

APPROVAL	REQUEST FOR COUNCIL ACTION	MEETING DATE June 10, 2015
REPORTS AND RECOMMENDATIONS	Future Retail Development in the area of South 76th Street and West Rawson Avenue/West Loomis Road	ITEM NUMBER

Attached is a draft concept plan and Planning & Engineering Analysis prepared by GRAEF USA Inc. for the future retail development area. Pat Kressin of GRAEF-USA Inc. will report upon the development planning status. Michael C. Harrigan of Ehlers & Associates, Inc. will also be present to provide information for the development.

COUNCIL ACTION REQUESTED

As the Common Council deems appropriate.



MEMORANDUM

Date: August 1, 2014
To: Mayor Olson
Aldermen
From: Mark W. Lubberda
Director of Administration
RE: Assessed Value Per Acre and Property Tax Considerations

In relation to the adopted 70/30 Goal and economic development alternatives there has been reference to the property tax value of various property uses. The following data is pulled from the City and State's assessment records to provide an analysis of property values and, therefore, property tax impacts based upon property use type.

Assessed Value Per Acre by Type of Use

Table with 4 columns: Property Type, Description by year, Assessed Value Per Acre, and Number of Parcels. Rows include Business and Commercial, Residential/Non Condo, Apartments, Manufacturing, and Truck Terminals.

Notes:

- All classifications exclude vacant parcels.
Residential excludes Condominiums. (2,615 parcels)
Recent Manufacturing examples include Excell Tools, Proteus, Transpak, and Meltric.
The State only tracks and assesses 52 parcels in the City of Franklin as "Manufacturing."
Business and Commercial excludes older commercially zoned properties with primarily residential use.
Business and Commercial excludes the other listed sub-categories of business, such as Truck Terminals.
Warehouse includes "Warehouse", "Mini Warehouse," and "Office Warehouse"
The "All" groupings include the properties from the 1979 and Before, 1980-1999, and 2000+ categories.

I broke some categories up by construction date to more accurately represent the results you would get with new construction. I also provided a Business and Commercial calculation excluding Northwestern Mutual so as not to have such a unique development slant the results.

Discussion: Assessed value per acre only addresses the potential property tax revenue generation. Each of the land use types may have other potential benefits or costs that merit consideration in policy decisions. Following are two such examples of impact based upon the land use type.

A. Benefit Example: The 52 Manufacturing properties the State assesses have a lower assessed value per acre than Business and Commercial properties or newer Residential properties. The reason for the lower assessed value is easily explained. Mark Link, City Assessor, estimates that 75% of the space of the typical manufacturing facility is warehouse-type space to store the inputs and outputs of the manufacturing process. As such, the State assesses it lower due to the open design and lower “finish quality” of the construction. Similarly, unless it is high-tech manufacturing, the 25% manufacturing space is likely assessed at the lower, warehousing-type level as well, because it is often open, low-finish construction in which they have inserted their manufacturing lines or equipment. So why does the State seek Manufacturing enterprises if they have a lower value per acre? The value of manufacturing is not only the property value, but the jobs, the personal income generated from the jobs, and the secondary business construction serving the job holders and income earners of each manufacturing facility.

The U.S. Department of Commerce Economics and Statistics Administration indicates that manufacturing jobs have higher earnings than non-manufacturing jobs and that “manufacturing firms fund most domestic corporate research and development, and the resulting innovations and productivity growth improve our standard of living.” (The complete 10-page study is available upon request.) Similarly, labor market data shows that the manufacturing industry sector exceeds all industry and business sectors other than Utilities in sales or revenue generated per worker, which leads to the ripple effects from the direct and indirect spending of that revenue. An example of the ripple effect is reported by the Economic Policy Institute’s conclusion that “Each 100 jobs in manufacturing supports 2.91 jobs elsewhere in the economy, compared to 1.54 jobs in business services and .88 jobs in retail trade.” Overall, the desirability of the added benefits of manufacturing is exemplified by the fact that the State exempts Manufacturing’s personal property (machines) from property taxation, whereas much personal property in other business sectors is taxed.

B. Cost Example: The high value per acre for Residential properties, for example, does not reflect the cost for schooling the children that can result from residential development.

The Finance Director reports the following information from the CAFR’s of the school districts and from the WI Department of Public Instruction (Totals have been added to his data).

2012-2013	Franklin	Oak Creek-Franklin	Whitnall	Total
Enrollment	4,355	6,382	2,111	12,848
Taxes	31,786,137	32,394,059	15,542,825	79,723,021
Gross Expenditures	56,164,011	69,143,236	28,629,569	153,936,816
Net Expenses after Program Revenue	45,933,260	57,592,573	23,773,102	127,298,935
Per Student				
Taxes	7,298	5,075	7,363	6,205
Expenditures	12,896	10,834	13,562	11,981
Net Expenditures	10,547	9,024	11,262	9,908

Additionally, the US Census Bureau's 2010 data indicates school enrollment in Franklin is 6,672 with 9,351 "Family Households." This results in .71 school children per Family Household. The average new residential home built since 2000 sits on .54 acres which results in 1.85 houses per acre. Together, calculating a net schooling cost per acre of new residential properties is straight forward.

Average Net Cost of schooling 1 child		\$9,908
Students Per Family Household	x	0.71
Average Houses Per Acre**	x	1.85
Net Schooling Cost Per Acre of New Residential	=	\$13,014

As shown below, when considering the added cost to school districts, the value per acre of residential development is significantly offset. That net cost helps explain why school districts are such a big share of the total property tax levy. The result is that property taxes from residential properties may be beneficial to a municipality because the value per acre is high, but it could be considered detrimental overall to the property owners because of the significant impact on the school district's property tax rate, as compared to the other land use types. This is because the property tax draw of new students will exceed the property tax revenue from the average new residence (based on the district's current percent of taxes to net expenditures).

PROPERTY TAX REVENUE PER ACRE (BY PROPERTY USE TYPE)			
NET OF SCHOOLING COSTS			
	Business	Manufacturing	Residential
Average Property Value per Acre	684,514	517,107	614,006
Mill Rate*	24.45	24.45	24.45
Annual Property Taxes	\$16,736	\$12,643	\$15,012
Net Schooling Cost Per Acre of New Residential			\$13,014
Net	\$16,736	\$12,643	\$1,998

* Combined School District Rate with Sewer, 2014 Budget p.7

There are many potential ways to evaluate or break out the data used above; if additional perspectives or analysis is desired please do not hesitate to ask. Additionally, I would like to thank Mark Link for pulling together the database of parcel information that enabled the analysis to be performed.

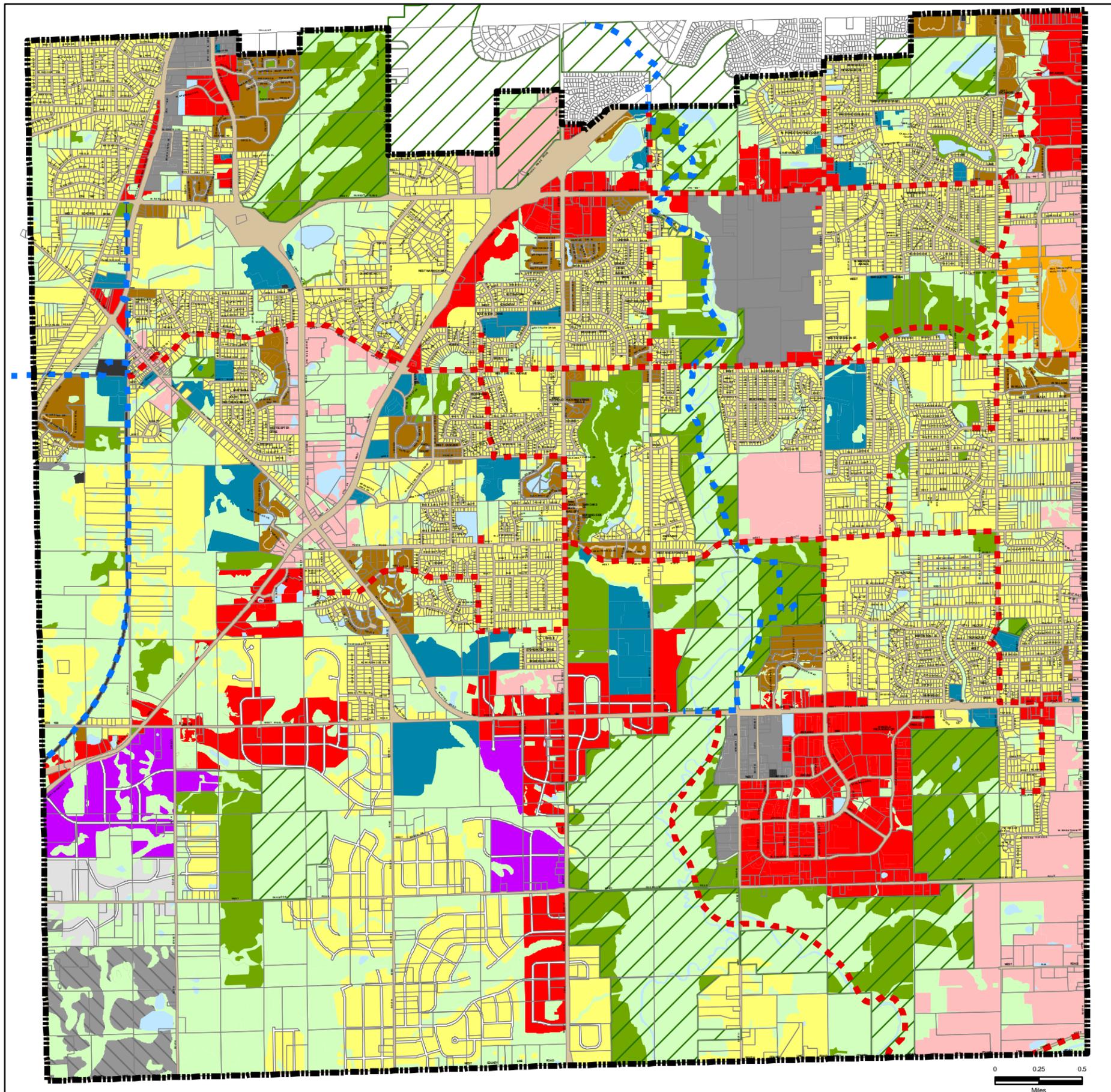
Notes:

1. Not included in the analysis above are the 1,600 condos which would probably have the highest value per acre because their small size can pack in a lot of value. I only have approximate acreage numbers so didn't include them here.
2. Impact on net property taxes. More work would have to be done to proxy the marginal difference in service demand on local government of each of the land use types if a more exact use-by-use comparison is desired. For example, one could consider whether certain property uses cause more demand for police or fire services or equipment. Each of these individual details would likely be less and less impactful the more detailed it became. Overall, with its significant share of total property taxes across all jurisdictions, the cost of schooling is easily the item with the greatest impact.
3. Census data for Family Households was used instead of Total Households (13,642) as a proxy for eliminating some apartment and condos from the Residential construction equation. Using Total Households would reduce the ratio to .49 and result in a Schooling Cost Per Acre of New Residential of \$8,982.
4. Business and Commercial is a pretty broad category and includes the following uses from Assessing's classifications.

USE TYPE			
AUTO DEALER	DAY CARE	HOTEL/LOW RISE	RESTAURANT
AUTO SERVICE	DISCOUNT STORE	MEDICAL OFFICE	RETAIL-MULTI OCCUPANCY
BANK	FAST FOOD	MOVIE THEATER	RETAIL-SINGLE OCCUPANCY
BAR/LOUNGE	FUNERAL HOME	NIGHT CLUB	SERVICE STATION
BOWLING ALLEY	HEALTH SPA	NURSING HOME	STRIP MALL
CONVENIENCE STORE	HOTEL/HIGH RISE	OFFICE BUILDING/LOW RISE	SUPERMARKET
			VETERINARY CLINIC

Future Land Use Map 2025

Map 5.7



Legend

Future Land Use

- Areas of Natural Resource Features
- Business Park
- Commercial
- Communication and Utilities
- Industrial
- Institutional
- Landfill
- Light Manufacturing
- Mixed Use
- Office
- Recreational
- Residential
- Residential - Multi-Family
- Transportation
- Water
- Future Roads (SW Plan)
- Existing Trail
- Proposed Trail
- Milwaukee County Parkway

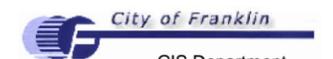
Notes:

The changes on this map reflect hand notes provided by Planning to GIS on 8/26/09. The changes were made to a copy of the 2005 Existing Land Use layer.

The quarry area has been identified as a Potential Development Area. However, it is anticipated that any development / redevelopment of this area will not occur until after cessation of the extraction activities (envisioned to occur after the time-frame of this plan). Such development / redevelopment is to occur in accord with such provisions as set forth in Ordinance No. 97-1456 as may be amended.

Disclaimer:

The information depicted on this map was compiled from a variety of sources, including photogrammetric means. This map is not intended for use as a legal document, and official map documents, including certified survey maps, plats of survey, flood insurance studies, or other similar documents should be consulted when attempting to locate features on a site or property or when precise accuracy is required.



GIS Department
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Franklin, WI 53132
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MEMORANDUM

TO: Nick Fuchs, Senior Planner

FROM: Pat Kressin, PLA, ASLA, LEED AP

DATE: June 5, 2015

SUBJECT: City of Franklin – Area A Planning & Engineering Analysis

We have completed GRAEF's portion of the analysis to determine if a Tax Incremental District (TID) is a viable option for the development of the lands associated with Area A (near S. 76th Street (CTH U) and W. Rawson Avenue (CTH BB)).

We have completed the following work products:

- Site Due Diligence Report for the subject area.
- Phase I Environmental Assessment for fill site.
- Master Plan with associated infrastructure costs and potential future land value.

The Site Due Diligence Report has discovered the following infrastructure or land development issues that are the cause for the lack of development for several of the undeveloped properties within Area A.

- Lack of access to STH 36 – Access to STH 36 currently exists in both directions from S. 76th Street and W. Rawson Avenue. In essence it provides redundant access at two interchanges within a ¼ mile of each other. The access from W. Rawson Avenue to W. Loomis (STH 36) has precluded any potential access from W. Loomis Road south of W. Rawson Avenue to the adjacent properties due to the classification of the road and the recommended access spacing from such access points.
- Buried Methane Pipe – A buried methane pipe runs between Crystal Ridge Drive and the W. Loomis Road access/frontage road.
- Existing Wetlands – Several areas of existing wetlands exist. Most appear to be low quality.
- Fill Site – A portion of the B.3 parcel has been excavated and filled with little documentation.

The Master Plan focused on the redevelopment of the vacant parcels within the proposed TID boundary. Each of the vacant land areas were broken out by property owner or logical development boundary. The land uses for each of the development areas was selected based on likely development and the potential value of each land use was a current average for development type in Franklin.

Master Plan – Alternate A

The initial Master Plan provided for a mix of development types and yielded a total value of \$85,717,700 over 116 acres. We prepared a complete estimate of total construction costs for the land development as shown on the Master Plan for parcels A, B, C, D and F. The

largest and potentially unknown costs are associated with the excavation and removal of the fill site and relocation of the methane pipe. These items should be studied further, as they are an impediment to any development.

Master Plan – Alternate B

This Master Plan assumed the STH ramps could be removed, thus allowing for better access and additional developable land. Master Plan - Alternate B provided for a better mix of development types and yielded \$97,060,400 over 132 acres. We prepared a complete estimate of total construction costs for the land development as shown on the Master Plan for parcels A, B, C and D. The largest and potentially unknown costs in addition to the soil excavation and methane pipe would be for the removal of the ramps. The actual cost and potential acquisition costs of the land should be studied further.

Based on our work to date GRAEF recommends the following the following actions:

- Continue to work with WisDOT to determine if elimination of the south ramps to W. Loomis Road can be removed, thus allowing for additional developable land and better access for the adjacent properties.
- Work with Milwaukee County to determine impact of underground methane pipe adjacent to The Rock and if it can safely be built over or what the relocation costs would be.
- Work with the existing land owners to determine what impact existing wetlands have on future development potential.
- Work with the existing land owner to determine what impact the existing fill site has on future development potential.
- Work as a community, with your financial consultant and with existing land owners and potential developers to determine actual TIF boundary, future values, phasing and which infrastructure items would aid in development and pass the “but for” test. Our initial thoughts would be to focus on the site and infrastructure challenges described above and within lands within Area A, B, C and D.

