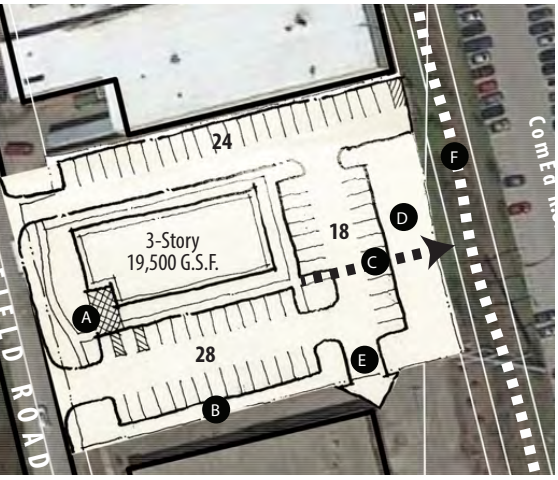
NORTHFIELD ROAD CORRIDOR PLAN

Land Use . Zoning . Development . Access . Connectivity



Northfield, Illinois

ADOPTED MARCH 15, 2016

This document summarizes the work conducted for the Northfield Road Corridor Plan.
A special thank you to the members of the Advisory Committee, focus groups, residents and Village of Northfield staff who participated in the community workshops and provided valuable input that helped guide the plan. Without their support, expertise, and feedback, this plan would not have been possible.

ADVISORY COMMITTEE MEMBERS

Brian Kozminski, Advisory Committee Chair, Village Board Trustee
John Birkinbine, Resident, Past Village President
Max Dickman, Mariano's, Roundy's Real Estate Development Manager
Jason Felicione, Architectural Commission Chair
Terry Gottlieb, Resident, Past Village Trustee
Jordan Luhr, North Shore Senior Center, Executive Director
Bill Vaselopulos, Plan & Zoning Commission Chair
Joe Valenti, Valenti Builders, business/property owner

CONSULTANT TEAM

Michael Blue, FAICP, Teska Associates
Jodi Mariano, PLA, Teska Associates
Dominic Suardini, Teska Associates
Brittany Bagent, Teska Associates
Bill Grieve, Gewalt Hamilton Associates

VILLAGE OF NORTHFIELD STAFF

Stacy Sigman, Village Manager
Steve Gutierrez, Community Development Director

In coordination with
Gruen Gruen + Associates

Plan prepared by:

teska

GHA GEWALT HAMILTON ASSOCIATES, INC.

TABLE OF CONTENTS

SECTION 1: INTRODUCTION	1
SECTION 2: PUBLIC ENGAGEMENT	5
SECTION 3: LAND USE AND ZONING	11
SECTION 4: PARKING	27
SECTION 5: CONNECTIVITY	33
SECTION 6: CIRCULATION	43
SECTION 7: URBAN DESIGN	51
SECTION 8: APPENDIX	55

EXECUTIVE SUMMARY

The Northfield Road corridor is noteworthy for several reasons, including: that it is in transition from light manufacturing to service commercial businesses, its location near the Northfield Village Center, the close proximity of residential neighbors, the major rights of way that run along its length, and its location in the north shore real estate market. While certain factors create challenges for planning and development, they most definitely create opportunities for the Village of Northfield to build upon in creating economic development and quality of life enhancements for the community.

In order to best understand these challenges and opportunities, the Village commissioned this Northfield Road Corridor Plan. The plan process was built around formal evaluation of land use, transportation, economic, and aesthetic considerations. Further, it incorporated the insights of nearby residents, land owners, business people, Village staff, and previous planning projects to ensure that the work was focused on the specific needs of the corridor and community. At the core of the work was the project Advisory Committee which provided policy direction and kept the work focused on principal concerns.

The resulting plan considers existing conditions, local objectives, and specific recommendations over five fundamental topic areas: Land Use and Zoning, Parking, Connectivity, Circulation, and Urban Design. The recommendations within those themes (summarized below) set out a plan to: 1) create a land use regulatory environment that supports logical and desirable use of the area, 2) improve transportation facilities for those traveling by car, bicycle, or on foot – within and beyond the Village, 3) preserve the quality of life for those living adjacent to and near the area, and 4) complement the adjacent Village Center districts. In order for these aims to be accomplished, the plan recommendations must be carried out not just by the Village, but with cooperation of the numerous stakeholders in the planning area and the community as a whole. The process of preparing this plan evidenced that spirit of working together in the Village, which bodes well for plan implementation.

Community engagement was conducted to gather feedback from the people who currently use the corridor. This included working with the Advisory Committee, interviewing stakeholders and focus groups, holding community workshops, and maintaining an active project website.

LAND USE AND ZONING

The plan area is currently zoned as Village Commercial and M-1 Light Industrial.

- **RECOMMENDATION 1**: Create a new zoning district to reflect the trend toward service commercial uses in the project area and widen permitted uses to increase feasibility of property reuse.
- **RECOMMENDATION 2**: Revise long range land use plan from 1999 Northfield Vision Plan in two subareas within the project area to reflect existing uses and future land use visions developed as part of this plan.
- **RECOMMENDATION 3**: Consider redeveloping the current AT&T site into a multi-family development.
- **RECOMMENDATION 4**: Consider a long term plan of moving municipal uses from their current buildings to the Northfield Road corridor to make the existing high visibility sites at Willow Road and Happ Road available for commercial development.

PARKING

The plan area would benefit from additional parking, given that parking lots were originally built to suit primarily manufacturing uses, which required less parking.

- **RECOMMENDATION 1**: Establish a parking lane along Northfield Road.
- **RECOMMENDATION 2**: Set Village parking standards to reflect current demand and use of shared parking.
- **RECOMMENDATION 3**: Develop a shared parking concept between corridor properties.
- **RECOMMENDATION 4**: Create cross access between parking lots.
- **RECOMMENDATION 5**: Designate (and sign) drop-off and short term parking locations along Northfield Road parking lane.
- **RECOMMENDATION 6**: Create signage for public lots to designate employee, resident and customer parking.

CONNECTIVITY

Additional pedestrian and bicycle connections are needed in the area to accommodate a variety of users.

- **RECOMMENDATION 1**: Design and install a multi-use path connection north of Winnetka Road to Willow Road to accommodate pedestrians and cyclists providing continuity to regional trails.
- **RECOMMENDATION 2**: Establish shared-lane street markings to indicate where cyclists should preferably cycle.
- **RECOMMENDATION 3**: Install "share the road" signage as a method of educating drivers and protecting the safety of cyclists.
- **RECOMMENDATION 4**: Enhance walkability throughout the corridor by creating two access points along the UPRR / ComEd ROW by installing wayfinding signage.

CIRCULATION

Circulation throughout and beyond the corridor (particularly to the Village Center) can be enhanced through road and parking configurations.

- **RECOMMENDATION 1**: Straighten the geometry of Orchard Road directly in front of Mariano's to facilitate traffic and design pedestrian connections to the Village Center.
- **RECOMMENDATION 2**: Extend Alice Place to connect to Northfield Road in order to address access issues for residents of Crooked Creek and the new commercial center on Willow Road.
- **RECOMMENDATION 3**: Create a continuous parking area in the corridor under the ComEd ROW extending from the Senior Center to existing public parking areas.
- **RECOMMENDATION 4**: Continue working with businesses along the corridor to ensure that traffic obstruction is minimized by loading and drop off activities.
- **RECOMMENDATION 5**: Reduce superfluous curb cuts along Northfield Road.

URBAN DESIGN

Opportunities for urban design elements to provide aesthetic enhancements are located throughout the corridor.

- **RECOMMENDATION 1**: Enhance the river area on Village owned property at Winnetka Road and Northfield Road.
- **RECOMMENDATION 2**: Improve the river area on Village owned property at the pedestrian bridge across from Mariano's and Northfield Road.
- **RECOMMENDATION 3**: Consider public art that would complement a potential public art program in the Village Center.
- **RECOMMENDATION 4**: Apply urban design guidelines for private property to mirror the quality design established by the North Shore Senior Center.
- **RECOMMENDATION 5**: Design improved rear building parking lots and facades.

THIS PAGE IS INTENTIONALLY LEFT BLANK FOR DOUBLE SIDED PRINTING

SECTION 1

INTRODUCTION

INTRODUCTION

The Northfield Road Corridor Plan provides a long-term vision for the M-1 zoning district along Northfield Road and its connection to the Village Center. It is the result of an extensive community outreach process (involving stakeholder interviews, advisory committee meetings, and public meetings) as well as evaluation of land use, zoning, transportation, urban design, local real estate markets and development economics.

The corridor was historically home to light manufacturing businesses that served the region, but is transitioning into a commercial district that directly serves the residents of Northfield and nearby communities. This is a common evolution. Long time manufacturing areas are challenged to re-identify themselves as market demands and needs for spaces shift away from manufacturing and to a service economy. The transition is an opportunity for communities like Northfield that are actively planning for such areas. The purpose of this plan is to reestablish how the Northfield Road corridor can fit into the community's vision for the future and thrive within the context of local real estate markets.
The study area extends roughly from Willow Road to the north, the Union Pacific Railroad (UPRR) / Commonwealth Edison (ComEd) right-of-way and light industrial uses to the east, Winnetka Road to the south and the North Branch Chicago River to the west. Existing land uses in the area are generally comprised of service commercial and office uses, including self-storage, childcare, and fitness facilities. Existing businesses along Harding Road reflect a more light industrial character and include building contractors and printers.

In keeping with the issues facing the Village in regard to the Northfield Road corridor, the plan has been broken into five themes through which to evaluate its history, current conditions, and recommendations:

1. Land Use and Zoning
2. Parking
3. Connectivity
4. Circulation
5. Urban Design

The plan begins with a review of community outreach and input and continues on to discuss existing conditions, plan objectives, and finally recommendations for each of the five themes. Existing conditions were assembled by collecting data and information from existing plans and reports, observing site configurations and land use patterns, and conducting a series of stakeholder interviews. Objectives were developed by the Steering Committee and consultant to guide desired outcomes for the corridor; recommendations are presented to achieve those outcomes.

This plan was developed in coordination with Gruen Gruen + Associates and their market analysis report titled Real Estate Economic Analysis of Zoning Options for Northfield Road (October 2015). The report focuses on existing real estate economics and prototype projects to assess market demand and development feasibility.

Figure 1: Northfield Road Project Area

THIS PAGE IS INTENTIONALLY LEFT BLANK FOR DOUBLE SIDED PRINTING

SECTION 2

PUBLIC ENGAGEMENT

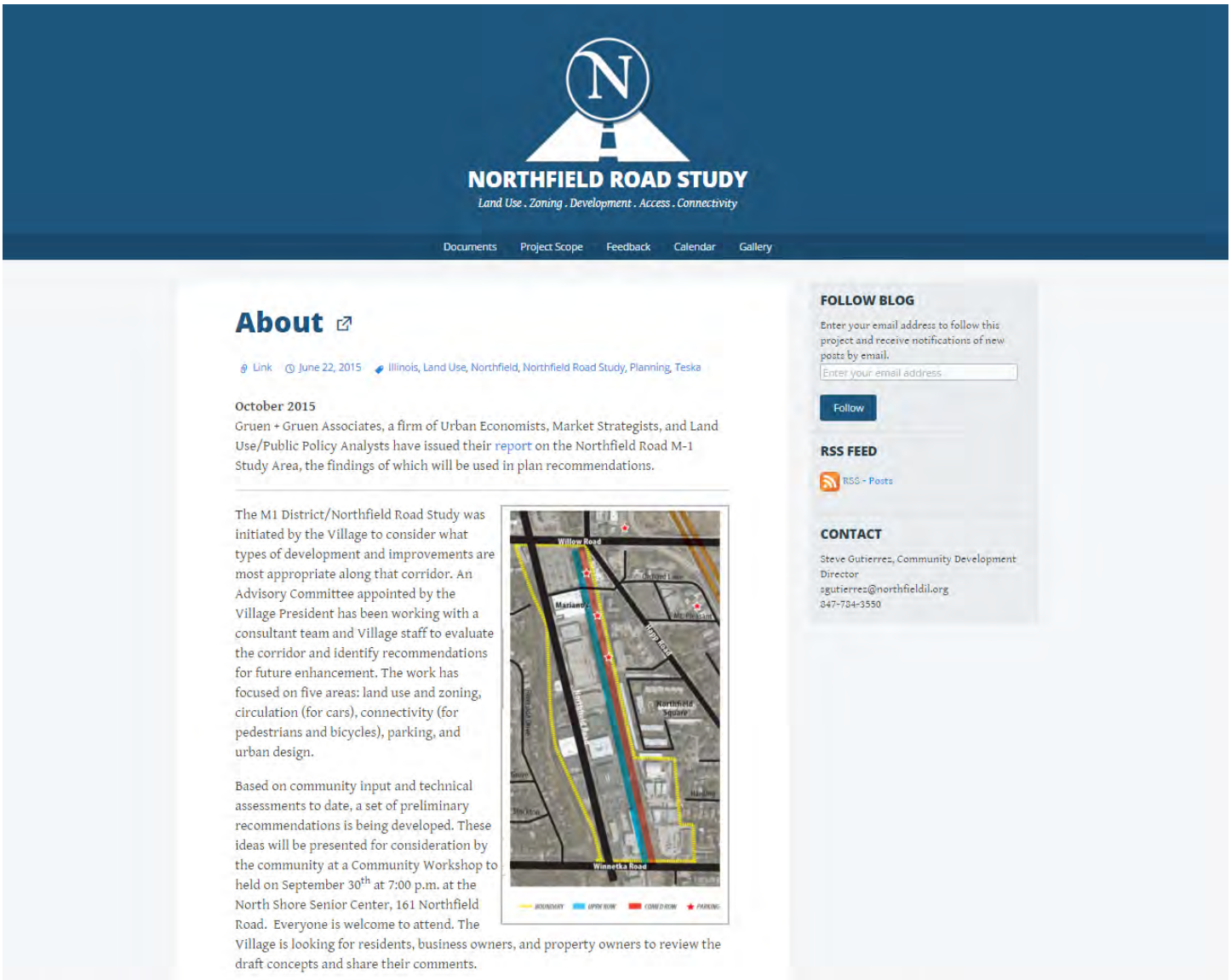
PUBLIC ENGAGEMENT

Community and resident engagement provided insight from the people who live by, work in, and travel through the corridor. It defined how people perceive and use the study area and how it fits into the broader context of the community.

Community engagement efforts included a project website, 10 stakeholder meetings (July 15 – 16, 2015), three Advisory Committee meetings (July 16, September 3, and October 15, 2015), one public open house (July 20, 2015) and one community workshop (September 30, 2015). The meetings generated feedback that has been tabulated and incorporated into this plan.

In general, public engagement confirmed that there is support for service commercial and related uses in the corridor. In addition, it was noted that nearby residents who may be impacted by increased business activity must be strongly considered. Residents also expressed a desire for greater connectivity between the corridor and the Village Center, noting that it is currently limited. In fact, the Mariano's parking lot was identified as the primary connection for motorists and pedestrians alike.

Figure 2: Northfield Road Study Website Homepage



The Northfield Road Study website, accessible via the Village's home page, provided easy access to the process for community residents and employees. The site included links to documents, the project scope, a calendar of upcoming meetings and events in addition to site photos. It also included pertinent contact information for stakeholders wishing to get more involved with the process.

PUBLIC WORKSHOP, JULY 20, 2015

Community members provided feedback in several formats including a mapping exercise and comment cards, both discussed below:

The mapping exercise allowed participants to mark specific locations where corridor components were strong or weak. This simple exercise distinguished positive attributes versus buildings and spaces that need changes or updates.

Feedback included:

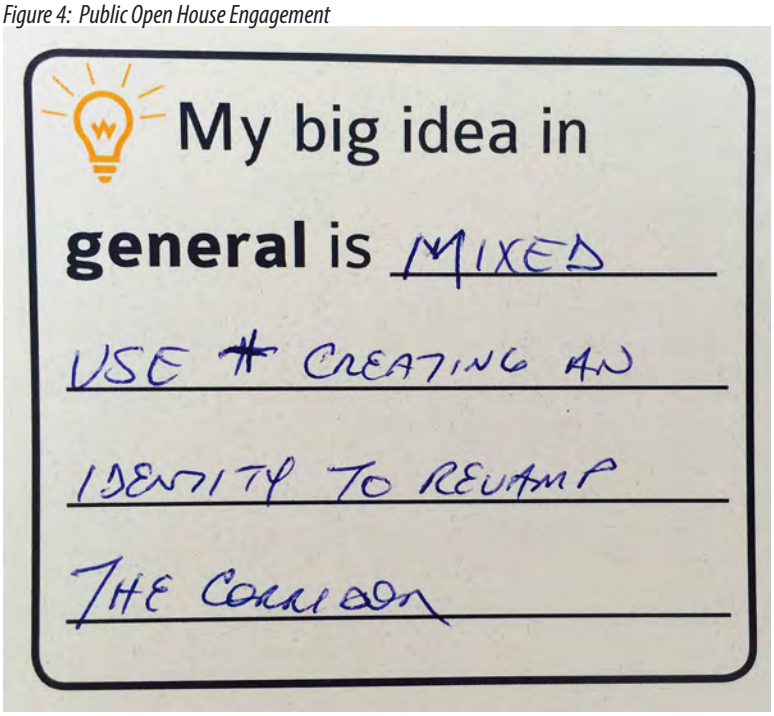
- Preference for more parking and bike lanes along the ComEd/UPRR ROW.
- Need for improved auto connection to the Village Center southeast of Mariano's and east of the Senior Center.
- Interest in potential redevelopment of the dry cleaner on Willow Road and the AT&T site on Winnetka Road.
- Circulation issues are problematic at Alice Place and throughout Northfield Road.

Figure 3: Public Open House Activities

A second exercise included comment cards to provide ideas and concerns about the project area in general and about specific themes. Ideas shared include the one pictured below in addition to the following:

- Remove existing buildings that could provide key connections or parking lots throughout the corridor.
- Encourage economic investments for redevelopments.
- Incentivize property owners to update buildings and landscaping.
- Create a multi-use path along the UPRR ROW.
- Balance connectivity with pedestrian and car traffic while being cognizant of noise pollution.

Figure 4: Public Open House Engagement



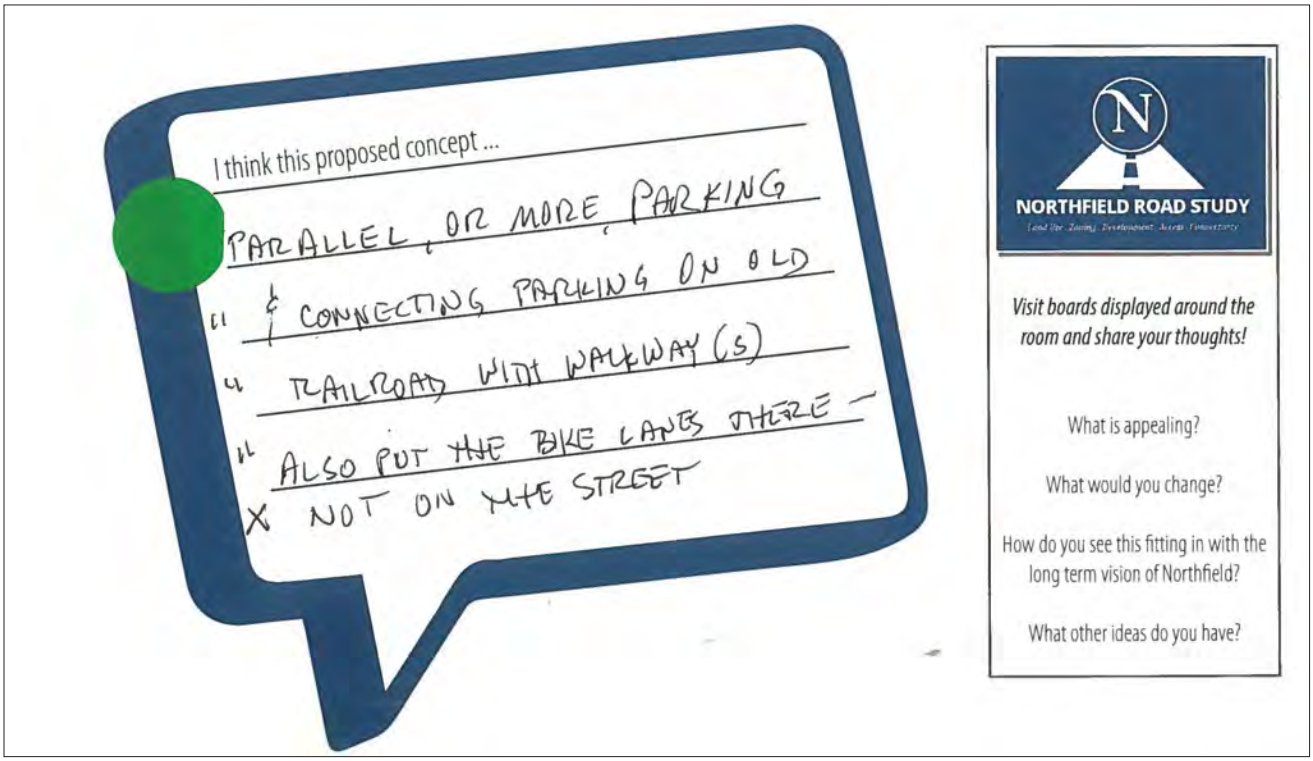
DESIGN AND DEVELOPMENT WORKSHOP, SEPTEMBER 30, 2015

A community workshop was held to present findings and preliminary plan recommendations to the community. These concepts continued to follow the five themes of corridor issues. Approximately thirty people attended the workshop to share reactions, insights and ideas, which have been incorporated into the recommendations of this final report.

One exercise included general comment cards asking participants to offer feedback on the concepts presented at the meeting. One comment card is included below in addition to the following:

- Parking is desperately wanted along Northfield Road, even if private land is lost.
- A wider sidewalk could be shared by pedestrians and bikers.
- The ComEd transmission towers are an obstacle for development because people will not want to walk by or live near them.

Figure 5: Workshop Engagement



PLAN OBJECTIVES

Reflective of existing conditions in the corridor and community input of the area, a list of objectives were developed to structure discussion about the corridor. Considerations relevant to these objectives and recommendations that flow from them are presented in the balance of this plan.

LAND USE & ZONING

- Plan for a corridor that includes service commercial uses reflecting the high quality, small town character of the village, and residential uses as appropriate.
- Consider current residents living on either side of the corridor in making future land use decisions.
- Support longer term development strategies by refining zoning throughout the corridor to reflect current market demands and community desires.
- Communicate and build relationships with ComEd and UPRR to discuss access across and along rights-of-way.
- Evaluate service-oriented businesses that complement village center retail and that reflect market realities.

PARKING

- Increase parking along Northfield Road.
- Consider shared parking for peak business hours.
- Reevaluate village parking standards to reflect realistic parking demand.
- Improve access and visibility of public parking lots along the ComEd ROW.

CONNECTIVITY

- Create connections between Northfield Road and the Village Center, as well as the Harding Road area.
- Enhance connectivity with a bike or multi-use path.
- Accommodate pedestrians and cyclists in addition to motorists along the corridor.
- Designate the ComEd ROW for cars and parking and the UPRR ROW for bikes and pedestrians.

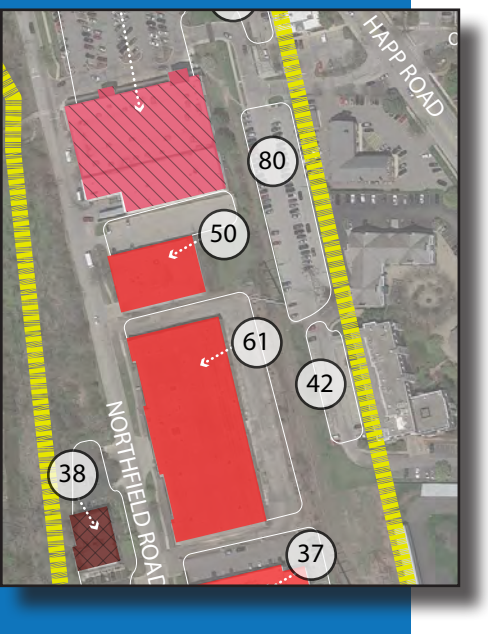
CIRCULATION

- Establish a connection along Alice Place for Crooked Creek residents, commercial properties and emergency vehicles because the new median along Willow Road impedes access to the properties.
- Enhance connections to the Village Center and Happ Road from the study area.
- Improve access to the Senior Center overflow parking lot.
- Manage truck circulation and access adjacent to the Mariano's site per recommendations in the comprehensive plan .
- Encourage the elimination of unnecessary curb cuts.

URBAN DESIGN

- Incorporate complete streets elements in the Northfield Road corridor.
- Identify streetscape and urban design opportunities along Northfield Road.
- Prioritize cohesion with other urban design elements throughout the Village Center and Willow Road.
- Consider the river area as an aesthetic amenity in the corridor.

THIS PAGE IS INTENTIONALLY LEFT BLANK FOR DOUBLE SIDED PRINTING



SECTION 3

LAND USE AND ZONING

LAND USE AND ZONING

Managing land use allows a community to provide order and efficiency for current and future residents and employees. The principal tool for managing land use is the Village Zoning Ordinance. Simply put, land use is what is currently there and zoning is what could be there. Land use also considers the type, location, scale and design of various spaces in the corridor. Assessing current land use and zoning requires an understanding of how the land is currently being used, what role regional development patterns may play, and how economic market potential will influence the community.

