208	698	0	87	1308	0	155	987	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	13.0	25.2		13.0	25.2		6.4	47.9		8.0	49.5	
Effective Green, g (s)	13.0	25.2		13.0	25.2		6.4	47.9		8.0	49.5	
Actuated g/C Ratio	0.12	0.23		0.12	0.23		0.06	0.44		0.07	0.45	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	209	796		209	771		103	1512		129	1544	
v/s Ratio Prot	c0.13	0.09		0.12	c0.22		0.05	c0.38		c0.09	0.29	
v/s Ratio Perm												
v/c Ratio	1.11	0.37		1.00	0.91		0.84	0.87		1.20	0.64	
Uniform Delay, d1	48.5	35.8		48.5	41.3		51.4	28.2		51.0	23.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	96.5	0.3		60.5	14.1		43.6	6.9		143.3	2.0	
Delay (s)	145.0	36.1		109.1	55.4		94.9	35.0		194.4	25.4	
Level of Service	F	D		F	E		F	D		F	C	
Approach Delay (s)		83.2			67.1			38.8			48.0	
Approach LOS		F			E			D			D	
Intersection Summary												
HCM Average Control Delay			54.0			HCM Level of Service		D				
HCM Volume to Capacity ratio			0.96									
Actuated Cycle Length (s)			110.1	Sum of lost time (s)		16.0						
Intersection Capacity Utilization			85.6%	ICU Level of Service		E						
Analysis Period (min)			15									
c Critical Lane Group												



Legend

----- Village Boundary	■ ■ ■ Proposed Road	● ● ● Alternate Transit Route	■ Commercial	■ Service Park
⊗ State Highway	- - - Proposed Internal Connection	● Existing Transit Stop/Node	■ Office	■ Industrial Park
▬ Major Road	● ● ● Existing Transit Route	○ Proposed Transit Stop/Node	■ Residential	■ Open Space
▬ Minor Road	○ ○ ○ Proposed New Transit Route	— 1/4 Mile Radius	■ Institutional	■ Existing

Village of East Dundee, Illinois

Dundee Crossing - Transit Center Study

Development Concept - Development Framework

LAKOTA
THE LAKOTA GROUP INC.

S. B. Friedman & Company
Real Estate Advisors and Development Consultants

RWA
Riverside Water & Irrigation, Inc.

DLK
Civic Design

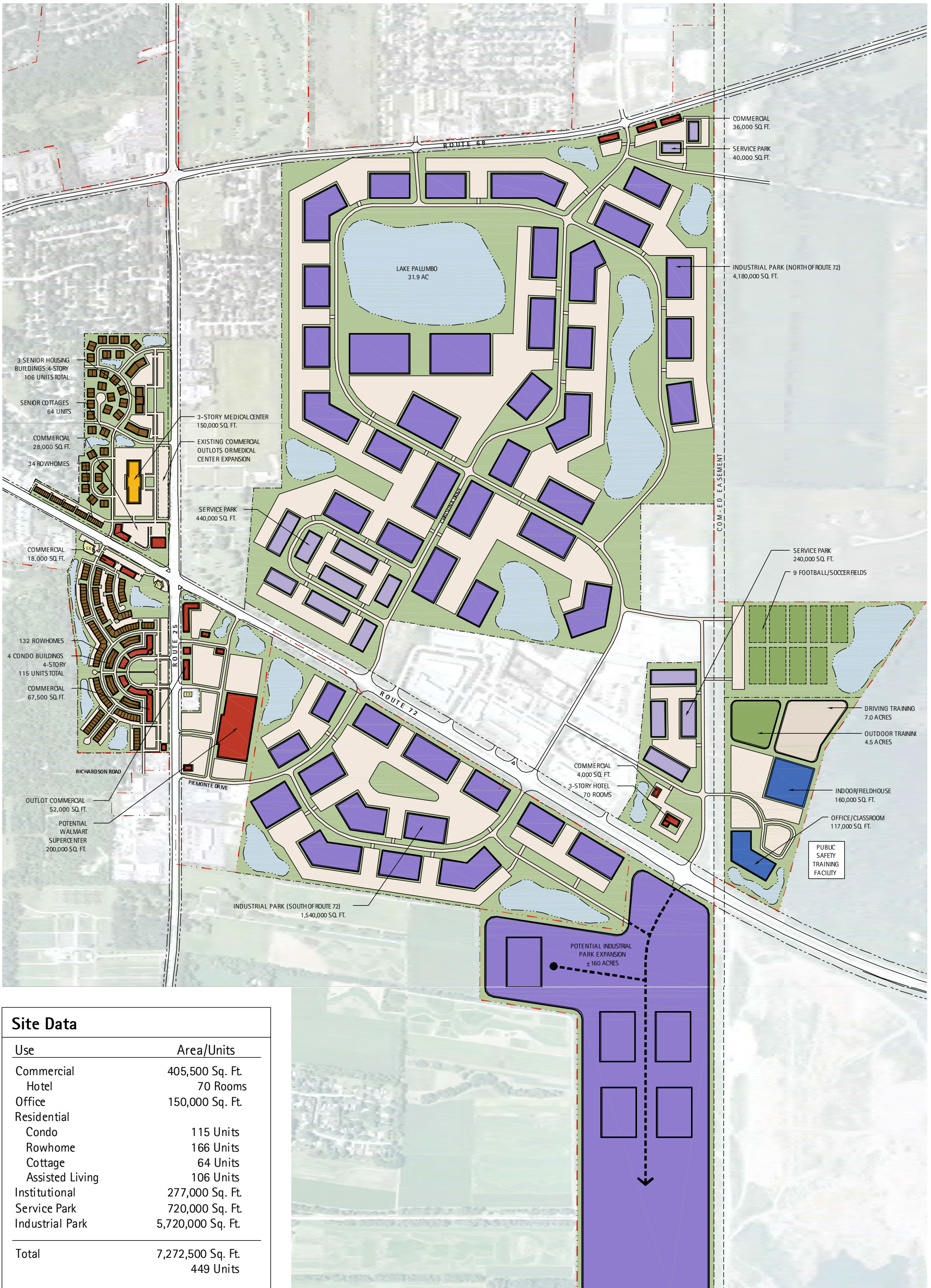
HDR

ONE COMPANY
Many Solutions

December 22, 2009



400' 800'

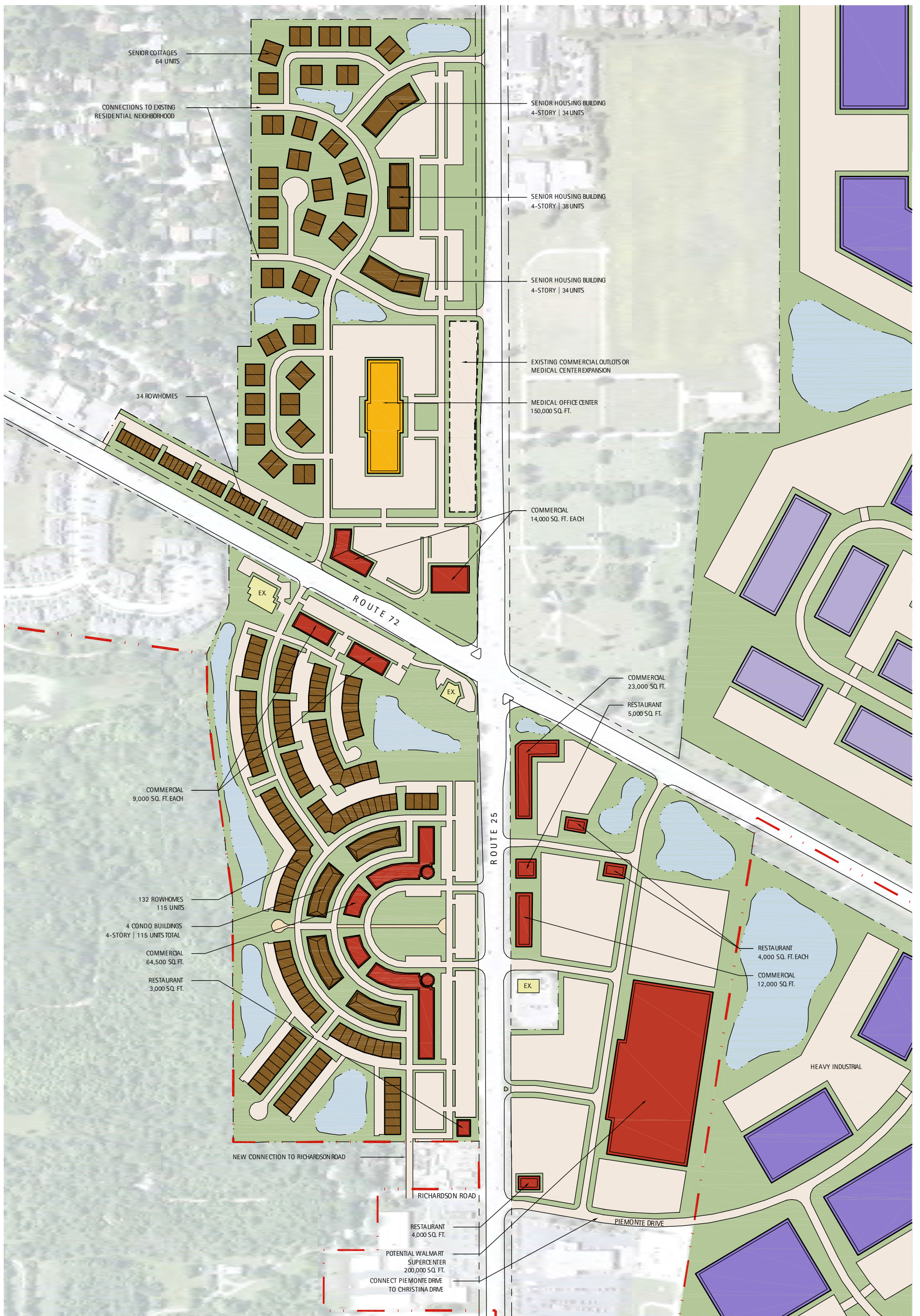


Site Data	
Use	Area/Units
Commercial	405,500 Sq. Ft.
Hotel	70 Rooms
Office	150,000 Sq. Ft.
Residential	
Condo	115 Units
Rowhome	166 Units
Cottage	64 Units
Assisted Living	106 Units
Institutional	277,000 Sq. Ft.
Service Park	720,000 Sq. Ft.
Industrial Park	5,720,000 Sq. Ft.
Total	7,272,500 Sq. Ft. 449 Units

Village of East Dundee, Illinois
Dundee Crossing - Transit Center Study

Overall Development Concept





Village of East Dundee, Illinois

Dundee Crossing - Transit Center Study

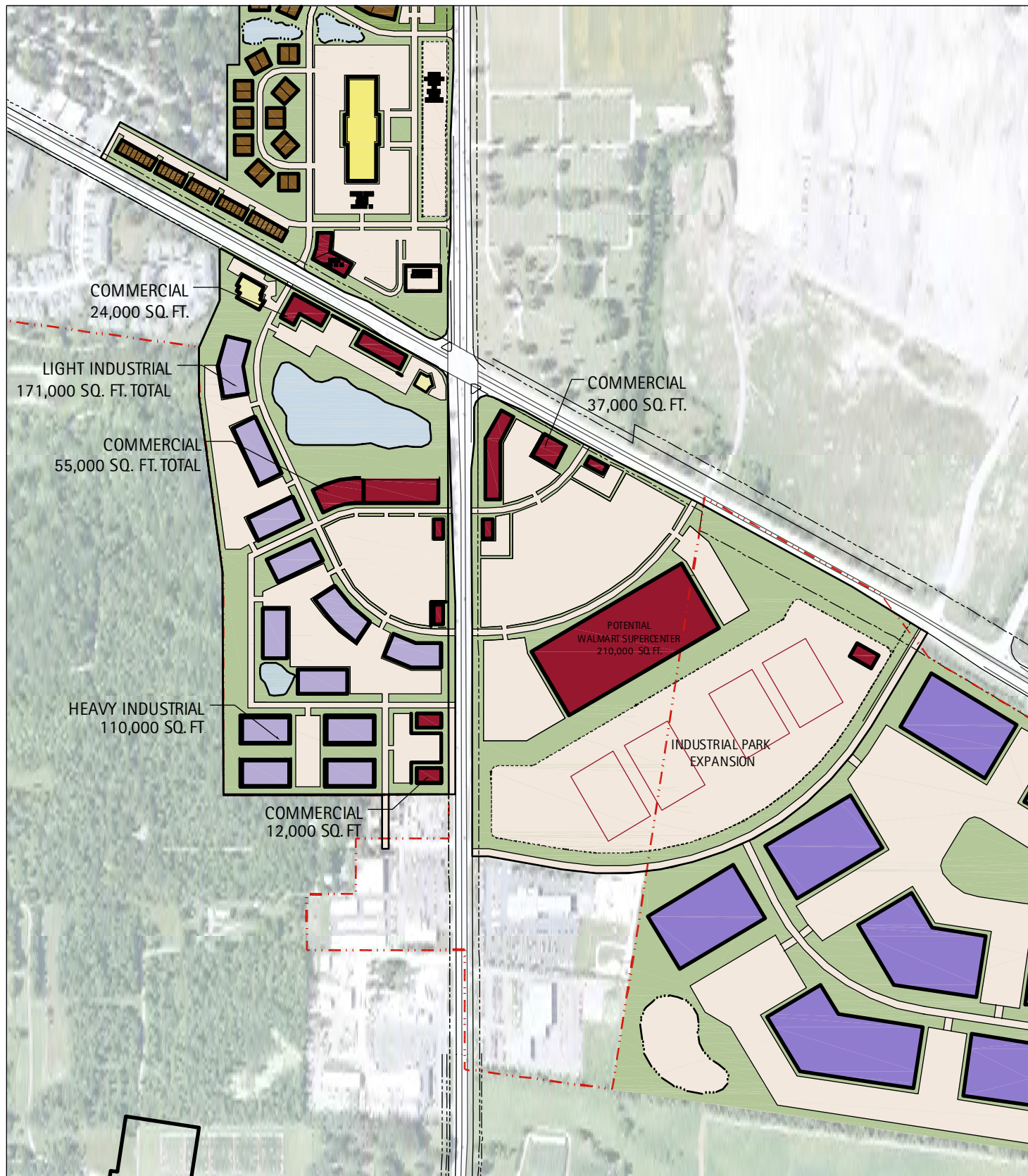
Development Concept - Route 25 and Route 72 Intersection



