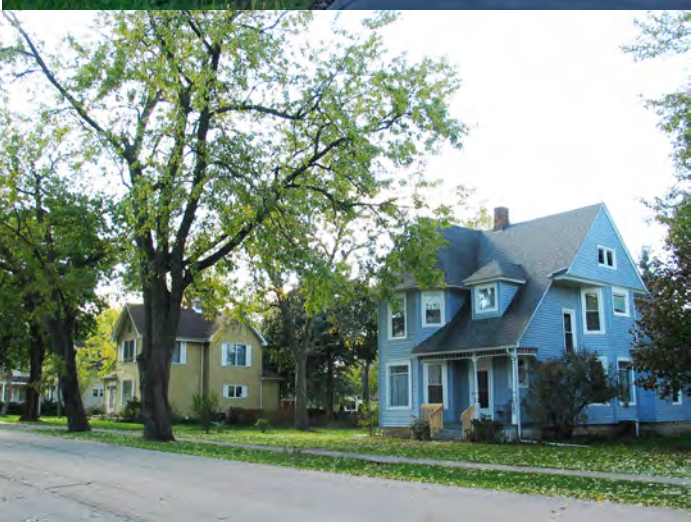
A NEW TRANSIT ORIENTED DISTRICT ON THE METRA SOUTH WEST SERVICE LINE

VILLAGE CENTER MASTER PLAN

Village of Manhattan, IL

Prepared by GINKGO Planning & Design, Inc. with KLOA, Inc., SPACECO, Inc., Land Vision, Inc. and S. B. Friedman and Company



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ACKNOWLEDGEMENTS

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Contents

Introduction

PROJECT SCOPE

The Village of Manhattan has embarked on a critical planning effort to create a Transit Oriented District (T.O.D) around the Metra train station that will define a new Village Center for the community. This plan looks at the 100 acre site where the T.O.D. will be concentrated and also looks to revitalize the existing Downtown. The goal of this plan is to guide the development and revitalization of the area while taking advantage of the transit amenity and attempt to increase ridership.

STUDY AREA

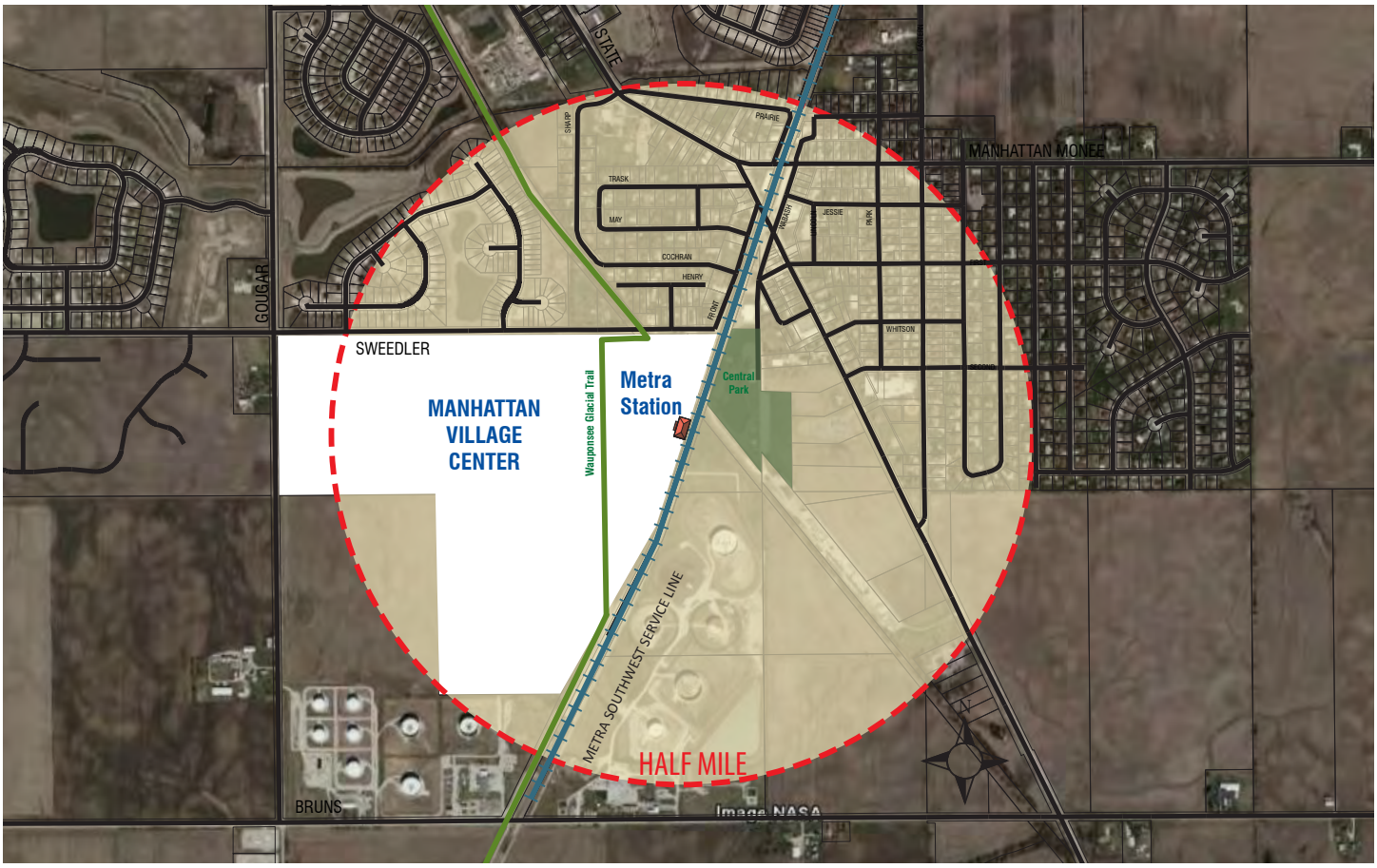
The Village of Manhattan's Village Center Plan focuses primarily on the 100 acre site located to the west of the Metra station. The existing physical boundaries of the site are south of Sweedler Road, west of the Metra SouthWest Service Line, north of the BP property and east of Gougar Road. The study also includes an analysis and recommendation for a half mile radius around the station with a particular focus on the existing old heart of town along State Street as shown in Fig 1: STUDY AREA MAP below.

PLAN PRINCIPLES

The existing original part of town and the new Village Center site together offer a great opportunity to create a successful Transit Oriented District (T.O.D.) anchored by the train station. T.O.D.s share some fundamental principles that this plan will look to build on, including:

- Maximize the number of people living within walking distance of the train station
- Create pedestrian friendly streets for safe and comfortable

FIG. 1.1: STUDY AREA MAP



Plan Principles

connections to the station, and throughout the Downtown District

- Provide safe and convenient bicycle connections to the station and Downtown
- Create a diverse housing stock to make the district attractive to all age groups
- Place civic uses and public open spaces as focal points of the district
- Strengthen connections to the historic part of town
- Place buildings along the streets with parking to the rear
- Build a shared parking strategy for the overall district between the different user groups, including commuters, shoppers, residents, visitors and employees.

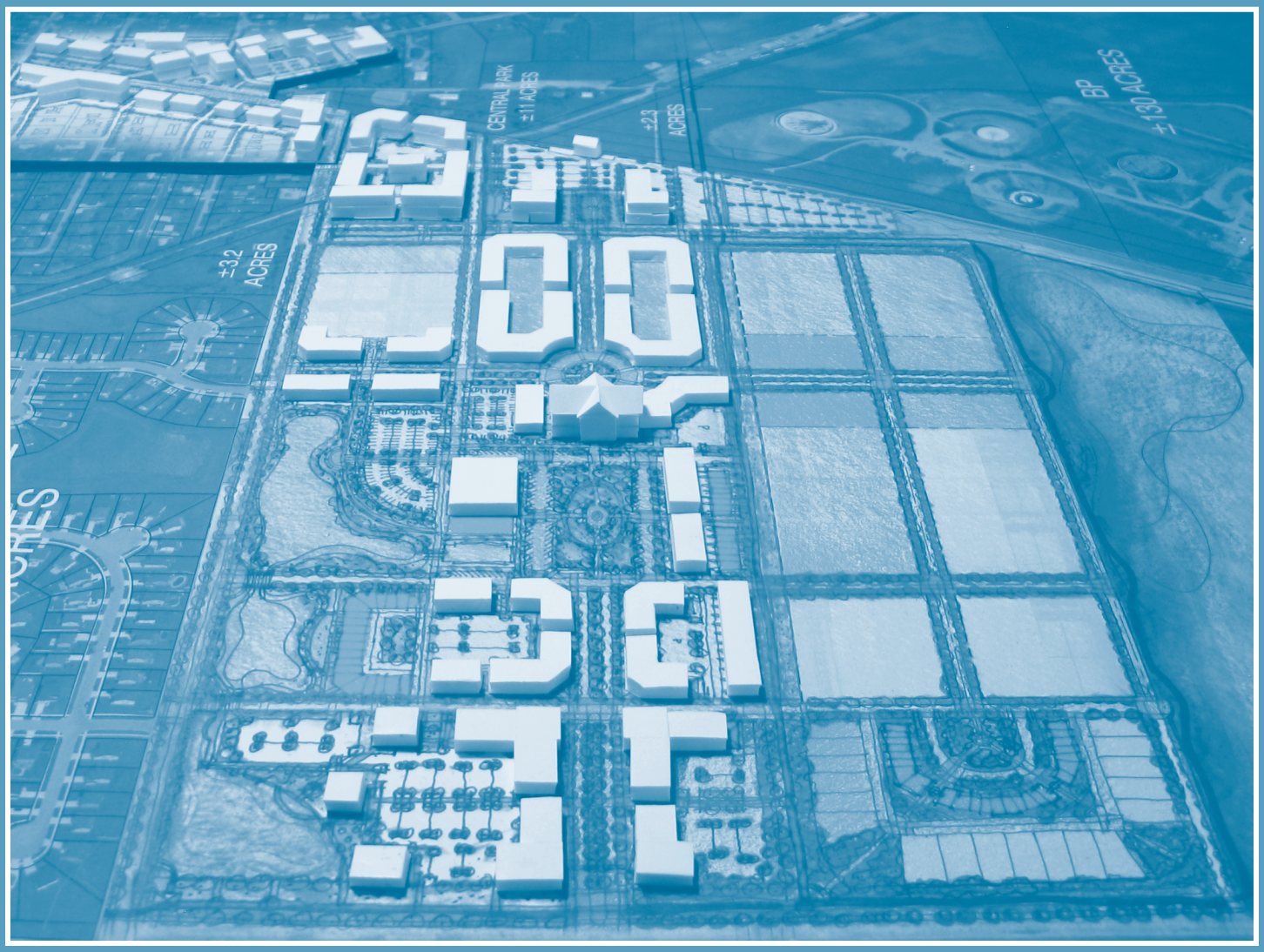
These classic principles are hardly new to Manhattan. During the 1880s, two rail lines made the Village a center for shipping agricultural goods. The Wabash Railroad built tracks that crossed the area near the current intersection of State and North Streets. With this access to Chicago and Saint Louis now possible, the small settlement prospered at the crossroads of the tracks.

The old part of Manhattan still has a significant number of single family homes on narrow lots and alleys, with shaded streets and small walkable blocks, all within easy walking distance of the original station at the heart of town.

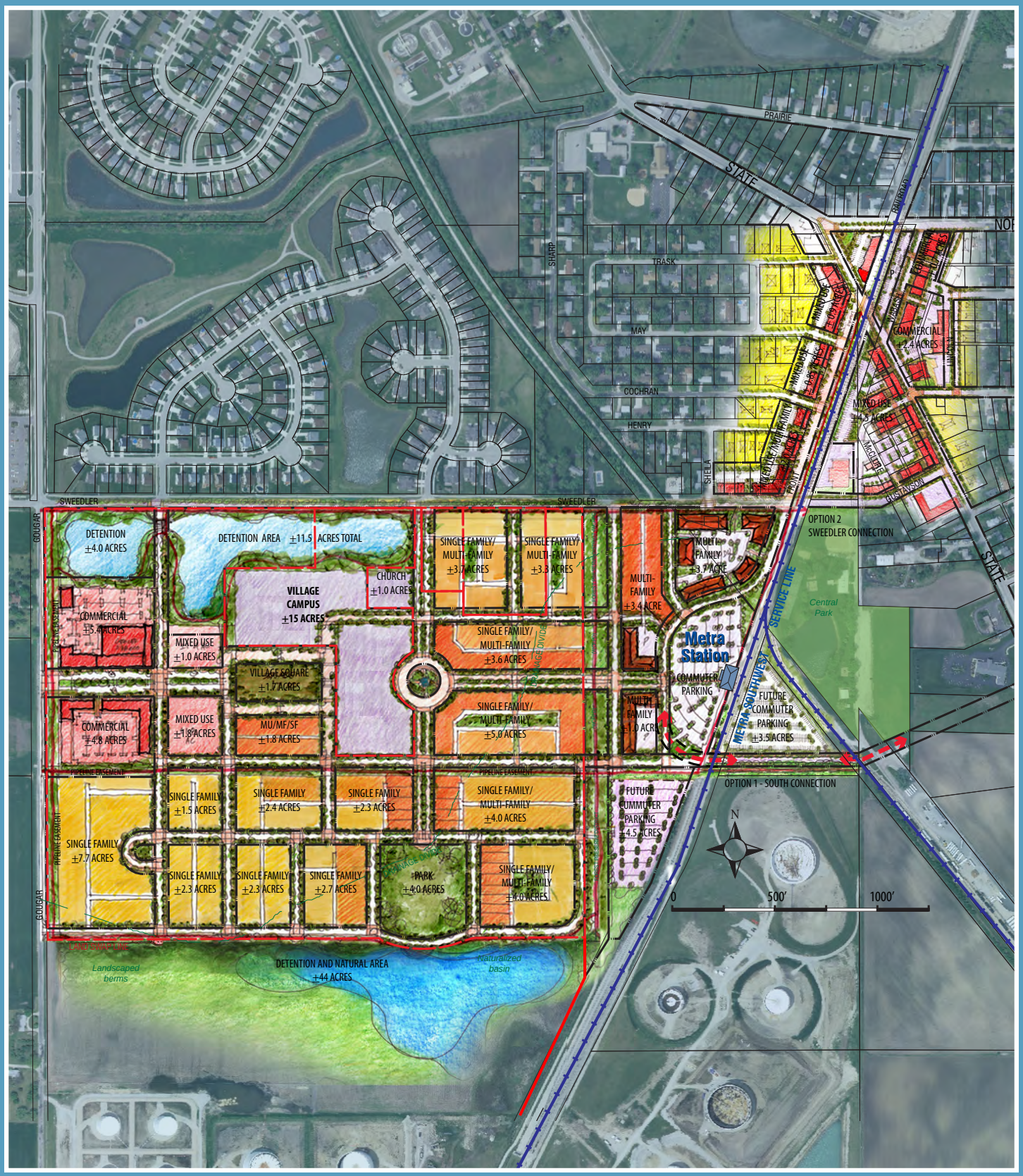
Below: Historic image of the small town that grew at the crossroads of two rail tracks

VISION

The Downtown District will grow to a vibrant, walkable downtown that brings together the original part of town and a new “Village Center” around the train station. State Street will have a strong identity as the “Main Street” of the Village with mixed-use buildings, incorporating shops at the street level and residences and offices above, lining the street. The Village Center will be anchored by a new Civic Campus showcasing a new Village Hall, Library and other civic buildings. At the heart of the campus will be the Village Square, the main community gathering space for events and festivals. A variety of uses will border the square, from commercial uses to the west, civic uses, and homes all around. Ample parking will be provided to serve the whole district, and to encourage walking between different uses. Streetscaping, lighting, signage and landscaping will reinforce the pedestrian feel of the district.

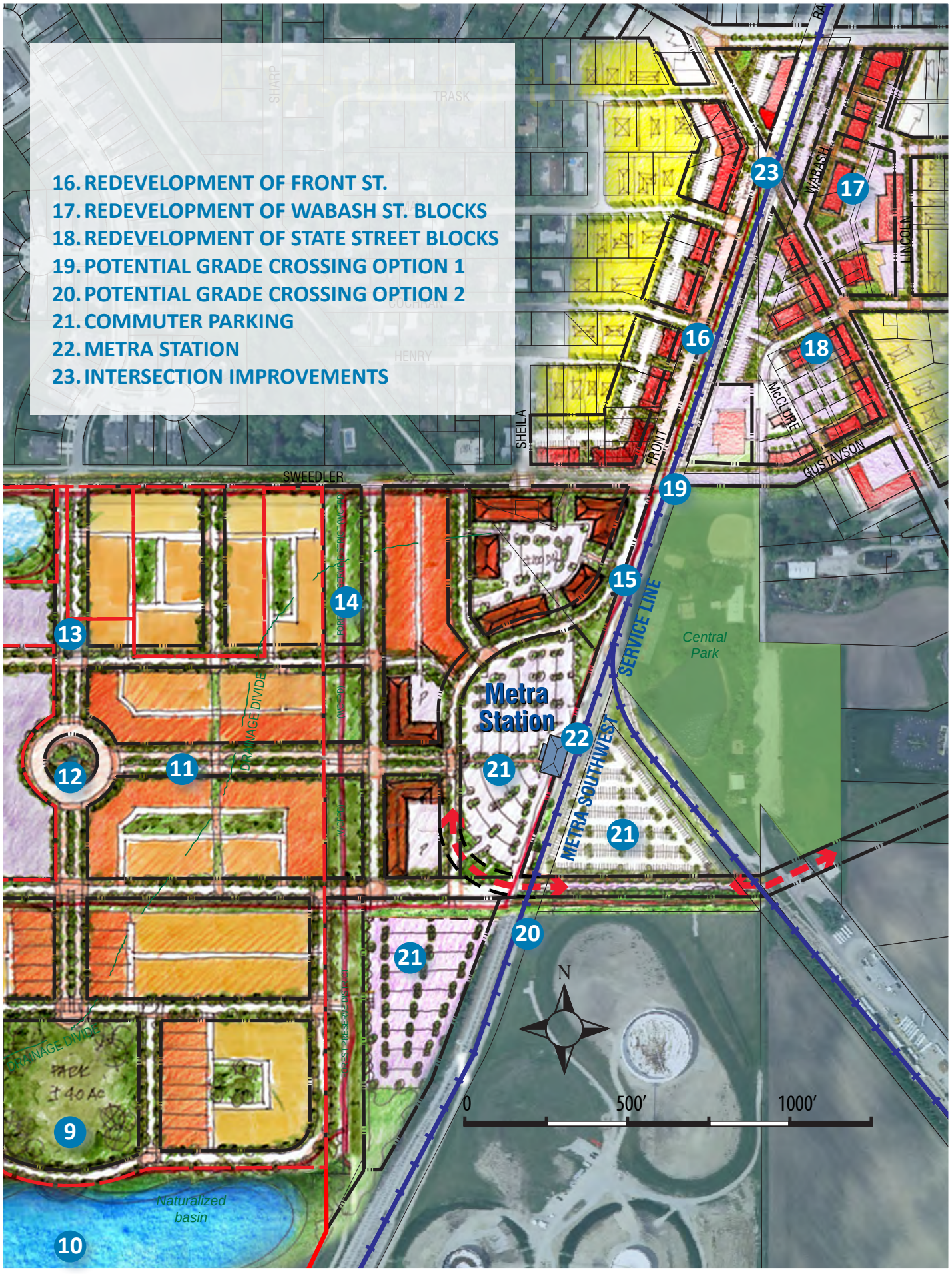


Illustrative Master Plan



Major Plan Elements

1. VILLAGE HALL, POLICE STATION AND MUNICIPAL BUILDINGS
2. LIBRARY
3. PARK DISTRICT BUILDING
4. CHURCH
5. VILLAGE SQUARE
6. NORTH LAKE
7. WEST BOULEVARD
8. GOUGAR COMMERCIAL
9. MEYER PARK
10. NATURAL AREA AND DETENTION
11. STATION BOULEVARD
12. LANDSCAPED ROUNDABOUT
13. PARK BOULEVARD
14. WAUPONSEE TRAIL
15. EXTENDED FRONT STREET


16. REDEVELOPMENT OF FRONT ST.
17. REDEVELOPMENT OF WABASH ST. BLOCKS
18. REDEVELOPMENT OF STATE STREET BLOCKS
19. POTENTIAL GRADE CROSSING OPTION 1
20. POTENTIAL GRADE CROSSING OPTION 2
21. COMMUTER PARKING
22. METRA STATION
23. INTERSECTION IMPROVEMENTS
SHARP
TRASK
HENRY
SHEILA
FRONT
McCLURE
GUSTAVSON
WABASH
LINCOLN
SWEEDLER
SERVICE LINE
METRA SOUTHWEST
Central Park
Metra Station
DRAINAGE DIVIDE
FOREST PRESERVE DISTRICT
Naturalized basin
N
0
500'
1000'

Land Use Framework

The Village Center is envisioned to be a unique mixed use district, where a variety of land uses are within walking distance of each other. Residential blocks are designed to encourage different home types and sizes, and to accommodate both front and rear loaded units. The diverse mix of uses in a compact setting will also allow sharing of resources like detention and parking areas. Redevelopment of Front Street as a mixed use street that extends to the Village Center is a major element in ensuring land use continuity between Downtown and the Village Center site.

LAND USE FRAMEWORK PLAN

Development Summary

The Master Plan allows flexibility in lot sizes and types, and encourages mixing different unit types on same blocks. The unit counts shown below are primarily to illustrate an approximate potential yield from the site. Actual unit counts will depend on the product types selected by the developer.

For details on units types, see pages 3-26 - 3-31

CIVIC AND INSTITUTIONAL								
VILLAGE HALL, PARKS AND RECREATION OFFICES, LIBRARY, POLICE, FIRE, OTHER MUNICIPAL USES, PUBLIC OPEN SPACES, PUBLIC PARKING, CHURCHES AND RELIGIOUS INSTITUTIONS	●							
RESIDENTIAL								
SINGLE FAMILY DETACHED - FRONT OR REAR LOADED						●		
SINGLE FAMILY DETACHED - REAR LOADED				●	●			
ROWHOUSES AND TOWNHOMES - REAR LOADED		●	●	●				
DUPLEXES		●	●	●				
APARTMENTS		●						
CONDOMINIUMS		●						
COMMERCIAL								
RETAIL							●	●
OFFICE							●	●
MIXED USE								
RESIDENTIAL OVER STREET LEVEL COMMERCIAL							●	

CIVIC AND INSTITUTIONAL

CIVIC CAMPUS — **±15.0 ACRES TOTAL**
INCLUDING VILLAGE HALL, LIBRARY, DETENTION, PARKING, PARKS / REC, AND OTHER FUTURE CIVIC USES

CHURCH — **±1.0 ACRES TOTAL**

PUBLIC OPEN SPACE

VILLAGE SQUARE — **±1.7 ACRES**

MEYER PARK — **±4.0 ACRES**

DETENTION — **±15.5 ACRES TOTAL,** INCLUDING DETENTION FOR CIVIC CAMPUS, RETAIL AND RESIDENTIAL

COMMERCIAL / MIXED USE

GOUGAR RETAIL — **±10.2 ACRES TOTAL, APPROX. 450 PARKING SPACES**
POTENTIAL FOR TOTAL ±80,000 SF RETAIL, INCLUDING A GROCERY (APPROX. 25,000 SF TO 35,000 SF)

MIXED USE BLOCKS
(AT VILLAGE SQUARE) — **±2.8 ACRES INCLUDING COMMERCIAL, MIXED USE, OFFICE, SENIOR HOUSING ETC.**

RESIDENTIAL USES

VILLAGE CENTER SITE (WEST OF FOREST PRESERVE ROW)	**±44.8 ACRES OF RESIDENTIAL**
VILLAGE CENTER SITE (EAST OF FOREST PRESERVE ROW)	**±8.1 ACRES OF RESIDENTIAL**
TOTAL RESIDENTIAL ACREAGE	**±52.9 ACRES**
RENTAL UNITS (3-4 STORIES)	**130 TO 150 DU APPROX.**
ROWHOUSES / TOWNHOMES (2-3 STORIES)	**80 TO 120 DU (1,600 – 3,000 SF) APPROX.**
SINGLE FAMILY DETACHED	**100 TO 150 DU (6,000 – 8,250 SF LOTS) APPROX.**

PARKING

FOR DETAILED PARKING SUMMARY, SEE PAGE 3-15

Transportation Framework

The Transportation Framework aims to ensure that the new Village Center is well connected to the existing Downtown Area, with streets, pedestrian connections and bike trails. Major elements of the Transportation Plan include the following:

1. A GRADE CROSSING OVER THE TRACKS

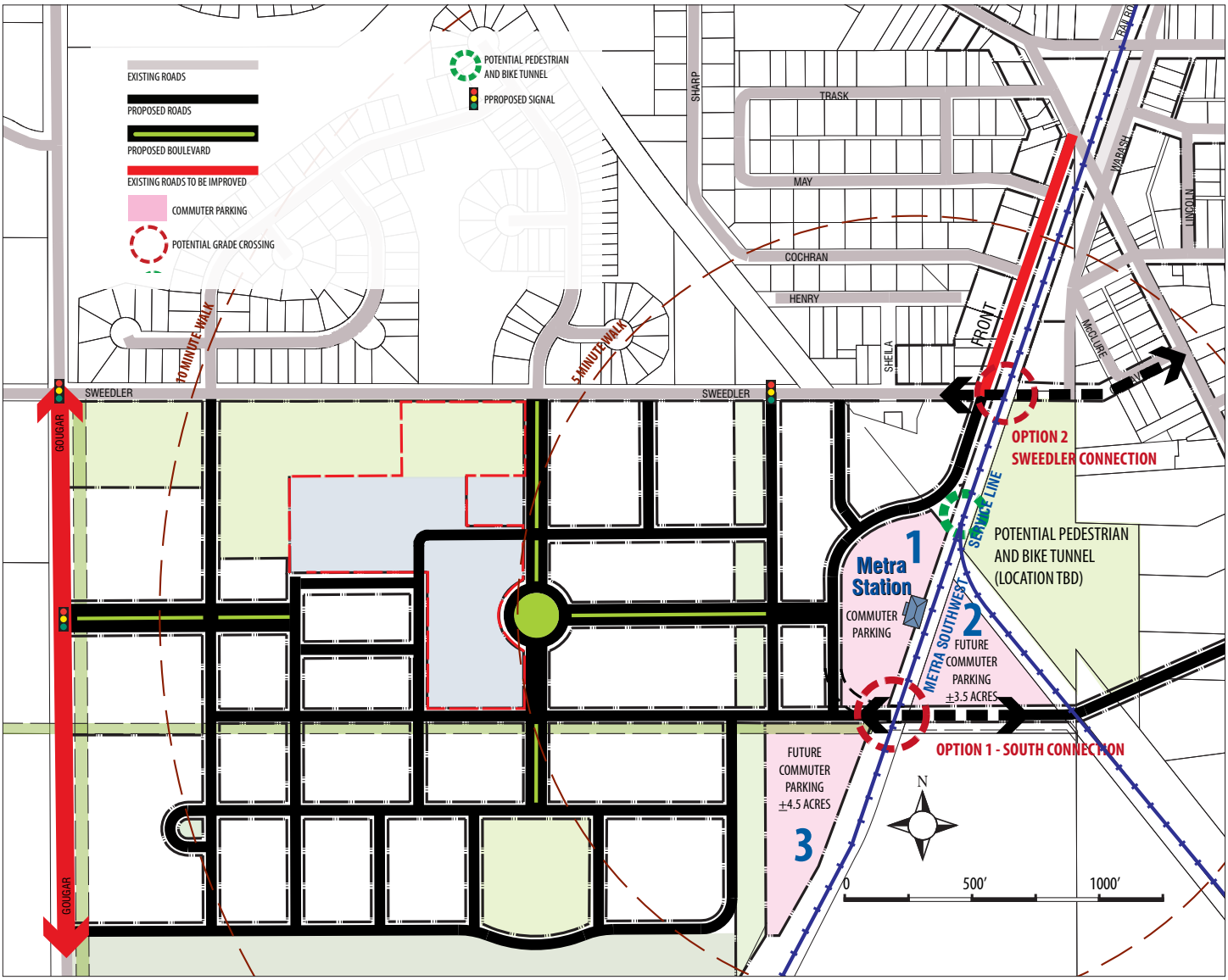
To provide a strong connection between these two areas, a future at grade crossing is recommended. Two options for the location are considered: Option 1 at Sweedler Road, and Option 2 at a Southern Alignment.

The two options are discussed in detail in Chapter 2, page 2.18, and in Appendix A.2.

2. A CONNECTED STREET GRID FOR THE VILLAGE CENTER

The Plan proposes a connected street grid that allows traffic to disperse evenly and creates small, walkable blocks. A variety of street types are proposed, from landscaped boulevards to treelined residential streets, to create a clear hierarchy in the roadway system.

TRANSPORTATION FRAMEWORK PLAN



3. MULTIMODAL OPTIONS, NOT JUST CARS

PEDESTRIANS

The Plan proposes all streets to be pedestrian friendly, with continuous sidewalks, street trees for shade, and minimal curbcuts along the streets.

BIKES

An extensive Bike Trail is proposed to serve the area and connect to the Regional Wauponsee Trail.

PACE

To reduce auto dependency in the area and to encourage ridership in Pace's paratransit service, the plan provides a paratransit boarding area, as well as rideshare/vanpool parking in close proximity to the station. The number and location of Pace vanpool/carpool spaces will be determined in a later phase pending discussions between Pace and Metra.

4. CONVENIENT COMMUTER PARKING WITH EASY ACCESS

The Plan envisions a total of 1,255 commuter parking spaces that are located within easy walking distance of the station. The existing parking lot with 257 spaces is planned to be expanded in the future, with additional lots proposed to the south and east of the tracks. The potential grade crossing and pedestrian tunnel will provide safe pedestrian connections from the future east lot.

5. IMPROVEMENTS TO EXISTING ROADS

Front Street is envisioned as a critical link between Downtown and the Village Center site, and is recommended for major improvements. Gougar Road is also proposed to be a landscaped boulevard as a major gateway to the Village Center. Improvements at the heart of Downtown along State Street will create safer traffic movement near the tracks.

Commuter Parking Summary

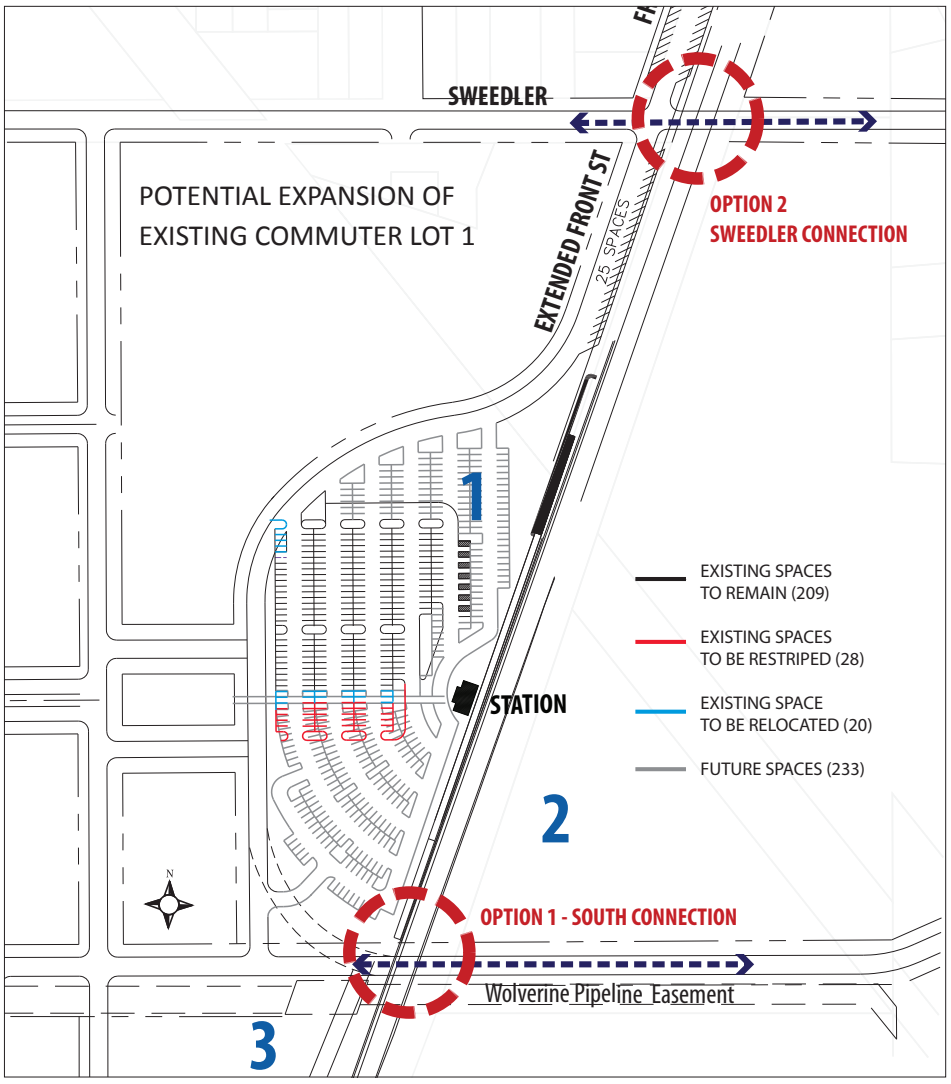
1. Expanded Existing Lot

Existing to remain	209 Spaces
Relocated	20 Spaces
Re-striped	28 Spaces
Additional	233 Spaces
Total	490 Spaces

2. Triangle Site (east of tracks) 320 Spaces

3. Existing Detention Pond site 445 Spaces

Total 1,255 Spaces



Engaging the Community

The Village Center Master Plan was developed in an eleven month long process of regular monthly meetings with a Steering Committee, working meetings with Village Staff and the transit agencies, and open house forums to engage the community.

Steering Committee members included community leaders, village residents, representatives from the school, parks, library, fire and police, and representatives from the Regional Transportation Authority (RTA) and Metra. Local business owners and stakeholders were also contacted for feedback early on in the process.

Public feedback was critical to ensure that the plan embodied the community's vision for their Downtown and Village Center. Two Public Open Houses were conducted in the library of Manhattan Junior High. At the first Open House, the community responded to an Image Preference Survey on issues including building height and scale, architectural style, materials, and public open spaces. At the second Open House, the community was presented with two Final Master Plan options, with drawings and massing models to illustrate the concepts.

A forum for Developers was also held before the plan was finalized to get feedback from developers and builders on how the plan might be implemented in viable phases.

The Final Plan for the Manhattan Village Center incorporates the feedback from the community, and all who have participated in this interactive planning process. The approval process, through Plan Commission and Village Board public hearings, allowed the community to continue to comment on the final versions of the plan.

Below: Photos from the two Public Open House forums and Steering Committee meetings

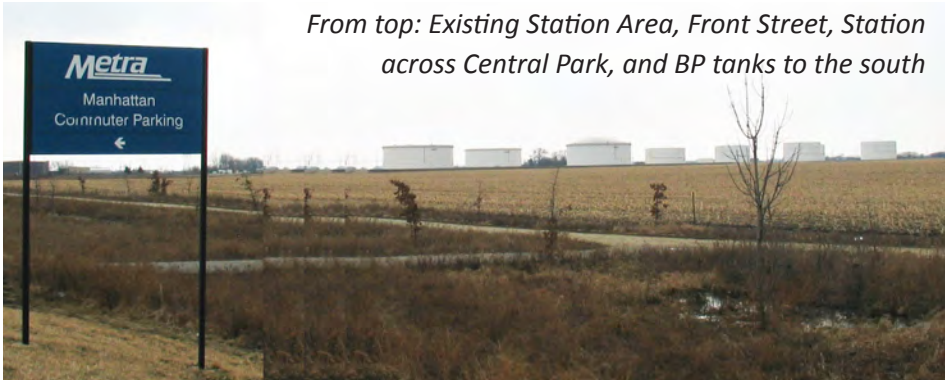
Chapter 2

Assessment of Existing Conditions

Downtown Manhattan has retained it's original small town scale, with small footprint buildings along the streets that house a variety of uses, including local shops, small offices, apartments and homes.

The original neighborhoods at the heart of town have also maintained the charm and character of walkable tree lined streets with small homes on narrow, rear loaded lots.

The Village Center site at the Metra station is to the south of Downtown Manhattan. While this large vacant land provides a great opportunity to create a new center for the community around the station, the lack of any direct pedestrian or vehicular connections to State Street, Manhattan's Main Street, and to neighborhoods to the east across the tracks, poses great challenges.



From top: Existing Station Area, Front Street, Station across Central Park, and BP tanks to the south

This plan focuses on two areas to ensure that the Village Center and Downtown are well connected, and can long term grow into one connected district. First, Front Street, an existing street along the tracks, provides the opportunity for significant redevelopment within walking distance of the station, and creates the much needed connection into the Village Center site. Second, long term opportunities for a new grade crossing across the tracks is envisioned to create a direct roadway connection between State Street and the Village Center site.

The BP tanks to the south also pose a challenge, raising concerns about impacts on views from new development, and BP's expansion plans that might occur near the Village Center. At time of publication, the Village was actively negotiating with BP on expansion opportunities, and for significant berming and landscaping as a buffer.

Central Park, to the east of the station across the tracks, is a public open space containing a ball field and other park facilities. The park offers significant opportunities for improvements, and for better connections with both the Village Center site and State Street.

Land Ownership

OWNERSHIP TODAY

The Village Center site is envisioned by the Village to be on the vacant land to the west of the existing station and tracks, south of Sweedler Road and east of Gougar Road. Most of the land is currently under Single Ownership and will be referred to as the “Meyer Property”. Current size of this L Shaped parcel is approximately 116 acres.

Land to the south is owned by BP and has storage tanks on site. This is also an L shaped parcel that is approximately 93 acres in size. BP does not have plans to add new tanks on this parcel.

There are two single family parcels on Sweedler road with existing homes. The Meyer parcel is bordered to the east by the approximately 100 foot trail right of way of the Wauponsee Trail.

POTENTIAL LAND SWAP

At time of publication, the Village was negotiating a potential land swap with BP to create a more regular shaped parcel for the Village Center, as shown in Fig. 2.1 and 2.2 below. The acreage for both the Meyer Property and BP would remain approximately the same after the swap. The regular shaped site will allow more developable land close to the station, and potentially allow a detention / landscaped buffer area between the Village Center and the tanks to the south.

	PRIVATE PARCELS	APPROX. ACREAGE
1	MEYER PARCEL	116 ACRES
2	PRIVATE LOT	1.8 ACRES
3	PRIVATE LOT	4.6 ACRES
4	SWEEDLER CORNER	3.3 ACRES
	TOTAL	**125.7 ACRES**
5	**METRA PARCEL**	**18 ACRES**
6	**BP PARCEL**	**93 ACRES**

FIG. 2.1: EXISTING LAND OWNERSHIP

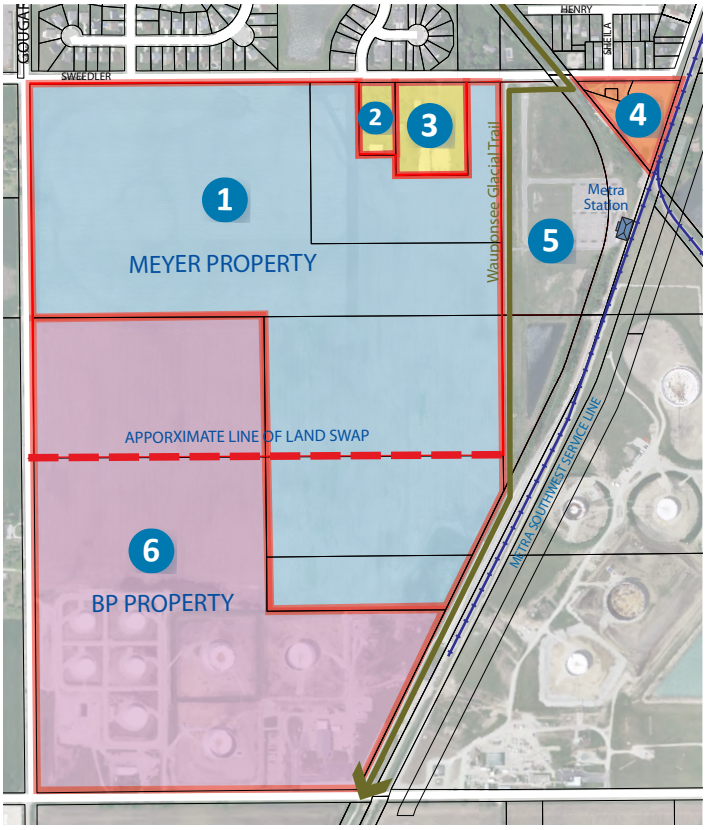
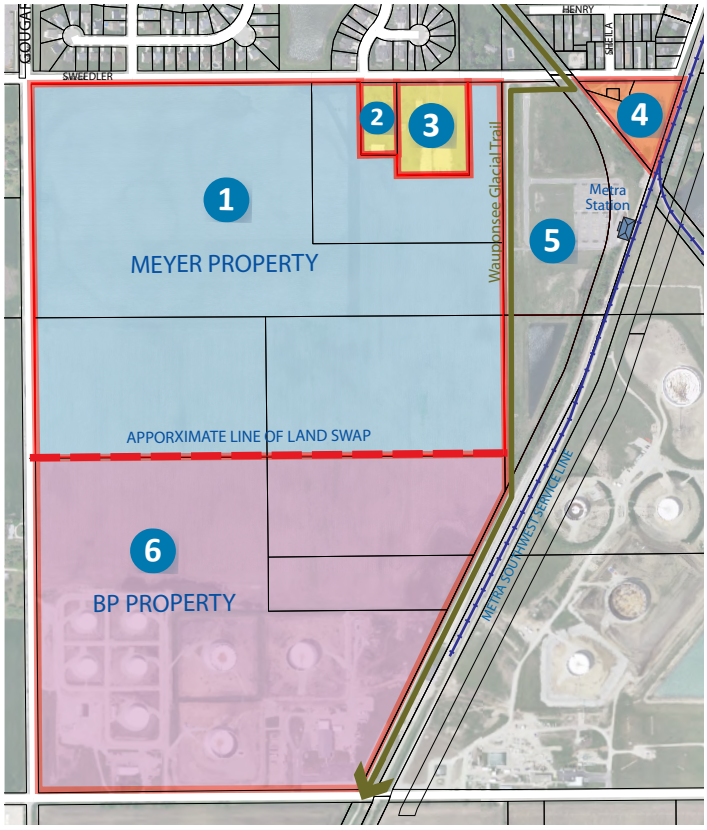


FIG. 2.2: PROPOSED LAND SWAP



Existing Site Conditions: Village Center Site

SITE LOCATION & DESCRIPTION

The site is generally located southeast of the intersection of Gougar Road and Sweedler Road. The ±116 acre property (after land swap with BP) is located in the west half of Section 20, Township 34 North, Range 11 East of the Third Principal Meridian in the Village of Manhattan in Will County, Illinois (Fig. 2.7).