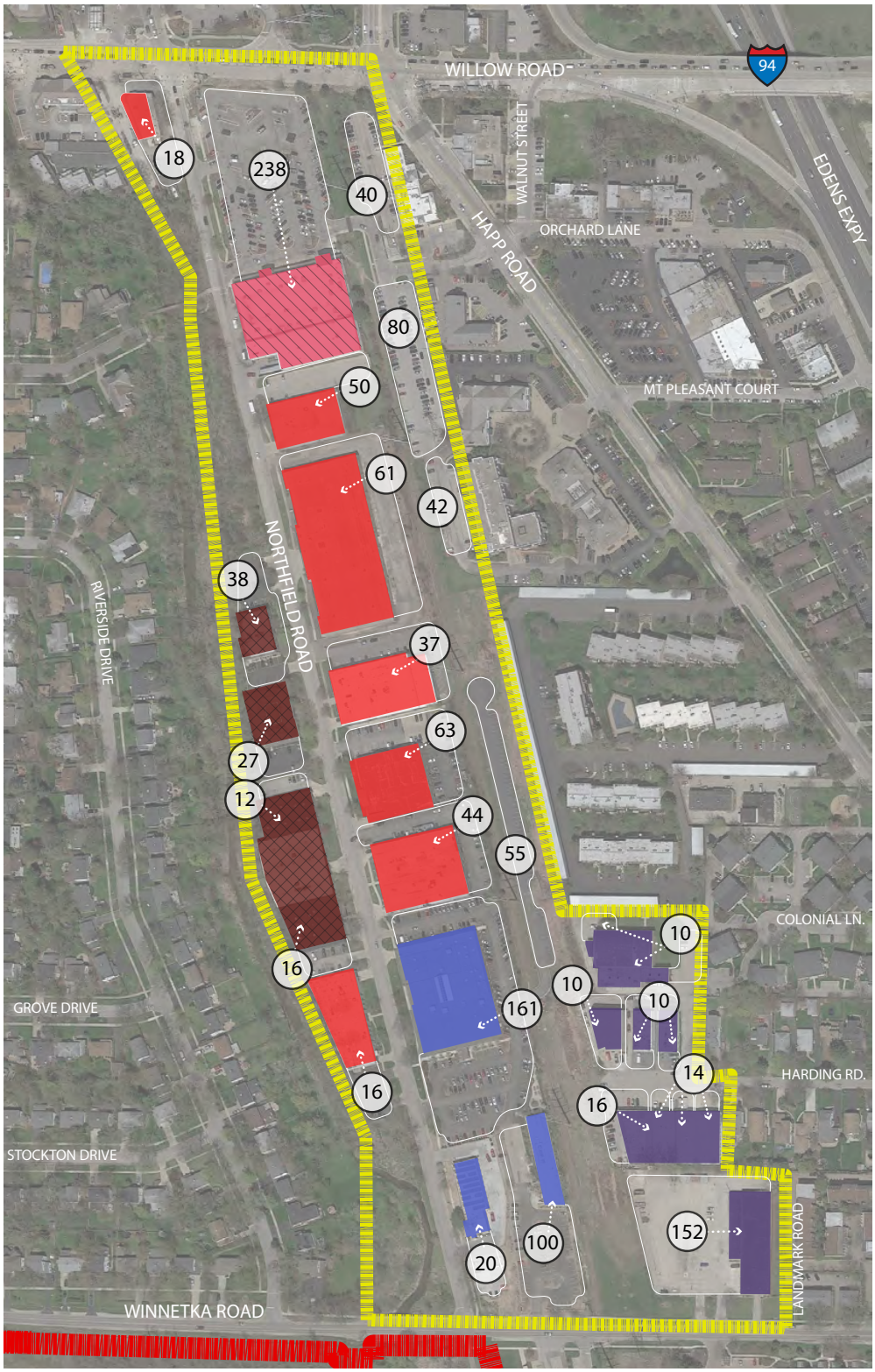
LAND USE & ZONING: EXISTING CONDITIONS FINDINGS

Land uses throughout the plan area are clustered with offices to the west, commercial / retail to the north, public uses to the south and light industrial to the far southeast. Many of these uses were not originally intended for the M-1 district, although they have adapted by renovating building shells. The area originally housed manufacturing companies which have since moved away or evolved into commercial uses. Some tenants and owners, for instance, provide corporate functions such as sales and accounting rather than manufacturing of goods. Findings related to land use and zoning include:

- The Northfield Road corridor is zoned as M-1 Light Manufacturing with the exception of the Mariano's grocery site and dry cleaner at Alice Place and Willow Road, both located on the north side of the plan area, which are zoned as VC Village Center District.
  - M-1 district regulations are intended to provide for manufacturing, industrial, administrative, research and related uses where such uses will cause the least disruption of the residential character of the village[1].
  - Village Center district regulations include retail, service, office and institutional uses in a compact area near the center of the village and are intended to create a pedestrian-friendly environment while still providing sufficient parking for patrons and employees[2].
- The demand for moderately sized industrial buildings is changing. Northfield used to be a destination for business owners needing storage facilities, warehouse space, or buildings for light industrial uses. But now, as manufacturing is declining and service industries are increasing, the Northfield Road corridor is appealing to new users. Furthermore, the Cook County tax structure is an impediment for industrial uses. Rather than a sub-regional industrial market, the corridor is changing to serve residents with consumer services.
- The north side of the plan area includes commercial (dry cleaner) and retail (Mariano's grocery store) uses. Mariano's, which was recently a Dominick's grocery store, currently has a parking lot that is bound by Northfield Road (west), Willow Road (north) and public parking (east). The privately owned dry cleaner (Youngren Cleaners) is located in the northwest corner of the plan area, adjacent to Willow Road improvements and a 6-unit townhome community (which is also in the study area).
- The west side of Northfield Road has three office buildings, with each having several spaces for rent. This vacancy may be partially due to the lack of parking, a point raised during meetings with stakeholders. In comparison to Village parking requirements, this group of office buildings only provides one-third of currently required parking (see Figure 6).

[1] Village of Northfield Village Code, Appendix A – Zoning Ordinance, Article XV. M-1 Light Manufacturing District.
[2] Village of Northfield Village Code, Appendix A – Zoning Ordinance, XIII. VC Village Center District.

Figure 6: Northfield Road Existing Conditions, Land Use & Parking



Land Use

- Office
- Retail
- Commercial
- Public
- Light Industrial

Boundaries

- Village of Northfield
- Northfield Road Corridor Study Area

Existing Parking Count

(10) Parking Spaces per Building / Lot

	BUILDINGS (SF)	PARKING SUPPLY (COUNT)	PARKING REQUIREMENT	PARKING SURPLUS / (DEFICIT)
AT&T	17,420	152	32	**120**
Commercial	209,365	290	699	**(409)**
Lt. Industrial	50,915	60	93	**(33)**
Office	77,080	93	257	**(164)**
Public Facilities	64,620	336	215	**121**
Public Parking	0	162	0	**162**
Retail	46,030	212	184	**28**
Grand Total	465,430	1,305	1,480	

Village of Northfield, Illinois

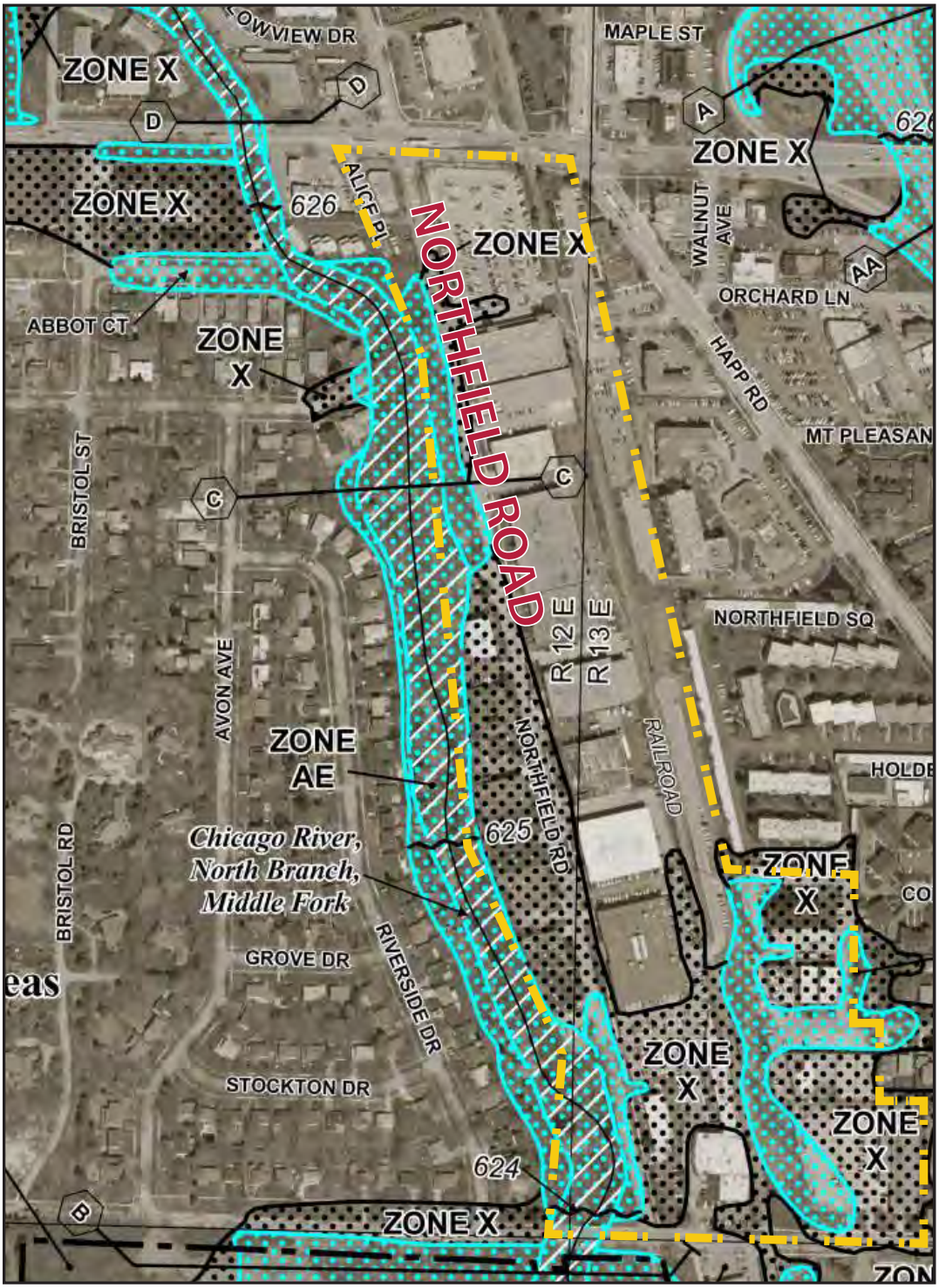
Northfield Road Corridor Plan

50 100 Ft

NORTH

- The transition from manufacturing to service-oriented uses has already begun along the east side of Northfield Road with childcare, fitness facilities, and other service-oriented businesses moving in. These uses have provided mixed reports on parking, with some having ample supply for their needs and others requesting shared parking or other options for employees and customers.
- The south side of the plan area contains public uses, including the North Shore Mosquito Abatement District, North Shore Senior Center, and House of Welcome Adult Day Services facilities. Their proximity to the Northfield police and fire stations, village hall, Winnetka-Northfield Public Library and North Branch multi-use trailhead at Northfield Road and Winnetka Road has created a concentration of civic uses within and near the corridor.
- The southeast side of the M-1 district is predominantly more intensive commercial use, such as printing and contracting businesses. These uses are accessed via Harding Road and coexist with adjacent residential uses, as evidenced by neighbors having not submitted pollution or noise concerns about the uses or complaints with the Village. This segment of the plan area also includes a 2.1 acre site currently owned by AT&T, but under contract to a residential developer.
- The 100-year flood plains constrain redevelopment possibilities, particularly along the west side of Northfield Road (Figure 7 on the following page).

Figure 7: Flood Insurance Rate Map



FLOOD INSURANCE RATE MAP, COOK COUNTY, ILLINOIS

FEDERAL EMERGENCY MANAGEMENT AGENCY

100 YEAR FLOOD, ZONE AE

500 YEAR FLOOD, ZONE X

NORTHFIELD ROAD CORRIDOR PROJECT AREA

PROTOTYPE DEVELOPMENT

Figure 8 on the following page illustrates a prototype redevelopment concept that was designed to evaluate the options and limitations presented by sites throughout the corridor for redevelopment. This example building could serve a variety of uses, including business services or medical offices, by replacing an existing 14,900 square foot one-story building with a 19,500 square foot three-story building. Note that a two-story building on this prototypical site is unlikely because the cost of development would yield a decrease in building space of 1,900 square feet, therefore a three story option was evaluated.

From a zoning standpoint, the prototype site sketch meets M-1 standards for height, setback, floor area ratio, lot size, lot frontage, and parking. Depending on the proposed use a special use approval could be required. For all intents and purposes, the prototype maximizes development on the site from a zoning standpoint. However, a key to understanding this analysis is that the size of the building is ultimately limited not by zoning setbacks and related standards, but by the amount of parking required to be provided on site by the current Village Code (zoning ordinance), which is not uncommon for this type of development.

Despite this example maximizing the physical constraints of the site, it would not likely be financially feasible given current market conditions, even if current zoning standards were amended to allow more height and square footage. As evaluated in Real Estate Economic Analysis of Zoning Options for Northfield Road (Gruen Gruen + Associates), the current rent structure of such office or other uses could not support the construction and operating cost of such a project. In fact, a redeveloped office building would need to capture approximately $38 per square foot in rent to support feasible property acquisition and redevelopment but area median rents for comparable uses are only $25 per square foot.

The report further indicates that due to current rent structures, property owners cannot feasibly afford to complete significant remodeling projects, particularly those in small, older industrial and office buildings. In fact, the report notes that site by site redevelopment along the corridor is unlikely given current markets, regional rent structures, and the lot configurations on Northfield Road. The analysis, somewhat hypothetically, notes that the only feasible development program (from an economic perspective) is for a developer to acquire all properties on the east side of Northfield Road between Mariano's and the Senior Center and redevelop those properties into residential townhomes of at least 16 dwelling units per acre (twice the Village's most dense R-6 zone maximum). This form of development was not considered as a land use alternative in this plan as it is outside the established objectives and extremely unlikely in terms of implementation. However, it is a creative analysis that is instructive as to the challenges of redevelopment along the corridor.

Consideration of local markets also indicates that the corridor's characteristics do not lend themselves to attracting new retailer uses to Northfield Road. The low traffic counts, circulation issues, and lack of parking do not support a successful commercial corridor. (Real Estate Economic Analysis of Zoning Options for Northfield Road, Gruen Gruen + Associates).

These findings indicate that changes along the corridor must be expected in the form of reuse of existing buildings rather than redevelopment. Supporting such reuse will require a range of viable options for new businesses along the corridor. This can be accomplished by broadening the list of permitted and special uses in the Village Zoning Ordinance for the area. More types of appropriate businesses to whom owners can potentially lease will create value in the corridor and support economic development. More potential tenants can also lead to greater demand for space in the corridor and the potential for somewhat increased rents. Such revenue enhancement for owners can support aesthetic and landscape enhancements of existing buildings (as has been advanced by the Village through consideration of special uses). Likewise, greater demand in the area may lead to competition between owners for tenants and serve as incentive for improved aesthetics.

Figure 8: Prototype Development

SITE DATA:

Area:	47,000 S.F.
Existing Building:	1-Story 14,900 S.F.
Prototype Building:	3-Story 19,500 G.S.F. (6,500 S.F./Floor)
Parking:	71 spaces @ 3.6 per 1,000

- A Building Entrance Plaza
- B Landscape Screening/Buffer
- C Pedestrian Connection to Multi-Use Path
- D Sustainable Landscape Treatments
- E Parking Connections to Adjacent Property
- F Potential Multi-Use Path (Railroad R.O.W.)

NORTH

LAND USE & ZONING OBJECTIVES

- Plan for a corridor that includes service commercial uses reflecting the high quality, small town character of the village, and residential uses as appropriate.
- Consider current residents living on either side of the corridor in making future land use decisions.
- Support longer term development strategies by refining zoning throughout the corridor to reflect current market demands and community desires.
- Communicate and build relationships with ComEd and UPRR to discuss access across and along rights-of-way.
- Evaluate service-oriented businesses that complement village center retail and that reflect market realities.

LAND USE & ZONING RECOMMENDATIONS

RECOMMENDATION 1:

Create a new zoning district to reflect the trend toward service commercial uses in the project area and widen permitted uses to increase feasibility of property reuse. A new zoning district will respond to the evolving list of users and will permit businesses currently required to follow the special use permit process.

The new district should also limit manufacturing and industrial activities because they have been deemed less desirable from the adjacent residential neighborhoods and the future economy of Northfield.

The M-1 Light Manufacturing District should remain intact to continue to regulate the current M-1 zoned properties located south of Winnetka Road east of the ComEd/UPRR ROW.

B-2 SERVICE COMMERCIAL DISTRICT:

A new B-2 Service Commercial District would provide for service-oriented businesses, offices, light manufacturing and industrial operations, and related uses along the corridor. Land use, setback, height and other zoning standards will minimize adverse impacts on nearby properties. Therefore, the B-2 Service Commercial District (see Figure 9) is designed to provide for service commercial activities that do not create appreciable nuisance or hazards and that allow for a pleasant environment.

The zoning ordinance currently has a focused list of permitted uses for this area. As noted earlier, in order to generate economic development in the area, the list of permitted uses should be broadened to increase potential tenants in the buildings. Similarly, a wider list of special uses is recommended.

The following recommendations build from the list of M-1 zoning district permitted and special uses because it is the district that resembles the proposed B-2 Service Commercial district the most. Overall, the proposed district would permit more office and low intensity uses, and less industrial and manufacturing uses. The recommended permitted and special use lists have been developed in light of land use and community character objectives.

Uses with a strike through (~~example use~~) are recommended to be removed. Uses that are bold and include an asterisk (***example use**) are recommended to be added. Those without unique formatting (example use) are recommended to remain without change.

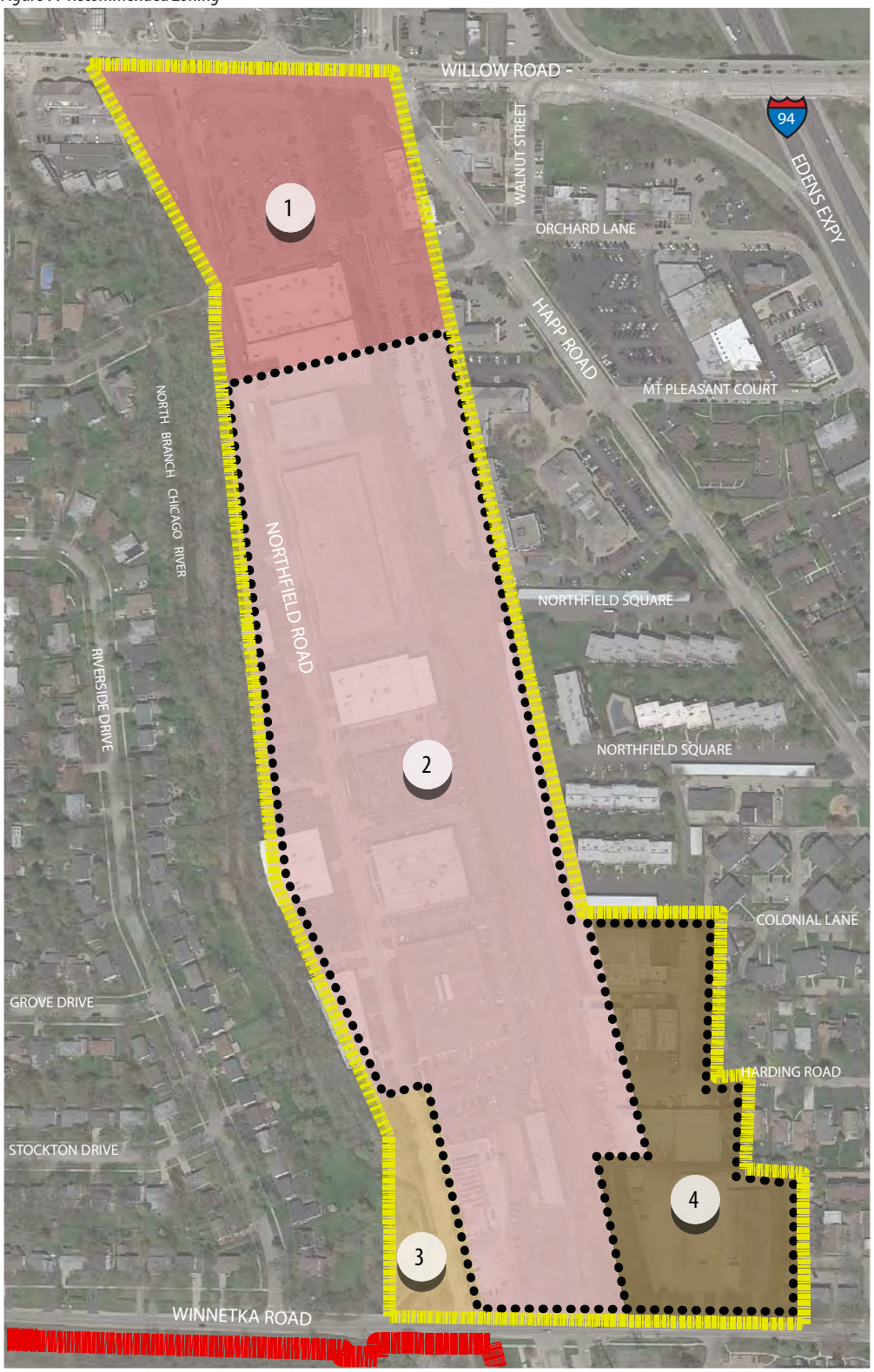
PERMITTED USES

~~Automotive repair.~~
***Bank or other financial institution.**
***Bicycle stores: sales, rental and repair.**
Cabinet sales I and II.
Catalog sales office.
***Clubs and lodges: private, fraternal or religious.**
***Dry cleaning establishments, without drive-through**.
Event Personal services (wedding planning, personal shopping, party planning)
Fabricating, processing, packing (nonperishable).
~~Manufacturing.~~
***Massage therapy.**
***Medical/dental office.**
Municipal use.
***Musical, dance or athletic school.**
***Musical instrument sales and repair.**
Offices.
***Optician and optometrist offices, including laboratories.**
***Personal Services (such as barbershops, beauty salons, spas).**
***Other Public uses and structures.**
***Photography studios.**
Photocopying and Duplicating Services.*Radio and television broadcasting studios.
***Real estate and rental and leasing offices.**
Research and laboratory.
Retail sales of merchandise manufactured on site.
***Service organization.**
***Travel agency.**
~~Veterinary clinic.~~
Warehouse storage.
Wholesale sales.

SPECIAL USES

***Art galleries.**
***Carpet and upholstery cleaning.**
***Catering establishments.**
***Commissary Kitchen (commercial kitchen for lease)**
Community center.
Daycare center.
Drive-through facility.
***Fitness facilities, including one-on-one personal fitness training facilities and fitness class studios.**
***Funeral homes and funeral services, excluding cemeteries.**
***Light assembly manufacturing.**
~~Medical/dental office.~~
~~Music, dance or athletic school.~~
~~Other public uses and structures.~~
Parking structure or surface parking (as a principal use).
***Passenger car rental.**
Planned unit developments.
***Printing Trades.**
***Professional/higher education academy.**
Seasonal and temporary uses (see article XIX of this appendix A).
Self-storage (interior loading and storage).
Veterinary clinic.
***Wholesale trade.**

Figure 9: Recommended Zoning



Future Zoning

- V/C Village Center District
- Service Commercial District (Proposed)
- R-4 Single Family Dwelling
- R-6 Multiple Dwelling

Boundaries

- Village of Northfield
- Northfield Road Corridor Study Area
- Proposed Land Use Change

	2013 Zoning Map	Recommended Zoning Change
1	V/C Village Center District	No change
2	M-1 Light Manufacturing	Service Commercial
3	R-4 Single Family Dwelling	No change
4	M-1 Light Manufacturing	R-6 Multiple Dwelling

Village of Northfield, Illinois

Northfield Road Corridor Plan

50 100 Ft

NORTH

RECOMMENDATION 2:

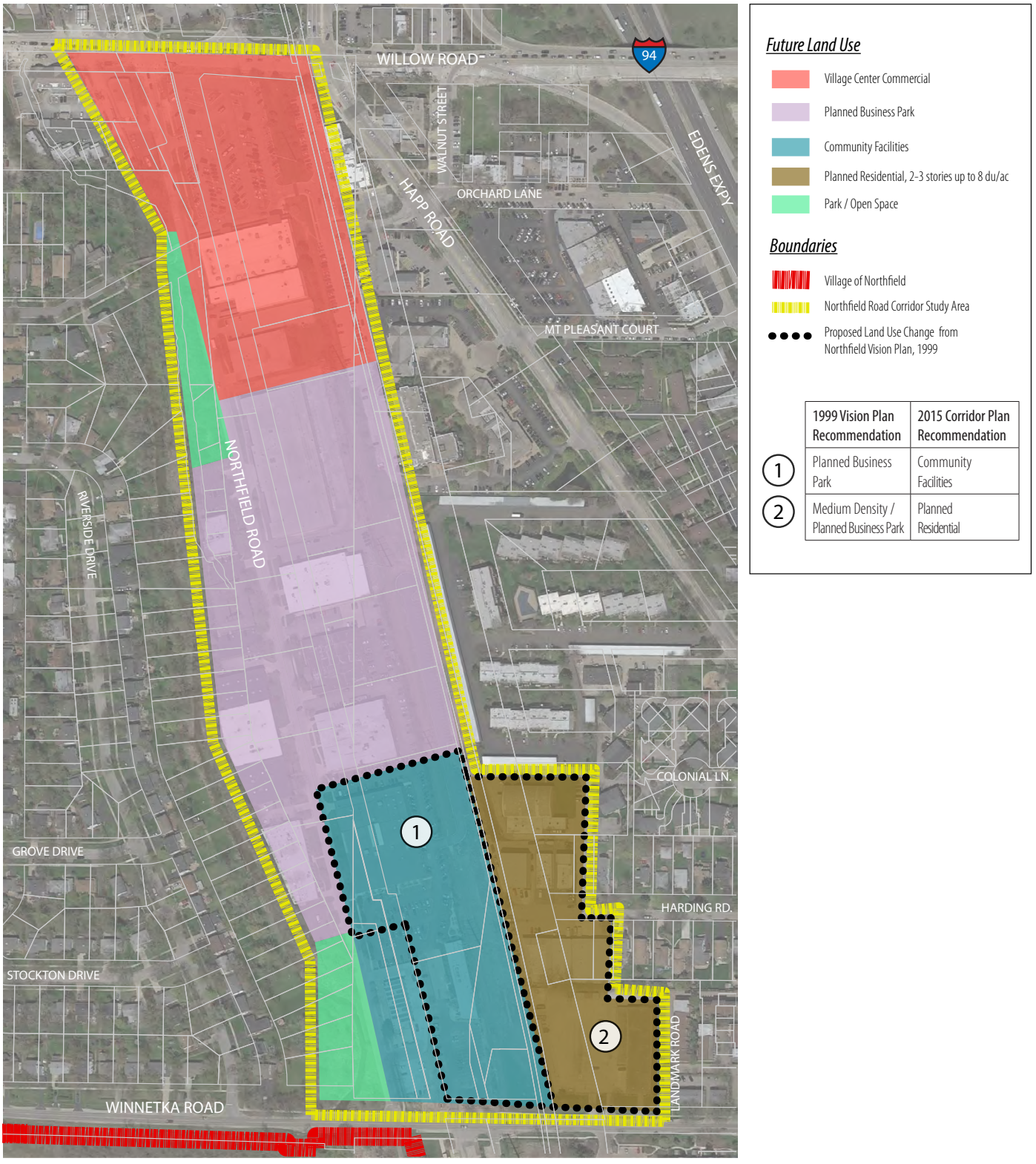
Revise the long range land use plan from 1999 Northfield Vision Plan in two subareas within the project area to reflect existing uses and future land use visions developed as part of this plan. These recommendations are based on land use analysis in the plan process and community input. The land use changes are reflected in Figure 10.

1. Revise Planned Business Park to Community Facilities: This subarea is home to the North Shore Senior Center, a regional destination for active senior citizens. The recently renovated building is considered a community facility that hosts public events rather than assembly or production as defined by the Planned Business Park uses. In addition, this area is home to the House of Welcome Adult Day Services, a facility for elderly with memory loss and Alzheimer's disease. It is a new community facility and should be designated accordingly.