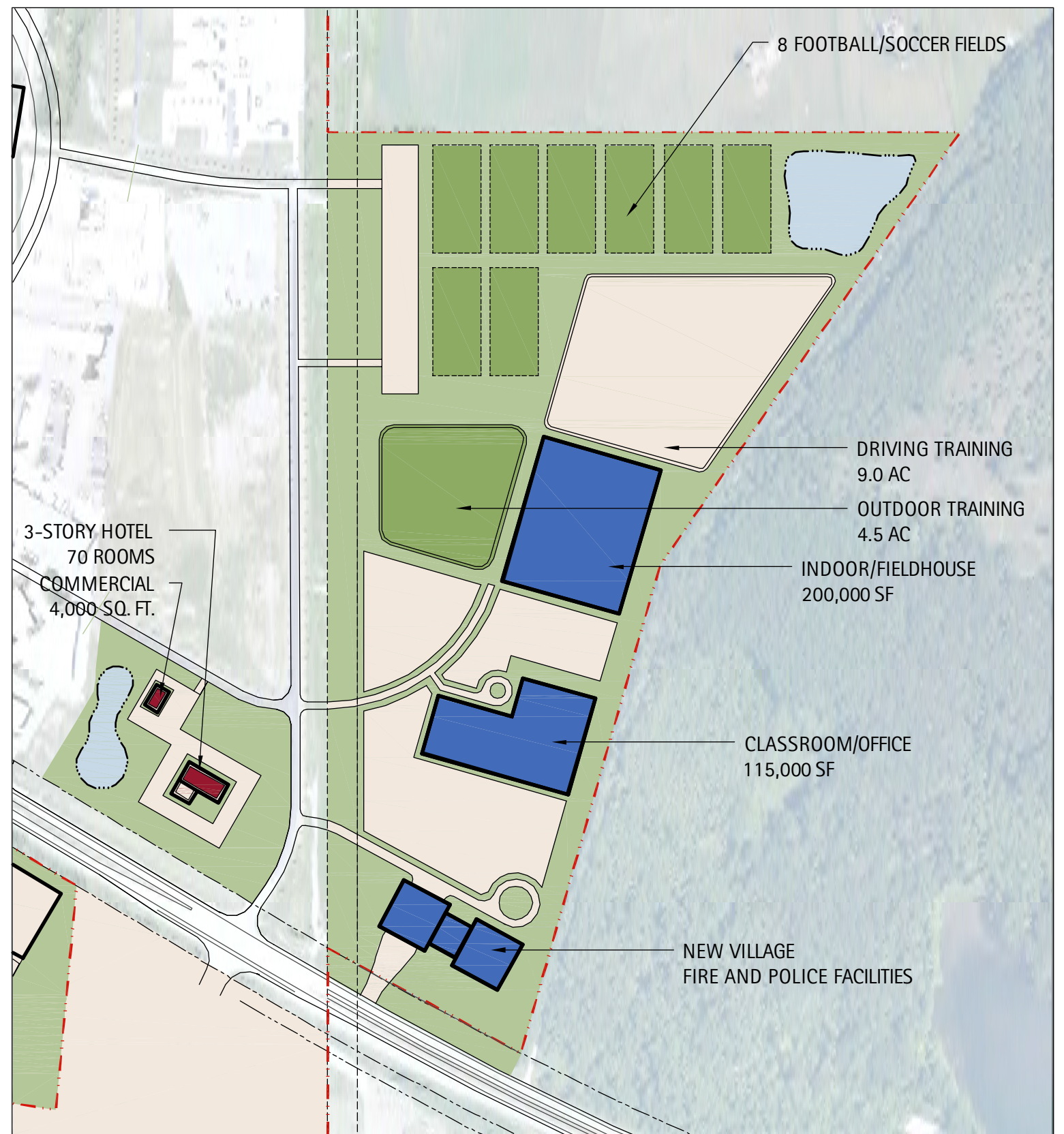
LAKOTA
THE LAKOTA GROUP INC.

F. S. Fritzsche & Company
RWA
DLK
Civic Design

0' 150' 30'
HFR
EDM COOPERATIVE
Many Talents
December 22, 2009



Santa's Village & Walmart Site Alternative



Public Safety Training Facility Alternative

Village of East Dundee, Illinois

Dundee Crossing - Transit Center Study

Development Concept Alternatives



December 22, 2009



Date: February 4, 2010

To: Frank Koehler, Village of East Dundee

Cc: Jay Ciavarella, Regional Transportation Authority
Robert Skurla, R. Skurla Associates Development, Inc.

From: *S. B. Friedman & Company*

Subject: Summary of Public Input

On January 25th, *S. B. Friedman & Company* and the Lakota Group presented concept plans for the Dundee Crossings study area to board members, property owners, residents, and other local stakeholders in East Dundee. An overall conceptual plan centered on the intersection of Route 72 and Route 25 was presented that included the layout of buildings and structures that were supportive of both existing and future public transit as well as pedestrian activity.

East of Route 25, industrial is the predominant land use north and south of Route 72. Other land uses of notable mention in this area include the repositioning of the existing Wal-Mart, pockets for service parks, and a potential hotel. West of Route 25, a senior campus including senior housing, a medical office center, and commercial/retail use was presented as an option north of Route 72, while south of Route 72 displayed a “town center” concept that includes residential and commercial/retail use. The Village’s Cook County parcel east on Route 72 included a public safety campus which consists of an indoor and outdoor regional-level training facility for police, fire, and other first responder occupations.

The community was encouraged to ask questions and comment on the concept plans presented. Generally, the feedback was favorable but there were some general questions and concerns about the need for and access to healthcare services in the area. The following is a compilation of commentary from the meeting attendees:

Senior/Medical Campus: Northwest corner of Route 72 and 25

- There is general support for expanded healthcare facilities in town.
- There is support for targeting the healthcare industry in East Dundee but a location near a hospital may make more sense.
- There is general concern that hospitals are too far away from East Dundee, especially now with the relocation of Sherman Hospital.

Commercial/Retail plans south of Route 72

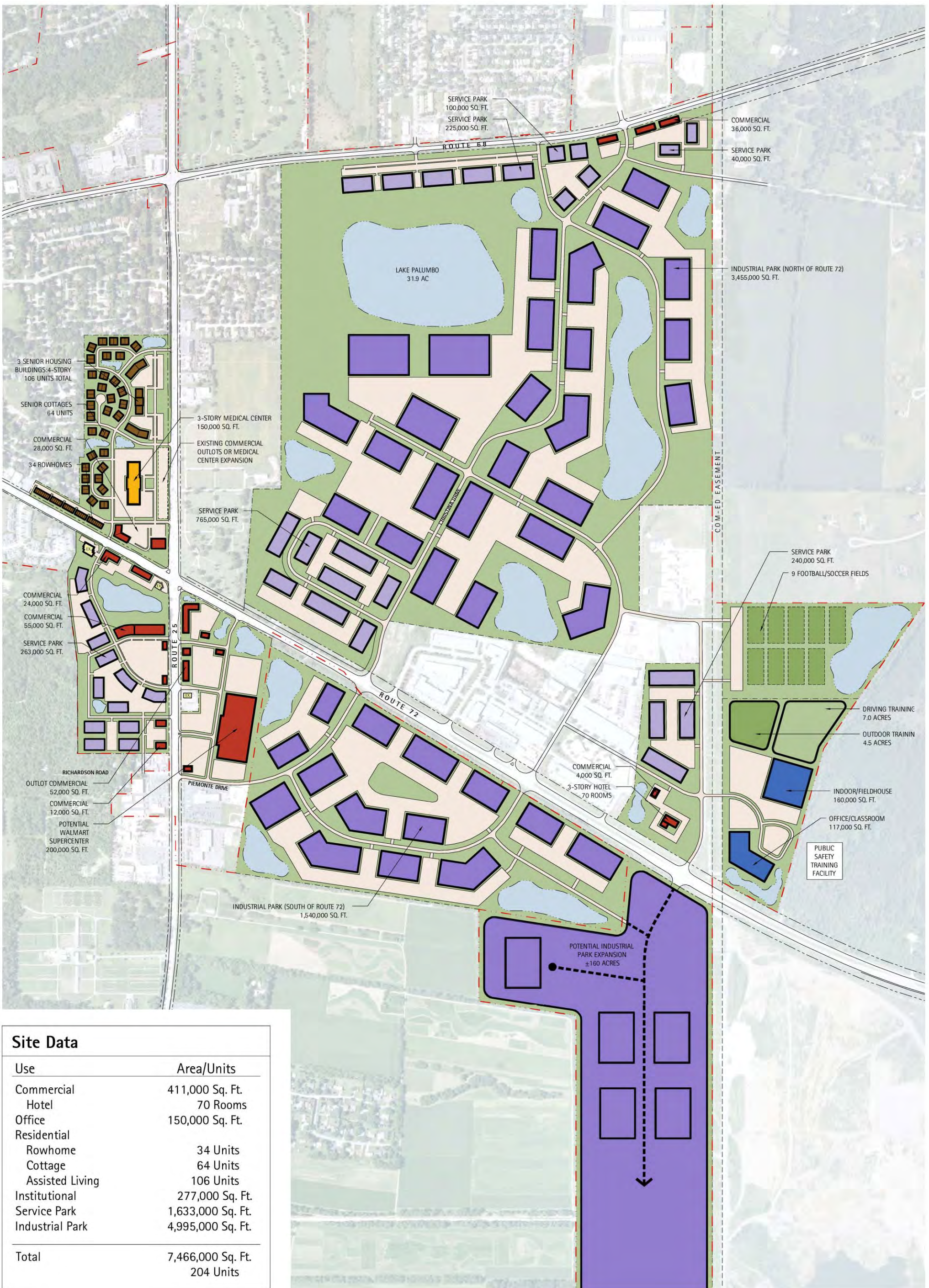
- There is interest in seeing other options for big-box stores.
- The owner of the Santa's Village property is interested in other possible development options.

Other Commentary

- The STAR line commuter train line would create synergy for new land uses and activity in the area.
- More direct public transit to downtown and O'Hare would be great for existing residents and new residential development.
- Transit loops may not have capacity for three buses but pedestrian access is important since it is difficult crossing Routes 72 and 25. Bus shelters at the stops and other pedestrian amenities would be desirable.
- There is support for a bus route extending to Huntley and bringing people southeast to the study area and possibly further to Prairie Stone and Schaumburg.
- There is interest in more direct bus routes between East Dundee and Elgin.

Next Steps

Per our revised scope, the consultant team will work with you and other designated individuals to develop a preferred concept plan that includes the approved development alternatives and a circulation and access overlay plan for bus transit. The plan will be circulated amongst the representatives of the Village for review and comment. Once all of the necessary revisions are complete, the preferred plan will be presented to the community via a second public meeting.



Site Data	
Use	Area/Units
Commercial	411,000 Sq. Ft.
Hotel	70 Rooms
Office	150,000 Sq. Ft.
Residential	
Rowhome	34 Units
Cottage	64 Units
Assisted Living	106 Units
Institutional	277,000 Sq. Ft.
Service Park	1,633,000 Sq. Ft.
Industrial Park	4,995,000 Sq. Ft.
Total	7,466,000 Sq. Ft. 204 Units

Village of East Dundee, Illinois
Dundee Crossing - Transit Center Study

Overall Development Concept

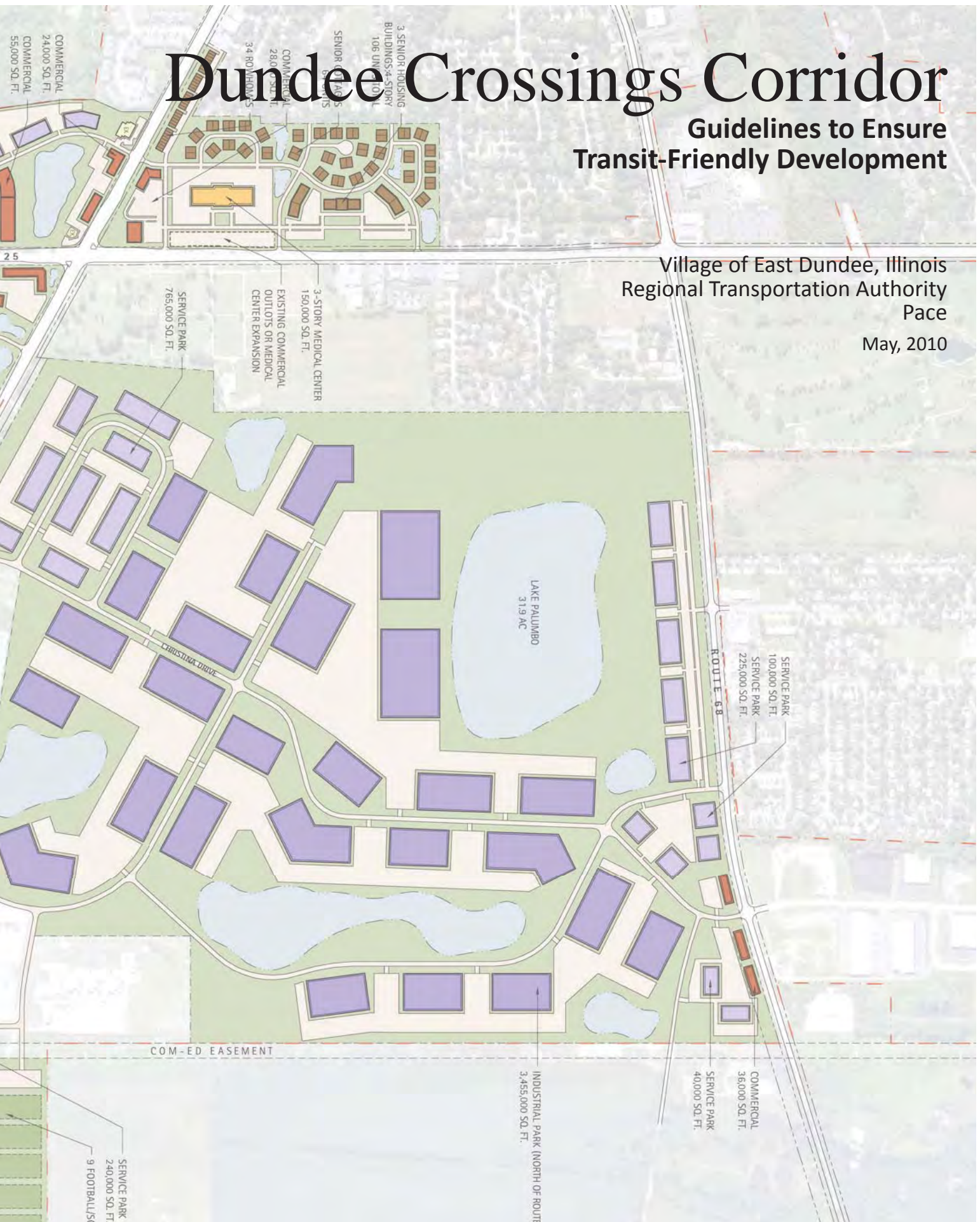


Dundee Crossings Corridor

Guidelines to Ensure
Transit-Friendly Development

Village of East Dundee, Illinois
Regional Transportation Authority
Pace

May, 2010





Acknowledgements

These guidelines would not have been made possible without a grant from the Regional Transportation Authority (RTA) and the participation of Pace and the Village of East Dundee in the conceptualization of a transit-oriented development area at the crossroads of Routes 25 and 72.

