Stantec

Agenda

Northfield Comprehensive Plan

Steering Committee Meeting #3

Location: **City Hall, 2nd Floor Training Room (and Zoom)**
Date: **July 24, 2024, 6:00-7:30pm**

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1. Welcome, agenda
2. Climate Analysis
    a. Attachment: Climate Change Analysis
    b. *Discussion: Are there other things from the Climate Action Plan that should be emphasized? Do you agree with how we have tied Climate Change goals with other chapters?*
3. Housing Analysis
    a. Attachments: Housing Analysis
    b. *Discussion: This will be updated with recently completed housing analyses from other agencies and consultants. Do you have further ideas about the direction housing should take in the plan?*
4. Economic Development Analysis
    a. Attachment: Economic Development Analysis
    b. *Discussion: Did anything stand out to you in this document? Do you have further ideas about the direction economic development should take in the plan?*
5. Transportation Analysis
    a. Attachment: Transportation Analysis
    b. *Discussion: How land use and transportation are intertwined. Other issues we need to address in the plan (safety, access to important destinations, mobility options, etc.)?*
6. STEP Update
    a. Attachment: Step Update Memo
    b. *Discussion: What are your reactions to the draft strategies (major headings) for Access, linking transportation and land use? Are there strategies or categories of actions we missed?*
7. Wrap up and next steps

Implementation of Climate Action Plan

The City of Northfield adopted a Climate Action Plan (CAP) in 2019. At a high level, the plan commits the city to decreasing its greenhouse gas emissions through mitigation strategies and becoming more resilient to prepare for climate change. The CAP's overarching goal is for Northfield to achieve 100% carbon-free electricity by 2030 and be a 100% carbon-free community by 2040.

As the city's primary policy document guiding future growth, the Comprehensive Plan should incorporate and build upon the priorities, strategies, and actions in the CAP. The following summarizes the strategies and actions in the CAP that overlap with the Comprehensive Plan. Recommendations have then been provided on how the policies from the CAP may be incorporated into the Comprehensive Plan and its implementation.

Land Use

The CAP includes land use related strategies that can be incorporated and built upon in the Comprehensive Plan policies. By tying these strategies into the Comprehensive Plan, it will strengthen the city's ability to reference them in daily decision-making, and to subsequently update its Land Development Code in ways that reinforce the goals of the CAP. The following summarizes the strategies and actions included in the CAP and describes ways in which these may be incorporated into the Comprehensive Plan and its implementation.

- **CAP Recommended Action:** Update and strengthen the comprehensive plan and Land Development Code to increase residential density within City limits through infill best practices, such as the elimination of minimum parking requirements.
  - **Comprehensive Plan:** The goal of increasing infill development has been included in past planning processes including the 2006 Economic Development Plan and the 2008 Comprehensive Plan. While the CAP action only mentions increasing residential density, the City also has goals for increasing commercial and industrial infill development.

    For the Comprehensive Plan, specific attention has been given to increasing infill development over "greenfield development." The STEP land use analysis prioritizes strengthening and transforming areas within the City limits which are already served by city infrastructure. It also proposes limited strategic growth areas, which could help to create mixed use nodes for existing neighborhoods, reducing the need for additional vehicle trips. The economic analysis reinforces that redevelopment is fiscally responsible, utilizing preexisting street and utility infrastructure and limiting the boundaries for safety and emergency services, while generally increasing the value and property tax revenue from redeveloped properties.

    Prioritizing infill and redevelopment can also provide benefits that will help the city achieve its climate and resilience goals. The city has already begun the process of eliminating or reducing parking minimums, as referenced in the CAP. The policy recommendations in the "Infill Best Practices" section below will propose other ways that the city may explore incentivizing infill development over greenfield development.

- **CAP Recommended Action:** Consider climate migrants (unexpected growth in population) in City planning efforts.
  - **Comprehensive Plan:** The Comprehensive Plan will include population projections, which are generally based on historical trends and projections from the State Demographers office. Generally, these population projections, and the resulting land use guidance, will account for the limited amount of growth that may occur due to climate migrants by the year 2045. Of equal importance, climate migrants may require affordable housing and support services, which are key pillars of the Comprehensive Plan vision framework. While the Comprehensive Plan goals and policies may not reference climate migrants specifically, there will be emphasis on supporting housing affordability and vulnerable populations while planning for population growth.