2. Revise Planned Business Park and Medium Density Residential to Planned Residential: This subarea, currently occupied by light industrial businesses and an AT&T facility (for sale) should be revised as planned residential, which is a more compatible use with neighboring medium density and planned residential uses. According to the Northfield Vision Plan, Planned Residential could be occupied by attached or multiple-family dwellings including apartments, condominiums, or a mix of uses (including single family) often 2 – 3 story buildings of up to 8 dwelling units per acre[3]. Development and redevelopment in these areas are subject to approval of an overall unified development plan.

[3] *Northfield Vision Plan, Chapter Three: A Long-Range Plan, adopted November 22, 1999.*

Figure 10: Recommended Land Uses



	1999 Vision Plan Recommendation	2015 Corridor Plan Recommendation
1	Planned Business Park	Community Facilities
2	Medium Density / Planned Business Park	Planned Residential

Village of Northfield, Illinois

Northfield Road Corridor Plan

50 100 Ft

NORTH

RECOMMENDATION 3:
Consider redeveloping the current AT&T site into a multi-family development.

The site is currently occupied by an industrial use (one-story AT&T facility) with surplus parking and little benefit to the Village. A multi-family development would integrate with adjacent uses and would provide more variety in housing stock to the area.

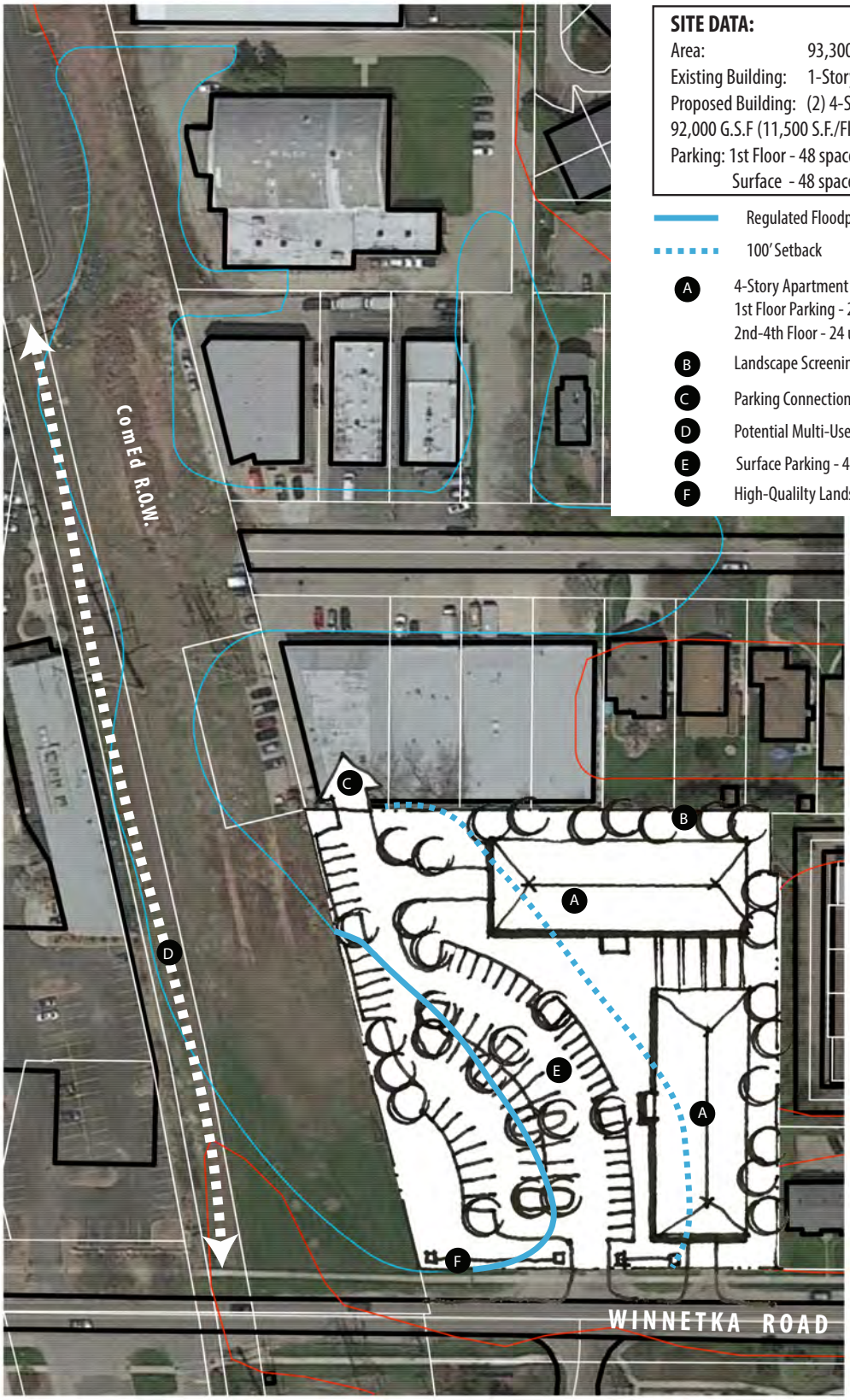
One possible concept (shown in Figure 11) has (2) four-story buildings with 48 total units. The development would have 48 first floor parking spaces and 48 surface spaces, with a 2.0 per unit parking ratio. The development accommodates the regulated floodplain. The concept considers a connection to adjacent properties along Harding Road to extend the residential development in the future as interest and market demand permits.

While the final form and intensity of development would be considered as part of a development proposal to the Village, alternative types of use and key design concepts also should be considered. For example, this concept could be a typical multi-family building, be age-targeted or developed specifically for seniors, particularly with complementary adjacent uses at the North Shore Senior Center and House of Welcome. From site planning and urban design perspectives, options for connecting (at least for pedestrians) to possible future residential redevelopment to the north should be maintained. In addition, notions of providing on-site open space and sustainable landscape treatments (especially given stormwater issues) should be considered.

While greater than allowed under current residential zoning, a higher intensity of development is required to address the unique development conditions of the site, including the restricting flood plain. The October 2015 report from Gruen Gruen + Associates confirms that a higher density, as suggested with this recommendation, is necessary for a financially feasible project. Beyond fiscal concerns, a somewhat more intensive development on this site merits consideration given the multi-family character of uses to the south, the higher traffic volumes on Winnetka Road, and proximity to the ComEd utility lines to the west.

Another alternative considered was to redevelop the current AT&T site to an owner occupied townhome development. The site accommodated fourteen rear loaded townhomes with private garage parking and public surface parking, but the development was limited by floodplain and 100' setback requirements as mandated by the MWRD. In fact, the October 2015 report from Gruen Gruen + Associates (Real Estate Economic Analysis of Zoning Options for Northfield Road) notes that a density higher than suggested in the townhome scenario would be required to encourage redevelopment. Site constraints, including the 100 year flood plain, would restrict density required to generate a fiscally responsible project.

Figure 11: Multi-Family Development Concept



SITE DATA:

Area: 93,300 S.F.
Existing Building: 1-Story 17,500 S.F.
Proposed Building: (2) 4-Story Apartment Buildings (48 units)
92,000 G.S.F (11,500 S.F./Floor)
Parking: 1st Floor - 48 spaces Parking Ratio: 2 per unit
Surface - 48 spaces

Regulated Floodplain

100' Setback

A 4-Story Apartment Building
1st Floor Parking - 28 spaces
2nd-4th Floor - 24 units @1,200 S.F./unit

B Landscape Screening/Buffer

C Parking Connections to Adjacent Property

D Potential Multi-Use Path (Railroad R.O.W.)

E Surface Parking - 48 Spaces

F High-Qualilty Landscape Treatments

NORTH

Village of Northfield, Illinois

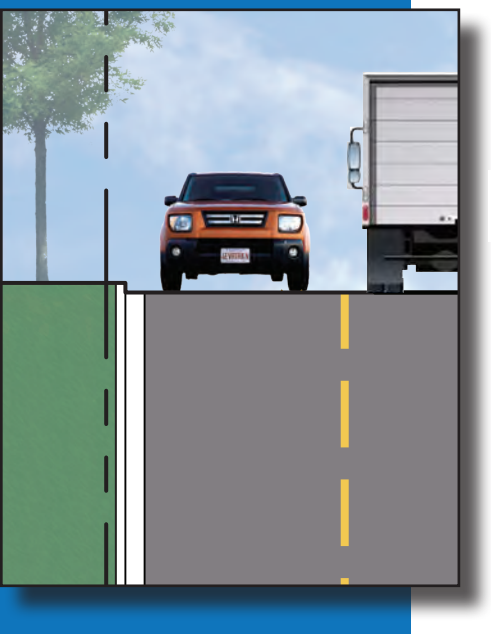
Northfield Road Corridor Plan

RECOMMENDATION 4:
Consider a long term plan of moving municipal uses from their current buildings to the Northfield Road corridor to make the existing high visibility sites at Willow Road and Happ Road available for commercial development.

The current Northfield Public Library, Northfield Village Hall and Police Department, located just northeast of the project area, were noted in the plan process as potentially re-developable land because they are highly visible and accessible along recently updated Willow Road and highly trafficked Happ Road. These uses, however, do not necessitate occupying such land and can be located in a less trafficked part of town allowing for economic development opportunities.

Moving and replacing these buildings to the project area on Northfield Road would produce economic activity, create a commercial gateway to Northfield and generate property and sales tax income at Willow Road and Happ Road. The public facilities could transition into a civic hub of activity along Northfield Road.

THIS PAGE IS INTENTIONALLY LEFT BLANK FOR DOUBLE SIDED PRINTING



SECTION 4

PARKING

PARKING

Providing a sufficient supply of parking for changing land uses is complicated: too few spaces may hinder leasing and redevelopment opportunities while too many spaces may be an opportunity cost because the land may be better used for something else. Parking supply and demand is particularly challenging for corridors experiencing a transition in uses, like the Northfield Road corridor, because new uses are utilizing old standards. In addition, these types of corridors face questions of potentially unique parking needs for certain businesses, as well as how demand fluctuates over the course of the day. Peak hours and days for different businesses create opportunities for shared facilities or flexible public parking to meet varied demands.

Parking is more than an issue of convenience, it also impacts economic development. If a prospective tenant or developer does not perceive enough parking, they may not occupy a space. Furthermore, if a customer cannot find convenient parking, he or she may move on to a competing business.

PARKING: EXISTING CONDITIONS FINDINGS

The parking lots designated for the Northfield Road corridor's buildings were built to suit manufacturing uses, which historically demanded little parking, rather than today's transition into service-oriented uses. Because the uses have evolved, parking supply has become increasingly tight. Likewise, stand-alone office buildings were developed several decades ago when parking requirements were lighter. Today's office uses require more parking, due in part to the smaller square feet consumed per employee to help maximize the efficient use of building space. Therefore, the corridor on the whole has a deficit in parking, as well as each sub-area of the district. Parking demand is also high because of the lack of other transportation options to and through the corridor.

A majority of the buildings located within the plan area are currently used for commercial or office functions, which require more parking than typical manufacturing uses. Offices were historically permitted within the M1 district when parking requirements were less than today. Due to the modern use of the space, tenants have reported a shortage of parking either overall or during peak business times. Peak parking times include drop-off times for fitness and childcare facilities, weekend shopping at Mariano's, and daytime programming for public uses. For instance, Mariano's is under-parked per corporate guidelines with 4.6 cars per 1,000 square feet, whereas they typically require approximately 6 cars per 1,000 square feet.

Public parking lots are available along the northeast side of the plan area, within the ComEd ROW and adjacent to the UPRR ROW, which alleviates some parking problems but not all. Most businesses cannot take advantage of this parking because there is a lack of accessibility across the UPRR ROW, it is too far to be considered convenient, and lacks wayfinding signage to make the parking easy to find. There is no public parking allowed along the length of Northfield Road on either side. However, temporary use by loading trucks or people picking up and dropping off at the day care or baseball academy are common.

Parking surplus and deficits are noted in the table below. Surplus parking was found at the AT&T site, the public uses, retail and public parking lots (which are not paired with a building's demand). Deficit parking was found at commercial, light industrial and office uses. It should be noted that the surpluses shown do not offset the deficits because the surpluses relate to sites that are underutilized or hard to access.

Table 1: Parking Surplus / Deficit

	Building (SF)	Parking Supply	Parking Requirement	Parking Surplus / (Deficit)
AT&T	17,420	152	32	120
Commercial	209,365	290	699	(409)
Light Industrial	50,915	60	93	(33)
Office	77,080	93	257	(164)
Public Facilities	64,620	336	215	121
Public Parking Lots		162	0	162
Retail	46,030	212	184	28
Total	**465,430**	**1,305**	**1,480**	

Temporary and ad hoc parking is seen in the corridor, primarily related to pick up and drop off type uses such as day care and sports training uses. This includes on-street queuing or waiting to pick up children, and using otherwise abandoned driveways as parking spaces. This type of parking creates potential conflicts with local traffic and emergency vehicles because the station is located at the south end of Northfield Road and the corridor is a major access way for the Northfield Fire Department.

PARKING OBJECTIVES

- Increase parking along Northfield Road.
- Consider shared parking for peak business hours.
- Reevaluate village parking standards to reflect realistic parking demand.
- Improve access and visibility of public parking lots along the ComEd ROW.

PARKING RECOMMENDATIONS

RECOMMENDATION 1:

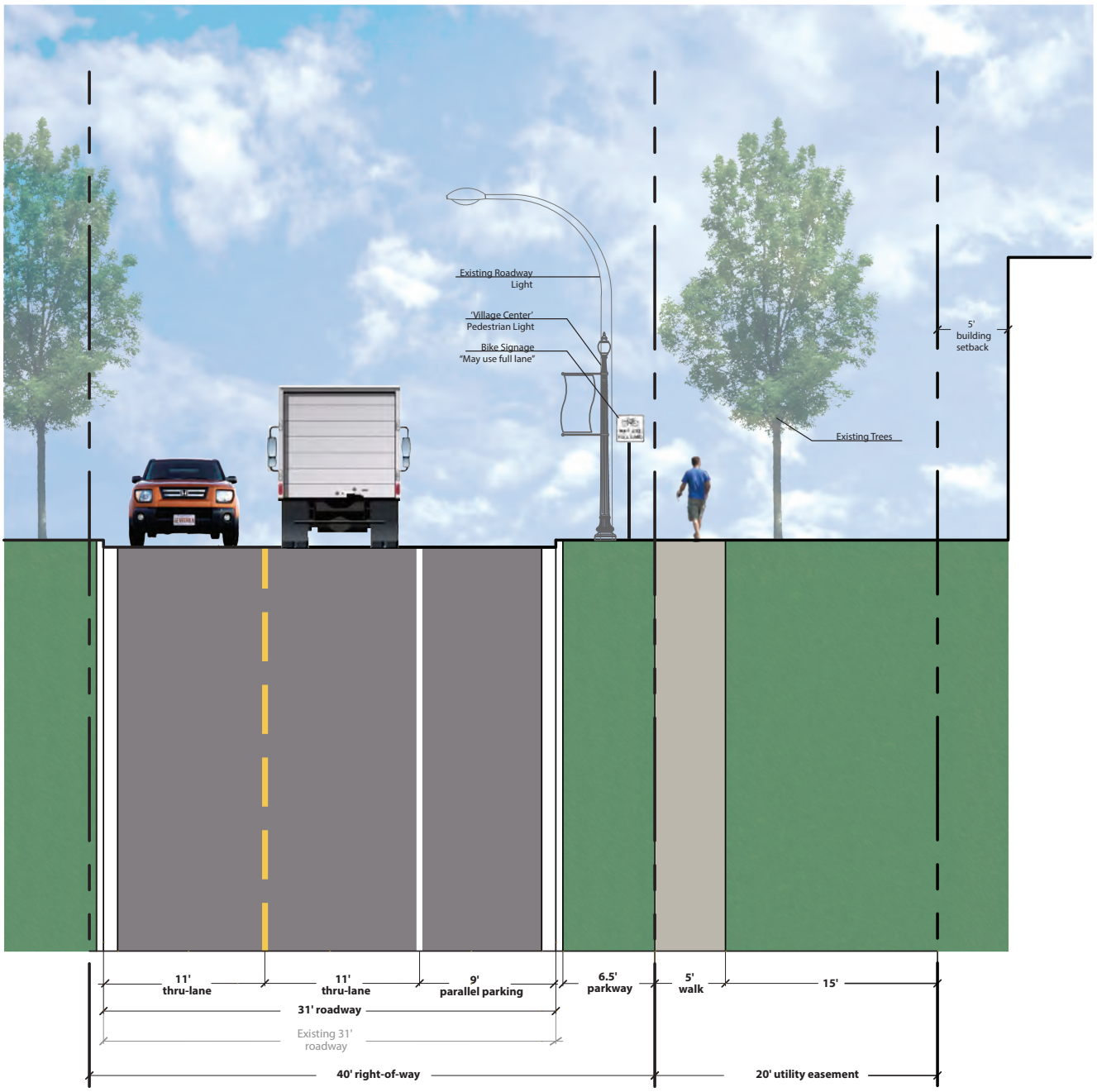
Establishing a parking lane along Northfield Road.

Reconfiguring Northfield Road to include a 9-foot-wide parking lane, as depicted in the figure on the following page, would help alleviate parking problems as cited by business owners. The east side of Northfield Road is preferred for parking as it includes a sidewalk. Due to right of way limitation, a sidewalk cannot be accommodated on the west side of the roadway. Even though the west side can accommodate more new parking spaces (61 versus 40 on the east side) the lack of a sidewalk limits the desirability of that parking configuration.

As for the timing, the Village may also consider initially striping the road for a bicycle lane until availability of a trail on railroad right of way is resolved; restriping for parking could be done at a later time. In any event, this flexibility is feasible given that limited traffic on Northfield Roads supports creating a safe, attractive and practical location for added corridor parking or bicycle use. In addition, these options all fit within the current roadway pavement width, which is planned to be maintained after a pending road reconstructed.

A single lane of on-street parking is recommended over other options, such as cutting out a parking lane from the existing right-of-way or consolidating parking on a single site. From a traffic stand point, the on-street parking design is appropriate and safe given the low traffic counts along Northfield Road (as will be described later). From an aesthetic point of view, placing the parking lane within the existing road profile is desirable in that it maintains the broad grassy right-of-way area flanking the roadway. Alternatively, if a building was replaced by a surface parking lot (an alternative evaluated but dismissed), parking spaces would be concentrated in one location along the corridor rather than dispersing parking along the length of the corridor; limiting access to and usefulness of those spaces.

Figure 12: Streetscape Section, Parallel Parking



RECOMMENDATION 2:
Set Village parking standards to reflect current demand and use of shared parking.

	Current parking requirements	Recommended parking requirements
Business / service uses (incl. offices)	1 per 300 square feet	No change
Business / retail uses	1 per 250 square feet	No change
Self-storage facility	10 minimum spaces plus 1 per employee	0.2 spaces per 1,000 square feet
Health or fitness club	1 per 200 square feet	No change
Personal training facility	1 per client at maximum capacity and 1 per staff member	No change
Daycare centers and preschools	1 per employee and 1 per every 6 students	1 per employee at peak time and 1 per every 10 students
Schools, music and dance	1 per employee and 1 per every 2 students	1 per employee and 1 per every 5 students
Medical and dental clinics	1 per 200 square feet	1 per 250 square feet

Medical uses may be particularly noteworthy as there often is concern over parking demand related to those uses; demand is generally considered higher than other offices due to medical office business operations[4]. However, facilitating new medical uses in the corridor (or elsewhere) may be desirable as they are becoming a more common commercial tenant. Therefore, the land use recommendations of this plan suggest medical offices as a permitted use. Such a change should be made with the corresponding parking recommendation above.

RECOMMENDATION 3:
Develop a shared parking concept between corridor properties.

Service oriented businesses typically have peak parking periods throughout any given day. Some provide time sensitive services, such as those providing childcare or exercise classes, while others provide training services, such as the baseball academy. Other facilities, such as the North Shore Senior Center, host heavily attended events at various times each day and basic services demanding less parking at other times each day. Because of this ebb and flow of patrons and parking demand, a shared parking concept is recommended to maximize to use of available surface parking lots.

The Village of Northfield's zoning ordinance parking regulations (Article XX. Off Street Parking, Loading, Traffic and Access Regulations) control how and where parking is located –requiring that parking be located on site or secured off site, within certain restrictions. As with most communities, limitations exist on how parking can be shared with other properties – so as not to diminish parking required by code and needed by users; this would just shift the parking issue to another site. Given the unique characteristics of uses and properties along Northfield Road, the code should be evaluated to accommodate shared parking among properties and building tenants. If one building has a parking surplus, per parking requirements or a tenant/owner's actual use, the building should have the ability to lease unneeded parking spaces to adjacent and/or nearby buildings to meet demand. As it currently stands, properties cannot share surplus parking even if their actual demand is less than zoning requirements. A straightforward administrative approval for such sharing should be applied as it is a low-cost step that responds to site specific parking needs and options.

[4] Office buildings demand 2.47 spaces per 1,000 square feet whereas medical office buildings demand 4 spaces per 1,000 square feet, Parking Generation, Institute of Transportation Engineers, 4th Edition 2010.

RECOMMENDATION 4:
Create cross access between parking lots.

Many of the private parking lots along Northfield Road have barriers via privacy walls, landscaping, or parking lot striping that prevent cross access between lots. Opening these barriers would facilitate mutually beneficial shared parking. Connecting parking lots via vehicular access points would also improve corridor circulation, could help motorists save time when seeking a parking space, and could help improve safety by creating more points of egress. The Village can use the opportunity provided by the special use approval process to encourage communication between property owners.

RECOMMENDATION 5:
Designate (and sign) drop-off and short term parking locations along Northfield Road parking lane.

Motorists currently use driveways or a traffic lane for quick drop-offs, rather than using an actual parking space, because spaces are inconveniently located or full. The result is double-parked cars and drop-off traffic that is dangerous and aggravating to drivers simply traveling along Northfield Road.

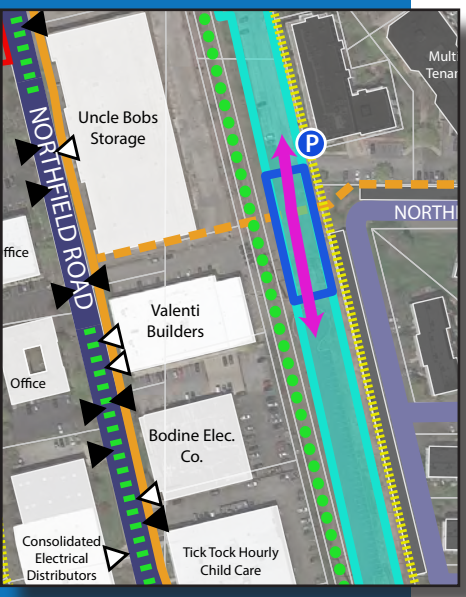
Designating and installing signs for short term parking in the recommended parking lane (see Parking: Recommendation 1) will reserve space for drop off or short term parking. This parking will respond to the demand for users needing to drop off passengers at exercise, day care, senior center facilities and others. For example, 15 – minute parking spaces will reserve spaces for quick needs, rather than employees or patrons needing to park for several hours.

This is a preferred recommendation compared to establishing circle driveways intended for quick drop-offs. Circle driveways are far more expensive, they would encroach on a potential widened sidewalk (see Connectivity: Recommendation 1, Option 3), and pose the same safety issues as current double-parking.

RECOMMENDATION 6:
Create signage for public lots to designate employee, resident and customer parking.

Employees of Northfield Road corridor businesses, particularly from Mariano's, currently are requested to park in more distant public parking lots to reserve prime spaces for customers. However, many are reported as parking in closer prime spaces, especially during inclement weather. This leaves fewer spaces for customers. Likewise, when prime parking spaces fill, patrons may not be aware of nearby public parking lots.

Designing directional signage communicating the whereabouts and distance to public parking lots will help encourage employees and patrons to utilize available parking along the east side of the ComEd ROW and UPRR ROW. Communicating this availability can help reduce parking lot congestion and confusion.



SECTION 5

CONNECTIVITY

CONNECTIVITY

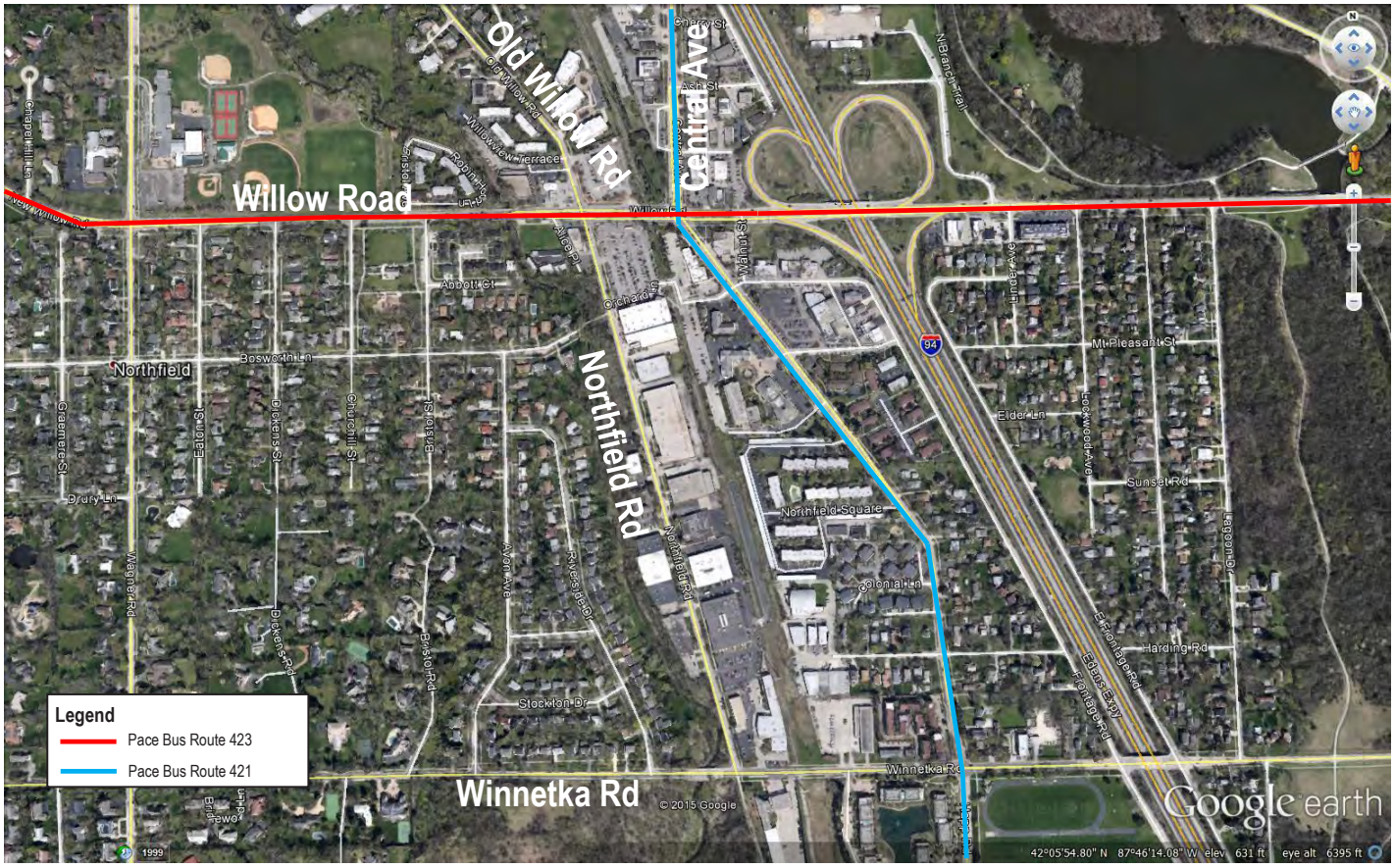
Northfield Road was originally built adjacent to rail with connections to Orchard Road to the north and Winnetka Road one-half mile to the south. The rail line limited east – west connection. With the rail line no longer used, opportunities exist to enhance connectivity for nearby businesses and residents, as well as those who travel from and beyond the corridor on foot or on bicycle. This section focuses on people who use the corridor by means other than automobiles.