Village Board

Jerald Bartels, Village President
Michael Ruffulo, Trustee
Robert Gorman, Trustee
Jeff Lynam, Trustee
John Cichowski, Trustee
Lael Miller, Trustee
Paul VanOstenbridge, Trustee
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Frank Scarpelli, Co-Chairman
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Participating Agencies

Regional Transportation Authority
Pace
Metra

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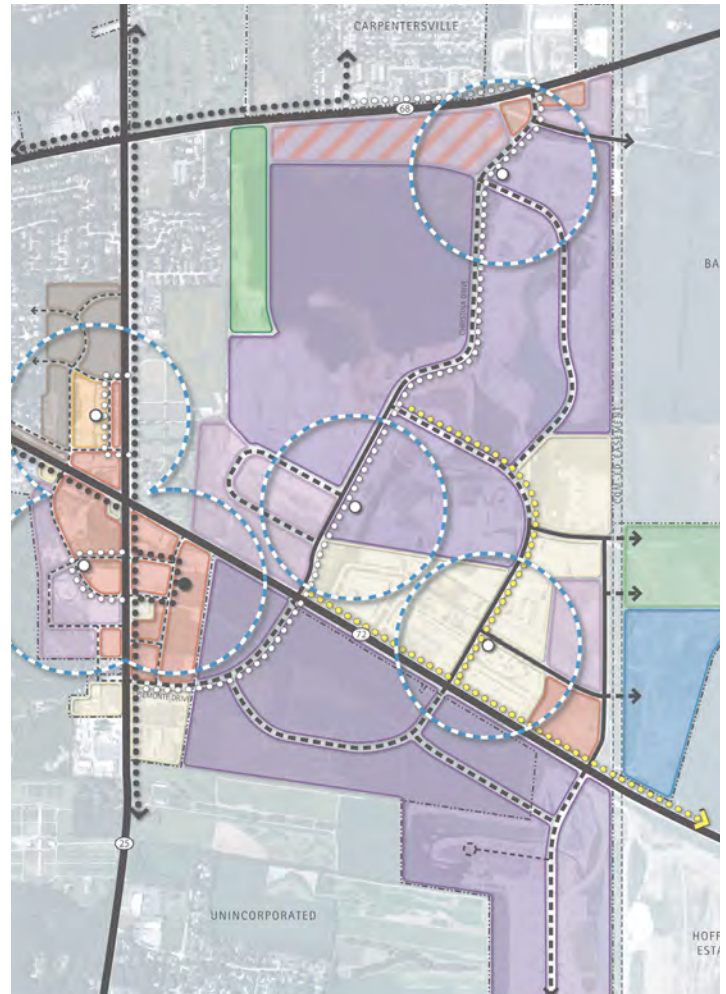


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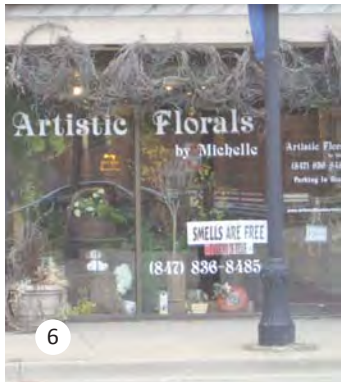
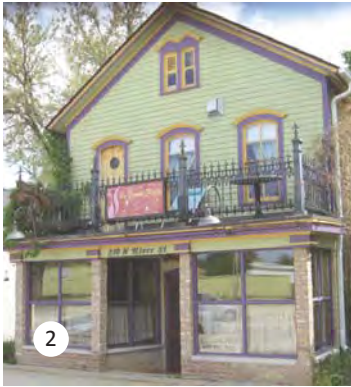
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- 1. Aerial of East Dundee and Dundee Crossings
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Dundee Crossings Corridor

INTRODUCTION

The Village of East Dundee has prioritized four key parcels within the “Dundee Crossings Corridor” for future redevelopment. These sites, if appropriately planned, will provide the Village the ability to capture new business, light industrial, retail and residential development – thereby enhancing the built environment along Rtes 25 and 72, attracting new businesses and services to the community and benefitting the fiscal condition of the Village.

The development and design guidelines laid out in this document are intended to provide Village decision makers, stakeholders and citizens with a template of sound design principles that can be brought to bear on these key parcels in order to maximize the market opportunity each is best suited to capture. As such, these Guidelines are not intended to establish ‘pre-set’ land or building plans, but are to be used to help analyze specific plans for development as they are presented for these sites so that they maintain consistency with the community’s goals and aspirations: to attract vibrant new development for the jobs, tax revenues and aesthetic benefit of East Dundee that are accessible by multiple modes of transportation.

Goals and Objectives

These guidelines outline the parameters for a sustainable, context-sensitive and market-driven development vision and address three primary goals for the Dundee Crossing Transit Center area:

- Promote use of transit
- Create housing and employment opportunities
- Create an implementable vision

Purpose

These guidelines are intended as tools for communicating the design intent for future development and for evaluating proposals presented to the Village. The overall goal is to ensure high-quality development that employs sound planning and design principles. Implementation of these guidelines will reinforce the Dundee Crossings image as an inviting place to live, work, shop, and gather. These guidelines are intended to:

- Guide decision-making on the part of the Village of East Dundee
- Provide ‘predictability’ for developers in evaluating investment options
- Help insure that the vision and aspirations of the Village are achieved (and not compromised along the way)

Organization

These guidelines are organized around the key physical elements that promote the use of transit:

1. Transit Planning
2. Access and Circulation
3. Site Development
4. Buildings
5. Wayfinding

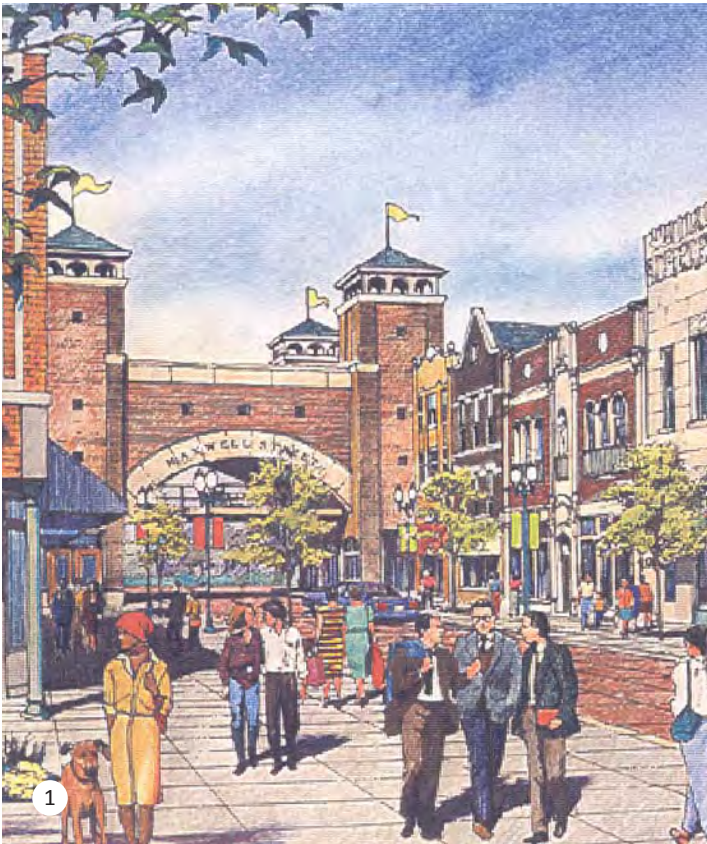
Use of the Guidelines

These guidelines are designed to be used by the Village and participating agencies such as Pace and IDOT when reviewing proposed development plans; by existing and potential residents, business owners, and employees when comparing Dundee Crossings to other locations; and by planners, architects and landscape architects when implementing the Village’s vision.

Relevant Studies

The following studies are relevant to Dundee Crossings and are available for review on the Village of East Dundee website, www.eastdundee.net:

- Comprehensive Plan Update, 2002 (Teska)
- Route 72 Corridor Plan and Streetscape Enhancements, Phase III Implementation, 2008 (VandeWalle)
- Dundee Crossings Corridor Study, 2010 (S.B. Friedman)



- 1. Example of mixed use, walkable area
- 2. Pace bus
- 3. Pace Call-n-Ride van
- 4. Scale of higher density residential area
- 5. Scale of proposed Dundee Crossing (from Route 72 Corridor Plan)



1. TRANSIT PLANNING

Key Principles

The key planning principles for successful transit-oriented development are:

Customer orientation

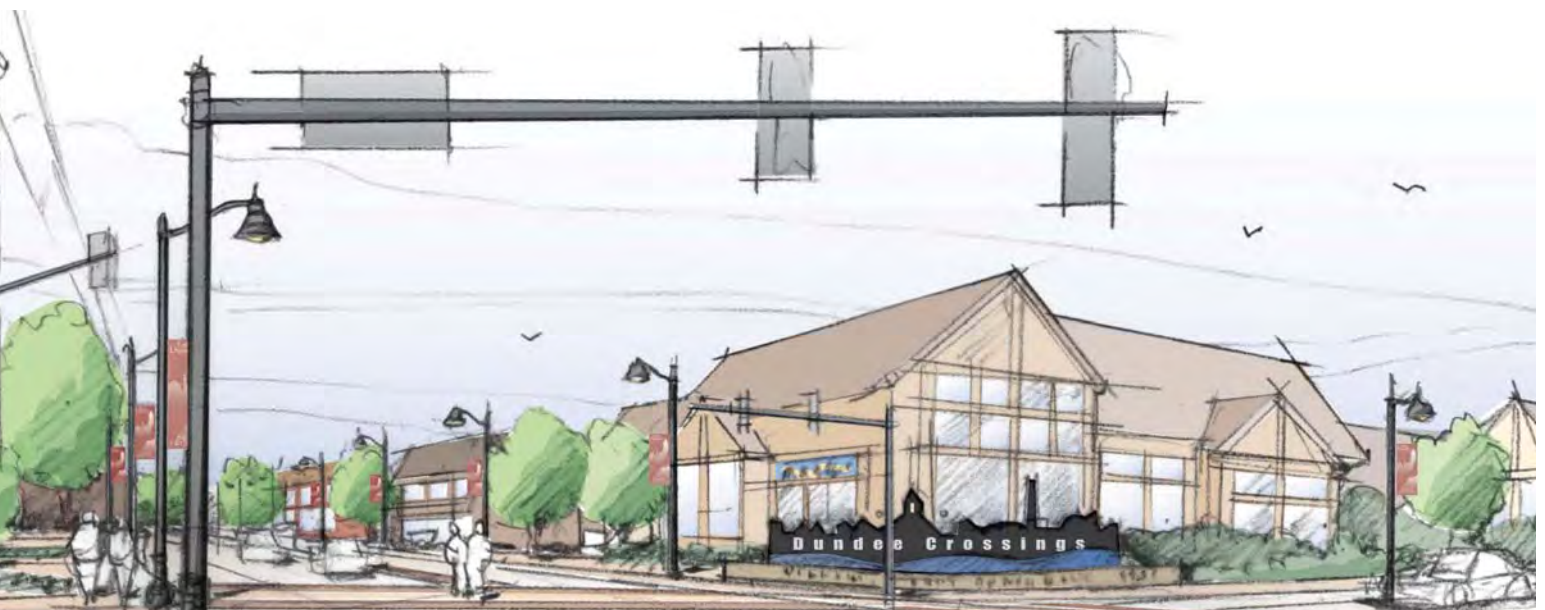
Focus on making transit a convenient, comfortable and safe choice for customers.

Mix and Density of Uses

Support the use of transit by creating a lively sense of community with diverse services, jobs, and destinations.

Walkability

Create attractive places and establish reasonable distances for users to walk to and from transit to their final destination.





1. Business corridor with on-campus transit
2. Traditional transit-oriented development with rail and bus transit
3. Mixed use infill and new development around transit
4. Industrial / institutional land uses with intermodal transit



1.1 Transit Routes

Existing and proposed expansion of transit routes should be clearly identified with enhanced signage and shelters, along with information about how the routes interconnect with one another.

1.2 Transit Amenities

No matter where transit riders start their trip or where they are headed, they look for convenience, reliability, economy, security, safety and comfort. To accommodate riders in these areas, the implementation of the following tasks should be considered:

- Locate transit stops within a ¼ mile walk of customers' origins and destinations
- Provide and publish reliable transit service schedules
- Remind customers that using transit saves [them] money and conserves natural resources
- Train transit operators to address security concerns at transit stops and on vehicles
- Make transit stops safe for customers by providing clear lines of sight and lighting
- Provide ADA-accessible weather protection and seating at all stops
- Provide clean and well-maintained vehicles

1.3 Supportive Land Use

The key to transit-oriented development is making transit and walking a more convenient and appealing alternative to driving.