PJK:pjk

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Enclosures

cc: Mayor Olson – City of Franklin
Jesse Wesolowski – City of Franklin
Mike Paulos - GRAEF
File

CITY OF FRANKLIN

Area A - Due Diligence Report
FINAL

June 5, 2015



ACKNOWLEDGMENTS

Prepared for:

Mr. Ron Romeis, Assistant City Engineer

The City of Franklin

9229 West Loomis Road

Franklin, WI. 53132

Site Location:

Approximately 563 acres situated around the intersection of Rawson Avenue and 76th Street in the City of Franklin, Milwaukee County, Wisconsin

Prepared By:

Pat Kressin, PLA, LEED AP

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Stephanie Hacker, AICP, LEED AP

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1.1 SITE

1.1.1 Location

The Project Site is centered on the intersection of Rawson Avenue and 76th Street, and borders Rawson Avenue approximately 1.3 miles to the east and 0.5 miles to the west.

The Project Site consists of several separate land parcels that total approximately 563.43 acres. The total Project Site is comprised of all or part of Sections 2, 3, 4, 9, 10 and 17 of Township 5 North, Range 21 East, Milwaukee County, Wisconsin. See Figure A-1.1.1.

1.1.2 Aerial

The Project Site aerial shows different patterns of development, as well as the general landforms present. See Figure A-1.1.2.

1.1.3 USGS Map

See Figure A-1.1.3 for the United States Geological Survey map of the Project Site.

1.1.4 Zoning

The current zoning of the Project Site is diversified, and oriented along the major highways and street corridors within the site area (illustrated in Figure A-1.1.4).

Properties adjacent to Rawson Avenue are zoned as:

- *PDD (Planned Development Districts)*
- *B-3 (Community Business District)*
- *B-2 (General Business District)*
- *R-6 (Suburban Single Family Residential)*
- *FW (Floodway District), FC (Floodplain Conservancy District), and*
- *A-1 (Agricultural District)*

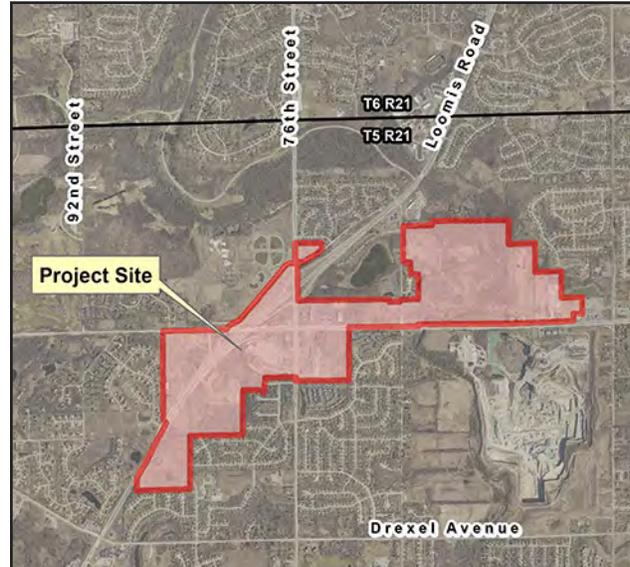
Properties adjacent to Loomis Road are zoned as:

- *R-3E (Suburban/Estate Single Family Residence District)*
- *R-6 (Suburban Single Family Residence District)*
- *B-1 (Neighborhood Business District), and*
- *PDD (Planned Development Districts).*

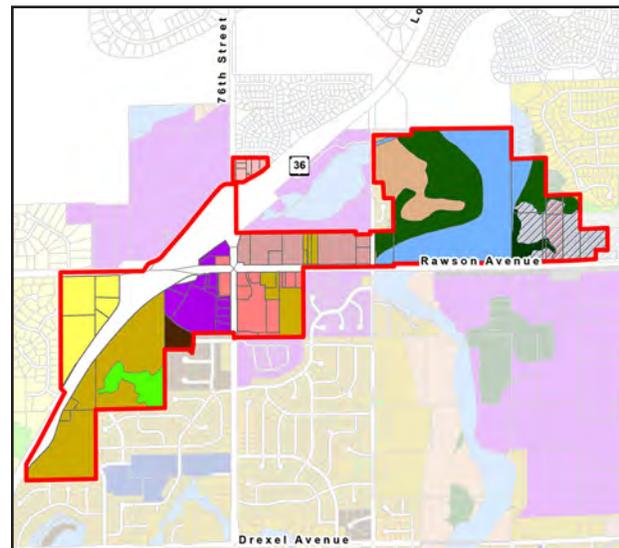
Recently proposed commercial/retail development meets the existing development and zoning regulation for land use; therefore, rezoning may not be necessary. Individual developments will be approved on a case by case basis and zoning compliance permits will be required as new businesses relocate within the City limits.

1.1.5 Planned Land Use

Figure A-1.1.5 shows the planned land uses for the City of Franklin. The Project Site mostly contains



Project Site - not to scale



Zoning - not to scale

large areas planned for Commercial Use, Mixed Use, Transportation, Recreation, and Natural Resources.

Adjacent to the Project Site are a number of existing land uses which are listed in order of largest area:

- Single Family Residential properties border the Project Site to the East, West, and South.
- Natural Resource Features border the Project Site to the North and South including the Root River, which passes through the east portion of the Project Site as it flows south.
- Three Multi-Family Residential developments border the Project Site to the South.
- A few institutional land uses are located North and South of the site.

1.1.6 Easements

There are no significant easements within the Project site, with the exception of a few located on small land parcels. (See Figure A-1.1.6).

1.1.7 Contours

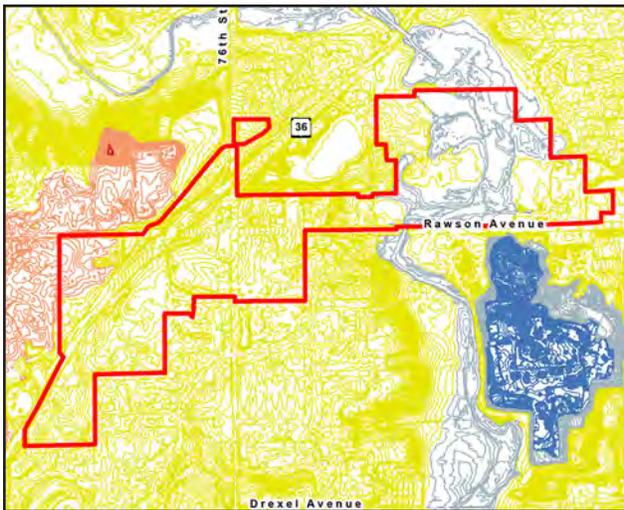
The Project Site was filled in the past, which changed the natural topography. Initially, the Project Site ranged from higher than 780 feet mean sea level (MSL) along State Trunk Highway (STH) 36 to lows in the southeast corner of the site at less than 870 feet MSL. Filling efforts have increased the elevation of approximately the middle third of the parcel to the elevation of the adjacent highway. A map indicating elevations and contours has been conducted to illustrate the topography of the site and the implications on development. The map is included as Figure A-1.1.7.

1.1.8 Road Classifications

Figure A-1.1.8 illustrates different road classifications across and around the Project Site.

1.1.9 Daily Traffic Averages

A map of the annual average daily traffic (AADT) indicates that most traffic within the Project Site occurs along Loomis Road and Rawson Avenue. The largest traffic volume within the Project Site is 21,700 vehicles per day, located near the intersection of 76th Street and Rawson Avenue (see Figure A-1.1.9).



Contours - not to scale

1.2 ENVIRONMENTAL

1.2.1 Floodplain and Wetland Inventory

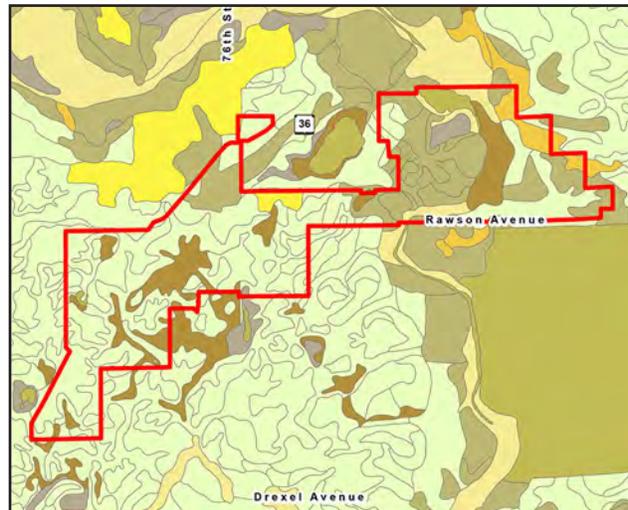
The Project Site is located within the Root River watershed, which is approximately one mile to the southwest. Stormwater at the site is controlled by the placement of fill and gradual slopes that transmit stormwater into wetlands along the eastern part of the site. These wetlands were mapped by the National Wetlands Inventory and the Wisconsin Department of Natural Resources (WDNR), per Figures A-1.2.1 through A-1.2.3. The direction of local shallow groundwater likely varies within the site, but is probably toward the wetlands. The flow directions are likely to be variable and fluctuate with the level and intensity of precipitation. The wetlands are indicated as Freshwater Emergent Wetland, and Freshwater Forested/Shrub Wetland, and are within proximity of flood hazard areas.

The FEMA Floodplain Map outlines a Regulatory Floodway located within the eastern portion of the Project Site. Land adjacent to this Regulatory Floodway has a 1% annual chance of a flood hazard. This flood risk area encompasses almost 1/3 of the total site area and is a significant consideration in the planning of future development (see Figure A-1.2.1).

1.2.2 Soils & Geology Analysis

The project is located between the Tinley and the Lake Border Moraines. Glacial sediments are anticipated to the clayey diamict of the Tinley facies of the Oak Creek Formation. The diamicts are generally clayey silt, but can have sand lenses. Soils developed in these types of glacial materials are typically clay rich. Soils at the site were mapped as the Morley silty loam, Blount silty loam and the Ashkum silty clay loam soils. All three of these soils form in clayey till sediments. Ashkum soils typically have a seasonally high water table. Because of the shallow depth to the water table, surface spills and releases have the potential to impact shallow groundwater, although the silty clayey nature of some of the area soils possibly slows the movement of groundwater through the site.

Beneath approximately 150 to 200 feet of sediments, the uppermost bedrock at the site is the Silurian age dolomites of the Niagara Formation. Beneath the Silurian age dolomites are Ordovician shales of the Maquoketa Formation. These shales provide a barrier between the shallow and deep bedrock aquifer units. Beneath the Ordovician shales are Ordovician and Cambrian sedimentary rocks consisting of dolomites, sandstones and shales. Beneath the Cambrian sedimentary units are Precambrian age crystalline rocks. The sedimentary bedrock units function as regional aquifers as described briefly below. Refer to Figures A-1.2.4 and A-1.2.10 for additional information on Project Site soils.

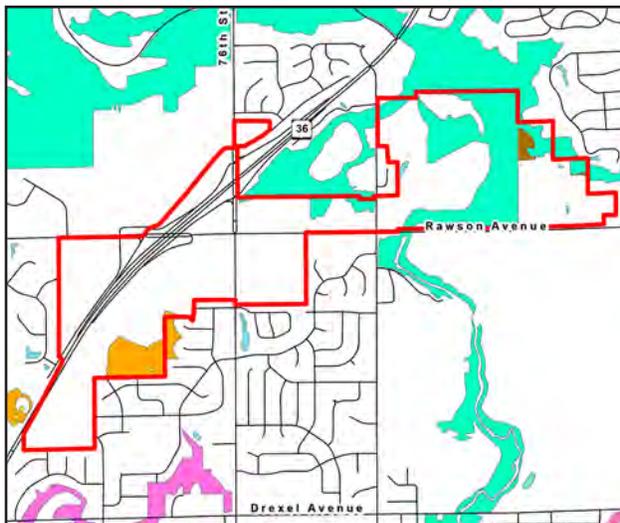


Soils- not to scale

1.2.3 Environmental Site Assessment

A Phase 1 Environmental Site Assessment (Figure A-1.2.9) was conducted to provide information, data and identify environmental conditions associated the Project Site that could potentially impact future development. The site assessment found the following historical activities that could affect soil or groundwater quality:

- A closed Milwaukee County Landfill has the potential to contaminate groundwater within the Project Site due to its close proximity. This landfill is located north of Loomis Road and Rawson Avenue. The landfill depth ranges from 7 to 64 feet below grade. See Figure A-1.2.6.
- Fill, taken from construction projects, was brought on site and used to fill depths of up to 20 feet. Information and testing on fill contamination was not available. See Figure A-1.2.11
- The Environmental Data Resources, Inc. also contained a list of eight sites located near the Project Site, which have had detrimental impacts on the environments. A list of these sites can be found in Figure A-1.2.12. These properties do not pose a significant threat to the quality of the environment of the Project Site.



Corridor Assesment- not to scale

1.2.4 Environmental Corridor Assessment

The Southeastern Wisconsin Regional Planning Commission (SEWRPC) mapped elements of the regional natural resources, as well as natural resource-related features as existing and potential park sites, sites of historic and archaeological value, areas possessing scenic vistas or viewpoints, and areas of scientific value. Said inventories resulted in the identification and delineation of “environmental corridors” (linear areas containing concentrations of significant natural resource and resource-related features). These areas are noted in Figure A-1.2.5.

1.2.5 Endangered Resources Review

A Natural Heritage Inventory (NHI) Endangered Resources Review Request was submitted to the WDNR to determine the potential presence of State Endangered, Threatened, or Special Concern Species. The results of this review concluded that nine rare species are recorded within the Project site or surrounding area. These species include: four fish, two snake, one turtle, and two plant. During development, action is required for two threatened fish species, which include strict erosion and sedimentation control. Other actions are recommended to protect two snake species and one turtle species; however, these recommendations are optional. See Figures A-1.2.7 and A-1.2.8.

1.3 UTILITIES

1.3.1 Water Mains

Larger 16-inch and 12-inch water mains service the site along Rawson Avenue. Existing development located south of Rawson Avenue is serviced by a 12-inch water main along 76th Street and 8-inch water mains (See Figure A-1.3.1).

1.3.2 Storm Sewer Mains

Storm Sewers are located along Rawson Avenue and 76th Street (See Figure A-1.3.2).

1.3.3 Sanitary Sewer Mains

Sanitary sewer mains that service the site include a 30-inch and 10-inch main, which are located adjacent to Rawson Avenue. Smaller 8-inch mains serve the existing development near the intersection of 76th Street and Rawson Avenue. (See Figure A-1.3.3).

1.3.4 Franklin Public Services Policy

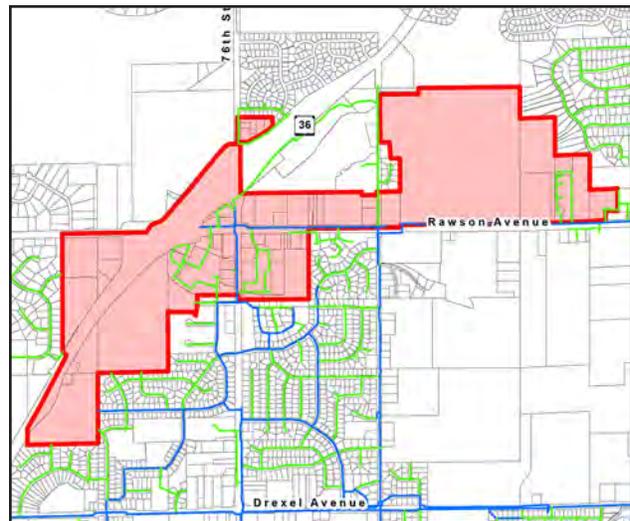
The Project Site contains areas not serviced by sanitary sewer or water. As property within the Project Site is rezoned, subdivided, or redeveloped, it must refer to the Pre-Sanitary Sewer Land Use/Zoning, Land Division, and Public Services Policy for the Southwestern Portion of the City of Franklin (See Figures A-1.3.4 and A-1.3.5).