SOILS

Based on a review of the Will County GIS Soils Map, the site consists of silty clay loam and silt loam soils. The existing soil conditions are shown in Fig. 2.8: Soils Map.

UTILITIES

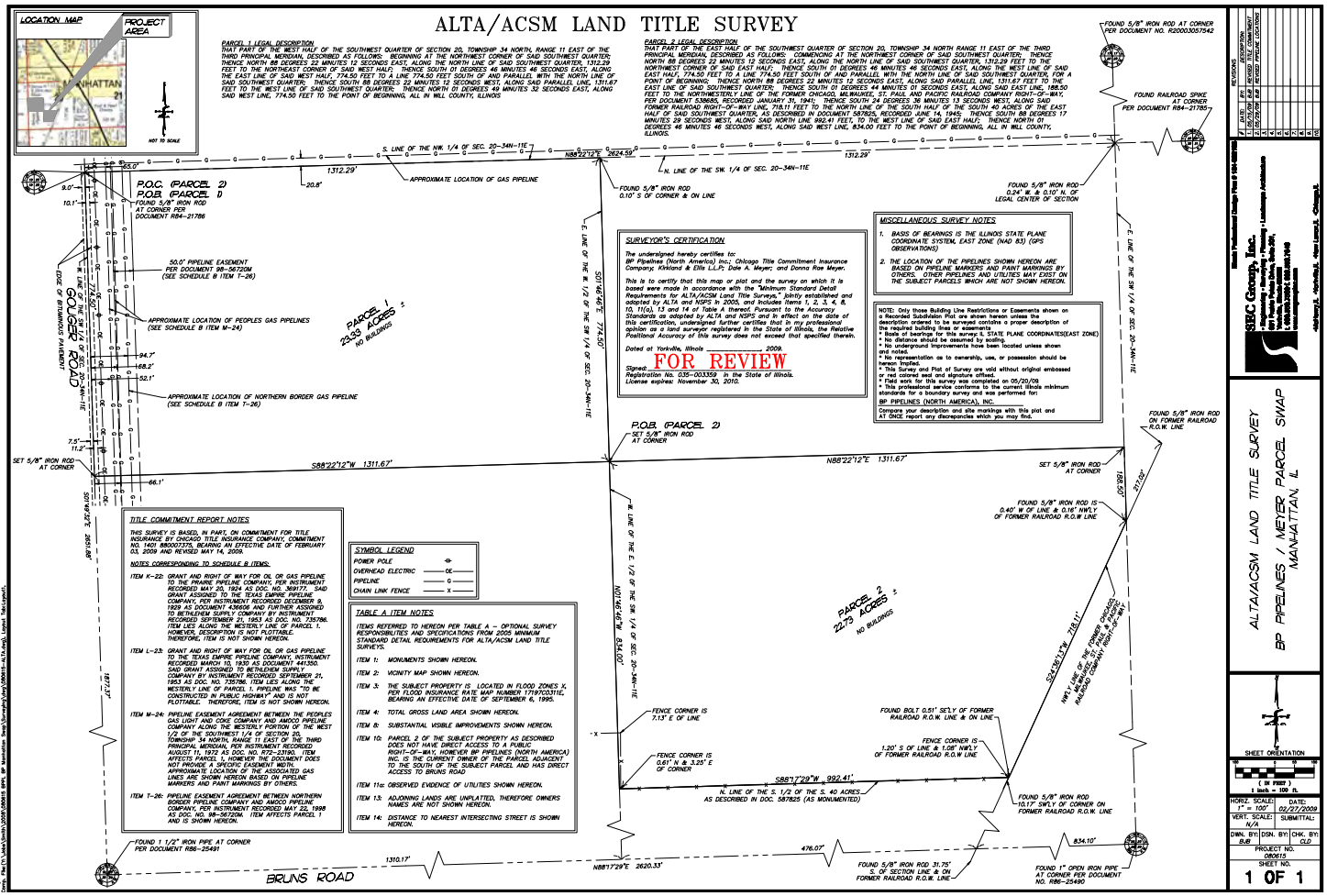
SANITARY SEWER

According to correspondence received from Robinson Engineering, the Village's engineer, there is an existing 8" sanitary sewer system located at the intersection of Gougar and Sweedler. This existing gravity system ends in the HomeStar Bank Parkway and runs north to the existing lift station near Manhattan Creek. The existing sanitary sewer location is shown on Fig. 2.9: Existing Utilities Map.

WATER SUPPLY AND DISTRIBUTION

According to correspondence

Fig 2.7: Plat of Survey



received from Robinson Engineering, the Village's engineer, there is an existing 12" water main that runs along the north parkway of Sweedler Road. The existing 12" water main is shown on Fig. 2.9: Existing Utilities Map.

STORMWATER FACILITIES AND DRAINAGE PATTERNS

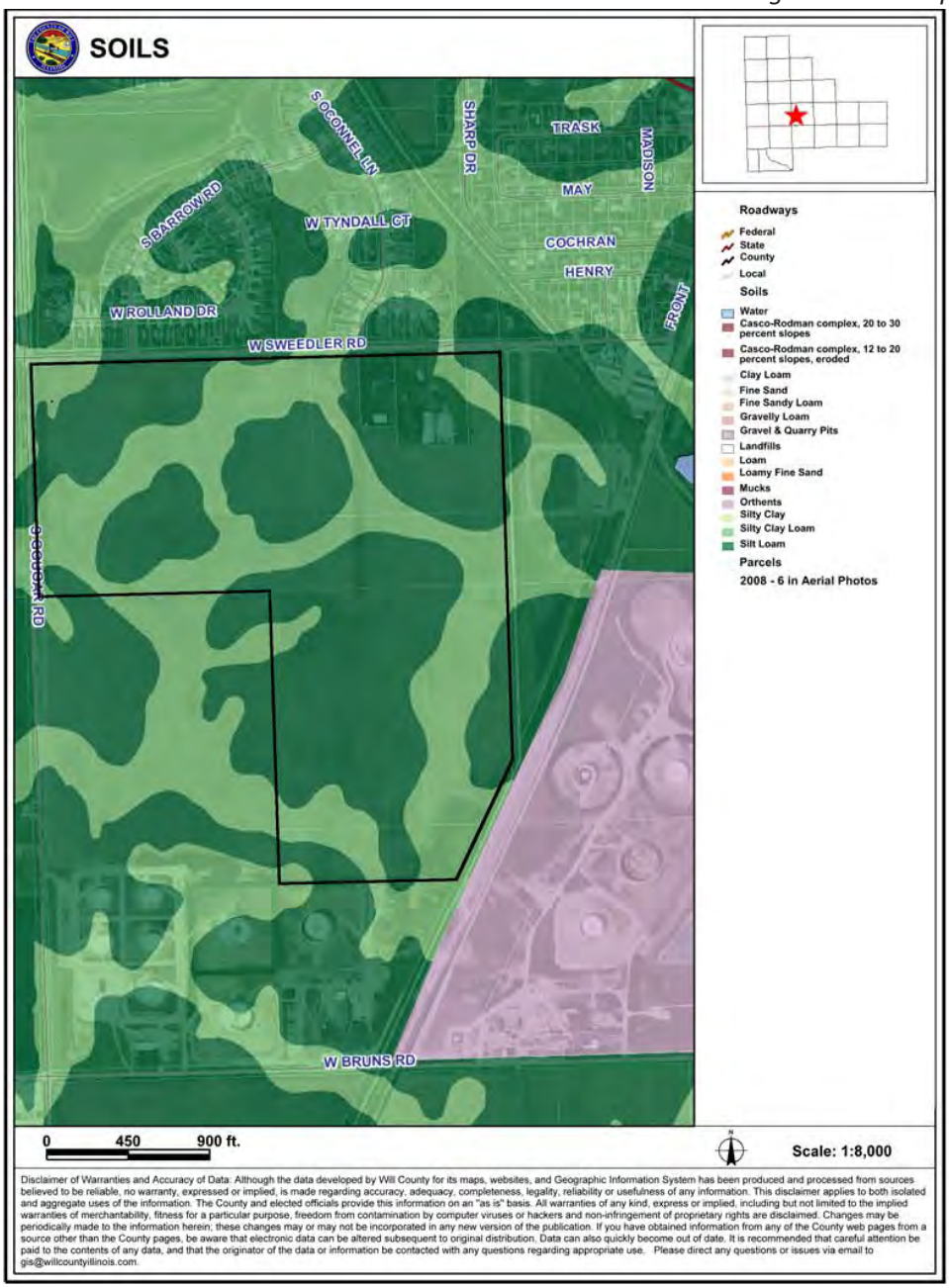
According to the 2-foot contour topography from the Will County GIS Department, there is a drainage divide running generally from the southwest to the northeast across the property. The northwest +/- 96 acre portion of the site is in the Manhattan Creek watershed and the southeast +/- 27 acre portion of the site is in the Prairie Creek Watershed. Under Will County Ordinance, storm water detention will need to be provided for the proposed development. Two detention ponds will be required, one on each side of the drainage divide.

The drainage divide and watersheds are also shown on Fig. 2.9: Existing Utilities Map.

DRY UTILITIES

Based on a search of the Will County Recorder's website and a draft survey provided by BP, there are two pipeline easements that fall on the development property. There is a 40 foot Wolverine Pipeline easement that runs from east to west across property approximately 1300 feet south of Sweedler Road and a 50 foot Northern Border Pipeline Company easement located east of and parallel with Gougar Road. There are also overhead utilities located on poles running along the east parkway of Gougar Road along the entire site and along the north parkway of Sweedler Road across the entire site frontage.

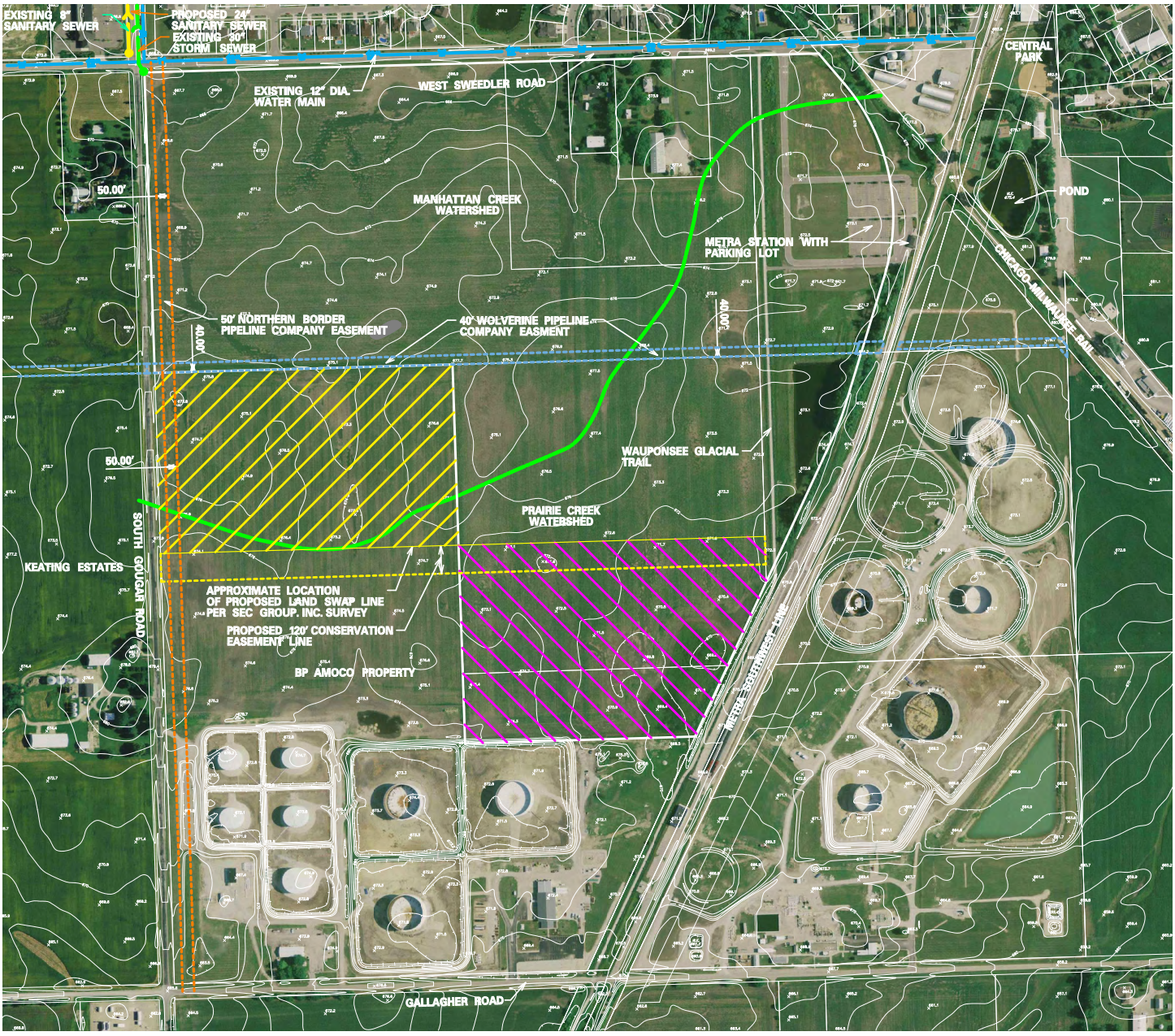
Fig 2.8: Soils Map



Existing Site Conditions: Village Center Site (contd.)

The existing pipeline easement locations are shown on Fig.2.9: Existing Utilities Map.. The Wolverine Pipeline and Northern Border Pipeline Company easement provisions are included in the Appendix.

Fig 2.9: Existing Utilities Map



SPECIAL MANAGEMENT AREAS

WETLANDS

Existing wetlands are not indicated on-site per the National Wetlands Inventory (NWI) and Will County GIS database. These maps are illustrated in Fig. 2.10: National Wetland Inventory (NWI) Map and Fig. 2.11: Will County GIS Wetland Map.

FLOOD PLAIN

According to FIRM Map Number 17197CO311 E with an effective date of September 6, 1995, flood plain does not exist on the development property. A copy of this FIRM is included as Fig 2.12: Flood Insurance Rate Map.

ARCHEOLOGICAL

An IHPA sign off letter will be required prior to the start of this project.

ENDANGERED SPECIES

An IDNR endangered species sign off letter will be required prior to the start of this project.

Fig 2.10: National Wetland Inventory (NWI) Map

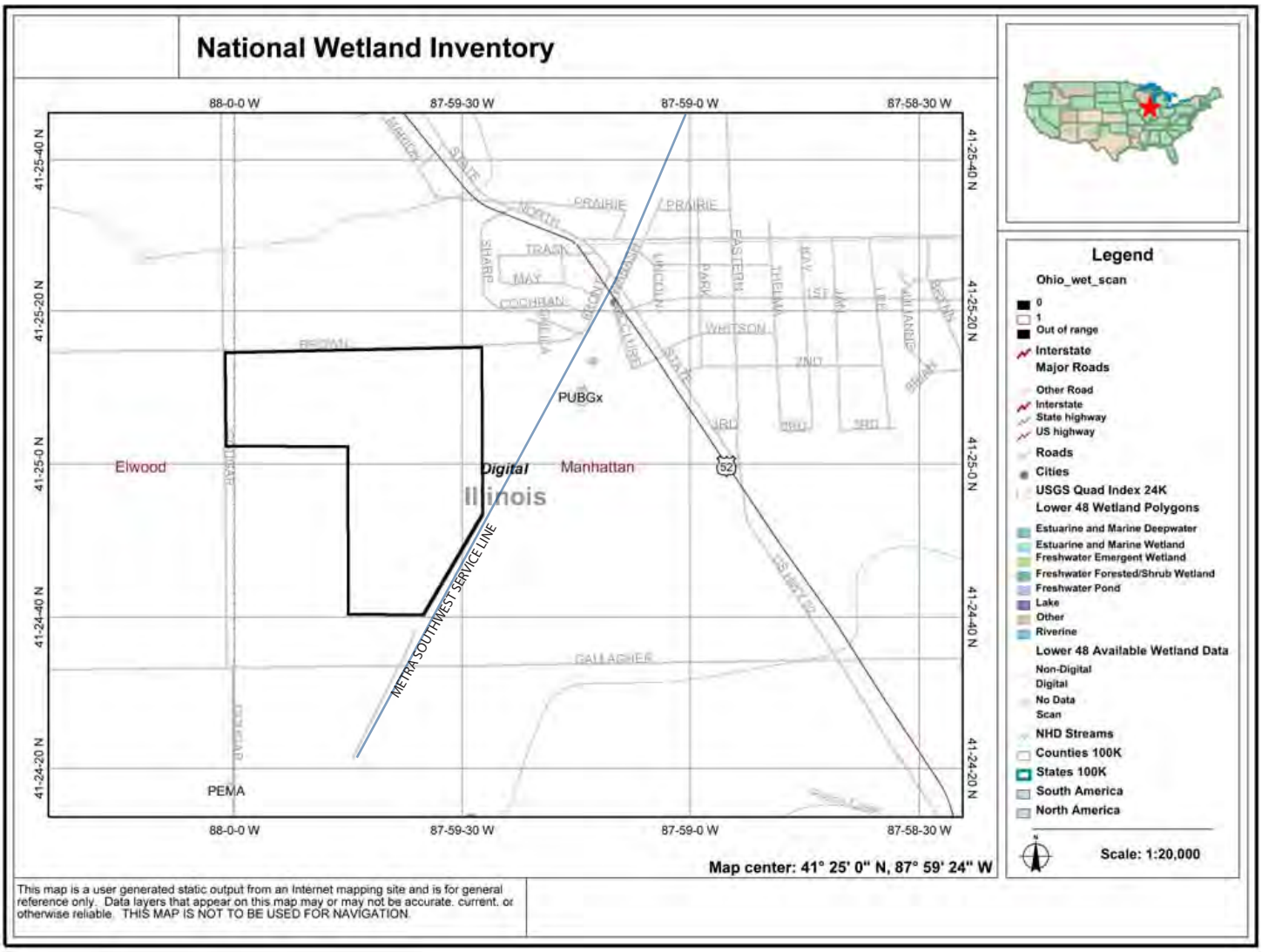


Fig 2.11: Will County GIS Wetland Map

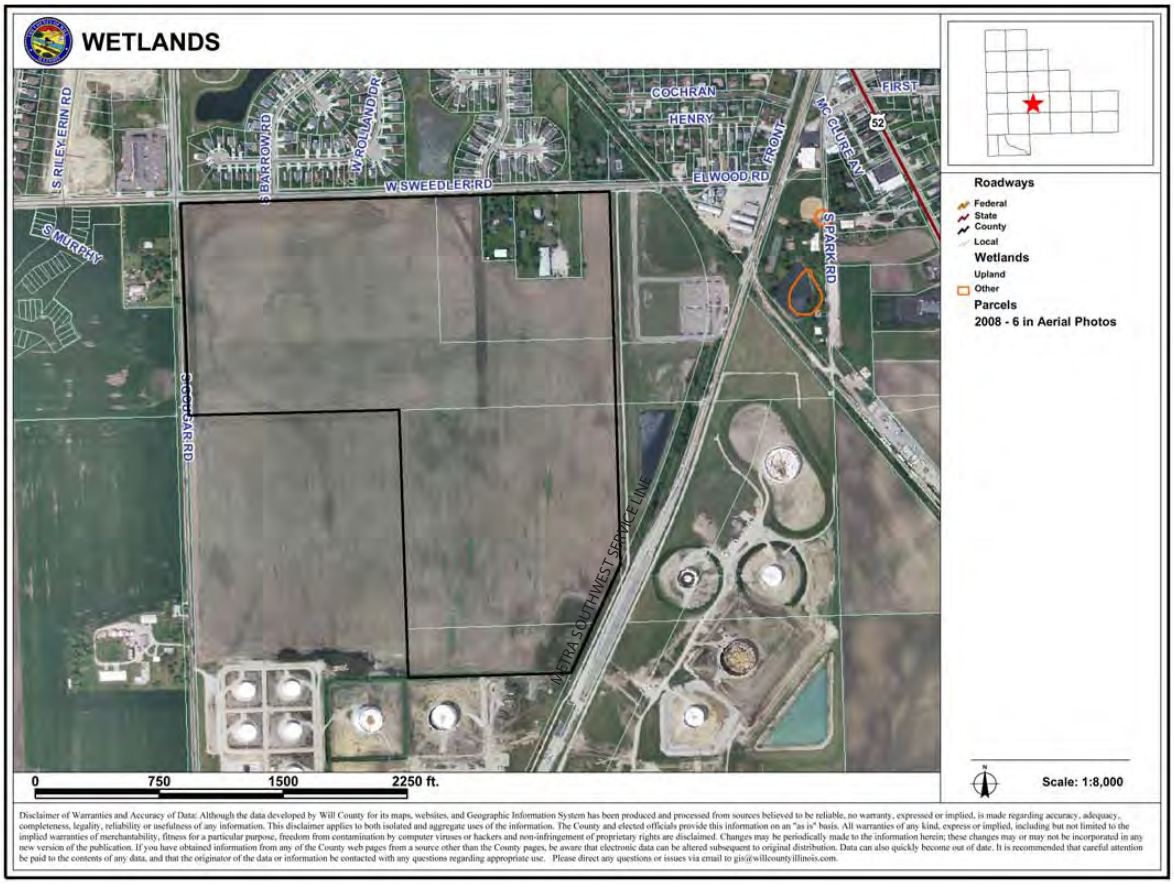
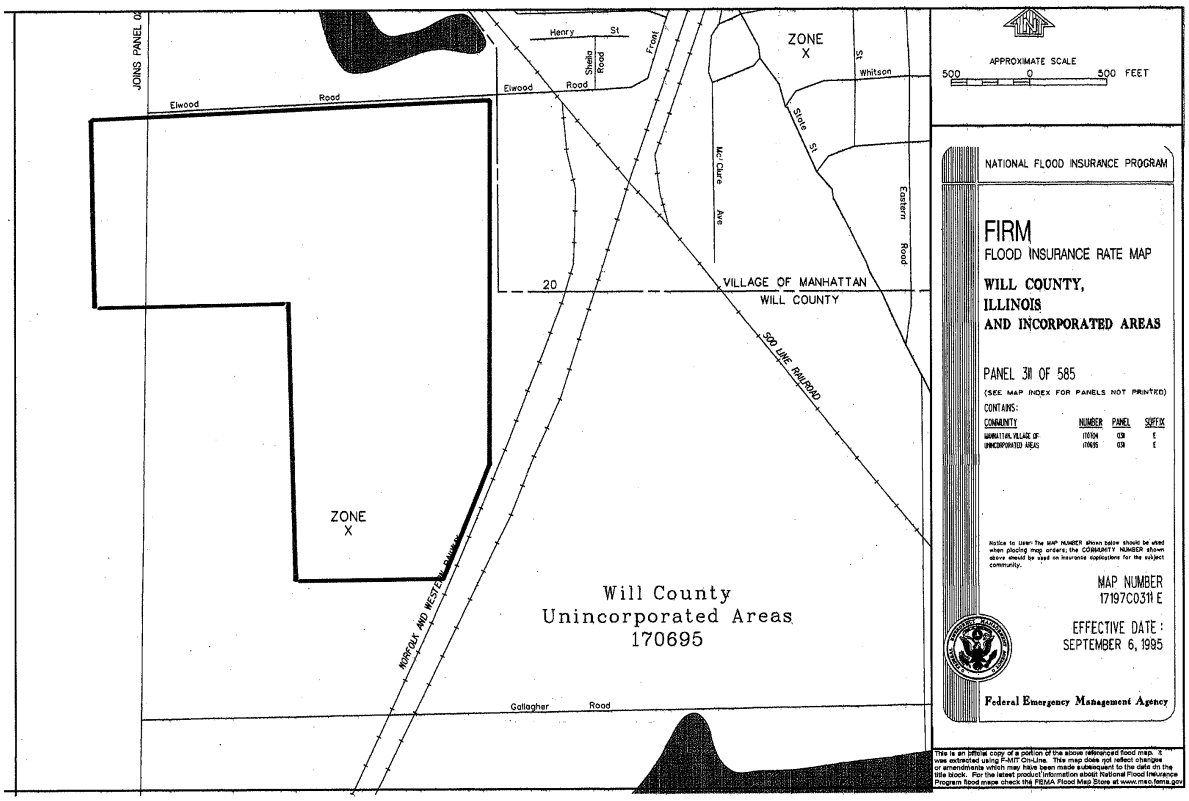


Fig 2.12: Flood Insurance Rate Map



Existing Transportation System

Overview

As a foundation for the analysis of the transportation system supporting the Village Center site, data was collected from local, regional and state agencies including the Village of Manhattan, Manhattan Township, Will County Highway Department, Regional Transportation Authority, Metra, Illinois Department of Transportation(IDOT), and through field reviews. This data included public right of way, roadway cross - sections, roadway functional classification, intersection traffic controls, posted speed limits, truck routes, bicycle trails, pedestrian pathways, on - street parking conditions, average daily traffic volumes, average daily truck traffic volumes, public transportation services and facilities, and planned transportation infrastructure improvements. Figure 2.14 illustrates the existing transportation system data in the vicinity of the Village Center site.

The following section presents an overview of the existing transportation system as well as the transportation issues that effect access to the Village Center site and the opportunities that exist to mitigate these issues, improve access to the site and its connectivity to the Village's traditional Downtown, and enhance transportation conditions within the entire Downtown District of Manhattan.

Roadways

Roadways have two basic functions: to provide mobility and to provide land access. For planning and design purposes, roadways are classified by function. Four general functional classifications are typically used, including freeways, arterials, collectors and local streets. Arterials and collectors are commonly subdivided into major or minor designations based on location, service function, and design features (i.e., right of way, road capacity, continuity within system, speed limits, parking controls, traffic signal spacing, etc.). Each roadway classification serves as a collecting/ distributing facility for the next higher classification in the system.

Freeways

Freeways provide the highest degree of mobility, with access limited to grade - separated interchanges to preserve capacity for high volumes of traffic and high travel speeds. There are presently no freeways that adjoin the Village of Manhattan. The nearest facilities are Interstate 80 with interchanges located approximately 7 miles to the north of Manhattan, Interstate 55 with interchanges located approximately 11 miles to the west and Interstate 57 with interchanges located approximately 12 miles to the east.

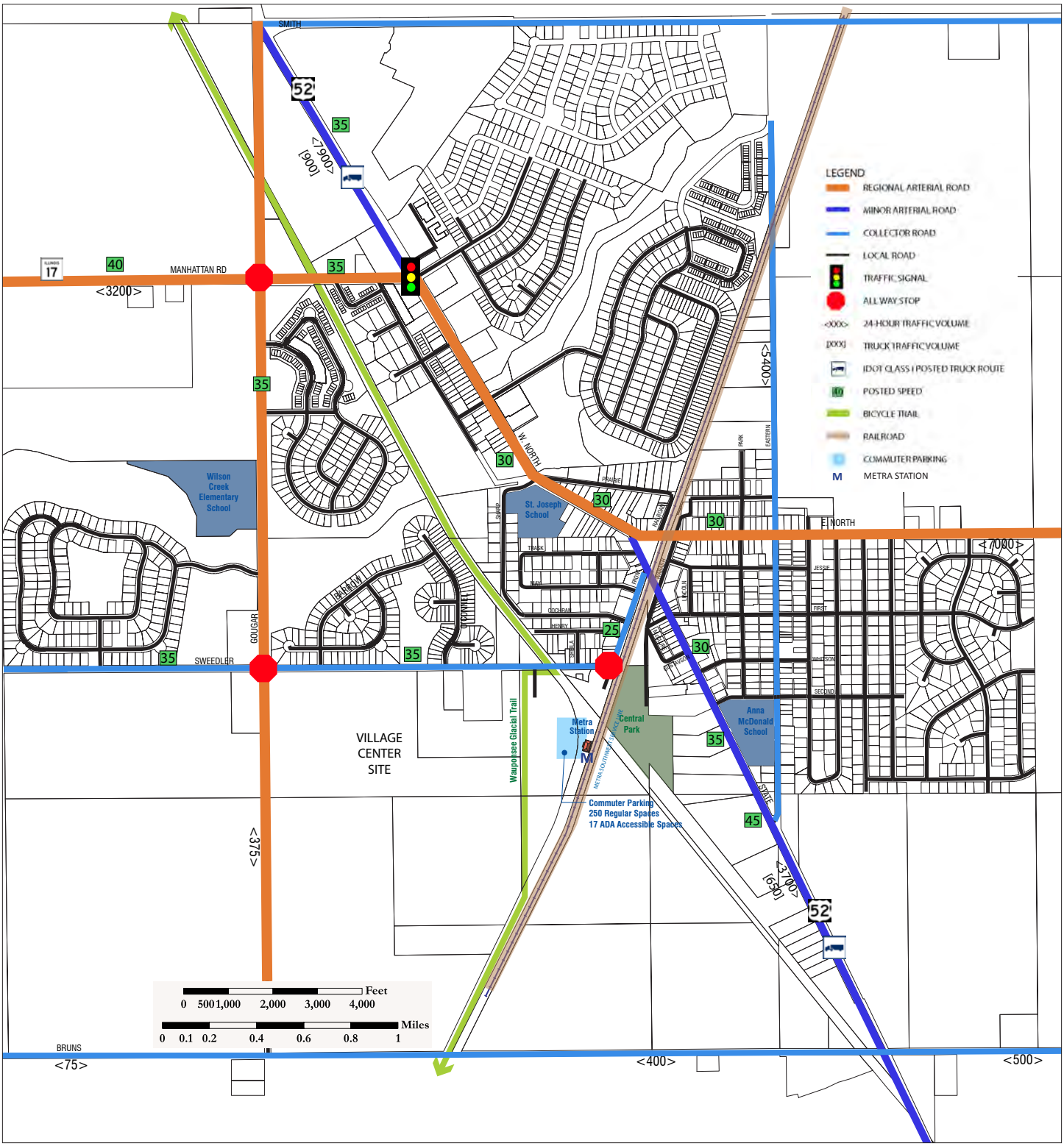
Arterials

Major arterials, also known as regional arterials, are intended to provide a high degree of mobility and function as the primary travel routes through urban areas. Minor arterials augment the major arterial system by accommodating somewhat shorter trips with less stringent access controls. The following arterials serve the Downtown District of Manhattan.

Gougar Road is a regional north - south arterial that extends from U.S. Route 52 south to the Will - Kankakee County Line and adjoins the west edge of the Village Center site. Gougar Road, which is under the jurisdiction of the Village of Manhattan and Manhattan Township, is proposed to be added to IDOT's Strategic Regional Arterial (SRA) system, which is a network of major arterials that are intended to supplement the freeway system and accommodate a significant portion of long - distance automobile and commercial traffic in the region. Gougar Road is presently a two - lane roadway in the vicinity of the site. North of Sweedler Road, Gougar Road is approximately 39 feet wide within a 100 foot right of way. South of Sweedler Road, Gougar Road has a posted 12 - ton weight limit and is approximately 17.5 feet wide with the adjacent property lines extending to the centerline of the roadway. The most recent IDOT

Fig 2.14: Existing Transportation System

Existing transportation system data in the vicinity of the Village Center site and larger study area



Existing Transportation System (contd.)

traffic counts indicate Gougar Road carries approximately 375 vehicles per day. The posted speed limit on Gougar Road is 35 miles per hour (mph) and parking is prohibited on the roadway.

U.S. Route 52 is classified as a regional arterial between Manhattan Road and Manhattan - Monee Road (E. North Street) and a minor arterial to the northwest and southeast of this roadway section. U.S. Route 52, which is also known as W. North Street between Manhattan Road and E. North Street and State Street, carries approximately 7,900 vehicles per day to the west of the Y intersection with Manhattan - Monee Road (E. North St.) and approximately 3,700 vehicles per day to the east of the Y. U.S. Route 52 is primarily a two - lane roadway through Manhattan although turn lanes are provided at a few intersections such as Brookstone Drive and Manhattan Road/ Foxford Drive, with a traffic signal at Manhattan Road/Foxford Dr. U.S. Route 52 is under IDOT jurisdiction and is designated by IDOT as a Class III truck route. Consequently it carries a significant volume of commercial traffic ranging from 11 percent to 18 percent of the total traffic on the roadway. The intersection of U.S. Route 52 and Gougar Road/Smith Road is under stop control on the Gougar and Smith approaches. The posted speed limit on U.S. Route 52 is 30 mph through the Downtown core area and increases to 35 mph and 45 mph as it extends out from the Downtown District. There is a 20 mph school speed zone adjacent to St. Joseph's School. Parking is permitted on both sides of U.S. Route 52 from Prairie Avenue/Sharp Drive to Second Street.

Manhattan Road is a regional east - west arterial that extends from U.S. Route 52 (opposite Foxford Drive) west to I - 55. It is proposed to be added to IDOT's Strategic Regional Arterial system as part of the western extension of the Manhattan - Monee Road (E. North St.) SRA designation, which currently extends from U.S. Route 45 to IL Route 1. Manhattan Road is under the jurisdiction of the Will County Highway Department and is designated as County Highway 17. Manhattan Road is presently a two - lane roadway in the vicinity of the site. Left - turn lanes are provided at its intersection with Gougar Road, which is under all - way stop control. The intersection of Manhattan Road with U.S. Route 52 is under traffic signal control. Manhattan Road carries approximately 3,200 vehicles per day and has a posted speed limit of 35 mph to the east of Gougar Road and 40 mph to the west of Gougar, increasing to 55 mph as it continues west. Parking is prohibited on Manhattan Road.

Manhattan - Monee Road (East North Street) is a regional east - west arterial that extends from U.S. Route 52 (at the Y intersection) east to Governors Highway (IL Route 50). Manhattan - Monee Road, which is known as East North Street through the Downtown District, carries approximately 7,000 vehicles per day to the east of the Y intersection. Manhattan - Monee Road (E North St.) is primarily a two - lane roadway through Manhattan. It is under IDOT jurisdiction between U.S. Route 52 and Center Road and Will County jurisdiction to the east of Center Road. It is proposed to be added to IDOT's Strategic Regional Arterial system as part of the western extension of the Manhattan - Monee Road SRA designation, which currently extends from U.S. Route 45 to IL Route 1. Manhattan - Monee Road has a posted speed limit of 30 mph in the Downtown District and parking is permitted on both sides of the roadway. The intersection of Manhattan - Monee Road and U.S. Route 52 is under stop control on Manhattan - Monee Road.

Collectors

The collector system is designed to support the arterial network. Collector roads consist of medium - capacity, medium volume streets that have limited continuity and serve to link higher level arterial streets to lower level local streets. Collectors provide some direct land

Existing Transportation System (contd.)

access but to a more limited degree than local streets. The following collectors serve the Downtown District of Manhattan.

Sweedler Road is an east - west, two - lane collector road that extends from Front Street west to Cherry Hill Road. Sweedler Road is under the jurisdiction of the Village of Manhattan and Manhattan Township. It is under all way stop control at Gougar Road and has a posted speed limit of 35 mph. Sweedler Road is approximately 31 feet wide within an 80 foot right of way. Parking is prohibited on the roadway.

Front Street is a northeast - southwest, two - lane collector road that extends from U.S. Route 52 (State Street) to Sweedler Road. Front Street is under the jurisdiction of the Village of Manhattan and has a posted speed limit of 25 mph. It is under all - way stop control at Sweedler Road. At U.S. Route 52, Front Street is under stop control. Front Street is approximately 20 feet wide within a 50 foot right of way. Parking is prohibited on the roadway.

First Street is an east - west collector road that extends from Wabash Street east to Brett Drive. It is under the jurisdiction of the Village of Manhattan and has a posted speed limit of 25 mph. First Street is under stop control at its intersection with U.S. Route 52. West of U.S. Route 52, First Street is approximately 30 feet wide within a 60 foot right of way. East of U.S. Route 52, First Street is approximately 40 feet wide within a 50 foot right of way. Parking is permitted on both sides of the roadway.

Bruns Road is an east-west, two-lane collector road that extends from Cedar Road west to Cherry Hill Road. Bruns Road is under the jurisdiction of Manhattan Township. East of Gougar Road, Bruns carries approximately 400 vehicles per day and is an asphalt-paved, approximately 20-foot wide road. West of Gougar Road, Bruns carries approximately 75 vehicles per day and is an approximately 18-foot wide gravel road. The intersection of Bruns Road and Gougar Road is under stop control on Gougar. The intersection of Bruns Road with U.S. Route 52 is under stop control on Bruns. The posted speed limit on Bruns is 45 mph and parking is not permitted on the roadway.

Eastern Avenue is a north-south, two-lane collector road extending from U.S. Route 52 north to Baker Road, continuing north as Nelson Road to Spencer Road. Eastern Avenue is under the jurisdiction of the Village of Manhattan and Manhattan Township. North of Manhattan - Monee Road, Eastern Avenue carries approximately 5,400 vehicles per day. The intersections of Eastern Avenue with Manhattan - Monee Road and with U.S. Route 52 are stop control on Eastern. Parking is permitted on Eastern between Manhattan - Monee Road and Second Street.

Truck Routes

Designated truck routes are typically roadways that provide continuous regional travel and are designed to support heavy commercial traffic while avoiding residential areas. The State of Illinois has established a Designated State Truck Route System that consists of three classifications of roadways, each with specific design standards and maximum legal vehicle dimensions and loaded weights. In the Manhattan area there is one roadway that is part of the State system:

Class III Facility: U.S. Route 52

This truck route is illustrated in Figure 2.11. U.S. Route 52 carries approximately 650-900 trucks per day through Manhattan, which represents 11-18 percent of the total traffic volume on U.S. Route 52.

The Village of Manhattan Comprehensive Plan designates Gougar Road and Cedar Road as the major north-south arterials through the Village that are intended to carry through traffic and truck traffic around the Downtown District to Hoff Rd. The use of Gougar Road for

this function would be consistent with the potential future SRA designation of this roadway. As such, the roadways will be designed with sufficient capacity (5 lane- 120 foot right-of-way) to accommodate the projected volumes.

Public Transportation

Public transportation service in the Manhattan area is presently limited to commuter rail service on Metra's SouthWest Service (SWS) Line and Pace Dial-a-Ride bus service. The SWS line extends from Manhattan to Chicago's Union Station. Stops near Manhattan include Laraway Road in New Lenox, 179th Street in Orland Park, 153rd Street Station in Orland Park, and 143rd Street Station in Orland Park. SWS between Manhattan and Chicago is provided on weekdays and Saturdays under the schedule shown below.

The Manhattan Metra Station provides a warming shelter and 257 parking spaces at a fee of $1.00/ day. Ridership counts conducted by Metra in November 2006 indicate a ridership level of 22 inbound passengers (towards Chicago) and 27 outbound passengers (towards Manhattan). On-board origin-destination surveys conducted by Metra at this same time indicated that 83 percent of all riders were Manhattan residents and 61 percent of these riders drove alone to the Metra station and parked, 13 percent were dropped-off at the station, 13 percent carpooled to the station as either the driver or passenger, and 4 percent walked to the station. The remaining riders (9 percent) did not provide a response to the mode of travel question. Parking counts conducted by Metra in September 2008 indicated that 13 (5 percent) of the Metra station parking spaces were utilized.

Pace Dial-a-Ride bus service is available for a fee for general Manhattan Township residents on Tuesdays and Fridays for service to and from select destinations in Joliet. This is a non-fixed route (paratransit) service utilizing vans and small buses to provide pre-arranged trips. Residents must call one day in advance to arrange a ride. Pick-up is provided at approximately 9:00 A.M. with the return trip occurring at approximately 3:00 P.M.