CONNECTIVITY: EXISTING CONDITIONS FINDINGS

Corridor connectivity, defined as accessibility for pedestrians and cyclists, is an important element within a community network. Several connectivity related issues were identified during the planning program:

- Because there are so few connections between Northfield Road and the Village Center, pedestrians and cyclists need to travel north to Willow Road or south to Winnetka Road rather than connecting across the ComEd and UP rights-of-ways.
- While transportation planning associated with automobiles is of critical importance within the study area, alternative modes of transportation are also a significant component of urban transportation planning. Walking, bicycling and transit are all alternative modes that can be reinforced throughout the study area to limit vehicle use. Through careful improvements to infrastructure and well-coordinated land use planning, access between compatible land uses, such as multi-use trails and bike parking, can be emphasized.
- Bicycling facilities, such as bike lanes or multi-use paths are not provided along the corridor. The North Branch Trail (15-mile, mostly paved, multi-use trail following the North Branch of the Chicago River and the Skokie River through the northern suburbs of Chicago, including Northfield) is located within close proximity to the study area. A trail entrance/exit is located on the southern end of the intersection at Winnetka Road and Northfield Road and a village-owned easement is located north of Willow Road and east of Old Willow Road and continues north of the project area. There is little information provided to bikers at that point indicating how to proceed to other trails located to the east or north. Potential to connect the bike trail further north exists north of Willow Road along a Village controlled easement.
- The pedestrian experience along the corridor area street is good, although could be improved because sidewalks are limited to the east side of Northfield Road.
- Two Pace bus routes (#423, #421) serve the study area (see the figure on the following page). Metra commuter rail service is not available within the corridor area. The Winnetka (Elm Street) Station is located about two miles east along Willow Road and is accessible via the #423 Pace bus route.
- Planning for improved connectivity will necessitate awareness of the challenges surrounding the Mariano's loading docks and adjacent residences and should consider coordination with the proposed Happ Road traffic circle and Winnetka Road / Happ Road traffic light.
- Establishing connectivity helps to improve residents' health, households' budgets and businesses' visibility. As discussed in the Chicago Metropolitan Agency for Planning's (CMAP's) Complete Streets report, people living in walkable neighborhoods did about 35-45 more minutes of moderate intensity physical activity per week and were substantially less likely to be overweight or obese than similar people living in low walkability neighborhoods[5]. Additionally, households can save on transportation expenses[6] and businesses can benefit from increased exposure generated by pedestrian and bicycle-friendly activities.
- Plans that implement complete streets objectives, which is a transportation policy and design approach providing access for all roadway users, can be eligible for federal CMAQ funds (the Congestion Mitigation and Air Quality program) for surface transportation improvements designed to improve air quality and mitigate congestion which can further incentivize this approach.

Figure 13: Bus Route Map



CONNECTIVITY OBJECTIVES

- Create connections between Northfield Road and the Village Center, as well as the Harding Road area.
- Enhance connectivity with a bike or multi-use path.
- Accommodate pedestrians and cyclists in addition to motorists along the corridor.
- Designate the ComEd ROW for cars and parking and the UPRR ROW for bikes and pedestrians.

[5] *Sallis, James F, et al. (2009). "Neighborhood built environment and income: Examining multiple health outcomes." Social Science and Medicine 68:1285-1293.*
[6] *Complete Streets: The Basics, Chicago Metropolitan Agency for Planning, March 2015.*

CONNECTIVITY RECOMMENDATIONS

RECOMMENDATION 1:
Design and install a multi-use path connection north of Winnetka Road to Willow Road to accommodate pedestrians and cyclists providing continuity to regional trails. It should be noted that several options for accomplishing this recommendation exist, as noted below.

Option 1: A new multi-use trail along the UPRR ROW will create a unique amenity for Northfield residents, employees and visitors. The trail will accommodate pedestrians and cyclists connecting them from the Forest Preserve District of Cook County trailhead at Winnetka Road to established paths north of the project area.

This is the best case scenario because it provides a protected area for a myriad of trail users and can be a key connection to a regional system. Currently, Northfield residents and visitors find the truncated trailhead at Winnetka Road to be disruptive and discouraging to use. Creating a multi-use trail along the abandoned railroad is a desirable way to activate the space to the benefit of the Village and the region. This concept has been in process for many years and potential users are increasingly interested in implementation. Other communities would envy a vacated open space for a multi-use trail; the Village of Northfield should continue working to secure use of this space for a desirable community and regional amenity.

Option 2: Design a bicycle path along the ComEd ROW adjacent to existing surface parking lots. If access to the UPRR ROW is not feasible in the near term, an alternative multi-use path should be developed along the ComEd ROW, alongside public parking lots. This option, which would require entering into a lease with ComEd, would allow for greater connectivity through the corridor and to provide a connection between Forest Preserve District of Cook County trails north and south of the project area. ComEd transmission towers can be masked by art or light installations while still providing access for utility workers.

This multi-use path could also provide much needed connectivity, but is not as desirable as option 1. It likely would infringe on public parking opportunities and not be as expansive as the ideal UPRR ROW multi-use path option.

Even when the UPRR leased multi-use path becomes a reality at a later date, the ComEd ROW path already established can be beneficial to the community. One could serve as an alternate path for casual walkers and bicyclists, the other available to more intensive regional recreational riders.

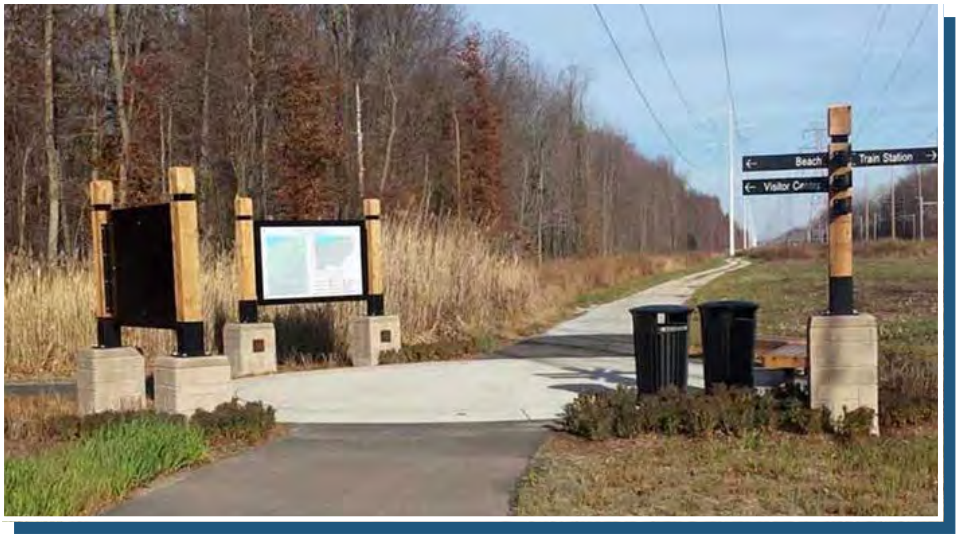
Option 3: Widen the sidewalk along the east side of Northfield Road to accommodate a path. If multi-use paths are not feasible along the UPRR ROW or ComEd ROW, then the sidewalk meandering along the east side of Northfield Road should be widened to at least ten- to twelve-feet to accommodate pedestrians and cyclists. Creating this protected path is desirable because it would create a safe thoroughfare for bicyclists and would not interfere with automobiles.

This wider sidewalk would be intended for casual walkers and bicyclists, while the Northfield Road ROW would remain the primary space for performance cyclists. The sidewalk would provide for a protected space for youth, families and elderly to enjoy the space without the safety concerns of riding along the street.

MULTI-USE PATH CHARACTER IMAGES

This bike trail photo is an example of how a striped asphalt bike path may be employed along the Union Pacific ROW to connect Winnetka Road with Willow Road. Note that the split rail fence and mown lawn edge along the bike path contributes to a manicured appearance with upright native grasses in the background.

The bike trail should include bike amenities such as bike racks, directional signage and bike repair station. The image to the right illustrates a repair station that could be considered a destination for cyclists traveling throughout regional trails.



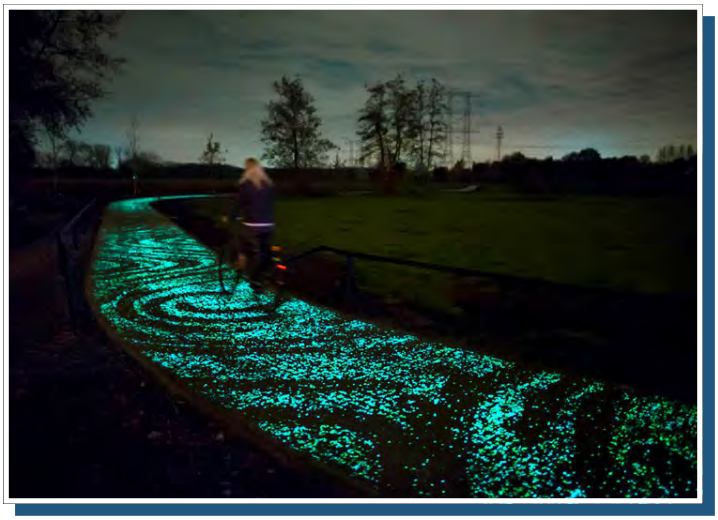
The Northfield bike trail may include nodes such as these that incorporate wayfinding signs, directional maps, site furnishings and plantings. Note the use of masonry, wood and metal materials that reflect durable and natural materials.

Pronounced gateway signage, such as this arch along the Cal-Sag Trail would promote the Northfield trailhead, as well as positive community identity.

Northfield's trail may be treated as an urban art gallery through which bikers ride past rotating art exhibits, such as these along the North Shore Sculpture Park in Skokie.

The Northfield trail should incorporate places to get off of the path and rest, as pictured here with seat height cut stone boulders amidst native plantings.

Dutch bike trails have a solar powered trail surface which produces solar energy. Located near ComEd power lines in Northfield, the community may consider similar technology to acknowledge the lines and serve as a green power source.



This photo example is of a trail which contributes nighttime character via public art. This example from a Dutch town uses LED lights to reinterpret Van Gogh's "Starry Night". Northfield may consider art that interprets its location along the river or local history.

Public art along the trail may consider masking the sounds of overhead utility lines with art that has an audial expression, such as this cloud installation example in Korea.

RECOMMENDATION 2:
Establish shared-lane street markings to indicate where cyclists should preferably cycle.

Northfield Road is currently utilized by cyclists, so they should be accommodated in addition to motorists. A shared-lane street marking (sharrow) painted north- and south-bound on Northfield Road would assist cyclists in lane positioning in order to reduce the chance of being impacted by a park car door opening (see Parking Recommendation #1). This marking will help alert motorists of cyclists' presence and will encourage safe passing of bicyclists by motorists. Finally, sharrows are intended to decrease the incidence of wrong-way bicycling.

An alternative to serve bicyclists would be to designate on-street bike lanes, north- and south-bound along Northfield Road, but that would take the place of the on-street parking lane (see Parking Recommendation #1), which is considered to be more broadly beneficial based on the objective of this plan. Further, the low traffic volume on Northfield Road is not found to merit dedicated bike lanes based on national traffic standards. For these reasons, the dedicated bike lanes are not recommended as part of this plan.

Figure 14: Sharrow Character Images

RECOMMENDATION 3:
Install "share the road" signage as a method of educating drivers and protecting the safety of cyclists. "Share the Road" signs serve to help motorists be more aware that bicyclists might be on the road and that they have a legal right to use the roadway.

The signs should be placed along Northfield Road, especially near Winnetka Road, to alert motorists that bicyclists may be merging into the roadway. The signs should be placed in each direction. "Share the Road" signs are a low-cost way to educate motorists and enhance the safety of cyclists.

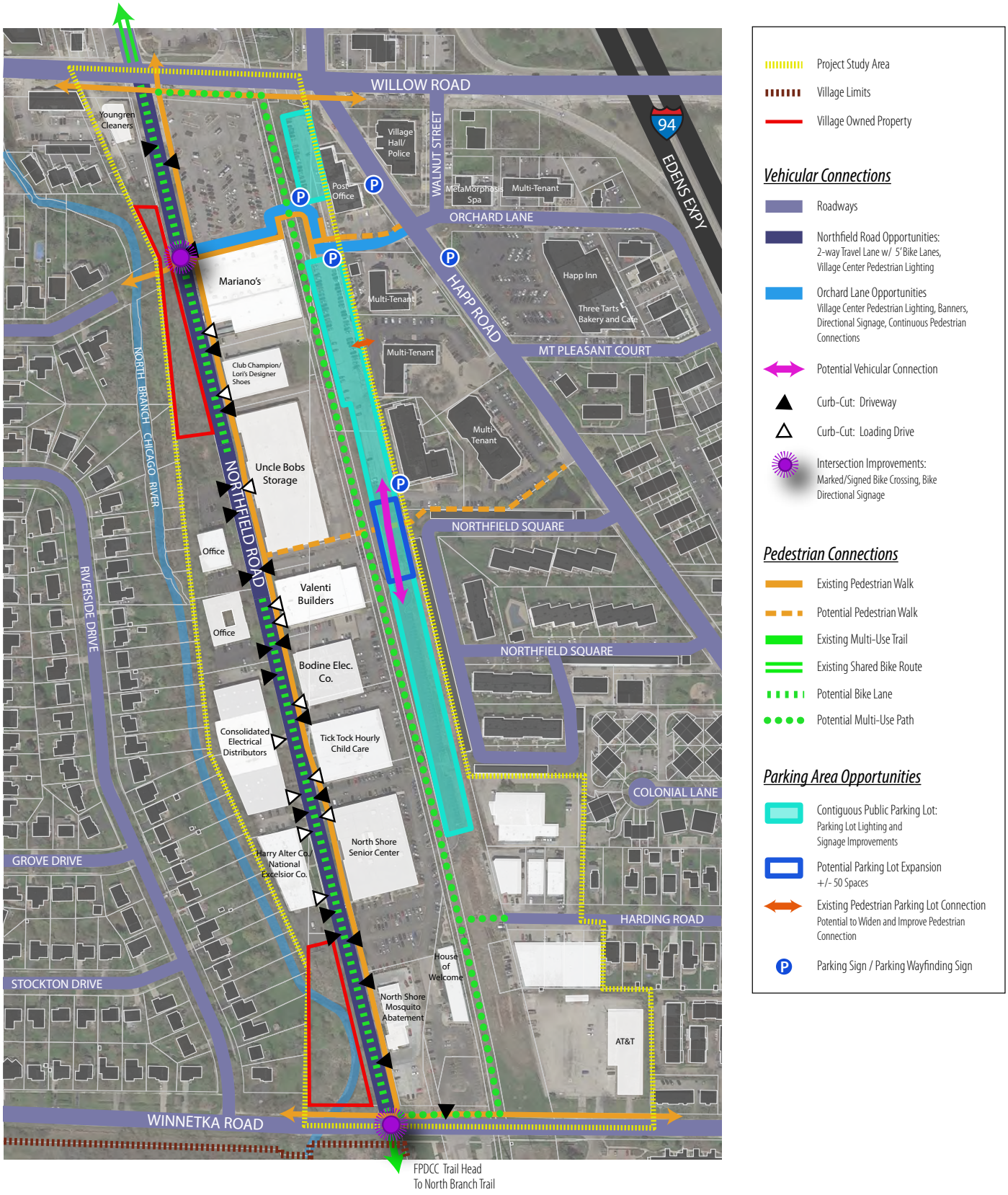
Figure 15: Share the Road Character Image

RECOMMENDATION 4:
Enhance walkability throughout the corridor by creating two access points along the UPRR / ComEd ROW by installing wayfinding signage.

- The existing access point connecting Mariano's with the Village Center should be enhanced with dedicated sidewalks and pedestrian-crossing signage. The pedestrian walk should be extended from the bridge connecting to Bosworth Lane, across the enhanced Mariano's plaza (see Circulation Recommendation #1), and through to Happ Road.
- A new access point is recommended south of Uncle Bob's Storage and north of Valenti Builders connecting Northfield Road with the Village Center. This pedestrian access should be extended along Northfield Square to connect with Happ Road. Wayfinding signage should be installed along access points to direct pedestrians toward public parking and Village Center amenities.

This location is considered optimal because it is located approximately halfway through the corridor and serves a distinct purpose for pedestrians wishing to access the Village Center without traveling north to Orchard Lane / Willow Road or south to Winnetka Road. Creating an access point that extends to Northfield Square improves the accessibility and vitality of the Village Center. It should be noted that this recommendation would require approval from the UPRR because it would traverse the ROW.

Figure 16: Connections and Opportunities

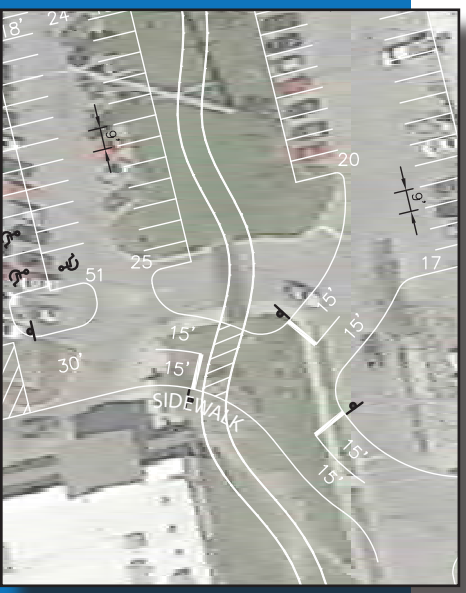


Village of Northfield, Illinois

Northfield Road Corridor Plan

50 100 Ft

NORTH



SECTION 6

CIRCULATION

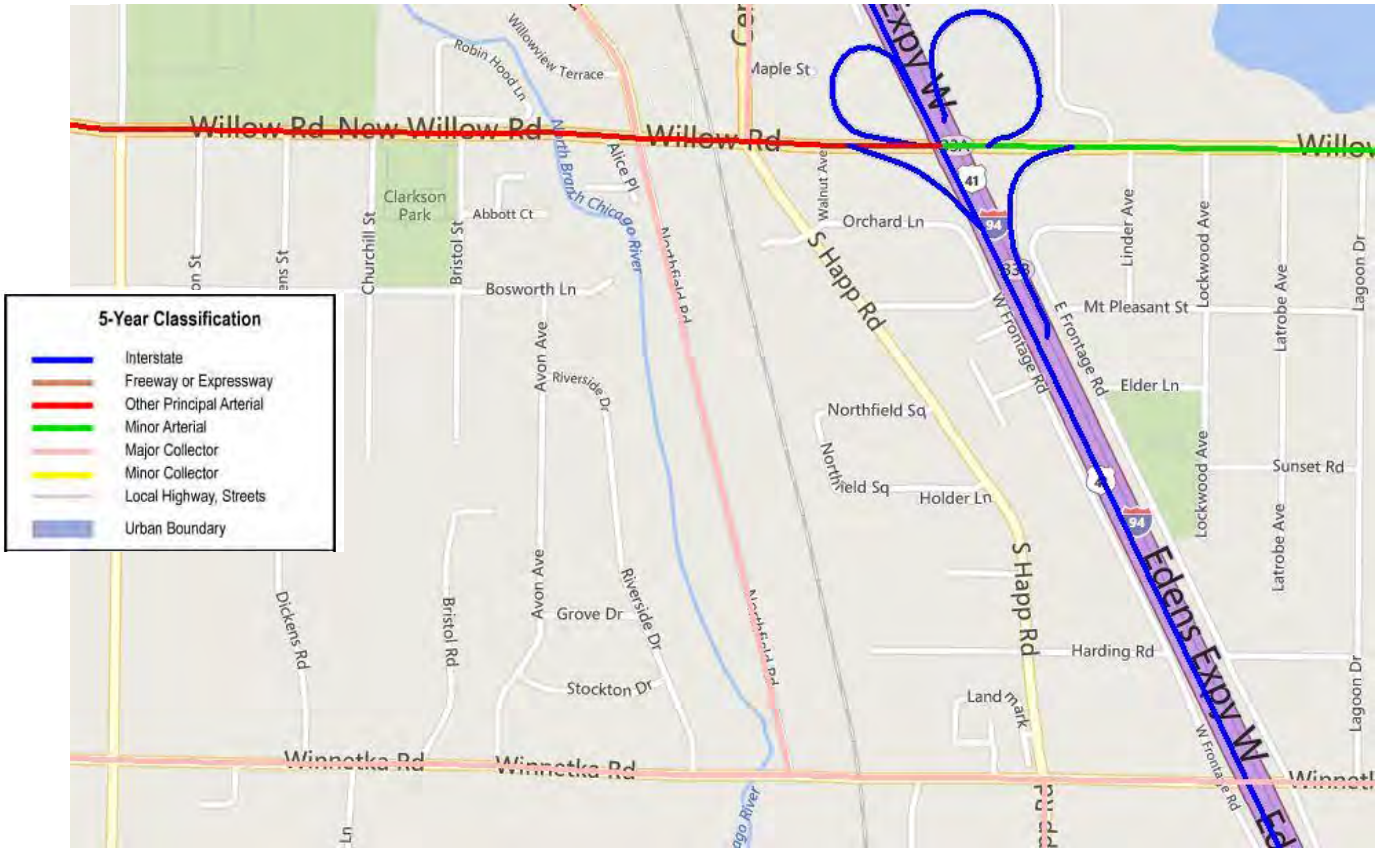
CIRCULATION

Efficient circulation through a corridor and the broader community is critical for employees and residents. The condition of roads, traffic flow due to stop signs and stop lights, and intersections that facilitate greater navigability all merit consideration. Rights-of-way only cover a small fraction of land but account for a primary use which can help or hinder the activity through a corridor. Just as this evaluation seeks to highlight the benefits of creating opportunities for pedestrians and bicyclists, it acknowledges the significance of car use in the area and that this will remain the primary mode of transportation in the study area. With that understanding, this section will discuss findings of existing circulation patterns of automobiles as well as concepts to remedy existing congestion.

CIRCULATION: EXISTING CONDITIONS FINDINGS

The roadways within the study area are classified according to the character of service they are intended to provide. This functional classification process recognizes a hierarchy of roadways and the fact that they do not function independently, but as a system-wide supportive network. The hierarchy classifications, as defined by the Illinois Department of Transportation (IDOT), found within the corridor area 'other principal arterial' (Willow Road) and 'major collector' (Northfield Road, Winnetka Road, and Old Willow Road). The figure below depicts the functional classification of the roadways within the corridor area as defined by IDOT.

Figure 17: Functional Classification Map



Roadway jurisdiction determines how the roadway functions, is maintained and the level of control a municipality has regarding the road and development on adjacent properties. The roadways within the corridor area are under the jurisdiction of IDOT (Willow Road) and the Village of Northfield (Northfield Road, Harding Road, and Old Willow Road), as well as Cook County (Winnetka Road).

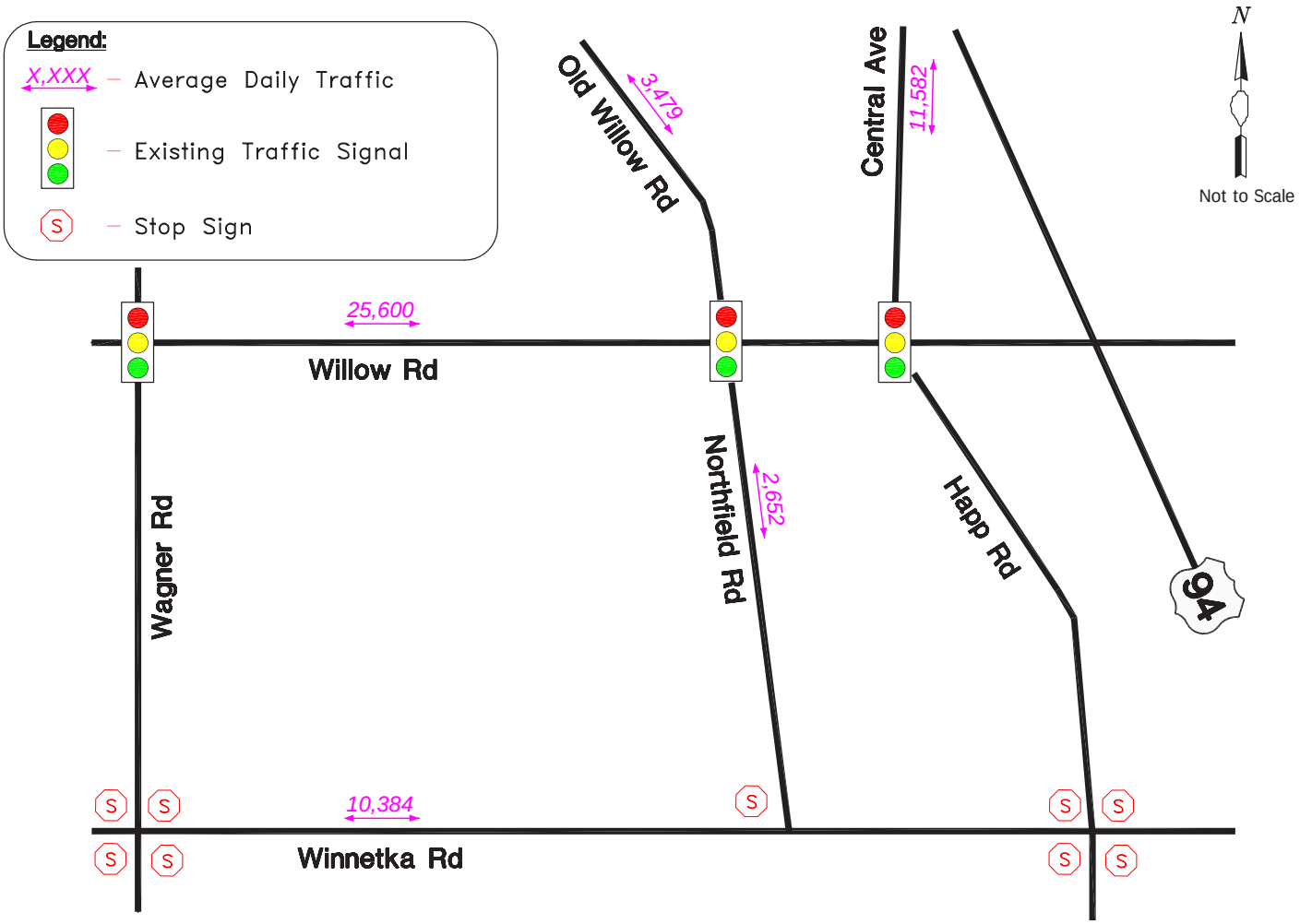
Traffic control devices are an important component of public safety and efficient traffic movement. Traffic control is determined, among other things, by roadway volumes, intersecting roadways, pedestrian considerations, and accident data. Traffic control is maintained by the agency with jurisdiction over the roadway. This also requires coordination and cooperation among agencies. Traffic signals are strategically placed along primary travel corridors to help promote traffic flow and public safety. Figure 18 depicts the corridor area intersections (Willow Road and Northfield Road) operating under traffic signal control. The remaining corridor area intersection (Northfield Road and Winnetka Road) operates under minor street two-way stop control.