1.4 ENTITLEMENT

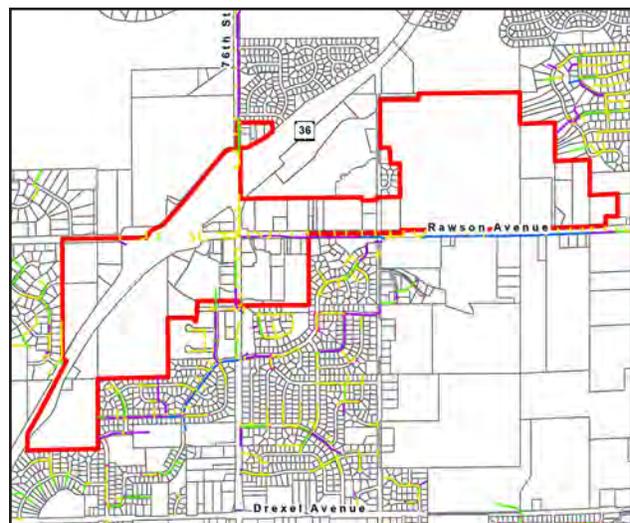
1.4.1 Development Applications

Proposed commercial and retail development planned for the Project Site must comply with Zoning and the Comprehensive Master Plan, or will otherwise need to apply for Amendment Applications. New development may also require Zoning Compliance Permits, Special Use Applications, Building Permits, Sign Permits, and Occupancy Permits via the Inspection Department of the City of Franklin.

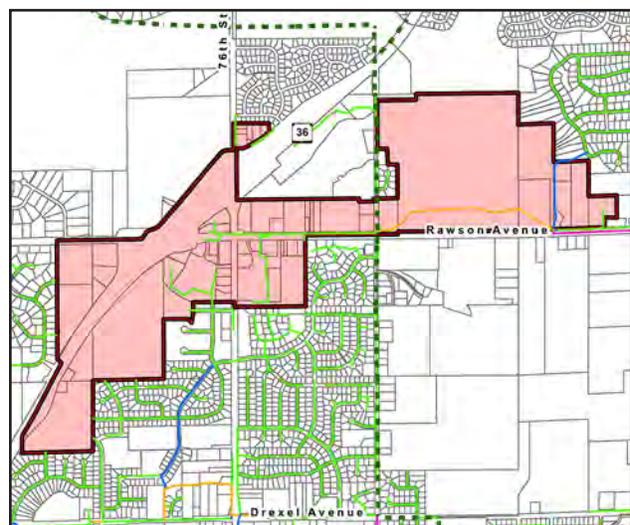
The Unified Development Ordinance (UDO) requires applications to be reviewed by a board or commission within a scheduled period of time. Each application has an associated fee which shall be paid to the City of Franklin's Treasurer (See Figure A-1.4.1).



Water Mains- not to scale



Storm Sewer Mains- not to scale



Sanitary Sewer mains- not to scale

1.5 DEMOGRAPHICS

1.5.1 Population

A majority of the Project Site and adjacent land has a total population between 251 and 500 persons per square mile. The Project Site contains a dense number of households east of 76th Street that is over 1,000 dwellings per square mile. The density of the Project Site west of 76th Street is less and ranges from 751 to 750 households per square mile. See Figures A-1.5.1 and A-1.5.2.



Population Density- not to scale

1.5.2 Income

The population west of 76th Street within the Project Site has a higher median annual household income ranging from \$50,001-\$150,000, while the population east of 76th Street ranges from \$50,001-\$75,000 (See Figure 5D). The highest per capita household income is located west of Loomis Road and is over \$75,000 (See Figures A-1.5.3 and A-1.5.4).

1.5.3 Employees

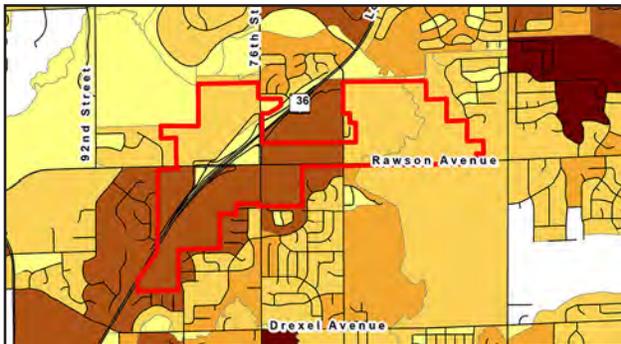
The greatest numbers of employees within the surrounding area are located within the Project Site's Boundary near the intersection of 76th Street and Rawson Avenue (See Figure A-1.5.5).

1.5.4 Property Ownership

An itemized list of properties within the Project Site and their identified owners is included in Figure A-1.5.6 of this report.

1.5.5 Acreage Value

The highest valued properties within the Project Site are located near the intersection of 76th Street and Rawson Avenue. These properties range in value between \$80,455-\$1,533,463 per acre. Other land values within the Project Site are below \$80,455 per acre (See Figure A-1.5.7).



Households- not to scale

1.5.6 US Census Bureau Statistics

See Figures A-1.5.8 and A-1.5.10 for statistics and information gathered by the US Census Bureau about the residents of Franklin. This information provides a more in-depth analysis of Franklin's population, demographics, education attainment, business and commuting, income, and housing characteristics.

1.5.7 Community Profile

See Figure A-1.5.9 for statistics collected by Environmental Systems Research Institute (ESRI) on population, demographics, households, housing, education attainment, occupation, and disposable income of the residents of Franklin.

1.6 DEVELOPMENT

1.6.1 Preliminary and Proposed Utilities

Franklin's plans for future utility service to the Area are reflected in Figures A-1.6.1 to 1.6.3

1.6.2 Developable Areas Map

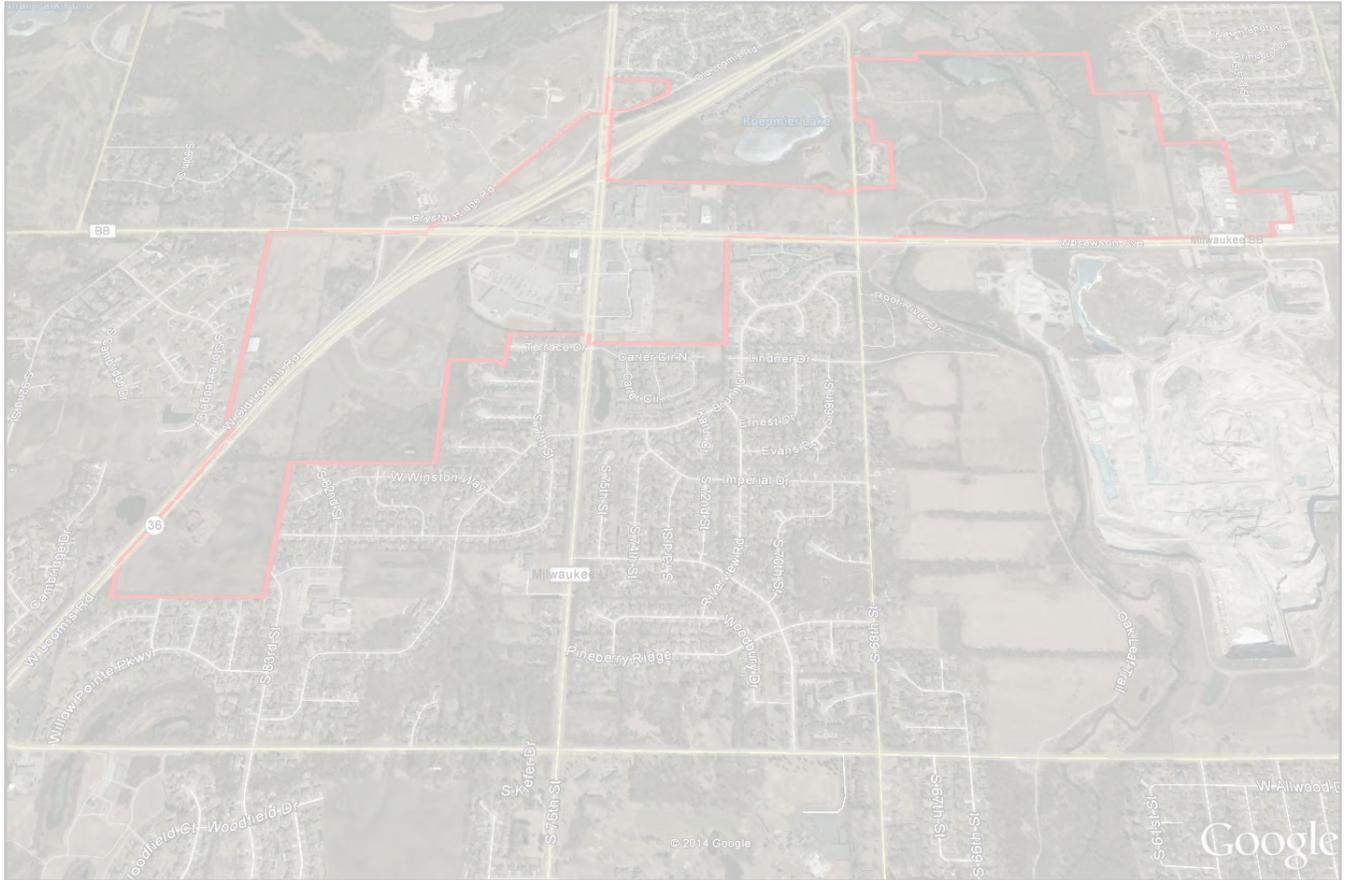
Areas of developable land are depicted in Figure A-1.6.4.

1.6.3 Stormwater Management

Figures A-1.6.5 and A-1.6.6 show anticipated stormwater management areas and associated Best Management Practice (BMP) calculations for stormwater storage, treatment, and infiltration.

1.6.4 Area A Associated Development Plans

Figures A-1.6.7 through A-1.6.13 show conceptual designs and working drawings for development occurring within or adjacent to Area A.



FIGURES

The following pages are maps and diagrams of the Project Site, illustrating the findings presented in this report.

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LEGEND
Area A Boundary



0 200 400
Feet

1 in = 200 ft

AREA A - EAST

AERIAL PHOTO
CITY OF FRANKLIN
MILWAUKEE COUNTY, WISCONSIN





Rawson Ave

Loomis Rd
36

76th St

LEGEND
[Red Line] Area A Boundary



AREA A - WEST
AERIAL PHOTO
CITY OF FRANKLIN
MILWAUKEE COUNTY, WISCONSIN





- Legend**
- Area A Boundary
 - FEMA 1% Annual Chance Flood Hazard
 - WDNR Wisconsin Wetland Inventory



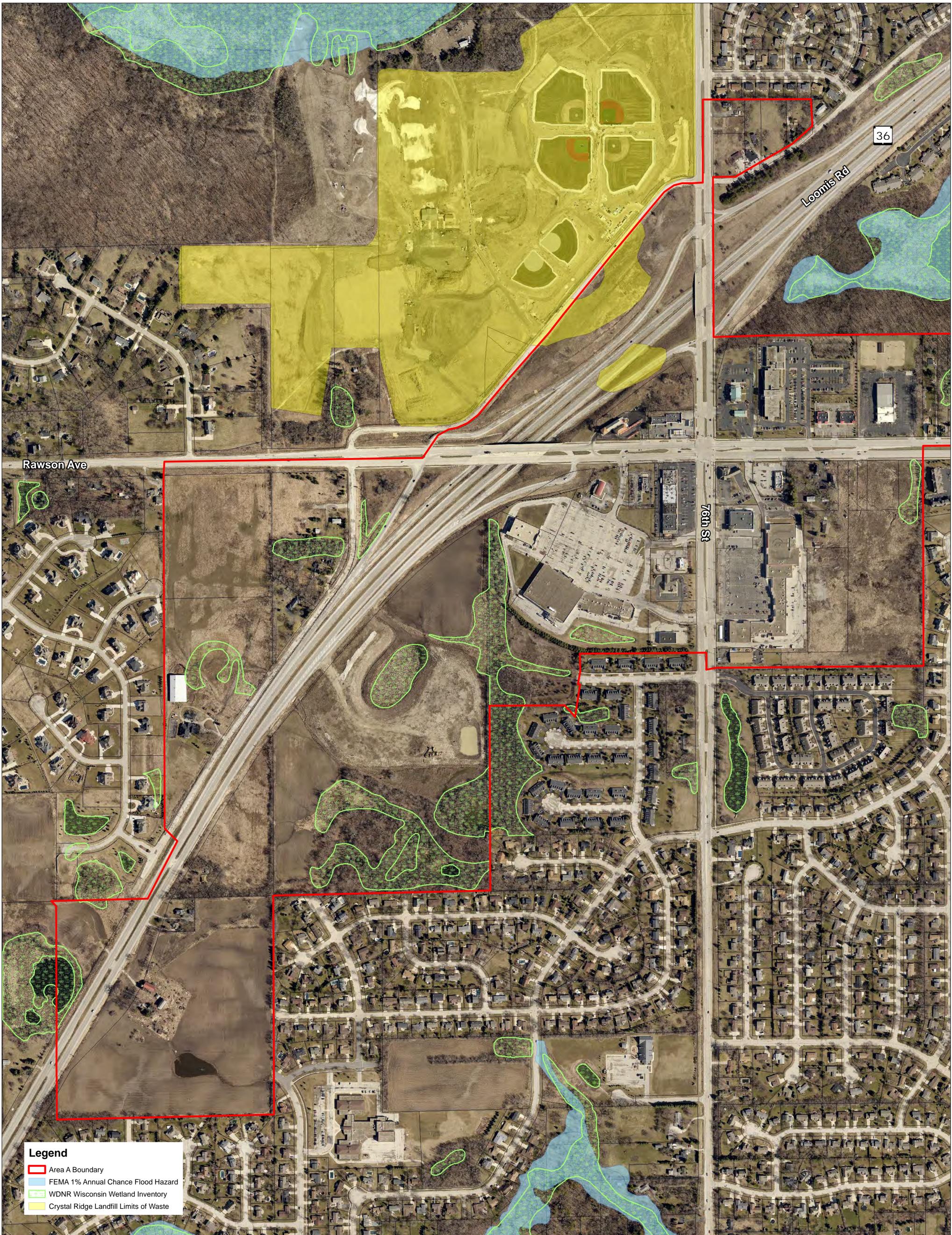
0 200 400
 Feet
 1 in = 200 ft

AREA A - EAST

ENVIRONMENTAL FEATURES MAP

CITY OF FRANKLIN
 MILWAUKEE COUNTY, WISCONSIN





Legend

- ▭ Area A Boundary
- ▭ FEMA 1% Annual Chance Flood Hazard
- ▭ WDNR Wisconsin Wetland Inventory
- ▭ Crystal Ridge Landfill Limits of Waste

N

0 200 400

Feet

1 in = 200 ft

AREA A - WEST

ENVIRONMENTAL FEATURES MAP

CITY OF FRANKLIN
MILWAUKEE COUNTY, WISCONSIN





Legend
▬ Area A Boundary
▬ Existing Transportation Lands (22 Acres)