Metra Schedule for SWS between Manhattan and Chicago

SouthWest Service

Manhattan to Chicago
Inbound Schedule: Weekday (Part 1 of 1)
Effective Date: August 31, 2009

Train #	802	804	806	808	810	812	818	822	826	830	834	836	838	840	842
AM/PM	AM	AM	AM	AM	AM	AM	AM	AM	AM	**PM**	**PM**	**PM**	**PM**	**PM**	**PM**
Bikes Per Train							15	15	15	15	15	15	15	15	15
Manhattan	–	–	06:02	–	06:52	–	–	–	–	**02:25**	–	–	–	–	–
Chicago Union Station	06:15	06:55	07:25	07:55	08:15	08:51	09:43	11:01	**01:01**	**03:48**	**05:04**	**06:44**	**07:55**	**09:28**	**10:50**

Outbound Schedule: Weekday (Part 1 of 1)
Effective Date: August 31, 2009

Train #	803	805	807	811	815	819	823	825	827	829	831	833	837	839	841
AM/PM	AM	AM	AM	AM	**PM**	**PM**	**PM**	**PM**	**PM**	**PM**	**PM**	**PM**	**PM**	**PM**	**PM**
Bikes Per Train	15	15	15	15	15	15							15	15	15
Chicago Union Station	06:26	07:15	08:35	10:35	**12:35**	**02:40**	**04:30**	**05:00**	**05:18**	**05:40**	**06:15**	**06:58**	**08:10**	**09:50**	**11:40**
Manhattan	–	–	–	–	**01:57**	–	–	**06:27**	–	**07:07**	–	–	–	–	–

Inbound Schedule: Saturday (Part 1 of 1)
Effective Date: August 31, 2009

Train #	862	864	866
AM/PM	AM	AM	**PM**
Bikes Per Train	15	15	15
Manhattan	06:15	11:00	**03:15**
Chicago Union Station	07:40	**12:25**	**04:40**

Outbound Schedule: Weekday (Part 1 of 1)
Effective Date: August 31, 2009

Train #	803	805	807			
AM/PM	AM	AM	AM	AM		
Bikes Per Train	15	15	15	15	15	15
Chicago Union Station	06:26	07:15	08:35	10:35		
Manhattan	–	–	–			

Railroad Crossings

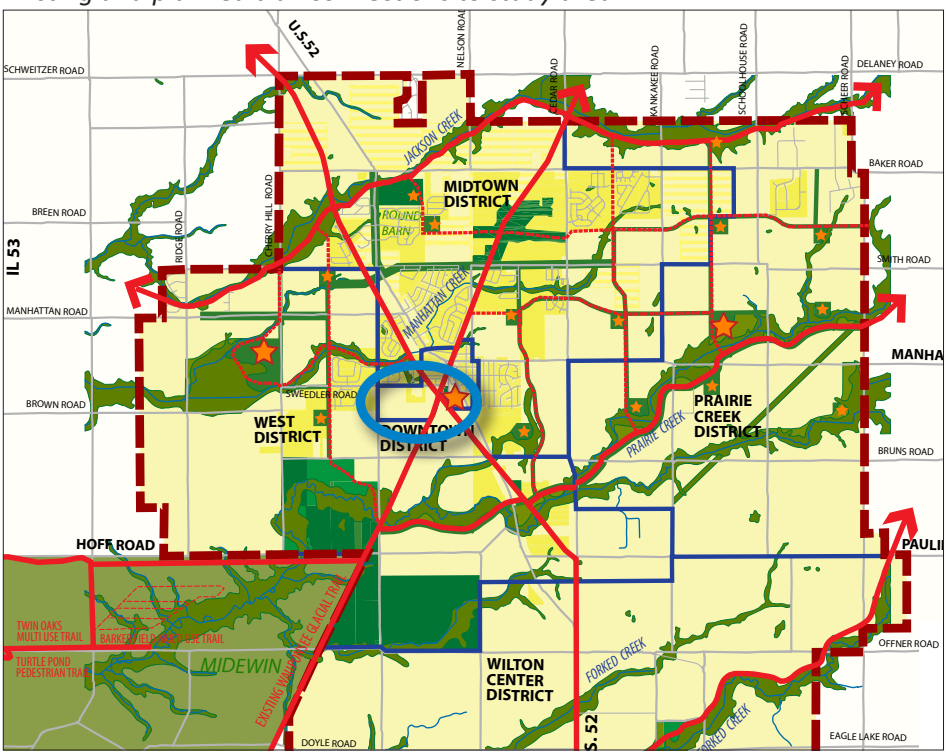
There are presently three at-grade rail crossings in Manhattan's Downtown District, including vehicular crossings on U.S. Route 52 and E. North (Manhattan - Monee Road) and a pedestrian crossing just north of the Metra station into Central Park. At the two vehicular crossings there is one rail track which is owned by the Norfolk Southern Corporation and also used by Metra. Train speeds over the vehicular crossings range from 25-50 mph and there are presently advanced warning signs, stop lines on the pavement, gates, flashing lights, bells, overhead lighting, and trains signals along the track. In addition to the six Metra trains each weekday and Saturday there is approximately one freight train per week that serves the Aeropres Corporation facility just east of the Metra station.

Bicycle Trail and Pedestrian System

The Wauponsee Glacial Trail is currently a 21 mile multi - use trail that extends, along a former rail corridor, from Joliet to Kankakee State Park. It is under the jurisdiction of the Forest Preserve District of Will County. The trail is paved for a couple of miles south of Joliet to the Sugar Creek Preserve and crushed limestone as it continues south. The trail crosses Sweedler Road just east of the Metra station driveway, continues west across the driveway, then proceeds south along the west side of the driveway. The trail is used for hiking, biking, cross-country skiing and horseback riding. Parking lots and trail access points are located at Sugar Creek Preserve in Joliet, on Manhattan Road (1/4-mile west of U.S. Route 52) in Manhattan, and on Commercial Drive in Symerton. There is a trailhead and parking lot at the intersection of Hoff Road and the Wauponsee Glacial Trail that allows public access to the Midewin National Tallgrass Prairie's current interim trail system and planned future trails in the northeastern portion of Midewin. In Joliet there are street connections to the I&M Canal State Trail and the Old Plank Road Trail. Heading west on the I&M Canal State Trail there are connections to the Joliet Junction Trail and the Rock Run Trail. The Forest Preserve District of Will County also plans to extend the trail another 11 miles south to Kankakee.

Pedestrian facilities in the vicinity of the Village Center site include the Wauponsee Glacial Trail, a sidewalk along the west side of Gougar Road (between Sweedler Road and Wilson Creek Elementary School), a multi-use path along the east side of Gougar (Manhattan Road to Sweedler Road), and a multi-use path along the north side of Sweedler Road (from west of Ashford Street to the pedestrian crossing to the west of the Metra station driveway).

Existing and planned trail connections to study area



Long Range Transportation Projects

TRANSIT

Approximately one third of the Metra parcel has been developed to-date for commuter parking. Given the long-term projections for household growth, Metra has estimated that approximately 900 additional spaces will be needed if the station were to have additional service in the future. This land was purchased by Metra with federal New Starts funds as part of the upgrade of the SWS Line and extension to Manhattan completed in 2006. This additional parking is typically needed at terminal stations due to the larger market area.

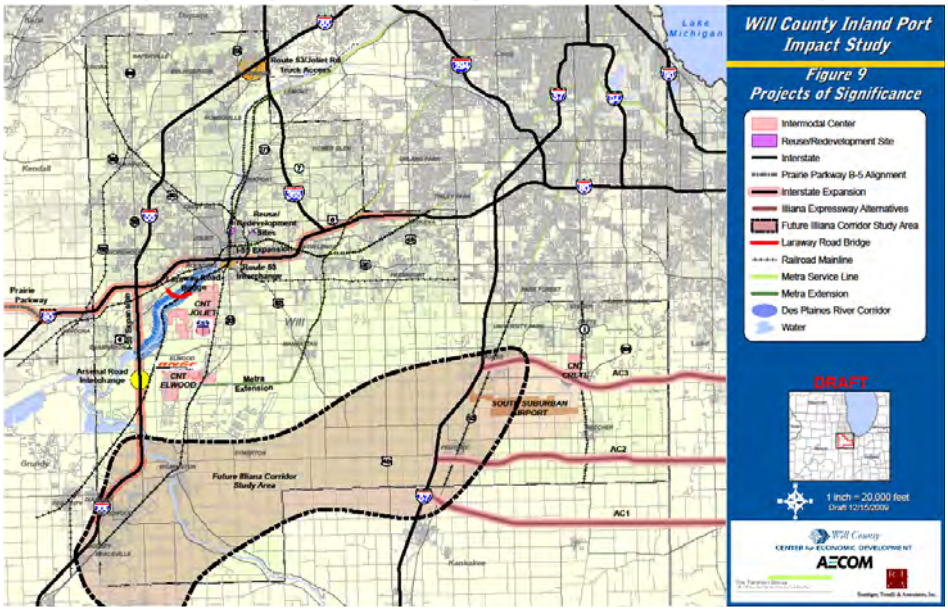
The Chicago Metropolitan Agency for Planning's (CMAP) draft 2040 Comprehensive Regional Plan for Northeastern Illinois includes improvements to the SWS Line to upgrades infrastructure and service levels and provide an extension to the Midewin National Tallgrass Prairie, Lincoln National Cemetery, and the Centerpoint Intermodal Center primarily using former Joliet Arsenal right-of-way. The infrastructure upgrades include installation of two rail-to-rail grade separations in Chicago near 75th Street/Loomis to carry the SWS above the Belt Railway of Chicago (BRC) and Norfolk Southern (NS) tracks, which will improve SWS reliability and reduce operating conflicts and delays caused by freight interference. The plan also calls for the rerouting of the SWS into Chicago's LaSalle Street Station to relieve congested operations at Union Station, as well as increasing train frequency on the SWS Line and providing additional parking at its stations. These projects have yet to undergo the Alternatives Analysis and Phase I engineering components of the federal planning process.

Another proposed commuter rail improvement that would increase transit service for Manhattan is the Suburban Transit Access Route (STAR Line). The STAR Line would serve markets along the Northwest Tollway (I-90) and the Outer Circumferential (E,J&E/CN) corridor of Cook County, DuPage County and northwest Will County between Prairie Stone in Hoffman Estates and Joliet. A potential future phase would include an easterly segment through Will County with a potential station at Cedar Road north of Laraway Road in New Lenox that could serve as a transfer facility with the SWS Line.

ROADWAYS

The most significant highway project in the CMAP 2040 plan that will effect central Will County, is the proposed Illiana Expressway. The initial proposal is to build a new expressway, ranging from 4 to 6 lanes, from I-55 south of Joliet extending east across Will County and into Indiana to I-65 near Lowell. The corridor length is estimated at 56 miles. Intermediate interchanges are planned at IL 53, US 52, US 45, I-57, South Suburban Airport, IL-1, IL 394, and US 41. The segment of the project between I-55 and I-57 has not been studied yet and a wide variety of alignments and interchange points with I-55 are possible. The CMAP 2040 plan includes as a high priority initiating Phase I engineering studies for the project to identify a few feasible alternatives for further study.

Illiana Expressway – Illinois Alignment Corridor (CED's)



Transportation System Issues

There are several transportation system issues that limit access to the Village Center site, resulting in vehicle delays and inefficient traffic operations in the Downtown District, making less optimal conditions at intersections and across the Metra SouthWest Service Line, and generally preventing a strong linkage between the Village Center site, the historic Downtown Core area and the east side of Manhattan. These issues are summarized below:

- The convergence of two state highways (U.S. Route 52 and Manhattan - Monee Road) through the Downtown Core results in moderately high volumes of through traffic and truck traffic.

- Traffic safety issues at the U.S. Route 52/Manhattan - Monee Road intersection created by poor road alignment, lack of turn lanes, and type of traffic control.

- U.S. Route 52 crosses the rail track at an acute angle which limits motorist sight distance, lengthens crossing times and can affect the handling of vehicles.

- There is minimal vehicle stacking space on westbound U.S. Route 52 at Front Street.

- Lack of turn lanes along U.S. Route 52 and Manhattan - Monee Road contributes to traffic congestion, unnecessary vehicle delays and rear-end crash potential.

- Gougar Road and Sweedler Road are two-lane roadways with limited capacity for accommodating the volumes of traffic to be generated by the Village Center development. These roadways will need to be expanded with turn lanes, additional through lanes, and/or pedestrian/bicycle pathways.

- There is a lack of east-west roadway continuity across the railroad to the south of the Downtown Core. Traffic traveling to/from the Village Center site and the east side of Manhattan must funnel across the railroad at U.S. Route 52 to Front St.

- There is a lack of east-west roadway continuity to the west of the site as Sweedler Road terminates at Cherry Hill Road. The nearest continuous east-west roadway, Brown Road, is located approximately 1,250 feet south of Sweedler Road and extend west from Cherry Hill Road to Chicago Road near Elwood.

- There is a lack of direct north-south access to the Village Center site due to a circuitous and disconnected street system in the neighborhood immediately north of the Village Center site (i.e., Sheila Street, Henry Street, Cochran Street, May Street, Trask Street, Sharp Drive). Neighborhood street system puts excess traffic burden on Front Street and U.S. Route 52 near the rail track.

- Discontinuous frontage road system on each side of the railroad. Front Street does not extend south of Sweedler Road to serve the Village Center site, nor does it continue north of U.S. Route 52 to Railroad Street. Wabash Street does not continue south of Central Park.

- Lack of bicycle/pedestrian pathways between traditional Downtown Core and Village Center site.

- Awkward alignment of Wauponsee Glacial Trail at Sweedler Road requires trail users to double-back to the west to continue south on the trail.

- Limited centralized public parking opportunities in the traditional Downtown Core.

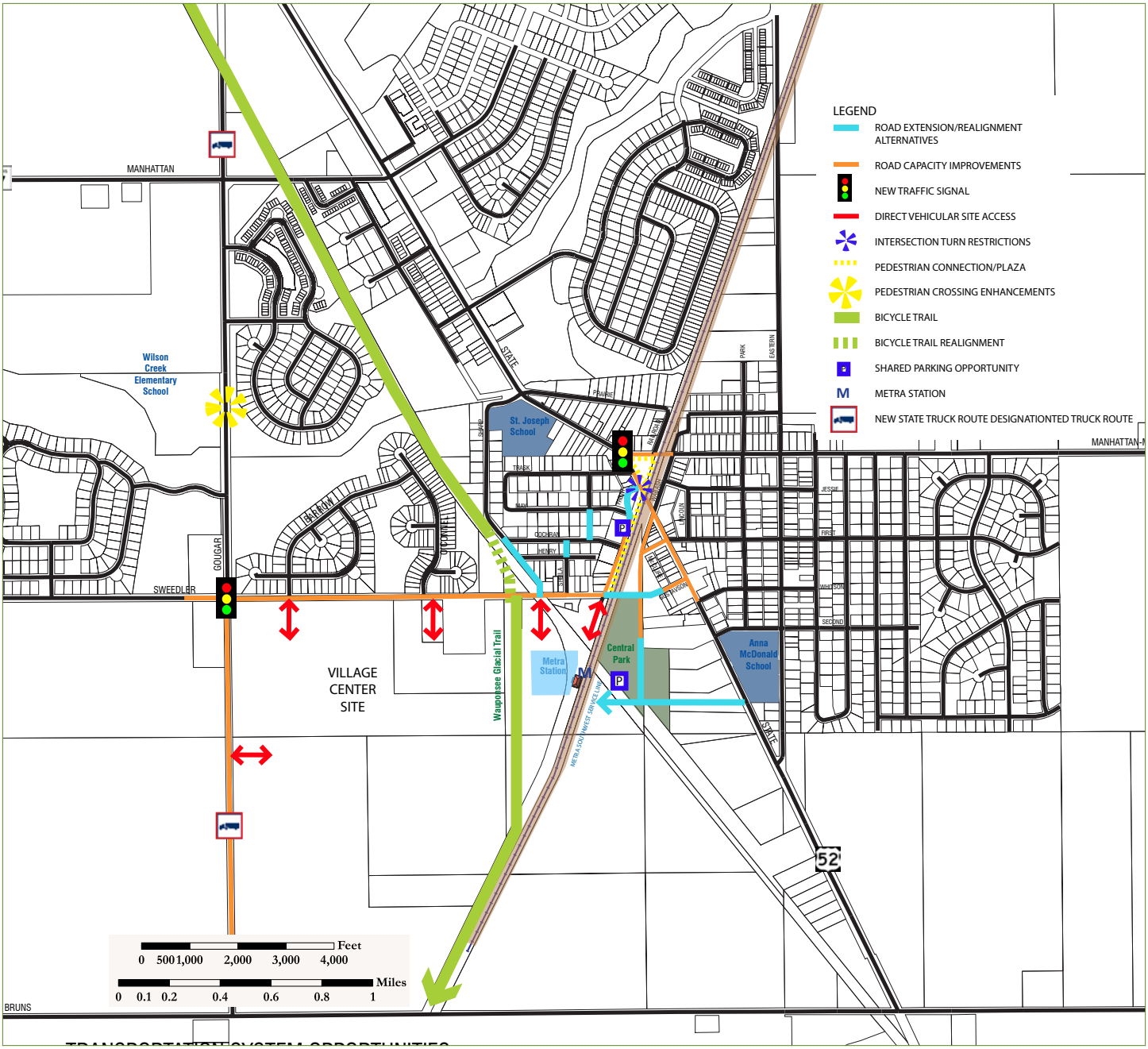
- Mid-block pedestrian crossing on Gougar Road at Wilson Creek Elementary School could be improved by safety enhancements.

Transportation System Opportunities

Through development of the Village Center site, the Village of Manhattan has the opportunity to not only improve access to the Village Center site, but address many of the long-standing traffic issues affecting the Downtown Core area, including providing more efficient traffic operations, creating a greater dispersion of traffic and truck traffic through and around the Downtown, and developing attractive and direct pedestrian linkages between the Downtown Core and the Village Center site so that the Village Center site becomes an extension of the Downtown District.

Preliminary assessment of opportunities are illustrated below in Fig. 2.15, and discussed in detail in the following sections.

Fig 2.15: Transportation System Opportunities



Transportation System Opportunities (contd.)

New Railroad Crossing

Of all the transportation issues in the Village Center, creating a new at-grade rail crossing may be the greatest challenge. The intent of the new grade crossing is to address many of the transportation system issues noted in the previous section of this report. The new grade crossing will create better vehicular and non-vehicular connections between the east side of Manhattan and the Village Center site, divert traffic away from the congested existing grade crossings in the downtown core, and provide the additional travel paths necessary to improve safety at the Front Street/State Street intersection by restricting turning movements to and from Front Street.

It has typically been the guidance of the Illinois Commerce Commission (ICC), Metra and the railroad companies to approve the development of a new railroad grade crossing only under the condition that one or more existing grade crossings can be closed and other options such as roadway/railroad grade separation are not feasible. These grade crossing conditions were evaluated during the Village Center planning process as detailed in the KLOA, Inc. memorandum in Appendix A.2 at the end of this document.

Based on this evaluation, Metra has indicated its willingness to consider the possibility of one additional railroad grade crossing as part of the Village Center plan pending approval by the Metra Board of Directors, ICC and Norfolk Southern Railway.

Furthermore, Metra has explained its position that any new railroad grade crossing should meet the following:
(1) be designed perpendicular to the railroad if at all possible
(2) incorporate the relocation of the existing pedestrian grade crossing at the north end of the Metra platform at the Village's expense via adjacency with the new roadway grade crossing or via a dedicated pedestrian tunnel
(3) include the reconstruction of the south end of existing Metra platform at the Village's expense if impacted by a proposed new south roadway (see Option 1 below) to maintain a 150-foot clear zone between the platform and grade crossing
(4) be equipped with appropriate protection devices including crossbucks, bells, flashers and gates
(5) be constructed at the Village's expense
(6) potentially be controlled by a traffic signal, installed and maintained by the Village, at the intersection of the grade crossing with the proposed road extension, and
(7) should be maintained by the Village, including snow and ice removal. The Village will need to accept all liability and insurance for the new crossing.
Metra has indicated that the capital costs for constructing a new grade crossing typically range from $500,000-750,000 and annual maintenance costs of the grade crossing typically range from $10,000-15,000. In addition, the useful life of the grade crossing surface typically ranges from 10-20 years with a cost of $200,000-300,000 to renew the crossing.

After reviewing the existing conditions surrounding the Village Center site, and as an outcome of the Village Center planning process, two options appear to be the most feasible for providing a new at-grade rail crossing, one to the south of the existing Metra station and one to the north, as described below.

Option 1

Located to the south of the Metra station, this option includes the easterly extension of the proposed east-west Village Center collector road (that runs adjacent to the existing Wolverine pipeline easement) to State Street. The alignment extends through the north end of the BP property, through the Aeropres property, and across the existing industrial siding serving the Aeropres facility. Option 1 requires construction of a second grade crossing at this industrial siding, also to be funded by the Village.

This option would also impact the southern end of the existing Metra platform.

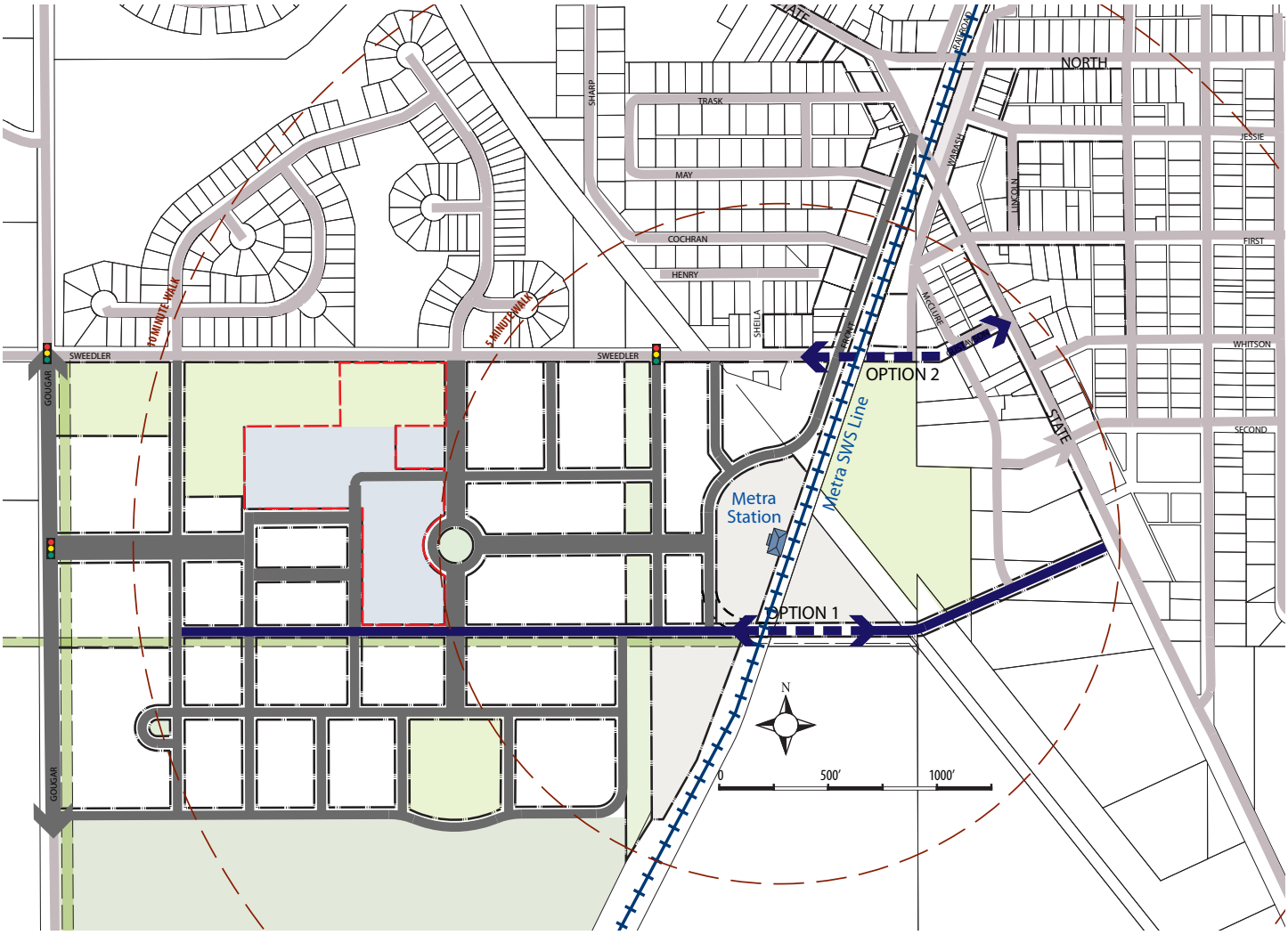
Option 2

Located north of the Metra station, this option includes the easterly extension of Sweedler Road from Front Street to State Street (US 52), via Gustafson Street. The alignment extends across the north edge of Central Park and through the baseball diamond.

Due to land ownership issues and further discussions with Metra, it is uncertain at this time which new railroad grade crossing option can be developed. As such, no preferred alignment for the new grade crossing has been selected at this time and the Village Center plan has been developed to facilitate a future grade crossing at either location.

The advantages and disadvantages of the two railroad grade crossing options are summarized in the table in the following page. The KLOA, Inc. memorandum in Appendix A.2 also provides more detail on some of the design issues associated with these two options, including the angle of the proposed grade crossings, the alignment of the proposed road extensions, and the adjoining land impacts and constraints.

Potential Railroad Crossing Options



Transportation System Opportunities (contd.)

Evaluation of Railroad Crossing Options

Option 1 – Village Center collector road extended east to State Street (US 52)	
Advantages	**Disadvantages**
• Improves east-west continuity of road system by providing a direct link between the Village Center site and US 52. • Intersections to the east and west of the grade crossing can be spaced further from the crossing when compared with Option 2. • Provides an alternate local link between the east and west sides of the railroad, which will relieve traffic congestion through the downtown core and reduce turning movements at Front St/US 52. • Provides the opportunity to create a more prominent gateway to Central Park and the Manhattan Park District administrative office. • Provides an efficient second access to Central Park without the taking of Park District property. • Provides access to Aeropress parking lot from US 52 without having to traverse Central Park. • Provides access to potential commuter parking lot in the triangular parcel between the Metra track and Aeropress spur. • Better for train operations because slower moving SWS trains traveling to and from the yard would cross at this crossing. • Better for future train operations because not all trains in the long-term would necessarily travel to and from in and out of the yard.	• Will divert fewer vehicles from the existing grade crossings in the downtown core than Option 2. • Requires right-of-way from BP Oil, Aeropress and other land owners. • Requires grade crossings of two rail tracks; Metra track and Aeropress siding track. • Proximity of grade crossing to Metra station platform will require crossing gates to remain down while Metra trains load and unload causing lengthy vehicle delays on the road extension. • Road extension will cross railroad at an approximately 70-degree angle to reduce impacts to BP holding tank containment area and Wolverine pipeline easement. • Requires reconstruction of the south end of Metra platform and extension of the north end of the platform to maintain required clear zone between the platform and grade crossing. • Lack or road continuity to the east of US 52 will require need to turn to/from US 52 to travel to/from residential areas to the east.
Option 2 – Sweedler Road extended east to Gustafson Street/State Street (US 52)	
Advantages	**Disadvantages**
• Improves east-west continuity of road system by providing a direct link between Sweedler Rd and US 52. • Provides direct connection to the existing Fire Department. Will improve response times to Village Center site and areas west of railroad. • Improves access to Central Park from the west (via Wabash St) and the east (via Gustafson St/Sweedler Rd extended). • Provides opportunity to create a more prominent gateway to Central Park and Manhattan Park District administrative office from the east via Gustafson St/Sweedler Rd extended. • Only requires the crossing of a single rail track. • Provides an alternate local link between the east and west sides of the railroad, which will relieve traffic congestion through the downtown core and reduce turning movements at Front St/US 52. • No impacts to platform with this proposed crossing.	• Gustafson St terminates at US 52. Traffic on the Sweedler Rd extension will need to turn to and from US 52 to travel to/from the residential areas of the Village to the east. • Creates a 3-way or 4-way intersection at Front St adjacent to the grade crossing. The intersection would require stop control on all legs except the east leg. • Requires the relocation/re-use of the Central Park baseball diamond. • Requires right-of-way from the Park District. • Proximity of grade crossing to Metra station platform will require crossing gates to remain down while Metra trains load and unload causing vehicle delays on Sweedler. • Sweedler Rd extension will cross railroad at a 70-degree angle to reduce impacts to Central Park and adjoining neighborhood. • SWS trains would be moving slightly faster to and from the station at this crossing compared to the speed at the proposed south crossing. • Would not allow for access from the west to Aeropress parking lot or proposed future commuter lot on east side of tracks without having to traverse Central Park.

Village Center Access and Roadway Improvements

The Village Center site would be most efficiently served by a grid system of internal roadways that aligns with existing local roadways along Sweedler Road (i.e., O'Connel Lane, Barrow Road, Front Street), future access drives along Gougar Road, and potential roadway extensions/realignments along Sweedler (i.e., Sharp Drive extension).

Will County spacing requirements for full-access intersections along County designated highways and SRA routes is ¼-mile, which would indicate there will be only one primary full-access intersection on Gougar Road accessing the Village Center site, located near the southern boundary of the property. It may be possible to shift this access drive further north along Gougar with approval of a variance from Will County's Highway Access Control Regulations and construction of turn lane improvements on Gougar, but the driveway should not be located closer than 1,000 feet south of Sweedler Road. This access roadway could be aligned with a potential easterly extension of Brown Road. Other access drives on Gougar Road will likely be restricted to right-in/right-out movements spaces approximately 500 feet from other intersections.

Roadway capacity improvements will be required along Gougar Road and Sweedler Road, including the addition of through lanes, turn lanes, and/or pedestrian/bicycle pathways. Capacity improvements are also desirable along U.S. Route 52, Manhattan - Monee Road, Front Street and Wabash Street to provide turn lanes and/or an improved pavement.

The proximity of Front Street to the rail crossing on U.S. Route 52 is less optimal that potentially can be addressed by realigning Front Street to provide better separation from rail crossing and/or restricting turning movements at Front Street/U.S. Route 52.

Access to and from the west of the Village Center site would be made more efficient if Sweedler Road and Brown Road were aligned. There appears to be vacant land available for such an alignment to the west of Cherry Hill Road. An Alternate would be to extend Brown Road east to align with the future Village Center Boulevard at Gougar Road.

New traffic signals will likely be warranted at significant intersections adjoining the Village Center site or within the Downtown Core, such as at Gougar Road/Sweedler Road and U.S. Route 52/Manhattan - Monee Road, consistent with the Village's Transportation Plan.

Potential roadway extensions to improve circulation through the Downtown District include Front Street (U.S. Route 52-Manhattan Monee Road), Sharp Drive (Cochran Street to Sweedler Road), Sheila Street (Henry Street-Cochran Street), Madison Street (May Street-Cochran Street), Gustafson Street (McClure Avenue-Wabash Street), and Wabash Street (Central Park-U.S. Route 52).

New Truck Route Designation

A truck route system needs to be redefined in the Village to redirect truck traffic around the Downtown District rather than through it. This system would facilitate interstate-bound through traffic as well as traffic oriented to and from the commercial and industrial areas of the Village. In the future, should the Illiana Expressway become a reality with access just south of the present Village limits, higher volumes of interstate-bound truck traffic could be experienced in the Village.

Use of Gougar Road as the preferred north-south truck route instead of U.S. Route 52, as noted in the Village's Transportation Plan, is an opportunity that should be reflected in the Village Center plan. However, it does create issues related to truck traffic adjacent to the Village Center site, which is intended to accommodate a mixture of uses including residential and civic (library, municipal offices, post office, etc.) uses, and adjacent to Wilson Creek Elementary School, which draws students from the neighborhood to the east of Gougar Road.

These issues can be addressed with specific context-sensitive design elements when the roadway is improved that prioritize pedestrian safety, minimize noise and maintain an aesthetically-pleasing multi-use road facility. The Village will need to coordinate with IDOT to re-designate Gougar Road as the official truck route through the community rather

than U.S. Route 52 (between Gougar Road and Hoff-Pauling Road). The proposed State Truck Route system would instead continue west along Hoff-Pauling Road from U.S. Route 52, then north on Gougar to U.S. Route 52, where it would continue north on U.S. Route 52 as it currently does. Hoff-Pauling Road is identified in the Village's Transportation Plan as one of the east-west regional arterials serving through traffic in the area and it is a proposed alignment for the Illiana Expressway. To accommodate this truck route re-designation, the Hoff-Pauling Road corridor will need to be improved by aligning Hoff Road and Pauling Road at U.S. Route 52 and improving both roadways to truck route standards, consistent with the Will County 2030 Transportation Plan.

Parking

The existing commuter parking lot has 257 spaces. Various options for locating future spaces were evaluated as part of the design process. These options include parking on the east and west side of the tracks, (with a relocated pedestrian crossing incorporated into one of the options for an at grade road crossing), along Front Street and on potential Downtown sites that are within walking distance of the station. These options look at providing commuter parking within comfortable walking distance of the station, and allow for parking to be shared by commuters, park users and Downtown patrons.

At the time the station was built, 20 acres of land for commuter parking was purchased by Metra as part of the extension and upgrade of the SWS Line completed in 2006. There are approximately 9.6 acres of a 15 acre parcel that remains for development. Relocation of Metra-owned parcels designated for future parking would need to be approved by Metra's Executive Director and the Federal Transit Administration since the land designated for future commuter parking was purchased with federal funds.

Pedestrian / Bicycle Connections and Safety Enhancements

Opportunities to improve the pedestrian linkage between the Village Center site and traditional Downtown Core area focus on the open space along the east side of Front Street and the potential railroad grade crossing at either Sweedler Road or a potential road connection further south. A wide attractive pedestrian plaza could be developed along Front Street, complete with benches, lighting, landscaping and public art, that would serve to lessen the perceived distance between the two areas. This space could also be used as a gathering space for special events, festivals, farmers markets, etc. An attractive pedestrian path along the potential new east-west rail crossing alignment would also improve access between the two areas. The portion of the path in the track area must follow the Manual on Uniform Traffic Control Devices and be approved by Metra.

The disjointed alignment of the Wauponsee Glacial Trail at Sweedler Road can also be corrected in the Village Center plan by realigning the trail to cross Sweedler Road opposite its current north-south alignment to the west of the Metra station access drive. This realignment would require private property on the north side of Sweedler Road. It would eliminate the current mid-block crossing on Sweedler in place of a new crossing at the Metra access driveway, which may be expanded to serve the larger Village Center development and may, in turn, require signalization, all of which would increase safety for trail users.

Safety provisions at the existing mid-block pedestrian crossing on Gougar Road at Wilson Creek Elementary School could be enhanced by several means. The existing crossing signs can be upgraded with pedestrian-activated flashing lights to give greater notice to motorists of pedestrian activity. These signs could be interconnected with flashing lights within the pavement crosswalk, which are very visible during dimly-lighted conditions. Future capacity improvements to Gougar Road could include a boulevard concept with a landscaped median, which would provide a pedestrian-refuge island that would shorten the crossing distances on Gougar. Another option would be the signalization of the pedestrian crossing or school exit driveway, should the pedestrian and/or traffic volumes satisfy the federal/state warrants for a new traffic signal.

Chapter 3

Regulating Plans and Guidelines

The Regulating Plan

Intent

The Regulating Plan and Guidelines set forth in this Chapter are intended to provide clear and detailed plans that are consistent with the Illustrative Master Plan, Vision, and Principles described in Chapter One. These regulations are intended to create a more predictable process and product for the Village as well as developers, builders and design consultants . Within the clear framework laid out by the Regulating Plan, there is still flexibility to accommodate a variety of building types and uses that can respond to future market demands.

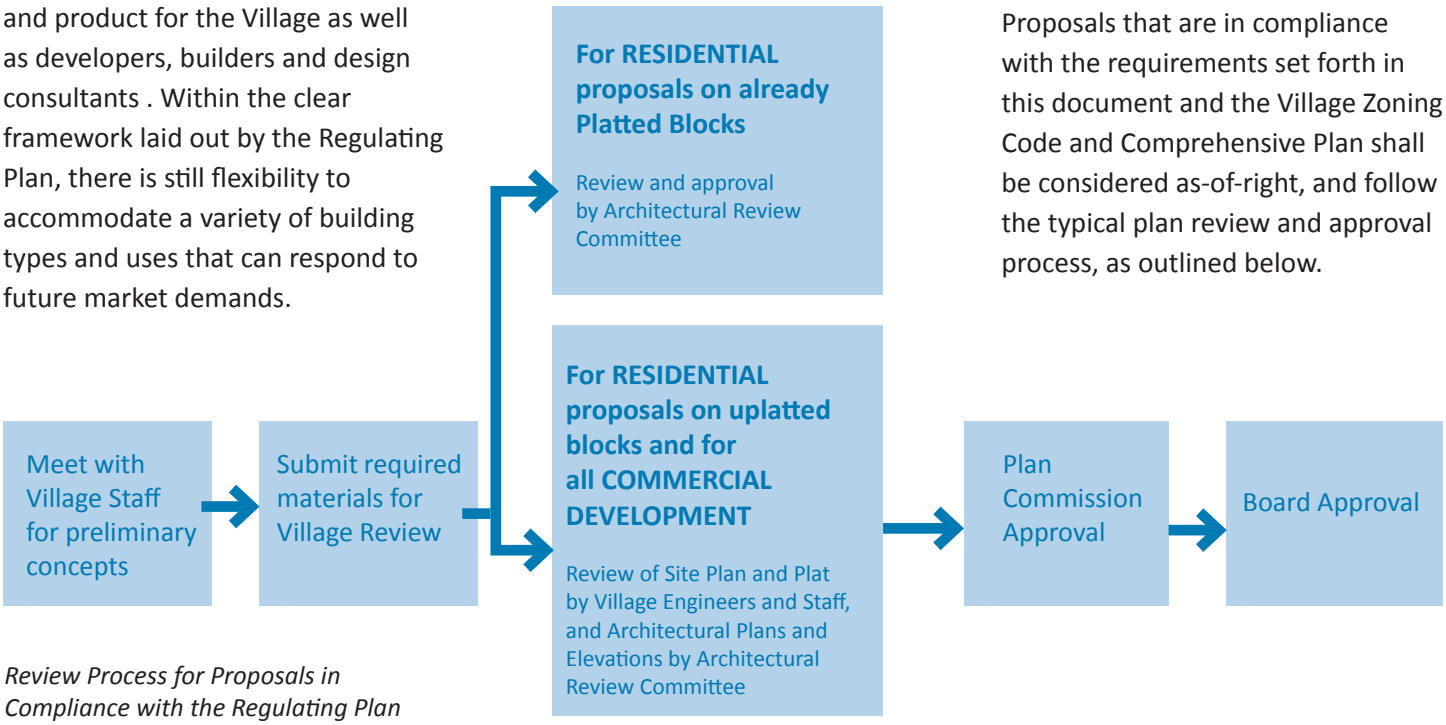
Applicability

This document will serve as the Primary Regulating Plan and Guideline document for the area shown in Fig. 2.2 (following page), along with the underlying Zoning Code and Comprehensive Plan regulations.

Amendments that may be required to the Zoning Code and Comprehensive Plan are outlined in the following sections. The goal is to create a consistent set of regulating documents that are easy to enforce and follow.

Review Process

Proposals that are in compliance with the requirements set forth in this document and the Village Zoning Code and Comprehensive Plan shall be considered as-of-right, and follow the typical plan review and approval process, as outlined below.



Review Process for Proposals in Compliance with the Regulating Plan

Consistency with the Comprehensive Plan

The 2008 Comprehensive Plan is based on the principle of creating five unique districts within the 70 square mile Manhattan Planning Area. The "Downtown District" anchored by State Street and the station is envisioned to remain strong as the heart of the community as the Village continues to grow.

According to the Comprehensive Plan, the Downtown District, as illustrated in Fig. 2.2, has the following goals:

- Revitalize State Street as Manhattan's main street, and Manhattan - Monee Road as the gateway to Manhattan from the east.
- Strengthen the intersection of State Street and Manhattan - Monee Road as the heart of the historic Downtown.
- Create a new transit oriented neighborhood (T.O.D.) around the train station. This neighborhood will allow many residents to live close to the train station, and also bring a variety of civic, institutional and commercial uses close to the old part of town.
- Preserve the existing residential fabric in the old part of town, with smaller alley loaded lots and small walkable blocks.
- To maximize the number of residents who can live at the heart of Downtown within walking distance of the train station, the Downtown District will allow a density of 12 dwelling units per acre within 1/4 mile of the train station, and 6 dwelling units per acre in the rest of the district.

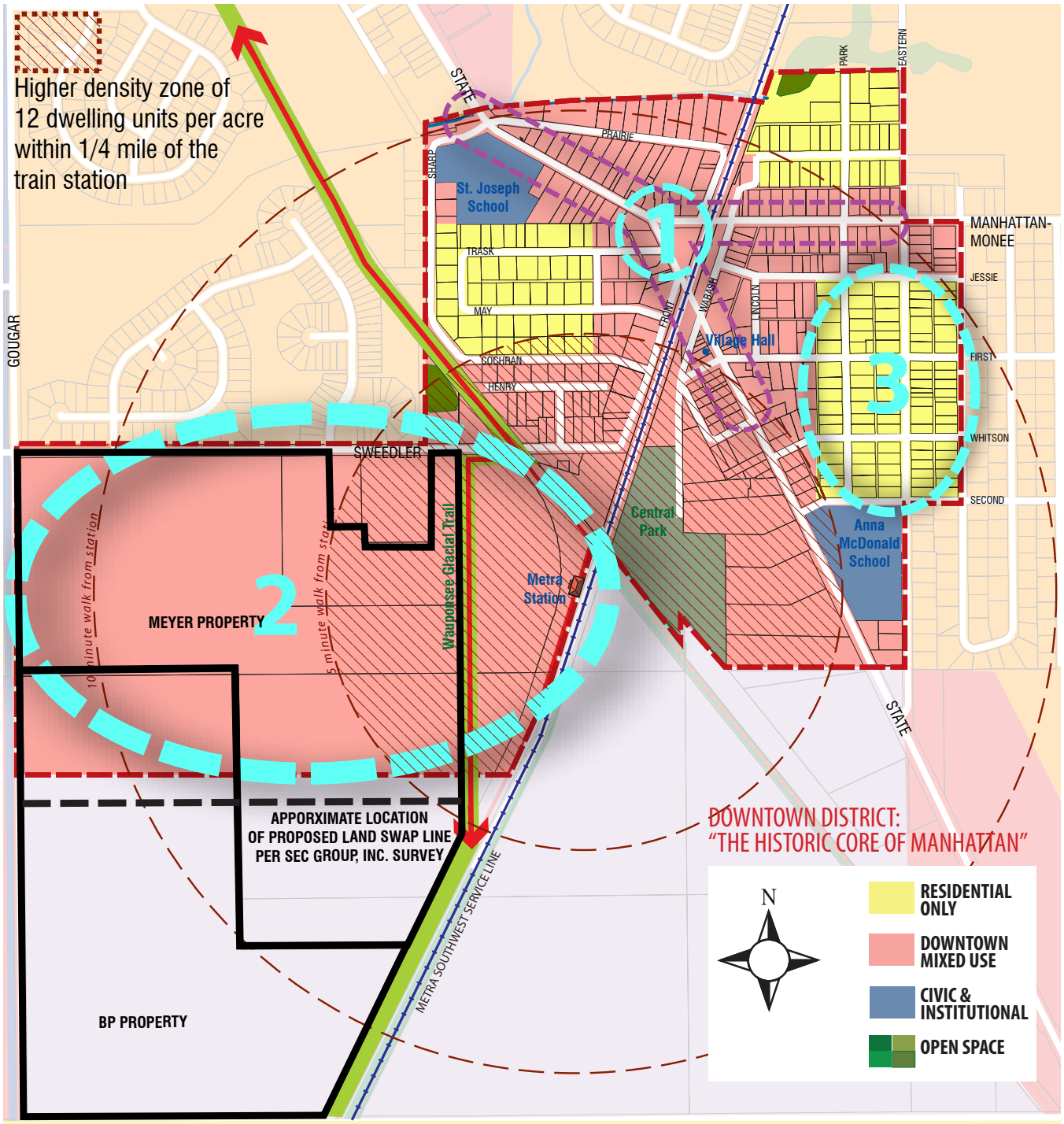
These goals are consistent with the Village Center Plan objectives and with the T.O.D. principles that the Regulating Plans and Guidelines are based on.