Mixed-use development generates transit riders by emphasizing the pedestrian environment without sacrificing convenient auto access for those who choose or need to drive. Retail stores and services on a major street can capture much of the transit-riding market by ensuring that the mix of businesses serves riders' needs, acknowledges their time constraints, and provides an attractive environment for customers.

Higher-density residential development in proximity to transit with a mix of unit types can reinforce a strong sense of identity and community through direct, safe, and attractive connections to transit.

Non-retail activities including industrial, office, schools, colleges, medical centers, and cultural facilities each require transit service. These companies and institutions have the opportunity to coordinate development with transit service in order to improve access for their employees, customers, visitors and at the same time reduce congestion and duplication of private transportation services such as parking shuttles.

In summary, the key transit-supportive land use principals are:

- Locate the most intense development (building density and number of users) close to the transit stops
- Provide a continuity of retail and other pedestrian-serving uses along the sidewalk on major streets
- Take advantage of the number of users and activate the street by locating convenience shops and service uses adjacent to the transit stops and along the route to and from the transit stop



- 1. Well-marked crosswalk
- 2. Designated bike and walkways
- 3. Bike rack on Pace bus
- 4. Attractive bus shelter
- 5. Multiple-access development



2. ACCESS AND CIRCULATION

Key Principles

The key principles for access and circulation in a transit-oriented development are:

Connectivity

Provide multiple entry points into development zones and multiple interconnections with adjoining developments.

Pedestrian-Friendly

Provide well-designed walkways [and bikeways] for pedestrians both to and from the development zones.

Multimodal Access

Provide facilities for pedestrians, bicyclists, scooters and motorcycles, cars, vans, trucks, and transit vehicles to promote transportation choices.





1



2



3



4

- 1. Pedestrian-friendly area (from Route 72 Corridor Plan)
- 2. Accessible pedestrian walkways
- 3. Designated bikeway / trail
- 4. Accessible bus stop
- 5. Weather-protection shelter



5

2.1 Pedestrians

Due to changes in the economy, lifestyle choices, the ever-increasing cost of auto ownership, and congestion, more individuals are seeking alternative means of transportation. Making an environment that is safe and attractive for pedestrians is the most important element of promoting the use of transit.

- Maintain ¼ mile walking distances for transit customers
- Restrict the use of elements that hamper pedestrian movements--meandering sidewalks, fences and walls around properties, berms, and expansive parking lots
- Make all paved pedestrian pathways ADA-accessible
- Create short cuts through long blocks and across corner parks
- Enhance crosswalks with striping and pedestrian push-button signals
- Create linkages between land uses and buildings
- Minimize pedestrian and vehicle conflict

2.2 Bicycles

Bicyclists are also typical transit customers, especially in warmer weather when bus racks are available on transit vehicles and at their destinations.

- Provide commuter bicycle / pedestrian paths with drinking fountains, signage and plantings to buffer vehicular traffic and control runoff
- Provide bicycle racks at transit stops and building entrances which visually complement other streetscape furnishings in those locations
- Dedicate and mark bike connections between buildings at Dundee Crossings and to / from adjacent neighborhoods and open space

2.3 Transit Vehicles

Transit vehicles are of course the key component of transit service and as such need to be provided for in all aspects of access and circulation. Therefore, land plans should:

- Provide passenger drop-off and pickup areas, short term parking, and ADA-accessible parking
- Employ traffic calming techniques where streets are used by cut-through traffic
- Mark entrances and exits to and from parking and loading facilities with directional signage where there are multiple access points
- Coordinate direction of travel and parking bays when parking is shared between properties
- Provide cross-access to adjacent properties
- Provide shared driveway access to multiple properties
- Separate pedestrian, bicycle, and vehicular circulation systems
- Separate access for trucks and other industrial vehicles
- Share access drives for service vehicles within a large development site to avoid using public streets

2.4 Transit Stops

Well-marked transit stops not only serve existing customers, but also help remind potential customers that transit might be a choice for them.

- Locate stops at or near intersections with clearly marked crosswalks and sidewalks to building entrances
- Pave the connection between the street edge, transit stop, and adjacent sidewalks

2.5 Transit Shelters

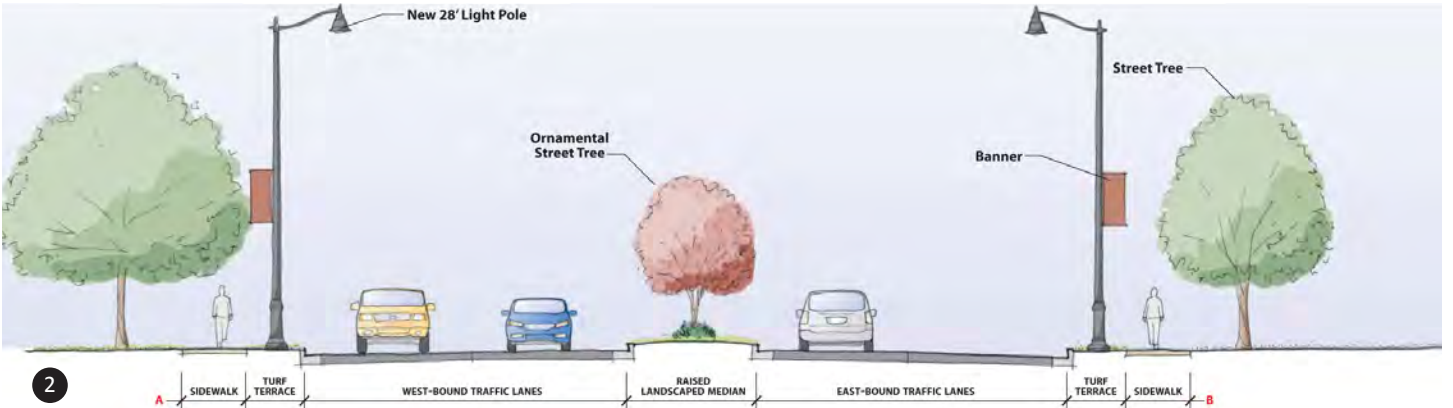
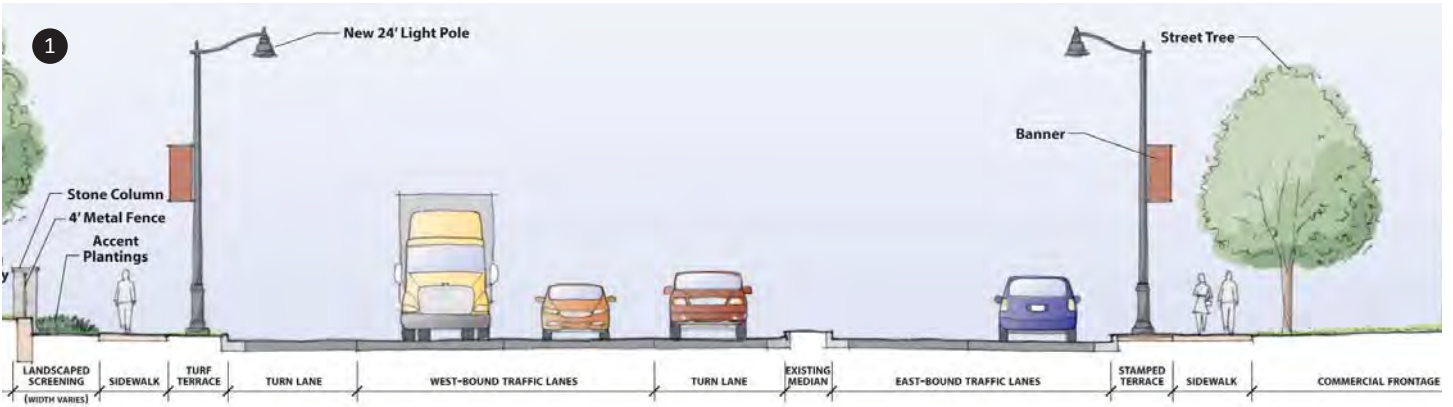
Shelters at transit stops that provide weather protection make riding the bus a comfortable experience for customers.

- Provide ADA-accessible boarding and waiting area
- Provide seating
- Provide lighting for the shelter and around the exterior
- Provide route and schedule, transfer, and multimodal information at shelter

2.6 Sidewalks

Sidewalks in the transit-oriented development are an essential component for the convenience of customers.

- Separate pedestrian sidewalks from vehicular traffic by a landscaped buffer with trees, shrubs, bollards and / or planting beds
- Provide sidewalk connections from transit stops to building entrances
- Provide sidewalks in parking areas to building entrances



1. Cross-section of Major Road (from Route 72 Corridor Plan)
2. Cross-section of Minor Road (from Route 72 Corridor Plan)
3. Well-marked Minor intersection
4. Existing crosswalk



2.7 Drive Aisles and Bike Lanes

Drive aisles must be of sufficient width to allow ease of movement of the transit vehicles but also provide traffic-calming for other vehicles. Bike lanes should also be planned on key streets within new developments and incorporated where possible on or along existing roadways.

- Use the minimum width aisles
- Indicate bike lanes with striping and surface symbols
- Use bump-outs at intersections
- Plan for truck turning radii

2.8 Minor Roads

Minor roads are typically within development zones serving individual parcels and lands uses.

- Provide narrow landscaped parkway and sidewalks on both sides of the street, two street parking lanes, and two circulation lanes
- Connect minor roads and streets with other minor public ways
- Avoid the use of cul-de-sacs and dead-ends

2.9 Minor Intersections

Minor intersections within the development zones should have attractive streetscapes and a pedestrian-orientation.

- Provide stop and / or yield signs with well-marked cross walks
- Minimize crossing distances and ensure clear lines of sight for pedestrians, cyclists, and motorists
- Use right angles at all intersecting roadways
- Use corner buildings to define the intersections

2.10 Major Roads

Major Roads such as Routes 25 and 72 will connect Dundee Crossings with destinations in all directions.

- Plan major roads and streets to have transit, pedestrian / bicycle and vehicular traffic
- Provide landscaped parkways and walk/bikeways on both sides of the road with connections to other bike routes
- Provide a planted median to reduce the amount of pavement and to delineate directions of traffic

2.11 Major Intersections

Major intersections will be utilized by pedestrians, bicyclists and vehicles and should accommodate these various travel modes to ensure safety.

- Place signalized intersections not less than one-quarter mile apart
- Extend landscaped medians to intersections to serve as a pedestrian crossing refuge
- Provide well-marked pedestrian crossings across all legs of the intersection, controlled by accessible pedestrian signals with count-down and audible features
- Make crosswalks clearly visible to pedestrians and motorists with materials noticeably different in color and / or texture from asphalt or concrete driving surfaces
- Minimize the number of left and right hand turn lanes for pedestrian safety and to keep the scale of the intersection smaller to encourage walking
- Define the intersection with corner buildings with distinctive architectural and landscape features

2.12 Midblock Crossings

Midblock crossings are discouraged on major streets and roads, but may be necessary within development zones.

- Mark midblock crossings with striped crosswalks and pedestrian-activated flashing lights and sound
- Provide pedestrian crossing signage at all approaches to the midblock

2.13 Driveways and Curb Cuts

Driveways and curb cuts on major roads should be minimized for the safety of pedestrians and cyclists, and should be shared wherever possible off of minor roads within the developments.



3. CONCEPT PLAN

3.0 Development Framework

Dundee Crossings, centered on the intersection of Routes 25 and 72, provides significant development opportunities for the Village of East Dundee. The Development Framework on Page 17 shows how the Village can change the area's land use setting to accommodate new growth and future transit service.

The Framework delineates one of the largest business park settings in the Chicago region, accommodating a wide range of service, sales, technology, research, warehousing, and light manufacturing facilities. Internal roads are interconnected throughout the area to facilitate access to/from Route 68, Route 72, and Route 25, as well as to set the stage for public or private bus service.

New commercial development opportunities are shown along each route to serve the business park, area residents and motorists traveling through the Village. An enhancement and expansion of the existing Wal-Mart site is defined for the southeast corner of Routes 72 and 25.

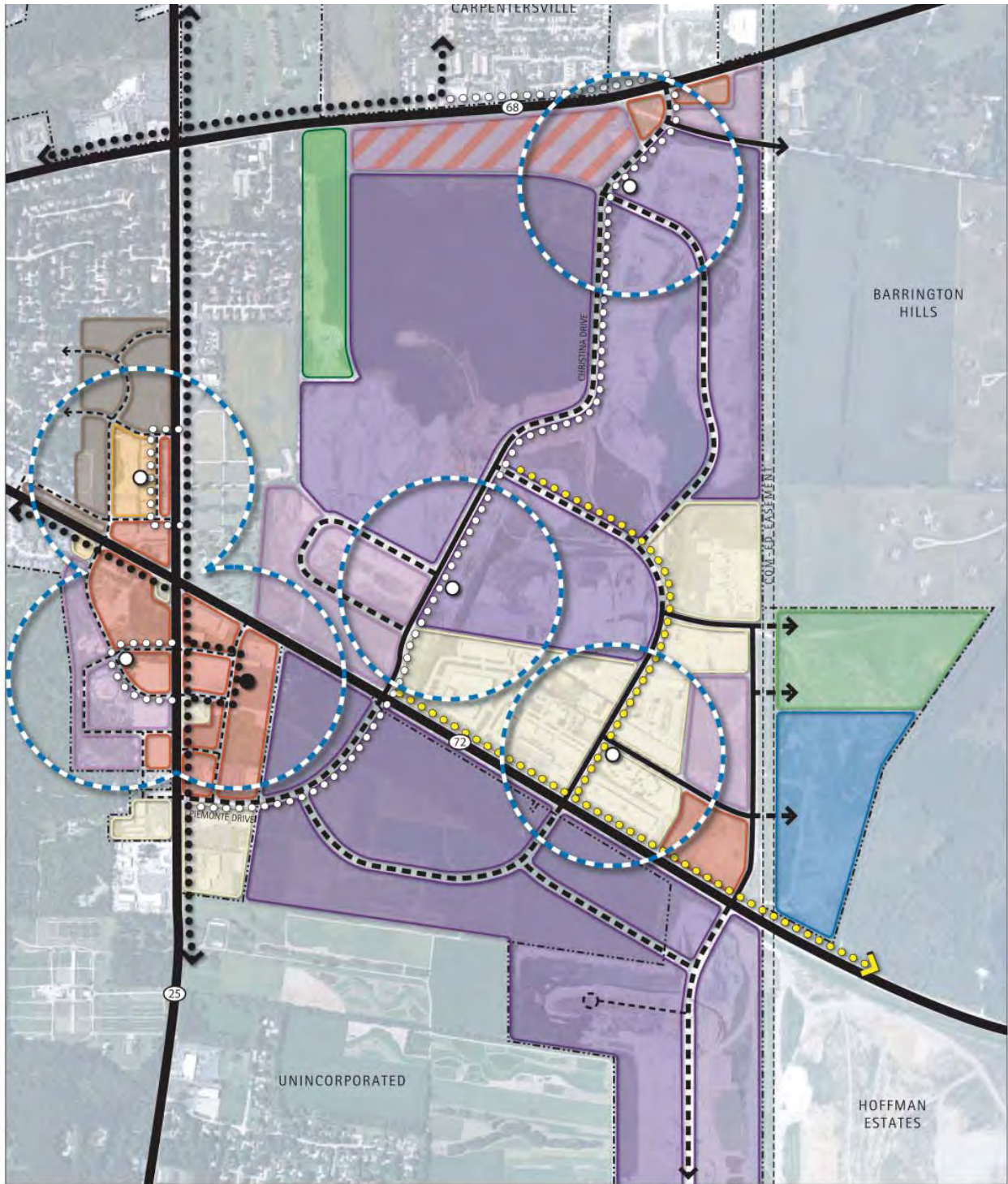
Across from the existing Wal-Mart site to the northwest, the Development Framework accommodates a range of new housing options for the community, including rowhomes and senior housing. At the southwest corner, the Framework also provides two redevelopment options for the large vacant Santa's Village site. These options include: a small service park for local businesses serving the greater East Dundee area and a mixed-use neighborhood with rowhomes, condos, apartments and shops centered on a public space and potential bus stop.