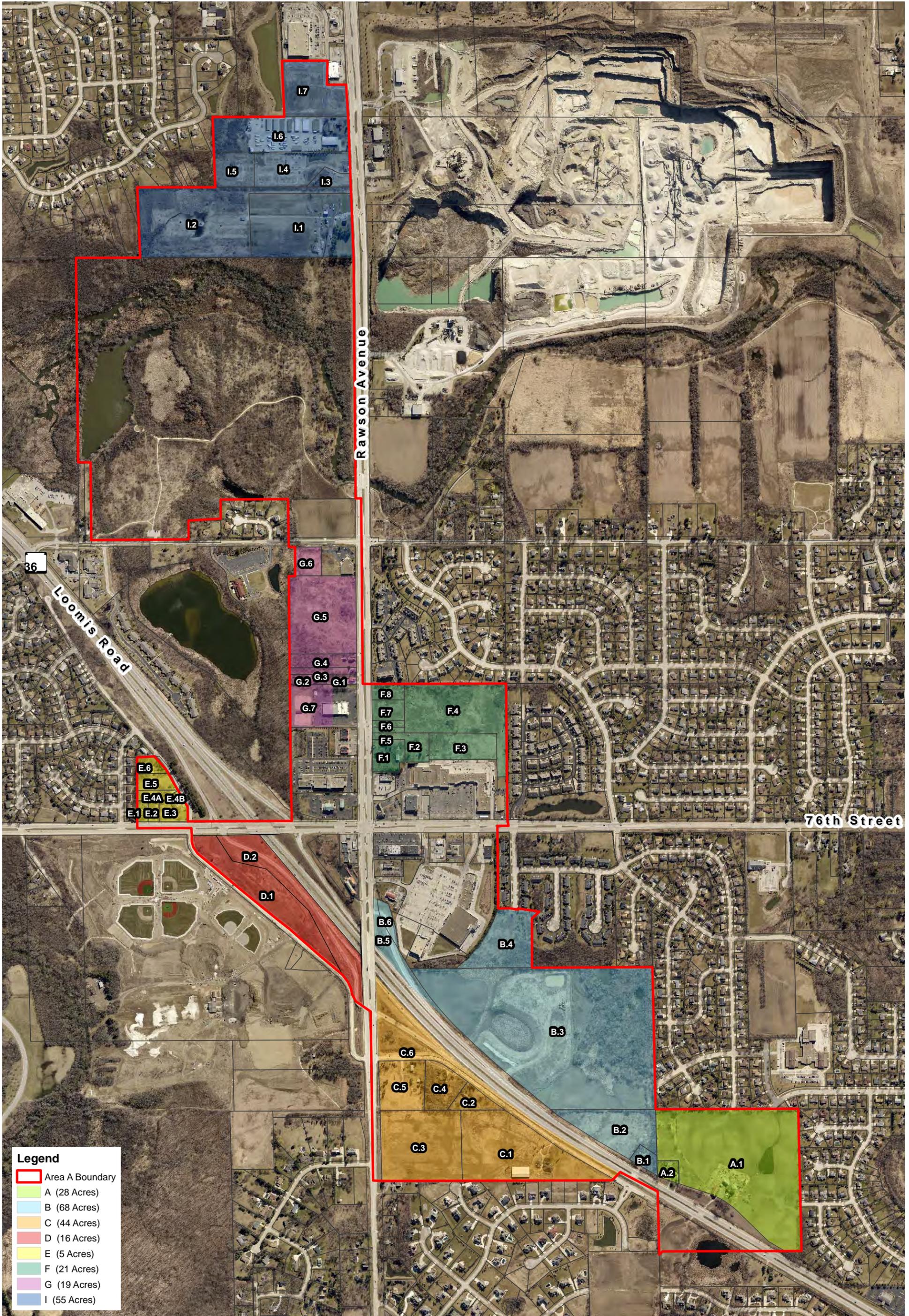
0 200 400
Feet
1 in = 200 ft

AREA A - WEST

EXISTING TRANSPORTATION LANDS MAP

CITY OF FRANKLIN
MILWAUKEE COUNTY, WISCONSIN





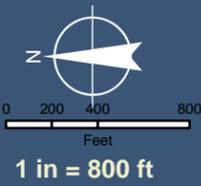
Rawson Avenue

36

Loomis Road

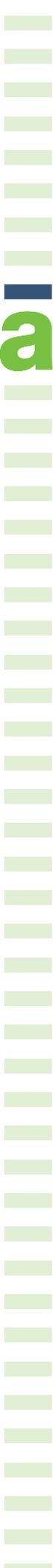
76th Street

- Legend**
- Area A Boundary
 - A (28 Acres)
 - B (68 Acres)
 - C (44 Acres)
 - D (16 Acres)
 - E (5 Acres)
 - F (21 Acres)
 - G (19 Acres)
 - I (55 Acres)



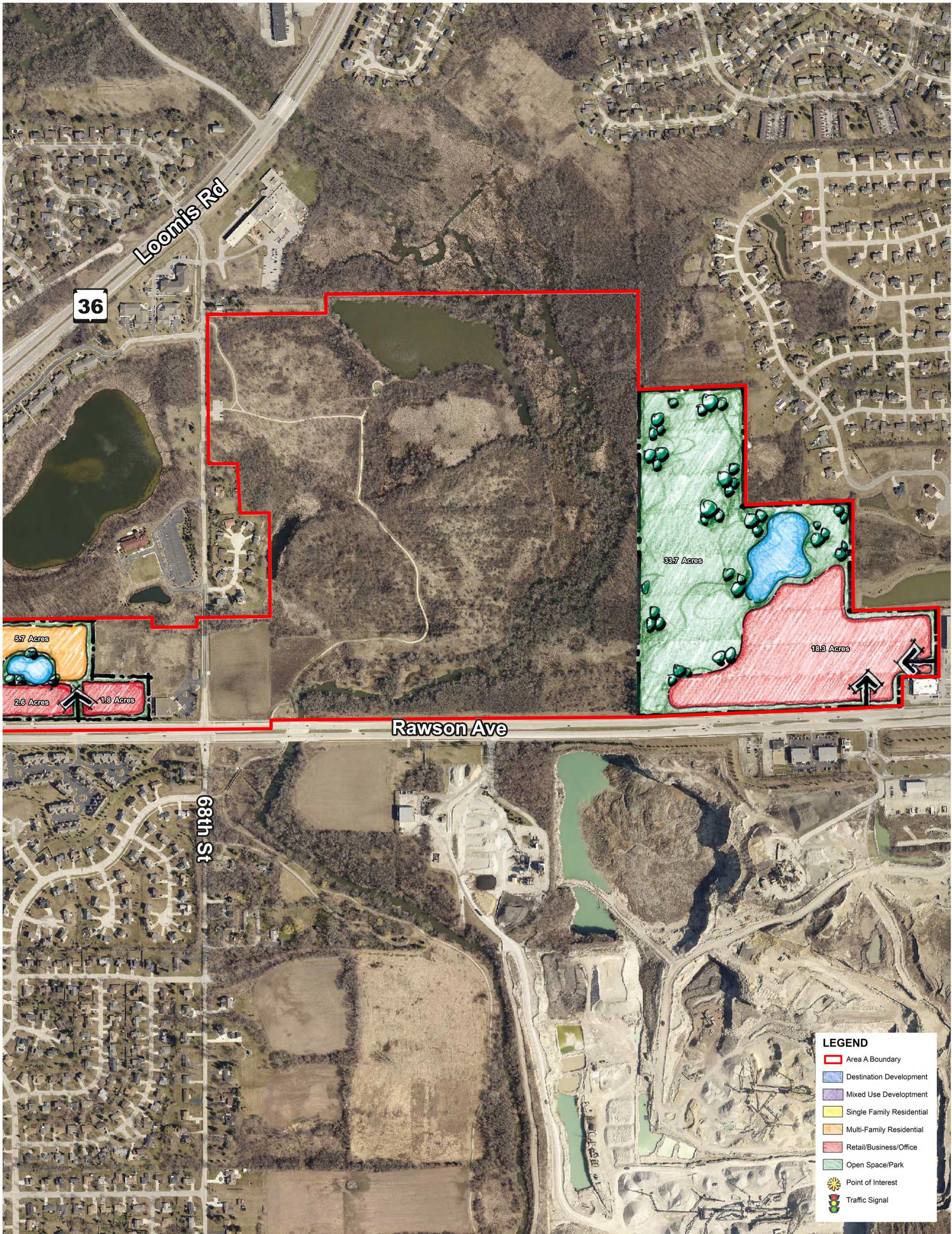
AREA A
 Developable Areas Map
 CITY OF FRANKLIN
 MILWAUKEE COUNTY, WISCONSIN



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GR*a***EF**

Area A
Alternate A



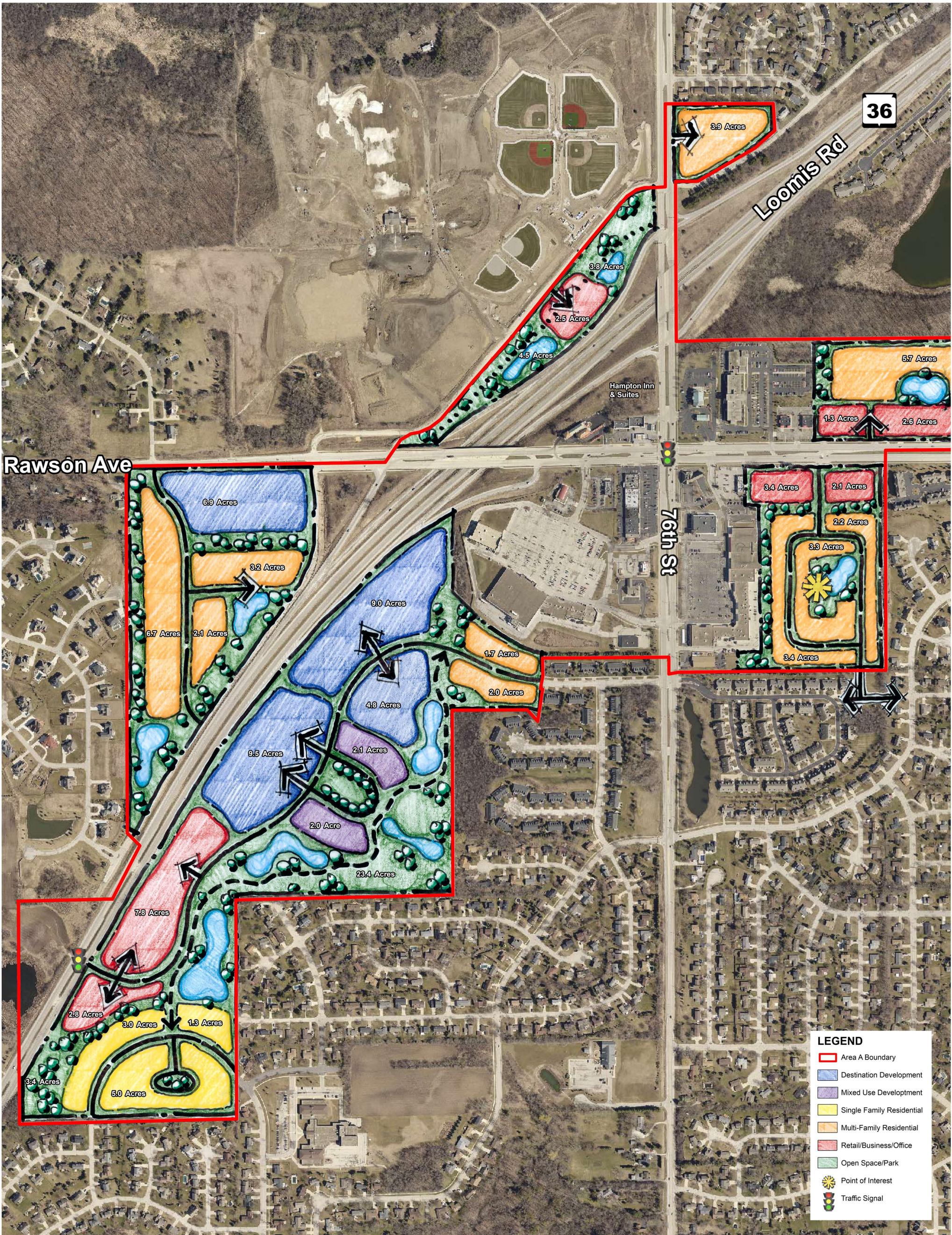
LEGEND

- █ Area A Boundary
- █ Destination Development
- █ Mixed Use Development
- █ Single Family Residential
- █ Multi-Family Residential
- █ Retail/Business/Office
- █ Open Space/Park
- Point of Interest
- Traffic Signal



AREA A - EAST
SCHEMATIC MASTER PLAN
 CITY OF FRANKLIN
 MILWAUKEE COUNTY, WISCONSIN





Rawson Ave

Loomis Rd

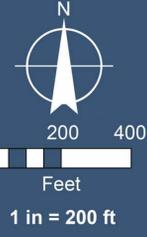
36

76th St

Hampton Inn & Suites

LEGEND

- ▭ Area A Boundary
- ▭ Destination Development
- ▭ Mixed Use Development
- ▭ Single Family Residential
- ▭ Multi-Family Residential
- ▭ Retail/Business/Office
- ▭ Open Space/Park
- Point of Interest
- Traffic Signal



AREA A - WEST
SCHEMATIC MASTER PLAN - ALT. A
 CITY OF FRANKLIN
 MILWAUKEE COUNTY, WISCONSIN



CITY OF FRANKLIN - AREA A - ALTERNATIVE A

DEVELOPABLE LAND ASSESSMENT

Existing Land Information				Proposed Development										
GRAEF ID	Acres	Total Assessed Value	Assessed Value Per Acre	Developable Land	Roadways \$0	Open Space \$0	Retail \$825,000	Single Family \$614,000	Multi-Family \$600,000	Large User \$825,000	Mixed Use \$825,000	Industrial \$517,000	Total	Increase in Value
Area A					0	0	10.6	9.3	3.7	18.5	4.1	0	46.2	
Total	29.16	\$501,200	\$17,186	29.16 acres	\$0	\$0	\$8,745,000	\$5,710,200	\$2,220,000	\$15,262,500	\$3,382,500	\$0	\$35,320,200	\$34,819,000
Area B					0	0	0	0	0	0	0	0	0	
Total	68.86	\$690,000	\$10,020	53.71 acres	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$690,000
Area C					0	0	0	0	12	6.9	0	0	18.9	
Total	44.54	\$1,302,000	\$29,232	41.31 acres	\$0	\$0	\$0	\$0	\$7,200,000	\$5,692,500	\$0	\$0	\$12,892,500	\$11,590,500
Area D					0	0	2.5	0	0	0	0	0	2.5	
Total	16.65	\$0	\$0	16.65 acres	\$0	\$0	\$2,062,500	\$0	\$0	\$0	\$0	\$0	\$2,062,500	\$2,062,500
Area E					0	0	0	0	3.9	0	0	0	3.9	
Total	5.01	\$901,400	\$179,900	5.01 acres	\$0	\$0	\$0	\$0	\$2,340,000	\$0	\$0	\$0	\$2,340,000	\$1,438,600
				0.00										
Area F					0	0	5.5	0	8.9	0	0	0	14.4	
Total	21.42	\$1,979,400	\$92,406	20.15 acres	\$0	\$0	\$4,537,500	\$0	\$5,340,000	\$0	\$0	\$0	\$9,877,500	\$7,898,100
Area G					0	0	5.7	0	5.7	0	0	0	11.4	
Total	19.63	\$1,777,900	\$90,548	15.28 acres	\$0	\$0	\$4,702,500	\$0	\$3,420,000	\$0	\$0	\$0	\$8,122,500	\$6,344,600
Area I					0	0	18.3	0	0	0	0	0	18.3	
Total	85.74	\$4,876,400	\$56,874	36.38 acres	\$0	\$0	\$15,097,500	\$0	\$0	\$0	\$0	\$0	\$15,097,500	\$10,221,100
					0	0	43	9	34	25	4	0	116	
Total Ar	291.02	\$12,028,300	\$41,331	217.66 acres	\$0	\$0	\$35,145,000	\$5,710,200	\$20,520,000	\$20,955,000	\$3,382,500	\$0	\$85,712,700	\$73,684,400