- **CAP Recommended Action:** Continue to include Accessory Dwelling Units as a permitted use in Northfield's Land Development Code to enable more efficient use of land.
  - **Comprehensive Plan:** Northfield's Land Development code allows denser residential districts than most cities in Minnesota. In addition to accessory dwelling units, Northfield also allows up to three dwelling units per lot in the R-1 low density residential district. Northfield can continue to build on this allowed density by encouraging more infill development in its Comprehensive Plan, both residential and commercial/industrial. The "Infill Best Practices" section below discusses this further. Infill development will also enable a more efficient use of land by limiting the need for outward growth of the city.

- **CAP Recommended Action:** Identify opportunities to expand renewable energy in or near Northfield; coordinate with Carleton, St. Olaf, Post Consumer Brands (formerly Malt-O-Meal), and Xcel Energy
  - **Comprehensive Plan:** Currently, solar energy and micro-wind energy systems are allowed in all zoning districts per the city's Land Development Code, and the city's subdivision code requires developers to consider energy conservation and solar access in all new development. The City also has resources and educational materials on its website for residents and businesses looking to pursue renewable energy. The Comprehensive Plan, and subsequent updates to the city's Land Development Code could also provide incentives for on-site renewables within city limits. Incentives could include relaxed setback standards, density bonuses, streamlined permitting and/or reduced fees. The City may also work with its Economic Development Authority to provide small grants or matching funds for renewable energy development.

    Additionally, Northfield could also prioritize working with its neighboring townships and counties to ensure that agricultural land surrounding the city allows for renewable energy. The city could encourage these partners to reduce barriers to renewable energy development such as onerous development and permitting requirements. While this is less directly under the city's sphere of influence, the Comprehensive Plan can include policies that encourage this type of partnership.

- **CAP Recommended Action:** Report annually to the Planning Commission, Environmental Quality Commission and City Council on how strategic growth strategies in the Comprehensive Plan that

emphasize infill over expansion or energy efficiency have been implemented to date and how they are being applied to upcoming developments.

- **Comprehensive Plan:** Tracking, metrics, and reporting are key to successful implementation of the Comprehensive Plan policies. The decision-making matrix incorporated into the Comprehensive Plan will include metrics to track progress towards the Guiding Values and goals in the Plan, including climate resilience. It will also provide a tool for making decisions that are not specifically mentioned in the Comprehensive Plan. By ensuring a regular touch-point to review progress, the city can easily pivot or modify policies to obtain better outcomes.

Housing

- **CAP Recommended Action:** Increase affordable housing, emergency, and transitional housing in Northfield, and ensure safety of these homes.
  - **Comprehensive Plan:** The city conducted a recent housing study, and the Comprehensive Plan will continue to build on this work. Equity and affordable housing are pillars of the Comprehensive Plan, and goals and policies in the housing section will address this CAP strategy.

- **CAP Recommended Action:** Explore opportunities to require energy improvements for quality affordable housing that is safe and energy efficient.
  - **Comprehensive Plan:** The Comprehensive Plan housing chapter will have a focus on affordable housing. This CAP action has been implemented through the city's energy efficiency rebate program aimed towards income-qualified households. The Comprehensive Plan could include a goal that the city continue to fund this program and regularly analyze its effectiveness.

- **CAP Recommended Action:** Implement a voluntary green building code for new or substantially reconstructed buildings.

  - **Comprehensive Plan:** Northfield adopted a sustainable building policy in January 2022, which applies to all new construction and redevelopment projects that receive at least $150,000 in public funding from the city. Given the city's commitment to providing safe and affordable housing, the Comprehensive Plan could guide the city to continue monitoring residential developments subject to this policy to ensure that it is not impacting affordability.

Transportation and Mobility

- **CAP Recommended Action**: Adopt a policy for market-based pricing for parking in commercial areas and dedicate funds to go toward transportation for biking, walking, and public transit.
  - **Comprehensive Plan:** The Comprehensive Plan could include this policy, and guide specific areas where this would be applicable.