In the "Implementation" section of the 2008 Comprehensive Plan, the following action items were listed for the Downtown District:

- Develop a Transit Oriented Neighborhood (T.O.D.) around the train station.
- Consider major infrastructure improvements to connect the T.O.D. to the old part of town around State Street, including the extension of Sweedler Road to the east with a potential at grade crossing over the Metra SouthWest Service Line.
- Revise the Village Zoning Ordinance for the Central Business District to be consistent with the boundaries and recommendations outlined for the Downtown District in the Comprehensive Plan.
- Investigate alternatives to improve the traffic conditions along State Street at the Front Street and Manhattan - Monee Road intersections.
- Establish a Centralized Detention Plan for the Downtown District.
- Strengthen State Street's identity as Manhattan's Main Street with streetscaping and signage.
- Identify redevelopment sites in the Downtown area, and a parking plan to accommodate future parking needs for Downtown and commuters.

This Village Center Plan effort is a great opportunity for the Village to realize many of these long term goals for Downtown Manhattan.

Fig 2.2: Comprehensive Plan Recommendations



1 Revitalize State Street as MANHATTAN'S MAIN STREET, and Manhattan - Monee Road as the GATEWAY TO MANHATTAN from the east. Strengthen the intersection of State Street and Manhattan - Monee Road as THE HEART OF THE HISTORIC DOWNTOWN.

2 Create A NEW TRANSIT ORIENTED NEIGHBORHOOD (T.O.D.) around the train station. This neighborhood will allow many residents to live close to the train station, and also bring a variety of civic, institutional and commercial uses close to the old part of town.

3 Preserve the existing RESIDENTIAL FABRIC in the old part of town, with smaller alley loaded lots and small walkable blocks.

To maximize the number of residents who can live at the heart of Downtown within walking distance of the train station, the Downtown District will allow a density of 12 dwelling units per acre within 1/4 mile of the station, and 6 dwelling units per acre in the rest of the district.

Existing Zoning

Downtown Manhattan parcels have a variety of land uses and zoning designations today, as shown in Fig. 2.3: Existing Land Uses Map and Fig. 2.4 Existing Zoning Map.

General land use and zoning characteristics of the study area include the following:

- Most parcels along State Street are zoned commercial, with mostly C2 (Community Shopping) and C3 (General Business) zoning
- There is one small block at State Street and Cochran Street that has CBD or Central Business District zoning.
- Downtown is surrounded by residential neighborhoods to the north, east and west, with lots primarily zoned R1 (Single Family Residence).
- There is one small block zoned R2 (Multi Family Residence) at Front Street and Cochran Street, and a small parcel on Trask that is zoned R4 (Two Family Residences).
- The Village Center Site is mostly unincorporated, with some acreage zoned ER or Estate Residential.
- The BP Land to the south is currently unincorporated.
- North of Sweedler Road and west of the Wauponsee Trail are new multifamily lots that are zoned R4 (Two Family Residences PUD).
- To the west of these are new single family homes currently zoned R1(Single Family Residence).
- The Metra station parcel is zoned I1(Limited Industrial). Central Park is zoned CR (Community Recreation).

Fig. 2.3: Existing Land Uses in the Study Area

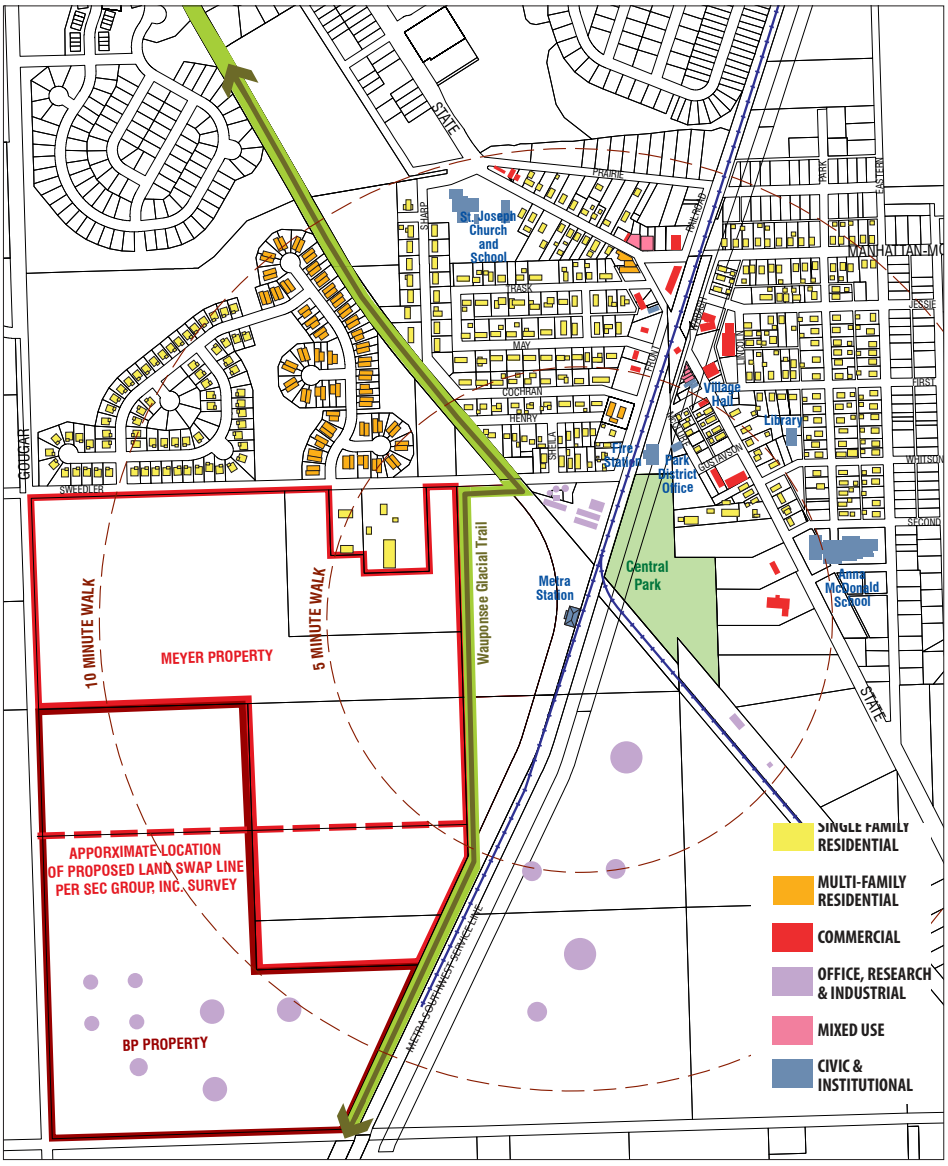
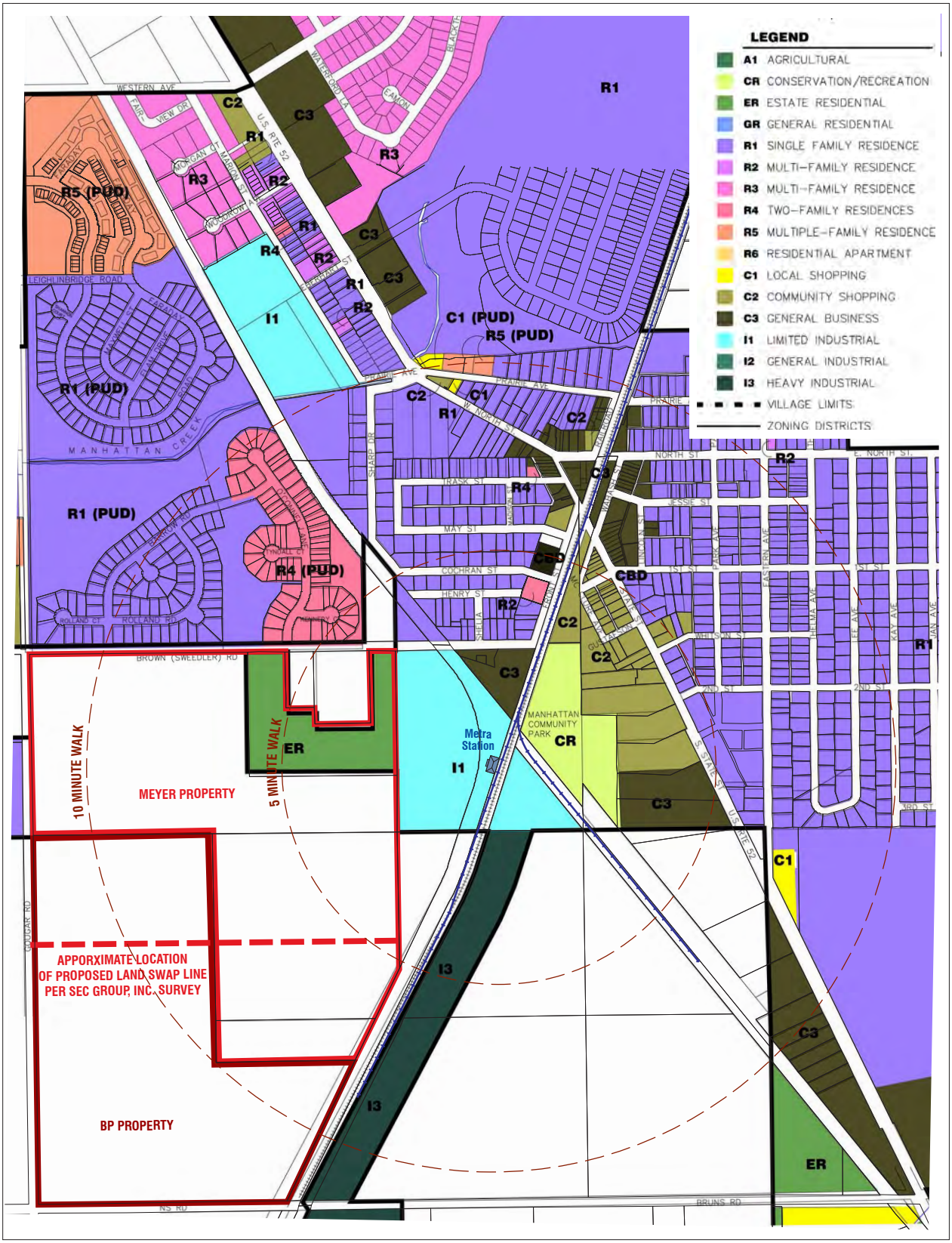


Fig. 2.4: Existing Zoning Map showing Village Center Site



New Downtown Overlay District

The 2008 Comprehensive Plan created a well - defined boundary for the Downtown District and promoted a higher density within walking distance of the station. Long term, the Village Zoning Ordinance for the Central Business District should be revised to be consistent with the boundaries and recommendations outlined for the Downtown District in the Comprehensive Plan.

In the interim, a **Downtown Overlay District** should be created to implement the Master Plan recommendations for Downtown and the Village Center site.

The Downtown Overlay District should be a tool to enhance the economic viability of the Downtown and Village Center area, and foster reinvestment and economic development opportunities to create a vibrant mixed use district.

The regulations outlined for the Downtown Overlay District aim to meet the vision of the Master Plan, and help to create a vibrant mixed-use district with a variety of retail and commercial and residential uses.

Intent

The intent of the Downtown Overlay District is consistent with the principles of the Master Plan as outlined in Page 1-4 and 1-5, and are as follows:

- Maximize the number of people living within walking distance of the train station
- Create pedestrian friendly streets for safe and comfortable connections to the station, and throughout the Downtown District
- Provide safe and convenient bicycle connections to the station and Downtown
- Create a diverse housing stock to make the district attractive to all age groups
- Place civic uses and public open spaces as focal points of the district
- Strengthen connections to the historic part of town
- Place buildings along the streets with parking to the rear
- Build a shared parking strategy for the overall district between the different user groups, including commuters, shoppers, residents, visitors and employees.

Downtown Overlay District Boundary

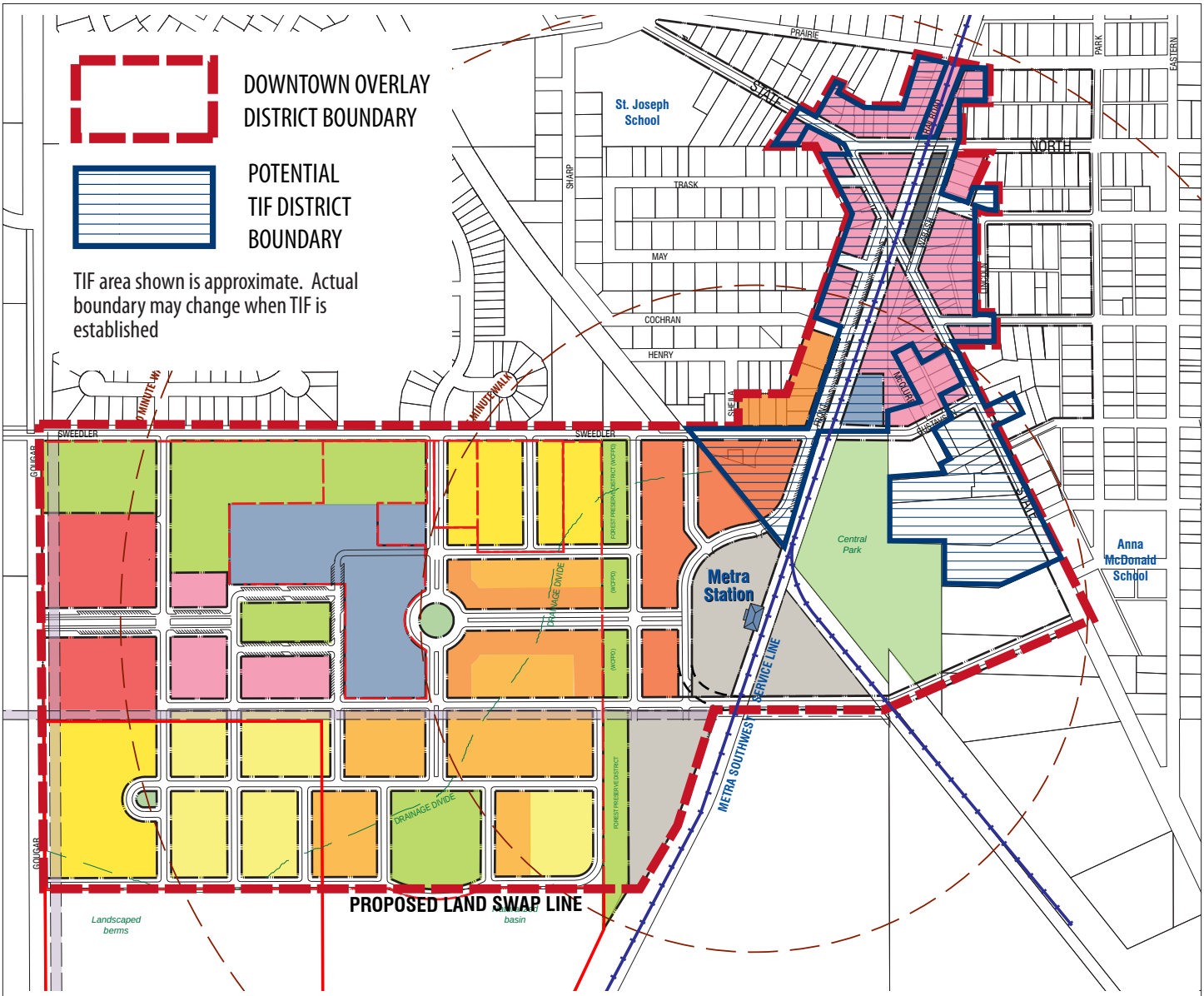
The proposed boundary for the Downtown Overlay District is shown in the map to right. The boundary is intended to include the following:

- Downtown parcels along State Street, Front Street and North Street that have potential for mixed use, commercial and residential uses
- The Village Center site west of the tracks
- The area between Central Park and State Street

Regulations for the Downtown Overlay District are outlined in the following regulatory plans and guidelines:

- Regulating Plan A: Street Framework
- Regulating Plan B: Parking
- Street Landscaping and Lighting
- Regulating Plan C: Trail Framework
- Regulating Plan D: Stormwater
- Public Open Space
- Civic Campus
- Architectural Style for Houses
- Single Family Detached
- Single Family Attached
- Commercial Buildings
- Best Practices

Overlay District Boundary Map



RECOMMENDED LAND USES

- CIVIC
- MULT-FAMILY
- REAR LOADED ROW HOUSES
- REAR LOADED SINGLE FAMILY- 40'- 50' WIDE LOTS, OR REAR LOADED ROW HOUSES
- REAR LOADED SINGLE FAMILY LOT WIDTH 80'MAX
- FRONT OR REAR LOADED SINGLE FAMILY LOT WIDTH 80' MAX
- MIXED - USE WITH RETAIL OR OFFICE ON GROUND FLOOR
- RETAIL OR MIXED - USE WITH RETAIL OR OFFICE ON GROUND FLOOR
- PARKING
- DOWNTOWN PARKING
- PUBLIC OPEN SPACE

N

0 500' 1000'

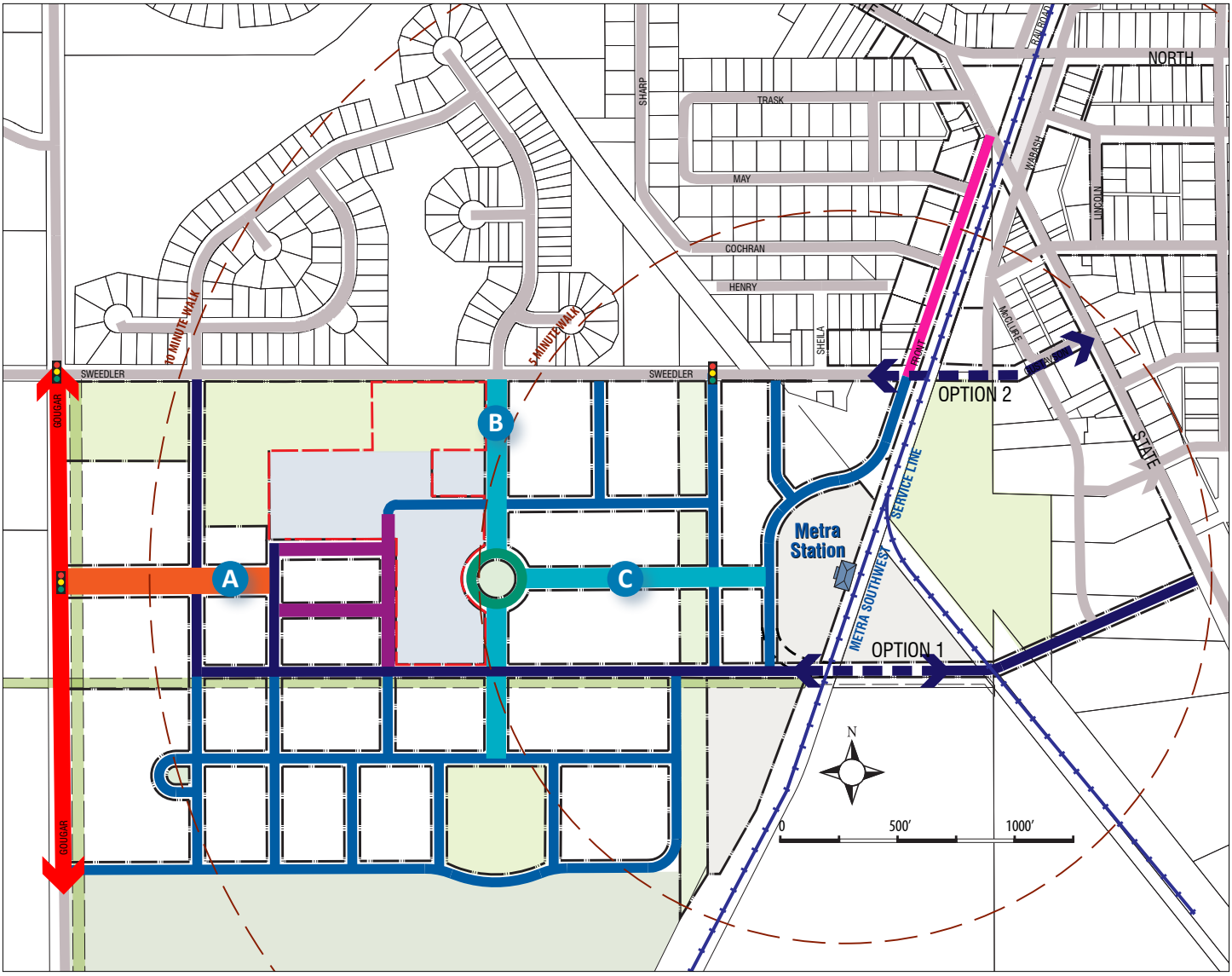
Regulating Plan A: Street Framework

Intent

- Create a connected street grid that allows traffic to disperse evenly and creates small, walkable blocks.
- Ensure that all streets are pedestrian friendly, with continuous sidewalks, street trees for shade, and minimal curbcuts along the streets.

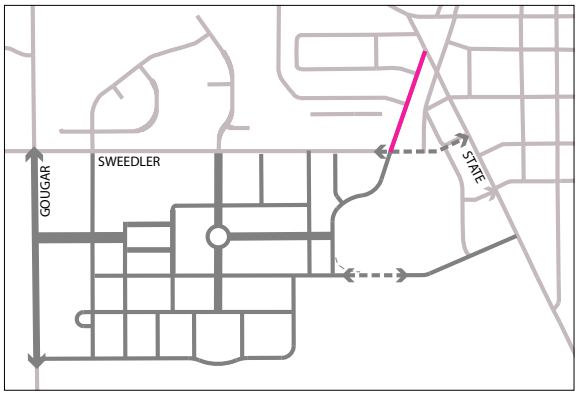
Street Types

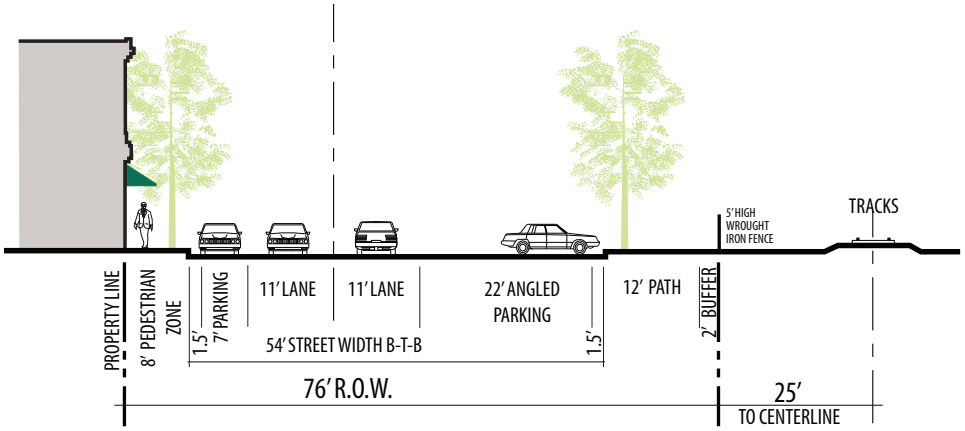
- FRONT STREET - 76' R.O.W.
- BOULEVARD A - 136' R.O.W.
- BOULEVARDS B AND C - 100' R.O.W.
- VILLAGE SQUARE STREETS - 86' R.O.W.
- COLLECTOR STREETS - 80' R.O.W.
- NEIGBORHOOD STREETS - 66' R.O.W.
- GOUGAR ROAD -120' R.O.W.
- EXISTING ROADS

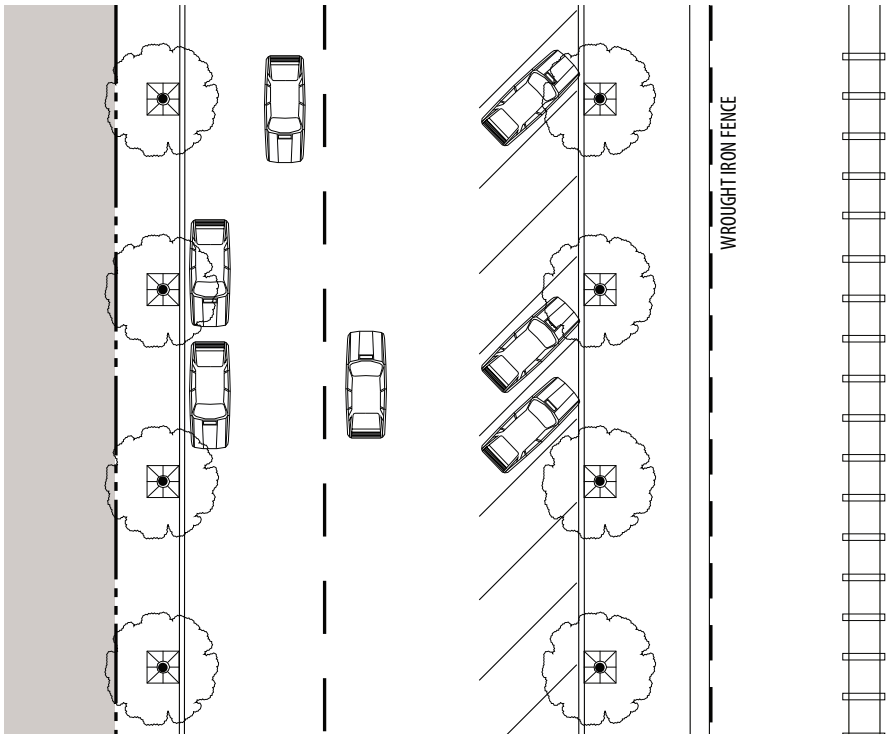


Front Street

Introduce 45° angle parking and a bike and pedestrian path along the east side, with at least a 25 feet setback from the centerline of the tracks. Install a decorative wrought iron fence along the path for safety that is at least 5 feet high.

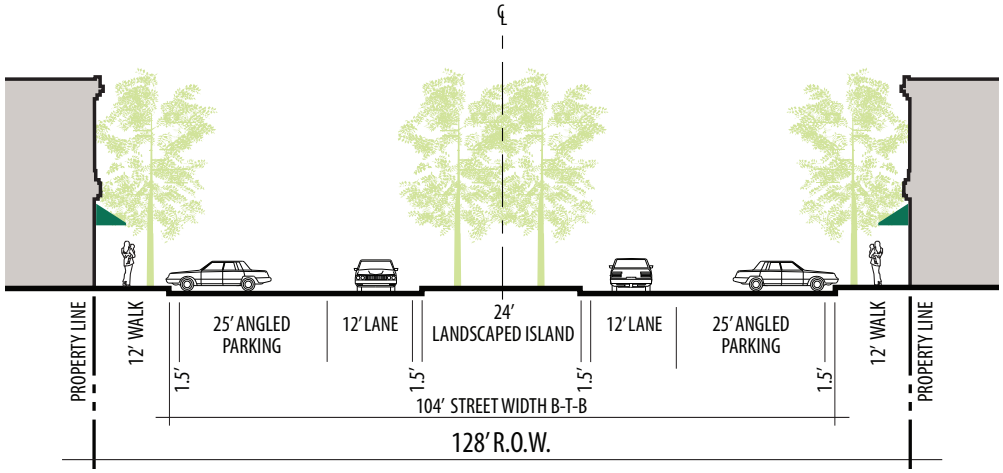


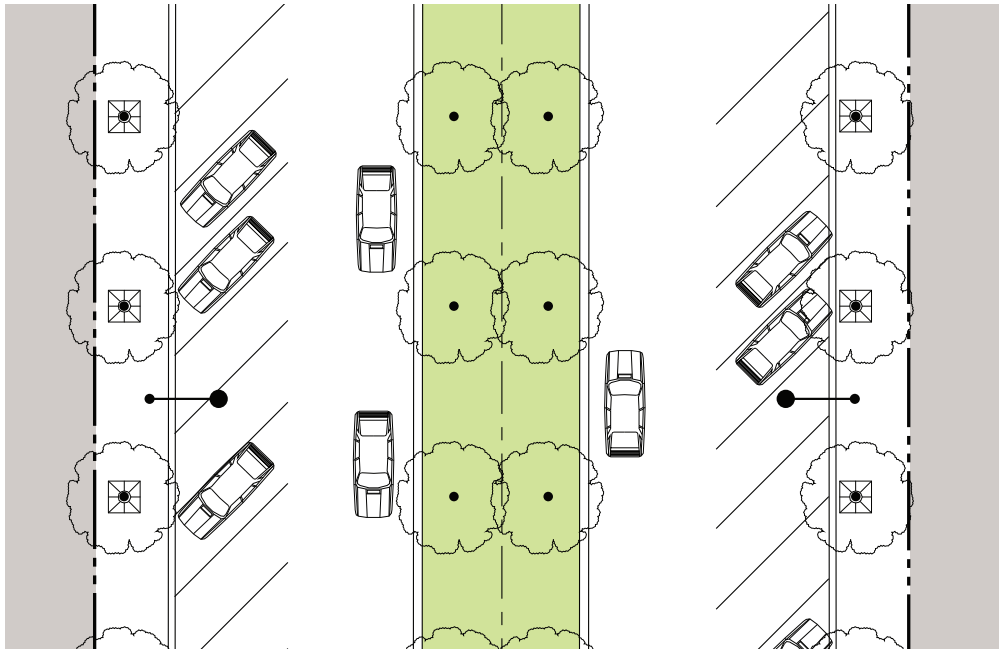




Boulevard A

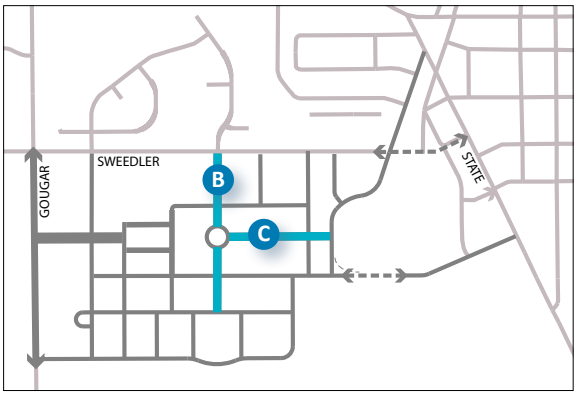
128' R.O.W. with landscaped median as major entry to the Village Center from the west. 45° angle parking is provided on both sides to serve retail uses along the street. Parking, service areas and drive through facilities must be located to the rear or sides of buildings, and not in front of the street facades.

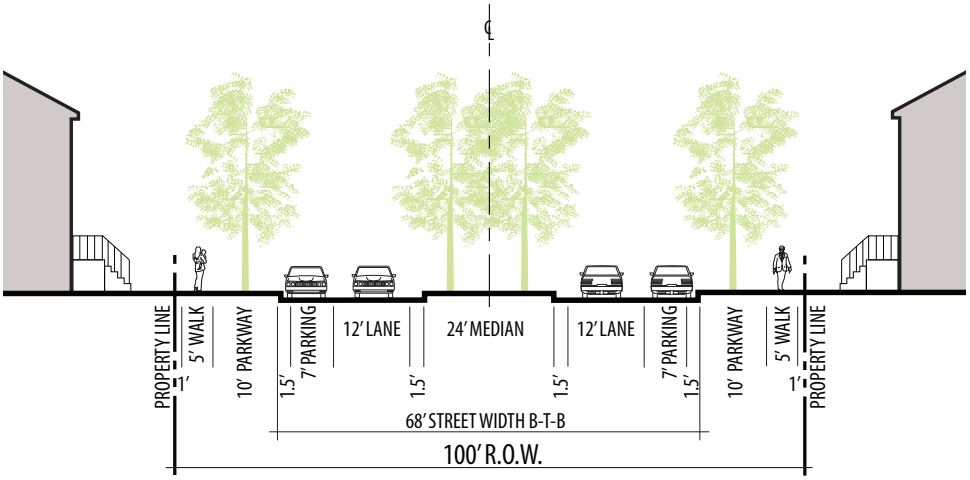


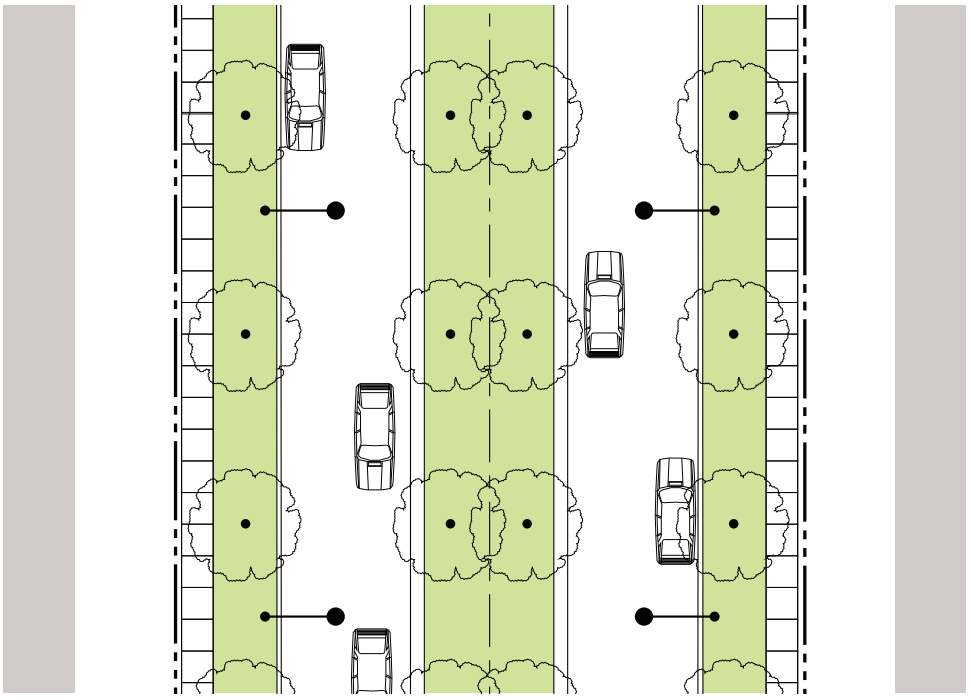


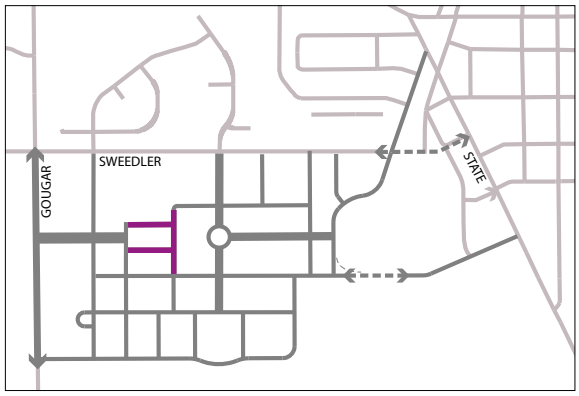
Boulevards B & C

100’ R.O.W. with landscaped median as major entry to the Village Campus from the east and north. On-street parallel parking is provided on both sides to serve residential and civic uses. Traffic calming features such as bump-outs and enhanced crosswalks will be incorporated to minimize vehicular/pedestrian conflicts.



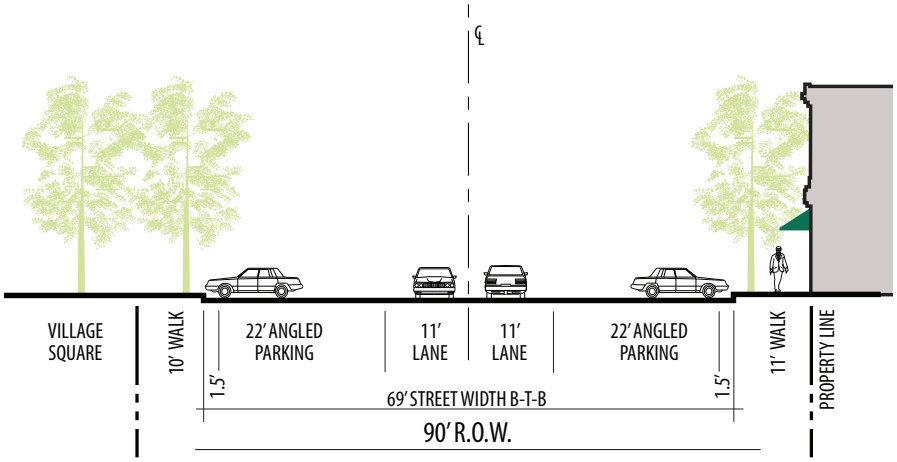


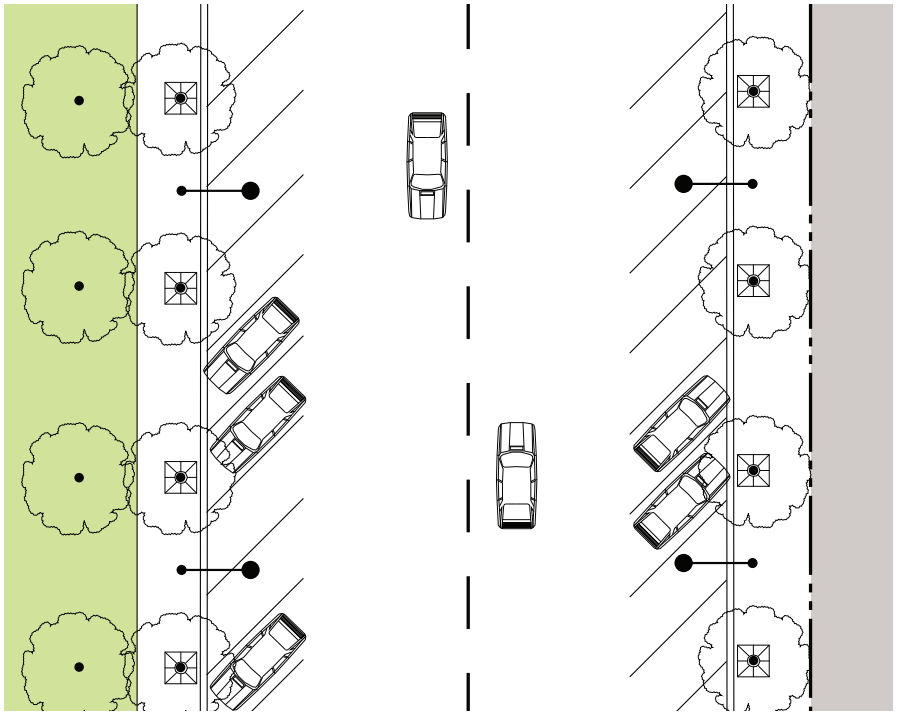




Village Square Streets

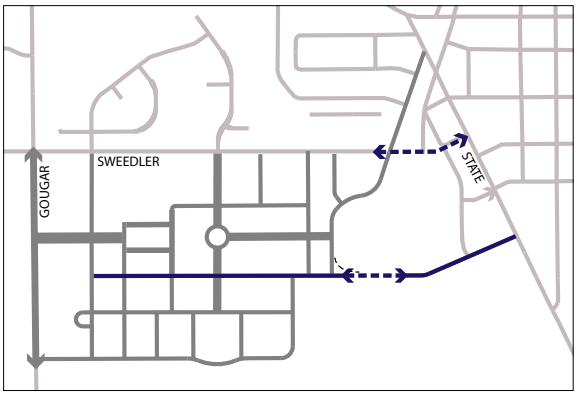
90’ R.O.W. with 45° angle parking on both sides to serve a variety of uses along the square: civic, commercial, residential. Parking, service areas and drive through facilities must be located to the rear of buildings, and not in front of the street facades facing the square. Traffic calming features such as bump-outs and enhanced crosswalks will be incorporated to minimize vehicular/pedestrian conflicts.

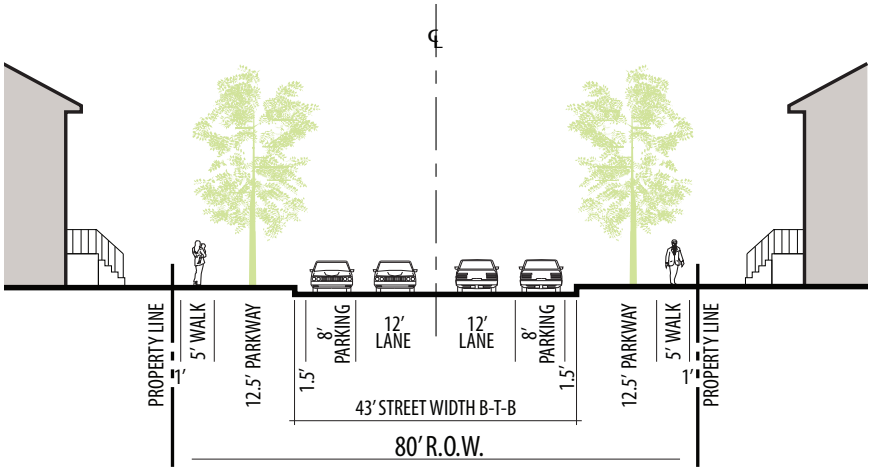


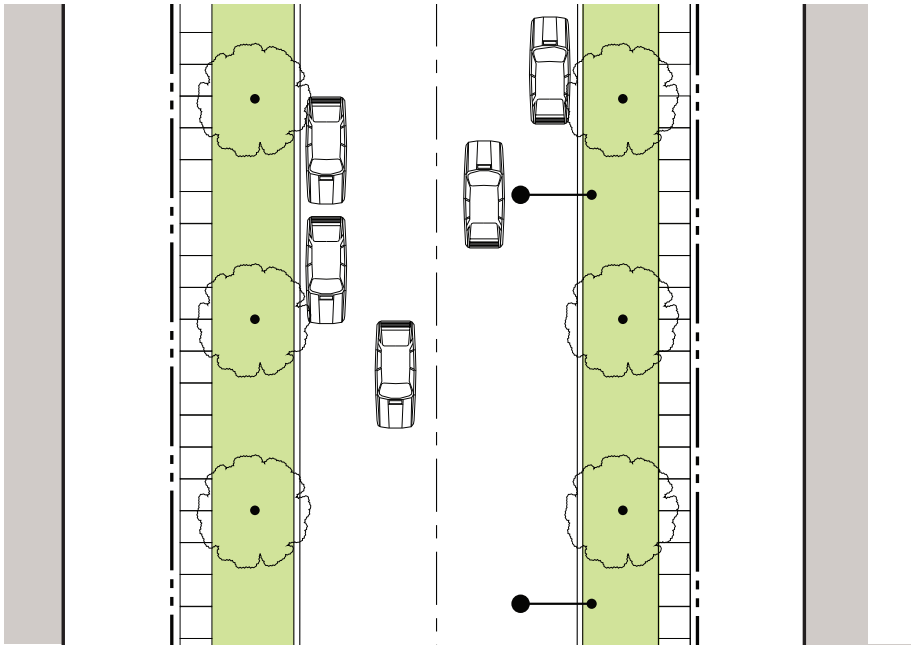


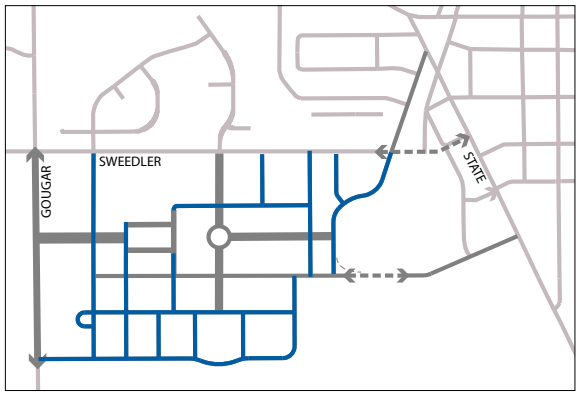
Collector Streets

80’ R.O.W. with parallel parking provided on both sides of the street to serve residential uses. Traffic calming features such as bump-outs and enhanced crosswalks will be incorporated to minimize vehicular/ pedestrian conflicts.