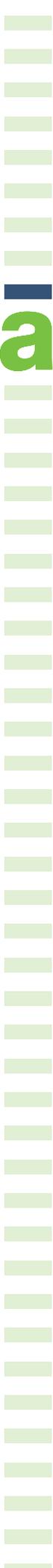
CITY OF FRANKLIN - AREA A - ALTERNATE A

Proposed Infrastructure Improvements																
GRAEF ID	Total Acres	Developed Acres	Lots	Earthwork (Acre)	Water Transmission System (L.F.)	Water Distribution System (L.F.)	Water Valves (Each)	Hydrants (Each)	Water Services (Lot)	Sanitary Sewer (L.F.)	Sanitary Services (Lot)	Paving & Storm Sewer (L.F. Road)	Stormwater Management @50% Impervious (Acre)	Traffic Signals and Lane Improvements (Intersection)	Lighting - 100' spacing (L.F. Road)	Power Distribution (Acre)
Area A				16.00	0	1,700	4	4	25	1,570	25	2420	8.00	1	2420	16.00
Total	29.16	16.00	25	\$302,400	\$0	\$212,500	\$9,200	\$18,000	\$68,750	\$314,000	\$60,000	\$1,210,000	\$200,000	\$750,000	\$181,500	\$80,000
Area B				39.40	0	6,500	14	19	15	4,360	15	6630	19.70	1	6630	39.40
Total	68.86	39.40	15	\$744,660	\$0	\$812,500	\$32,200	\$85,500	\$41,250	\$872,000	\$36,000	\$3,315,000	\$492,500	\$750,000	\$497,250	\$197,000
Area C				18.90	0	2,290	5	7	10	2,430	10	2240	9.45	2	2240	18.90
Total	44.54	18.90	10	\$357,210	\$0	\$286,250	\$11,500	\$31,500	\$27,500	\$486,000	\$24,000	\$1,120,000	\$236,250	\$1,500,000	\$168,000	\$94,500
Area D				10.80	0	3,500	7	10	3	5,670	3	2750	5.40	2	2750	10.80
Total	16.65	10.80	3	\$204,120	\$0	\$437,500	\$16,100	\$45,000	\$8,250	\$1,134,000	\$7,200	\$1,375,000	\$135,000	\$1,500,000	\$206,250	\$54,000
Area E				0.00	0	0	0	0	0	0	0	0	0.00	0	0	0.00
Total	5.01	3.90	1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Area F				14.40	0	5,770	12	17	5	3,760	5	2670	7.20	0.5	2670	14.40
Total	21.42	14.40	5	\$272,160	\$0	\$721,250	\$27,600	\$76,500	\$13,750	\$752,000	\$12,000	\$1,335,000	\$180,000	\$375,000	\$200,250	\$72,000
Area G				0.00	0	0	0	0	0	0	0	0	0.00	0	0	0.00
Total	19.63	9.60	5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Area I				0.00	0	0	0	0	0	0	0	0	0.00	0	0	0.00
Total	85.74	18.30	5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Area G	291.01	131.30	69	\$1,880,550	\$0	\$2,470,000	\$96,600	\$256,500	\$159,500	\$3,558,000	\$139,200	\$8,355,000	\$1,243,750	\$4,875,000	\$1,253,250	\$497,500

CITY OF FRANKLIN - AREA A - ALTERNATE A

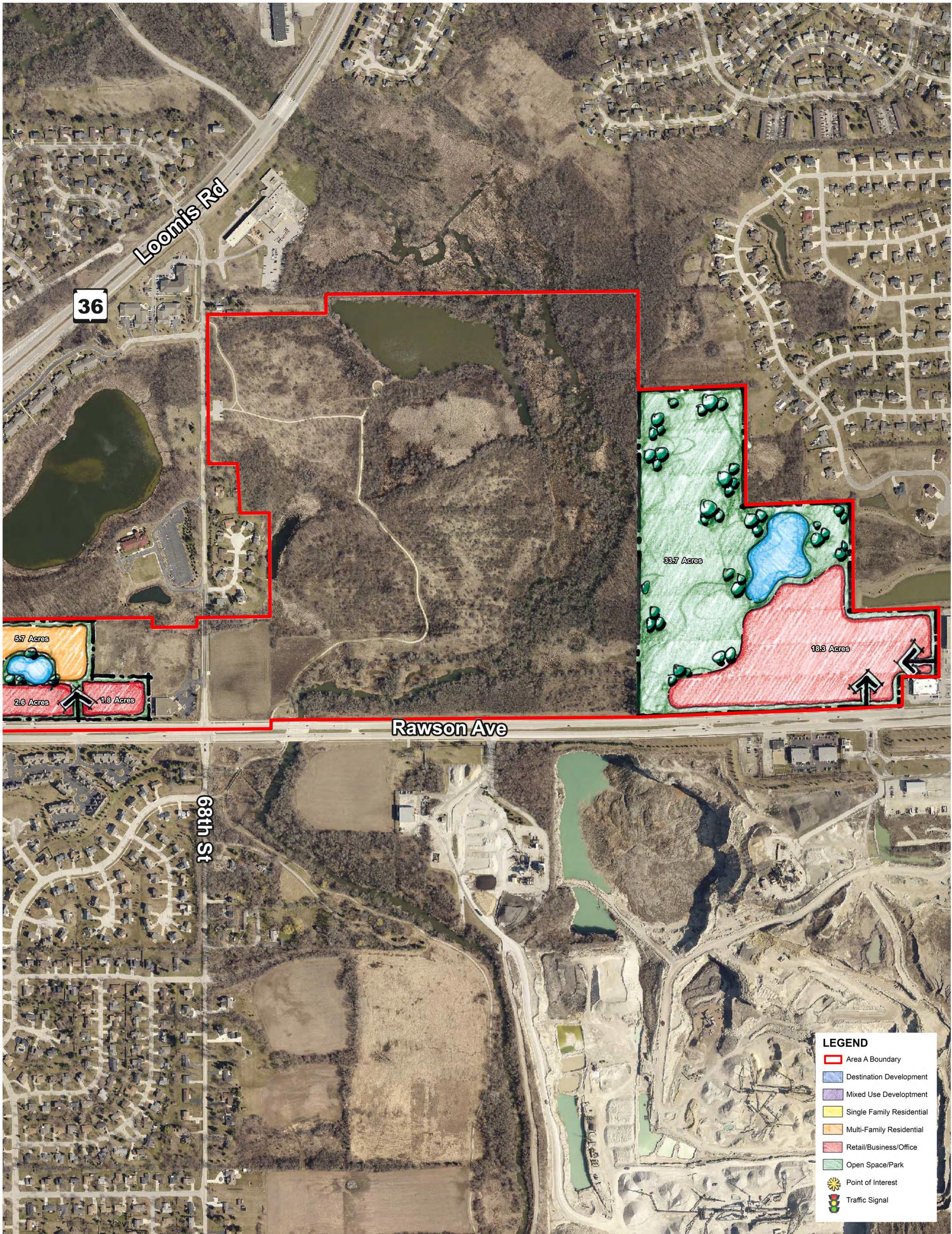
Proposed Infrastructure Improvements

GRAEF ID	Natural Gas (Lot) \$2,600	Telephone, Data, CATV (Lot) \$3,000	Methane Pipe Relocation (L.F.) \$400	Green Infrastructure - Purple Pipe (Acre) \$5,000	Pedestrian/ Bicycle Path (L.F.) \$40	Street Trees - 50' spacing (L.F. Road) \$20	Decorative Streetscape (L.F. Road) \$275	Signage (Each) \$20,000	Public Park/ Open Space (Acre) \$2,000	Town Square (Each) \$1,000,000	Ramp Fill and Compaction (S.Y.) \$200	Contaminated or Unsuitable Soil Removal (C.Y.) \$50	Total	Notes
Area A	25	25	0	0.00	0	2,420	0	1	5.00	0	0	0		Full infrastructure
Total	\$65,000	\$75,000	\$0	\$0	\$0	\$48,400	\$0	\$20,000	\$10,000	\$0	\$0	\$0	\$3,624,750	improvements
Area B	15	15	0	0.00	0	6,630	3,000	1	30.00	1	0	12,600		Full infrastructure
Total	\$39,000	\$45,000	\$0	\$0	\$0	\$132,600	\$825,000	\$20,000	\$60,000	\$1,000,000	\$0	\$630,000	\$10,627,460	improvements
Area C	10	10	0	0.00	0	2,240	0	1	5.00	0	0	0		Full infrastructure
Total	\$26,000	\$30,000	\$0	\$0	\$0	\$44,800	\$0	\$20,000	\$10,000	\$0	\$0	\$0	\$4,473,510	improvements
Area D	3	3	1500	0.00	0	2,750	0	1	5.00	0	0	50,000		Full infrastructure
Total	\$7,800	\$9,000	\$600,000	\$0	\$0	\$55,000	\$0	\$20,000	\$10,000	\$0	\$0	\$2,500,000	\$8,324,220	improvements
Area E	0	0	0	0.00	0	0	0	0	0.00	0	0	0		No improvements
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Area F	5	5	0	0.00	0	2,670	0	1	3.00	0	0	0		Full infrastructure
Total	\$13,000	\$15,000	\$0	\$0	\$0	\$53,400	\$0	\$20,000	\$6,000	\$0	\$0	\$0	\$4,144,910	improvements
Area G	0	0	0	0.00	0	0	0	0	0.00	0	0	0		No improvements
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Area I	0	0	0	0.00	0	0	0	0	0.00	0	0	0		No improvements
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total Area G	\$150,800	\$174,000	\$600,000	\$0	\$0	\$334,200	\$825,000	\$100,000	\$96,000	\$1,000,000	\$0	\$3,130,000	\$31,194,850	

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GRaEF

Area A
Alternate B



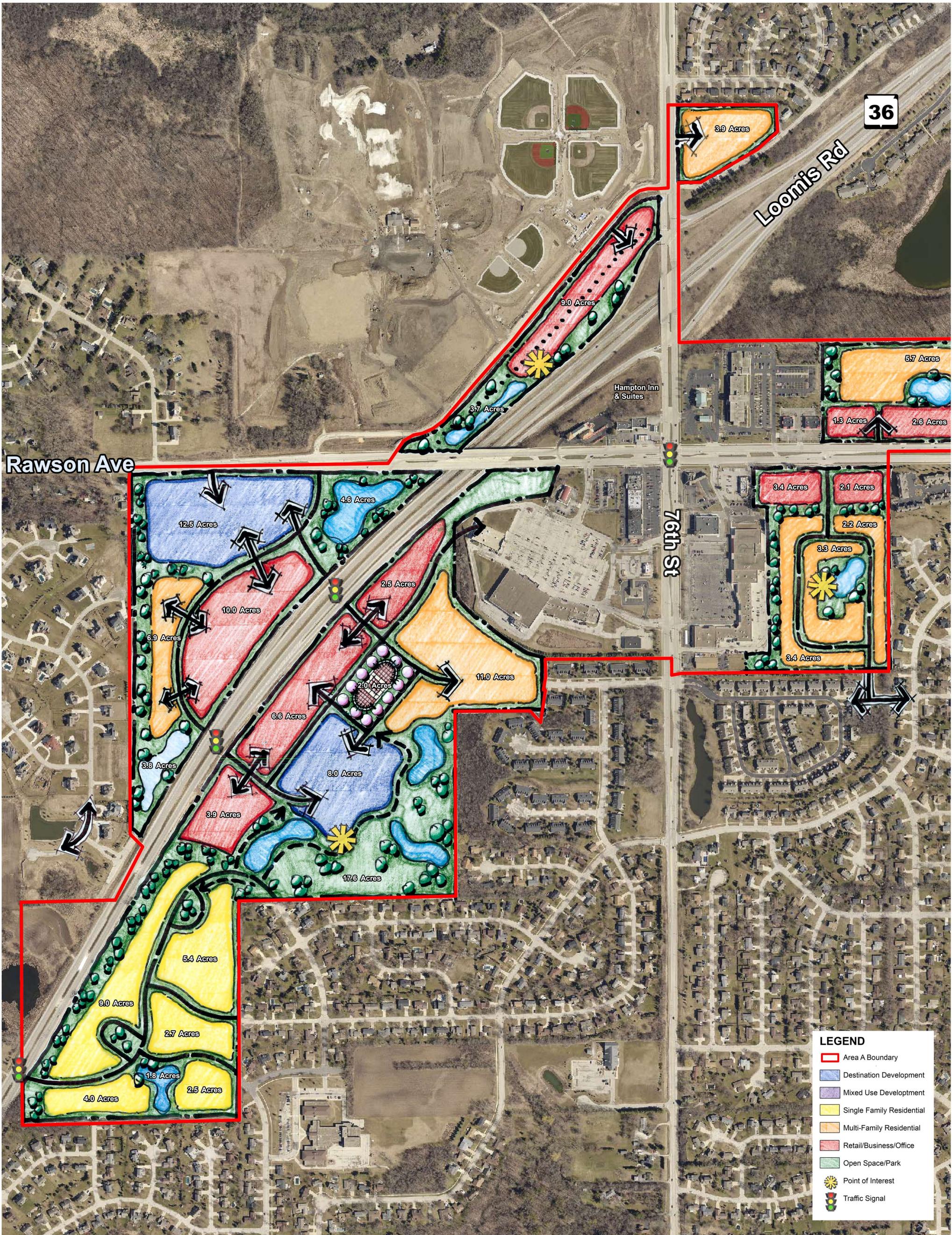
LEGEND

- Area A Boundary
- Destination Development
- Mixed Use Development
- Single Family Residential
- Multi-Family Residential
- Retail/Business/Office
- Open Space/Park
- Point of Interest
- Traffic Signal



AREA A - EAST
SCHEMATIC MASTER PLAN
 CITY OF FRANKLIN
 MILWAUKEE COUNTY, WISCONSIN





LEGEND

- ▭ Area A Boundary
- ▭ Destination Development
- ▭ Mixed Use Development
- ▭ Single Family Residential
- ▭ Multi-Family Residential
- ▭ Retail/Business/Office
- ▭ Open Space/Park
- ★ Point of Interest
- 🚦 Traffic Signal



AREA A - WEST
SCHEMATIC MASTER PLAN - ALT. B
 CITY OF FRANKLIN
 MILWAUKEE COUNTY, WISCONSIN



CITY OF FRANKLIN - AREA A - ALTERNATIVE B

DEVELOPABLE LAND ASSESSMENT

Existing Land Information				Proposed Development										
GRAEF ID	Acres	Total Assessed Value	Assessed Value Per Acre	Developable Land	Roadways \$0	Open Space \$0	Retail \$825,000	Single Family \$614,000	Multi-Family \$600,000	Large User \$825,000	Mixed Use \$825,000	Industrial \$517,000	Total	Increase in Value
Area A					0	0	14	21.1	9.7	8.7		0	53.5	
Total	29.16	\$501,200	\$17,186	29.16 acres	\$0	\$0	\$11,550,000	\$12,955,400	\$5,820,000	\$7,177,500	\$0	\$0	\$37,502,900	\$37,001,700
Area B					0	0	0	0	0	0	0	0	0	
Total	68.86	\$690,000	\$10,020	53.71 acres	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$690,000
Area C					0	0	9.5	0	3.9	10.9	0	0	24.3	
Total	44.54	\$1,302,000	\$29,232	41.31 acres	\$0	\$0	\$7,837,500	\$0	\$2,340,000	\$8,992,500	\$0	\$0	\$19,170,000	\$17,868,000
Area D					0	0	6	0	0	0	0	0	6	
Total	16.65	\$0	\$0	16.65 acres	\$0	\$0	\$4,950,000	\$0	\$0	\$0	\$0	\$0	\$4,950,000	\$4,950,000
Area E					0	0	0	0	3.9	0	0	0	3.9	
Total	5.01	\$901,400	\$179,900	5.01 acres	\$0	\$0	\$0	\$0	\$2,340,000	\$0	\$0	\$0	\$2,340,000	\$1,438,600
				0.00										
Area F					0	0	5.5	0	8.9	0	0	0	14.4	
Total	21.42	\$1,979,400	\$92,406	20.15 acres	\$0	\$0	\$4,537,500	\$0	\$5,340,000	\$0	\$0	\$0	\$9,877,500	\$7,898,100
Area G					0	0	5.7	0	5.7	0	0	0	11.4	
Total	19.63	\$1,777,900	\$90,548	15.28 acres	\$0	\$0	\$4,702,500	\$0	\$3,420,000	\$0	\$0	\$0	\$8,122,500	\$6,344,600
Area I					0	0	18.3	0	0	0	0	0	18.3	
Total	85.74	\$4,876,400	\$56,874	36.38 acres	\$0	\$0	\$15,097,500	\$0	\$0	\$0	\$0	\$0	\$15,097,500	\$10,221,100
					0	0	59	21	32	20	0	0	132	
Total Ar	291.02	\$12,028,300	\$41,331	217.66 acres	\$0	\$0	\$48,675,000	\$12,955,400	\$19,260,000	\$16,170,000	\$0	\$0	\$97,060,400	\$85,032,100