- **CAP Recommended Action**: Work with Hiawathaland transit and other partners to explore a subsidized bus pass program and/or simplify the payment method to increase ridership on the existing transit system
  - **Comprehensive Plan:** The transportation analysis for this Comprehensive Plan emphasizes multimodal transportation and connections. One of the goals or policies in the Comprehensive

Plan could be specific to working with Hiawathaland to improve the existing and plan for future transit system. In addition to subsidies, the Comprehensive Plan should also include strategies for improving the transit systems routes and frequencies to connect residents with needed services and amenities.

- **CAP Recommended Action**: Collaborate with community partners, particularly St. Olaf and Carleton, to explore bike, scooter, carsharing or other mobility options; ensure motorized options are electric and accessible to all residents
  - **Comprehensive Plan:** These types of micromobility options can be difficult to implement successfully in smaller cities, but could be explored with the partners listed in this CAP action. The Comprehensive Plan would likely keep this goal or policy as an option to explore.

- **CAP Recommended Action**: Continue to implement the current bike/ped plan to improve access and safety of bike and pedestrian infrastructure
  - **Comprehensive Plan:** The transportation analysis in this Comprehensive Plan provides suggestions on implementation and prioritization of projects from the bike/ped plan.

- **CAP Recommended Action**: Incorporate additional transportation modes (such as bike infrastructure, wide sidewalks) and green stormwater infrastructure systems (such as rain gardens) into street maintenance and reconstruction projects
  - **Comprehensive Plan:** Comprehensive Plan goals or policies can encourage the city to incorporate these types of projects into their Capital Improvement Projects.

Economic Development

- **CAP Recommended Action**: Sustainable Tourism and Marketing - This strategy focuses on outward engagement by marketing Northfield's energy conservation and renewable energy projects and programs in a way that attracts and retains tourists, residents, and businesses.
  - **Comprehensive Plan:** The City of Northfield has generally done a good job at promoting itself as a progressive, environmentally focused community. The colleges also help with this perception. The Comprehensive Plan can include goals and policies to guide the city and its partners at the Northfield Chamber of Commercial and Tourism and Visit Northfield to continue marketing the city in this manner.

- **Comprehensive Plan**: Recruit sustainability, waste processing (recycling and composting), and energy-focused businesses to existing Northfield spaces and/or a future green business park or industrial development
  - The Comprehensive Plan can include a goal or policy that encourages this type of business recruiting and work with partners to understand opportunities and create promotional materials.

The commitments in the Climate Action Plan can only be achieved if adopted in every facet of city life. By incorporating key policies and commitments into the Comprehensive Plan and its decision-making framework, the city can more easily incorporate climate action into its day-to-day decision-making.

Infill and Redevelopment Incentives

The city has expressed interest in encouraging more infill and redevelopment in areas of the city already served by infrastructure and services. Several past plans, including the 2006 Economic Development Plan and 2008 Comprehensive Plan, have encouraged this type of development. While there has been some infill development over the past 15-20 years, there are inherent challenges to overcome when pursuing infill and redevelopment projects. This analysis provides best practices the city could explore to overcome these challenges.

To create policies and incentives that encourage and incentivize infill and redevelopment, it is helpful to understand some of the challenges to this type of development. Policies can then be targeted to address specific challenges developers may face. Challenges to infill and redevelopment include, but are not limited to:

- Small parcels with fragmented ownership
- Higher capital costs associated with higher value land and acquisition costs, demolition, and replacement of outdated infrastructure
- More limited financing options
- Potential for existing environmental contamination
- Longer regulatory approval process

Best Practices

To address these challenges, the city should explore best practices which address each of these barriers to infill and redevelopment. The following analysis summarizes best practices the city could consider.

Smaller parcels with fragmented ownership

- Work with property owners to assemble and acquire land.
- Develop and maintain a list of potential infill and redevelopment sites. Prioritize underutilized parcels or developments that are located close to existing everyday destinations and well connected via bike/ped/transit.
    - Doing this with STEP analysis – transform and strengthen sites.
- Provide flexible development standards for regulations such as lot size, setbacks, or parking requirements.
    - El Paso, TX Code Ordinances § 20.10.280 (2017) - side, front, and rear setback requirements of the base zoning district may be reduced up to 100% by city council for infill developments.
- Provide opportunities in the land development code to increase density either at key sites through a zoning overlay or in exchange for city-desired elements such as climate-friendly design elements.
    - Example: Auburn, WA Municipal Code § 18.25.040 (2009) - residential infill developments are permitted increased maximum density and allowable building height.