Traffic volume is a key factor for understanding roadway operations. Volume measurements are taken in a number of ways, one standard being Average Daily Traffic (ADT). Traffic counts were obtained along the study area roadways from IDOT's annual count program and supplemented with traffic count data from recent studies performed in the study area. The ADT along the corridor area roadways is illustrated in Figure 18. The ADT along Willow Road is from IDOT's 2014 traffic counts and the traffic counts along Old Willow Road, Northfield Road, and Winnetka Road were obtained from GHA's 2015 traffic counts completed as part of a yearly contract with IDOT.

- Average daily traffic counts for Northfield Road are 2,652, Willow Road are 25,600 and Winnetka Road are 10,384 (see Figure 18: Existing Traffic Map).
- Northfield Road ends at a T intersection with Winnetka Road on the south. It continues north of Willow Road (beyond the study area) through an intersection controlled by a stoplight at Willow Road. North of Willow Road, Northfield Road becomes Old Willow Road.
- Approximately 4% of Northfield Road's traffic is generated by trucks, which is average for the area.
- Northfield Road traffic is expected to decrease by about 10% once Willow Road construction is complete because some drivers have presumably used Northfield Road to avoid driving through the construction zone. This is evidenced by the impact of comparable construction projects in the region.

Northfield Road currently carries approximately 20% of its "vehicle carrying" capacity and should not be considered sufficient to support typical retail and convenience commercial uses. Developers and brokers for such uses would indicate that approximately 20,000 ADT is a common threshold for attracting those businesses. Under existing conditions, Northfield Road sites appear to be more suitable for destination businesses such as training facilities or childcare.

Figure 18: Existing Traffic Map



Several circulation / traffic related issues have been identified during the existing conditions analysis:

- Employees working along the corridor have reported driving to the Village Center (flanking Happ Road south of Willow Road) rather than walking (which they noted they'd prefer to do) because of the lack of pedestrian access across the UPRR / ComEd ROW. Specifically, cutting through the Mariano's parking lot was a preferred route. This adds to the amount of traffic along the corridor.
- New circulation problems were reported by residents of the Crooked Creek development and the commercial center located northwest of the Willow Road / Northfield Road intersection along Alice Place. These six households cannot access their homes when traveling westbound on Willow Road because of a raised median constructed as part of the IDOT Willow Road widening project. The households must travel west to Wagner Road where they can turn around to travel eastbound then turn right into their units. A privately owned dry cleaner's parking lot was temporarily used as a pass through from Alice Place to Northfield Road and remedy to this situation, but that access has been restricted by the property owner.
- A further impact of the raised median is that emergency vehicles anticipate turning into oncoming traffic if they need to access the Crooked Creek residences. These vehicles will need to travel north along Northfield Road, turn left into oncoming traffic, then navigate south on the small Alice Place road which abuts Crooked Creek. Along these lines, it should be noted that for the Fire Department, Northfield Road is a primary route to all emergency trips north of Willow Road in the Village.
- Drivers reported using the Mariano's parking lot as a through-way to access Happ Road, which is currently a parking lot but historically an extension of Orchard Lane which leads into the Village Center. The existing condition adds unintended traffic through the parking

lot, controlled only by temporary stop signs that are not universally obeyed. Because motorists are already using this as a through-way, consideration can be given to safety elements such as traffic calming features such as decorative paving.

- The loading docks behind the Mariano's grocery store have been problematic. Delivery trucks often block Northfield Road which causes a disruption for cars and safety issue for pedestrians and cyclists.
- Circulation issues were also noted regarding the two access points to the Senior Center's overflow parking lot. The limited access points cause congestion during peak activity times.
- The Northfield Road / Winnetka Road three-way intersection had a temporary stop sign to help manage increased traffic as a result of Willow Road construction. This sign has since been removed and feedback has been mixed: motorists turning off of Northfield Road overwhelmingly preferred the stop sign but motorists traveling east or west along Winnetka Road found the stop sign to be disruptive and interrupt an already busy road, particularly due to high school traffic. Phase I of a traffic light study at Happ Road and Winnetka Road is planned. That study will consider whether a traffic control signalization should be installed at that intersection. Should that occur, the traffic along Winnetka is expected to see gaps in traffic to allow for improved egress off of southbound Northfield Road. A determination of future traffic control at the intersection of Winnetka Avenue and Northfield Road will be based on that future condition.
- The high number of curb cuts along Northfield Road impacts circulation, urban design, and parking opportunities along the corridor.

CIRCULATION OBJECTIVES

- Establish a connection along Alice Place for Crooked Creek residents, commercial properties and emergency vehicles because the new median along Willow Road impedes access to the properties.
- Enhance connections to the Village Center and Happ Road from the study area.
- Improve access to the Senior Center overflow parking lot.
- Manage truck circulation and access adjacent to the Mariano's site per recommendations in the comprehensive plan[7].
- Encourage the elimination of unnecessary curb cuts.

CIRCULATION RECOMMENDATIONS

RECOMMENDATION 1:

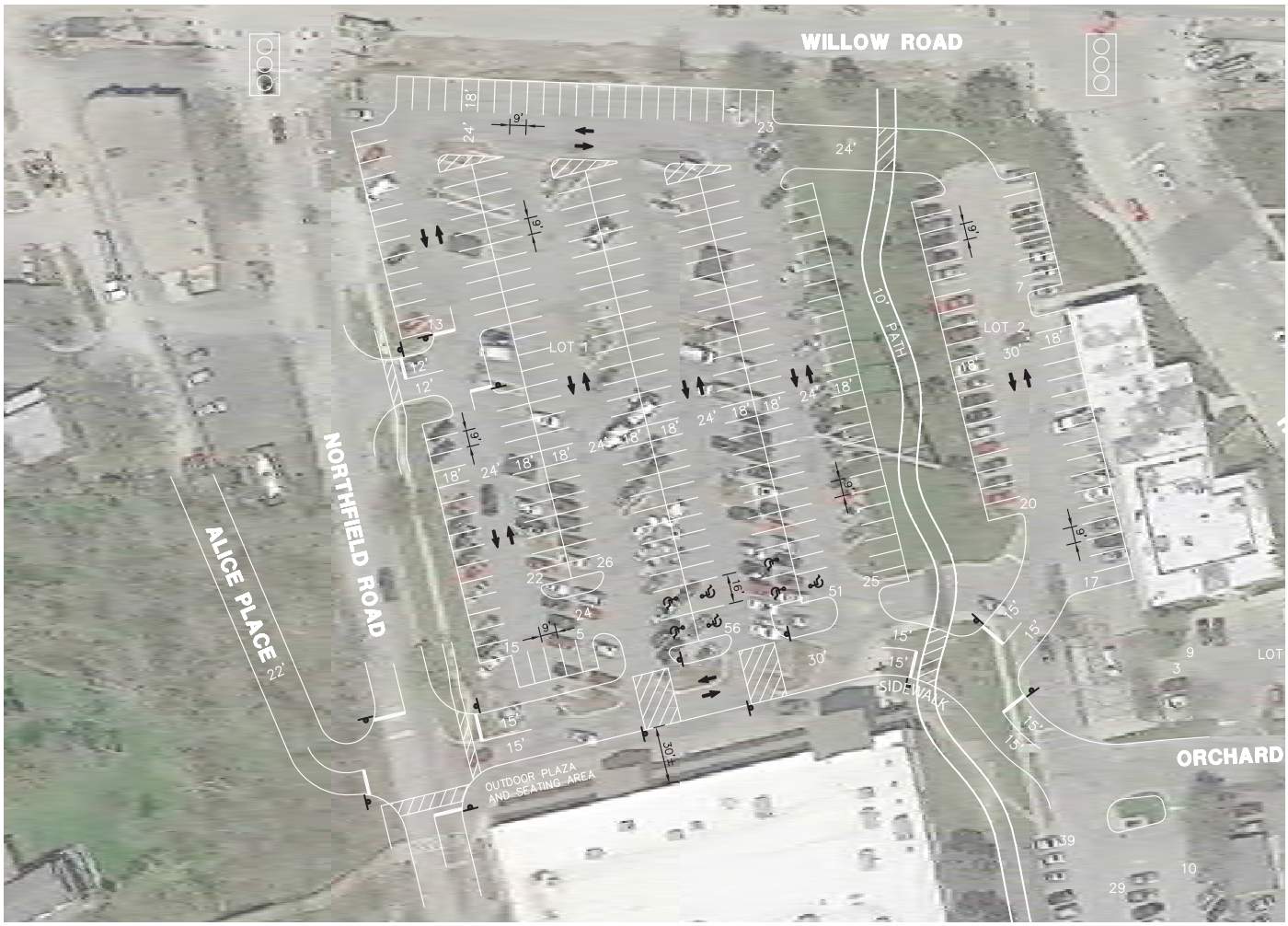
Straighten the geometry of Orchard Road directly in front of Mariano's to facilitate traffic and design pedestrian connections to the Village Center.

Orchard Lane's current configuration is confusing and dangerous because of its irregular formation and motorist blind spots. Straightening this road to a more understandable alignment will provide more regular traffic patterns and predictability.

- Orchard Lane is confusing to navigate, particularly for new residents and visitors.
- Guiding traffic and pedestrian traffic to the Village Center is an important economic development strategy that is supported with this circulation pattern.
- Motorists and pedestrians are already using this parking lot as a short cut to access the Village Center, therefore recognizing and improving this traffic pattern, rather than restricting access and causing more congestion, will improve safety and ease. Considering traffic calming measures, such as speed humps, stop signs, and varied paving through the parking lot will be effective in guiding traffic safely through a heavy pedestrian area.
- Collaborating with Mariano's will be essential to ensure a safe and well-designed road configuration.

[7] *Northfield Vision Plan, Chapter Three: A Long-Range Plan, adopted November 22, 1999.*

Figure 19: Mariano's Parking Lot Reconfiguration



Village of Northfield, Illinois

Northfield Road Corridor Plan

NORTH

RECOMMENDATION 2:
Extend Alice Place to connect to Northfield Road in order to address access issues for residents of Crooked Creek and the new commercial center on Willow Road.

Vehicular access to Alice Place and the new commercial center is limited due to raised medians on Willow Road which currently forces emergency vehicles to turn into oncoming traffic to access Crooked Creek residences. Furthermore, residents of the townhome development and customers coming from the east are currently forced to drive west to Wagner Road when traveling from the east because they cannot otherwise gain access.

Extending the length of Alice Place to intersect with Northfield Road at Orchard Lane will serve residents of Crooked Creek and emergency vehicles needing access. This recommendation serves a majority of stakeholders involved, including residents, emergency personnel, customers and visitors. Design attention should be paid to nearby and adjacent Bosworth Lane residents whose properties currently back into the North Branch Chicago River, including minimizing noise, sight and air pollution.

RECOMMENDATION 3:
Create a continuous parking area in the corridor under the ComEd ROW extending from the Senior Center to existing public parking areas.

Connecting surface parking lots under the ComEd ROW will provide greater access to corridor businesses and the future multi-use path (see Figure 16). This connection, between Village of Northfield public spaces to the north and North Shore Senior Center leased spaces to the south, would provide an estimated 50 additional public parking spaces for Northfield Road corridor and Village Center patrons which helps distribute parking along the corridor.

As it currently stands, the public parking lots are inaccessible to the North Shore Senior Center overflow lot because of overgrown landscaping. Connecting these lots could help alleviate parking shortages from Senior Center or Village center events. This connection, combined with the new pedestrian access point (see Connectivity: Recommendation 4), could help to further activate the public space. In addition to creating more parking, this space could be activated by serving as a location for local markets and festivals. Its proximity to the Village Center can provide a desirable central meeting area. Note that this recommendation would require approval from the UPRR because it would traverse the ROW.

RECOMMENDATION 4:
Continue working with businesses along the corridor to ensure that traffic obstruction is minimized by loading and drop off activities.

Continue the momentum initiated by this planning process between local business owners to work cooperatively to maintain safety, especially for emergency vehicles accessing the corridor. An example of this collaboration could be to establish agreements for all delivery vehicles to have at least one operator available in his or her vehicle to move in case of an emergency or to allow access if blocking the road.

RECOMMENDATION 5:
Reduce superfluous curb cuts along Northfield Road.

The high number of curb cuts along Northfield Road is a remnant of the former industrial corridor that required more driveways and loading docks for manufacturing, distribution and deliveries. The high number of curb cuts impede circulation, appearance and parking in the area. Encouraging the reduction of these curb cuts during the special use approval process or by otherwise working with property owners to address these concerns will enhance the corridor.

THIS PAGE IS INTENTIONALLY LEFT BLANK FOR DOUBLE SIDED PRINTING

SECTION 7

URBAN DESIGN

URBAN DESIGN

Urban design is about making the associations between people and places, movement and urban form, nature and the built environment; it draws many of these and other strands together creating a vision for an area. Thoughtful and consistent urban design has the power to create memorable spaces that appeal to different users of an area. It can help welcome you through a community gateway and enhance your experience during your visit.

Urban design primarily deals with the design and management of public space, and the way public places are experienced and used. These spaces include streets, plazas, parks, and public infrastructure. Private properties can also shape the urban design context by building form and massing, building height and setbacks, façade treatments, and landscape.

Together, both within the public and private realm elements such as pedestrian zones, accessibility, aesthetics, wayfinding and character will play a role making the corridor a place that's functional, attractive and sustainable.

URBAN DESIGN: EXISTING CONDITIONS FINDINGS

The Northfield Road corridor character is defined by public rights-of-way and privately owned properties that abut the roadway. Together, they form a corridor identity that is auto-oriented with mid-sized one-story buildings flanking the ComEd transmission towers and small office buildings on the west side of the road. The buildings reflect development that is fifty plus years old and consistent with light industrial / office development of that era. The study area has limited landscaping and aesthetic elements, though recent enhancements at the Senior Center are noteworthy for setting a higher level of quality than existed previously.

- The two rights-of-way, though not directly visible from the street, impact the character and the feel of the area.
  - The ComEd ROW includes very large transmission lines that loom over the corridor. While they have generally become a background sight and sound that people are accustomed to, they contribute to the industrial tone of the area. Much of that right-of-way is used for public parking or parking at the Senior Center. Those parking lots do not include much in the way of landscaping, although portions of the ROW are covered with prairie grasses.
  - A second ROW in the corridor is the vacant UPRR ROW. As noted earlier, this corridor is considered a prime opportunity to incorporate a multi-use path through the study area. It also presents a great opportunity to create pedestrian cross connections between the study area and the Village Center. In developing these connections, opportunities exist to create interesting and pleasant environments that enhance the character of the area.
- Overall, the corridor is a pleasant area, in part due to the low traffic volumes when compared to Willow Road or Winnetka Road, but does not currently exhibit urban design elements that create cohesion. There is interest in enhancing urban design elements throughout the corridor, as evidenced by recent high quality landscaping as a result of special use permits. Design elements may be inspired by Willow Road improvements including new paving, street lights, and landscaping to create a sense of cohesion throughout the Village.
- Limitations to design elements may include the 100 and 500-year flood plains, high number of curb cuts leading to driveways and loading docks along Northfield Road, and access across the ComEd / UPRR ROW. If access or leasing is a possibility, further restrictions such as landscaping clearances or noisy power lines may also be issues to contend with.

URBAN DESIGN OBJECTIVES

- Incorporate complete streets elements in the Northfield Road corridor.
- Identify streetscape and urban design opportunities along Northfield Road.
- Prioritize cohesion with other urban design elements throughout the Village Center and Willow Road.
- Consider the river area as an aesthetic amenity in the corridor.

URBAN DESIGN RECOMMENDATIONS

RECOMMENDATION 1:
Enhance the river area on Village owned property at Winnetka Road and Northfield Road.

The North Branch of the Chicago River meanders through the west side of the project area, although it is not distinctively landscaped. Clearing the publicly owned land at Northfield Road and Winnetka Road and planting natural species would help create a gateway into the Village of Northfield alerting pedestrians, motorists and cyclists that they have left unincorporated Cook County and are now welcomed into Northfield.

In addition to enhanced landscaping on public riverfront properties, the Village should plan to install a gateway feature officially welcoming people to Northfield. The corner is highly visible with over 10,000 automobiles passing through each day so this is a unique opportunity for Northfield.

These improvements will contribute to the character of the Village of Northfield and will help to create an even better experience for residents and users passing through the corridor.

RECOMMENDATION 2:
Improve the river area on Village owned property at the pedestrian bridge across from Mariano's and Northfield Road.

Enhancing the publicly owned areas closer to Mariano's would create a more attractive public space that would receive substantial visibility adjacent to the grocery store. The space is currently reported as unattractive and being scattered with litter, so a few enhancements could be uniquely effective. The heavily utilized Bosworth Lane bridge could become a real asset to the community if its surrounding landscaping were tended to.

RECOMMENDATION 3:
Consider public art that would complement a potential public art program in the Village Center.

Public art along future multi-use paths and along Northfield Road should be inspired by evolving public art in the Village Center to ensure cohesion. This will help enhance the experience of pedestrians and cyclists, as well as creating a stronger sense of place and identity for the Village of Northfield. Public art is multi-faceted: it can be used to create a destination for multi-use path users as well as distracting from unsightly equipment such as the ComEd transmission towers.

RECOMMENDATION 4:
Apply urban design guidelines for private property to mirror the quality design established by the North Shore Senior Center.

The Village of Northfield should plan to seize the opportunity to apply design guidelines to private property owners if and when they apply for special use permits or building permits. The North Shore Senior Center recently redesigned its parking lot with attractive landscaping and monumental signage. Building redevelopments, façade updates and other construction projects should be held to those same high standards. Improving signage, lighting, parking lot islands, and landscaping standards should be reinforced when permitting special uses, redevelopments or for grant funded projects.

RECOMMENDATION 5:
Design improved rear building parking lots and facades.

Pursuant to Village of Northfield Ordinance No. 38, properties adjacent to the North Branch Chicago River must be constructed of brick or another material approved by the Northfield Architectural Commission, restrict parking at least 30 feet from the property line, install no windows on the west side of buildings, ensure that illumination is directed upwards against buildings, require that an eight-foot high fence be installed along the rear of properties, and other details as defined in the ordinance. This active ordinance will continue to dictate design guidelines for any development on the west side of Northfield Road.

RIVERFRONT GATEWAY CHARACTER IMAGES

Opening views to the North Branch Chicago River with low native plantings, pedestrian seating, Northfield recreational/village center information kiosk and public art will help serve as a gateway into Northfield for both motorist and cyclist.

This example of a trailhead gateway includes an informational kiosk and directional signage. This style of display would be valuable at Northfield Road and Winnetka Road because it serves as a gateway into the community and can direct visitors to local sites and businesses.

Incorporating public art at a natural gateway is an effective way to welcome visitors into the community. Iconic, unique and creative art are particularly effective.

SECTION 8

APPENDIX

REAL ESTATE ECONOMIC ANALYSIS OF ZONING OPTIONS FOR NORTHFIELD ROAD

GRUEN GRUEN + ASSOCIATES

OCTOBER 2015

REAL ESTATE ECONOMIC ANALYSIS OF ZONING OPTIONS FOR NORTHFIELD ROAD

A Report to

VILLAGE OF NORTHFIELD

From

GRUEN GRUEN + ASSOCIATES
Urban Economists, Market Strategists & Land Use / Public Policy Analysts

October 2015

C1426

REAL ESTATE ECONOMIC ANALYSIS
OF ZONING OPTIONS FOR NORTHFIELD ROAD

A Report to

VILLAGE OF NORTHFIELD

From

GRUEN GRUEN + ASSOCIATES
Urban Economists, Market Strategists & Land Use / Public Policy Analysts

October 2015

C1426

TABLE OF CONTENTS

Page

EXECUTIVE SUMMARY **1**
INTRODUCTION 1
FINDINGS AND CONCLUSIONS 1
RECOMMENDATIONS 4

CHAPTER I: OVERVIEW OF APPROACH AND EVALUATION OF REAL ESTATE ECONOMICS OF EXISTING REPRESENTATIVE LAND USE **6**
INTRODUCTION 6
EXISTING CONDITIONS 8
Value of Typical "As Is" Property 8
Asking Prices for Commercial and Industrial Properties in Local Market Area 8

CHAPTER II: ASSESSMENT OF OFFICE DEVELOPMENT ALTERNATIVE ON 289 NORTHFIELD ROAD PROPERTY **12**
INTRODUCTION 12
PROTOTYPICAL REDEVELOPMENT ALTERNATIVE UNDER EXISTING M-1 ZONING 13
289 Northfield Road 13
EXISTING M-1 ZONING REGULATION WILL NOT ALLOW FEASIBLE OFFICE DEVELOPMENT 13

CHAPTER III: ASSESSMENT OF MULTI-FAMILY RESIDENTIAL DEVELOPMENT ALTERNATIVE ON AT&T PROPERTY UNDER EXISTING ZONING **17**
PROTOTYPICAL REDEVELOPMENT ALTERNATIVE UNDER EXISTING R-6 ZONING 17
R-6 Multi-Family District Regulations 17
AT&T Property 17
REVENUE ESTIMATE 19
DEVELOPMENT COST ESTIMATE 20
RESIDUAL LAND VALUE FOR PROTOTYPICAL TOWNHOME DEVELOPMENT 21

CHAPTER IV: ASSESSMENT OF PROTOTYPICAL APARTMENT DEVELOPMENT ALTERNATIVE ON AT&T PROPERTY ASSUMING CHANGES TO ZONING AND RELATED LAND USE REGULATIONS **23**
INTRODUCTION 23
DESCRIPTION OF PROTOTYPICAL APARTMENT DEVELOPMENT ALTERNATIVE 24
KEY COST ELEMENTS 26
FINANCIAL PARAMETERS 27
MARKET PARAMETERS 28
RESULTS OF INVESTMENT ANALYSIS 29

CHAPTER V: ASSESSMENT OF RESIDENTIAL DENSITIES REQUIRED TO ENCOURAGE REDEVELOPMENT OF MORE REPRESENTATIVE NORTHFIELD ROAD PROPERTIES **32**
INTRODUCTION 32
PROTOTYPICAL TOWNHOME DEVELOPMENT ALTERNATIVE SCENARIOS 32
Physical Yields Per Acre of Developable Land 32
Sale Revenue Per Acre of Developable Land 33

TABLE OF CONTENTS, Continued

Page

Total Development Cost Per Acre of Developable Land 34
Estimated Residual Land Value Per Acre 35
PROTOTYPICAL APARTMENT DEVELOPMENT SCENARIOS 37
Physical Yields Per Acre of Developable Land 37
Total Development Cost Per Acre of Land 38
Market, Operating, Financing, and Investment Parameters 39
Estimated Residual Land Value Per Acre 39

LIST OF TABLES

Page

Table I-1 Asking Prices for Existing Non-Residential Properties in Local Market Area 9
Table II-1 Office Rents for Northfield Office Buildings 13
Table II-2 Estimate of Value Produced by Net Income of Prototypical 19,500-Square-Foot Office Building 14
Table II-3 Estimate of Office Development Costs Excluding Land 15
Table II-4 Comparison of Value Produced by Net Income to Development Costs for Prototypical Office Building 15
Table II-5 Office Space Rents Needed to Feasibly Acquire Site and Develop the 19,500 Square Foot Office Building Prototype 16
Table III-1 Prototypical Townhome Development Alternative for AT&T Site Under R-6 Zoning 18
Table III-2 Estimate of Obtainable Prototypical Townhome Development Alternative Unit Sale Revenues 20
Table III-3 Development Cost Estimates for Prototypical Townhome Alternative Under Existing R-6 Zoning 21
Table III-4 Residual Land Value Estimate for Prototypical Townhome Development Alternative Under R-6 Zoning 22
Table IV-1 Prototypical Apartment Development Alternative for AT&T Site Under Variances to Existing R-6 Zoning 25
Table IV-2 Development Cost Estimates for Prototypical Apartment Development Alternative 27
Table IV-3 Investment and Financing Assumptions for Prototypical Apartment Development Alternatives for 2.12 Acre AT&T Property 28
Table IV-4 Market Parameters for Prototypical Apartment Development Alternative Postulated for 2.12 Acre AT&T Property 29
Table IV-5 Residual Land Value Estimate for Prototypical Apartment Development Alternative on AT&T Site 30
Table V-1 Assumed Townhome Yields Per Acre of Developable Land 32
Table V-2 Gross Townhome Sale Revenue Per Acre of Developable Land 34
Table V-3 Total Townhome Development Cost Per Acre of Developable Land 34
Table V-4 Residual Land Value Estimates for Prototypical Townhome Development Alternative at Varying Densities Per Acre 35
Table V-5 Comparison of Residual Land Values Supported by Townhome Redevelopment at Varying Densities to the Reservation Prices Associated with Existing Uses 36
Table V-6 Assumed Multi-Family Apartment Yields Per Acre of Developable Land 37
Table V-7 Total Apartment Development Cost Per Acre 39
Table V-8 Residual Land Value Estimate for Apartments 40
Table V-9 Comparison of Residual Land Values Supported by Apartment Redevelopment at Varying Densities to the Reservation Prices Associated with Existing Uses 41

LIST OF FIGURES AND MAPS

Page

Figure III-1 Townhome Prototype for AT&T Site 19
Map IV-1 AT&T Site Boundary and Floodplain 24
Figure IV-2 64-Unit Prototypical Apartment Alternative for AT&T Site 26
Figure V-1: Illustrative Townhome Layout at 20 Units Per Acre 33
Figure V-2 Illustrative Apartment Layout at 40 Units Per Acre 38

EXECUTIVE SUMMARY

INTRODUCTION

The forces of demand and supply, land use policy/zoning regulations, and development costs interact to form the real estate economics that affect property development, redevelopment, and remodeling and maintenance decisions of owners and would-be developers. The most significant determinants of land use value are the potential income (rents) that can be earned by alternative land uses, the costs associated with the construction and maintenance of alternative land uses, and **the regulations that govern the right to develop or alter alternative land uses and the physical characteristics of how they can be developed**.

We focus in this report on identifying the real estate economics of representative existing conditions and prototypical development alternatives given current zoning designations and alternatives to current zoning designations. Implications are drawn from a synthesis of the real estate economic analysis about the effect of Village of Northfield regulations on the potential of property owners/buyers investing in the redevelopment of existing properties on or adjoining the Northfield Road corridor.