A large public safety campus is delineated along Route 72 east of the ComEd easement. It can accommodate administrative offices, indoor public safety training facilities, outdoor training fields, exercise paths, football/baseball/soccer fields and surface parking. If needed, this location could include new Village police and fire stations.

As noted throughout this report, planning ahead for potential future bus service was a key goal for the Dundee Crossings redevelopment. The Development Framework highlights existing and potential bus routes as well as bus stops or nodes that can provide accessible locations for transit riders.

Conceptual building massing within the Development Framework is shown on the Illustrative Plan on Pages 18-19.

Dundee Crossings Corridor

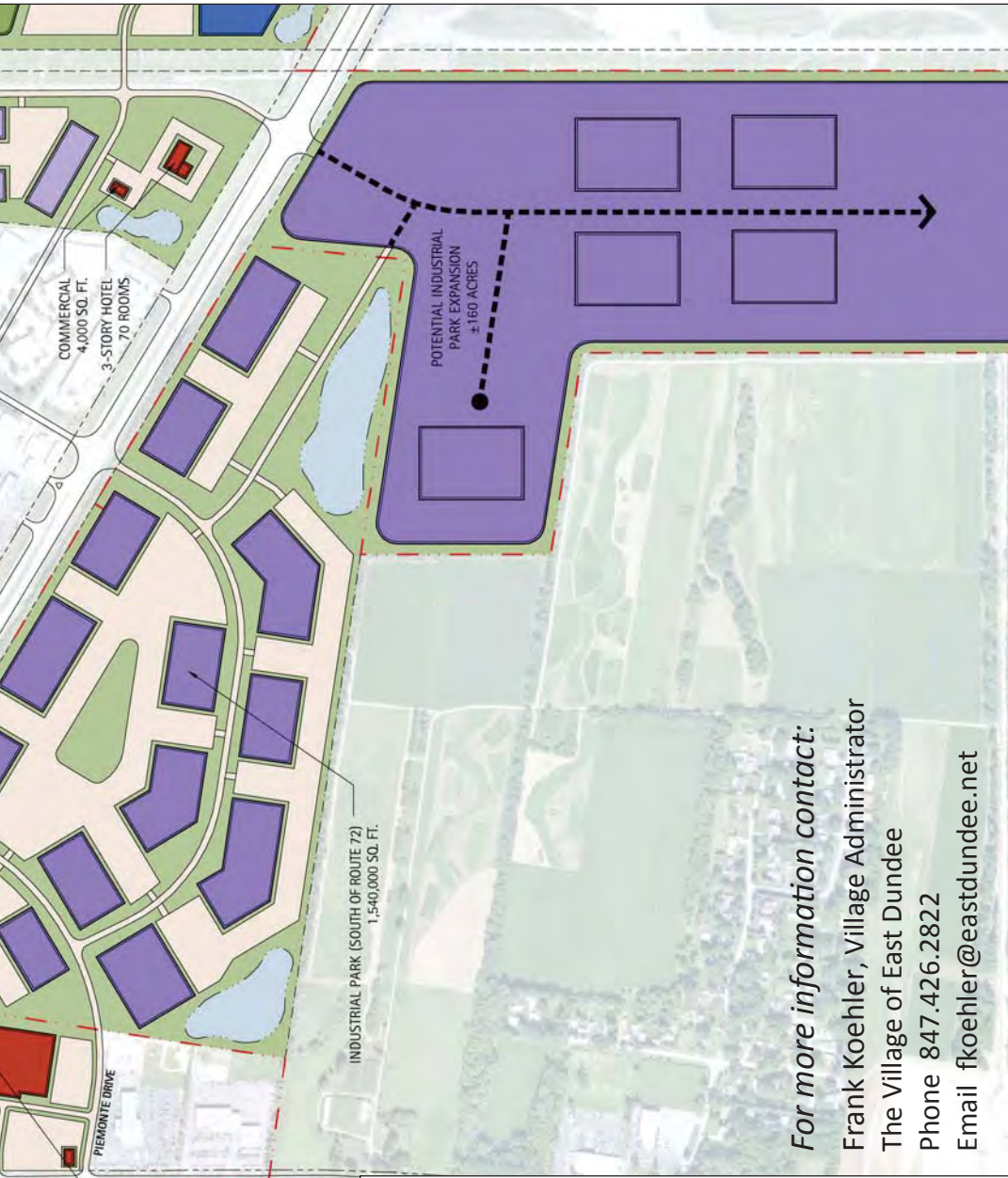


Legend

--- Village Boundary	--- Planned Road	● Existing Transit Stop/Node	■ Commercial	■ Service Park
⊗ State Highway	●●● Existing Transit Route	○ Planned Transit Stop/Node	■ Office	■ Industrial Park
— Major Road	○●● Planned New Transit Route	— 1/4 Mile Radius	■ Residential	■ Open Space
— Minor Road	●●● Alternate Transit Route		■ Institutional	■ Existing



Dundee Crossings Corridor



For more information contact:
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 The Village of East Dundee
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Santa's Village Site:
 Development Alternative

Use	Area/Units	Use	Area/Units
Commercial	411,000 Sq. Ft.	Institutional	277,000 Sq. Ft.
Hotel	70 Rooms	Service Park	1,633,000 Sq. Ft.
Office	150,000 Sq. Ft.	Industrial Park	4,995,000 Sq. Ft.
Residential Rowhome	34 Units	Total	7,466,000 Sq. Ft.
Cottage	64 Units	Units	204
Assisted Living	106 Units		

Legend	Color	Category
Commercial	Red	Service Park
Office	Yellow	Industrial Park
Residential	Brown	Open Space
Institutional	Blue	Existing

Dundee Crossing - Transit Center Study

3.1 Overall Illustrative Master Plan



1. Pedestrian scale sidewalk and landscaping
2. Pedestrian seating
3. Public plaza
4. Attractive waterfront access
5. 'Green' elements of sustainable sites



4. SITE IMPROVEMENT

Key Principles

The key principles for effective transit-oriented site development are:

Human Scale

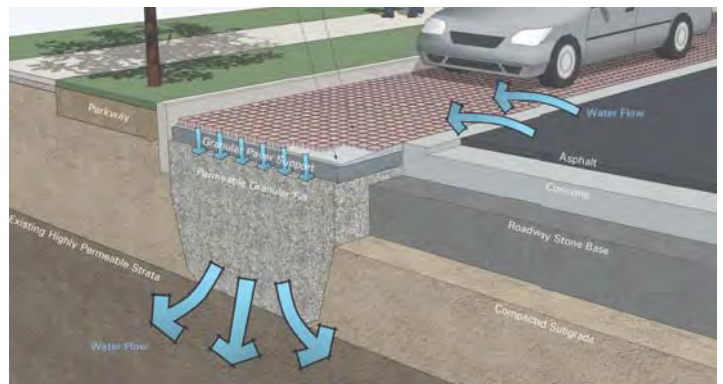
Favor pedestrians over vehicles.

Placemaking

Make an environment that is memorable and easy to navigate.

Sustainability

Feature environmentally-friendly best practices for the use of renewable resources and recycled materials, and best practices for maintenance and operations.





1



3



2



4

Basin & Wet Detention Pond - Plan

1. Well-designed intersection
2. Landscaped retail parklot
3. Pedestrian-friendly streetscape
4. Naturalistic design for detention pond
5. Attractive car park at public open space



5

4.1 Transit Transfer

Transfer centers are locations where transit customers can switch to other transit routes and services and to private vehicles and bicycles. The potential for a transit 'hub' should be incorporated into land plans at the proposed medical center and at the Walmart Supercenter site.

- Position the hub to be clearly visible and easily accessible by pedestrians and bicyclists
- Provide short term and ADA-accessible parking close to transfer points
- Connect sidewalks from the hub to adjacent retail and commercial uses, kiss-n-ride locations, and parking areas
- Provide signage explaining transit services, hours of operation, and routes
- Provide a community information kiosk for local and walkable destinations

4.2 Streetscapes

Streetscapes are attractive places where people want to walk or ride their bikes.

- Provide seating, planting areas, bike racks, trash receptacles, pedestrian and roadway level lighting, and wayfinding signage.
- Provide a landscaped parkway, planter(s) and / or street trees between the street edge and sidewalks on all streets
- Provide pedestrian and roadway level lighting
- Shield light fixtures to avoid glare, spill-over light, and night sky pollution

4.3 Landscape

Landscapes, especially at Dundee Crossings, can carry the visual theme of the development as well as provide a naturalized setting for work, live, and play.

- Require landscaping in front of buildings to establish continuity between buildings and to define the sidewalk and street frontage, where buildings are absent
- Place trees and shrubs to not obstruct transit signage
- Landscape around transit stops and shelters
- Use landscaping to define use areas and focus on entrances to buildings
- Divide large surface parking lots into smaller areas with landscaping
- Landscape medians with salt-, drought- and wind-resistant plant materials
- Locate trees throughout parking lots
- Open spaces should be clustered into larger usable and landscaped areas rather than equally distributing them into areas of low impact, such as site peripheries or the rear of buildings (except when the rear of the building faces an open space)
- Position landscaping to maintain safe lines of sight
- Provide appropriate levels of illumination for the security and safety of on-site areas such as building entrances, parking, and service areas
- Provide screening for loading and equipment areas
- Select plant materials that are in scale with adjacent buildings and of appropriate size at maturity
- Separate parking from building perimeters by a landscaped buffer and sidewalk
- Transition between adjacent properties with landscaping rather than fencing

4.4 Parking

Parking in a transit-oriented development is a necessary component for private and service vehicles, but must not dominate the visual environment. Parking lots should not be the dominant visual element of each site.

- Locate parking proximate to the sides and rear of buildings
- Provide visitor parking, kiss-and-ride pickup and dropoff points, short-term street parking, and ADA-accessible parking nearest to transit stops and at transit transfer points
- Place ADA-accessible parking close to building entrances and vertical transportation
- Provide sidewalks to and from parking facilities
- Incorporate pedestrian walkways from parking areas to buildings entrances and from streets to building entrances, especially when the areas are served by transit
- Reduce required parking if parking is shared between uses
- Avoid expansive paved areas between the street and buildings



- 1. Stormwater management landscape feature
- 2. View into open space
- 3. Public plaza between buildings
- 4. Parkway open space
- 5. Corner pocket park
- 6. Water feature at public buildings



4.4 Parking, continued

- Favor multiple (and shared) lots separated by landscaping and buildings
- Separate parking from vehicle circulation routes on major roadways but accommodate on-street parking on minor roadways
- Prohibit on-street parking for trucks except delivery vehicles
- Screen truck parking lots with landscaped berms, low screen walls, changes in elevation, or a combination of these

4.5 Service Areas

Service areas such as loading docks and trash handling areas are a necessary component of all building uses.

- Access by shared driveways and share between properties wherever feasible
- Locate to the sides or rears of buildings and position to minimize visual impact on adjacent uses
- Screen roof or ground-mounted equipment with landscaping, walls or fencing
- Design walls and fencing to complement the site's architecture
- Locate exterior storage to portions of a site which are least visible to public view
- Screen storage and trash handling areas with walls, berms, and landscaping
- Bury overhead utility lines

4.6 Stormwater Management

Stormwater management, that is the detention and retention of rainwater and runoff water, is best handled on a 'district-wide' basis rather than on an individual parcel-by-parcel basis.

- Use naturalistic landscaped stormwater basins
- Incorporate the use of vegetated drainage swales, vegetated filter strips and other natural drainage approaches
- Avoid the use of concrete structures, unless located under paved areas
- Utilize permeable pavers and under-pavement stormwater detention wherever feasible

4.7 Open Space: Public and Private

Open space for passive and active enjoyment of residents, employees, and visitors should be a primary feature of a transit-oriented development.

- Define open space by buildings and streets
- Provide a natural visual experience in the design of open space
- Provide a public open space within a five-minute walk of each residence and place of employment
- Create pocket parks for informal activities and visual appeal
- Keep private or restricted-access open space visually accessible and well maintained
- Provide extensive pedestrian and bicycle connections to open space from adjacent neighborhoods and development zones





1. Attractive higher density residential development
2. Distinctive store architecture
3. Integration of architecture and landscape
4. Well-designed office building
5. Memorable positioning of mixed use buildings
6. 'Green' architecture
7. Attractive night lighting
8. 'Green' features of sustainable buildings



5. BUILDINGS

Key Principles

Effective transit-oriented developments have buildings which are:

Well-Positioned

Create an effective land plan with native features and great blending of architecture and landscape.