Higher Capital Costs/Limited Financing Options

- Reduced application or utility connection fees.
- Provide city-led infrastructure upgrades.
- Waive sewer/water/infrastructure fees and/or development impact fees OR…
- Create deferred payment options for these fees, which helps developers because it reduces the need for more short term construction loans with high interest rates vs. longer-term permanent. financing.
    - Example: Surprise, AZ Code of Ordinances § 109-48 (2016) - establishing an infill incentive district where certain new residential developments can receive a 100% waiver of development impact fees.
    - Example: Avondale, AZ- Code of Ordinances § 19-61 (2014) - Avondale established an infill incentive program aimed at certain neighborhoods in order to reinvigorate existing historic areas and support new mixed-use development that would promote the historic identity of the area.[18] The neighborhoods targeted by the infill incentive program contain many vacant or underutilized areas and exhibit at least one of the following characteristics: high vacancy rates, larger number of older buildings, and continued decline in population in relation to the City as a whole.[19] Qualified residential projects on residentially-zoned property within the infill incentive district are subject to reduced fees. New residential construction projects receive a 50% reduction in the normal planning and permit fee as well as the development impact fee.[20] Rehabilitation or remodeling projects are allowed a 50% reduction in planning and permit fees and are not subject to development impact fees.[21] Qualified commercial projects have the same incentives as residential projects, but with the added benefit of additional incentives being available subject to approval by the city council.[22] These additional incentives are based on additional criteria, such as high-wage job creation.[23]
- Provide tax abatement or tax increment financing for redevelopment or infill projects.

Potential for environmental contamination

- Apply for Community-wide EPA Brownfield Grant to identify, assess, and cleanup properties with environmental concerns. Use this as a tool to incentivize and reduce costs of redevelopment.
- Provide site assessment guidance for developers looking to redevelop on a brownfield site.
- Conduct area-wide planning, which is an allowed activity under the EPA brownfield grant. This can be done as a City-led initiative in areas that may be more challenging or need more planning before development can occur. This can also be done in partnership with a developer or property owner to plan for development at key catalyst sites and meaningfully engage with the community prior to beginning the development review process.
- Stantec's brownfield program has helped many cities take advantage of these funds and navigate the process of managing the grant. A few key examples of success that our planning team worked on in Mankato, MN:
    - Studio 5 Mixed Use Development in Downtown Mankato. This project involved a key catalyst site Mankato's historic downtown. The site had contamination that was related to its historic use as a dry cleaner. The grant helped the city and developer complete environmental surveys and assessments and leveraged these opportunities to obtain a

MN DEED cleanup grant. These funds were combined with TIF from the city to redevelop the property as a mixed use development with 19 apartments and two ground-floor commercial spaces. The project has won several awards, including a MN Brownfields Economic Impact award.
    - More information: https://www.mankatomn.gov/about-mankato/business/programs-and-resources/brownfields
- Riverside North Areawide Plan. This plan was done for an aging commercial corridor and gateway into the city along I-35. The area had several underutilized sites, some privately owned and some owned by the city. The area-wide plan included recommendations for several key catalyst sites, as well as transportation and public realm improvements. One of the catalyst sites has since begun the redevelopment process as intended in the plan.
    - Areawide Plan: https://www.mankatomn.gov/home/showpublisheddocument/10794/637436095377470000
    - Subsequent Redevelopment Project: https://www.mankatofreepress.com/news/local_news/dutlers-bowl-redevelopment-slated-to-start-by-fall/article_f7e9b9c2-e749-11ec-98d4-efab8d1807ba.html
- Jefferson Quarry Redevelopment Plan. This plan was done for a fully-extracted quarry north of downtown along the Minnesota River and south of US Highway 14. The plan envisioned a mixed use neighborhood and explored how the quarry may be served by roads and utilities, add to the parks and open space network and be an amenity for adjacent residential neighborhoods. This plan was done in partnership with the property owner and developer who will carry the project forward through the development review process.
    - Areawide Plan: https://content.mankatomn.gov/files/Jefferson-Quarry-Redevelopment-Plan.pdf

Longer regulatory approval process

- Expedited development review, or for certain parts of the development review process
- Review historic variance requests and make land development code more flexible to avoid additional processes and public hearing associated with variances
- Review conditional use permits and work to allow more uses by right, avoiding lengthy conditional use permit processes and public hearings