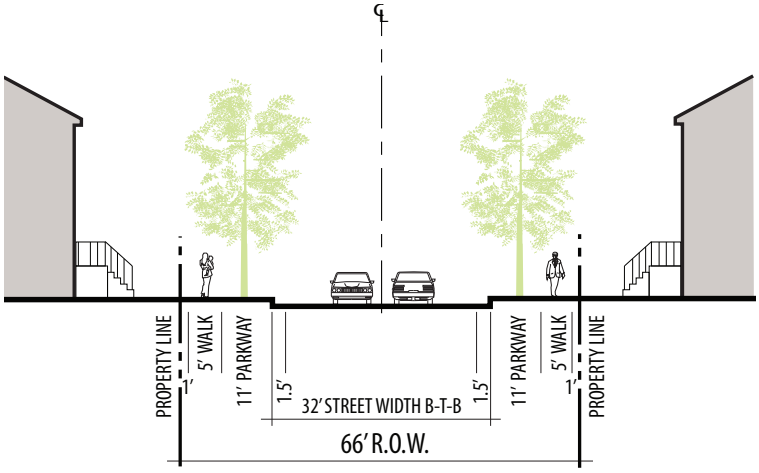


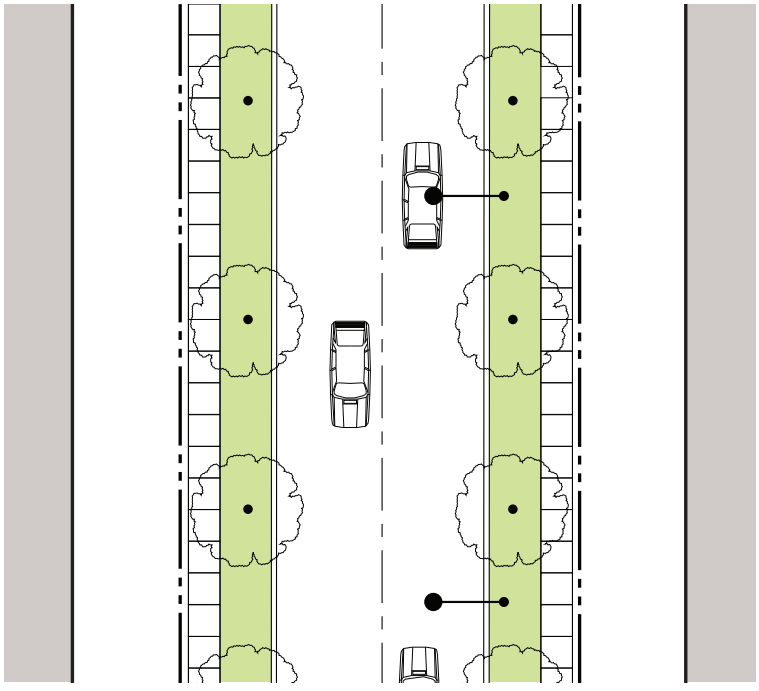




Neighborhood Streets

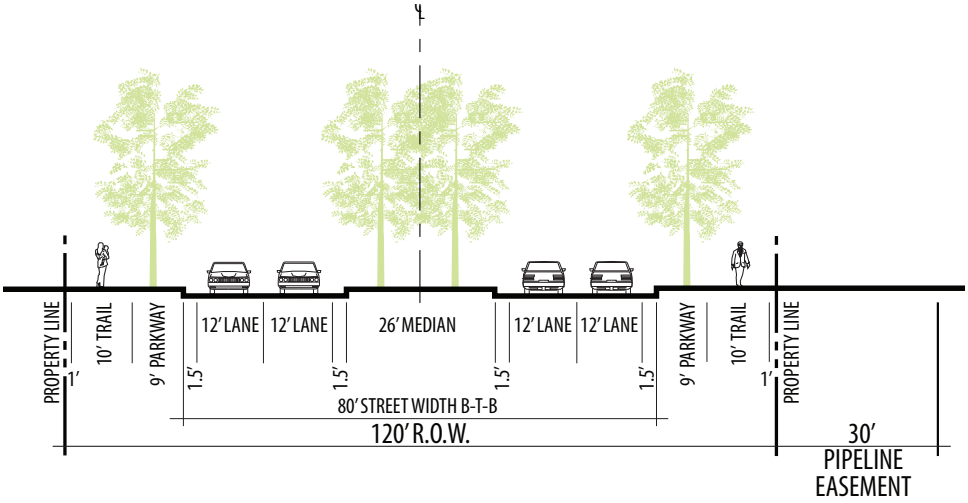
66’ R.O.W. with parallel parking provided on both sides to serve residential uses. Traffic calming features such as bump-outs and enhanced crosswalks are encouraged.

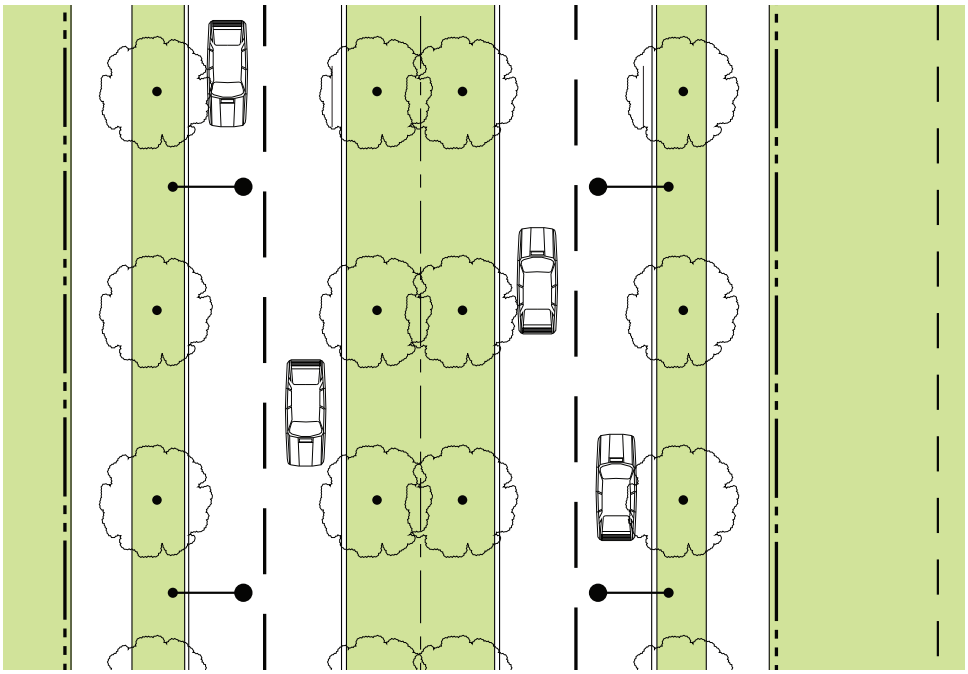


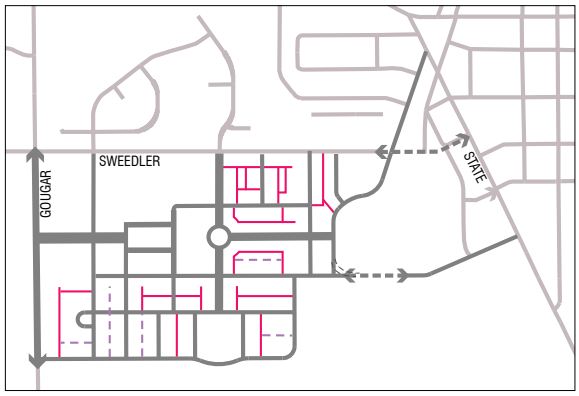


Gougar Road

120’ R.O.W. with landscaped median and trail along the east side. Trail can be installed on pipeline easement running along the east side, per an agreement with the Pipeline Company.

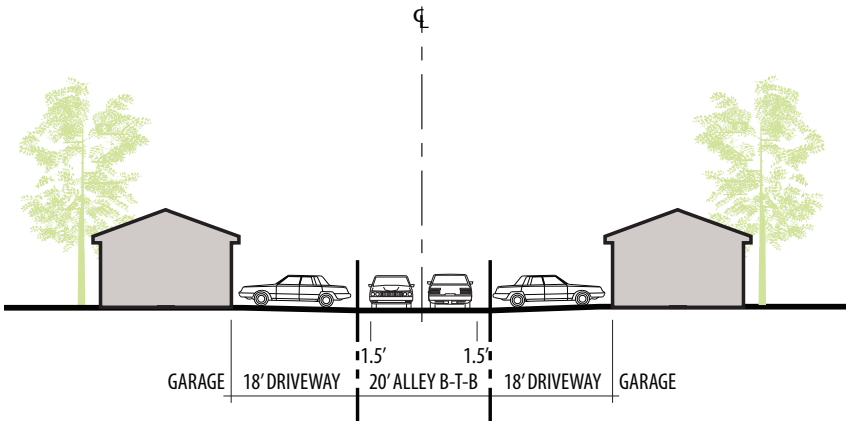


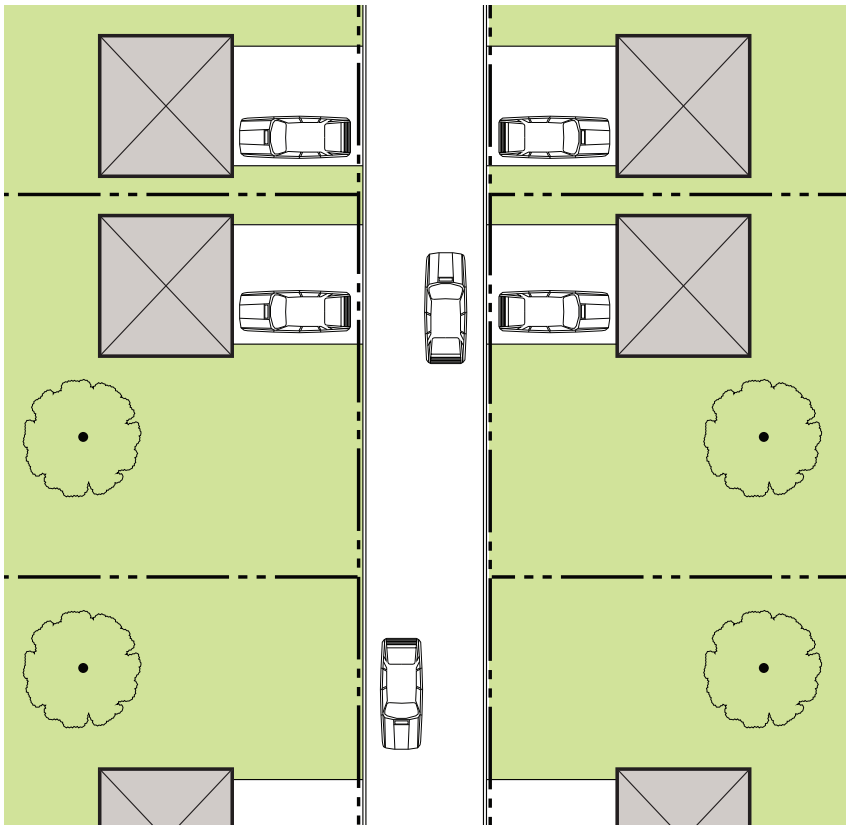




Typical Alleys

Alleys must have a 20’ R.O.W. and with mountable reverse pitch curb and gutter. Driveways must be a minimum of 18 feet long and accommodate 2 parked cars within the lot.





Regulating Plan B: Parking

Intent

The Parking Plan encourages shared parking between a variety of uses that are within walking distance of each other, including the station, Downtown, Civic Campus, parks and shops. Summary of approximate parking spaces, with a total yield of about 2,353 spaces, is listed below:

Downtown Parking

1.	Wabash Ave.	130 Spaces
2.	Front Street	60 Spaces
3.	Between State and the tracks	40 Spaces
4.	McClure Ave.	80 Spaces
	Total	**310 Spaces**

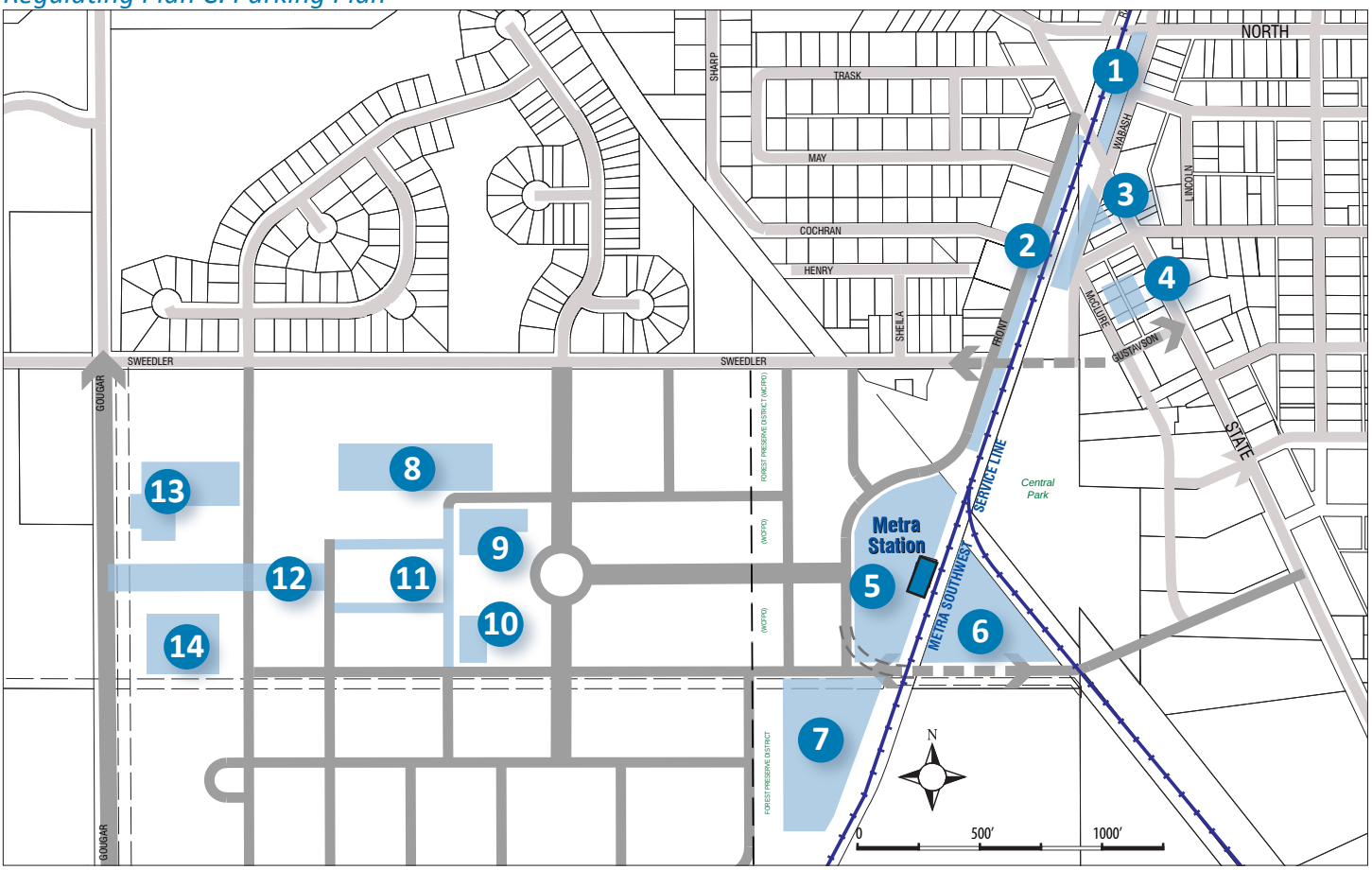
Commuter Parking

5.	Expanded Lot	
	Existing to remain	209 Spaces
	Relocated	20 Spaces
	Re-striped	28 Spaces
	Additional	233 Spaces
	Total	490 Spaces
6.	Triangle Site (east of tracks)	320 Spaces
7.	Existing Detention Pond site	445 Spaces
	Total	**1,255 Spaces**

Village Center Parking

8.	Village Campus	120 Spaces
9.	Village Campus	48 Spaces
10.	Village Campus	20 Spaces
11.	Village Square	140 Spaces
12.	Boulevard A	50 Spaces
13.	Gougar Retail	200 Spaces
14.	Gougar Retail	220 Spaces
	Total	**778 Spaces**

Regulating Plan C: Parking Plan



Street Landscaping

Street Trees

- Street trees should be able to thrive in restricted growing conditions and be more salt and drought tolerant. The health of the street tree is highly dependent on the soil, traffic volumes, irrigation, and subsurface drainage.
- Suggested tree spacing is at no closer than 20' and max of 35'.
- The rhythmic spacing of light poles, trees, street signs and furnishings is critical to creating a unified streetscape in the Village Center. Trees and light poles must be aligned at the center.

Median Trees

- Median trees can be selected for seasonal interest, such as spring bloom, fall color, interesting winter bark or form.
- These shade and ornamental trees should be planted in the center of the median for a single row or as a double row where space permits, and at distances to allow for line-of-sight considerations.
- Ornamental trees should be spaced from 15' to 20' with shade trees spaced at 25'.
- The plant list should be updated periodically to continue to include native plants and reflect additional planting and growing opportunities.

	Latin Name	Common Name	Spacing	Size
Street Trees	*Acer* x *freemanii* 'Autumn Blaze'	Autumn Blaze Freeman Maple	25' O.C.	3" caliper
	Ginkgo biloba 'Magyar'	Magyar Ginkgo	25' O.C.	3" caliper
	Gleditsia triancanthos var. inermis 'Skyline'	Skyline Honeylocust	25' O.C.	3" caliper
	Quercus alba	White Oak	25' O.C.	3" caliper
	Quercus imbricaria	Shingle Oak	25' O.C.	3" caliper
	Quercus macrocarpa	Bur Oak	25' O.C.	3" caliper
	Ulmus x 'Morton'	Accolade Elm	25' O.C.	3" caliper
	Ulmus americana 'Princeton'	Princeton American Elm	25' O.C.	3" caliper
Median Trees	*Amelanchier grandiflora*	Apple Serviceberry	15' O.C.	2.5" caliper
	Betula nigra	River Birch	15' O.C.	2.5" caliper
	Carpinus carolinana	Hornbeam	15' O.C.	2.5" caliper
	Crataegus crusgalli var. inermis	Thornless Cockspur Hawthorn	15' O.C.	2.5" caliper
	Crataegus spp.	Hawthorn	15' O.C.	2.5" caliper
	Magnolia spp.	Magnolia	15' O.C.	2.5" caliper
	Malus spp.	Crabapple	15' O.C.	2.5" caliper
	Pyrus calleryana	Callery Pear	15' O.C.	2.5" caliper

Street Lighting

Lighting Palette

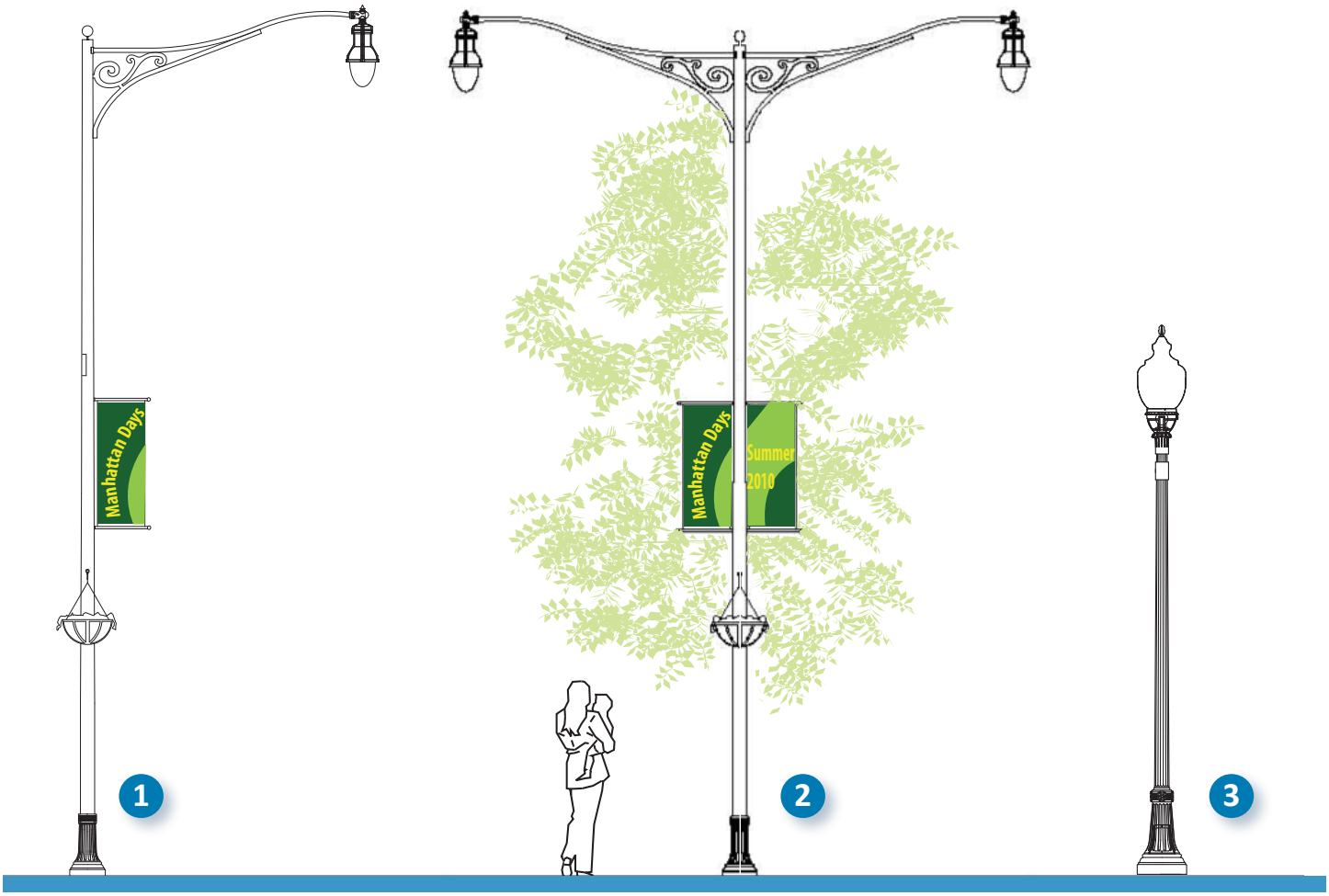
- A consistent palette of Street Lights should be used throughout Downtown and Village Center streets. A palette of three types of lights are recommended:

1. Tall Street Light - Single Arm: Use for major streets and street corners. Decorative arm and light can be used on typical pole.

2. Tall Street Light - Double Arm: Potential to use in medians on boulevards.

3. Pedestrian Pole - Single or Double Acorn: For residential and pedestrian oriented streets

- The style and color of street lights should be consistent with the architectural style selected for the Village Hall and other municipal buildings.
- Typical poles have the following elements to choose from: Base, Pole, Lamp, Arms, Finials, and Accessories: Banner Arms, Hanging Baskets etc. All elements should be of the same color, materials and architectural style.
- Street lights must be aligned with street trees, and be centered at least 4 feet from the face of the curb.
- Spacing: Typical 100’ to 150’ O.C. for tall lights, and 35’ to 40’ for Pedestrian Poles. Actual spacing to be determined by required lighting levels for street type.
- Street lights along Front Street will need to be shielded to eliminate glare at the train crew level.



Regulating Plan C: Trail Framework

Intent

To ensure that residents of Downtown and the Village Center site have safe and convenient bike connections to the station, Civic Campus, Central Park and proposed new open spaces., and to the Wauponsee Glacial Trail.

Trail Types

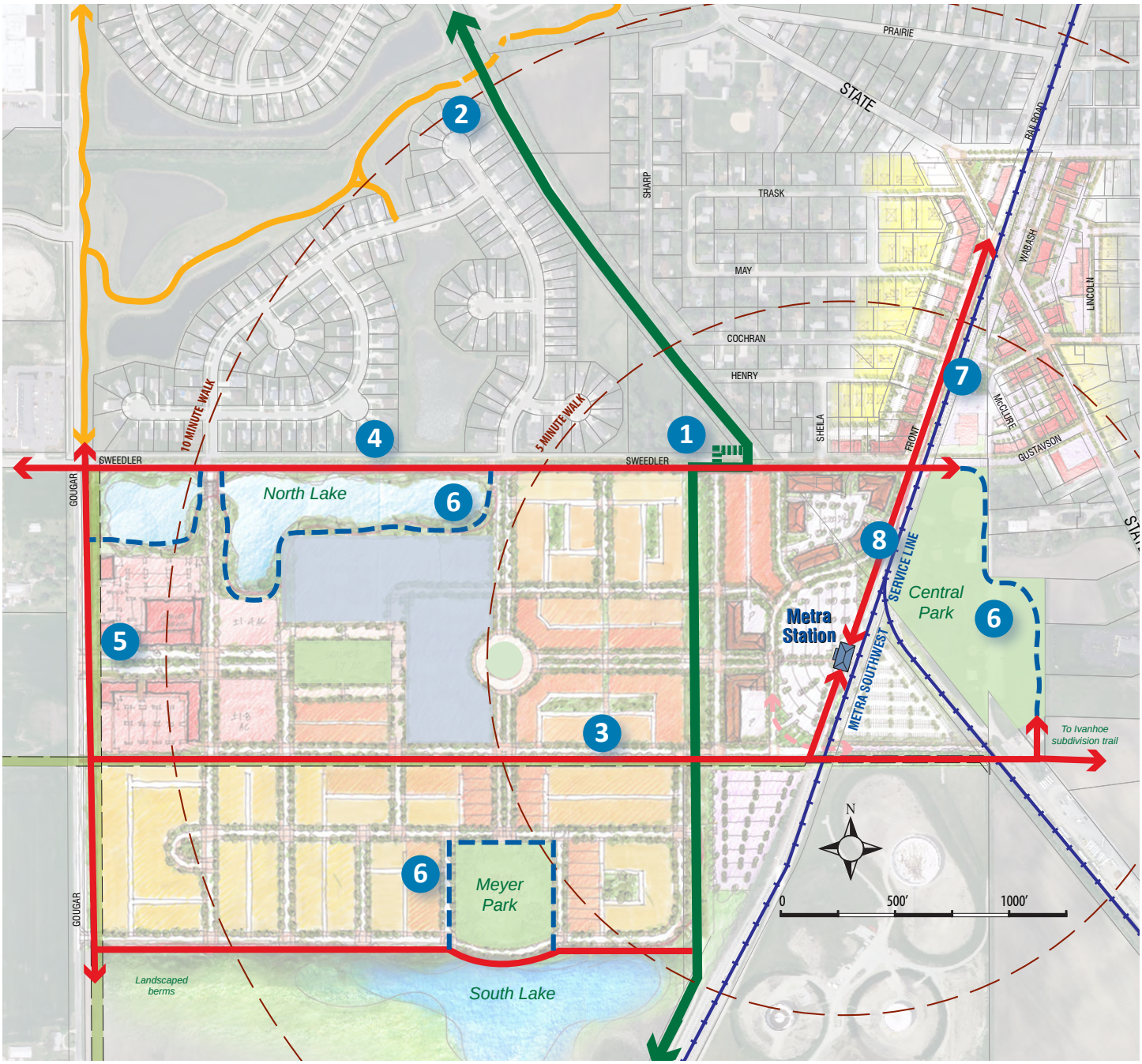
WAUPONSEE GLACIAL TRAIL

PROPOSED LOCAL TRAILS

EXISTING NEIGHBORHOOD TRAILS

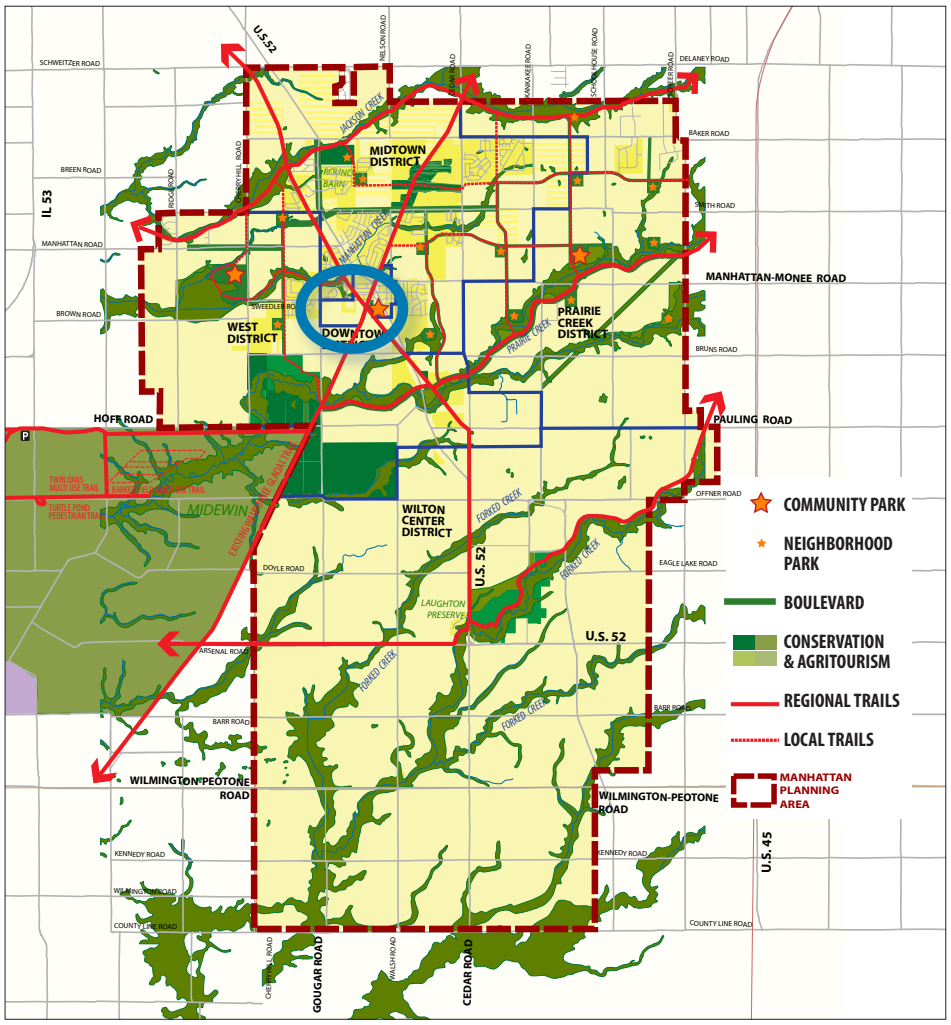
POTENTIAL PARK TRAILS

Regulating Plan D: Trail Framework



Recommendations

1. Realign the Wauponsee Glacial Trail crossing at Sweedler Road to cross at the road intersection instead of mid-block.
2. Connect existing trails in Lehlinbridge to the Wauponsee Glacial Trail.
3. Install a bike trail along the east-west pipeline easement to connect from Gougar Road to Central Park (contingent on Pipeline Company approval).
4. Install a bike trail along Sweedler Road to connect from Gougar Road to Central Park.
5. Install a trail along the east side of Gougar Road, within the ROW, or on the pipeline easement (per an agreement with the Pipeline Company).
6. Install trails / paths in Central Park, and proposed North Lake and Meyer Park, to connect to the larger trail system.
7. Install a trail along the east side of Front Street and extended Front Street to provide safe bike connections to the station.
8. Install a pedestrian tunnel under the tracks to create safe bike and pedestrian connections across the tracks. Location of tunnel to be determined when grade crossing location is finalized.



Amend Comprehensive Plan Trail Map (above) to incorporate recommendations of the Village Center Plan

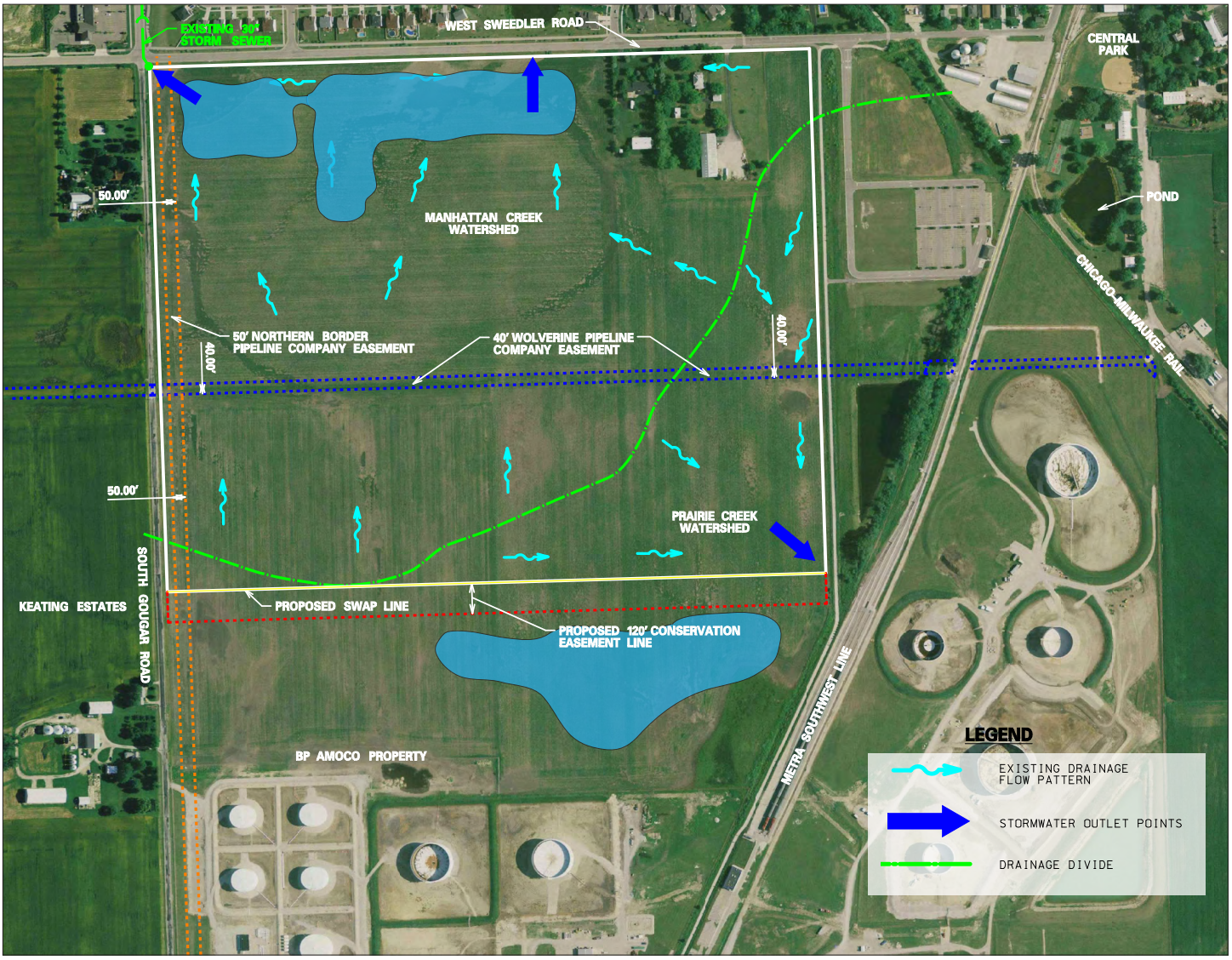
Below: Bike and Pedestrian Tunnel under Metra Tracks at the 153rd St. Station in Orland Park

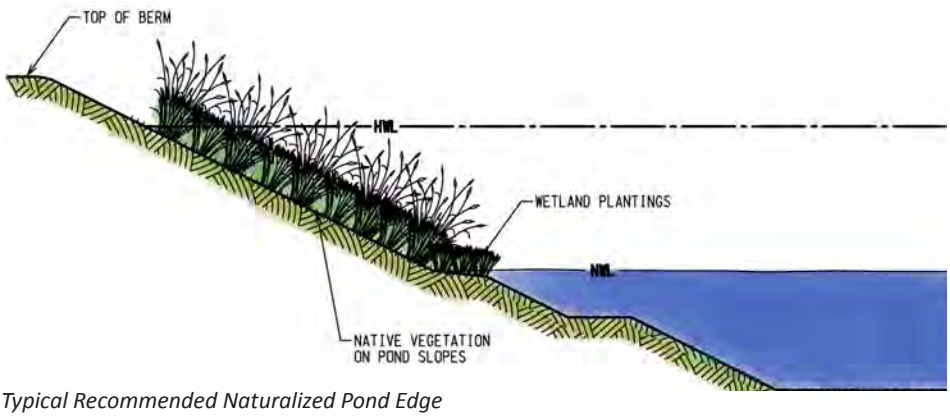
Regulating Plan D: Stormwater Management

Intent

- To ensure that natural drainage patterns of the land are maintained, and that detention areas are consolidated to provide major open space amenities.
- All calculations and assumptions for detention volume and acreage are preliminary, and will need to be calculated based on actual development data.

Detention designed as an integral part of the Civic Campus in Orland Park





Typical Recommended Naturalized Pond Edge

Detention designed as major natural area to serve Downtown Frankfort

DETENTION ASSUMPTIONS		
SITE DATA	WATERSHED	
	MANHATTAN CREEK	PRAIRIE CREEK
SUB CATCHMENT AREA	96 AC	27 AC
LAND USE: COMMERCIAL/BUSINESS RESIDENTIAL	50% 50%	50% 50%
DISTURBED AREA	100%	100%
IMPERVIOUS AREA	80%	80%
PERVIOUS AREA	20%	20%
DETENTION STORAGE	48.3 AC-FT	14.2 AC-FT
AREA ALLOCATED FOR STORMWATER DETENTION (5' LIVE STORAGE, 4:1 SIDE SLOPES)	10.33 AC	3.26 AC

LATIN NAME	COMMON NAME
Acorus calamus	SWEET FLAG
Alisma subcordatum	COMMON WATER PLANTAIN
Anemone canadensis	MEADOW ANEMONE
Asclepias incarnata	SWAMP MILKWEED
Aster novae-angliae	NEW ENGLAND ASTER
Boltonia latisquama recognita	FALSE ASTER
Calamagrostis canadensis	BLUE JOINT GRASS
Carex lacustris	COMMON LAKE SEDGE
Carex pellita	BROAD-LEAVED WOOLLY SEDGE
Carex stricta	COMMON TUSSOCK SEDGE
Carex vulpinoidea	FOX SEDGE
Deschampsia caespitosa glauca	TUFTED HAIR GRASS
Eupatorium maculatum	SPOTTED JOE PYE WEED
Eupatorium perfoliatum	COMMON BONESET
Hibiscus palustris	SWAMP ROSE MALLOW
Iris virginica shrevei	BLUE FLAG
Juncus effusus	COMMON RUSH

LATIN NAME	COMMON NAME
Lobelia siphilitica	GREAT BLUE LOBELIA
Ludwigia alternifolia	SEEDBOX
Mentha arvensis villosa	WILD MINT
Mimulus ringens	MONKEY FLOWER
Penthorum sedoides	DITCH STONECROP
Phlox glaberrima interior	MARSH PHLOX
Rudbeckia speciosa sullivantii	SHOWY BLACK-EYED SUSAN
Sagittaria latifolia	COMMON ARROWHEAD
Scirpus acutus	HARD-STEMMED BULRUSH
Scirpus validus creber	GREAT BULRUSH
Silphium perfoliatum	CUP PLANT
Solidago riddellii	RIDDELL'S GOLDENROD
Sparganium eurycarpum	COMMON BUR REED
Stachys palustris homotricha	WOUNDWORT
Thalictrum dasycarpum	PURPLE MEADOW RUE
Verbena hastata	BLUE VERVAIN
Vernonia fasciculata	COMMON IRONWEED

Prototypical naturalized pond edge plant list. Exact plant species mix and species quantity to be dictated by site location.

- The following assumptions have been made for the Stormwater Management Plan:

1. The southern part of the drainage divide will be detained in a new consolidated pond to be located at the south west part of the natural buffer area.
2. This pond will be sized to include the capacity of the current detention pond serving the station area, so that long term, this area can be developed for future commuter parking.
3. A connected detention pond at the southwest corner of Sweedler and Gougar Roads will serve the northern part of the drainage divide.
4. All pond edges will have natural slopes, planted with native plant material to minimize long term maintenance and to promote best practices in stormwater management. Signage should be installed to explain the benefits of native landscaping.
5. Hardscape edges with retaining walls can be installed only at any planned outdoor paved seating areas or plazas. Retaining walls must be stepped at maximum height intervals of 2.5 feet.