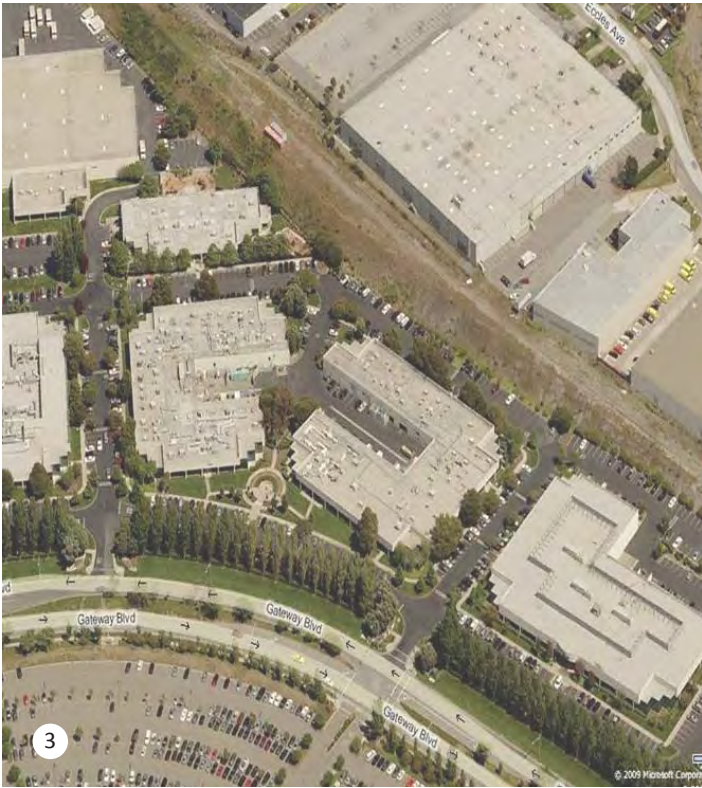
Well-Designed

Create attractive buildings that fit together as component pieces to create a compelling environment. The appearance of buildings, whether modern or more traditional, should fit with the landscape, with other buildings nearby, and with activities within buildings.

Sustainable

Use sustainable best practices in design and construction, maintenance, and operations.





1. Transparent glass façade
2. Prominent building entrance
3. Attractive building placement and massing
4. Proposed colors and materials
5. Prominent entrances and detailed facades



5.1 Placement

The placement of buildings creates the physical ‘shape’ of a development and is critical to encouraging walking. A lot line establishes the point to which buildings should be placed in relationship to sidewalks and streets.

- Establish a consistent lot line to create a consistent block frontage
- Place buildings as close to the front property lines as possible for the safety and convenience of transit customers
- Place building entrances so that pedestrians will not need to traverse parking lots or undefined landscaped areas
- Allow civic buildings to have the most prominent sites and placements
- Where buildings cannot be located close to the build-to line, use the space with an active use such as outdoor seating, dining, or a pocket park, as appropriate

5.2 Entrances

Easy-to-find building entrances are key elements to encouraging a walkable environment.

- Position main entrances facing the street
- Make entrances the most important architectural feature of the building
- Allow civic buildings to have the most prominent entrances

5.3 Facades

The facades or ‘faces’ of buildings help create an attractive walking environment that is also perceived as safe.

- Incorporate windows at grade level and at all other levels of the building
- Favor a traditional tri-partite organization of architectural elements: base, middle, and top of building, as well as two sides and middle
- Place the main building façade parallel to the street right-of-way
- Position buildings to respect, reinforce, and enhance the entire block-face
- For corner buildings, develop two facades to act as main building fronts

5.4 Height and Proportion

The height and scale of Dundee Crossings should be compatible with that of surrounding development.

- Control heights of buildings along streets to be a minimum of two stories and preferably 3-4 so as to create a defining ‘streetwall’
- Transition heights of buildings from the lowest adjacent to other properties to tallest at the center of the development zones. The height of a building will vary depending on the use of the structure, but should be neither too low or too tall: a two-story minimum appearance with three story preferred, and height not exceeding 3-5 stories.
- All proportions of the building should relate to the human scale
- Building massing should be coordinated with adjacent properties within the development zones

5.5 Colors and Materials

The colors and materials of buildings will vary depending on the use of the building but should be of the highest quality permitted by project budgets. The objective is to have buildings ‘work together’ visually for a coherent appearance rather than compete for attention.

- Favor transparent (not reflective) glass for windows, especially at street level
- Exteriors should favor masonry and non-EIFS masonry-like products and be utilized in an overall building design which is appropriate and consistent with the objectives of the Village and reasonable to the market use of the building
- Favor colors in the neutral ranges of off-whites, soft yellows, golds, tans, reds and browns with compatible accent colors
- Use primary colors only to accent elements such as door and window frames



- 1. Existing Immanuel Lutheran School, East Dundee
- 2. Multi-family housing
- 3. Rowhouse neighborhood
- 4. Distinctive retail architecture
- 5. Combination of modern and traditional elements
- 6. Attractive mix of styles
- 7. High quality industrial building
- 8. Modern office / research facility



5.6 Appearance

The appearance and condition of buildings are an important feature of a 'walkable' environment.

- Reflect the intended building use of the design of structures
- Mix contemporary and traditional architectural styles that relate to each other
- Light up the exterior of buildings and ground floor interiors
- Encourage the use of accent lighting to highlight architectural detail or create visual interest

5.7 Building Types:

Transportation

Depending on the level of activity, transportation facilities should provide amenities such as ADA-accessible shelters or enclosures, bus bays, phones, seating areas, trash receptacles, and bike racks.

Civic

Civic buildings, including transit structures and public-use structures, should appear to be the most important buildings at Dundee Crossings with the best materials and the most prominent placement and views.

Retail

Retail buildings should be as close to the street as possible with 'teaser' short term parking in the front and additional parking to the side and rear of the buildings. Retail storefronts should be the most interactive and lively of ground floor facades in the development zones. Clustered retail, rather than strip retail, is preferred for pedestrian shopper convenience and for better transit service.

Office

Office buildings or office floors of a multistory building should be dignified and professional in appearance, with well-articulated elevations.

Commercial and Light Industry

Commercial and light industrial businesses should have their main door and front office space along the street with warehouse, production and / or distribution facilities at the side and rear.

Residential

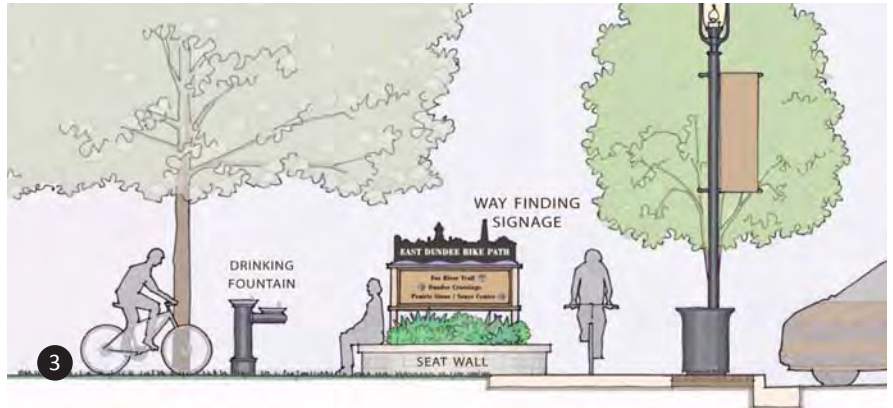
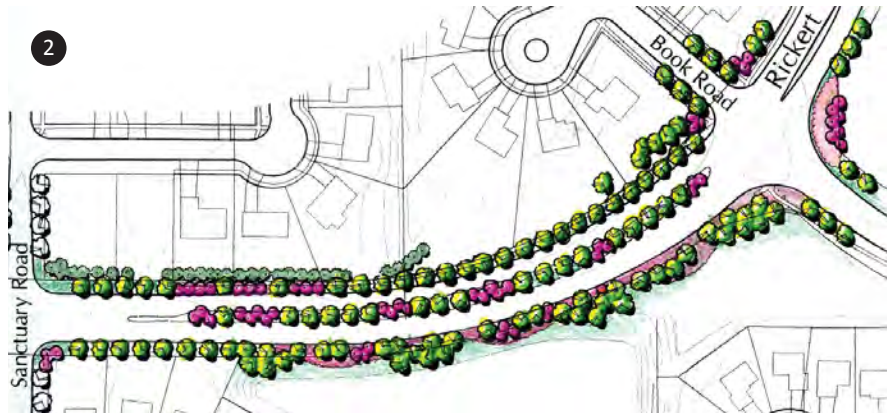
Residential buildings should offer the most detail in the architecture with balconies, terraces, or patios for residents, and prominent front doors. Private areas should be out of view from the street at the sides, rear, or upper stories of a structure.

Mixed Use

Mixed-use buildings are typical building prototypes in transit-oriented development. Buildings can include a variation of uses including retail and commercial uses on the ground floor, office or live / work on the second, and residential above. These buildings play an important placemaking role because of their height (typically 3-5 stories) at intermodal transfer points.

Parking

Parking garages and structures and their entrances should be at the sides or rear of buildings, not a prominent feature along streets. Windows or openings in garage doors and walls are highly recommended to avoid 'blank' facades.



1. Identifier
2. Parkway landscape as wayfinding tool
3. Streetscape and wayfinding elements (From Route 72 Corridor Plan)
4. Gateway feature (From Route 72 Corridor Plan)
5. Pole-mounted banners or graphic elements
6. Suite of wayfinding elements



6. WAYFINDING

Key Principles

The key principles for wayfinding in a transit-oriented development are:

Direction

Provide visual and audible clues for the direction of travel to transit-supportive destinations at distant points.

Reassurance

Provide visual and audible clues for the direction of travel to transit-supportive destinations at nearby points along the way.

Identification

Provide visual and audible clues for the direction of travel to transit-supportive destinations at the point of arrival.





- 1. View corridor looking southeast (from Route 72 Corridor Plan)
- 2. Community identifier
- 3. Existing East Dundee gateway element
- 4. Ground-mounted, architectural signage



6.1 Gateways

Gateways made up of signage, graphics, landscape and / or lighting and positioned at key corners or intersections identify a district such as the Dundee Crossings transit center and reinforce the sense of attractiveness and walkability.

- Locate gateways to the north, south, east and west of Dundee Crossings and at the intersection of Routes 25 and 72
- Incorporate kiosks with maps at these gateways to provide direction to area destinations

6.2 Lines of Sight and View Corridors

Clear lines of sight and well-planned / well-preserved view corridors into and out of developments are key components to a transit customer's sense of safety.

- Provide unobstructed lines of site for both pedestrians and vehicles at transit stops, at site and building entrances, and between parking areas and sidewalks
- Terminate view corridors with distinct architectural or streetscape elements

6.3 Landmarks

Landmarks such as gateways, special-use buildings, and transit shelters are used by customers to recognize their location both day and night.

- Prominently locate building entrances and special architectural features to act as landmarks
- Place signage at entrances to key destinations to not compete with the buildings as landmarks

6.4 Transit Vehicles

The transit vehicles themselves are integral to customer wayfinding.

- Graphically identify transit services on vehicles
- Provide standing or parking areas in full view of sidewalks and adjacent buildings
- Provide maps as well as audible messages onboard vehicles

6.5 Transit Stops

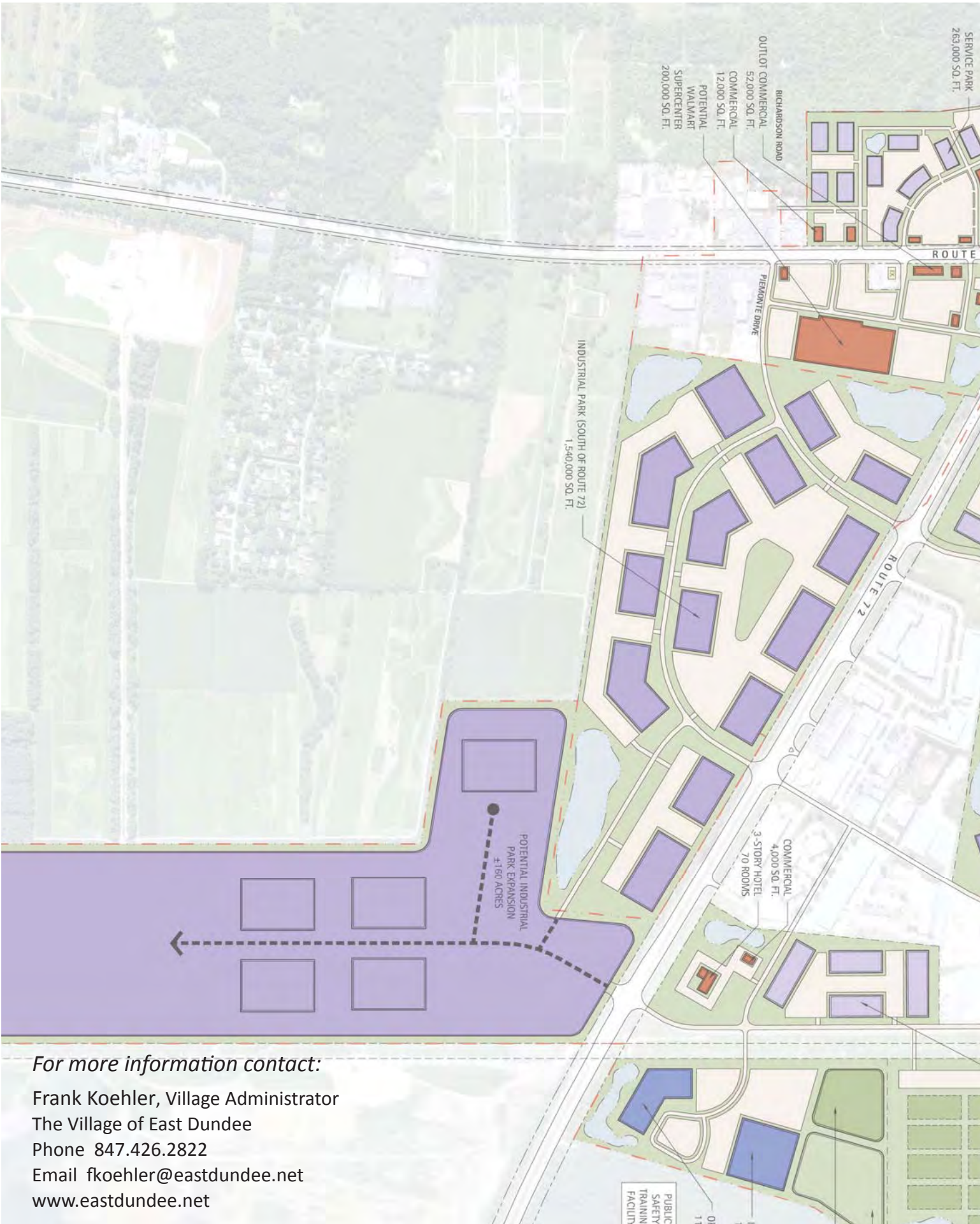
Visible transit stops for fixed routes can be an important aspect of transit customer wayfinding.