CITY OF FRANKLIN - AREA A - ALTERNATE B

Proposed Infrastructure Improvements																
GRAEF ID	Total Acres	Developed Acres	Lots	Earthwork (Acre)	Water Transmission System (L.F.)	Water Distribution System (L.F.)	Water Valves (Each)	Hydrants (Each)	Water Services (Lot)	Sanitary Sewer (L.F.)	Sanitary Services (Lot)	Paving & Storm Sewer (L.F. Road)	Stormwater Management @50% Impervious (Acre)	Traffic Signals and Lane Improvements (Intersection)	Lighting - 100' spacing (L.F. Road)	Power Distribution (L.F. Road)
				\$18,900	\$150	\$125	\$2,300	\$4,500	\$2,750	\$200	\$2,400	\$500	\$25,000	\$750,000	\$75	\$60
Area A				21.10	0	1,700	4	4	50	1,570	50	2420	10.55	1	2420	2420.00
Total	29.16	21.10	50	\$398,790	\$0	\$212,500	\$9,200	\$18,000	\$137,500	\$314,000	\$120,000	\$1,210,000	\$263,750	\$750,000	\$181,500	\$145,200
Area B				32.40	0	6,500	14	19	15	4,360	15	6630	16.20	1	6630	6630.00
Total	68.86	32.40	15	\$612,360	\$0	\$812,500	\$32,200	\$85,500	\$41,250	\$872,000	\$36,000	\$3,315,000	\$405,000	\$750,000	\$497,250	\$397,800
Area C				24.30	0	2,290	5	7	10	2,430	10	2240	12.15	1	2240	2240.00
Total	44.54	24.30	10	\$459,270	\$0	\$286,250	\$11,500	\$31,500	\$27,500	\$486,000	\$24,000	\$1,120,000	\$303,750	\$750,000	\$168,000	\$134,400
Area D				6.00	0	3,500	7	10	6	5,670	6	2750	3.00	1	2750	2750.00
Total	16.65	6.00	6	\$113,400	\$0	\$437,500	\$16,100	\$45,000	\$16,500	\$1,134,000	\$14,400	\$1,375,000	\$75,000	\$750,000	\$206,250	\$165,000
Area E				0.00	0	0	0	0	0	0	0	0	0.00	0	0	0.00
Total	5.01	3.90	1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Area F				0.00	0	0	0	0	0	0	0	0	0.00	0	0	0.00
Total	21.42	14.40	5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Area G				0.00	0	0	0	0	0	0	0	0	0.00	0	0	0.00
Total	19.63	9.60	5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Area I				0.00	0	0	0	0	0	0	0	0	0.00	0	0	0.00
Total	85.74	18.30	5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Area G	291.01	130.00	97	\$1,583,820	\$0	\$1,748,750	\$69,000	\$180,000	\$222,750	\$2,806,000	\$194,400	\$7,020,000	\$1,047,500	\$3,000,000	\$1,053,000	\$842,400

CITY OF FRANKLIN - AREA A - ALTERNATE B

Proposed Infrastructure Improvements

GRAEF ID	Natural Gas (Lot)	Telephone, Data, CATV (Lot)	Methane Pipe Relocation (L.F.)	Green Infrastructure - Purple Pipe (Acre)	Pedestrian/ Bicycle Path (L.F.)	Street Trees - 50' spacing (L.F. Road)	Decorative Streetscape (L.F. Road)	Signage (Each)	Public Park/ Open Space (Acre)	Town Square (Each)	Ramp Fill and Compaction (S.Y.)	Contaminated or Unsuitable Soil Removal (C.Y.)	Total	Notes
	\$1,500	\$3,000	\$400	\$5,000	\$40	\$20	\$275	\$20,000	\$2,000	\$1,000,000	\$200	\$50		
Area A	50	50	0	0.00	0	2,420	0	1	5.00	0	0	0		Full infrastructure
Total	\$75,000	\$150,000	\$0	\$0	\$0	\$48,400	\$0	\$20,000	\$10,000	\$0	\$0	\$0	\$4,063,840	improvements
Area B	15	15	0	0.00	0	6,630	2,000	4	30.00	1	2,500	12,600		Full infrastructure
Total	\$22,500	\$45,000	\$0	\$0	\$0	\$132,600	\$550,000	\$80,000	\$60,000	\$1,000,000	\$500,000	\$630,000	\$10,876,960	improvements
Area C	10	10	0	0.00	0	2,240	0	2	5.00	0	2,500	0		Full infrastructure
Total	\$15,000	\$30,000	\$0	\$0	\$0	\$44,800	\$0	\$40,000	\$10,000	\$0	\$500,000	\$0	\$4,441,970	improvements
Area D	6	6	0	0.00	0	2,750	0	2	5.00	0	2,500	50,000		Full infrastructure
Total	\$9,000	\$18,000	\$0	\$0	\$0	\$55,000	\$0	\$40,000	\$10,000	\$0	\$500,000	\$2,500,000	\$7,480,150	improvements
Area E	0	0	0	0.00	0	0	0	0	0.00	0	0	0		No improvements
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Area F	0	0	0	0.00	0	0	0	0	0.00	0	0	0		No improvements
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Area G	0	0	0	0.00	0	0	0	0	0.00	0	0	0		No improvements
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Area I	0	0	0	0.00	0	0	0	0	0.00	0	0	0		No improvements
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total Area G	\$121,500	\$243,000	\$0	\$0	\$0	\$280,800	\$550,000	\$180,000	\$90,000	\$1,000,000	\$1,500,000	\$3,130,000	\$26,862,920	



MEMORANDUM

TO: Art Baumann, P.E. – WisDOT SE Region
Mayor Steve Olson – City of Franklin

FROM: Andre Ost, P.E., PTOE
Shana Brummond, P.E., PTOE

DATE: May 13, 2015

SUBJECT: Franklin Area A TIA - Initial Review
Franklin, Wisconsin

Introduction

The Franklin Area A Development is a mixed use development proposed to be located along W. Loomis Road (STH 36) at the interchanges with W. Rawson Avenue (CTH BB) & S. 76th Street (CTH U) in the City of Franklin. The development includes four specific areas along W. Loomis Road. The development plan requires the removal of the W. Rawson Avenue ramps and realignment of the S. 76th Street ramps. Construction is expected to begin with the realignment of the ramps in 2017 with full build out by 2022.

The Wisconsin Department of Transportation (WisDOT) requires a full Traffic Impact Analysis (TIA) for developments generating more than 500 peak hour trips. This initial review identifies the study area, trip generation and analysis periods for the TIA.

Development Overview

Site Location

A street map illustrating the location of the Franklin Area A developments is shown on Exhibit 1.

Study Area

As discussed with WisDOT staff, the study area for the TIA is recommended to include the following intersections:

- W. Loomis Road (STH 36) Northbound ramps & W. Rawson Avenue (CTH BB)
- W. Loomis Road (STH 36) Northbound ramps & S. 76th Street (CTH U)
- W. Loomis Road (STH 36) Southbound ramps & S. 76th Street (CTH U)
- W. Loomis Road (STH 36) Southbound ramps & W. Rawson Avenue (CTH BB)
- S. 76th Street (CTH U) & W. Rawson Avenue (CTH BB)
- S. 68th Street & W. Rawson Avenue (CTH BB)
- S. 76th Street (CTH U) and W. Crystal Ridge Drive
- W. Rawson Avenue (CTH BB) and W. Crystal Ridge Drive
- W. Loomis Road (STH 36) & W. Drexel Avenue
- W. Loomis Road (STH 36) & 3 Proposed Study Intersections (North, Middle, South)

The existing geometrics at the study area intersections are shown on Exhibit 2. The future planned transportation system with the proposed ramp realignments is shown on Exhibit 3. The following is a description of the existing study area roadways.

W. Loomis Road (STH 36) is a four-lane northeast/southwest divided principal arterial that passes under S. 76th Street and W. Rawson Avenue with ramp connections to both roadways. According to the Wisconsin Department of Transportation (WisDOT), the Year 2014 Annual Average Daily Traffic (AADT) along W. Loomis Road was 16,700 vehicles per day (vpd) north of W. Drexel Avenue and 18,600 vpd north of 76th Street. W. Loomis Road has a 45-mph speed limit from the south project limits to 0.3 miles north of W. Drexel Avenue where the speed limit increases to 55-mph. The 55-mph speed limit continues for 1.9 miles through the W. Rawson Avenue and S. 76th Street ramps and then decreases to 45-mph near S. 68th Street.

Crystal Ridge Drive / Old Loomis Road (CTH K) is a two-lane northeast/southwest undivided local roadway that provides access through the Rock Sports Complex. The speed limit on Crystal Ridge Drive / Old Loomis Road is posted at 35-mph.

S. 76th Street (CTH U) is a six-lane divided north/south principal arterial with a posted speed limit of 40-mph through the study area. According to WisDOT, S. 76th Street had a 2011 AADT of 28,300 vpd north of Crystal Ridge Drive and 24,700 vpd south of W. Rawson Avenue.

S. 68th Street is a two-lane undivided north/south collector roadway with a posted speed limit of 30-mph through the study area. According to WisDOT, S. 76th Street had a 2011 AADT of 2,300 vehicles per day (vpd) north of W. Rawson Avenue and 2,600 vpd south of W. Rawson Avenue.

W. Rawson Avenue (CTH BB) is an east/west principal arterial that transitions from a two-lane undivided roadway section to a four-lane divided roadway section west of Crystal Ridge Drive. The median width through the study area is at least 25 feet wide allowing for two-stage crossing movements (vehicles can wait in the median before completing their maneuver) at stop controlled intersections. W. Rawson Avenue has a 40-mph speed limit within the study area. The 2011 WisDOT AADT on W. Rawson Avenue was 14,700 vpd between Crystal Ridge Drive and the W. Loomis Road southbound ramps and 29,900 vpd east of S. 76th Street.

W. Drexel Avenue is a two-lane undivided east/west minor arterial roadway with a posted speed limit of 35-mph through the study area. The 2014 WisDOT AADT on W. Drexel Avenue was 13,700 vpd west of W. Loomis Road and 4,100 vpd east of W. Loomis Road.

On-Site Development

Exhibit 4 shown the conceptual site plan of the development. The development is planned to be constructed in one phase and is expected to beginning construction in 2017 with full build out planned by the Year 2027. The development is proposed to include the following land uses:

Area 1:

- Apartments –232 units
- General Retail – 95,000
- Destination Retail – 75,000
- Bank –3 drive-in lanes
- High-Turnover Sit-Down Restaurants – 20,000 total sf
- Fast Food Restaurants With Drive Through – 15,000 total sf
- Town Square Park – 2 acres

Area 2:

- Single Family Houses – 50 lots

Area 3:

- Apartments –108 units
- Health Club – 60,000 sf
- Medical Office Building – 30,000 sf
- General Retail – 60,000 sf
- Specialty Grocery – 15,000 sf
- Pharmacy – 18,000 sf
- High-Turnover Sit-Down Restaurant – 10,000 sf
- Fast Food Restaurant With Drive Through – 7,500 sf

Area 4:

- Apartments –48 units
- Retail – 65,000 sf
- High-Turnover Sit-Down Restaurant – 10,000 sf
- Fast Food Restaurant With Drive Through – 7,500 sf

Off-Site Development

Based on discussions with the City, there are two planned developments in the vicinity of the Franklin Area A TIF. Trip generation for these sites will be added to the background traffic. A summary of the off-site developments is included below:

Hampton Inn & Suites Hotel

- Hotel - 100 Rooms

The Hampton Inn & Suites hotel will be located at 6901 S. 76th Street and will have access to the east side of S. 76th Street north of W. Rawson Road. The hotel is planned to open this summer.

The Rock – Additional Fields

The Rock complex is planning to add the following fields to their site:

- 2 baseball fields
- 4 soccer fields
- 4 futsal fields

Access for the Rock complex is located on the north side of Crystal Ridge Drive between S. 76th Street and W. Rawson Road. The additional fields are planned to be constructed before 2017.

Site Trip Generation

To address any potential future traffic impacts within the study area, it is necessary to identify the traffic expected to be generated by the proposed development. The expected traffic volumes generated by the development are based on the size and type of proposed land uses, and on trip data published in the Institute of Transportation Engineer's (ITE's) *Trip Generation, 9th Edition (2012)*.

It can be expected that approximately 20 percent of the development trips will be linked trips within Areas 1, 3 and 4. A linked trip occurs when a motorist has more than one destination within the site. Additionally, it can be expected that pass-by trips will be common with the development that is located on an arterial roadway. Pass-by trips occur when vehicles that are already on the roadway system stop at the development prior to continuing on their intended route. The following pass-by percentages were used:

- 10% of Discount store
- 25% of General retail
- 40% of Pharmacy
- 40% of Bank
- 30% of High-Turnover Sit-Down restaurant
- 40% of Fast food restaurant

Exhibit 5 shows the trip generation for the proposed development. As shown in Exhibit 5, the proposed development is expected to generate 2,755 total vehicle trips (1,420 entering vehicles/1,335 exiting vehicles) during the weekday morning peak hour. Of the 2,755 total trips, 545 trips are expected to be linked trips and 665 trips are expected to be pass-by trips resulting in 1,545 new development generated trips.

During the weekday evening peak hour, the proposed development is expected to generate 3,655 total vehicle trips (2,755 entering vehicles/1,735 exiting vehicles). Of the 3,655 total trips, 720 trips are expected to be linked trips and 730 trips are expected to be pass-by trips resulting in 2,205 new development generated trips.

During the Saturday midday peak hour, the proposed development is expected to generate 4,895 total vehicle trips (2,520 entering vehicles/2,375 exiting vehicles). Of the 4,895 total trips, 970 trips are expected to be linked trips and 1,065 trips are expected to be pass-by trips resulting in 2,860 new development generated trips.

Assumptions for the Development of the TIA

The following assumptions were made by GRAEF regarding the study area peak hours, distribution of traffic and the proposed access on W. Loomis Road (STH 36).

Data Collection/Peak Hours

The Franklin Area A development is expected to generate the highest amount of traffic during the weekday evening and Saturday midday time periods. Therefore, it is recommended that this study analyze the weekday evening and Saturday midday peak hours.

In March and April of 2015, GRAEF collected 13 hour weekday turning movement counts from 6:00 am to 7:00 pm at the following intersections:

- W. Loomis Road (STH 36) Northbound ramps & W. Rawson Avenue (CTH BB)
- W. Loomis Road (STH 36) Northbound ramps & S. 76th Street (CTH U)
- W. Loomis Road (STH 36) Southbound ramps & W. Rawson Avenue (CTH BB)
- W. Rawson Avenue (CTH BB) and W. Crystal Ridge Drive

GRAEF collected weekday evening turning movement counts from 3:00 pm to 7:00 pm at the following intersections:

- W. Loomis Road (STH 36) & W. Drexel Avenue
- W. Loomis Road (STH 36) Southbound ramps & S. 76th Street (CTH U)
- S. 76th Street & W. Crystal Ridge Drive
- S. 76th Street & W. Rawson Avenue (CTH BB)
- W. Rawson Avenue (CTH BB) & S. 68th Street

GRAEF collected Saturday turning movement counts at all 9 study intersections from 10:00 am to 2:00 pm.

Based on the traffic counts, the weekday evening peak hour was determined to be 4:30 – 5:30 pm and the Saturday midday peak hour was determined to be 11:30 am - 12:30 pm. A summary of the existing traffic volumes can be found in Exhibit 6. All intersection traffic counts are included in Appendix A.

Base Year/ Horizon Year Analysis

The development is expected to begin construction in 2017 and have the first buildings opened in 2017 with full build out by 2022. Therefore it is recommended that 2017 represent the base analysis year for the TIA.

According to the WisDOT TIA guidelines, the horizon year shall be established as 10 years after the opening of the proposed development or five years after full buildout, whichever is greater. Therefore it is recommended that 2027 represent the horizon year in the TIA.