Sources:

APA https://www.planning.org/blog/9227414/infill-development-supports-community-connectivity/#:~:text=Identify%20incentives%20that%20encourage%20developers,mixed%2Duse%20requirements%20that%20increase

Sustainable Development Code https://sustainablecitycode.org/brief/encourage-infill-development/

Northfield Housing Analysis

The City has recently undertaken two studies of housing: one in 2021 done by the Hoisington Koegler Group and one in 2022 done by Enterprise Community Partners. A study is currently underway by Maxfield and some of its preliminary findings are included here. There are several key conclusions from each study that will inform the implementation policies and strategies in the comprehensive plan. In fact, most of the recent planning efforts in the city have included goals related to increasing the supply of affordable housing and creating more diverse housing types.

Data and Trends

The data on housing and demographics done in the 2021 study informed both studies and is most specific to the City of Northfield. This section presents the major takeaways from that data and data from the Community Profile.

The fastest growing demographic is households with people over 60. The percentage of households with children is declining. Both of these factors contribute to the city's declining household size and impact the types of housing that will be needed in the future.

	Distribution		
Household Type	2011	2016	2021
Married with Children	23.0%	21.3%	18.7%
Married without Children	30.2%	30.1%	29.9%
Other Family	11.1%	13.0%	11.1%
Single	28.7%	30.5%	32.3%
Roommates	6.9%	5.1%	8.0%
Total	100.0%	100.0%	100.0%

(source: U.S. Census and ACS 2011-2021)

The biggest population and household growth for the period 2010-2025 is expected to occur with adults aged 55 and over and in new families with householders between 25 and 34 years old. Both of these age groups are different in terms of their demand and expectations. The former age group might require more supportive housing types while the latter age group might be looking for smaller starter and move-up homes.

Based on these trends, the housing study predicts that the city will see increased demand for a variety of housing options such as smaller size, rental, lower maintenance, and housing affordable to those with extremely low, low and moderate incomes. The study projects that an average of 90 new households will need housing each year in the city, although the projections only go through 2025. There is a projected increased demand for both owner- and renter-occupied affordable units.

Looking forward, we have developed a population projection that is largely based on county data (more fully explained in the Land Use and Growth Analysis). Those projections are as follows:

Table 1. Population, Household, and Housing Unit Projections

	Northfield Population	In Group Quarters (Students, 2020)	Household Population	Number of Households	Housing Units
2025	21,291	4,847	16,444	6,939	7,304
2030	21,789	4,847	16,942	7,149	7,525
2035	22,200	4,847	17,353	7,322	7,707
2040	22,524	4,847	17,677	7,458	7,851
2045	22,777	4,847	17,930	7,565	7,964

Table 2. 2025-2045 Projections

Population Change 2025-2045	**1,698**
Growth Rate 2025-2045	**6.5%**
Annual Growth Rate	**0.34%**
Housing Units Needed by 2045	**660**

Preliminary findings from the Maxfield study show a higher demand for housing, in the range of 800 units over the next five years. The projected housing unit need should, then, be viewed as a range. As discussed in the land use analysis, additional housing units than the low end of the projections *can* be produced, if the city would like to provide an opportunity to satisfy pent-up demand via infill, targeted annexation, and financial tools to support housing types that are in need.

Data from the Community Profile points to a demand for multi-unit housing types. The figures below show increasing rents (for all classes of multi-unit housing), very low vacancy rates, and fast absorption of new units. Preliminary findings from Maxfield support this conclusion.