Public Open Spaces

The Village Center Plan envisions a variety of public open spaces to serve the residents, visitors and workers in the district. These include the following:

A. Village Square

- The Village Square is planned to be the primary gathering place for community events, including farmer's markets, and local fairs and festivals.
- The square provides a great outdoor setting for the Village Hall, Library and other civic buildings.
- The approximately 1.7 acre Square is also large enough to accommodate a variety of outdoor uses, including the following:

1. Outdoor Music stage / bandshell with lawn seating
2. Public Art
3. Water features
4. Paths, seating and lighting
5. Themed Gardens, including butterfly gardens and native gardens

B. North Lake: Detention Area

- The approximately 15.5 acre detention is envisioned to be a major open space and water feature for the Civic Campus as well as the overall district.
- The Lake is planned to have natural slopes on all edges, planted with native plant material to minimize long term maintenance and to promote best practices in stormwater management.
- Perimeter trails and paths should be installed to allow access along all sides of the lake. Seating areas and lighting should be provided.
- Signage should be installed to explain the benefits of native landscaping.
- While natural edges with native landscaping are recommended for the Lake, hardscape edges with retaining walls can be installed at outdoor paved seating areas or plazas. Retaining walls must be stepped at maximum height intervals of 2.5 feet to avoid high and unattractive walls along the water.

Below left: Outdoor Square in Easton Town Center as major community gathering space
Below right: Washington Park as a great open space setting for the Newberry Library

Illustrative Massing of Civic Campus *(looking east from Gougar Road)*

- Long term enhancements can include fountains and water features, gardens, and other outdoor public spaces along the water.

C. Meyer Park

- The approximately 4.0 acre public park is envisioned to serve as the neighborhood park for the Village Center District.
- Perimeter trails and paths, parkway trees for shade, seating, signage and lighting should be installed.
- The park can be programmed in coordination with the Manhattan Park District for outdoor recreational uses and play lots as needed in the future.

Below: Landscaped roundabout and water feature as a focal point

D. Natural Area to the South

- The Natural Area to the south, over 40 acres in area, will serve as a significant green buffer between the homes and the civic campus and the BP Tanks to the south.
- The overall area is planned to be landscaped with native vegetation that can showcase best practices in landscaping and stormwater management.
- The Natural Area is not intended for public access. However, a trail can be installed along the north edge, with appropriate signage and seating areas along the perimeter road.
- A significant detention area is planned in the southwest area, with native landscaping and wetland style planting.
- A series of landscaped berms are planned to be installed along the southeast area that can screen the tanks to the south.

E. Landscaped Roundabout

- A landscaped roundabout is planned at the end of the boulevard in front of Village Hall. A fountain or outdoor sculpture can be installed to create an attractive focal point.

Civic Campus

The Village Center is envisioned to be anchored by a 15 acre Civic Campus at the heart of the TOD site.

The Civic Campus will allow a variety of municipal buildings to cluster around the Village Square, and to share common parking and detention areas. Major planned Civic Buildings include the following:

A. Village Hall

- The Village Hall and Police Station are planned to be the focal point of the Village Square to the west and the landscaped roundabout to the west.
- The building will be on axis with the train station, and hold the view terminus of boulevards from both the east and west.
- Multiple Entrances should be provided both from the square and the roundabout.
- Vertical tower elements, archways, and varied roof forms are encouraged to create an attractive massing.

B. Library, serving the Manhattan-Elwood Public Library District

- The New Library is planned to be to the north of the Village Square and a focal point for the detention area along Sweedler Road.
- The site is close to both Sweedler and Gougar Roads, allowing easy access for Manhattan residents as well as patrons from Elwood to the west.

C. Parks and Recreation, Fire, Police, Post Office, Church and other future Civic Buildings

D. Shared Detention Area

- The Detention Area is planned to become a major open space feature for the campus and the overall district. Perimeter trails, overlooks and seating areas will be provided to make this an accessible pedestrian feature.
- Long term enhancements can include fountains and water features, gardens, and other outdoor spaces along the water.

E. Shared Parking Areas

- No parking or service areas should be located in front of buildings along the streets and the square. Parking and service areas should be to the side or behind buildings.
- On-street angled parking around the square will provide significant shared parking for all civic buildings, encouraging visitors to park once and spend time in the square and shops.

F. Future Enhanced Train Station

- While the station is not located within the Civic Campus, it is a critical civic building for the overall Village Center. The station was built in 2006 with federal funds as part of the New Starts Project. As ridership grows, the Village envisions the potential enhancement or expansion of the station or station-related facilities in the long term.
- Any enhancements will need to be funded by community efforts and will require approval of the Federal Transit Administration.
- Enhancements should continue to emphasize the visual connection to the proposed Village Hall to the west.
- Vertical elements can be introduced to create a stronger focal point at the end of extended Front Street and the boulevard to the west.

General Guidelines

- Buildings should complement each other in architectural style, massing and materials to create a unified campus look.
- No civic buildings should exceed the height of the tallest vertical element of the Village Hall.
- Entrances must be directly connected to the streets and sidewalks, not just parking areas.
- Maximizing windows on all sides for natural light is strongly encouraged.
- Buildings should consider vertical stacking in 3-4 floors instead of large single story footprints.

Illustrative Massing of Civic Campus *(looking east from Gougar Road)*

Examples of Civic Buildings that can provide inspiration (from top): Village Halls in Channahon, Barrington and Lincolnshire, Flossmoor Library, and Lockport Fire Station

Architectural Styles for Houses

Many historic styles have been used in residential architecture in America, including the Victorian, Classic, Georgian, Romantic and Arts and Crafts Style.

The appeal of a classic neighborhood is not in one predominant historic architectural style, but rather in the richness of diverse architectural vocabularies, with an emphasis on quality materials and careful attention to detail.

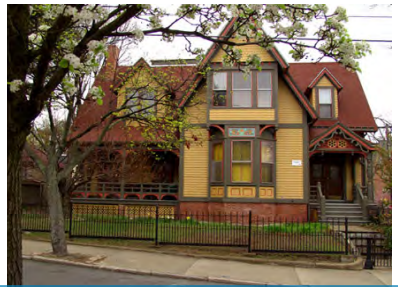
This Plan does not prescribe a certain architectural style. Instead, architects and developers are strongly encouraged to choose from the diverse historical styles that exist in this part of the region, many of which are listed below.

Once a specific style is selected, the overall design of facades and roofs, the materials selected, and the architectural details, should be consistent with the vocabulary of that style.

Random mixing of eclectic styles in ***one building*** is strongly discouraged. However, using a variety of styles for ***different buildings*** on a block is encouraged to create visual interest and avoid monotony.

Art & Crafts

- Shallow pitched roofs with deep overhangs.
- Broad porch elements with expressive structural components
- Grouped windows.



Victorian

- Steeply pitched roofs.
- Cut wood ornament.
- Wood clapboard siding.
- Vertical proportions for windows and doors.

Classic/Georgian

- Simple, volumes with one-story side wings and porches.
- Symmetrical composition of doors and windows.
- Classical details and columns, with classical orders.


Romantic Revival

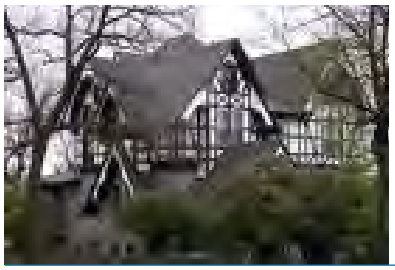
- Revival styles such as Gothic Revival, Greek Revival and Italianate
- Romantic adaptations of historic styles


American Four Square

- Simple box shape
- Low-hipped roof with deep overhang
- Large central dormer
- Full-width porch with wide stairs


Queen Anne

- Steep roof
- Complicated, asymmetrical shape
- Front-facing gable
- Towers, turrets, wrap-around porches




American Tudor

- Decorative half-timbering
- Steeply pitched roofs
- Prominent cross gables
- Tall, narrow windows, small window panes


Prairie Style

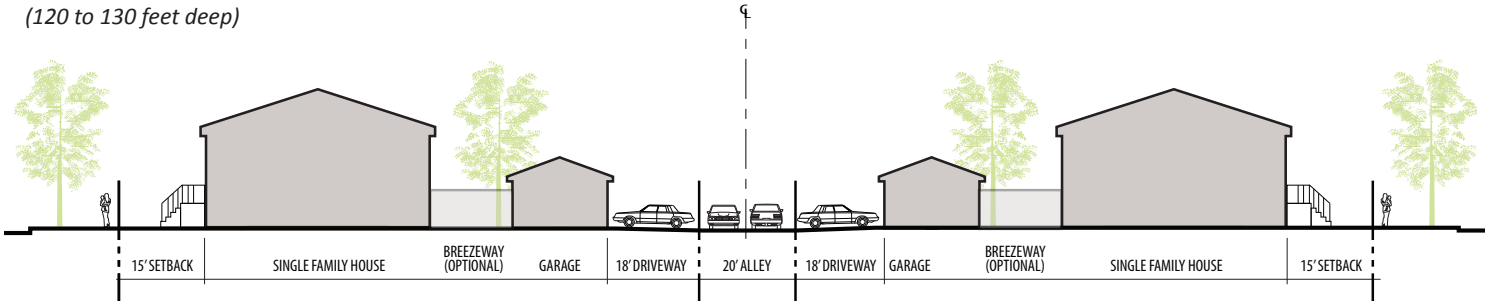
- Low-pitched roof
- Overhanging eaves
- Horizontal lines
- Central chimney
- Open floor plan
- Clerestory windows

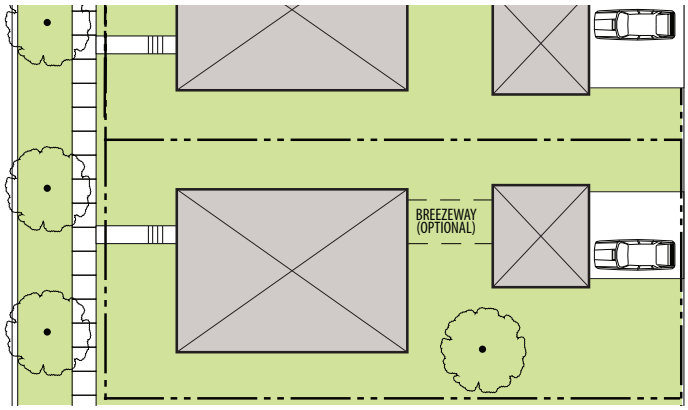

Dutch Colonial

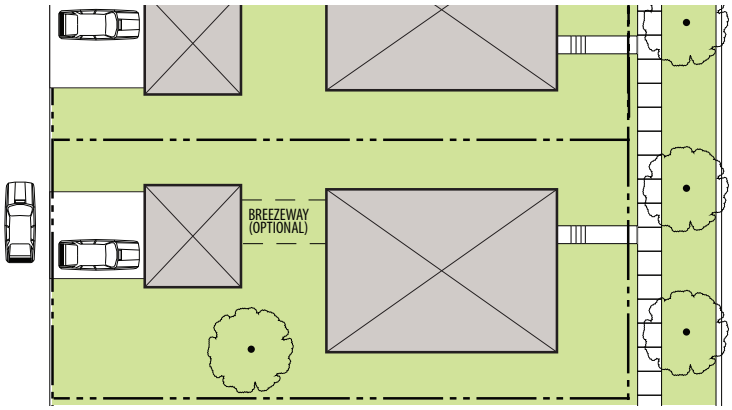
- Matching chimneys on each side
- Wide, slightly flared eaves
- Gambrel roof

Single Family Detached

Fig. #: Recommended Placement of House and Garage on a Rear loaded Lot (120 to 130 feet deep)







Building Placement

1. Single Family homes are strongly encouraged to be on alleys, with garages to the rear.
2. Where front loaded lots are allowed, (see Land Use Framework, page 1-10), garages must be at least 5 feet behind the front facade of the home.
3. Front doors should connect directly to the sidewalk with pedestrian paths.
4. Front porches and stoops facing the street are encouraged and can extend up to 5 feet into the front setback area.
5. Street facing facades and side facades must incorporate windows on all floors.

Materials

1. Materials for the exterior facades and roofs should be consistent with the architectural style that is selected for the building.
2. High quality materials are encouraged that are durable, require low maintenance and provide high energy efficiency.
3. Following materials are allowed as primary materials for exterior facades:

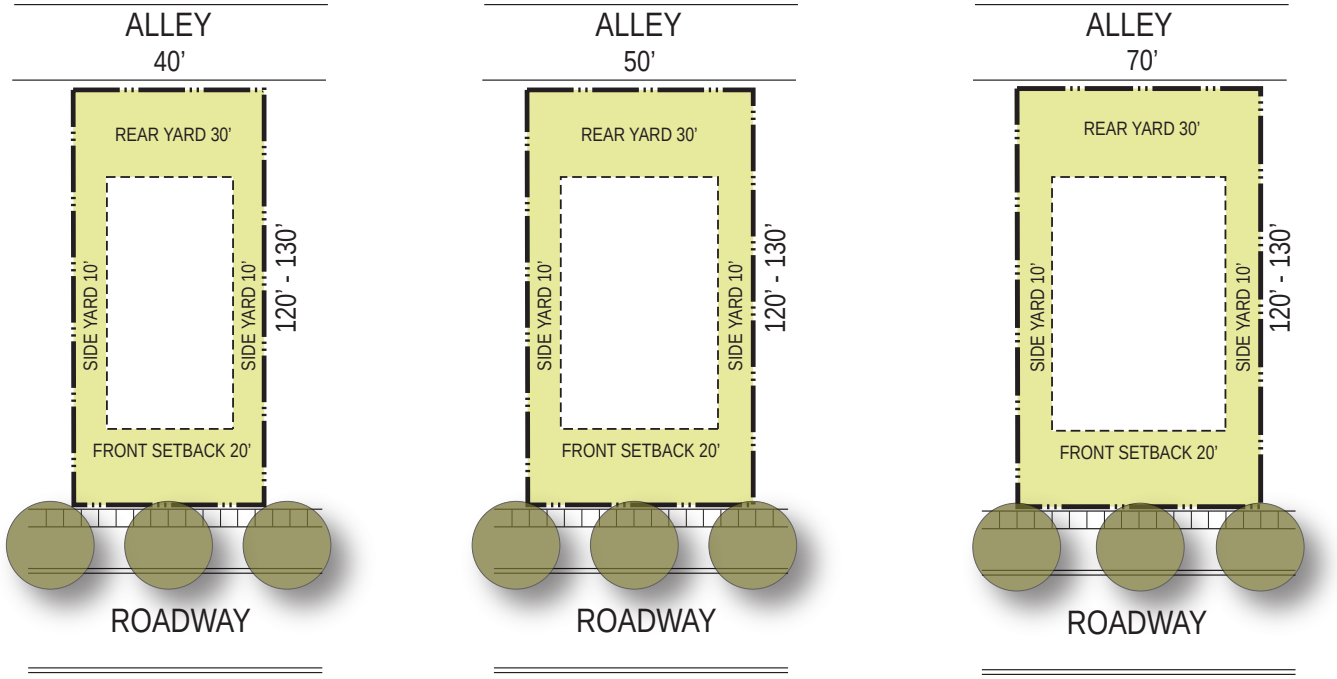
- Brick
- Siding: Wood, Vinyl Clapboard, or Fiber Cement Siding, e.g. Hardie Board
- Stone

Height

Maximum allowable height is 3 stories.

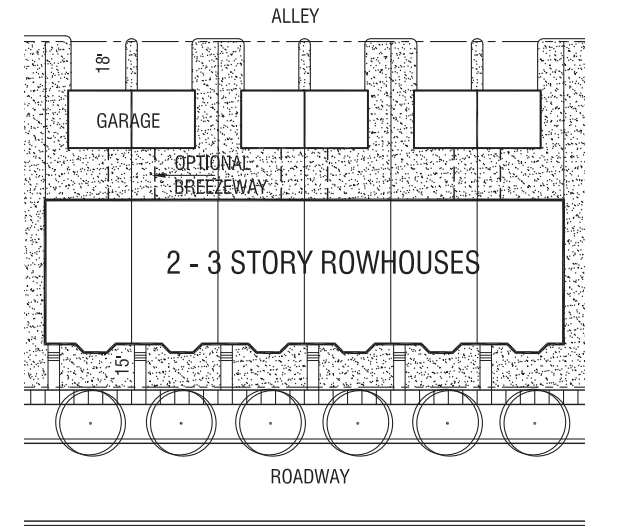
Porches and front doors connected to sidewalks are strongly encouraged

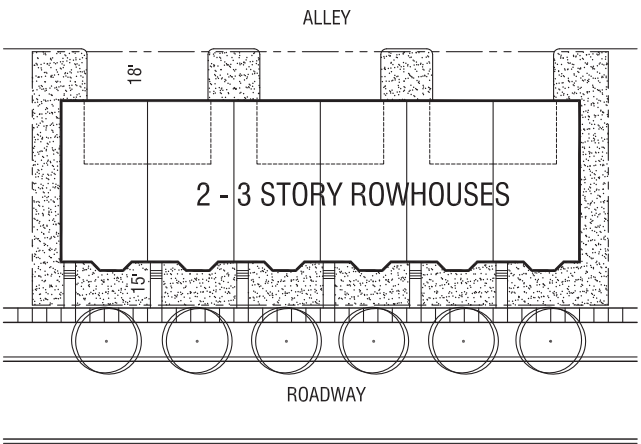
Fig. #: Recommended Lot Sizes and Setbacks



Single Family Attached: Townhomes, Rowhouses and Duplexes

Rowhouses and Townhomes lining a street or a boulevard can create distinctive street walls with great pedestrian appeal.





Building Placement

1. All Single Family Attached units must be rear loaded with garages and driveways accessed from a rear alley. Front Loaded Townhomes and Rowhouses with garages facing the streets are not allowed.
2. Service, mechanical equipment and trash enclosures must be located at the rear and not along the street.
3. For rowhouses and townhomes, the building mass should be broken up every 6 units by a landscaped area that is a minimum of 25' in width. This should also accommodate a pedestrian connection from the sidewalk to the rear of the building.

Lot Depth and Garage Location

Option 1(Fig.): Lot Depth of approx. 120' -130'

Detached Garage with a minimum 18' deep driveway to the rear. A breezeway connecting the unit to the garage is optional.

Option 2 (Fig.): Lot Depth of approx. 88' -100'

Garage is incorporated within the building volume, with a minimum 18' deep driveway to the rear.

Materials

1. Materials for the exterior facades and roofs should be consistent with the architectural style that is selected for the building.
2. High quality materials are encouraged that are durable, require low maintenance and provide high energy efficiency.
3. Following materials are allowed as primary materials for exterior facades:

- Brick and stone
- Siding: Wood, Vinyl Clapboard, or Fiber Cement Siding, e.g. Hardie Board

Townhomes with garages facing the street and sidewalks interrupted by curbcuts and driveways are not allowed.

Height

Maximum allowable height is 3 stories.

Architectural Elements

1. The principal entrance of each unit must be located on the front or corner side facade, facing the street.
2. Front doors must be directly connected to the sidewalk with pedestrian paths.
3. Front porches and stoops facing the street are encouraged and can extend up to 5 feet into the front setback area.
4. Street facing facades and side facades must incorporate windows on all floors.
1. Projecting balconies are not permitted along facades facing the streets. Balconies should be recessed and integrated within the building mass.

Roofs

1. Simple roof forms such as single gable or hip and dormers are encouraged.
2. Mansard roofs are not allowed. Multiple gables and overly pronounced roof forms are strongly discouraged.
3. When flat roofs are used, light reflective roofs and green roofs are strongly encouraged.

Below: A variety of rear loaded Townhomes, Rowhouses and Duplexes that can be mixed within the same block or street, and also be next to single family detached homes








Commercial Buildings

Large storefront windows along the streets are strongly encouraged

Like many Main Streets of small towns in Illinois, Downtown Manhattan streets were lined with two story buildings with storefronts at the street level. The typical storefront consisted of the following features:

A. ARTICULATED CORNICE
B. UPPER LEVEL BAND OF WINDOWS
C. BUILDING NAME / SIGN BAND
D. SPANDREL PANEL
E. LARGE STREET LEVEL WINDOWS
F. KICK PANEL
G. ENTRANCE

Storefront Windows

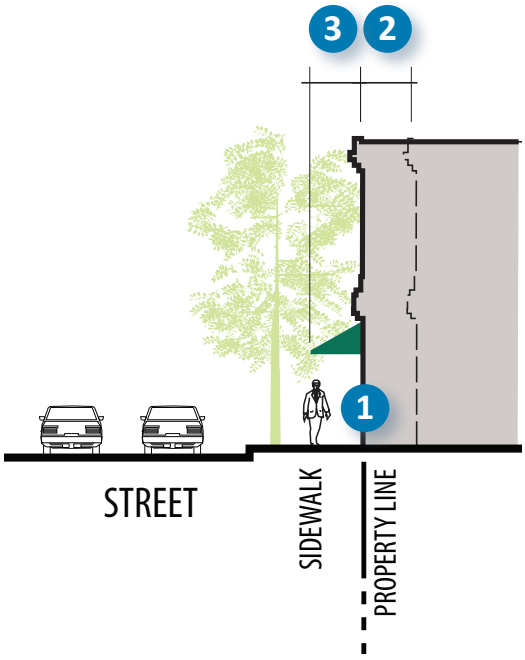
- The advertisement of the merchant and his products in the building facade and display windows was a critical factor in storefront design.
- Windows typically had three components: the top spandrel panel, the main display window, and the kick panel at the bottom. Commercial storefronts are encouraged to incorporate the traditional window components in the street facing facades.
- Blank, windowless walls are unattractive, especially along the street level facades along the sidewalks. At least 35% of commercial building facades facing a street shall be transparent at the street level to allow pedestrian views and daylight to the inside.

Building Setbacks

- Parking, service areas and drive through facilities must be located to the rear or sides of buildings, and not in front of the street facades.
- Curbcuts should be minimized along streets to create continuous sidewalks.
- Front Setbacks between the street right-of-way and the building facade facing the street will be 0 to 5 feet.
- Front Setback areas can be expanded to accommodate pedestrian oriented uses, including
    a. Widened sidewalks and entranceways
    b. Plazas, outdoor gardens, patios and outdoor seating
    c. Public art or architectural features like clock towers, pergolas etc.
- Architectural features that help to create a stronger pedestrian scale can extend into the street R.O.W. up to 5 feet, including:
    a. Canopies, marquees and other projections that create shaded and protected entrances
    c. Projecting blade signs that comply with the Village's sign ordinance.

Materials

- All buildings must be primarily of brick, or other quality materials like stone, metal and glass, on all sides.
- Cinder or concrete blocks, plywood, vinyl siding, unfinished precast concrete are not permitted.
- Decorative spilt face block, smooth or textured synthetic plaster, and wood trim shall only be used for decorative accents, and be limited in their use on street facing facades.



1. STOREFRONT ON STREET FACING FACADE
2. FRONT SETBACK: 0 TO 5 FEET
3. PROJECTIONS (CANOPIES, AWNING, PROJECTING SIGNS ETC.) UP TO 5 FEET

Entrances and Corner Features

- Vertically articulated corner and entry features are strongly encouraged for all buildings.
- Multiple entrances from the sidewalk and parking areas are also strongly encouraged for pedestrian convenience.

Articulated Cornice

- Traditional storefronts had cornices that were typically made of stone or brick, and were articulated with details including ornamental brackets, decorative brickwork and dentils, and frequently included the name of the building.
- New commercial buildings are encouraged to have an articulated cornice to create a well defined cap.

Parking

- To promote shared parking and reduce large paved areas, commercial developments will be allowed to reduce the on site parking requirements per the Zoning Code by up to 25%.

Best Practice Design

The following Best Management Practices are strongly encouraged in the design of landscaping, paving and stormwater management areas.

1. Porous Pavement

Porous pavement is a permeable pavement surface with an underlying stone reservoir that can store surface runoff before infiltrating into the subsoil. There are several options, including porous asphalt, pervious concrete, and paver blocks.

2. Rain Barrels

Water tanks are is used to collect and store rain water runoff, typically from rooftops via rain gutters. Stored water may be used for watering gardens, agriculture, flushing toilets, in washing machines and for washing cars, thereby saving potable water.

3. Bioswales

Bioswales are low maintenance shallow channels with gentle slopes that can capture rain water and remove silt and pollution with native vegetation. Bioswales could be used as a unique element of the streetscape, used to manage a portion of the stormwater runoff from the street and sidewalk, by allowing it to infiltrate through the soil or transpire through plant material.

4. Native Landscaping

Native landscaping is the use of plants, trees, shrubs, groundcover which are indigenous to the area in which the garden is located. Native landscaping is adapted to the climate and hydrology. Once established, they can flourish without irrigation or fertilization, and are resistant to most pests and diseases.

Chapter 4

Market Assessment and Development Strategies

Introduction and Scope

S. B. Friedman & Company (SBFCo) performed a market study to assess the development potential of the study area, including Downtown and the Village Center Site.

The Village's vision for this area of Manhattan is to create a "Town Center" environment that would serve as the heart of the community as well as function as a transit-oriented development. The market analysis focused on retail/commercial and residential uses that would be transit supportive and serve to increase the ridership at the Metra Station.

The findings from this analysis guided the planning process and provided insights regarding the competitive position of the study area, market-supportable real estate product types, and overall absorption time frame for the development.

The market assessment involved the following broad tasks:

- Review of key demographic and economic indicators that support retail and residential development
- Review of existing supply and characteristics of retail stores and residential development in Manhattan and larger market area
- Interviews with key local developers and brokers
- Evaluation of site characteristics to recommend appropriate product mix, scale, and phasing of future retail and residential development

Key Questions

The market assessment addressed the following key questions for future retail/commercial and residential development in Manhattan:

Retail/Commercial

- What types of retail/commercial uses are supportable in Manhattan in the future?
- When are major chain retailers likely to locate in Manhattan?
- Where should new retail/commercial be concentrated as the Village grows?

Residential

- What is the current supply overhang and what are the implications?
- What is the future demand potential by residential product type?
- What are reasonable estimates for product mix, pricing, phasing, and absorption for the 100 acre development?

Retail Analysis

Analysis Methodology

The analysis for retail involved two main components:

1. Review of Retail Supply and Current Spending Potential

- Supply Analysis: Research and mapping of existing and proposed retail clusters (greater than 100,000 SF) within 15- and 20-minute drive times from downtown Manhattan, as well as existing small-scale retail in Manhattan
- Retail Leakage Analysis: For every North American Industrial Classification System (NAICS) retail category, estimation of the total annual sales and consumer buying power within the market area. This analysis reveals whether there is a gap between supply and demand.

2. Estimate of Future Demand Potential

- Analogue Community Approach: Analysis of retail mix of communities at the edge of the Chicago and Rockford Metro areas that are likely to represent Manhattan's future in terms of population, income and geographic position
- Future Spending Potential Approach: Analysis of growth in retail spending potential for specific retail categories based on Manhattan's projected population and income growth

Analysis of Regional Retail Supply

Shown in Map 4.1, the spatial analysis of large-scale retail clusters in the region within 15- and 20-minute drive-times revealed the following conclusions:

- Over 6 million square feet of large-scale retail centers exist in communities just north of Manhattan
- Over 1 million square feet of new retail is proposed within a 20 minute drive-time
- The closest retail cluster is in nearby New Lenox, where Manhattan residents currently do most of their shopping
- The majority of Manhattan's retail potential is expected to come from Manhattan's existing population base and future growth. Manhattan is also positioned to attract shoppers from the west, east, and south.

Table 1: Existing Shopping Centers

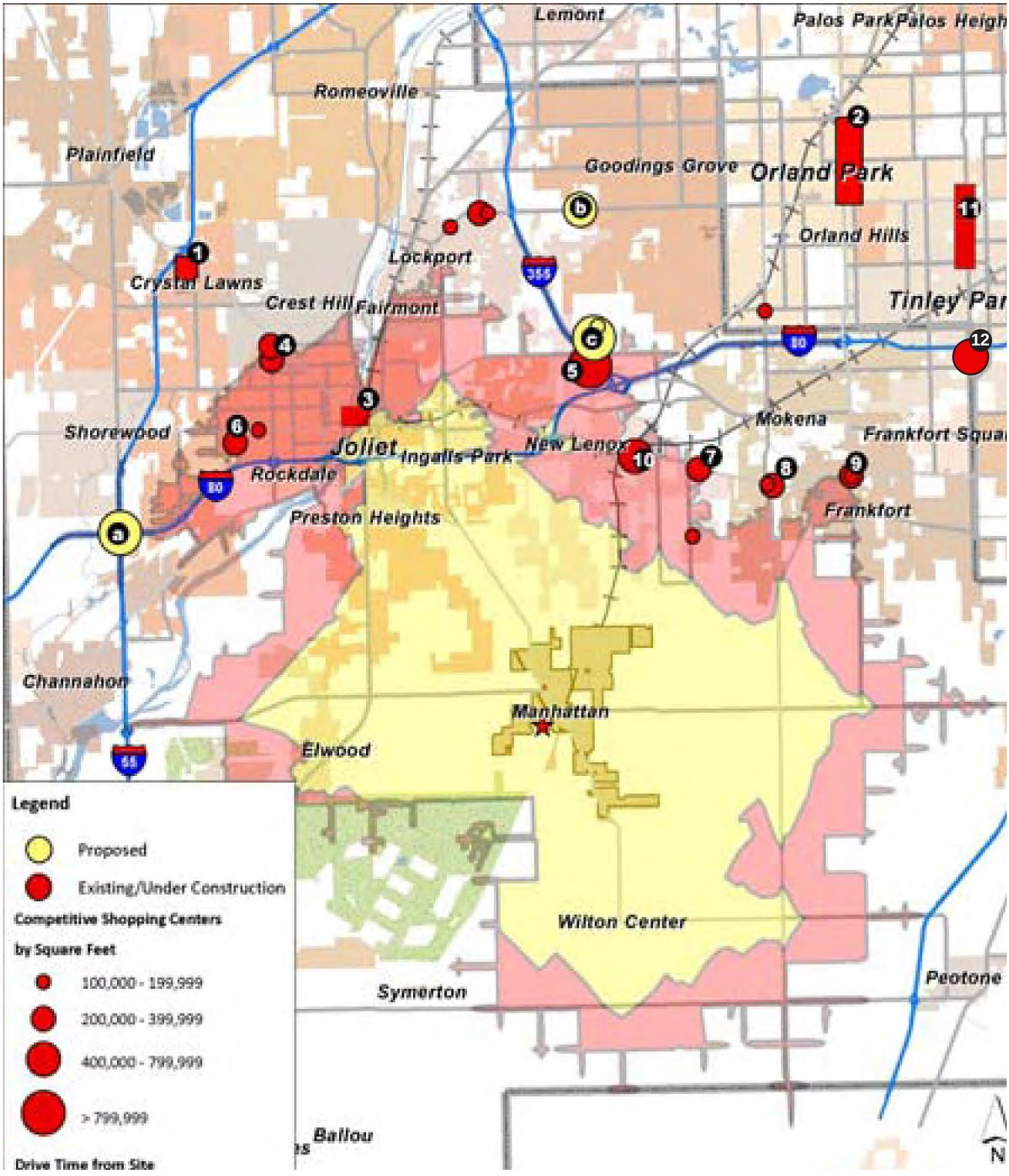
Map ID	Center Name	Anchor Tenants	City	RBA (SF)
1	Louis Joliet Pointe	Bed Bath & Beyond, Michaels	Joliet	266,784
	Joliet Commons Shopping Center	Target,PetSmart,OfficeMax,Barnes & Noble,Old Navy,MC Sports,Best Buy	Joliet	328,669
	Westfield Louis Joliet	Sears,JCPenney,Carson Pirie Scott & Co.,Macy's	Joliet	943,151
2	Orland Square Mall	Carson Pirie Scott & Co., JCPenney, Macy's, Sears	Orland Park	1,215,775
	Orland Towne Center	Wal-Mart,PetSmart	Orland Park	270,531
	Lake View Plaza	Value City Furniture,Jo-Ann Stores,Factory Card & Party Outlet,Golf Galaxy	Orland Park	371,252
	Ravinia Plaza	Borders,Pier 1 Imports	Orland Park	101,384
	Orland Park Place	Kohl's,Dick's Sporting Goods,Sports Authority,Stein Mart,K&G Fashion Superstore,Old Navy,DSW,Barnes & Noble,Binny's Beverage Depot,Cost Plus World Market,Bed,Bath,and Beyond,Lowe's	Orland Park	686,723
	Orland Park Crossing	Coldwater Creek	Orland Park	136,230
3	Downtown Joliet	n/a	Joliet	n/a
4	HillCrest Shopping Center	T.J. Maxx	Joliet	284,971
	North Ridge Plaza	Hobby Lobby,Burlington Coat Factory,Office Max	Joliet	318,913
5	Cedar Crossings	Meijer Proposed	New Lenox	1,000,000
6	Marycrest Shopping Center	All Fur Dogs, Laundromat	Joliet	192,709
	Jefferson Square Mall	Menards,Wal-Mart	Joliet	276,000
7	New Lenox Retail Center	Target, Lowe's, Michaels	New Lenox	299,383
8	Mokena Marketplace	JCPenney	Mokena	138,662
	Prairie Crossing	Kohl's, Sports Authority, Bed, Bath, & Beyond	Frankfort	203,904
9	Hickory Creek Marketplace	Home Depot, Staples	Frankfort	370,841
	Frankfort Town Center	Dominick's	Frankfort	110,063
10	New Lenox Town Center	Wal-Mart and Menards Under Construction	New Lenox	450,000
11	Home Depot Center	Home Depot	Orland Park	149,498
	Brementowne Mall	Hancock Fabrics, Menards, Burlington Coat Factory	Tinley Park	356,000
	Tinley Park Plaza	Dollar Tree, Staples, TJ Maxx	Tinley Park	249,954
	Harlem Ave/Park Place	Aldi	Tinley Park	174,356
	Park Center Plaza Shopping Center	Sam's Club, Kmart	Tinley Park	136,535
	Tinley Park Commons	Jewel-Osco	Tinley Park	103,976
12	Brookside Marketplace	Super Target, Kohl's, Dick's Sporting Goods, Best Buy, Petsmart, Michael's, Payless	Tinley Park	550,000

Table 2: Proposed Shopping Centers

Map ID	Center Name	Anchor Tenants	City	RBA (SF)
a	Bridge Street Town Centre	n/a	Joliet	1,597,497
b	Cedar Glen Center	n/a	Lockport	553,750
c	The Birches	to be determined	New Lenox	1,000,000

Retail Analysis

Map 4.1: Regional Retail Supply



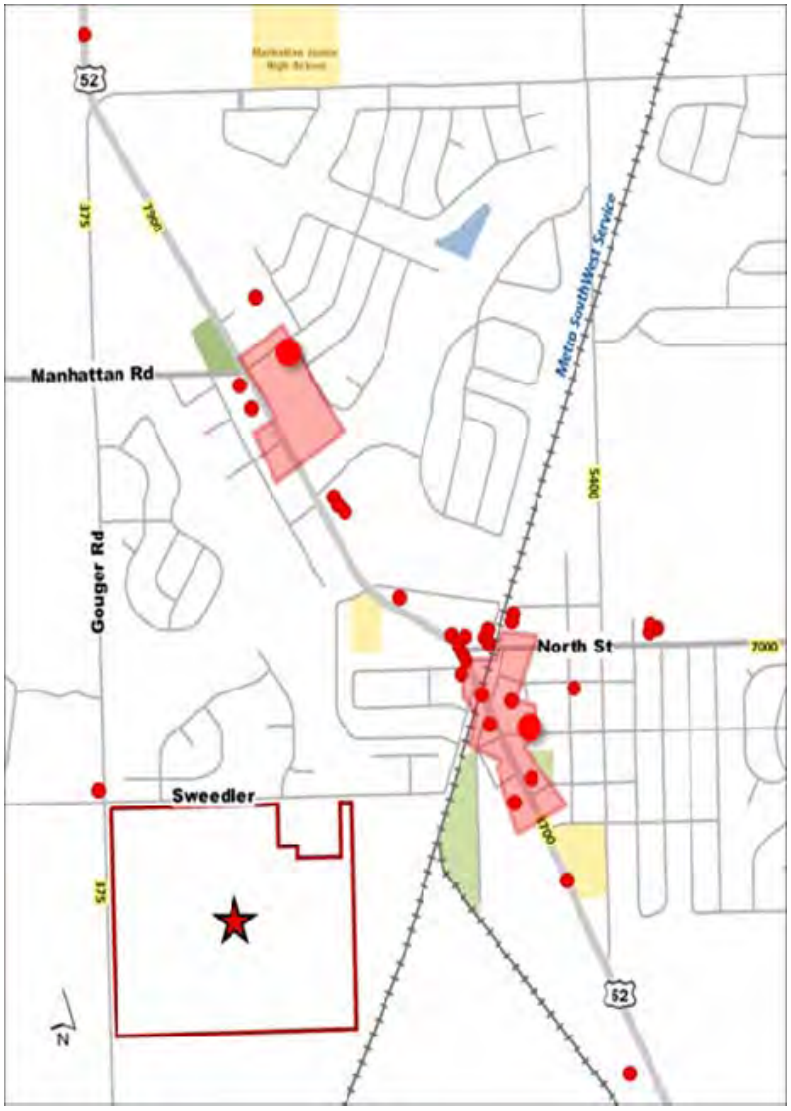
Local Retail/Commercial Supply

In addition to the regional retail analysis, Manhattan's existing businesses were mapped and categorized according to their NAICS codes. This analysis of the supply and spatial distribution of Manhattan's business inventory shows the following:

- Currently retail/commercial businesses in Manhattan are concentrated at two locations: downtown and near the intersection of Manhattan Road and US Highway 52.

- The majority of retail stores in Manhattan are run by independent operators. However several chain store operators including Berkot's a regional chain, Ace hardware and Subway are located in Manhattan.

- Some retail categories such as furniture and home furnishings store, electronics and appliance stores, and sporting goods stores are missing from Manhattan. While larger store formats in these categories will need significant population growth in the Manhattan area, smaller independent stores or chains such as Radio Shack may be viable in the next few years.



Map 4.2: Spatial Distribution of Local Commercial/ Retail Business

Note: Map and Table focuses only on retail and service businesses and excludes professional firms such as doctors and lawyers.

Source: Village of Manhattan, S.B. Friedman & Company

Table 3: Business Categories in Manhattan

Retail/Commercial Business Category	Number of Establishments
Motor Vehicle & Parts Dealers	2
Furniture & Home Furnishings Stores	1
Electronics & Appliance Stores	0
Bldg Materials, Garden Equip. & Supply Stores*	2
Food & Beverage Stores*	2
Health & Personal Care Stores	1
Gasoline Stations	2
Clothing and Clothing Accessories Stores	1
Sporting Goods, Hobby, Book, and Music Stores	0
General Merchandise Stores	1
Miscellaneous Store Retailers	2
Food Services & Drinking Places*	11
Personal Services	10

Current Retail Demand Potential

The analysis of retail demand involved a review of the estimated spending potential, store sales, and retail leakage for the Village of Manhattan and a 15-minute drive time from the Village downtown.

The spending potential for these areas represents the buying power of consumers by specific retail category, while store sales represent the estimated sales for all stores within each category. The difference between these two variables is referred to as the "retail leakage."

A positive retail leakage for a particular store category indicates that more dollars are being spent by residents outside of the market area in this category than are being "imported" through expenditures by non-residents at market area stores. Conversely, a negative retail leakage indicates that market area retailers are capturing sales in the category that are greater than 100% of the total spending by market area residents, thus suggesting additional traffic from shoppers not living in the area.

The analysis shows that leakage of retail dollars from the Village of Manhattan and the 15-minute drive time is occurring in nearly all retailing categories except groceries in Manhattan. Retail leakage in a particular category is an indicator of unmet demand and, therefore, an opportunity to develop stores in that retail category.

It should be noted, however, that market feasibility for larger retail formats, such as general merchandise, is also a function of the extent of the gap, site characteristics, the requirements of specific retailers, and spending potential in the probable trade area for the retailer, as well as the competitive environment within that trade area.

Large format big box stores such as Wal-Mart or Target have a sales threshold of approximately $40 million in annual sales, implying the need to capture the entire general merchandise retail gap ($33 million) from the 15-minute drive time area, which includes the Village.

Significant market competition, however, exists towards the north (see Map 1) that siphons of some of the demand from the Village and the 15-minute drive time area. Any future retail in Manhattan will experience significant competitive pressure from these existing agglomerations. Therefore, further population growth and associated spending potential increases are necessary before larger format stores are supported.

Table 4: Retail Leakage

	Village of Manhattan			15 Minute Drive Time		
Retail Category	Sales	Spending Potential	Retail Gap/Leakage	Sales	Spending Potential	Retail Gap/Leakage
Motor Vehicle & Parts Dealers	$0	$14,865,479	$14,865,479	$17,599,661	$83,404,013	$65,804,352
Furniture & Home Furnishings Stores	$381,535	$2,252,609	$1,871,075	$4,232,997	$12,574,635	$8,341,637
Electronics & Appliance Stores	$0	$1,510,779	$1,510,779	$664,299	$8,555,710	$7,891,410
Bldg Materials, Garden Equip. & Supply Stores	$784,466	$2,921,720	$2,137,254	$10,154,538	$16,202,949	$6,048,411
Food & Beverage Stores	$12,332,329	$12,116,850	-$215,479	$56,534,281	$72,476,139	$15,941,859
Health & Personal Care Stores	$0	$2,331,316	$2,331,316	$3,390,888	$13,999,648	$10,608,760
Gasoline Stations	$5,427,919	$9,080,272	$3,652,353	$39,979,741	$53,555,855	$13,576,114
Clothing and Clothing Accessories Stores	$749,043	$1,839,316	$1,090,273	$1,684,914	$10,780,329	$9,095,415
Sporting Goods, Hobby, Book, and Music Stores	$0	$845,731	$845,731	$1,250,610	$4,868,673	$3,618,063
General Merchandise Stores	$321,889	$6,876,837	$6,554,949	$7,077,040	$40,357,916	$33,280,876
Miscellaneous Store Retailers	$189,308	$894,162	$704,854	$1,380,428	$5,203,635	$3,823,207
Food Services & Drinking Places	$1,868,203	$9,763,189	$7,894,986	$19,211,837	$57,302,867	$38,091,030

Source: Village of Manhattan, *S.B. Friedman & Company*

Future Retail Demand

Many of the smaller format convenience retail categories, which draw customers from much smaller drive times and can be sustained by the population within the Village and portion of the 15-minute drive time area (particularly from the south, east, and west) could be supported. There is short-term potential – within five years – for the following types of retail:

- Health and personal care stores such as CVS or Walgreens
- Smaller electronic stores such as Radio Shack and cell phone stores
- Fast food and fast casual restaurants such as Jimmy Johns, Quiznos, Applebees and Chili's
- Auto shops such as Autozone

Future Retail Demand: Analogue Communities Approach

In addition to understanding current retail demand in Manhattan, it is important to analyze potential retail demand in the future. An analogue community approach was used for this component of the market assessment.