FINDINGS AND CONCLUSIONS

- The values of existing built properties exceed the land values that alternative uses can support under the existing zoning regulations that govern the development of new uses. For example, we estimate a typical industrial building can support a value of $45 per square foot to $57 per square foot of building space or high teen's to low $20's per square foot of land. (The AT&T industrial property referred to below has a greater amount of land relative to building space than typical so that the estimated value of the building at $50 per square foot translates into an unrepresentative low land value of $9 per square foot. Applying more typical values associated with higher proportions of building space per unit of land would suggest a potential land value of about $1.5 to $2.5 million);

- Under the existing market and zoning conditions, current net rent levels of small, older industrial and office properties do not facilitate owners completing significant remodeling or updating. The analysis suggests that one option some existing property owners may be encouraged to adopt is to reduce maintenance or other expenditures on improvements. This option is particularly likely for those owners with low cost bases of small properties with obsolete space and inadequate parking;

- Under the current M-I zoning standards, the replacement of existing industrial uses with office uses will not be financially feasible (See Chapter II);

- If the R-6 Multi-Family District zoning applied to typical properties in the Northfield Road corridor, the supportable value and returns of permitted residential uses would not currently be sufficient to support the (i) payment of reservation prices of existing properties; (ii) the

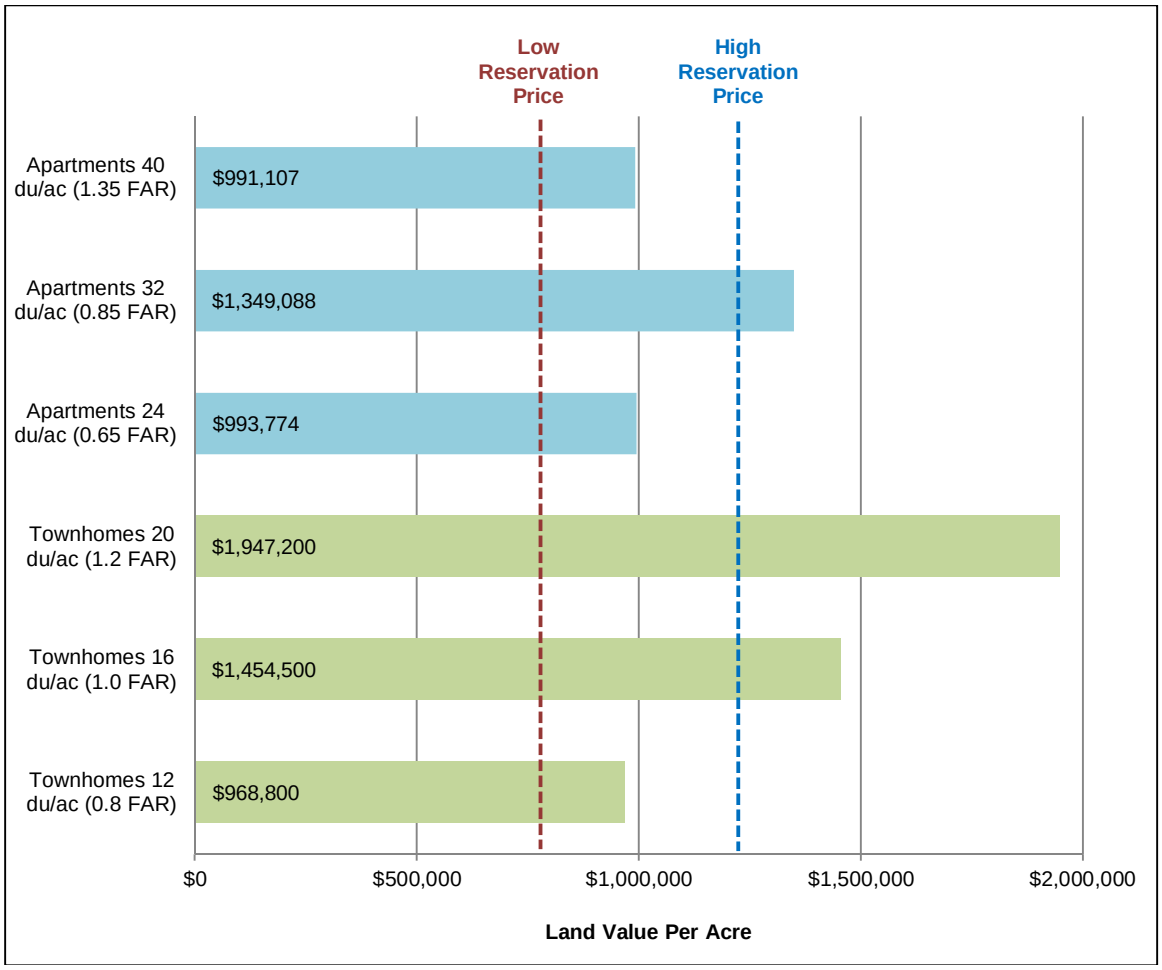
demolition of existing improvements; and the construction of new residential uses to replace the industrial or office uses (See Chapter III);

- In the case of the unrepresentative AT&T property, a higher density apartment product at 30 units per acre would support a property value higher than the likely minimum reservation price the property would support based on the current amount of industrial space in its present industrial use. While it is probable that the AT&T property owner would seek a higher price than the existing use because of the excess land relative to building space, the real estate economics suggest that the seller and would-be investor-developer could find a price under which both parties would be better off under a higher density for a multi-family residential use if significant zoning changes were made to the current R-6 standards (See Chapter IV);

- Assuming that the study area is acceptable as a residential location, the results of the real estate economic analysis of prototypical townhome uses at varying densities per acre suggest a density of at least 16 units per acre would be required to encourage the redevelopment of representative properties currently used for industrial and/or office space on properties located on the east side of Northfield Road located between 117 Northfield Road to 289 Northfield Road. If building costs increase above the base case estimates; if as is likely, costs of debt increase; or return requirements are higher because the area is not an established residential location and perceptions of risks could be heightened, a density of 20 units per acre could be required to encourage the redevelopment of typical existing properties (See Chapter V);

- Similarly, if the zoning were altered to permit the development of multi-family apartment uses, **t**he results of the real estate economic analysis demonstrate that, assuming sufficient property can be assembled, the current "sweet spot" that generates the most available dollars to go toward the purchase and demolition of existing property and development of a new apartment use is a three-story with surface parking apartment alternative. Under current space market and capital market conditions, a three-story apartment use with surface parking, for example, is estimated to support a land value that exceeds the potential minimum reservation price for one acre of industrial land by approximately $160,000. (Note we have not evaluated the real estate economics of condominium product/tenure arrangements because these were not specified for the sites Teska Associates and the Village selected to evaluate);

- The figure below shows supportable land values of alternative uses, on a per acre basis, to the estimated low and high property reservation prices of existing properties;



- If some existing property prices are higher than residual land values supported by redevelopment alternatives permitted under existing zoning regulations, then rents for new development will need to rise, costs will need to decrease, or regulations will need to be altered, to permit more built space on a given land parcel in order to encourage property redevelopment;

- The analysis of existing conditions suggests the income produced cannot support the current reservation prices for some existing buildings, which tend to have high lot coverage ratios. The relatively high reservation prices make it challenging for properties to be assembled and redeveloped along the lines of the postulated prototypical development alternatives evaluated in this report. Because the reservation prices of many owners are higher than what can be supported by obtainable multi-family and office space rents given the amount of space permitted to be built, developers will have to either use different investment and development assumptions in order to justify buying the property needed for redevelopment of new uses under the existing regulations, or elect to accept a lower return now in anticipation of higher rents in the future. Without rental rate increases significantly exceeding cost increases, under the existing regulations, the value of most existing industrial and office

properties is likely to be more than the supportable land value of their sites for demolition and redevelopment into alternative uses; and

- Northfield Road will need to establish a more desirable and distinct image for multi-family residential, townhouse, medical or other uses with a pattern of development products, infrastructure and amenities that permit competing effectively with alternative locations. Under the present market, cost and regulatory relationships, properties with somewhat obsolete building space will not be redeveloped into new office or residential uses.

RECOMMENDATIONS

The results of the real estate economic analysis and interviews suggest the following conclusions and recommendations related to zoning options and strategies and tactics for reinventing Northfield Road to increase its competitive magnetism and demands that sustain private feasible development and enhancements:

- Given the findings that the cost of structure parking or flood plain constraints precluding underground parking discourages feasibility of higher density development alternatives and parking constraints are associated with existing properties, municipal assistance with the provision of necessary parking (or modification of parking requirements) may be needed to encourage the feasible reuse or redevelopment of existing properties. For example, as described most recently in the report by Gruen Gruen + Associates prepared in July 2014 entitled "Market Reconnaissance of and Strategic Recommendations for Northfield Road":

  > *Obtaining control of the Union Pacific Railroad or Commonwealth Edison lands could be used to implement a shared parking strategy due to synergy between uses. The purpose of acquiring control of the lands would be to eliminate the divide they create and provide for linkages to the Village Center and Mariano's, mitigate the parking constraints in Northfield Road, and possibly facilitate the retooling or removal and replacement of obsolete building space.*

- Consistent with the recommendation in that same July 2014 report, given as described below the postulated reuse of the property adjoining Mariano's is not likely to be financially feasible, at a minimum be prepared to have a policy response if (as we would expect) the landlord of the Mariano's property or Mariano's itself could develop interest in purchasing the property behind Mariano's in order to be able to add parking or potentially expand the grocery store. If interest does materialize, the property owner may adopt a reservation price above the purchase price the existing industrial-office use can currently support;

- Evaluate the potential for the property owner to add commercial outlots to the current Mariano's property if the property is expanded to include additional property on Northfield Road and identify the regulatory changes if any needed to encourage the realization of found potential;.

- A major effect of the Affordable Care Act includes the need for lower-cost medical treatment options than hospitals traditionally have been able to provide. Medical clinics, docs-in-boxes, physical therapy, and MRI centers are just some examples of activities that will increasingly occur outside of a hospital environment and could be encouraged to locate in the study area. Accordingly, making such activities permitted uses and otherwise reducing the regulatory uncertainty and costs of obtaining development and use approvals for medical/healthcare uses would be appropriate policy in order to give property owners more opportunities to attract tenants to their buildings and have vacant space re-occupied;

- As also described in the July 2014 report, "Northfield Road can also continue to hold and attract a variety of service-related uses that benefit from accessibility to transportation linkages, proximity to affluent households, and other amenities and services provided (a) buildings and sites can be adapted and permitted to house an array of uses that can be expected to replace traditional manufacturing and industrial activities…" To facilitate the evolution to service uses, and encourage the re-occupancy of vacant space it is important to not significantly raise costs of landlords and tenants by increasing land use requirements and restrictions related to a greater variety of permitted use options;

- To avoid high reservation prices causing stagnation, subject zoning changes related to higher-density residential uses that will tend to cause owners to increase reservation prices to a "sunset clause". Under this approach if the property is not developed for new uses within a certain time, the zoning permitting higher-density residential uses would revert to a lower-density zoning classification. A "use it or lose it" condition will encourage owners whose property is rezoned for new types of higher-density residential land uses (as opposed to expansion of permitted activities for the existing land uses) to not just sit on their new property rights and raise reservation prices to the extent to make development of those new uses infeasible; and

- The scale and mix of uses that will generate the highest residual land value will vary as market conditions and price-, cost- and investment- relationships change. The analysis suggests some potential for existing properties to be converted to higher-density residential uses, although such conversions are not a "slam dunk" under current conditions. In conclusion, if the Village would like to encourage redevelopment or reuse of properties it will have to permit relatively high-density multi-family uses. At a minimum, to permit landlords of existing properties to maintain the property and neighborhood quality, the permitted types of activities and uses for existing buildings should be expanded.

CHAPTER I

OVERVIEW OF APPROACH AND EVALUATION OF REAL ESTATE ECONOMICS OF EXISTING REPRESENTATIVE LAND USE

INTRODUCTION

The forces of demand and supply, land use policy/zoning regulations, and development costs interact to form the real estate economics that affect property development, redevelopment, and remodeling and maintenance decisions of owners and would-be developers. The most significant determinants of land use value are the potential income (rents) that can be earned by alternative land uses, the costs associated with the construction and maintenance of alternative land uses, and the regulations that govern the right to develop or alter alternative land uses and the physical characteristics of how they can be developed. We focus in this report on identifying the real estate economics of prototypical development alternatives and comparing the supportable land results from the simulated redevelopments to the estimated value of the existing use to identify whether the prototypical development alternatives would be sufficiently profitable to justify the acquisition of the existing property at current market values, the demolition of existing improvements, and the construction of new uses.

Teska Associates identified development concepts for the following locations:

- 289 Northfield Road – a 0.9-acre parcel behind Mariano's that contains an existing 15,000-square-foot industrial building; and

- AT&T Property – a 2.1-acre parcel with frontage on Winnetka Avenue, just east of Northfield Road, which contains an existing 16,500-square-foot building.

In addition, because the selected sites are unrepresentative of the core properties of the study area and the situations property owners face, and prototypical development alternatives were not specified, GG+A evaluated the potential for an assemblage of a larger amount of land by examining the real estate economics of the development of townhome and apartment uses at varying densities on a per acre basis (See Chapter V).

The prototypical development alternatives were specified on the basis of existing zoning regulations and hypothetical regulations.

GG+A simulated the real estate investment results of prototypical multi-family rental development as well as the development of commercial uses under the existing and proposed zoning regulations. We estimated the land value the postulated prototypical development alternatives could support based on the estimated cash flows produced from these cost and revenue estimates and stipulated financial terms and investment parameters from the viewpoint of a prospective developer. We then compared the estimated supportable land value of the postulated scale and type of land use to the estimated minimum value of the existing land use on the applicable property. If the supportable land value of the redevelopment is not higher than the value the current use of the property would

support, the inference that the redevelopment will not occur through private actions can be drawn.

The residual land value methodology used to evaluate the prototypical development alternatives is similar to what is often referred to as an income approach, and provides an estimate of the amount of money a developer could afford to pay for land, given an estimate of the net cash flow that results from the development and operation of the development.[1] We used this methodology of estimating the land value that would be supported by the investment returns of the forecast revenues and costs associated with multi-family rental and commercial development alternatives in order to identify whether such uses at the various sites will be feasible to develop. A hurdle rate or return requirement of 12 percent to 18 percent Internal Rate of Return ("IRR") was assumed for the commercial and multi-family development alternatives. A project is feasible if a developer can achieve a return on the developer/investor equity that meets a hurdle rate commensurate with the associated risk. If the residual land value from the investment is zero or less, the likely cost of the land makes the investment infeasible without municipal assistance. In essence, we asked the following question:

> How much could a prospective developer pay for the land needed to site the postulated development alternatives and earn the specified IRR, or alternatively, how many dollars of subsidy incentive would be required to provide the developer with the specified rate of return?

GG+A also analyzed the real estate economics of a for-sale townhouse product option based on the residual land value approach, assuming a required rate of return or profit margin. We input estimates of obtainable prices and of costs, including the necessary profit margin, in order to calculate the land costs that a small lot townhouse development could support. In this calculation, we assume that the developer would be a residential builder seeking to earn a fair return on a for-sale product, rather than an investor who would calculate feasibility by considering the return earned from rents over time. The results we would obtain by assuming an investor developer rather than a builder who would sell rather than rent the developments would be reasonably similar.

In cases where our findings suggest that the real estate economics would not support the private, unassisted development of a given type of real estate, our analysis provides a measure of the public investment that would be required to encourage such development. For example, if we find that the residual land value of a use is negative $2 per square foot, then some form of a subsidy in excess of that amount would be required before a land owner would find the development of such a use feasible. The reader should keep in mind also that **zoning and other land use regulations that govern density, heights, site coverage and the like play a significant role in affecting the feasibility** that we are measuring in this report by estimates of supportable land value.

[1] A residual land value refers to the amount a would-be developer could afford to pay for the land, given the cash flow that results from a specified set of cost and revenue forecasts and stipulated financial terms. An internal rate of return ("IRR") means the rate of return at which the discounted future cash flows from an investment equal the rate of the initial cash outlay. In the jargon of finance theory, the IRR is the discount rate at which the net present value is zero. If the IRR exceeds the desired rate of return, the investment is financially feasible; if the IRR is lower than the desired rate of return, the investment is not financially feasible.

Note that the residual land value estimate is best used for comparing alternatives and obtaining insight on a developer's "ability to pay".[2] Actual market value is also affected by the price of competing entitled land supply. For example, even if a developer could afford to pay $50 per square foot for the land and still obtain a minimum threshold return, the developer will not do so if other equally or more desirable development locations are available for less. Actual market prices are influenced by the buyer's perception of use value, expectations about the timing and risk of development, and the price of the other available locations.

In the recommendations derived from the results of the real estate economic analysis, consideration is given to the role of land use regulations as one approach to encouraging the maintenance and modernization of existing properties and the private redevelopment of Northfield Road land uses.

EXISTING CONDITIONS

Value of Typical "As Is" Property

Based on a review of a property (commonly known as the AT&T site) currently for sale, to estimate the value of an existing industrial use with M-1 zoning, we assume that the property consists of approximately 2.12 acres containing 16,500 square feet of building space with surface parking spaces. (Note that this site is unrepresentative of the study area in the sense that the site includes a relatively large amount of land area relative to building space).

Asking Prices for Commercial and Industrial Properties in Local Market Area

The asking prices for properties do give a sense of at least perceived reservation prices. Table I-1 summarizes asking prices for a sample of properties currently listed for sale within Northfield Road and the surrounding local market area (Northbrook, Glenview, etc.).

[2] Cost estimates were not made available to GG+A for the prototypical development alternatives, and several developers active in the area would not provide cost (or other) information because of scheduling constraints associated with the study and/or because they had made purchase offers for the AT&T property prior to the formulation of the prototypical development alternatives. GG+A relied on insight from other developers and its own project experience to estimate costs. Therefore, the resulting residual land value estimates should not be considered precise, hard forecasts but generally indicative, order-of magnitude in nature, useful for comparing the alternatives and reaching inferences about whether private unassisted development would occur under varying zoning standards.

TABLE I-1

Asking Prices for Existing Non-Residential Properties in Local Market Area

Address	Existing Use	Building Size # Sq. Ft.	Lot Size # Acres	Asking Price	Asking Price Per Square Foot of Building/ Land
222 Northfield Dr., Northfield	Office	15,000	1.14	$1,210,200	$81/$24
301 Waukegan Rd., Glenview	Auto Dealer	24,000	2.01	$4,500,000	$188/$51
824 Waukegan Rd., Northbrook	Office	2,386	0.34	$569,000	$238/$38
1239 Shermer Rd., Northbrook	Office	2,887	0.39	$559,000	$194/$33
3865 Commercial Ave., Northbrook	Industrial	35,530	1.82	$1,895,000	$53/$24
3451-53 Commercial Ave., Northbrook	Industrial	26,000	1.40	$1,482,000	$57/$24
750 Anthony Trail, Northbrook	Industrial	63,305	4.24	$4,600,000	$73/$25
333 Anthony Trail, Northbrook	Industrial	21,744	1.70	$1,065,000	$49/$14
310 Anthony Trail, Northbrook	Industrial	53,126	3.73	$2,400,000	$45/$15
3411 Woodhead Dr., Northbrook	Industrial	116,800	4.71	$5,500,000	$47/$27
Sources: Loopnet; CoStar; Cook County Assessor; Gruen Gruen + Associates.					

In terms of existing values perceived to apply and depending on the age, size, and value of built space, asking prices tend to approximate $14 to $27 per square foot of land ($45 to $57 per square foot of building space) for improved industrial uses and $24 to $38 per square foot of land ($188 to $238 per square foot of building space) for office uses. The former Audi dealership on Waukegan Road in Glenview is currently listed for sale at a price that equates to a higher land price of about $50 per square foot. In 2010, 20,000-square-foot building at 201-203 Northfield Road occupied by a single tenant user for office uses sold for $1,835,000 ($92 per square foot of building space). In 2013, a 16,849-square-foot building at 162-164 Northfield Road on 1.15 acres occupied for industrial uses sold for $1,100,000 ($65 per square foot for building space and $22 per square foot of land).

Table I-2 summarizes a rough estimate of value under the M-1 zoning designation based on the hypothetical income the postulated industrial property example generates.

TABLE I-2 **Estimate of Value Produced by Income of Existing Industrial Use Property[1]**	
Gross Rent	$9 per square foot
Operating Expenses, Insurance Expense and Real Estate Tax Expense	$3 per square foot
Net Annual Rent, Assuming 100% Leased	$6 per square foot
Total Net Operating Income Before Reserves	$99,000
Reserves for Maintenance, Repair, Tenant Improvements, Leasing Commission Costs at $1 Per Square Foot	$16,500
Net Income After Reserves	$82,500
Capitalized Property Value at 10% Capitalization Rate	$825,000 ($50 per square foot of space)
Capitalized Property Value Per Square Foot of Land Assuming 92,350 Square Feet of Land	$9
[1] Figures are rounded.	
Source: Gruen Gruen + Associates	

Based on our interviews and review of secondary data, we estimate an annual base rent of $9 per square foot. We estimate annual operating expenses, property taxes, and insurance expense of $3 per square foot. We allow for annual maintenance, repair, tenant improvement, marketing and leasing commission costs of $1 per square foot, a sum significantly below what would be required to perform any material upgrading or property renovation. Finally, we assume the capitalization rate or required yield on investment of 10 percent. These assumptions produce a value estimate of $825,000 or $50 per square foot of building space. Using the unrepresentative AT&T site as an example, on a per square foot of land basis, this equates to $9 per square foot. This land value is not representative, however, of what industrial properties in the broader market area are priced at given that the amount of building space is low relative to the land area. A more typical range in terms of land value taking into account the age and value and size of existing industrial and office properties in the core study area is likely to be high teen's to low to mid $20's per square foot.

A review of listings for industrial properties ranging in size from nearly 22,000 square feet to 117,000 square feet in Northbrook (no industrial properties other than the AT&T property which has no asking price specified are for sale in Northfield) suggest asking prices range from $47 per square foot to $60 per square foot of building space. The range tends to be influenced by a variety of factors including the size and age of the building and the proportion of office space the building includes.

The analysis of the "As-Is" scenario suggest under the existing market and zoning conditions that current net rent levels of small, older industrial properties do not facilitate owners completing significant remodeling or updating. The analysis suggests that one option some existing property owners may be encouraged to adopt is to reduce maintenance or other expenditures on improvements. This option is particularly likely for those owners with low cost bases of small properties with obsolete space and inadequate parking.

As will be shown below, however, the real estate economics suggests why under the existing market

and zoning conditions, limited new privately accomplished development in Northfield Road has occurred. The key question to answer is whether the values of existing built properties exceed the land values alternative uses can support under the existing zoning regulations that govern property development. This is the subject of subsequent chapters.

CHAPTER II

ASSESSMENT OF OFFICE DEVELOPMENT ALTERNATIVE ON 289 NORTHFIELD ROAD PROPERTY

INTRODUCTION

In order to evaluate whether property owners and developers would find development or redevelopment options value enhancing or more profitable than maintaining the present existing uses, we compare the estimated property values associated with the ownership and operation of the "prototypical" existing industrial property within the Northfield Road M-1 zoning designation under present market conditions to the land value estimates of alternative uses or actions postulated in the following chapters. We do so to describe typical sets of choices or options available to property owners and to identify whether redevelopment along the lines postulated by Teska Associates is likely to be carried out by the private sector under the existing or hypothetical regulations.

While market and land use policy and regulatory conditions and the physical circumstances of a particular property may vary by location, property owners tend to share a common motivation to seek to improve and benefit, if not maximize, their own economic well-being. One reference point for measuring economic well-being is the residual land value yardstick measure used to evaluate the postulated development or redevelopment alternatives. If the residual land values for the redevelopment alternatives are higher than the reservation prices associated with the existing status quo, then private redevelopment can occur if the land can be assembled at prices close to reservation prices. If existing property prices are higher than residual land values supported by redevelopment alternatives, then rents for new development will need to rise, costs will need to decrease, or regulations will need to be altered, to permit more built space on a given land parcel in order to encourage property redevelopment.

PROTOTYPICAL REDEVELOPMENT ALTERNATIVE UNDER EXISTING M-1 ZONING

289 Northfield Road

Office Use - Teska has identified a three-story office building prototypical development alternative that would comply with existing M-1 zoning standards on the 0.90-acre site adjacent to Mariano's located at 289 Northfield Road. The property currently contains a 15,000-square-foot industrial building. The office building prototype that complies with existing zoning would contain approximately 19,500 gross square feet of building space (equating to a floor-area-ratio of 0.50) and 71 surface parking spaces at a ratio of approximately 3.6 spaces per 1,000 square feet**.**

EXISTING M-1 ZONING REGULATION WILL NOT ALLOW FEASIBLE OFFICE DEVELOPMENT

Table II-1 summarizes the range of office rents for existing office buildings in Northfield.

TABLE II-1

Office Rents for Northfield Office Buildings

Property	Asking Lease Rate (Full-Service or Modified Gross) $ Per Square Foot
778 Frontage Road	$17.25
Northfield Plaza 560 - 570 Frontage Road	$26.50 - $27.50
181 Waukegan Road	$18.00 - $19.00
191 Waukegan Road	$22.50
211 Waukegan Road	$19.50
Willow Hill Executive Center 540 - 550 Frontage Road	$20.00 - $22.00
1850 Oak	$16.95
1845 Oak	$20.00 - $21.00
400 Central	$21.50
1765 Maple	$17.25
464 - 466 Central	$26.00 - $27.00
Sources: Loopnet.com; GG+A Survey February 2014.	

Most office buildings in Northfield are quoting rents on a full-service or modified gross basis, which includes operating expenses for common area maintenance (CAM), insurance, and property taxes. Full service asking rents at two of Northfield's largest office buildings for example, Northfield Plaza and Willow Hill Executive Center, range from $22.00 to $27.50 per square foot. A leasing agent for an office building on Northfield Road indicated that property taxes were approximately $4.00 per square foot. It is not uncommon for office building operating expenses to exceed $10 per square

foot in Cook County, so effective net rents are likely to be well below $20 per square foot.

Table II-2 summarizes an estimate of value the net income of a 19,500-square-foot office building would generate.

TABLE II-2

Estimate of Value Produced by Net Income of Prototypical 19,500-Square-Foot Office Building

	Per Rentable[1] Square Foot $	Total $
Gross Annual Rent	$25.00	$437,500
Annual Operating Expenses[2]	($9.00)	($157,500)
Net Operating Income, Assuming 100% Leased	$16.00	$280,000
Capitalized Property Value at 8.5% Capitalization Rate	$188.24 [3]	$3,294,118

[1] Assumes 17,500 square feet of net rentable office space (which equates to a 90 percent net-to-gross efficiency factor).
[2] CAM, insurance, property tax, utility expenses, etc.
[3] Equates to value of $169 per gross square foot of office space.

Source: Integra Realty Resources; Gruen Gruen + Associates

Assuming gross rent of $25 per square foot and CAM, insurance and property tax expenses of $9 per square foot results in net annual rent of approximately $16 per square foot. Applying the net rent of $16 per square foot to the 19,500 square foot building prototype, assuming a 10 percent loss factor, results in annual net operating income of $280,000 assuming the building were 100 percent leased. Assuming an 8.5 percent capitalization rate[3], the estimated income generated by the occupancy of the new office building would translate into a property value of nearly $3.3 million. This equates to a value of $188 per rentable square foot or $169 per gross square foot.