The W. Loomis Road ramps to W. Rawson Avenue and S. 76th Street are anticipated to be reconfigured by 2017 in preparation for site development. We propose the TIA will study the traffic operations for the following scenarios with the proposed ramps realignments:

- 2017 & 2027 Background Traffic
- 2017 & 2027 Build Traffic (Includes Area A Development)
- 2017 & 2027 Total Traffic (Includes Area A & Off-Site Developments)

Proposed Development Access on W. Loomis Road (STH 36)

W. Loomis Road (STH 36) is currently access controlled and WisDOT has the final approval for any new access to the state highway. In order to create acceptable access locations for the proposed development on W. Loomis Road (STH 36), it is necessary to eliminate the ramps to W. Rawson Avenue and realign the existing ramps to S. 76th Street. Exhibit 7 shows the feasibility of realigning the ramps to S. 76th Street. The piers for the existing W. Rawson Avenue bridge over W. Loomis Road have 27 feet of horizontal clearance from the edge of the travel lane. Therefore the ramp will fit adjacent to the through lanes without impacting the structure.

North Access: This access location is proposed to be right-in / right-out only. Per FDM 11-5 Attachment 5.2, 1,500 feet is the recommended distance from the end of a ramp taper to a new right-in / right-out access point. The proposed north access location is shown at 1,140 feet from the end of the taper.

Middle Access: This location is proposed to be full access and likely signalized since the W. Loomis Road corridor is a signalized corridor. Per FDM 11-5 Attachment 5.2, 2,640 feet is the recommended distance from the end of a ramp taper to a new signalized intersection. The proposed middle access location is shown at 2,345 feet from the end of the taper.

South Access: This location is proposed to be full access and unsignalized. The intersection is approximately 1,650 feet north of W. Drexel Avenue and would only provide access to the residential use.

We are requesting the WisDOT further evaluate the speed limit on W. Loomis Road with the proposed access locations and realignment of the ramp. The roadway currently has a speed limit posted at 55-mph (expressway) within the area of the three proposed access locations. On both ends of the project, W. Loomis Road has a speed limit posted at 45-mph (arterial / transitional roadway). If the speed limit is lowered to 45-mph to remain consistent along the corridor, the roadway would no longer fall under the requirements of FDM 11-5 as this only applies to freeway / expressway.

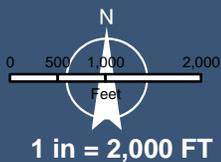
Conclusions

The TIA for the proposed development is recommended to analyze the weekday evening and Saturday midday peak hours at the identified study area intersections. The analysis years are recommended to be Year 2017 and 2027. If the analysis peak hours and years are acceptable, we will request WisDOT to develop forecasts for the background traffic with the ramp realignments. We would appreciate comments on the information provided in this memo.

cc: Dan Murphy – Milwaukee County

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AREA A
Project Site Location Map
CITY OF FRANKLIN
MILWAUKEE COUNTY, WISCONSIN

EXHIBIT 1
GRAEF

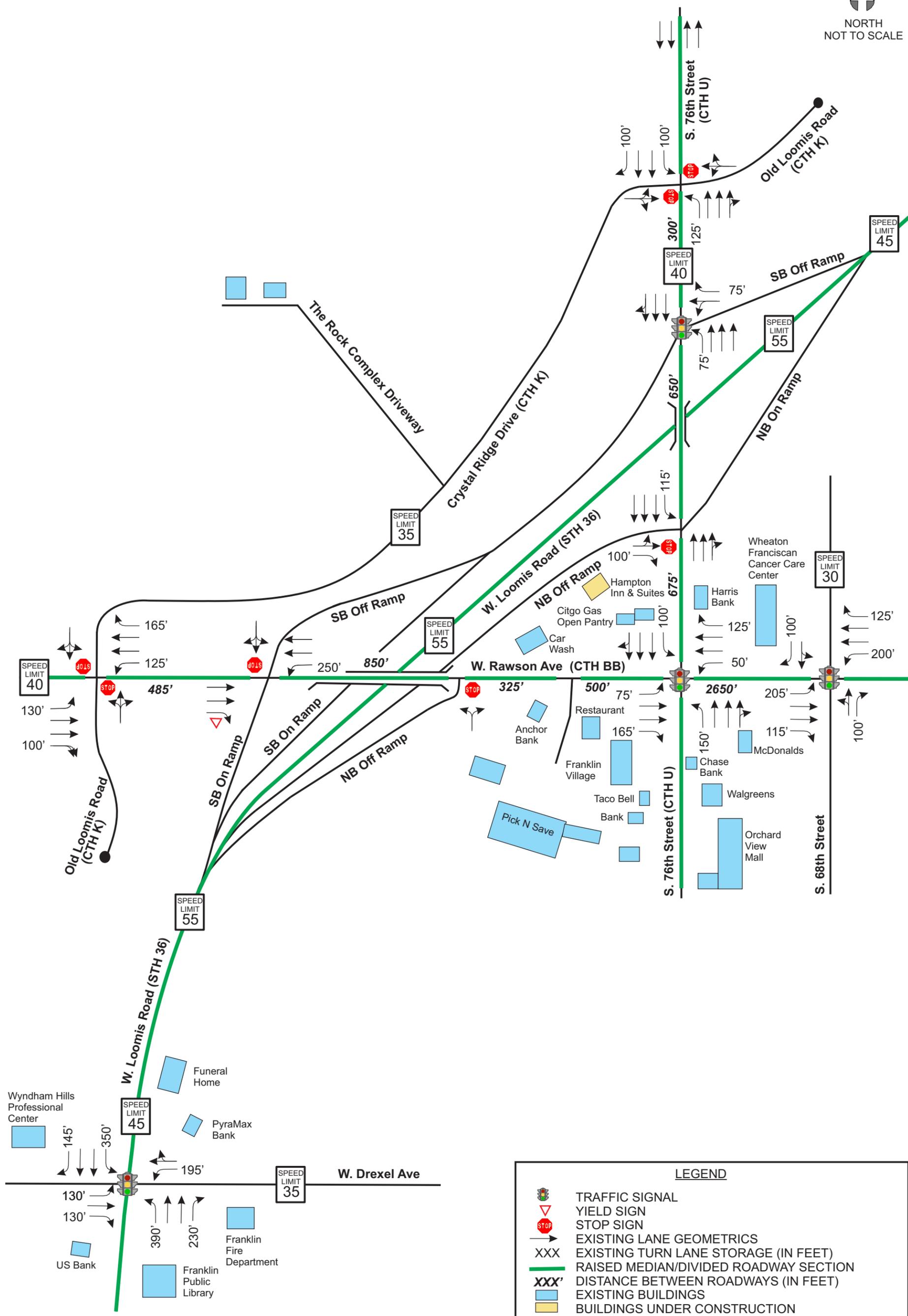


EXHIBIT 2
EXISTING TRANSPORTATION SYSTEM
FRANKLIN AREA A TIA
FRANKLIN, WI

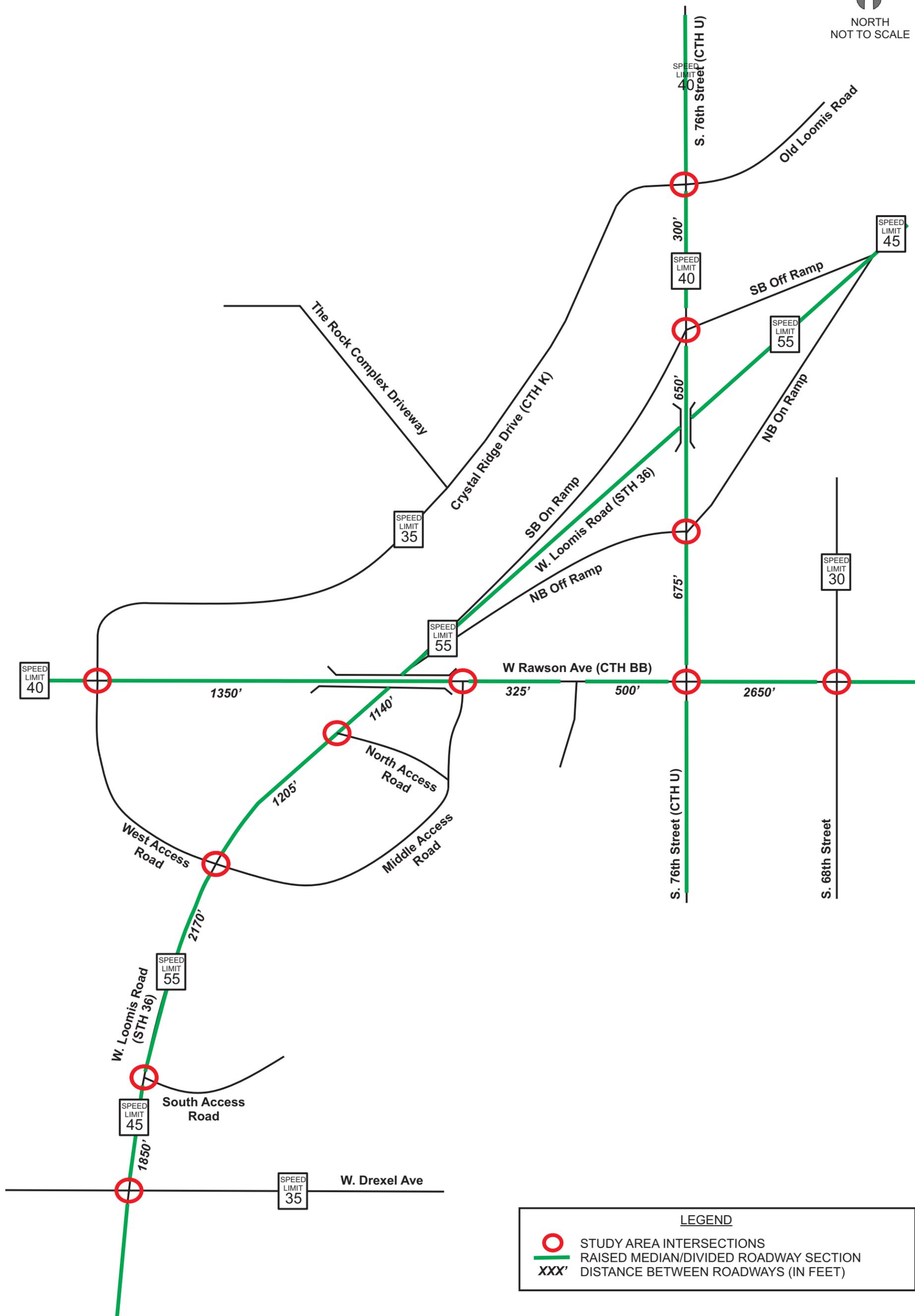
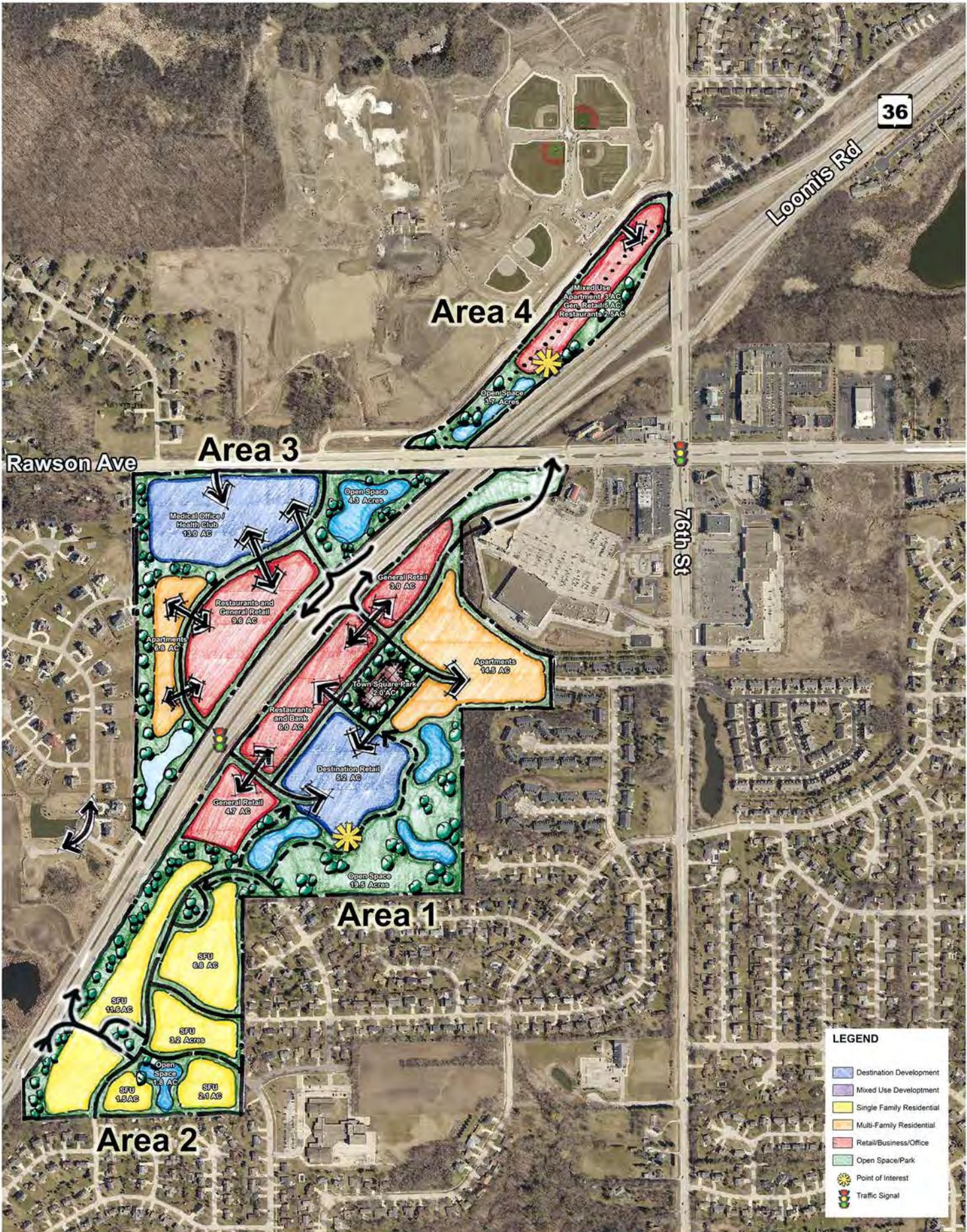


EXHIBIT 3
PLANNED TRANSPORTATION SYSTEM
FRANKLIN AREA A TIA
FRANKLIN, WI



LEGEND

- Destination Development
- Mixed Use Development
- Single Family Residential
- Multi-Family Residential
- Retail/Business/Office
- Open Space/Park
- Point of Interest
- Traffic Signal



AREA A
CONCEPTUAL SITE PLAN
 CITY OF FRANKLIN
 MILWAUKEE COUNTY, WISCONSIN

EXHIBIT 4



Franklin Area A
2014-0960

Area 1

ITE Code	ITE Land Use	Trip Rates and Directional	Daily			AM Peak			PM Peak			Saturday Peak		
			Trips	In	Out	Total	In	Out	Total	In	Out	Total		
220	Apartment 232 Dwelling Units	Trip Rates and Directional	6.65	20%	80%	0.51	65%	35%	0.62	50%	50%	0.52		
		Trips	1,545	25	95	120	95	50	145	60	60	120		
815	Discount Store (Destination Retail) 75,000 Square Feet	Trip Rates and Directional	57.24	68%	32%	1.06	50%	50%	5.00	51%	49%	7.39		
		Trips	4,295	55	25	80	190	185	375	285	270	555		
820	General Retail (Shopping Center) 95,000 Square Feet	Trip Rates and Directional	42.94	61%	39%	1.00	49%	51%	3.73	52%	48%	4.89		
		Trips	4,080	60	35	95	175	180	355	240	225	465		
912	Drive-in Bank 3 Drive-In Lanes	Trip Rates and Directional	139.25	60%	40%	9.29	49%	51%	33.24	49%	51%	28.78		
		Trips	420	20	10	30	50	50	100	40	45	85		
932	High-Turnover (Sit-Down) Restaurant 20,000 Square Feet	Trip Rates and Directional	127.15	55%	45%	10.81	60%	40%	9.85	53%	47%	14.07		
		Trips	2,545	120	95	215	115	80	195	150	130	280		
934	Fast Food Restaurant with Drive-Through 15,000 Square Feet	Trip Rates and Directional	496.12	51%	49%	49.35	52%	48%	33.84	51%	49%	59.39		
		Trips	7,440	375	365	740	265	245	510	455	435	890		
	Total Trips		20,325	655	625	1,280	890	790	1,680	1,230	1,165	2,395		
		Minus Linked Trips 20%	(4,065)	(130)	(125)	(255)	(180)	(160)	(335)	(245)	(235)	(480)		
	Total Driveway Trips		16,260	525	500	1,025	710	630	1,345	985	930	1,915		
		Minus Pass-By Trips for 815 10%	(345)	(5)	0	(5)	(15)	(15)	(30)	(25)	(20)	(45)		
		Minus Pass-By Trips for 820 25%	(815)	(10)	(5)	(20)	(35)	(35)	(70)	(50)	(45)	(95)		
		Minus Pass-By Trips for 912 40%	(135)	(5)	(5)	(10)	(15)	(15)	(30)	(15)	(15)	(25)		
		Minus Pass-By Trips for 932 30%	(610)	(30)	(25)	(50)	(30)	(20)	(45)	(35)	(30)	(65)		
		Minus Pass-By Trips for 934 40%	(2,380)	(120)	(115)	(235)	(85)	(80)	(165)	(145)	(140)	(285)		
	Total New Trips		11,975	355	350	705	530	465	1,005	715	680	1,400		