Six communities were identified for the analogue community analysis. In 2000, the populations, income levels, and geographic positions of these communities at the edge of a Metro area were very similar to Manhattan today. Therefore, these analogue communities are likely to represent Manhattan's future, and their current retail supply suggests the types and numbers of stores that Manhattan can one day expect.

This analysis establishes rough population thresholds for supporting certain types of stores:

- 10,000+ people: Large general merchandise store, pharmacy, small electronics, and fast food
- 20,000+ people: Large grocery store, apparel and accessory stores, and fast casual restaurants

This suggests that Manhattan should be able to support a Wal-Mart, a CVS/Walgreens, Radio Shack, and additional fast food chains when it reaches or exceeds a population of around 10,000.

As it approaches 20,000 people, it could support a mid- to large-format grocery store, additional apparel and accessory stores, and fast casual restaurants.

EXISTING RETAIL AND COMMERCIAL USES IN MANHATTAN

First Bank of Manhattan

Berkot's Grocery

Table 5: Chain Retail Mix in Analogue Communities

		South Suburbs			Rest of Chicago Metro			Rockford Metro
NAICS 3-Digit Description	COMPANY NAME	MANHATTAN	CHANNAHON	SHOREWOOD	HUNTLEY	MONTGOMERY	PLANO	ROSCOE
	2009 POPULATION	6,655	12,926	19,442	23,935	16,070	10,211	9,411
General Merchandise	WALMART				1	1	1	1
	TARGET			1				
Grocery	7-ELEVEN			1	1			
	ALDI					1		
	BERKOT'S	1						
	DOMINICK'S FINER FOODS			1				
	JEWEL-OSCO			1	1			
Hardware Store	ACE HARDWARE	1			1			
	BUIKEMA'S ACE HARDWARE					1		
	HOME DEPOT					1		
	MENARDS					1		
Apparel and Accessories	BABIES R US			1				
	CARTER'S CHILDRENSWEAR				1			
	DRESS BARN				1			
	MOTHERHOOD MATERNITY				1			
	PAYLESS SHOE SOURCE			1				
Electronics	RADIO SHACK					1		
Personal Care	WALGREENS		1	1	1	3		1
	CVS PHARMACY			1				1
Chain Restaurants	(Total Number)	1	6	15	9	11	3	5
GRAND TOTALS		**3**	**7**	**23**	**17**	**20**	**4**	**8**

Source: InfoUSA, *S.B. Friedman & Company*.

Creamery Ice Cream

Retail Center, North Street and Foxford Dr.

Future Retail Demand: Spending Potential Analysis

A spending potential analysis provided a second approach to assessing future demand potential. This analysis compared average sales for a certain type of retail store with the demand potential for that retail store. Analyses were conducted for grocery, general merchandise, and home improvement stores.

Table 6a: Establishing Average Grocery Store Sales

Store Type	Total SF	Upper Decile Sales PSF [1]	Total Sales
Grocery (Small)	16,000	$655	$10,480,000
Grocery (Medium)	40,000	$655	$26,200,000
Grocery (Large)	65,000	$655	$42,575,000

[1] The Urban Land Institute, Dollars and Cents of Shopping Centers/ The Score 2008.

Table 6b: Estimating Grocery Store Demand Potential

	2009	2014	2019	2024
Number of Manhattan Households [2]	2,297	2,865	4,041	5,698
Average HH Income (Adjusted for Inflation) [3]	$65,080	$65,080	$69,250	$72,783
Aggregate HH Income	$149,489,000	$186,454,000	$279,809,000	$414,748,000
Typical Grocery Spending Potential [4]	$12,116,850	$15,113,000	$22,680,000	$33,617,000
Less Berkots Sales (Estimate) [5]	$15,561,000	$15,561,000	$15,561,000	$15,561,000
Net New Grocery Spending	($3,444,150)	($448,000)	$7,119,000	$18,056,000
Spending from Outside Manhattan (25%) [6]			$2,373,000	$6,019,000
Total Grocery Demand Potential			**$9,492,000**	**$24,075,000**

[2] ESRI; 2009-2014 CAGR of 4.5%; 2014+ CAGR of 7.0%.
[3] Calculated using ESRI data and CPI index; 2014-2019 growth in real income projected to be 1.25%; 2019-2024 growth projected to be 1%.
[4] Demand potential analysis using Business Analyst data.
[5] *SBFCo* assumption; sales figure is net of inflation.
[6] *SBFCo* assumption.
Indicates demand potential exists from this timeframe

Table 7a: Establishing Average General Merchandise Store Sales

Store Type	Total SF	Median Sales PSF [1]	Total Sales
General Merchandise (Small)	65,000	$250	$16,250,000
General Merchandise (Typical)	120,000	$300	$36,000,000

[1] The Urban Land Institute, Dollars and Cents of Shopping Centers/ The Score 2008.

Table 7b: Estimating General Merchandise Store Demand Potential

	2009	2014	2019	2024
Number of Households [2]	2,297	2,865	4,041	5,698
Average HH Income (Adjusted for Inflation) [3]	$65,080	$65,080	$69,250	$72,783
Aggregate HH Income	$149,489,000	$186,454,000	$279,809,000	$414,748,000
Typical General Merchandise Spending Potential [4]	$6,876,837	$8,577,000	$12,872,000	$19,079,000
Spending from Outside Manhattan (40%) [5]	$4,585,000	$5,718,000	$8,582,000	$12,720,000
Total General Merchandise Demand Potential	**$11,461,837**	**$14,295,000**	**$21,454,000**	**$31,799,000**

[2] ESRI; 2009-2014 CAGR of 4.5%; 2014+ CAGR of 7.0%.
[3] Calculated using ESRI data and CPI index; 2014-2019 growth in real income projected to be 1.25%; 2019-2024 growth projected to be 1%.
[4] Demand potential analysis using Business Analyst data.
[5] *SBFCo* assumption.
Indicates demand potential exists from this timeframe

Table 8a: Establishing Average Home Improvement Store Sales

Store Type	Total SF	Median Sales PSF [1]	Total Sales
Hardware/Home Improvement (Large)	120,000	$390	$46,800,000

[1] The Urban Land Institute, Dollars and Cents of Shopping Centers/ The Score 2008.

Table 8b: Estimating Home Improvement Store Demand Potential

	2009	2014	2019	2024
Number of Households [2]	2,297	2,865	4,041	5,698
Average HH Income (Adjusted for Inflation) [3]	$65,080	$65,080	$69,250	$72,783
Aggregate HH Income	$149,489,000	$186,454,000	$279,809,000	$414,748,000
Typical Home Impvt. Store Spending Potential [4]	$1,311,064	$3,644,000	$5,469,000	$8,106,000
Less Ace Hardware Sales (Estimate) [5]	$1,770,000	$1,770,000	$1,770,000	$1,770,000
Net New Home Improvement Spending	($458,936)	$1,874,000	$3,699,000	$6,336,000
Spending from Outside Manhattan (40%) [6]		$1,249,000	$2,466,000	$4,224,000
Total Home Impvt. Store Demand Potential		**$3,123,000**	**$6,165,000**	**$10,560,000**

[2] ESRI; 2009-2014 CAGR of 4.5%; 2014+ CAGR of 7.0%.
[3] Calculated using ESRI data and CPI index; 2014-2019 growth in real income projected to be 1.25%; 2019-2024 growth projected to be 1%.
[4] Demand potential analysis using Business Analyst data.
[5] Business Analyst data; sales figure is net of inflation.
[6] *SBFCo* assumption.

Retail Potential

Chain Retail Potential in Manhattan

Table 9 below shows a summary of the spending potential analysis:

- Grocery: In addition to a small grocery store between 2015 and 2019, there is potential for a medium-sized grocery store between 2020 and 2024.
- General Merchandise: A small general merchandise store, such as Kohl's, may be viable between 2015 and 2019, and a large general merchandise store, such as Wal-Mart or Target, may be possible as early as 2020-2024.
- Home Improvement: The high sales thresholds set by stores such as Lowe's and Home Depot mean there is limited potential for home improvement stores in the next 15 years.

Table 9: Summary of Spending Potential Analysis

Type of Store	Size Category	Square Feet	Development Timeframe		
			2010-2014	2015-2019	2020-2024
Grocery	Small	16,000		X	
	Medium	40,000			X
	Large	40,000	Limited Potential in next 15 years		
General Merchandise	Small	65,000		X	
	Large	120,000			X
Home Improvement	Large	120,000	Limited Potential in next 15 years		

Source: *S.B. Friedman & Company.*

Indicates demand potential exists in this timeframe

Potential for Small Retail Stores

In addition to large, chain retail stores, there is a niche for small stores, both independent businesses and chains. While the large retailers will choose to occupy greenfield sites on highly trafficked arterials, small businesses tend to fit well in existing and even older building stock in town centers and transit station areas, where they are more likely to attract foot traffic. These stores therefore represent an important opportunity for Manhattan's downtown and the western portion of the Meyer site, where there is visibility from Gougar Road. The potential for small stores depends on:

- Entrepreneurial capacity
- Availability of low rent space – typically in older building stock
- Presence of an established town center/downtown area
- Ability to establish a retailing niche
- Presence of critical mass of people

The typical small store tenants that Manhattan could expect or target include the following:

Retailers and Food Service

- Restaurants*
- Ice cream shops*
- Coffee shops*
- Sandwich shops*
- Cell phone stores*
- Florists
- Miscellaneous (antiques, hobbies, gifts, etc.)

*Indicates potential for a chain.

Personal Services

- Laundry services
- Hair and nail salons

Professional Services

- Doctors and dentists
- Attorney and accountants
- Financial Services

Potential Retail Nodes

Map 4.3 below shows three potential retail nodes in relation to Manhattan's current and planned residential development and arterials that connect the Village to the region:

North: Mostly chains, big box retail

- General merchandise (big box)
- Fast Food
- Auto store
- Pharmacy

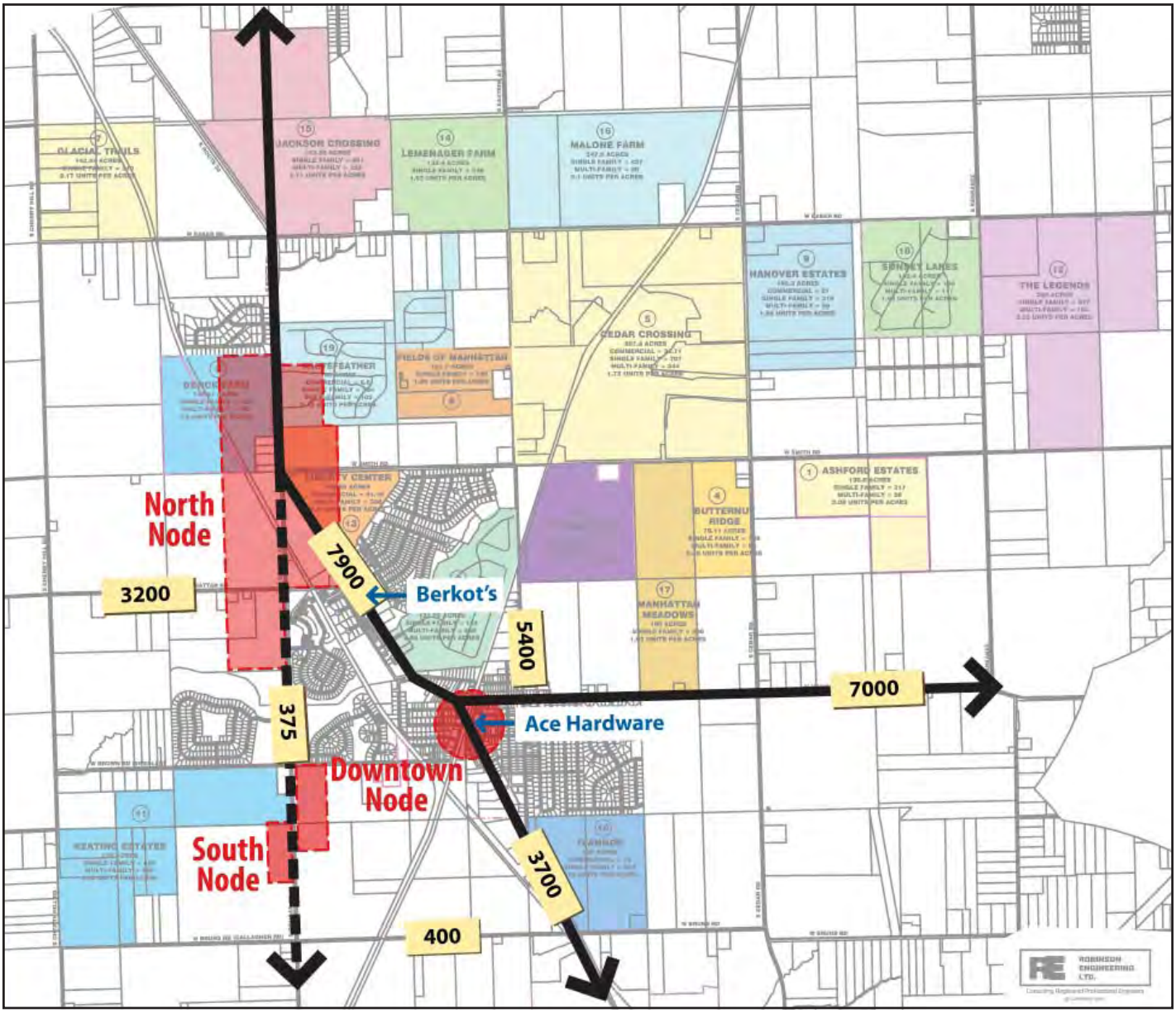
Downtown: Independent stores and select chains

- Personal services
- Professional services
- Restaurants
- Select chains

South: Chains and independent stores

- Restaurants
- Pharmacy/convenience
- Personal services
- Small grocery

Map 4.3: Potential Retail Nodes



Residential Analysis

Analysis Methodology

The analysis methodology for residential uses involved three main components:

1. Review of Demographic Shifts and Demand Trends
2. Supply Analysis: Estimate of supply overhang and future pace of development
3. Interviews with Developers: First-hand intelligence on future trends for product mix, pricing, and absorption

Residential Demand Trends

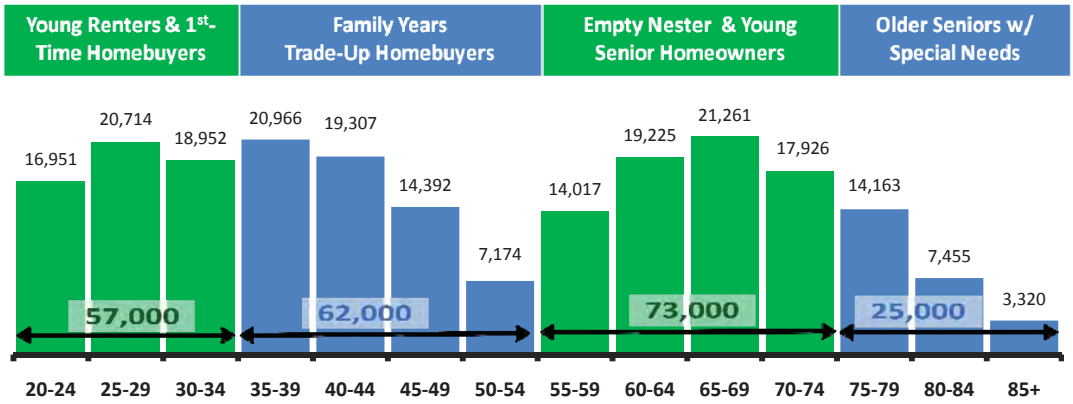
Manhattan is located in Will County, the fastest growing county in the Chicago Region. Between 2000 and 2009 Manhattan captured 1.5% of Will County's population growth, and it is projected to capture between 2% and 2.5% of Will County's future growth.

Table 10: Population Growth in Manhattan and Will County: 2000-2024

	2000	2009	2024	CAGR 2000 - 2009	CAGR 2010 - 2024	
Village of Manhattan [1]	3,510	6,655	11,149 or 16,274	7.37%	3.50%	6.14%
Will County [2]	508,029	699,892	986,423	3.62%	2.31%	

[1] Figures for years 2000 and 2009 are from ESRI. Figure for 2024 is expressed in a range based on two growth rates: a population of 11,149 is estimated using an overall growth rate of 3.5%, while a population of 16,274 is estimated using a growth rate of 3.5% between 2009 and 2014 and 7.0% between 2014 and 2024, for a blended CAGR of 6.14%.
[2] Figures for Will County are from Woods & Poole.

Figure 1: Net Change in Adult Population by Age in Will County: 2010-2025



Sources: ESRI, Woods & Poole and *S.B. Friedmand & Co.*

Analysis of Will County population change by age shows that the largest changes in population will occur in the family and empty nester/young senior cohorts, followed closely by young renters and first-time home buyers. While the predominant choice for new housing product for all age groups has been single family homes, empty nester households and first time home buyers have a greater propensity for choosing attached housing product and smaller homes, suggesting stronger demand for these products in the future.

In the last decade, when the baby boomer generation (people born between 1946 and 1964) was still in the family years they fueled the demand for large trade-up single family homes. As this generation squarely enters the empty nester age group, they are entering a phase in life that is characterized by lower household mobility rates. While the boomers will continue to impact the housing market because of their sheer size, it is likely that the nationwide demand for single family homes will wane slightly as the succeeding generation – Generation X (born roughly between 1965 and 1983), or the "baby bust" generation is smaller. However, the continued positive growth for this age segment in Will County suggests continued demand for single family homes albeit at a slower rate.

Generation Y (born roughly between 1984 and 2002) – the children of the baby boomers – is a key latent force starting to emerge in the housing market. The size of this generation is nearly equal to the baby boomer generation, and over the next ten years they will continue to mature into young adults, enter the job market and form approximately 57,000 more households under age 35. Rental housing and starter homes will be the predominant preference for these young householders. Therefore, the demographic analysis suggests:

- Continued demand for single family housing but at a slightly lower pace
- Increasing demand for attached housing product and smaller homes
- Increasing prominence of first time home buyers and renters
- Homes in Will County should be targeted to appeal to multiple age groups, including empty nesters, first time home buyers, and family households

Market Area Supply of Housing

The existing residential supply was analyzed using comprehensive data from the Hanley Wood Market Intelligence firm on existing and planned residential developments in a market area that includes Manhattan, Frankfort, Mokena, and New Lenox. Table 11 below shows the typical characteristics of different housing products. Large-lot single-family homes have similarly large footprints and high prices to match, while small-lot single-family homes, townhomes, and duplexes tend to be much smaller and more affordable. An analysis of Hanley Wood data in Table 12 shows that Manhattan and other communities in the market area have similar housing overhangs: 11-12 years until the current supply of unsold

Table 11: Product Characteristics in Manhattan and Market Area

	Lot Size Range (SF)		Square Footage Range		Price Range	
Product Type	Low	High	Low	High	Low	High
Single Family (Small Lot)	6,000	15,000	1,200	4,500	$200,000	$500,000
Single Family (Large Lot)	15,000	35,000	3,000	5,000	$300,000	$700,000
Townhome	3,000	5,000	1,300	2,000	$140,000	$425,000
Duplex	4,000	6,500	1,500	5,000	$165,000	$475,000

Table 12: Estimate of Supply Overhang

	Manhattan	Market Area (Frankfort, Mokena, New Lenox)
Number of Unsold Units	1,378	4,056
Average Pace of Housing Unit Sales per Year (2005-08)	119	344
Length of Overhang for Unsold Units (Years)	11.54	11.78

Key Assets to be Leveraged for Residential Development

While demographic trends portend a steady growth in demand for housing in Manhattan, the Village's current supply overhang means that future residential developments must differentiate themselves to enhance competitiveness.

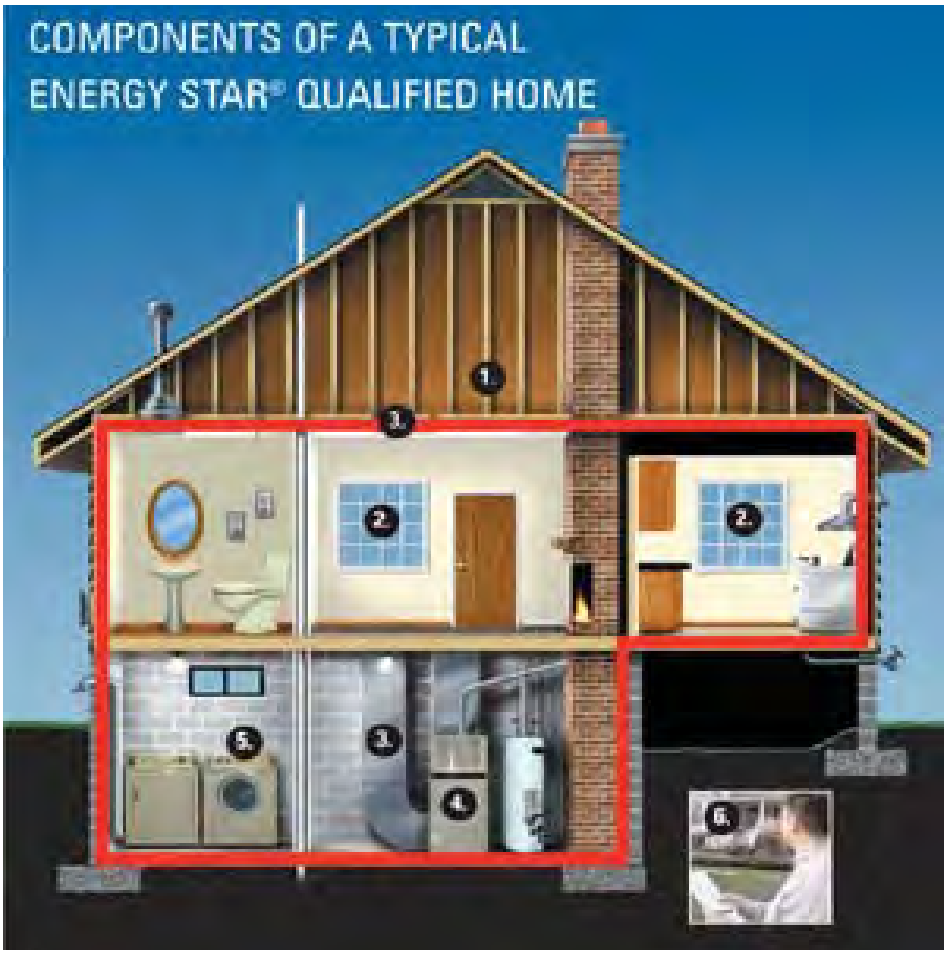
Manhattan's Village Center site offers the following assets that should be leveraged:

- Adjacency to train/TOD
- Synergy with proposed Town Center and Village Campus
- Designed as a master planned mixed-used development
- Public and private sector marketing
- Can respond to future market conditions (unit sizes and pricing)

Future Residential Trends

To enhance their competitiveness, future residential developments should consider the following trends that have emerged after the recession and housing bubble:

- Smaller lot sizes
- Lower priced homes
- Target home buyers in Will County are Generation Y (first-time buyers) and empty-nesters
- Developers will include a mix of home designs aimed at multiple age and income levels within a single development
- Rental housing will likely lead the residential market recovery



"Green" homes will be a defining trend of the future. A recent survey by National Association of Homebuilders show that:

- Nearly half of new-home shoppers will pay at least an extra $5,000 for energy-conserving features that would add $35 a month to their payment
- Their favorite investments are high-performance windows, high-efficiency HVAC, and insulation that exceeds code

Figure 4.3 A model of a typical Energy-Star qualified home

1. *Effective Insulation*
2. *High Performance Windows*
3. *Tight Construction & Ducts*
4. *Efficient Heating & Cooling Equipment*
5. *Qualified Heating Equipment*

Residential Products

Supportable Residential Product Types and Proposed Mix

Accounting for the future trends in residential development, **Table 13** below shows the characteristics of supportable products for the 100-acre site. Lot sizes and houses are smaller, and prices are correspondingly lower.

Table 13: Supportable Housing Products for 100-Acre Site

Product Type	Lot Size Range (SF)		Square Footage Range		Price Range	
	Low	High	Low	High	Low	High
Single Family (Small Lot)	5,000	10,000	1,300	2,500	$200,000	$300,000
Single Family (Large Lot)	10,000	16,000	2,500	3,500	$300,000	$400,000
Townhome	3,000	5,000	1,100	1,400	$150,000	$250,000
Duplex	4,000	6,500	1,300	2,200	$160,000	$275,000
Rental	Potential for local developers					
Condo/Mixed Use	Condos may be possible in the longer term.					
Senior Housing (affordable tax credit)	May be supportable in 5-10 years					

Source: Hanley Wood and *S.B. Friedman & Company.*

Figure 4: Small-Lot Single Family

Figure 5: Duplex

Figure 6: Townhome

Overall Timeframe for Residential Development

In addition to carefully planning an appropriate mix of products and prices for future residential development, it is also crucial to design a realistic absorption strategy. An analysis of Manhattan's two nearly sold-out developments provides a sense of the likely overall absorption rate. The data in **Table 14** below suggests that 60-90 units and 30-40 acres per year are reasonable absorption timelines.

Table 14: Absorption History for Manhattan's Near Sold-Out Projects

Project Name	Total Acres	Total Units Planned	Total Units Sold	Open Date	Number of Sales Years	Annual Absorption Rate (Units)	Annual Absorption Rate (Acres)
Brookstone Springs	131	280	275	1/19/2005	4.08	67	32.08
Leighlinbridge	266	641	580	11/27/2002	6.25	93	42.56

Source: Hanley Wood and *S.B. Friedman & Company.*

This suggests a projected development timeframe of 10-15 years for the proposed TOD site.

Market Assesment Conclusions

The market assessment analyzed the supply and demand side for retail/commercial and residential development in the Downtown and Village Center. Through a series of analyses, the market assessment determined the following recommendations for developing the Downtown and Village Center:

Retail/Commercial

1. Possible retail/commercial categories with potential include:
   - Personal services – laundry, hair and nail salons
   - Professional services, real estate and insurance (office space)
   - Restaurants – Fast food, fast casual and sit down restaurant
   - Pharmacy/convenience
   - Small grocery store (longer term)
2. Potential to attract select chains and independent stores
3. Development potential will occur within 7-15 years depending on the type of store

Residential

1. Need to create a unique development to enhance competitiveness and leverage the benefits of the site (adjacency to train, master planned mixed-use development, etc.)
2. Wide range of products to appeal to broad range of demographic segments and Developers:
   - Small and large lot single-family homes
   - Duplexes
   - Townhomes
   - Rental
   - Senior housing
3. Opportunity to build to market realities: smaller homes and lots, marketed at lower prices
4. Overall development and sell-out time frame is expected to be 10-15 years

Implementation

Priority Implementation Strategies

1. Establish the Regulatory Framework for Future Development
2. Create Business Structure to Implement Plan
3. Create Transportation and Infrastructure Framework
4. Establish Village Campus
5. Revitalize the Downtown
6. Market the Village Center
7. Increase Long Term Funding Options

Strategy 1: Establish the Regulatory Framework for Future Development

Action
1. Adopt the Village Center Plan Adopt the Village Center "Concept Plan" as a resolution that delineates the location of primary right-of-way, town square, parks, and stormwater drainage facilities, land uses etc.
2. Incorporate the Village Center Parcel(s) into the Village Draft annexation agreement to include the recommendations of the "Concept Plan".
3. Pass ordinances and establish zoning and design guidelines for a new "Downtown Zoning District" that includes the existing Downtown and the Village Center Site

Strategy 2: Create Business Structure to Implement Plan

Action
1. Establish agreements with key property owners **A. Meyer:** • Draft Annexation Agreement incorporating the Concept Plan • Create mechanism for determining land disposition price over time • Determine conditions and covenants for phased sale of property • Dedicate portions of land for Village Campus • Delegate marketing authority and responsibility to the Village
C. BP : *(Village is already working with BP on following action items)* • Define boundaries and schedule for land swap • Determine location and general size of naturalized detention area • Determine location and design of berms and landscaping • Create ROW for potential southern grade crossing • Designate land for future Metra parking to the east of the tracks • Create access road along the southern line of the proposed land swap
D. Other land owner agreements (Residential Lots along Sweedler, and Sweedler corner site)
E. Metra • See following pages 4-18 and 4-19 for details

Strategy 3: Execute Catalytic Transportation and Infrastructure Projects: **Major Projects related to Metra and the Station Area**

The primary goal of this project is to ***increase ridership*** and "***Maximize the number of people living within walking distance of the train station".***

As with any successful Transit Oriented Development, the Master Plan has focused on bringing as much residential density as possible close to the station, while ensuring that the demand for convenient commuter parking is met.

Any changes that are recommended to the existing commuter lot, access and detention area are to meet this primary goal, and to make it easier for future residents to get to the station from both sides of the tracks with better pedestrian, vehicular, paratransit and bicycle access.

There are significant costs and implementation steps associated with the recommendations that can impact the station area. **Metra does not have any funding for these projects. It will be the Village's responsibility to pursue and secure funding for these proposals, including the following major plan recommendations.**

1. New At-Grade Crossing.

- The proposed new at-grade crossing would need to be approved by the Metra Board of Directors, Norfolk Southern Railway, and the Illinois Commerce Commission.
- The Village needs to select the specific grade crossing location from the two options, and develop Design Plans for the selected crossing location prior to approval from these agencies.
- Capital costs to construct a new at-grade crossing is estimated to be between $500,000 and $750,000.
- Additional projects that need to be addressed in conjunction with the new grade crossing are outlined below as items 2 to 9.

2. Relocation of the existing pedestrian crossing to the potential new at-grade crossing would be required if the potential new at-grade crossing is constructed.

3. Proposed reconstruction of the southern end of the platform if southern crossing option is chosen.

4. Installation of crossbucks, bells, flashers and gates at the new at-grade crossing to meet Metra's safety requirements.

5. Installation and maintenance of a traffic control signal at the intersection of the grade crossing with the proposed road extension.

6. Pedestrian tunnel under the tracks.

7. Liability and insurance for the crossing.

- The Village would need to accept all liability and insurance for the crossing and would be required to maintain the crossing, including snow and ice removal.
- The annual maintenance costs are between $10,000 and $15,000 per year. The cost to renew a crossing about every 10 to 20 years is $200,000 to $300,000.

8. Proposed trails near the SWS Line that would need to be separated by fencing and would need to be placed at least 25 feet from the centerline of the track.

9. Proposed at-grade crossing at the industrial siding for Aeropress.

- This crossing will be required if the south roadway was constructed, also creating a new at-grade crossing with the SWS Line.
- This would need to be discussed with and approved by the ICC, NS, and Aeropress.

10. Any replacement (i.e. relocated and/or restriped) of existing commuter commuter parking.

- Any relocation of Metra-owned parcels designated for future parking would need to be discussed with Metra's Executive Director and approved by the Federal Transit Administration since the land designated for future commuter parking was purchased with federal funds.
- As shown on the parking diagram to the right, the plan recommends the expansion of the existing lot by approx. 230 spaces to accommodate approx. 490 spaces in the future. To ensure that the station has easy and safe access from the residential blocks planned within walking distance, a pedestrian path is proposed that will require 20 existing spaces to be restriped. To create better access and vehicular connections between the station area and Downtown, Front Street is recommended to be extended, which will require the relocation/restriping of 28 existing spaces.
- The Village would need to discuss the possibility of purchasing BP's land for the proposed commuter parking lot on the east side of the tracks with BP.

The following are Metra's guidelines related to replacement and structured commuter parking that need to be met:

- Throughout each step of the redevelopment process, the amount of commuter parking in the station area should remain at its current level, resulting in no net loss of spaces during any of the phases.
- The land for the existing and future commuter parking was purchased with federal funds, thus this will need to be discussed with the FTA.
- The use of federal funds for the construction of new parking facilities may be restricted, if parking spaces that were federally funded, are removed or altered during redevelopment.
- Most grant dollars, including Metra's, are not available for financing the replacement of commuter parking spaces that are displaced from designated and/ or historical commuter parking facilities.
- Metra only participates in building new parking spaces where demand warrants and funding is available.
- Commuter parking fees need to remain comparable and competitive with commuter parking fees within the Metra system.
- Any new or replacement parking should be within the line of sight of a station.
- All landscaping and lighting in commuter lots need to follow the guidelines set forth in Metra's Parking Manual.
- Lighting along Front Street should be fully shielded so as not to put glare at the train crew level.

11. Future relocation of existing stormwater detention facilities.

As shown on Regulating Plan D: Stormwater Management in Chapter 3, the plan assumes that the southern part of the drainage divide, which includes the current Metra detention area, can be detained in a new consolidated pond to be located in the natural area to the south. The Village is negotiating with BP on the location and design of the detention area.

- The relocation of the current Metra pond can provide approx. 445 spaces for commuters in the future within line of sight of the station.

12. Access to commuter parking lots

- Currently, there is only one access road to the station and commuter lot from Sweedler Road. To ensure that the station and commuter lots have greater accessibility from both sides of the tracks, the master plan recommends the following:

From Gougar Road to the west:
- A Boulevard Connection
- B Collector Street

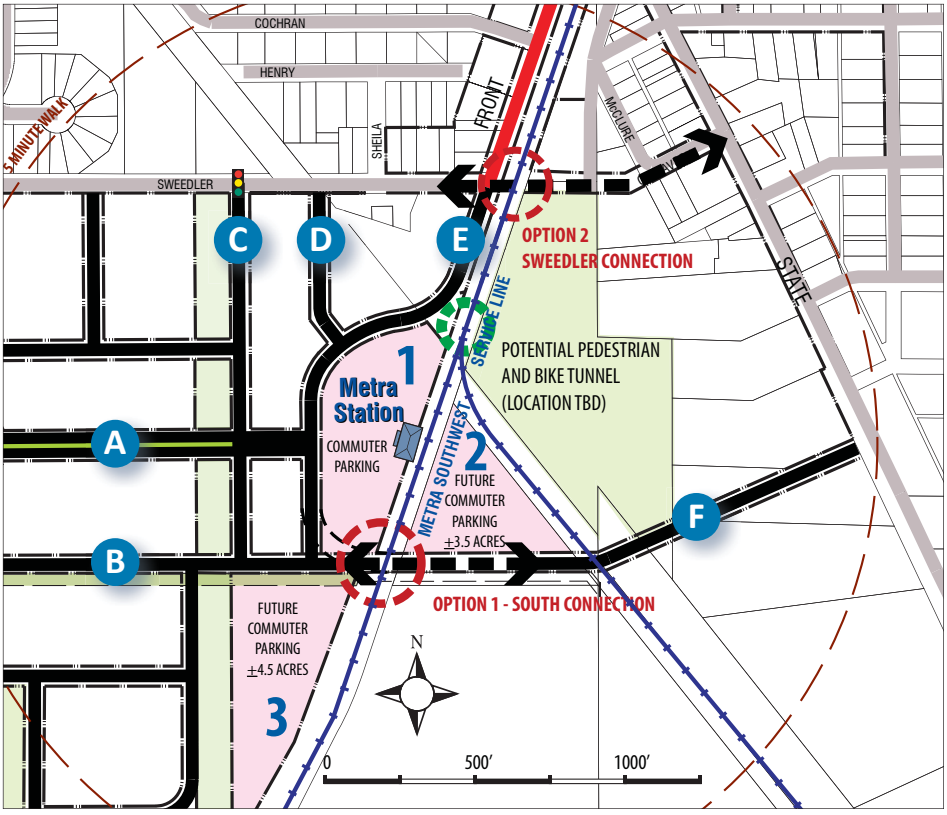
From Sweedler to the north:
- C Existing Access Road
- D North South connection
- E Extended Front Street

From State Street to the east of tracks:
- F Connection to Triangle Site

- The Village will be responsible for future coordination and funding for these recommended access routes, and ensure that these are discussed with Metra's Executive Director and approved by the Federal Transit Administration.

Commuter Parking Summary

1. Expanded Existing Lot	
Existing to remain	209 Spaces
Relocated	20 Spaces
Re-striped	28 Spaces
Additional	233 Spaces
Total	490 Spaces
2. Triangle Site (east of tracks)	320 Spaces
3. Existing Detention Pond site	445 Spaces
Total	1,255 Spaces



EXISTING ROADS
PROPOSED ROADS
POTENTIAL PEDESTRIAN AND BIKE TUNNEL
PPROPOSED SIGNAL

Strategy 3: Execute Catalytic Transportation and Infrastructure Projects (continued)

	DOWNTOWN MANHATTAN	DESCRIPTION	COSTS	NOTES
1	FRONT STREET IMPROVEMENTS	Angled parking on both sides within existing ROW, Pedestrian Crosswalks, sidewalks, and trail along tracks, Landscaping and signage	Restriping costs for approx. 90 spaces	TIF ELIGIBLE. Cost includes asphalt pavement, curb & gutter, and storm sewer.
2	WABASH AVENUE IMPROVEMENTS AND PARKING BEHIND TRACKS	Old Lumber Yard site cleanup, installation of new parking lot; sidewalk, landscaping and signage along Wabash	Approx. 130 spaces at cost of approx. $4,000 per stall: $520,000.00	TIF ELIGIBLE. Cost includes asphalt pavement, curb & gutter, and storm sewer, and potential design / engineering fees
3	DOWNTOWN PARKING BEHIND EXISTING VILLAGE HALL	Consolidate parcels and access to create more efficient parking lot	Approx. 80 spaces at cost of approx. $4,000.00 per space: $320,000.00	TIF ELIGIBLE. Cost includes asphalt pavement, curb & gutter, and storm sewer, and potential design / engineering fees
4	DOWNTOWN TRAFFIC IMPROVEMENTS	Prohibit left-turn movements from westbound State Street to Front Street.	TBD	TIF ELIGIBLE
		Close curb cuts on the south side of State Street at Wabash Street and at the driveway between the Pizzeria and the railroad.	TBD	TIF ELIGIBLE
		Improve lane channelization at the State Street/Manhattan-Monee Road intersection, create left-turn lanes, and install traffic signals, crosswalks and pedestrian signals.	TBD	TIF ELIGIBLE. Assuming IDOT will allow a traffic light if warranted by FHWA standards.

	VILLAGE CENTER SITE	DESCRIPTION	COSTS	NOTES
5	EAST BOULEVARD	From existing station access road to roundabout	Approx. $772,200 for the entire +/-990' length, or $780 per LF	Cost includes earthwork, asphalt pavement, curb and gutter, sidewalks on both sides, storm sewer, sanitary sewer, water main, street lighting and design/construction management. This cost does not include landscaping.
6	ROUNDABOUT	As focal point at end of east boulevard	Approx. $375,000 for entire roundabout	Cost includes earthwork, asphalt pavement, curb and gutter, sidewalk along perimeter of roundabout, storm sewer, sanitary sewer, water main, street lighting and design/construction management. This cost does not include landscaping. Costs can be potentially shared with developer.
7	DETENTION FOR VILLAGE CAMPUS	Size and volume of the pond needed for just the village campus (Village Hall, Library, etc.)	Approx. cost to construct the 11 ac-ft of detention storage for the +/-22 acre civic campus area is $135,000.	The required volume for the +/-22 acre civic campus area shown on the Phasing Plan dated 4/7/10 (including the roundabout & a portion on the boulevard road) is 11 ac-ft., or approx. 3.5 acres
8	TYPICAL 66' ROW ROADWAY	Typical residential roads proposed in the Master Plan	Construction of a standard roadway (66' R.O.W.) per LF: Approx. $615 per LF	Unit cost includes earthwork, asphalt pavement, curb and gutter, sidewalks on both sides, storm sewer, sanitary sewer, water main, street lighting and design/construction management. This cost does not include landscaping.
9	MAJOR ACCESS / ROADWAY IMPROVEMENTS	Widening of Gougar Road (ultimately 5 lanes) and Sweedler Road (ultimately 3 lanes).	TBD	Gougar Road and Sweedler Road are both under Village/Township jurisdiction. Costs for road improvements would likely be borne by the Village with required contributions from developers of adjoining parcels.
		Installation of traffic signals at Gougar/Village Center Blvd and potentially Gougar/Sweedler	TBD	Cost will potentially be borne mostly by developers of adjoining parcels, and could potentially include the Village in this case. An SSA can be used to create cost sharing for infrastructure costs, including installation of traffic signals. A formula would need to be developed to determine the cost contributions. Many times the formula is based on the trip generation from the development.
		New at-grade rail crossing	Potential crossing costs in the $500,000.00 - $750,000.00 range, not including additional costs for annual maintenance and 10 year replacement	Actual location for crossing at Option 1 or Option 2 as shown in Plan will determine actual costs
10	TRAIL REALIGNMENT	Realign the Wauponsee Glacial Trail at Sweedler Road.	TBD	Potential Village Cost, possible candidate for grants

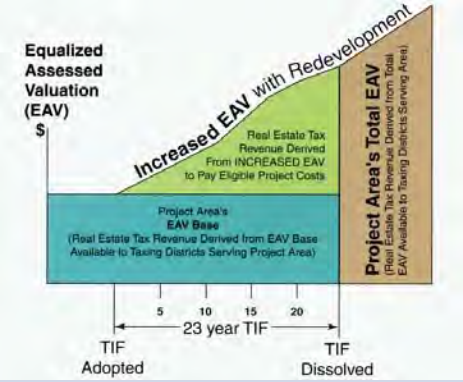
Implementation (contd.)