Table II-3 summarizes an estimate of development costs, exclusive of land costs, that would be required for a new office building.

[3] Integra Realty Resources reports an average capitalization rate of 8.5 percent for new Class B suburban office buildings in Chicago. CBRE reports a capitalization rate range of 8 to 10 percent for suburban Class B office product in Chicago.

TABLE II-3

Estimate of Office Development Costs Excluding Land

	Per Gross Square Foot $	Total $
Demolition[1]	7.69	150,000
Site Work @ $5 Per Square Foot of Land	10.05	196,000
Building Core & Shell	150.00	2,925,000
Tenant Improvements	25.00	487,500
Soft Costs @ 20% of Hard Costs	38.55	751,700
Total Development Cost[2]	**231.29**	**4,510,200**

[1] Assumes $10 per square foot of existing building space on the site.
[2] Before land, financing and profit.

Sources: RS Means; Gruen Gruen + Associates.

RS Means data indicates typical core and shell construction costs for a small, three-story office building of about $150 per square foot. We assume additional costs for demolition and site work of approximately $18 per square foot of office space and tenant improvement or build-out costs of $25 per square foot. This suggests total hard construction costs of about $3.8 million or $190 per square foot. Including soft costs equal to 20 percent of hard costs, or about $39 per square foot, we estimate a total development cost of approximately $231 per square foot or $4.5 million before land, financing and profit.

Table II-4 below summarizes why redevelopment for the scale of office space permitted to be built under the existing zoning regulate will not be feasible. The value of the office building produced by the net income is significantly less than the cost (which does not include land cost) to develop the office building.

TABLE II-4

Comparison of Value Produced by Net Income to Development Costs for Prototypical Office Building

Estimated Property Value @ 8.5% Capitalization Rate	$3,294,118
Estimated Development Costs, Exclusive of Land Costs	$4,510,200
Surplus/(Deficit)	($1,216,082)

Source: Gruen Gruen + Associates

The estimated property value is approximately $1,200,000 lower than the estimated cost to develop new office space. Gross rents would need to increase to $35 per square foot to amortize and provide a return on development costs with no land cost. This rent threshold is far higher than current rents that are obtainable in the local market area for office space. Also note that obtainable office rents at the site are not likely to be as high as preferred suburban locations due to the existing adjoining uses of a self-storage facility and the loading-delivery area for a grocery store. Even if the

cost estimates are too conservative, the rent needed to justify the purchase of the existing property, demolition and new construction would still be far too high for private redevelopment to be feasible.

Table II-5 below presents an estimate of the gross office space rents that would be required to support the feasible property acquisition and redevelopment of the site for the conceptual office use.

TABLE II-5

Office Space Rents Needed to Feasibly Acquire Site and Develop the 19,500 Square Foot Office Building Prototype

	Per Rentable[1] Square Foot $	Total $
Land Acquisition Cost	42.86	750,000
Development Cost	257.73	4,510,200
Return on Cost @ 12%	36.07	631,224
TOTAL COST BASIS	336.65	5,891,424
Gross Annual Rent Required	**37.62**	**658,271**
Annual Operating Expenses	9.00	157,500
Net Operating Income, Assuming 100% Leased	28.62	500,771
CAPITALIZED PROPERTY VALUE[2]	336.65	5,891,424

[1] Assumes 17,500 square feet of net rentable office space (which equates to a 90 percent net-to-gross efficiency factor).
[2] Based upon 8.5 percent capitalization rate.

Source: Gruen Gruen + Associates

Using for analytical simplicity the same assumptions described in Chapter I for the representative industrial use, the existing industrial use at 289 Northfield Road is estimated to support a value of at least $750,000.[4] Assuming the current zoning regulations apply, the office rents would need to increase to approximately $38 per square foot in order to justify a purchase price of at least $750,000 and provide a 12 percent return on cost.

[4] This ignores that the reservation price is likely to be higher because the property adjoins the Mariano's grocery store. For the store to expand, it would likely need to purchase the adjoining property.

CHAPTER III

ASSESSMENT OF MULTI-FAMILY RESIDENTIAL DEVELOPMENT ALTERNATIVE ON AT&T PROPERTY UNDER EXISTING ZONING

PROTOTYPICAL REDEVELOPMENT ALTERNATIVE UNDER EXISTING R-6 ZONING

R-6 Multi-Family District Regulations

The R-6 zoning district assumed to apply to the 2.1-acre AT&T site currently subject to M-1 zoning located adjoining Northfield Road at 1725 Winnetka Road includes height and density-related restrictions that substantially limit the development capacity of the site for a residential use. We understand that the current zoning imposes a maximum dwelling unit density of eight units per acre (for a multi-family use), a maximum floor area ratio of 0.35, maximum lot coverage of 50 percent, and a height limit of 35 feet or 2.5 stories. Under the current zoning, the site could yield at most 16 dwelling units.

AT&T Property

Table III-1 summarizes the prototypical townhome development alternative (conforming to the R-6 zoning standards) Teska Associates postulated to replace the existing industrial use at the AT&T property.

TABLE III-1

Prototypical Townhome Development Alternative for AT&T Site Under R-6 Zoning

	Townhomes
Variances Required from R-6 Zoning	None
Total Dwelling Units	14
Average Unit Size in Square Feet[1]	1,900
Density in Units Per Acre	6.7
Building Height(s)	2 stories
Gross Floor Area in Square Feet[2]	32,200
Floor Area Ratio	0.345
Lot Coverage	45%
Parking Spaces	38
Parking Ratio (Spaces Per Unit)	2.7

[1]Townhome unit size estimates are for living space, assuming all units have attached 2-car garages approximating 400 square feet.
[2]Includes enclosed parking garages.

Sources: Teska Associates; Gruen Gruen + Associates.

Teska Associates has identified a prototypical development alternative that would comply with existing R-6 zoning that includes two rear-loaded townhome buildings each containing seven units (for a total of 14 units) at a density of approximately 6.7 units per acre. The buildings would contain a gross floor area of 32,200 square feet equating to a floor area ratio of 0.345. The units would average approximately 1,900 square feet of living area (assuming a typical 2-car garage of roughly 400 square feet) and parking would be provided at an overall ratio of 2.7 spaces per unit. The overall lot coverage would approximate 45 percent. Figure III-1 illustrates the townhome prototype.

FIGURE III-1: Townhome Prototype for AT&T Site

Source: Teska Associates, Inc.

REVENUE ESTIMATE

Table III-2 summarizes the estimated revenues (sales prices) assumed to be obtainable for the prototypical townhome development.

TABLE III-2

Estimate of Obtainable Prototypical Townhome Development Alternative Unit Sale Revenues

	R-6 Zoning Prototype
Total Number of Units	14
Average Unit Size in Square Feet	1,900
Average Sale Price Per Square Foot	$250
Average Sale Price Per Unit	$475,000
Total Sale Revenue	**$6,650,000**

Source: Gruen Gruen + Associates

Based upon our interviews with two local residential brokers and a review of pricing at active and proposed townhome developments containing similarly-sized units in Glenview, Park Ridge, Northbrook, and Libertyville[5], we assume an average sale price of $250 per square foot for the prototypical townhome alternative. This equates to an average price of $475,000 per unit for total sale revenues of $6,650,000. The obtainable price assumption of $250 per square foot represents a price premium of about 25 percent over older, adjacent townhome product (units recently sold and listed for sale in the Landmark townhome development just east of the AT&T site generally approximate $200 per square foot). Both active local brokers with whom we spoke indicated that the market for new townhome product in Northfield will be heavily comprised by empty-nesters looking to downsize and accordingly that vertical townhome designs should be avoided. First floor master suites would be a primary selling point. The Landmark development adjacent to the AT&T site features 4-story units, for example, and this keeps pricing down. Sites either on or proximate to Northfield Road are also unlikely to command prices that would apply to other locations in Northfield. Proximity to light industrial uses, associated trucking activities, and overhead power lines will limit obtainable pricing for new residential product in the corridor.

DEVELOPMENT COST ESTIMATE

Table III-3 summarizes the estimated development costs for the prototypical townhome development alternative.

[5] Asking townhome prices at two active Edward R. James developments, Westgate at the Glen in Glenview and Brighton Mews in Park Ridge, range from approximately $230 to $240 per square foot for three-bedroom units ranging in size from about 2,000 to 2,200 square feet. Base pricing for the planned Bolander Park Townhomes in Libertyville is anticipated to range from about $180 to $220 per square foot. Base pricing is anticipated to be much higher, at approximately $290 per square foot, for the proposed Jacobs Homes townhome development in Downtown Northbrook.

TABLE III-3

Development Cost Estimates for Prototypical Townhome Alternative Under Existing R-6 Zoning

Item	R-6 Zoning Alternative (6.7 units/acre)	
	$ Per Unit	$ Total
Demolition @ $10 PSF of Existing Building Space	12,500	175,000
Site Work and Lot Improvements	60,000	840,000
Vertical Hard Costs @ $110 Per Square Foot	209,000	2,926,000
Permit & Impact Fees	14,750	206,500
Marketing & Sales @ 7% of Sale Revenue[1]	33,250	465,500
Other Soft Costs[2] @ 6% of Sale Revenue	28,500	399,500
Builder Margin @ 10% of Sale Revenue	47,500	665,000
TOTAL	**405,975**	**5,683,650**

[1] Based upon average sale price of $250 per square foot.
[2] General conditions, property tax and insurance, contractor overhead, warranty reserves, etc.

Source: Gruen Gruen + Associates developer interviews and secondary sources

Development costs are estimated at approximately $406,000 per unit or $5.7 million total (excluding land acquisition). This estimate includes demolition costs of $175,000 or $12,500 per unit, site work and lot improvements of $840,000 or $60,000 per unit (this equates to $9 per square foot of land area), and vertical or structural hard costs of $110 per square foot or $209,000 per unit ($2,926,000 for 14 units). Permit and impact fees are estimated at $14,750 per unit or $206,500. Marketing and sales expense equivalent to seven percent of sales prices and additional soft costs of six percent of sales prices are assumed. This equates to $33,250 and $28,500 per unit, respectively. Finally, a builder's margin or profit is assumed at 10 percent of the sales prices.

RESIDUAL LAND VALUE FOR PROTOTYPICAL TOWNHOME DEVELOPMENT

Table III-4 summarizes the estimated residual land value of the townhome prototype postulated by Teska Associates at a density of approximately 6.7 units per acre.

TABLE III-4

Residual Land Value Estimate for Prototypical Townhome Development Alternative Under R-6 Zoning

	$ Per Unit	$ Total
Gross Sale Revenue	475,000	6,650,000
Cost to Build and Sell (Hard and Soft Costs)	(285,975)	(4,003,650)
Builder Profit	(47,500)	(665,000)
Finished Lot Value	**141,525**	**1,981,350**
Cost to Improve/Finish Lots	(72,500)	(1,015,000)
Gross Residual Land Value	**69,025**	**966,350**
Discounted or Net Residual Land Value[1]	**55,200**	**773,080**

[1] Gross residual land value discounted by 20 percent to reflect carrying costs, time required to absorb/sell the units, and other risks not specifically accounted for.

Source: Gruen Gruen + Associates

Based on an estimated gross sales value of $475,000 per unit or $6.65 million in total revenue, costs to build, market and sell the units of nearly $286,000 per unit, and a builder margin equal to 10 percent of sale revenues or $47,500 per unit, we estimate a finished lot value of approximately $142,000 per unit about $2.0 million in total. This represents the amount of money a builder could pay for finished and improved lots while achieving a 10 percent profit margin. Assuming demolition costs equal to $10 per square foot of existing building space on the site and sitework costs of $60,000 per lot, we estimate that the cost to improve and finish the lots may approximate $72,500 per unit or about $1,015,000 in total. We estimate a gross residual land value of $69,025 per unit or $966,350 in total for the 14 units.

To take into account carrying costs (financing costs, property taxes, etc.), the time required to sell the units, and other risks such as lower than anticipated prices, higher than expected costs, changes in the capital markets or delays in construction or absorption, we discount the estimated gross residual land value by 20 percent. This equates to a discounted net residual land value of approximately $55,200 per unit or a total of $773,080.

As described in Chapter I, the estimated as is value of the AT&T property for an industrial use is $825,000 or approximately $9 per square foot of land. The redevelopment of the property into the postulated townhouse use consistent with R-6 zoning would not be sufficient to support the likely minimum reservation price for the property as an industrial use. A minimum reservation price of $9 per square foot of land, however, is not likely to be typical of existing industrial land given the comparatively low floor area ratio that applies to the current use on the AT&T site.

CHAPTER IV

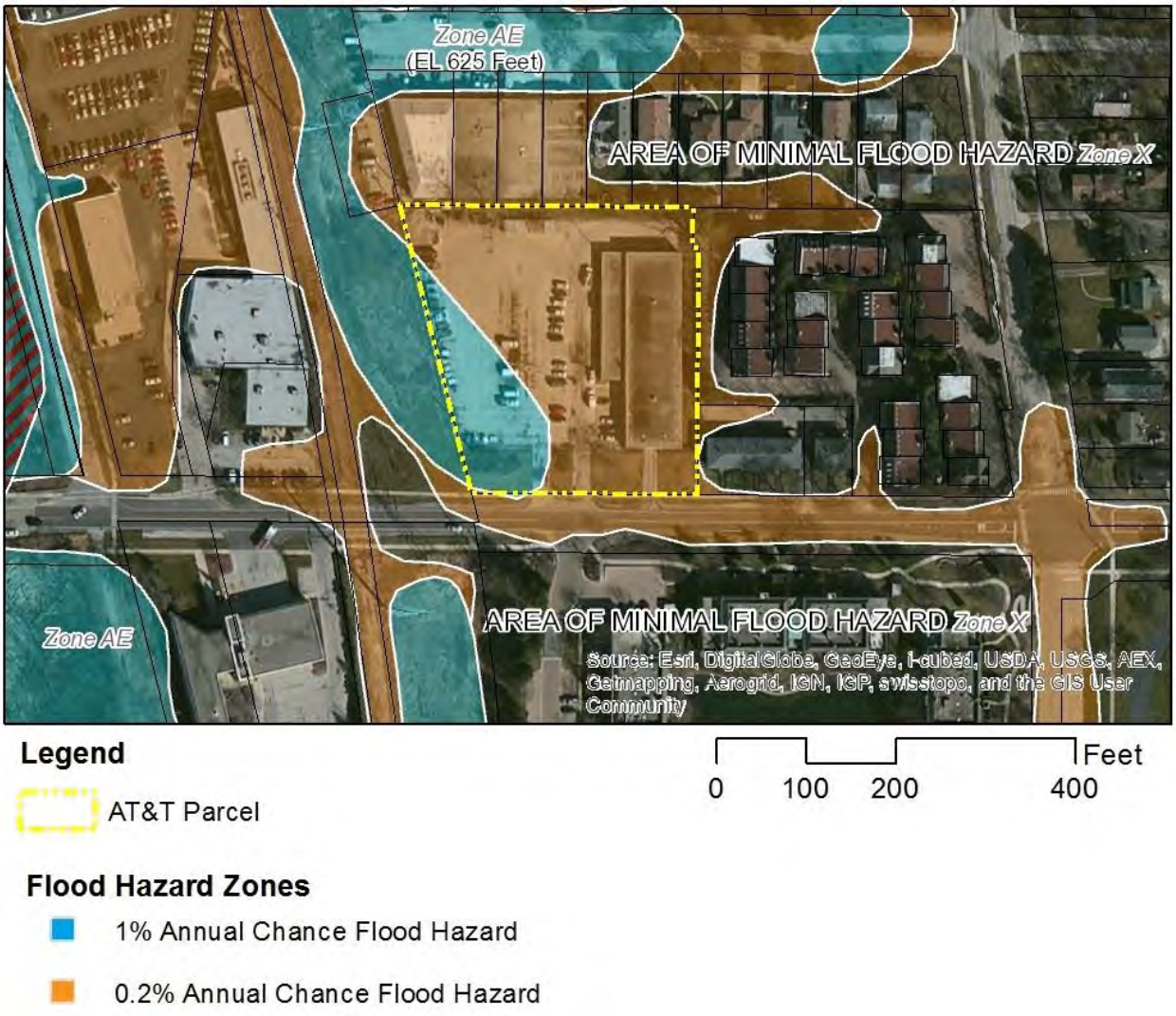
ASSESSMENT OF PROTOTYPICAL APARTMENT DEVELOPMENT ALTERNATIVE ON AT&T PROPERTY ASSUMING CHANGES TO ZONING AND RELATED LAND USE REGULATIONS

INTRODUCTION

This chapter reviews the physical parameters and development cost, financial, and market or revenue inputs used to simulate investment in the development, operation, and eventual sale of a prototypical multi-family residential development alternative specified by Teska Associates for the AT&T property under variances from existing R-6 zoning regulations. It then presents the results of the investment analysis. The prototypical alternative evaluated in this chapter is a higher density apartment use (30 units per acre) that would include two five-story buildings, requiring significant variances from existing zoning.

Map IV-1 identifies the location and size of the parcel. As also identified on the map, a 100-year floodplain extends into the west side of the site that will preclude development on this portion of the property. The entire parcel is located with a 500-year flood zone that will also preclude the development of residential units or buildings with basements and/or below-grade parking.

MAP IV-1: AT&T Site Boundary and Floodplain



DESCRIPTION OF PROTOTYPICAL APARTMENT DEVELOPMENT ALTERNATIVE

Tables IV-1 summarizes the physical parameters of the postulated prototypical apartment development alternative assuming changes or variances to the existing R-6 zoning for the 2.12-acre AT&T property.

TABLE IV-1

Prototypical Apartment Development Alternative for AT&T Site Under Variances to Existing R-6 Zoning

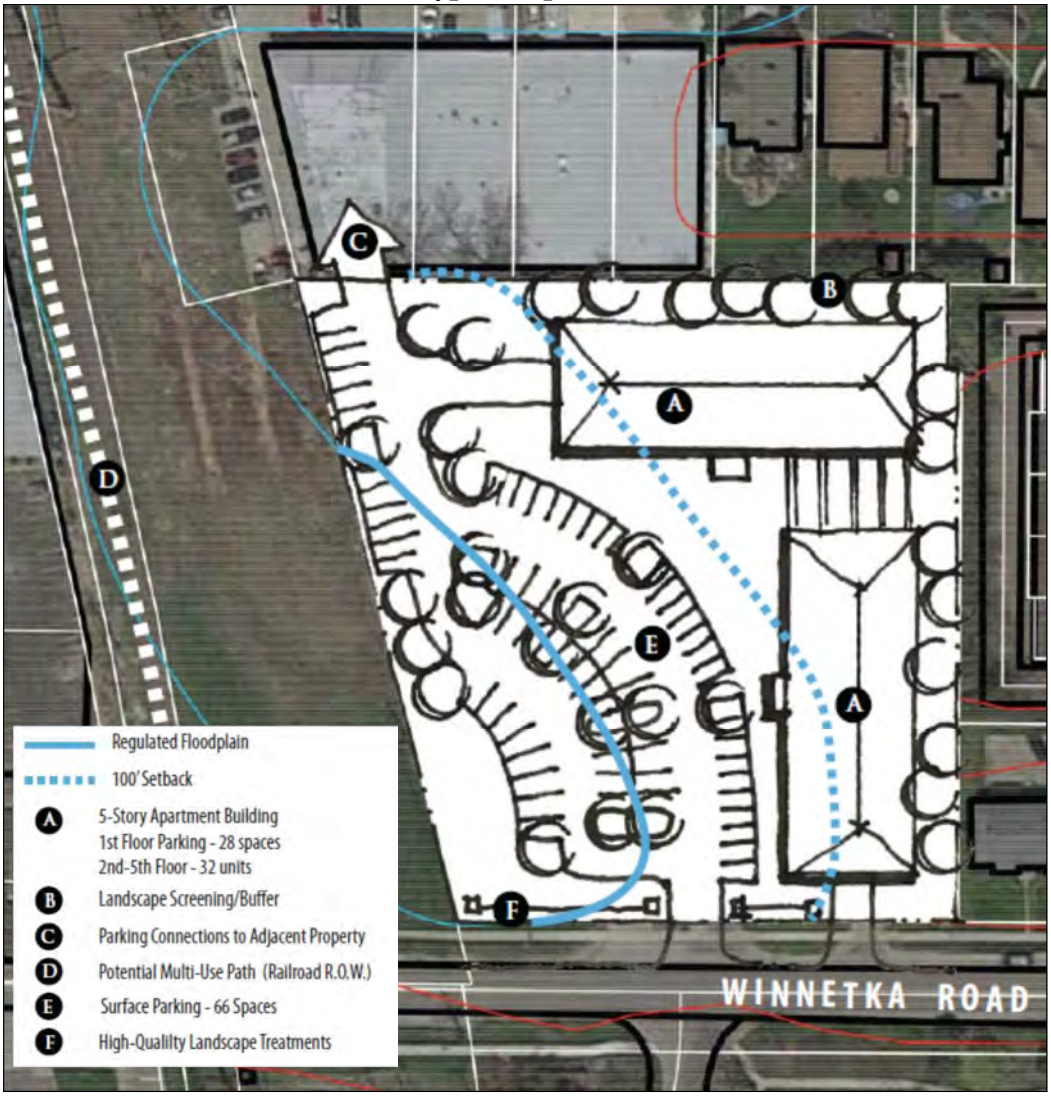
Use	Apartment
Variances Required from R-6 Zoning	Height; Floor Area Ratio; Lot Coverage; Density
Total Dwelling Units	64
Average Unit Size in Square Feet[1]	1,200
Density in Units Per Acre	30.5
Building Height(s)	5.0 stories
Gross Floor Area in Square Feet[2]	115,000
Floor Area Ratio	1.2
Lot Coverage	55%
Parking Spaces	122
Parking Ratio (Spaces Per Unit)	1.9

[1]Average unit size assumes the residential floors of the multi-family building have a net-to-gross efficiency factor of approximately 85 percent.
[2]Includes enclosed parking garages.

Sources: Teska Associates; Gruen Gruen + Associates.

Teska Associates has identified an apartment development prototype that would include two five-story buildings on the site with a total of 64 units. The gross floor area would total approximately 115,000 square feet for a floor area ratio of approximately 1.2. Enclosed parking would be provided on the ground floor of each building with four residential floors above. Surface parking would also be provided on site to equate to a parking ratio of approximately 1.9 spaces per unit. The average unit size would approximate 1,200 square feet assuming a net-to-gross efficiency factor of about 85 percent applied to the residential floors of each building. Figure IV-2 illustrates the prototype.

FIGURE IV-2: 64-Unit Prototypical Apartment Alternative for AT&T Site



Source: Teska Associates, Inc.

KEY COST ELEMENTS

Table IV-2 summarizes the estimated development costs for the postulated prototypical apartment development alternative.

TABLE IV-2

Development Cost Estimates for Prototypical Apartment Development Alternative

	$ Per Square Foot	$ Total
Demolition @ $10 Per Square Foot of Existing Building Space	1.90	175,000
Site Work @ $25,000 Per Unit	17.39	1,600,000
Parking Garage @ $30,000 Per Stall	18.26	1,680,000
Residential Hard Cost @ $150 Per Square Foot	150.00	13,800,000
Total Hard Costs	**187.55**	**17,255,000**
Soft Costs @ 17.5% of Hard Costs[1]	32.82	3,019,625
TOTAL COST[2]	**220.28**	**20,274,625**

[1] Includes development fee assumption but not financing costs.
[2] Before land acquisition.

Source: Gruen Gruen + Associates developer interviews and secondary sources

Total hard construction costs are estimated at approximately $187 per gross square foot or approximately $17.3 million in total. This includes demolition and land development costs equal to about $19 per square foot of building space and parking garage costs of $30,000 per stall. Vertical hard costs for the residential space are estimated at $150 per square foot or $13.8 million in total. We include soft costs equal to 17.5 percent of hard costs or about $33 per square foot. Total development costs are estimated at approximately $220 per square foot, before land acquisition, or approximately $20.3 million in total. This equates to a total cost of approximately $317,000 per unit.

FINANCIAL PARAMETERS

Table IV-3 summarizes the financial terms stipulated for the discounted cash flow analysis of the apartment alternatives. Two scenarios are presented: a base case; and a more conservative case that reflects higher return requirements and higher cost of debt (current capital market conditions are extremely favorable for developers).

TABLE IV-3

Investment and Financing Assumptions for Prototypical Apartment Development Alternatives for 2.12 Acre AT&T Property

	Base Case	Conservative
Equity as Percent of Project Total	30%	30%
Internal Rate of Return (IRR)	15%	18%
Sale Year for IRR Calculation	10	10
Mortgage Rate	4.5%	5.0%
Mortgage Amortization Term in Years	25	25
Year Mortgage Taken Out	2	3
Construction Loan Financing Costs – Annual Interest Rate	4.0%	5.0%
Construction Loan Fee	0.5%	0.5%
Capitalization Rate for Sale Year	6.0%	6.0%
Sales Expenses as Percent of Sales Price	3%	3%
Sources: Real Estate Capital Markets Institute; CBRE; Gruen Gruen + Associates.		

Financial parameters include equity and debt terms, construction and permanent loan arrangements, IRR and capitalization rates. Based on the interviews, we assume an equity requirement of 30 percent of project costs and a hurdle rate or IRR target threshold of 15 to 18 percent and a holding period of 10 years. We assume a one year construction period and a resulting construction loan period of one year for the "base case" scenario. We assume a construction financing period of two years for the "conservative" scenario. The construction and permanent loan term assumptions are drawn from a review of secondary capital markets data and interviews with financing sources and developers. We estimate a construction loan interest rate ranging from four to five percent for an apartment use and a loan fee of one-half of one percent. We assume a permanent mortgage loan is obtained in year two or three to take out or retire the construction loan. We estimate an annual interest rate of 4.5 to 5.0 percent for the permanent mortgage under a loan amortization schedule of 25 years. We estimate a capitalization rate, or buyer's required yield on the purchase of the property of six percent. We assume expenses associated with the sale of the property are three percent of the transaction value.

MARKET PARAMETERS

Table IV-4 summarizes the market or revenue parameters for the postulated prototypical apartment development alternative for the 2.12 acre AT&T property.

TABLE IV-4

Market Parameters for Prototypical Apartment Development Alternative Postulated for 2.12 Acre AT&T Property

Average Unit Size in Square Feet	1,200
Average Monthly Base Rent Per Square Foot	$2.20 to $2.30
Average Monthly Base Rent Per Unit	$2,640 to $2,760
Monthly Parking Revenue Per Space (Garage Spaces)	$100
Annual Fixed Operating Expenses Per Unit	$2,900
Variable Operating Expenses as Percent of Gross Income	20%
Annual Rent Escalation	2.0%
Annual Expense Escalation	2.0%
Occupancy Rate[1] Year 1 Year 2 Year 3+	 Construction 82% 97%
[1] Assumes lease-up velocity of 12 units per month.	
Source: Gruen Gruen + Associates	

We estimate average monthly rents of $2.20 to $2.30 per square foot, or $2,640 to $2,760 per unit. This estimate has been based upon a review of asking rents at new apartment supply in Northbrook, Deerfield, and Glenview.[6] Based upon our past experience and review of other recent proformas for new multi-family development in north suburban Cook County, we assume fixed operating expenses (property taxes, etc.) of $2,900 per unit, variable expenses (utilities, management fee, payroll, etc.) equal to 20 percent of gross income, and a lease-up velocity or absorption rate of 12 units per month. We assume that rents and expenses will escalate at two percent annually. Monthly parking revenue of $100 per space, for enclosed parking garage stalls, is also included.