Figure 1. Multi-Unit Rent and Vacancy Rate

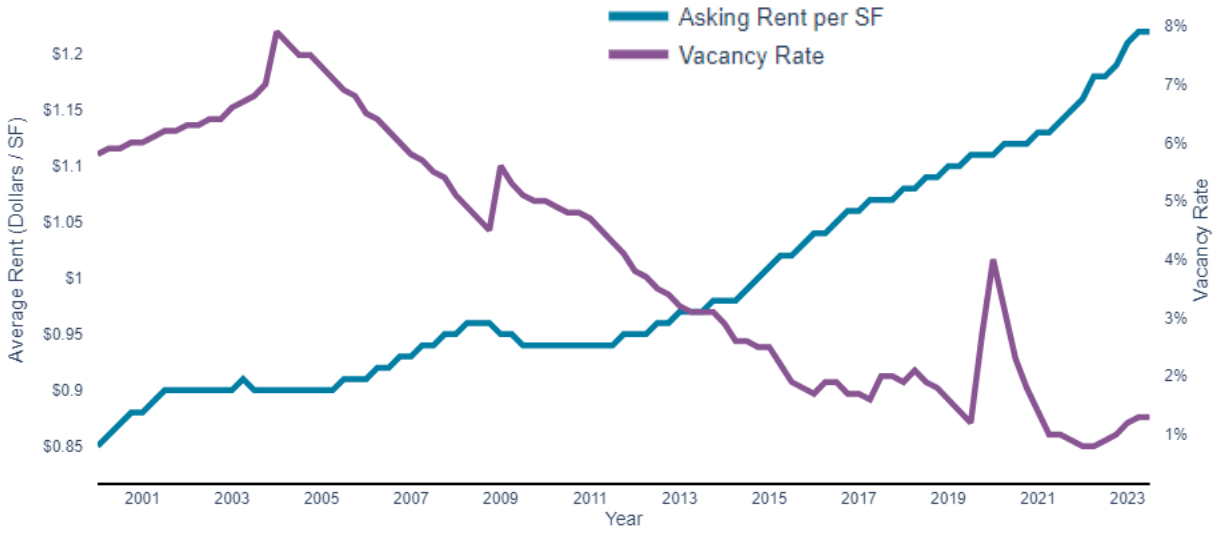
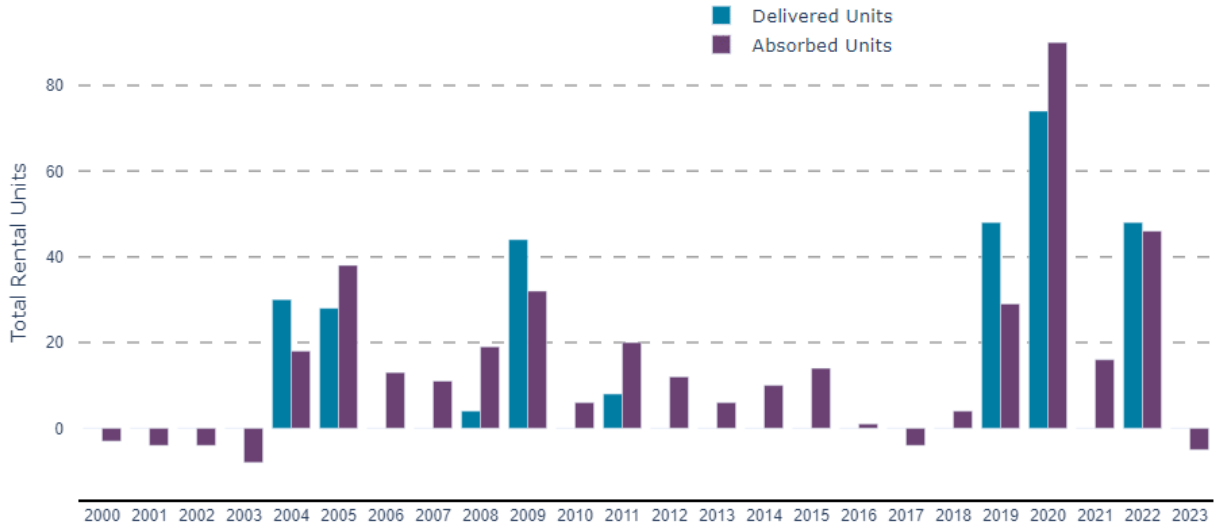


Figure 2. Multi-Unit: Delivered and Absorbed



The Maxfield study points out that in 2016, 34.2% of single-family homes sold were priced under $200,000. By 2023 that proportion had decreased to 2.6%.