- Provide simple signage identifying the transit service and route legible from adjacent sidewalks and driving lanes
- Also provide information containing schedules and routes, maps, neighborhood / community destinations, and activities
- Provide well-designed seating, weather protection, and landscaping to help identify the stop
- Provide 'real-time' transit service messaging at transfer hubs

6.6 Signage and Graphics

Signage and graphics are a supporting or reassuring component of a wayfinding system.

- Provide distinctive and easy-to-remember graphics as a great convenience for customers
- Mark each bus stop with a pedestrian-scaled sign indicating the transit operator and the routes that serve or connect to the stop
- Consolidate signage for retail or commercial centers onto one ground-mounted sign, containing the logos or names of businesses, and placed for easy viewing by pedestrians, bicyclists, and motorists
- Place billboards and free-standing signs to not obstruct transit stops, buildings, view corridors, or streetscapes
- Create a common theme for Dundee Crossings with consistent messaging, theme, colors, materials, fonts, and logos
- Encourage the use of low monument signs
- Minimize the use of signs in general and relate signage to building architecture, colors, and materials
- Require property owners to utilize prescribed signage and graphics guidelines on sites and on buildings



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Date: August 16, 2010 (revised 10/12/10)
To: East Dundee/Dundee Crossings Steering Committee
From: *S. B. Friedman & Company*
Subject: Task 7 Implementation Strategies Memorandum

Introduction

The purpose of this task is to provide an explicit framework that will assist the Village in realizing the development goals captured in the Dundee Crossings Preferred Concept Plan and Design Guidelines. The Dundee Crossings implementation strategy identifies recommended action steps, including public and private sector responsibilities and potential funding sources. Some action steps refer to the development of specific sub areas, while others refer to broader area-wide efforts. These actions are discussed below and summarized in the attached Implementation Matrix (Appendix A) synthesizing the ideas, opportunities, and priorities that have been developed during the planning process.

The Dundee Crossings implementation strategy includes the following four components:

- 1. Area-Wide Framework:** Recommended changes to policies and regulations shaping area-wide redevelopment at Dundee Crossings;
- 2. Sub Area-Specific Development Facilitation:** Key initiatives to guide the redevelopment of specific sub areas;
- 3. Capital Improvements:** A series of public improvements, including both streetscaping, basic public infrastructure, and additional private investments triggered by redevelopment activity; and
- 4. Timing/Priority of Action Steps:** A summary of the general time frame, priorities, and sequencing of recommended action steps for implementing the Dundee Crossings Preferred Concept Plan and Design Guidelines.

Each of these components is discussed in further detail on the following pages.

Area-Wide Framework

This section describes the development regulations, public policies, and transit services that are integral to Dundee Crossings on an area-wide basis.

ZONING ADJUSTMENTS

Current zoning regulations governing new development in the Study Area are somewhat mismatched with the development typologies that are shown in the Preferred Concept Plan. The Village should take steps to review and adjust zoning for the Study Area, either as a sub area-specific effort or as part of a broader Village-wide initiative, to allow the build-out of the Preferred Concept Plan.

Some portions of the Study Area are currently zoned for uses that disagree with those shown in the Preferred Concept Plan. These discrepancies should be reviewed, and the revised zoning classifications should preclude incompatible uses, while allowing some degree of flexibility for projects to vary from the specific development program in response to market parameters.

As part of this effort, the Village should consider the pros and cons of employing “form-based code” techniques. These codes serve the same regulatory function as standard zoning and design guidelines, but they take a different approach by specifying the desired form of buildings, rather than solely emphasizing land use and bulk/density regulations such as floor-area ratio (FAR) and maximum dwelling units per acre. Specific regulatory provisions should reflect the following key principals:

- **Relationship to Preferred Concept Plan and Design Guidelines.** The Preferred Concept Plan could be considered a preliminary “Illustrative Plan” for the form-based regulatory code. As such, it establishes the desired vision for Dundee Crossings and reflects a development program and building orientations that would be allowable under the Regulating Plan of the form-based code. The Dundee Crossings Design Guidelines could provide direction for other code elements, including Public Space Standards, Building Form Standards, Landscaping Standards, Signage Standards, and Environmental Standards.
- **Applicability/Relationship to Existing Zoning.** The form-based code should supersede the existing zoning classifications that govern the Study Area, but without substantially impairing existing development rights allowable under current zoning.
- **Shared Parking and Stormwater Management.** To facilitate consolidation of curb cuts and shared parking facilities, the form-based code should include a provision mandating connections between commercial parking lots on adjacent sites. The code should also include provisions for consolidated sub area stormwater facilities to relieve the need to accommodate all stormwater on-site.

DEVELOPMENT ASSISTANCE PROGRAMS AND POLICIES

The Village will need to take an active leadership role in implementing the redevelopment projects contemplated in the Preferred Concept Plan for key sub-areas. While the Village has no current plans to acquire properties, active steps undertaken in partnership with a private developer(s) and others may be required on strategically significant parcels.

As the current economic conditions begin to recover, the Village of East Dundee should maintain active communication with property owners, target businesses and the development community to facilitate redevelopment activities in response to market capacity. The Village has identified several target industries, sponsors, and businesses for the Dundee Crossings area. It is important for the Village to continue marketing the area and begin facilitating partnerships for land assembly, site prep, and infrastructure to ready these sub areas for vertical building construction. The Village should consider facilitating partnerships between current land owners and target businesses, between the Village and the private sector, and between the Village and other public units of government such as IDOT and possible institutional users for the Cook County parcel.

Potential sources for implementing the Dundee Crossings Preferred Concept Plan and Design Guidelines include both public and private sector funding sources. The Village currently has three Tax Increment Financing (TIF) Districts and one Business Development District (BDD) in place that encompass the Dundee Crossings area. The Village should determine the financial capacity of these districts and prioritize the expenditure of these revenues. In addition, other public sector funding sources and traditional private sector funding sources should be used for implementation.

The following text summarizes key public sources available for implementation.

Village Funds

Funding for capital improvements and public facilities can be allocated as part of the Village annual budgeting process and funded out of existing reserves for capital projects.

Tax Increment Financing (TIF)

Under TIF, increases in property taxes from redevelopment and/or natural growth in Equalized Assessed Valuation within a defined geographic area are allocated to the Village for a period of no more than 23 years and are used for various eligible public and private redevelopment project costs. The Dundee Crossings TIF, Christina Drive TIF, and Prairie Lake TIF may provide funds to support a variety of redevelopment efforts. There are three general categories of eligible activities that may be supported by tax increment funds under the provisions of the Act:

Public Improvements

- Provision or rehabilitation of public improvements and facilities
- Streets
- Streetscaping

- Other infrastructure
- Parking

Development/Redevelopment/Rehabilitation Activities

- Assembly and acquisition of sites, demolition, and site preparation including engineered barriers addressing ground level (or below) contamination
- Rehabilitation, reconstruction or repair or remodeling of existing public or private buildings or fixtures
- Relocation costs to the extent that a municipality determines that relocation costs shall be paid or is required to make payment of relocation costs by Federal or State law
- Environmental remediation
- Interest costs incurred related to the construction, renovation or rehabilitation of a redevelopment project (generally up to 30 percent of interest, but up to 75 percent of interest costs incurred for rehabilitated or new housing units for low- and very low-income households)
- Costs of the construction of low income housing (up to 50 percent)

Administrative Support and Financing

- Job training, “Welfare to Work,” and related educational programs
- Costs of studies, surveys, development of plans and specifications, implementation and administration of the Redevelopment Plan
- Financing costs related to the issuance of obligations
- Payments in lieu of taxes

TIF is one of the few funding mechanisms available to local governments and has proven to be very effective in spurring redevelopment and public improvements within communities.

TIF is particularly well suited to financing of infrastructure and assisting economically challenged redevelopment projects with “extraordinary costs” such as land assembly, site preparation, or environmental cleanup. However, the Village should create a defined application process for projects requesting TIF assistance to ensure that sufficient data is provided to clearly justify the need for assistance. The Village should also consider developing and adopting specific policies regarding the proposed use of TIF funds to assist private development projects, create consistency and predictability, and limit the potential for land speculation due to the availability of TIF.

Business Development District (BDD)

Through a BDD, the Village can exercise similar powers to those provided by the TIF Act, including the ability to solicit and approve proposals for development, use eminent domain, acquire and dispose of property, and issue bonds or otherwise incur debt to carry out the Plan. The program also allows a municipality to impose a retail sales tax of up to one percent to pay for project costs. The Dundee Business Development District primarily encompasses parcels along the Route 72 and Route 25 corridors in the Dundee Crossings area and carries an

additional 0.5 percent Business District Tax on the sale of all general merchandise. These proceeds can be used to leverage other sources including federal funds for roadway improvements such as the Illinois Transportation Enhancement Program (ITEP) or TIF revenues. BDD revenues may provide matching dollars for grants or other programs for roadway improvements, supplement TIF revenues where they are not sufficient to cover the project costs, or reduce reliance on TIF revenues and thereby shorten the TIF financing period.

Funds from Other Public Entities

Certain improvements directly linked to Route 72 and Route 25 may be eligible for inclusion within IDOT's overall scope and funding plan. The Village should explore these opportunities as it approaches IDOT about the planned improvements along these corridors. The Village may also be able to secure grant funding from other state, federal, and/or regional sources, including any remaining funds from the TIGER program or other Stimulus funds for roadway improvements.

TRANSIT SERVICES AND AMENITIES

Transit services are a key component of the Dundee Crossings Preferred Concept Plan and will provide access to the area for employment, retail, and residential uses. As development activities occur, the Village and Pace will need to monitor demand generated by the increased density and diversity of these uses. The Village should take an active role in facilitating route and stop changes to ensure the provision of adequate service levels, and in coordinating the design of streetscaping, signage, and way-finding that is compatible with Pace operating requirements.

Sub Area-Specific Development Facilitation

The Dundee Crossings Preferred Concept Plan illustrates the recommended development character, programs, and massing for seven sub areas. These sub areas are delineated in the attached map (Appendix B) following the Implementation Matrix. This section of this report highlights each of these sub areas and discusses the key implementation steps and initial leads for redevelopment activity.

Sub Areas 1 and 3: Business Park Expansion. Since these sub areas are privately held, the Village's role in fostering redevelopment should be that of a facilitator, rather than an initiator. The Village should ensure that the zoning and development regulations affecting the site are adjusted to be consistent with the Preferred Plan. The Village should also maintain active communication with current property owners as their development plans progress, including assistance with targeting light industrial, R&D, retail service, and showroom businesses. Location of commercial activities should take advantage of the frontage along Route 72 and could support institutional uses occurring at sub area 2.

Sub Area 2: Cook County Parcel. Due to its location on the Cook County side of the Cook County/ Kane County border, (and the resulting real estate and sales tax disincentives to operate commercial property on the Cook County side of the border), this site is more likely to be

competitive as an institutional use rather than a commercial use. Since a portion of this site is also under current mining activity, an institutional use, including open space, is likely to be the most suitable. Additionally, public infrastructure has not been extended onsite and the environmental status of the site is currently unknown. The relative complexity of this redevelopment opportunity suggests that it may be a later-stage project, but the Village should be responsive to interest from the public or private sectors that is consistent with the economic development goals of East Dundee. Since this sub area is also privately held, the Village should focus on facilitating communications and potential partnerships between the current land owner and interested parties.

Sub Area 4: Parcels South of Route 72. While this sub area is currently outside of the Village Boundary, these parcels are located along one of the gateway corridors into Dundee Crossings and are adjacent to other Village planning sub areas. The Village of East Dundee will need to coordinate planning for this sub area with the Village of Hoffman Estates to ensure that future development is compatible with the Dundee Crossings Preferred Concept Plan and Design Guidelines.

Sub Area 5: Wal-Mart Site. This sub area is also privately held and will be influenced by Wal-Mart's plans to expand at the current location or relocate to another site. The Village should continue evaluating big-box and mid-box retail formats consistent with the Dundee Crossings Preferred Concept Plan, while also maintaining active communication with Wal-Mart and the development community. As more intensive uses result from redevelopment activities, the Village should also maintain active communication with Pace to ensure that adequate levels of transit services are provided. The location and proposed redevelopment of this sub area is also optimal for continued use as a transit destination and the development of a gateway into Dundee Crossings.

Sub Areas 6 and 7: Santa's Village and River Valley Shopping Center. Both of these sub areas are privately held by a diverse number of property owners. The Village should closely monitor market conditions and maintain active communication with land owners, potential sponsors, and the development community to determine the best time to move forward. The redevelopment proposed at these sites is also significantly different than existing conditions and may require the Village to facilitate public-private and private-private partnerships for land assembly, site-prep and infrastructure improvements. The location and the proposed redevelopment plan for this sub area are also optimal for continued access via transit and could serve as a gateway into Dundee Crossings. Currently, both a Tax Increment Financing (TIF) district and Business Development District (BDD) are in place at this sub area and could generate significant revenues to off-set some of the extraordinary costs involved with redeveloping these area and creating a gateway monument. However, the Village should prioritize expenditures within this sub area and throughout the remaining geographies covered by the TIF and BDD, as well as communicate clear guidelines for developers approaching the Village for assistance.