RESULTS OF INVESTMENT ANALYSIS

GG+A simulated the real estate investment results of constructing, marketing, and operating the postulated apartment development alternative for the 2.12 acre AT&T property using GG+A's real estate cash flow model REALISM™. As indicated above, we calculated a land residual value that would permit an investor in the project which contributed 30 percent equity to earn a 15 to 18 percent IRR if the investor held the development for 10 years. The simulation projects the financial results, including the residual land value of the apartment development alternative specified for the site.

[6] Asking rents at the recently built AMLI project in Deerfield range from about $2.15 to $2.80 per square foot. Asking rents at the Woodview Apartments (Deerfield) and Midtown Square (Glenview), both built within the past year, range from approximately $2.20 to $2.70 per square foot. Pre-leasing rents at the mixed-use Northshore 770 project under construction in Northbrook are quoted to range from about $2.25 to $3.10 per square foot.

Table IV-5 summarizes the results of the simulation of the postulated prototypical apartment development (that would require substantial height, density and lot coverage variances from R-6 zoning). The results associated with the "base case" and more "conservative" rent and financing assumptions are presented.

TABLE IV-5

Residual Land Value Estimate for Prototypical Apartment Development Alternative on AT&T Site

	Conservative[1]	Base Case[2]
Residual Land Value	**($60,827)**	**$2,488,257**
Per Unit	**($950)**	**$38,879**
Per Square Foot of Land	**($0.65)**	**$27**
Total Project Value	$20,811,335	$23,056,863
Equity Investment	$6,243,401	$6,917,059
Permanent Debt	$14,567,935	$16,139,804
Annual Debt Service	$1,033,31	$1,088,453
Internal Rate of Return in Year 10	18.0%	15.0%

[1] Assumptions include monthly base rent of $2.20 per square foot, 5.0% interim and permanent financing rate, and 18.0% IRR requirement.
[2] Assumptions include monthly base rent of $2.30 per square foot, 4.0% interim financing rate and 4.5% permanent financing rate, and 15.0% IRR requirement.

Source: Gruen Gruen + Associates

These figures present a perspective for evaluation rather than a cardinal array of hard forecasts. The results are limited by the development potential, market, financial, and other underlying assumptions outlined above and do not reflect the benefit of a cost estimator or the use of property specific sitework costs and exclude any potential extraordinary existing conditions.

Under conservative rent and financing assumptions, the residual land value associated with the multi-family apartment use is effectively $0. In other words, the investor-developer would need to provide the land at no cost plus a small amount of subsidy (about $61,000) in order to achieve an 18 percent Internal Rate of Return on equity investment.

Under more optimistic assumptions about obtainable rents, financing rates, and equity return requirements, the residual land value is estimated at approximately $2,488,000 or $38,900 per unit. This equates to a residual land value of approximately $27 per square foot of land. The total project value, including construction costs, financing costs, and land value, totals about $23 million. Equity investment in the project would total $6.9 million and permanent debt would total $16.1 million. Annual debt service would approximate $1.1 million and the Internal Rate of Return on equity investment in Year 10, when the property is assumed to be sold, would be 15.0 percent.

The reader is cautioned to note that the estimated residual land values presented exclude the effect of state and federal income taxes that would have to be paid. In effect, this simplifying assumption increases the residual value over what it might be under the more realistic assumption that taxes on income would be paid. We used the before-tax case, however, so as to avoid the distortions created by taxes and the need to consider whether owners would have off-setting gains and losses from other sources, which is frequently the case.

The range of residual land value estimates this report presents are best used for comparing alternatives and obtaining insight on a prospective buyer's "ability to pay". Actual market value is also affected by the price of competing entitled land supply. For example, even if an apartment developer could afford to pay $50 per square foot for the land and still obtain a minimum threshold return, the developer will not do so if other equally or more desirable entitled residential development locations are available for less. Actual market prices are influenced by the buyer's perception of use value, expectations about the timing and risks of development and lease up, and the price of the other available locations.

An apartment investor will probably discount the indicated range of use or residual land value by 20 percent or more to reflect perceived risk, uncertainty, and potential variances in costs or rents and availability of alternative entitled sites in the market area.

As described in Chapter I, the estimated "as is" value of the AT&T property for an industrial use is $825,000 (ignoring the additional value that could be attributed to the excess land to building space). If rents of $2.30 per square foot or higher are obtainable, under the currently low long-term interest rate environment, the redevelopment of the property into the postulated apartment use would be more than sufficient to support the likely minimum reservation price for the property as an industrial use. The estimated residual land value of approximately $2.5 million exceeds the estimated "as is" value of the site by approximately $1.5 million. Therefore, the postulated prototypical apartment development would likely be financially feasible for a private investor-developer to undertake if the necessary zoning and land use regulatory changes are made, including considerable increases to building heights, dwelling unit densities, and floor area ratios currently permitted under R-6 zoning standards. This requires, however, the seller of the property not raising the reservation price to a point where the buyer-developer cannot earn the requisite return commensurate with the entrepreneurial risk and capital needed to accomplish the redevelopment.

If, however, the location cannot obtain as high as rents as alternative locations (it is not an established residential location) or if return requirements increase and debt costs increase because of heightened risk perceptions and less favorable capital market conditions, then redevelopment of property into a higher density than currently permitted apartment use is unlikely to be financially feasible.

CHAPTER V

ASSESSMENT OF RESIDENTIAL DENSITIES REQUIRED TO ENCOURAGE REDEVELOPMENT OF MORE REPRESENTATIVE NORTHFIELD ROAD PROPERTIES

INTRODUCTION

The selected sites for which the real estate economics of the postulated prototypical development alternatives described in the preceding two chapters are not representative of the properties in the core of the study area. In the absence of being provided prototypical development alternatives for this core area, GG+A postulated prototypical townhome and apartment development alternatives as a function of density of units per acre that would physically fit on properties located on the east side of Northfield Road located between 117 Northfield Road to 289 Northfield Road. Most of these parcels appear to be approximately 250 feet deep. In essence, the analysis is directed toward evaluating the potential for a private investor-developer to create an infill, "intown" residential development and be able to pay well above the existing use value for the industrial-office properties in the core area, assuming zoning and other applicable regulations were altered to permit such a development.

PROTOTYPICAL TOWNHOME DEVELOPMENT ALTERNATIVE SCENARIOS

Physical Yields Per Acre of Developable Land

Table V-1 below summarizes physical assumptions about townhome densities and the amount of sellable building space that could potentially be created per acre of developable land within the study area.

TABLE V-1

Assumed Townhome Yields Per Acre of Developable Land

Townhome Density in Units Per Acre	12	16	20
Floor Area Ratio[1]	0.80	1.00	1.20
Average Unit Size in Square Feet[2]	2,500	2,300	2,200
Sellable Space in Square Feet Per Acre	30,000	36,800	44,000

[1] Ratio of gross floor area (including garages) to land area.
[2] Rounded. Assumes two-car garages approximating 400 square feet.

Source: Gruen Gruen + Associates

We assume a prototypical townhome use ranging in density from 12 units per acre up to 20 units per acre and apply commensurate floor area ratios ranging from approximately 0.8 to 1.2. The combination of these density and floor area ratio assumptions suggest average unit sizes of approximately 2,200 to 2,500 square feet could be accommodated. Total sellable space or "living

area" per acre of land would range from a low of 30,000 square feet (at 12 units per acre) to a high of 44,000 square feet (at 20 units per acre). Figure V-1 provides an illustrative example of the highest density alternative evaluated on a hypothetical two acre site approximately 250 feet deep (as are most parcels on the east side of Northfield Road).

FIGURE V-1: Illustrative Townhome Layout at 20 Units Per Acre

The lower density alternatives could be created in the same layout, but with only three or four units in each building (and larger average unit sizes).

Sale Revenue Per Acre of Developable Land

Table V-2 summarizes the sale price assumptions upon which the analysis is based.

TABLE V-2

Gross Townhome Sale Revenue Per Acre of Developable Land

	12 du/ac	16 du/ac	20 du/ac
Average Unit Size in Square Feet	2,500	2,300	2,200
Average Sale Price Per Square Foot	$235	$245	$250
Average Sale Price Per Unit	$587,500	$563,500	$550,000
Gross Sale Revenue Per Acre	**$7,050,000**	**$9,016,000**	**$11,000,000**

Source: Gruen Gruen + Associates

We assume obtainable pricing of $235 to $250 per square foot, or approximately $550,000 to $590,000 per unit. This estimate is based upon our initial market research and interviews with two local residential brokers. The interviews indicated that units located along or near Northfield Road are unlikely to sell at price points above $600,000 given the previously mentioned locational and image constraints. The sale price assumptions equate to total gross revenues of approximately $7.1 million to $11.0 million per acre at densities of 12 to 20 dwelling units per acre.

Total Development Cost Per Acre of Land

Table V-3 presents estimates of development costs per acre of developable land.

TABLE V-3

Total Townhome Development Cost Per Acre of Developable Land

	12 du/ac $ Per Unit	16 du/ac $ Per Unit	20 du/ac $ Per Unit
Horizontal Hard Cost [1]	59,583	50,938	43,750
Vertical Hard Cost [2]	275,000	253,000	242,000
Soft Costs[3]	93,250	89,580	87,550
Builder Margin (10%)	58,750	56,350	55,000
Total Development Cost Per Unit	**486,583**	**449,868**	**428,300**
Total Development Cost Per Acre	**5,839,000**	**7,197,880**	**8,566,000**

[1] Assumes demolition costs of $175,000 per acre (which would reflect an existing industrial floor area ratio of 0.40 and demolition costs of $10 per square foot) and land development/lot improvement costs of $35,000 to $45,000 per lot.
[2] Reflects townhome hard construction cost of $110 per square foot.
[3] Includes marketing and sales, GC's, insurance and taxes, and overhead expenses equal to 13 percent of sale prices, permit and entitlement fees equal to 2.5 percent of hard costs, and impact fees of $10,000 per unit.

Source: Gruen Gruen + Associates developer interviews and secondary sources

Sitework and demolition costs are estimated at approximately $60,000 per unit at a 12 unit per acre density scenario and approximately $44,000 per unit at a 20 unit density per acre scenario. Structure development costs (vertical hard costs) are assumed to range from $275,000 per unit for the 12 unit per acre scenario to $242,000 per unit for the 20 unit per acre scenario. These estimates assume vertical hard costs of $110 per square foot (to provide for a high quality unit and overall development and reflect potential cost increases). Architecture and engineering, marketing, sales, permit fees, impact fees and other soft costs are assumed to range from approximately $93,000 per unit for the 12 unit per acre scenario to $88,000 per unit for the 20 unit per acre scenario. Assuming a builder margin requirement of 10 percent of sales revenue equates to an additional cost nearly $59,000 per unit for the 12 unit per acre scenario to $55,000 per unit for the 20 unit per acre scenario. In total, the assumptions result in estimated total development costs of approximately $487,000 per unit and $5.8 million per acre (assuming 12 units per acre) to $428,000 per unit or about $8.6 million per acre (assuming 20 units per acre).

Estimated Residual Land Value Per Acre

Table V-4 presents the estimated residual land value per acre for the prototypical townhome development at densities ranging from 12 units to 20 units per acre.

TABLE V-4

Residual Land Value Estimates for Prototypical Townhome Development Alternative at Varying Densities Per Acre

	12 du/ac $ Per Acre	16 du/ac $ Per Acre	20 du/ac $ Per Acre
Gross Sale Revenue	7,050,000	9,016,000	11,000,000
Cost to Build and Sell (Hard and Soft Costs)	(4,419,000)	(5,481,280)	(6,591,000)
Builder Profit	(705,000)	(901,600)	(1,100,000)
Finished Lot Values	1,926,000	2,633,120	3,309,000
Cost to Improve/Finish Lots	(715,000)	(815,000)	(875,000)
Gross Residual Land Value	**1,211,000**	**1,818,120**	**2,434,000**
Discounted or Net Residual Land Value[1]	**968,800**	**1,454,496**	**1,947,200**

[1] Gross residual land value discounted by 20 percent to reflect carrying costs, time required to absorb/sell the units, and other risks not specifically accounted for.

Source: Gruen Gruen + Associates

At a density of 12 units per acre, we estimate a finished lot value of approximately $161,000 per unit or $1.9 million per acre. Assuming demolition expenses of $10 per square foot of existing building space and sitework/lot improvement costs of $45,000 per lot, we estimate the cost to create the townhome lots at approximately $715,000 per acre. We estimate a net residual land value of approximately $969,000 per acre if townhome units were developed at a density of 12 units per acre.

At a higher density of 16 units per acre, we estimate total finished lot values of approximately $165,000 per unit or about $2.6 million per acre. Deducting demolition and sitework costs of approximately $815,000 per acre and applying a 20 percent reduction to account for carrying costs, we estimate a net residual land value of approximately $1.5 million per acre if townhome units were developed at a density of 16 units per acre.

At a density of 20 units per acre, we estimate total finished lot values of approximately $165,000 per unit or about $3.3 million per acre. Again deducting demolition and sitework costs of approximately $875,000 per acre and applying a 20 percent reduction to account for carrying costs, we estimate a net residual land value of approximately $1.9 million per acre if townhome units were developed at a density of 20 units per acre.

Table V-5 compares these estimates of residual land value per acre at varying densities to potential minimum reservation prices associated with one acre of existing land.

TABLE V-5

Comparison of Residual Land Values Supported by Townhome Redevelopment at Varying Densities to the Reservation Prices Associated with Existing Uses

	12 du/ac $ Per Acre	16 du/ac $ Per Acre	20 du/ac $ Per Acre
Supportable Land Acquisition Price for Townhome Redevelopment[1]	968,800	1,454,496	1,947,200
Potential Property Reservation Price[2]	762,300 – 1,185,800	762,300 – 1,185,800	762,300 – 1,185,800
Surplus (Deficit)	**(217,000)-206,500**	**268,696-692,116**	**761,400-1,184,900**

[1] Net residual land value estimates from Table V-4.
[2] Low end of range reflects net annual rent of $5 per square foot, 10 percent capitalization rate, and floor area ratio of 0.35. High end of range reflects net annual rent of $7 per square foot, nine percent capitalization rate, and floor area ratio of 0.35.

Source: Gruen Gruen + Associates

The dollars available to pay for existing property are high enough at 16 to 20 units per acre to suggest the potential for redevelopment of existing uses. The 12 unit density scenario would not generate enough residual land value to support the purchase of the existing uses, demolition of existing improvements, and creation of new townhome uses.

PROTOTYPICAL APARTMENT DEVELOPMENT SCENARIOS

Physical Yields Per Acre of Developable Land

Table V-6 summarizes physical assumptions about apartment densities and the amount of rentable building space that could potentially be created per acre of developable land within the study area.

TABLE V-6

Assumed Multi-Family Apartment Yields Per Acre of Developable Land

	3-Story Surface Parked	3-Story Surface Parked	5-Story Garage Parked
Apartment Density in Units Per Acre	24	32	40
Floor Area Ratio[1]	0.65	0.85	1.35
Average Unit Size in Square Feet[2]	1,000	1,000	1,000
Net Rentable Space in Square Feet Per Acre	24,000	32,000	40,000
Parking Ratio (Spaces Per Unit)	1.75	1.75	1.75
Total Parking Spaces	42 Surface	56 Surface	34 Garage 36 Surface

[1] Ratio of gross floor area (including garages) to land area.
[2] Assumes net-to-gross efficiency factor of approximately 85 percent.

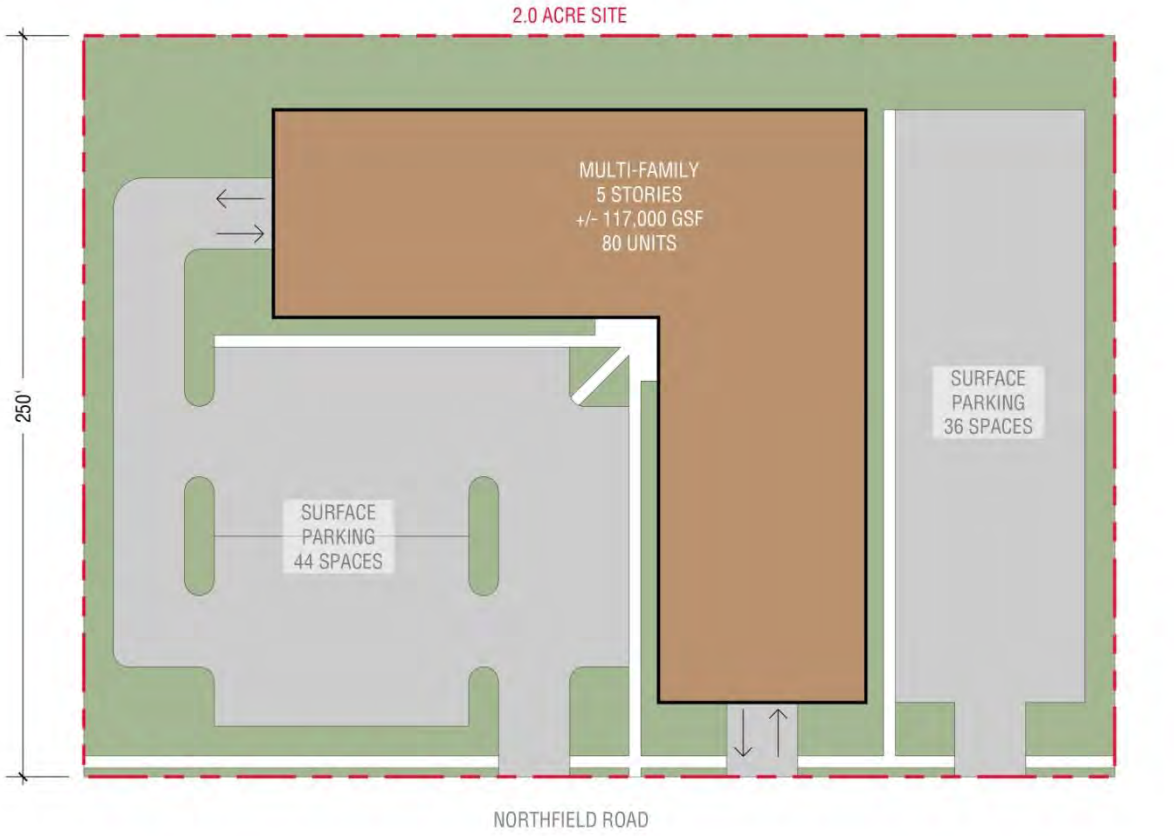
Source: Gruen Gruen + Associates

We assume a prototypical three-story multi-family apartment use could range in density from 24 units per acre up to 32 units per acre with floor area ratios of approximately 0.65 to 0.85. The buildings could be surface parked at a ratio of 1.75 spaces per unit.[7] Assuming an average unit size of 1,000 square feet, net rentable building space would range from 24,000 to 32,000 square feet per acre of developable land. A denser five-story multi-family use, at 40 units per acre, would have a floor area ratio of approximately 1.35. Through a combination of surface and garage parking, a parking ratio of 1.75 spaces per unit could again be provided. Total rentable building space would increase to approximately 40,000 square feet per acre of land.

Figure V-2 provides an illustrative example of the high density alternative evaluated on a hypothetical two acre site is that is approximately 250 feet deep (as are most parcels on the east side of Northfield Road).

[7] Assuming 350 square feet of land area per surface parking space, the lot coverage would range from about 60 to 80 percent for these two surface parking alternatives.

FIGURE V-2: Illustrative Apartment Layout at 40 Units Per Acre



Total Development Cost Per Acre of Land

Based upon the same multi-family apartment development cost assumptions reviewed in Chapter IV, Table V-7 presents an estimate of cost per unit and per acre for each of the apartment alternatives ranging from 24 to 40 units per acre in density.

TABLE V-7

Total Apartment Development Cost Per Acre

	3-Story 24 du/ac $ Per Unit	3-Story 32 du/ac $ Per Unit	5-Story 40 du/ac $ Per Unit
Demolition @ $10 PSF of Existing Building Space	7,292	5,469	4,375
Site Work @ $25,000 Per Unit	25,000	25,000	25,000
Parking Garage @ $30,000 Per Stall	0	0	25,500
Residential Hard Cost @ $150 PSF	176,471	176,471	176,471
Soft Costs @ 17.5% of Hard[1]	36,533.39	36,214.38	40,485.48
Total Development Cost Per Unit[2]	245,296	243,154	271,831
Total Developer Cost Per Acre[2]	5,887,096	7,780,919	10,873,243

[1] Includes development fee assumption but not financing costs.
[2] Before land acquisition.

Source: Gruen Gruen + Associates developer interviews and secondary sources

Total development costs per unit for the three-story, surface parking alternatives range from approximately $243,000 to $245,000 per unit. This equates to total costs of $5.9 million per acre (at 24 units per acre) and $7.8 million per acre (at 32 units per acre). Development costs for the higher density five-story alternative are estimated at approximately $272,000 per unit or $10.9 million per acre.

Market, Operating, Financing, and Investment Parameters

The same rent, expense, lease-up, financing and investment parameters reviewed in Chapter IV for the prototypical apartment development alternative conceived for the AT&T site are applied to this analysis. The primary assumptions include an equity investment of 30 percent of total development costs, gross monthly rents of $2.20 to $2.30 per square foot, operating expenses equal to 30 percent of gross income, a 15 to 18 percent Internal Rate of Return (IRR) requirement on equity investment, 4.5 to 5.0 percent permanent financing rate, and a 6.0 percent capitalization rate on the eventual sale of the multi-family property. The five-story alternative, which includes 40 units/acre and a ground floor parking garage, includes monthly parking revenue of $100 per space. The lower density alternatives include no parking revenue assumptions.

Estimated Residual Land Value Per Acre

Table V-8 summarizes residual land value estimates for each of the prototypical apartment development alternatives.

TABLE V-8

Residual Land Value Estimate for Apartments

	24 du/ac $ Per Acre	32 du/ac $ Per Acre	40 du/ac $ Per Acre
CONSERVATIVE[1]			
Residual Land Value	**226,852**	**327,232**	**(337,920)**
Per Unit	**9,452**	**10,226**	**(8,448)**
Total Project Value	6,287,438	8,337,449	10,855,779
Equity Investment	1,886,231	2,501,235	3,256,734
Permanent Debt	4,401,206	5,836,214	7,599,045
Annual Debt Service	312,276	414,094	539,171
Internal Rate of Return in Year 10	18.0%	18.0%	18.0%
BASE CASE[2]			
Residual Land Value	**993,774**	**1,349,088**	**991,107**
Per Unit	**41,407**	**42,159**	**24,778**
Total Project Value	6,966,216	9,242,807	12,022,009
Equity Investment	2,089,865	2,772,842	3,606,603
Permanent Debt	4,876,352	6,469,965	8,415,406
Annual Debt Service	328,856	436,328	567,527
Internal Rate of Return in Year 10	15.0%	15.0%	15.0%

[1] Assumptions include monthly base rent of $2.20 per square foot, 5.0% interim and permanent financing rate, and 18.0% IRR requirement.
[2] Assumptions include monthly base rent of $2.30 per square foot, 4.0% interim financing rate and 4.5% permanent financing rate, and 15.0% IRR requirement.

Source: Gruen Gruen + Associates

Under the conservative rent, financing and investment assumptions, the residual land values range from approximately negative ($8,500) to positive $10,200 per unit. This equates to a land value of approximately negative ($340,000) per acre to positive $330,000 per acre. Note that the denser five-story alternative, at 40 units per acre, is estimated to generate a negative land value under conservative assumptions while the land value estimated to apply to the less dense surface parking alternative at 32 units per acre approximates $330,000 per acre.

Under the more optimistic assumptions about obtainable rents, financing rates and investment return requirements, the residual land value estimates range from approximately $25,000 to $42,000 per unit. This equates to land values of about $990,000 to $1.3 million per acre. The results of the discounted cash flow analysis indicate that a structured parking alternative does not pay off at a density of only 40 units per acre. The moderate density alternative at 32 units per acre, with an

estimated land value of about $42,200 per unit or $1.3 million per acre, is most likely to support the feasible acquisition and redevelopment of industrial property in the corridor. Table V-9 compares these estimates of residual land value to the potential minimum reservation prices associated with one acre of existing land.

TABLE V-9

Comparison of Residual Land Values Supported by Apartment Redevelopment at Varying Densities to the Reservation Prices Associated with Existing Uses

	24 du/ac $ Per Acre	32 du/ac $ Per Acre	40 du/ac $ Per Acre
Supportable Land Acquisition Price for Apartment Redevelopment[1]	226,852- 993,774	327,232- 1,349,088	(337,920)- 991,107
Potential Property Reservation Price[2]	762,300 – 1,185,800	762,300 – 1,185,800	762,300 – 1,185,800
Surplus (Deficit)	**(535,448)- (192,026)**	**(435,068)- 163,288**	**(1,100,200)- (194,693)**

[1] Residual land value estimates from Table V-8.
[2] Low end of range reflects net annual rent of $5 per square foot, 10 percent capitalization rate, and floor area ratio of 0.35. High end of range reflects net annual rent of $7 per square foot, nine percent capitalization rate, and floor area ratio of 0.35.

Sources: Gruen Gruen + Associates.

At a density of 24 units per acre, an apartment redevelopment alternative is unlikely to generate a sufficiently high land value to cause existing property owners to participate in redevelopment. The analysis demonstrates that assuming sufficient property can be assembled, the "sweet spot" that currently generates the most available dollars to go toward the purchase and demolition of existing property and development of a new apartment use is a three-story with surface parking alternative. A three-story, apartment with surface parking alternative, for example, under the more optimistic rent, financing and investment assumptions, is estimated to support a land value that exceeds the potential minimum reservation price for one acre of land by approximately $163,000.

Gruen Gruen + Associates (GG+A) is a firm of economists, sociologists, statisticians and market, financial and fiscal analysts. Developers, public agencies, attorneys and others involved in real estate asset management utilize GG+A research and consulting to make and implement investment, marketing, product, pricing and legal support decisions. The firm's staff has extensive experience and special training in the use of demographic analysis, survey research, econometrics, psychometrics and financial analysis to describe and forecast markets for a wide variety of real estate projects and economic activities.

Since its founding in 1970, GG+A has pioneered the integration of behavioral research and econometric analysis to provide a sound foundation for successful land use policy and economic development actions. GG+A has also pioneered the use of economic, social and fiscal impact analysis. GG+A impact studies accurately and comprehensively portray the effects of public and private real estate developments, land use plans, regulations, annexations and assessments on the affected treasuries, taxpayers, consumers, other residents and property owners.

San Francisco:
(415) 432-4342

Deerfield:
(847) 317-0634

www.ggassoc.com

APPLYING KNOWLEDGE, CREATING RESULTS, ADDING VALUE