Area 2

ITE Code	ITE Land Use	Trip Rates and Directional	Daily			AM Peak			PM Peak			Saturday Peak		
			Trips	In	Out	Total	In	Out	Total	In	Out	Total		
210	Single Family Detached Housing 50 Dwelling Units	Trip Rates and Directional	9.52	25%	75%	0.75	63%	37%	1.00	54%	46%	0.93		
		Trips	475	10	30	40	30	20	50	25	20	45		
	Total Trips		475	10	30	40	30	20	50	25	20	45		
		Minus Linked Trips 0%	0	0	0	0	0	0	0	0	0	0		
	Total Driveway Trips		475	10	30	40	30	20	50	25	20	45		
		Minus Pass-By Trips 0%	0	0	0	0	0	0	0	0	0	0		
	Total New Trips		475	10	30	40	30	20	50	25	20	45		

Area 3

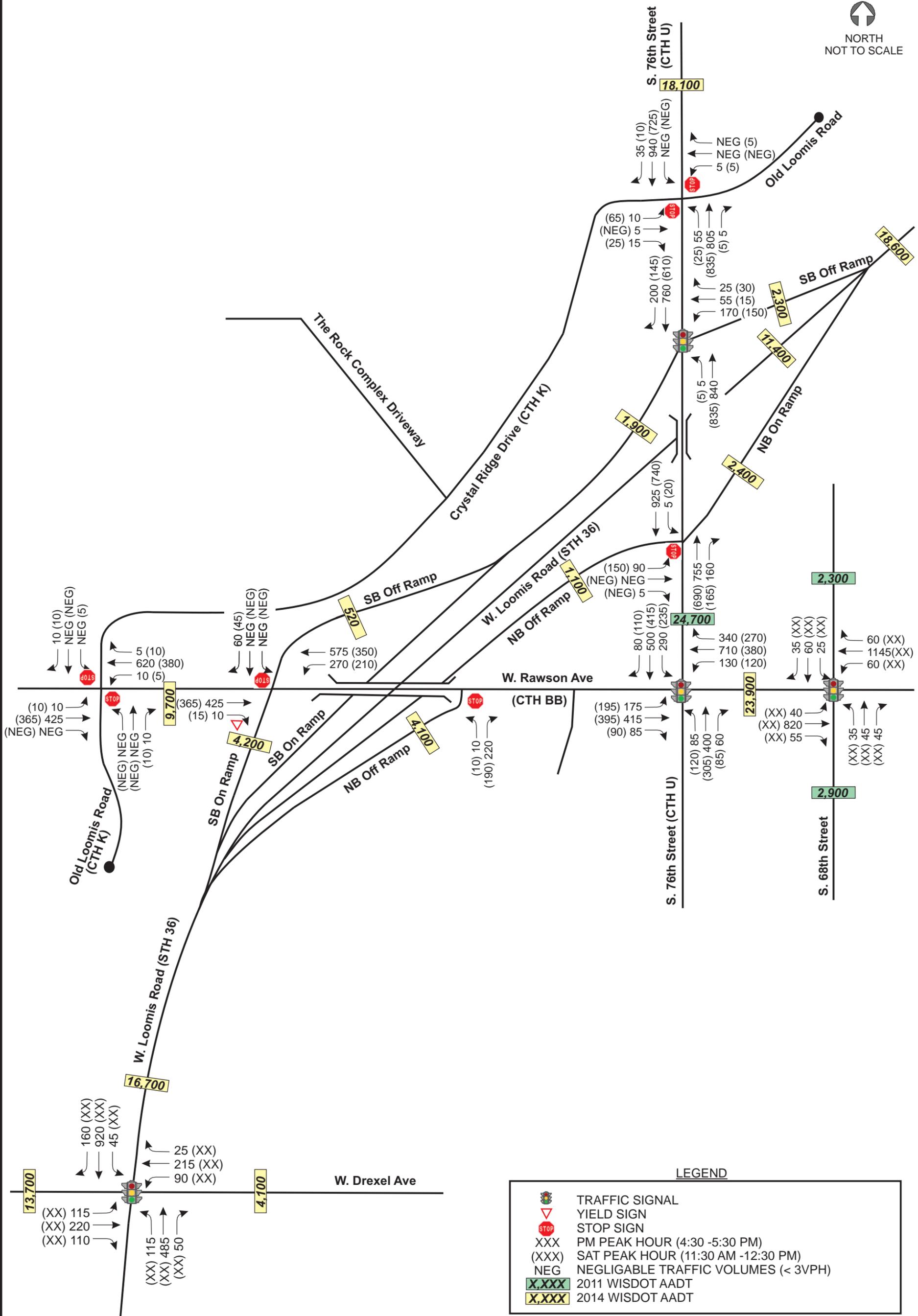
ITE Code	ITE Land Use	Trip Rates and Directional	Daily			AM Peak			PM Peak			Saturday Peak		
			Trips	In	Out	Total	In	Out	Total	In	Out	Total		
220	Apartment 108 Dwelling Units	Trip Rates and Directional	6.65	20%	80%	0.51	65%	35%	0.62	50%	50%	0.52		
		Trips	720	10	45	55	40	25	65	30	25	55		
492	Health/Fitness Club 60,000 Square Feet	Trip Rates and Directional	32.93	50%	50%	1.41	57%	43%	3.53	45%	55%	2.78		
		Trips	1,975	45	40	85	120	90	210	75	90	165		
720	Medical Office Building 30,000 Square Feet	Trip Rates and Directional	36.13	79%	21%	2.30	27%	73%	3.46	57%	43%	3.63		
		Trips	1,085	55	15	70	30	75	105	65	45	110		
820	General Retail (Shopping Center) 60,000 Square Feet	Trip Rates and Directional	42.94	61%	39%	1.00	49%	51%	3.73	52%	48%	4.89		
		Trips	2,575	35	25	60	110	115	225	155	140	295		
850	Specialty Grocery (Supermarket) 15,000 Square Feet	Trip Rates and Directional	102.24	61%	39%	3.59	51%	49%	10.50	51%	49%	10.85		
		Trips	1,535	35	20	55	80	80	160	85	80	165		
881	Pharmacy/Drugstore with Drive-through window 18,000 Square Feet	Trip Rates and Directional	96.91	52%	48%	3.45	50%	50%	9.91	49%	51%	8.20		
		Trips	1,745	30	30	60	90	90	180	75	75	150		
932	High-Turnover (Sit-Down) Restaurant 10,000 Square Feet	Trip Rates and Directional	127.15	55%	45%	10.81	60%	40%	9.85	53%	47%	14.07		
		Trips	1,270	60	50	110	60	40	100	75	65	140		
934	Fast Food Restaurant with Drive-Through 7,500 Square Feet	Trip Rates and Directional	496.12	51%	49%	49.35	52%	48%	33.84	51%	49%	59.39		
		Trips	3,720	190	180	370	135	120	255	225	220	445		
	Total Trips		14,625	460	405	865	665	635	1,300	785	740	1,525		
		Minus Linked Trips 20%	(2,925)	(90)	(80)	(175)	(135)	(125)	(260)	(155)	(150)	(305)		
	Total Driveway Trips		11,700	370	325	690	530	510	1,040	630	590	1,220		
		Minus Pass-By Trips for 820 25%	(515)	(5)	(5)	(10)	(20)	(25)	(45)	(30)	(30)	(60)		
		Minus Pass-By Trips for 850 20%	(245)	(5)	(5)	(10)	(15)	(15)	(25)	(15)	(15)	(25)		
		Minus Pass-By Trips for 881 40%	(560)	(10)	(10)	(20)	(30)	(30)	(60)	(25)	(25)	(50)		
		Minus Pass-By Trips for 932 30%	(305)	(15)	(10)	(25)	(15)	(10)	(25)	(20)	(15)	(35)		
		Minus Pass-By Trips for 934 40%	(1,190)	(60)	(60)	(120)	(45)	(40)	(80)	(70)	(70)	(140)		
	Total New Trips		8,885	275	235	505	405	390	805	470	435	910		

Area 4

ITE Code	ITE Land Use	Trip Rates and Directional	Daily			AM Peak			PM Peak			Saturday Peak		
			Trips	In	Out	Total	In	Out	Total	In	Out	Total		
220	Apartment 48 Dwelling Units	Trip Rates and Directional	6.65	20%	80%	0.51	65%	35%	0.62	50%	50%	0.52		
		Trips	320	5	20	25	20	10	30	15	10	25		
820	General Retail (Shopping Center) 65,000 Square Feet	Trip Rates and Directional	42.94	61%	39%	1.00	49%	51%	3.73	52%	48%	4.89		
		Trips	2,790	40	25	65	120	120	240	165	155	320		
932	High-Turnover (Sit-Down) Restaurant 10,000 Square Feet	Trip Rates and Directional	127.15	55%	45%	10.81	60%	40%	9.85	53%	47%	14.07		
		Trips	1,270	60	50	110	60	40	100	75	65	140		
934	Fast Food Restaurant with Drive-Through 7,500 Square Feet	Trip Rates and Directional	496.12	51%	49%	49.35	52%	48%	33.84	51%	49%	59.39		
		Trips	3,720	190	180	370	135	120	255	225	220	445		
	Total Trips		8,100	295	275	570	335	290	625	480	450	930		
		Minus Linked Trips 20%	(1,620)	(60)	(55)	(115)	(65)	(60)	(125)	(95)	(90)	(185)		
	Total Driveway Trips		6,480	235	220	455	270	230	500	385	360	745		
		Minus Pass-By Trips for 820 25%	(560)	(10)	(5)	(15)	(25)	(25)	(50)	(35)	(30)	(65)		
		Minus Pass-By Trips for 932 30%	(305)	(15)	(10)	(25)	(15)	(10)	(25)	(20)	(15)	(35)		
		Minus Pass-By Trips for 934 40%	(1,190)	(60)	(60)	(120)	(45)	(40)	(80)	(70)	(70)	(140)		
	Total New Trips		4,425	150	145	295	185	155	345	260	245	505		

Area A Total

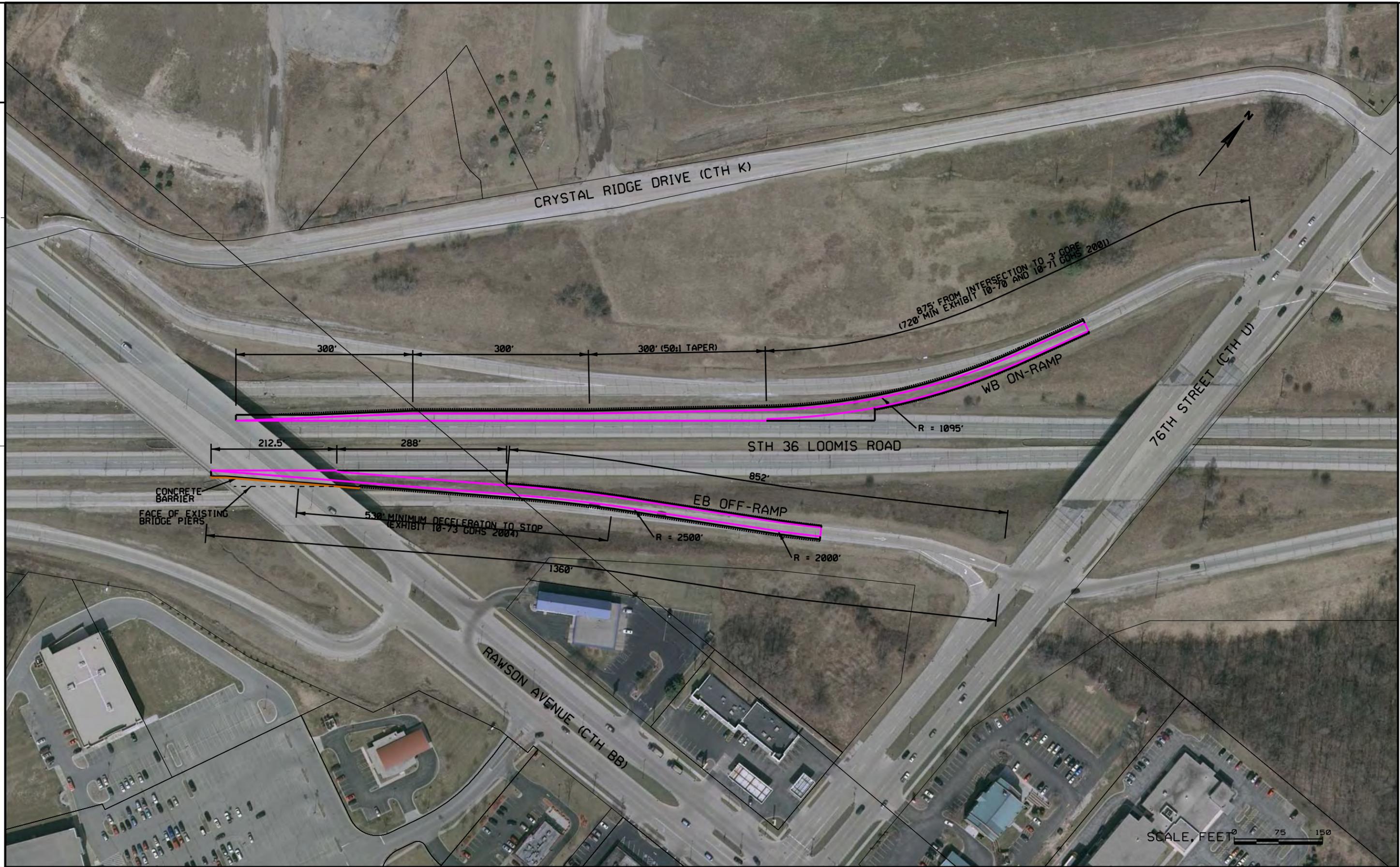
	Daily	AM Peak			PM Peak			Saturday Peak		
Total Trips	43,525	1,420	1,335	2,755	1,920	1,735	3,655	2,520	2,375	4,895
	(8,610)	(280)	(260)	(545)	(380)	(345)	(720)	(495)	(475)	(970)
Total Driveway Trips	34,915	1,140	1,075	2,210	1,540	1,390	2,935	2,025	1,900	3,925
	(9,155)	(350)	(315)	(665)	(390)	(360)	(730)	(555)	(520)	(1,065)
Total New Trips	25,760	790	760	1,545	1,150	1,030	2,205	1,470	1,380	2,860



LEGEND

	TRAFFIC SIGNAL
	YIELD SIGN
	STOP SIGN
XXX	PM PEAK HOUR (4:30 -5:30 PM)
(XXX)	SAT PEAK HOUR (11:30 AM -12:30 PM)
NEG	NEGLIGABLE TRAFFIC VOLUMES (< 3VPH)
X,XXX	2011 WISDOT AADT
X,XXX	2014 WISDOT AADT

**EXHIBIT 6
EXISTING TRAFFIC VOLUMES
FRANKLIN AREA A TIA
FRANKLIN, WI**



PROJECT NO: _____	HWY: STH 36	COUNTY: MILWAUKEE	76TH STREET INTERCHANGE	EXHIBIT 7	E
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