Catalytic Transportation and Infrastructure Projects

Strategy 4: Establish Village Campus

Action
1. Complete land dedication process for the Meyer parcel
2. Devise financial plan for future development: • Include in 5-year capital improvements plan • Explore land sales of existing Village-owned assets (including existing library or Village Hall) • Explore sale/leaseback structure with option to purchase • Build community support to finance plan • Calibrate local fees/taxes (review Strategy 7)

Strategy 5: Revitalize the Downtown

Action
1. Create a Tax Increment Finance (TIF) District [1] • Hire TIF consultant to conduct eligibility study • Prepare Redevelopment Plan and Project • Conduct required public approval process 
2. Set up Incentive Programs based on TIF funds • Neighborhood Investment Fund (NIF) for physical improvements to residential property . A NIF is an allocation of TIF funds for rehab of exterior elements of a building. Usually it is setup on a matching grant basis and is similar to a facade improvement program. • Façade Improvement Program to encourage the rehabilitation and restoration of downtown commercial building facades
3. Advance General Obligation Funds and recapture with TIF funds for critical public infrastructure projects within the TIF district. Potential projects include: • Front Street streetscaping and improvements from State to Sweedler • Extension of Front Street south of Sweedler within TIF District • Improvements to State and Front and North and State intersections • Improvements to Central Park
4. Establish policy for underwriting public-private partnerships based on an assessment of project financials and feasibility gap

Strategy 6: Market the Village Center

Action
1. Prepare a development prospectus that outlines: • Adopted Master Plan, regulatory framework, and development guidelines • Specific parcels available for development • Target development goals for sites and illustrative concepts • Village policies regarding funding key infrastructure segments • Clear guidelines on what is required of developer, including price/offer for land, development proposal, concept drawings, qualifications, relevant experience, and financial capacity
2. Establish a target pricing model for development parcels to evaluate offers from developers
3. Review and select option for establish a marketing responsibility and program to ensure consistent, ongoing effort: • Consulting approach with partial commission structure • Traditional Broker • Village Staff
4. Engage with and solicit proposals and price offers from developers
5. Select developer(s) based on land price offer, qualifications, and overall development proposal against pricing benchmarks
6. Use Development Agreements rather than purchase and sale contracts to ensure development outcome

Strategy 7: Increase Long Term Funding Options

Action
1. Explore local funding sources: • Business District (BD) for Downtown and future commercial development • Special Service Area (SSA) • Local real estate transfer tax
2. Calibrate existing local fees over time: • Impact fees • Utility and telecom taxes • Cable franchise fees
3. Explore potential for state and federal grants such as: • Federal Congestion Mitigation and Air Quality (CMAQ) Program • Illinois Transportation Enhancement Program (ITEP) • RTA's Innovation, Coordination and Enhancement (ICE) Program • Active Transportation Alliance

Phasing Strategy

Options for Initial Phases

- DEVELOP RESIDENTIAL (RENTAL OR ROWHOUSES/ TOWNHOMES) ALONG EAST SIDE OF EXISTING ACCESS ROAD TO STATION
- PROVIDE DOWNTOWN PARKING AT WABASH AND FRONT STREET
- REDEVELOP ALONG FRONT STREET
- REDEVELOP WABASH / NORTH STREET PARCELS
- CONSTRUCT BOULEVARD, ROUNDABOUT AND RESIDENTIAL ALONG NEW BOULEVARD

EXISTING

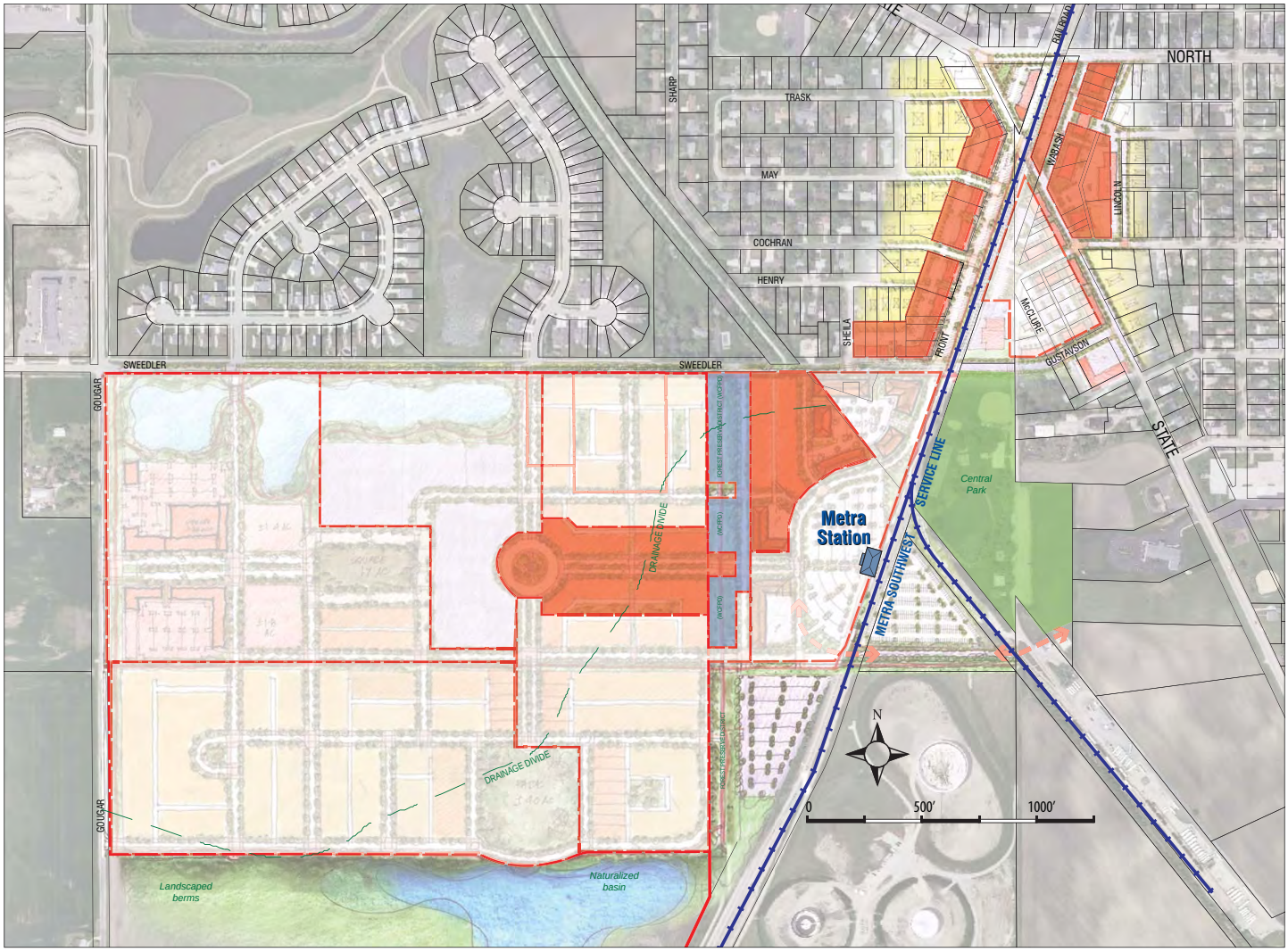
POTENTIAL INITIAL PHASES

CIVIC CAMPUS

POTENTIAL INTERMEDIATE PHASES

FUTURE COMMERCIAL/ MIXED USE

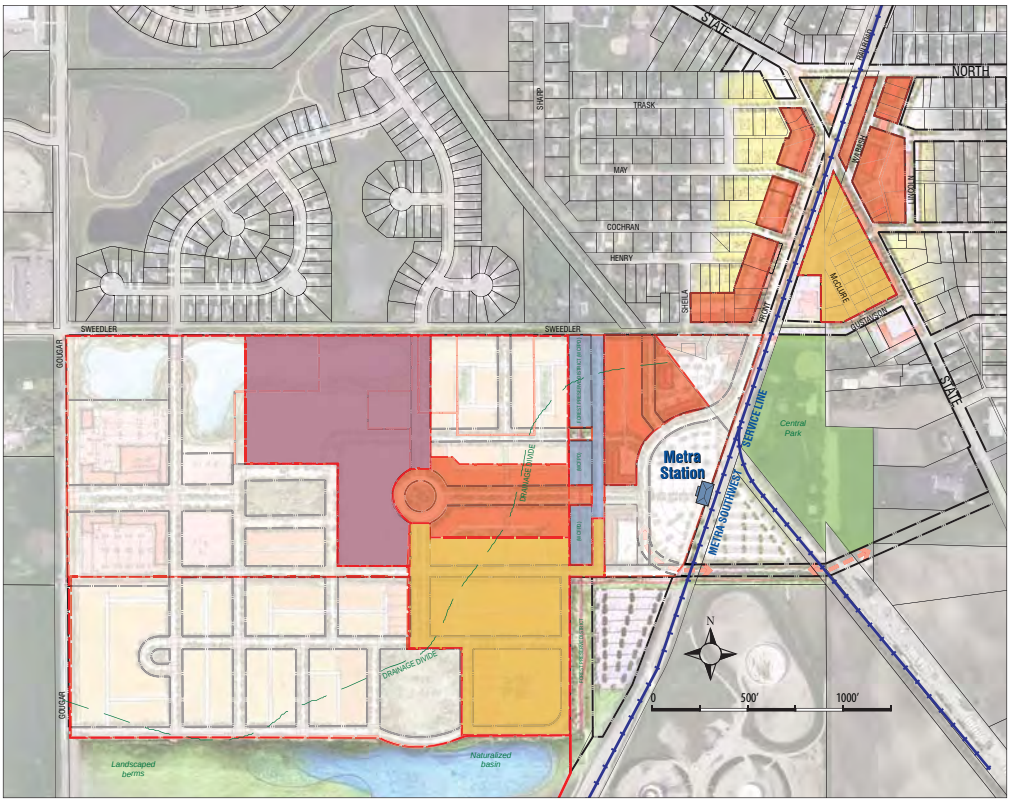
FUTURE RESIDENTIAL



Options for Future Phases

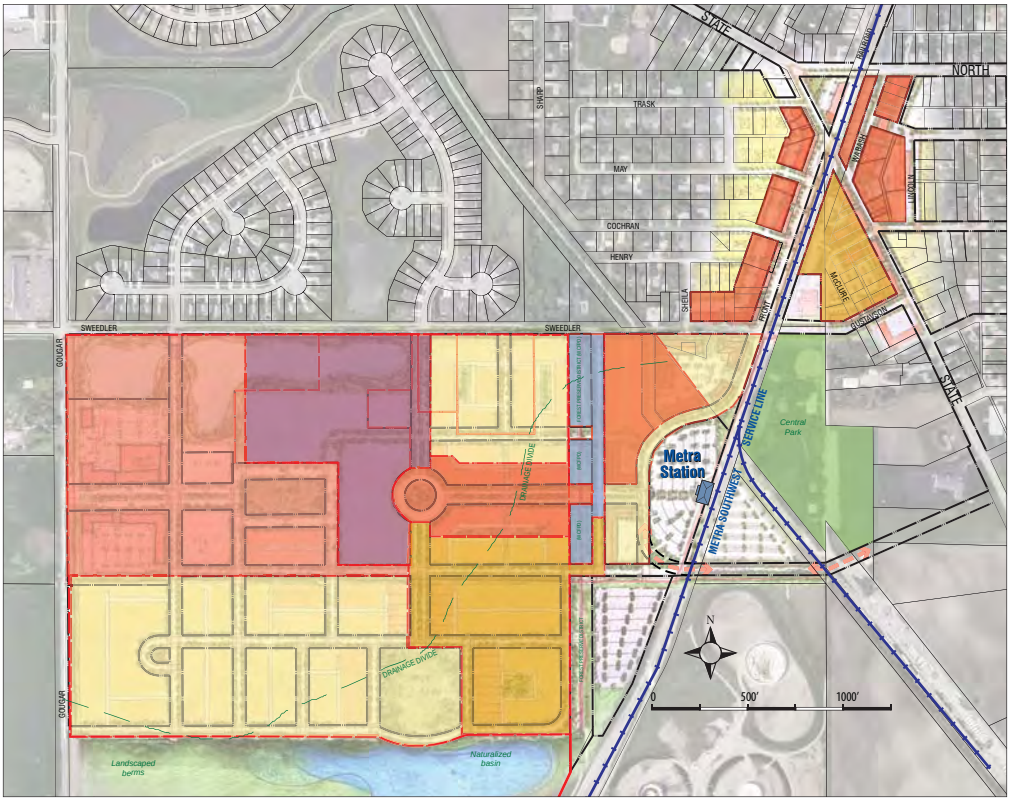
Intermediate Phases

- DEVELOP RESIDENTIAL ROWHOUSES/ TOWNHOMES AND SINGLE FAMILY AT THE SOUTH-EAST PARCELS OF THE VILLAGE CENTER SITE
- REDEVELOP DOWNTOWN PARCELS ALONG STATE STREET AND TRACKS
- START DEVELOPING THE CIVIC CAMPUS



Final Phases

- DEVELOP COMMERCIAL, MIXED USE AND RESIDENTIAL WITH THE BOULEVARD AND VILLAGE SQUARE
- DEVELOP RESIDENTIAL BLOCKS AND THE PUBLIC PARK IN THE SOUTHERN PARCELS
- REDEVELOP THE PARCEL SOUTHWEST OF SWEEDLER AND TRACKS WITH RENTAL / MULTIFAMILY
- REDEVELOP THE TWO PARCELS ALONG SWEEDLER WITH RESIDENTIAL
- EXTEND FRONT STREET AND EXPAND EXISTING COMMUTER LOT AS SHOWN IN PAGE 4-19
- CONSTRUCT COMMUTER LOTS ON TRIANGLE SITE AND CURRENT POND SITE AS DEMAND WARRANTS



Appendices

A.1 Pipeline Easement Provisions

Wolverine Pipe Line Company

In a continuing effort to provide a safe environment for persons working on or near our pipelines, Wolverine Pipe Line Company (WPLCo) will require the following restrictions to be applied to all work being performed near WPLCo's pipelines, unless exceptions are specifically agreed to in writing by a WPLCo Field Supervisor.
The excavator is responsible for all damages resulting from the crossing and shall indemnify and hold WPLCo safe and harmless including personal injury and/or death of third parties and indirect and consequential damage such as loss of profits.

1. Contact the appropriate One-Call system(s) and WPLCo at least 48 hours before commencing work, or as required by regulations.
2. No work may commence on WPLCo ROW until a WPLCo representative has authorized it to begin. Notice of desired work start date should be given 48 hours in advance. A WPLCo representative will normally be on-site during excavation.
3. Construction of any roads, highways, or streets, or blasting within 500 feet of the pipelines will require an approved excavation/blasting plan.
4. No perpendicular digging will occur to initially expose the pipeline unless there are no other options.
5. Mechanical excavation will cease once the earth has been removed to within two (2) feet of WPLCo's pipeline. Shovels will be used to manually clean the area above and below the line. After the line has been initially located, the line shall be kept visible to the equipment operator during the excavation process. Mechanical digging will not be allowed closer than one (1) foot from the side and bottom of the pipeline after the line has been exposed per the above procedure.
6. No excavations shall be made on land adjacent to the pipeline which will in any way impair or withdraw the lateral support and cause any subsidence or damage to the pipeline. Sheet piling may be required.
7. All construction must be done in accordance with the applicable laws and regulations including OSHA requirements for excavation and trenching.
8. Excavator should mark the area of proposed excavation in white (paint, stakes, etc.)
9. New pipelines or utilities should cross WPLCo's pipelines with at least 24 inches of clearance. Crossings shall allow WPLCo's pipeline to be lowered in the future to obtain recommended depth for new construction. Any change in the surface grade or elevation over or along the pipeline(s) and right-of-way must be approved in advance.
10. Pipeline/utility crossings should be as close to 90 degrees to WPLCo's pipeline as possible, but not less than 45 degrees.
11. All non steel crossings shall be encased across the width of WPLCo's easement.
12. Fiber-optic cable and long distance carrier crossings should be cased across the width of WPLCo's easement or a minimum of 60 feet.
13. All backfill on WPLCo's easement shall be mechanically compacted to the top of the pipeline(s) after removal of water and trash.
14. Temporary construction roads may be required to protect WPLCo's pipelines. WPLCo must approve equipment and vehicle crossings on the easement.
15. Permanent above ground markers identifying a crossing pipeline or utility shall be installed and maintained at the limits of WPLCo's easement and/or the crossing.
16. If it is impractical to install and maintain above ground markers due to the crossing location, plastic marker tape shall be installed below cultivation level and over WPLCO's pipeline, extending the width of the easement or a minimum of 60 feet.
17. Fence posts, where permitted by WPLCo, shall not be placed within 4 feet of the pipeline(s). Utility poles and guys shall not be placed within 8 feet of the pipeline(s).
18. If WPLCo deems it necessary, the excavator shall install a bar across the teeth of the bucket during excavation.
19. If WPLCo's line is exposed during the excavation, the hole will be made safe for entry and left open until WPLCo installs test leads.
20. Excavator shall abide by all state and federal safety rules and regulations. Excavator shall operate equipment that is in good working conditions, conducive to a safe working environment, while working on or near WPLCo's facilities.

PLEASE CONTACT SCOTT SMITH AT 815-838-8160 AT LEAST 48 HOURS BEFORE YOU DIG.

Northern Border Pipeline Company Notes

- The weight crossing the pipe during and after construction shall not exceed 60,000 pounds per axle load.
- The finished grade of the road shall not deviate from the most recent drawings dated 08/03/07.
- The sewer line and waterline will cross under the Northern Border Pipeline with a minimum of 2 feet of separation.
- There will be no permanent above ground structures within the Northern Border Pipeline 50 foot easement.
- There shall be no construction work within the NBPL Easement or over the Northern Border Pipeline without prior agreement and approval of NBPL.
- The Northern Border Pipeline shall not be undermined for more than 10 feet at any time without prior agreement and approval by NBPL.
- A NBPL representative shall be present during all construction work around the pipeline.

Kenig, Lindgren, O'Hara, Aboona, Inc.

9575 West Higgins Road, Suite 100 | Rosemont, Illinois 60018
p: 847-518-9990 | f: 847-518-9987

2nd Revision

MEMORANDUM TO: Marian Gibson, Village Administrator
Village of Manhattan

FROM: Eric D. Russell, PTP

DATE: June 9, 2010

SUBJECT: Railroad Grade Crossings/
Roadway Alignment Options-Front St and Sweedler Rd Extension
Manhattan Village Center Plan

This memorandum summarizes three significant transportation issues encountered during the master planning process for Manhattan's Village Center site: (1) new railroad grade crossings of the Metra SouthWest Service Line, (2) two roadway alignment options for the southerly extension of Front Street through the Village Center site with a potential new railroad grade crossing to the south of the Metra station, and (3) the alignment of a potential new railroad grade crossing at Sweedler Road to the north of the Metra station.

Due to land ownership issues and further discussions with Metra, it is uncertain at this time whether a new railroad grade crossing can be developed at either the northern or southern location. As such, no preferred alignment for the new grade crossing has been selected at this time and the Village Center plan has been developed to facilitate a future grade crossing at either location.

New Railroad Grade Crossings

The Illinois Commerce Commission (ICC) has jurisdiction to enforce safety requirements for track, facilities and equipment belonging to rail carriers within Illinois. It has typically been the policy of the ICC, Metra and the railroad companies to approve the development of a new railroad grade crossing only under the condition that one or more existing grade crossings can be closed and other options such are roadway/railroad grade separation are not feasible. However, Metra has been willing to consider the possibility of one additional grade crossing as part of the Village Center plan pending approval by Metra's Board of Directors, the ICC and the Norfolk Southern Railroad.

Furthermore, Metra has explained its position that the design of any new grade crossing should include the following. It is important to note that the Village would need to seek their own funding of any changes due to the proposed at-grade crossing, including the items below:

- The new grade crossing should be designed perpendicular to the railroad if at all possible
- The new grade crossing must incorporate the relocation of the existing pedestrian grade crossing at the north end of the Metra platform
- The new grade crossing must include the reconstruction of the existing Metra platform, if necessary, to maintain a sufficient clear zone between the platform and grade crossing

At the November 18, 2009 Steering Committee meeting for the Manhattan Village Center Plan, Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) was asked to address issues associated with a proposed new grade crossing of the Metra SouthWest Service Line within the Downtown District of Manhattan. Specifically, the following two situations were to be addressed:

1 Indicate why an existing railroad grade crossing cannot be closed in exchange for the approval of a new grade crossing.

2 State reasoning why grade separation of the new grade crossing is not feasible.

Inability to Close an Existing Grade Crossing

There are presently six (6) railroad grade crossings within the Village of Manhattan, all of which are along the Metra SouthWest Service Line (see Exhibit 1).

- State Street (U.S. Route 52)
- North Street (Manhattan-Monee Road)
- Eastern Avenue (Nelson Road)
- Smith Road
- Baker Road
- Private Farm Road (between Baker Road and Cedar Road)

Within Manhattan, there are few continuous north-south and east-west roadways, most of which are located along the township section lines at one-mile spacing. Within the downtown area there are two grade crossings, State Street and North Street, both of which are important regional arterial roadways under IDOT jurisdiction. State Street is also a designated truck route. To the northeast of the downtown is the Eastern Avenue grade crossing. Eastern Avenue is an important collector road in the Village and the only continuous north-south facility that connects the downtown area to the developing residential subdivisions to the north. The only parallel north-south facility to Eastern Avenue is Cedar Road, which is located one mile to the east of Eastern Avenue. Furthermore, Manhattan Junior High School is located along Smith Road to the northwest of the Eastern Avenue grade crossing and Eastern Avenue is a critical access route to the school. Baker Road is an important east-west arterial roadway through the central portion of Will County that is planned to be expanded to a five-lane roadway within a 120-foot right-of-way. Smith Road is also an important east-west roadway that is classified as a major collector roadway and will be expanded in the future with a parkway design within a 100-foot right-of-way.

The closing of the grade crossings on any of these public roadways would result in unnecessary, inefficient traffic circulation within Manhattan and significantly longer emergency response times.

The only feasible opportunity to close an existing grade crossing appears to be the private farm crossing located between Baker Road and Cedar Road. This grade crossing presently provides an important and convenient connection between the farmstead on the east of the railroad and the cultivated land on the west. However, as the land in the vicinity of this crossing is redeveloped in the future, this grade crossing could be closed without negatively impacting local or regional travel.

Exhibit 1
Aerial View of Manhattan Area Grade Crossings

Impracticality of Railroad Grade Separation within Downtown District

Grade separation of a railroad and roadway is the most effective way to reduce vehicular and pedestrian conflicts with trains. However, grade separations can be prohibitively expensive and require the dedication of substantial land area to provide a sufficient grade to carry the roadway over or under the railroad while maintaining adequate vertical clearance. As an example, maintaining a vertical roadway grade of 4-5 percent would require a distance of approximately 1,800 feet to lower a roadway beneath the existing railroad, which is more than twice the distance between Front Street (at Sweedler Road) and State Street (at Gustafson Road), as shown in Exhibit 2. Furthermore, retaining walls would need to be constructed on both sides of the roadway to minimize the width of the trench needed to accommodate the underpass. The grade separated facility would result in substantial land disruptions within the core of the Manhattan community, isolation of the Village Center site from the traditional downtown, and a major barrier for vehicular and pedestrian travel to critical community-serving civic facilities. Planning level construction cost estimates for similar types of grade separations range from $25-50 million, excluding engineering and right-of-way acquisition costs.

The only feasible location(s) to develop future railroad grade separations are where the necessary land area is readily available, which is outside of the downtown district

Exhibit 2
Aerial View of Downtown District with Minimum Grade Separation Distance

Roadway Alignment Options for Front St Extension/Southern Grade Crossing

On March 23, 2010, GINKGO Planning & Design, Inc. distributed via email three (3) alignment options for the proposed extension of Front Street from Sweedler Road south to a new east-west roadway that will extend west through the Village Center site and potentially east across the railroad to State Street. The easterly extension of this east-west roadway, to the south of the existing Metra station, would provide a new point of access to Central Park and the Aeropress facility, and would provide access to a potential new commuter parking lot on the triangular parcel north of the BP site.

Option 1 (see Exhibit 3) was presented previously at the March 5, 2010 Steering Committee meeting and included a straight extension of Front Street from Sweedler Road through the existing commuter parking lot to the Metra Station. The east-west roadway in Option 1 would extend in a straight line through the Village Center site and cross the railroad at-grade at an approximately 70-degree angle near the south end of the existing Metra station platform. A straight access drive would connect the east-west roadway to the Metra station through the existing commuter lot. This option was discarded as it was felt that a road going through the existing commuter parking lot was too disruptive to the existing parking capacity and circulation within the lot and had more adverse impacts on pedestrian safety.

Option 1 was revised to realign the Front Street extension to curve around the commuter parking lot to create a direct connection to the station without as many perpendicular turns and without impacting the existing parking lot. The Revised Option 1, shown in Exhibit 4, also allows for a perpendicular grade crossing of the railroad, which is preferred by Metra, by curving the Front Street Extension to the east across the railroad. The east-west roadway that extends through the Village Center site would curve to intersect the Front Street Extension instead of extending directly across the railroad as in Option 1.

An alternative revision of Option 1, referred to as Revised Option 2 (see Exhibit 5), is similar to Revised Option 1 but continues the curved section of the Front Street Extension (around the commuter lot) straight south into a T-type intersection with the east-west roadway. The east-west roadway in this option remains in a straight configuration that continues east across the railroad at a 70-degree angle, similar to Option 1. It is our understanding that the Village prefers Revised Option 2 over Revised Option 1.

As stated by GINKGO in the March 23rd email, it is KLOA's opinion that Revised Option 2 is the better alignment when all issues are considered. First, it should be recognized that the proposed east-west roadway to the south of the Metra station will become a major collector road for the Village of Manhattan and a direct link between the existing developed areas of the Village to the east of the railroad and the Village Center site. It may also provide the only grade crossing of the railroad south of the traditional downtown core. Furthermore, the east-west roadway is planned to ultimately align at Gougar Road with an extension of Brown Road, which will create a more regional roadway facility. In short, this east-west roadway is ultimately expected to carry a volume of traffic characteristic of a major collector road, a majority of which will not necessarily be oriented to and from the Metra station. The Front Street Extension will carry a substantially lower volume of traffic.

MANHATTAN VILLAGE CENTER PLAN

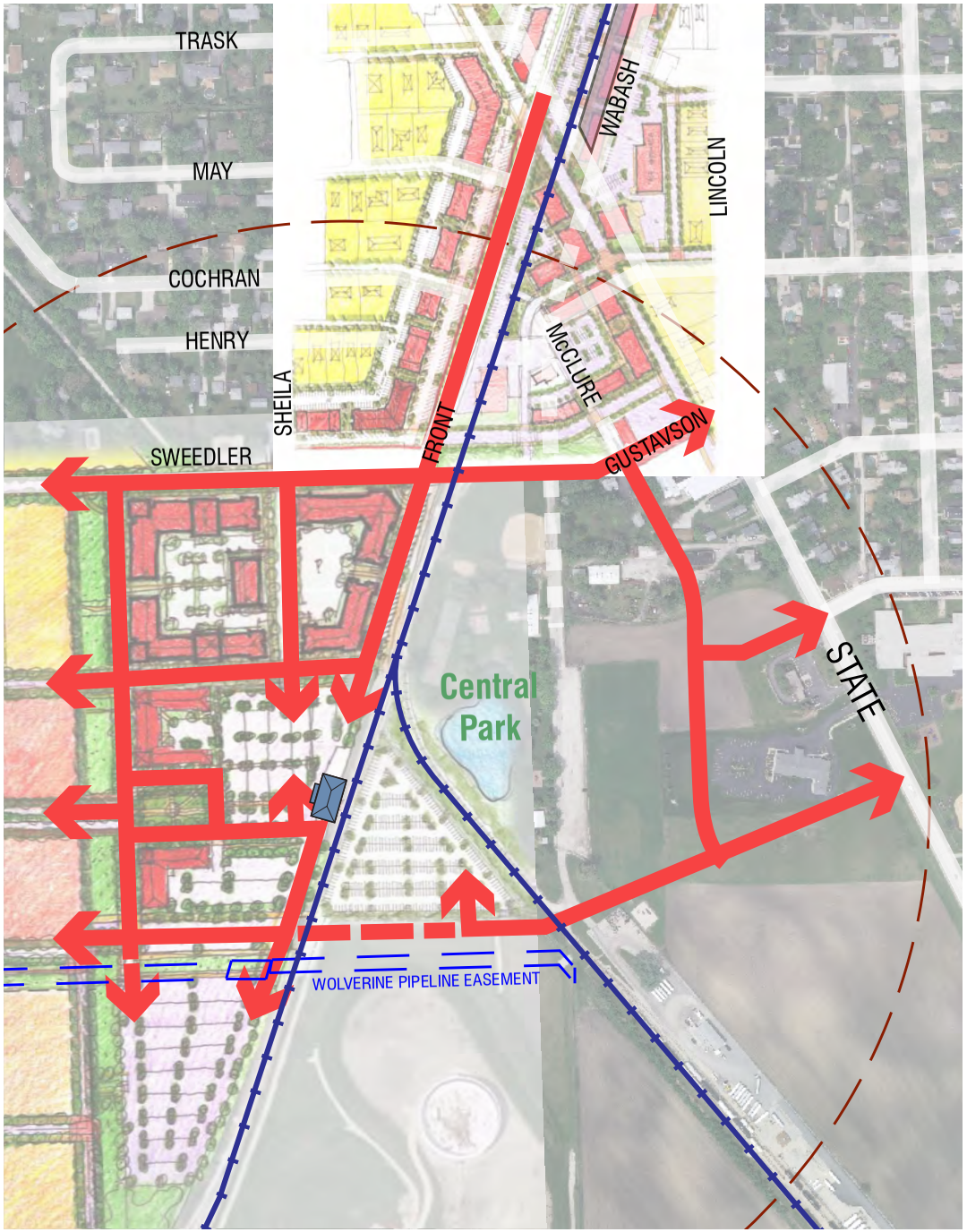
METRA PARKING AND ACCESS

DRAFT 3-5-10

Existing Metra Parking:	**Approx. 257 spaces**
Planned future parking:	**Approx. 900 spaces**
TOTAL REQUIRED:	**Approx. 1,157 spaces**

Proposed Parking

EXISTING PARKING:	**APPROX. 257 SPACES**
TRIANGLE SITE WEST OF TRACKS :	**APPROX. 320 SPACES**
METRA POND PARCEL:	**APPROX. 445 SPACES**
FRONT ROAD SOUTH OF SWEEDLER:	**APPROX. 25 SPACES**
STATION BLOCK SOUTH :	**APPROX. 92 SPACES**
FRONT ROAD NORTH OF SWEEDLER WITHIN QUARTER MILE OF STATION	**APPROX. 25 SPACES**
TOTAL:	**APPROX. 1,164 SPACES**



Prepared by GINKGO Planning & Design, Inc. with Land Vision, Inc., KLOA, Inc., SPACECO, Inc., and S. B. Friedman and Company

Exhibit 3

MANHATTAN VILLAGE CENTER PLAN

METRA PARKING AND ACCESS - REVISED OPTION 1
POTENTIAL FRONT STREET ALIGNMENT & PERPENDICULAR CROSSING

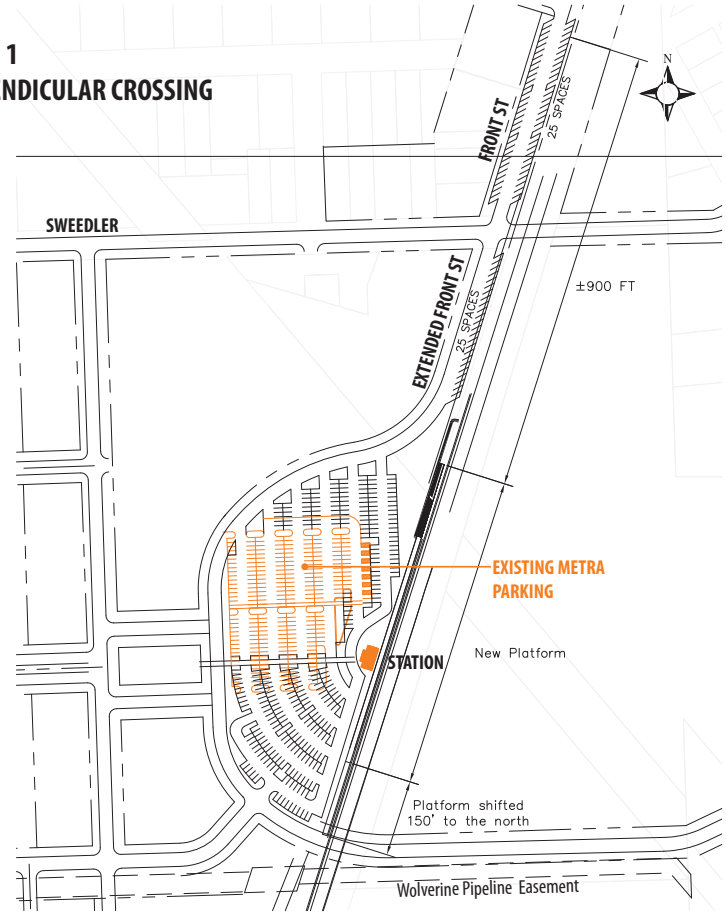
Existing Metra Parking: Approx. 257 spaces
Planned future parking: Approx. 900 spaces
TOTAL REQUIRED: Approx. 1,157 spaces

Proposed Parking

TRIANGLE SITE WEST OF TRACKS :	APPROX. 320 SPACES
METRA POND PARCEL:	APPROX. 445 SPACES
EXPANDED METRA PARKING LOT (EXISTING LOT 257 SPACES WITH AND ADDITIONAL NET GAIN OF 233 SPACES)	APPROX. 490 SPACES
TOTAL:	APPROX. 1,255 SPACES

Additional Parking Available
Within Quarter Mile Of Station

FRONT ST. SOUTH OF SWEEDLER:	APPROX. 25 SPACES
FRONT ST. NORTH OF SWEEDLER	APPROX. 25 SPACES



Prepared by GINKGO Planning & Design, Inc. with Land Vision, Inc., KLOA, Inc., SPACECO, Inc., and S. B. Friedman and Company

Exhibit 4

MANHATTAN VILLAGE CENTER PLAN

METRA PARKING AND ACCESS - REVISED OPTION 2
POTENTIAL FRONT STREET ALIGNMENT & NON PERPENDICULAR CROSSING

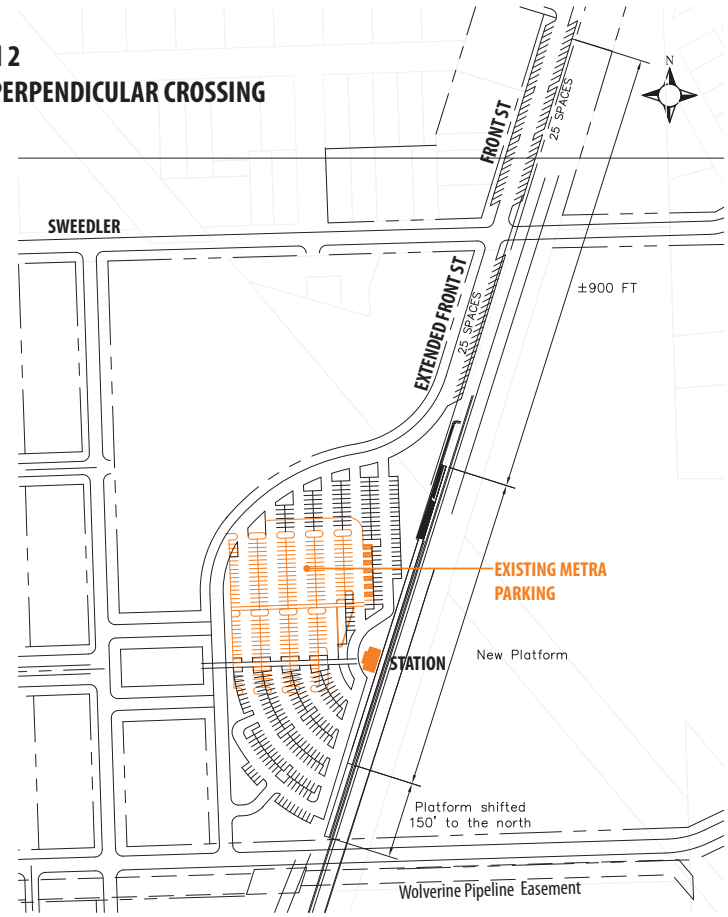
Existing Metra Parking: Approx. 257 spaces
Planned future parking: Approx. 900 spaces
TOTAL REQUIRED: Approx. 1,157 spaces

Proposed Parking

TRIANGLE SITE WEST OF TRACKS :	APPROX. 320 SPACES
METRA POND PARCEL:	APPROX. 445 SPACES
EXPANDED METRA PARKING LOT (EXISTING LOT 257 SPACES WITH AND ADDITIONAL NET GAIN OF 233 SPACES)	APPROX. 490 SPACES
TOTAL:	APPROX. 1,255 SPACES

Additional Parking Available
Within Quarter Mile Of Station

FRONT ST. SOUTH OF SWEEDLER:	APPROX. 25 SPACES
FRONT ST. NORTH OF SWEEDLER	APPROX. 25 SPACES



Prepared by GINKGO Planning & Design, Inc. with Land Vision, Inc., KLOA, Inc., SPACECO, Inc., and S. B. Friedman and Company

Exhibit 5

The alignment of the Front Street Extension in Revised Option 1 would be appropriate if the majority of traffic using the east-west roadway approaching from State Street were oriented to the Metra station or Front Street rather than to the remainder of the Village Center property and to areas to the west of the site. Since this will not be the case, the intersection of the east-west roadway with the Front Street extension will consist mostly of unnecessary turning movements between these two roadways in close proximity to the grade crossing. To accommodate the westbound left-turn movements traveling across the railroad without impeding through traffic, the grade crossing will need to be wider (i.e., three lanes) to accommodate a long enough left-turn lane for traffic continuing west on the east-west roadway. There is always the potential, however, that the westbound left-turning movements could queue beyond the grade crossing if delayed waiting for gaps in traffic to make the turn.

Second, the undesirable alignment of the Front Street Extension, shown in Revised Option 1, is created solely to address Metra's preference for all grade crossings to be as close to 90-degrees as possible. Ideally, the east-west roadway would be aligned to cross the railroad at 90 degrees rather than the Front Street extension. However, this is not possible due to the constraints created by the proximity to pipeline easement and BP holding tank containment areas.

Third, the angle at which the east-west roadway crosses the railroad in Revised Option 2 is approximately 70 degrees. As Metra has indicated, it is preferable to design a grade crossing at as close to a 90 degree angle as possible. A crossing angle near 90-degrees enhances the motorist's view of the railroad tracks, maximizes sight distance and reduces crossing issues with motorcycles, bicycles and wheelchairs. These considerations are paramount at standard grade crossings that accommodate through trains at higher speeds. However, the subject grade crossing in Manhattan is unique and deserves more lenient consideration of the crossing angle. The Manhattan Metra station is the terminus of the SouthWest Service Line. As such, only a few trains each day will cross the east-west roadway as they move from the station to the storage yard just south of the station. These trains will be moving at very low speeds. There will be no freight trains crossing the east-west roadway and no through trains. While the 70-degree crossing angle is less than ideal, it is not so acute as to significantly affect the sight distance to and from these slow moving trains.

Lastly, both revised options will require the existing station platform to be shifted to the north of the station to create Metra's desirable 150-foot separation from the grade crossing. Revised Option 1 would locate the grade crossing approximately 30 feet closer to the station than Revised Option 2, which would require the platform to be extended 30 feet further to the north than Revised Option 2.

In summary, we feel that Revised Option 2 provides for better traffic flow in proximity to the proposed grade crossing and has less impact on the location of the existing station platform. While it is understood that the approximately 70-degree crossing angle is less than ideal, the unique nature of this proposed crossing warrants more lenient consideration from Metra due to the site constraints and low train volumes and operating speeds at this terminus location. Furthermore, the grade crossing can be outfitted with very effective warning devices to enhance safety.

Sweedler Road Grade Crossing Alignment

The potential northern grade crossing is at Sweedler Road, to the north of the Metra station, and would consist of an easterly extension of Sweedler from Front Street to State Street via Gustafson Street, as shown in Exhibit 6. The alignment of the potential Sweedler Road grade crossing is subject to similar constraints as the potential southern grade crossing location. Again, ideally, the extension of Sweedler Road extension east-west roadway would be aligned to cross the railroad at a 90-degree angle for the same reasons as discussed above. However, again, this is not possible due to the constraints created by the proximity of Central Park to the southeast of the crossing, an existing residential neighborhood to the northwest of the crossing, and an existing business operation to the southwest of the crossing.

Exhibit 6
Proposed Sweedler Road Grade Crossing

Similar to the potential southern grade crossing location, the potential grade crossing at Sweedler Road is unique and deserves more lenient consideration of the crossing angle. Again, as the terminus

station for the SouthWest Service Line, only a few trains each day will cross the Sweedler Road grade crossing. Since this crossing would be only 650 feet from the north end of the existing station platform, the inbound and outbound trains would be moving at very low speeds. The infrequent freight trains serving the Aeropress facility, via a rail spur located just north of the platform, would also be moving at very low speeds. There would be no through trains crossing Sweedler Road. While the 70-degree crossing angle is less than ideal, it is not so acute as to significantly affect the sight distance to and from these slow moving trains.

Furthermore, beyond the substantial land use disruptions that would result from a 90-degree grade crossing, the horizontal alignment of the Sweedler Road extension that would be needed to align with Gustavson Street would result in a substandard design for a roadway with a 30 mph design speed based on IDOT standards.

In short, similar to the proposed southern grade crossing, it is understood that the approximately 70degree crossing angle is less than ideal. However, the unique nature of the proposed northern grade crossing at Sweedler Road warrants more lenient consideration from Metra due to the site constraints, land use impacts, roadway design requirements, and low train volumes and operating speeds at this terminus location. Furthermore, the grade crossing can be outfitted with very effective warning devices to enhance safety.