The policy and regulatory actions, and public improvements discussed earlier, are area-wide in scope and may spur private development efforts on sites other than those specifically discussed above. It is likely that specific development proposals will differ from the development programs

and site configurations shown in the Preferred Concept Plan. Some proposals may represent partial or reduced-scale implementation of larger sub area concepts. The Village should remain open to these proposals, and review them for consistency with the general goals and principles of the Preferred Concept Plan, as well as their strategic implications on other development priorities.

Capital Improvements

Strategic public investments in capital improvements are essential to facilitate a high-quality environment at Dundee Crossings and provide a framework for future private investment and development. Capital improvements can be costly, and it is important that the Village allocate its own funds judiciously, and prioritize the use of public funding mechanisms (i.e., TIF and BDD) throughout the Dundee Crossings area to maximize the impact of its investments. Many of the sub areas already contain basic water, sewer, and roadway infrastructure supportive of current development levels. Some opportunities may exist for the Village to share the costs of additional improvements with the private sector, and with other governmental entities. The attached Implementation Matrix (Appendix A) notes these opportunities.

The Village's engineering consultant, Gerald L. Heinz & Associates, Inc., has prepared order-of-magnitude hard cost estimates for certain key public improvements to support the level of development illustrated in the Dundee Crossings Preferred Concept Plan. These estimates are provided in Appendix C of this report and include typical development costs such as roadway, sanitary sewer, water main, storm sewer, stormwater detention, roadway lighting, landscaping, and engineering reflecting the level of development anticipated by the Preferred Concept Plan. It should be noted that these estimates do not reflect land acquisition, design, construction management, and/or contingency costs. They are presented for conceptual planning purposes only, and do not represent an engineer's opinion of probable cost.

Capital improvements recommended for the Dundee Crossings area that include infrastructure along existing public right-of-ways should be incorporated into the Village's existing program of capital improvements and coordinated with IDOT and Pace. These improvements include streetscape, signage, and way-finding along Route 72 and Route 25. The intersection of Routes 72 and 25 is a key gateway into East Dundee and a priority location for directing available funding sources to implement these improvements. The Illinois Department of Transportation (IDOT) controls these two major roads in the study area, and the Village should continue initiating improvements along these corridors while working with IDOT. The Village should also coordinate these efforts with Pace to ensure that improvements do not interfere with the provision of transit services along these corridors. The primary goal of these improvements should be to increase pedestrian access, support transit services, and develop gateway features consistent with the Dundee Crossings Preferred Concept Plan and Design Guidelines. Specific action steps and design considerations are outlined in the attached Implementation Matrix.

Many of the sub areas contain existing onsite water mains, sewer lines, and primary access roadways. Sub areas 2, 3, and 4 may require connections to adjacent infrastructure that has not been extended through these sites. The Village should delineate public and private right-of-way

improvements within sub areas and prioritize the expenditure of available public funding sources for these improvements.

Timing and Priority of Action Steps

Redevelopment of the study area will occur over a period of several years given the size of the area, diversity of ownership in several of the sub areas, and current market conditions. The timing of redevelopment is likely to occur over three general phases, as described below. Relative timing of specific redevelopment projects within sub areas could change if developer interest emerges or ownership patterns change.

Immediate/Short-Term projects refer to planning and regulatory actions, as well as projects that appear to have potential for redevelopment in the near future. Planning and regulatory actions should occur immediately during the remainder of 2010 and into 2011 to set the framework for future redevelopment activities. Implementation of short-term projects should be underway within the next two to three years, although project completion could take longer. In general, these areas are characterized by vacant land and/or vacant and underutilized buildings, favorable ownership patterns, and developer interest.

Mid-Term projects include sites that have potential for development in the future, but where site acquisition and assembly is more difficult due to multiple property owners or lack of immediate development interest. Implementation of these projects should be underway within the next three to five years, although project completion could take longer.

Long-Term projects include sites where acquisition and assembly involves multiple ownership, small lot sizes, and/or other market conditions or characteristics (e.g. limited credit markets and slow absorption rates) that suggest near-term and mid-term development would be unlikely. Implementation of these projects could begin with the next five years, with project completion occurring later.

The attached Implementation Matrix summarizes the key action steps, initial leads, and timing for redevelopment activities at Dundee Crossings. Further details regarding design and other considerations are also included in the matrix.

APPENDIX A: IMPLEMENTATION MATRIX

DUNDEE CROSSINGS IMPLEMENTATION MATRIX

VILLAGE OF EAST DUNDEE

Time Frame Key: Immediate = 2010 / 2011; Short = 2-3 years; Mid = 3-5 years; Long = 5+ years

Area-Wide Framework	Summary	Priority	Time Frame	Initial Lead	Implementation Tools / Resources	Key Steps	Notes and Design Issues
Zoning Adjustments	Revise current zoning to reflect Dundee Crossings Preferred Concept Plan and Design Guidelines	High	Immediate	Village	- Village staff - Village funds	- Maintain active communication with property owners, businesses, and the development community to gather and respond to feedback - Review discrepancies between existing zoning regulations, the Preferred Concept Plan, and Design Guidelines - Revise zoning map, and revise or add relevant zoning classifications as needed - Consider sub area-specific overlay districts with form-based code elements - Review and adopt through Village Planning Commission and Village Board approval processes	Recommendations should: - Facilitate pedestrian access through signage, way-finding, and streetscaping - Identify opportunities to develop shared parking and stormwater management facilities - Focus more intensive development (building density and diversity of uses) close to transit stops and transit 'hubs' - Specify guidelines for gateway development at the intersections Route 72 and Route 25
Development Assistance Programs and Policies	Promote strategic partnerships and policies to encourage private sub area development consistent with the Dundee Crossings Preferred Concept Plan and Design Guidelines	High	Immediate	Village	- Village staff - Village funds	- Establish and communicate guidelines for projects approaching the Village for TIF and BDD assistance - Determine potential revenue generation from TIF and BD districts and prioritize expenditures against current obligations - Monitor market conditions and maintain active communication with land owners and development community - Facilitate public-private and private-private partnerships with land owners and target businesses for land assembly, site-prep, and infrastructure improvements	- Promote competitive Kane County locational advantages
Transit Services & Amenities	Coordinate the provision of adequate service levels and amenities for existing demand and increased demand generated by redevelopment activities.	High	Short- to Mid-Term	Village and Pace	- Village and Pace staff - Village and Pace funds - Tax Increment Financing (TIF) - Business Development District (BDD) - Other public-sector funding sources	- Promote pedestrian access and use of public transit services - Facilitate process for bus stop and bus route changes with the public - Coordinate the design, approval, and implementation of way-finding, signage, and streetscaping amenities along Pace routes - Monitor increased demand generated by redevelopment activity from employment, commercial, and residential uses - Maintain active communication to provide appropriate service levels and amenities for transit users	- Consider use of 'real-time' transit service messaging - Place free-standing signs to not obstruct transit stops, buildings, view corridors, or streetscapes - Separate pedestrian, bicycle, and vehicular circulation systems (i.e., pavement markings, landscaping, bollards, etc.) - Provide adequate lighting and information on route schedules, transfers, and multimodal information at bus stops
Site-Specific Development Facilitation	Summary	Priority	Time Frame	Initial Lead	Implementation Tools / Resources	Key Steps	Notes and Design Issues
Sub Areas 1 and 3 (Business Park Expansion)	Assist private sector activity, ensure that resulting redevelopment meets district goals, and plan for pedestrian and streetscape improvements.	Medium	Short- to Mid-Term	Private Sector	- Private sector funding sources - TIF - BDD	- Work with current property owners as their development plans progress - Assist with identifying and targeting light industrial, R&D, retail service, and showroom businesses, as well as commercial uses supportive to sub area 2 - Facilitate public-private and private-private partnerships with land owners and target businesses	- Plan and design streetscape and pedestrian amenities that can be added as redevelopment progresses - Focus commercial activities along Route 72 frontage - Revise zoning map to reflect land uses specified by the Dundee Crossings Preferred Concept Plan
Sub Area 2 (Cook County Parcel)	Continue evaluating options for acquisition and land use.	Medium	Mid- to Long-Term	Village	- Village funds - BDD - Other public funding sources - Private sector funding sources	- Facilitate communication between land owners and potential institutional users - Evaluate options for acquisition and potential remediation	- Revise zoning map to reflect preferred land uses - Obtain / Conduct environmental due diligence prior to acquisition
Sub Area 4 (South of Route 72)	Work with neighboring jurisdictions to assist private sector activity and ensure that resulting redevelopment is compatible with district goals.	Medium	Mid- to Long-Term	Private Sector	- Private sector funding sources	- Coordinate planning efforts with neighboring jurisdictions, and maintain active communication with land owners, businesses and the development community.	- May involve partnerships with land owners and neighboring jurisdictions - Commercial activities should take advantage of Route 72 frontage - Promote competitive Kane County locational benefits
Sub Area 5 (Wal-Mart)	Assist private sector activity, ensure that resulting redevelopment meets district goals, and plan for pedestrian and streetscape improvements.	High	Short-Term	Village and Private Sector	- Private sector funds - TIF - BDD	- Maintain active communication with land owners and businesses - Continue evaluating big-box and mid-box commercial redevelopment opportunities - Monitor market conditions to determine the best time to move forward with property consolidation and redevelopment - Assist with business expansion and recruitment activities - Facilitate private sector efforts to consolidate commercial properties - Maintain active communication with Pace to ensure the provision of adequate service levels and amenities as redevelopment progresses	- Plan and design streetscape and pedestrian amenities that can be added as redevelopment progresses - Plan for transit connectivity and gateway development features at this location
Sub Areas 6 and 7 (Santa's Village & River Valley Shopping Center)	Assist private sector activity, ensure that resulting redevelopment meets district goals, and plan for pedestrian and streetscape improvements.	High	Short- to Mid-Term	Village and Private Sector	- Private sector funding sources - TIF - BDD	- Maintain active communication with land owners, potential sponsors, and the development community - Monitor market conditions to determine the best time to move forward with property consolidation and redevelopment - Facilitate public-private and private-private partnerships for land assembly, site-prep and infrastructure improvements	- Plan and design streetscape and pedestrian amenities that can be added as redevelopment progresses - Plan for transit connectivity and gateway development features at this location
Capital Improvements	Summary	Priority	Time Frame	Initial Lead	Implementation Tools / Resources	Key Steps	Notes and Design Issues
Streetscape, Signage, and Way-finding Improvements	Plan for design and implementation of signage, lighting, and pedestrian amenities throughout the district, for both public and private improvements.	High	Planning: Immediate Implementation: Short- to Mid-Term	Village	- Village capital budget - TIF - BDD - IDOT	- Promote Dundee Crossing Design Guidelines - Delineate public and private improvements - Continue to initiate improvements along the Route 72 and Route 25 corridors - Coordinate design and approval of signage, way-finding, pedestrian amenities and landscaping at transit stops and along transit routes with Pace - Coordinate sub area-specific improvements with private sector as redevelopment activities progress - Obtain detailed design plans, construction plans, and cost estimates for municipal improvements - Incorporate municipal costs into capital improvement, TIF, and BDD budgets - Explore other public and private funding sources for implementation	- Develop a gateway at the intersection of Route 72 and Route 25 through the use of building mass, orientation, landscaping, and streetscaping - Use landmarks, view corridors, signage and audible messages to direct users through the district - Plan for stormwater management on a district-wide basis, and incorporate natural elements (i.e., large-scale bioswales and rain gardens), permeable paving materials, and subsurface storage into the management plan - Require landscaping that is compatible with environmental and urban conditions, and does not interfere with safety, visibility, circulation, or above-ground utilities at maturity
Capital Investments Triggered by Redevelopment	Assist with the planning and implementation of roadway and infrastructure improvements as redevelopment activity progresses.	High	Mid- to Long Term	Village and Private Sector	- Village capital budget - TIF - Private sector funding sources - IDOT	- Coordinate sub area-specific improvements with private sector as redevelopment activities progress	- Consider right-in/right-out access points to streamline traffic flow and improve access to new development - Extend landscaped medians to intersections and create pedestrian crossing islands - Provide well-marked pedestrian crossings at all legs of the intersection, controlled by accessible pedestrian signals with countdown and audible features - May include Village installation of primary access routes within and between sub areas 2, 3, and 4 - May include Village extension of water and sewer lines within and between sub areas 2, 3, and 4

APPENDIX B: SUB AREA MAP



Site Data

Use	Area/Units
Commercial	411,000 Sq. Ft.
Hotel	70 Rooms
Office	150,000 Sq. Ft.
Residential	
Rowhome	34 Units
Cottage	64 Units
Assisted Living	106 Units
Institutional	277,000 Sq. Ft.
Service Park	1,633,000 Sq. Ft.
Industrial Park	4,995,000 Sq. Ft.
Total	7,466,000 Sq. Ft. 204 Units

Village of East Dundee, Illinois

Dundee Crossing - Transit Center Study

Overall Development Concept

LAKOTA

S. B. Friedman & Company

RWA

DLK

HR

ONE COMPANY
Many Solutions

April 5, 2010



0' 400' 800'

APPENDIX C: ORDER-OF-MAGNITUDE COSTS BY SUB AREA

The following cost estimates were prepared by the Village's Engineering Consultant to represent conceptual order-of-magnitude costs for public infrastructure improvements in each sub area. These estimates include typical costs for roadway, sanitary sewer, water main, storm sewer, stormwater detention, roadway lighting, landscaping, and engineering reflecting the level of development anticipated by the Preferred Concept Plan.

Dundee Crossings Sub Area	Total Cost Estimate
Sub Area 1: Business Park Expansion	\$7,500,000
Sub Area 2: Cook County Parcel	\$2,800,000
Sub Area 3: Business Park Expansion	Minimal Additional Costs
Sub Area 4: Parcels South of Route 72	\$5,800,000
Sub Area 5: Wal-Mart Site	\$1,300,000
Sub Area 6: Santa's Village	\$4,800,000
Sub Area 7: River Valley Shopping Center	\$4,100,000