Findings

The 2022 study completed by Enterprise Community Partners, focused on housing within the school district, provided some more specific conclusions that are relevant to this Comprehensive Plan, namely:

- There is a rental supply gap for households at or below 30% AMI
- Older homes having a higher likelihood of needed repair or lead contamination, are concentrated in the northeastern census tract. (Note: this is consistent with the some of the locational disparities shown in the Community Profile.)
- Homeownership rates are racially inequitable, with disproportionate shares of Black and Latine renter households.
- Stakeholders identified some important issues that should be considered in the development of Comprehensive Plan housing strategies:
    - The lack of affordable starter homes as a barrier to moving out of renting.
    - There are housing quality issues with rental and manufactured housing, including:
        - Crowding in small units
        - Quality issues related to the age of housing stock, landlord negligence and lack of maintenance
        - Lack of heating and air conditioning
    - Some communities, like Viking Terrace, lack safe recreation spaces for children
    - Some areas, like Viking Terrace, lack safe passages to school for children in winter
    - Housing that is affordable is often too far away from schools (there is also a lack of reliable transportation for those who do not have a car).
    - Federal housing assistance programs have problematic structures and requirements that create barriers to accessing housing assistance.

    - Requirements for residency status documentation create significant barriers to accessing housing assistance. These requirements also create a strong potential for landlord exploitation.
    - NIMBYism is a problem, particularly with multi-family development.
    - Land availability for new housing is an issue, namely the competition for lucrative agricultural land. Even if new land is available, the costs of infrastructure push up development costs (and therefore rent/sale prices) in many cases.
- The stakeholders most impacted by housing issues are:
    - Renters
    - Entry-level homebuyers
    - Immigrant populations
    - Residents of manufactured housing communities

Preliminary findings from Maxfield's current housing study are generally consistent with previous studies. Moderate rent and affordable for-sale housing are the product types most in demand for the City; the study suggests targeted price points in the range of 50-80% AMI. With the large employers in Northfield, developing housing targeted at the needs of the workforce is extremely important and will support the City's economic development goals.

Conclusions

There is clear data showing that there is a gap between housing needs and supply. Population and household projections using different methodologies show varying levels of demand for new housing units between now and 2045. Demand indicators point to latent demand that could be met if more area was opened to housing development, and financial tools were provided to incentivize the housing types most needed. To that end, we are proposing a prioritized approach to growth areas within the land use analysis.

Other areas of focus for housing strategies in the plan could include:

- Targeted infill development or annexations with public financial assistance to create affordable rental and for-sale units.
- Programs for starter homeownership incentives/assistance, particularly targeting blue collar workers.
- Programs for home maintenance or repair in targeted naturally-occurring affordable areas (such as the northeastern census tract).
- Specific programs/funding for the maintenance and repair of manufactured housing.
- Designate target areas for attached housing products/missing middle/affordable housing that is more easily accessible to local schools.

Introduction and Key Takeaways

Northfield has an economic foundation that is unusually strong for a city its size. Its three dominant economic sectors (education, medical services, and manufacturing) are all base industries—meaning they derive revenues from outside of the city and its immediate surrounds, which are paid to local workers and then recirculate in the Northfield economy through local spending. Its quality of life attributes also bolster its economy through tourism, residential growth, and workforce attraction.

This memorandum includes a set of observations and findings from an analysis of Northfield's economy, with a focus on the following topics:

1. Economic drivers
2. Economic sectors
3. Commuting patterns
4. Fiscal impacts of development

Key Takaways

The economic analysis detailed below supports a set of key takeaways. First and foremost, Northfield is fortunate to have a very strong economic foundation. Part of that foundation is its three dominant economic sectors—education, medical services, and manufacturing—details of which are developed in some detail below. Northfield's population growth is evidence of the other key anchor of Northfield's economic strength—it's overall quality of life. Northfield's identity as a livable city with a broad set of community and civic assets, and a distinctive, walkable central business district, make it attractive for visitors and residents alike, and for employers who benefit through improved workforce attraction.

Other key findings from this analysis include the following:

- Increases in Northfield's population and business employment are important drivers of its economic growth and development.
- In its strong education, health care and manufacturing sectors, Northfield has an enviable set of base industries that all pay livable wages and indirectly support other economic activity.
- Northfield's growing population of residents who work outside of Northfield—including a population of professionals to and especially those who commute and telecommute to the Twin Cities and Rochester—have bolstered the local economy through their consumer spending and support of local businesses.

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Prescriptively, the final section of this analysis offers a discussion of the fiscal impacts of different development patterns, and identifies considerations that can be borne in mind to foster fiscal sustainability as Northfield continues to grow in the future.

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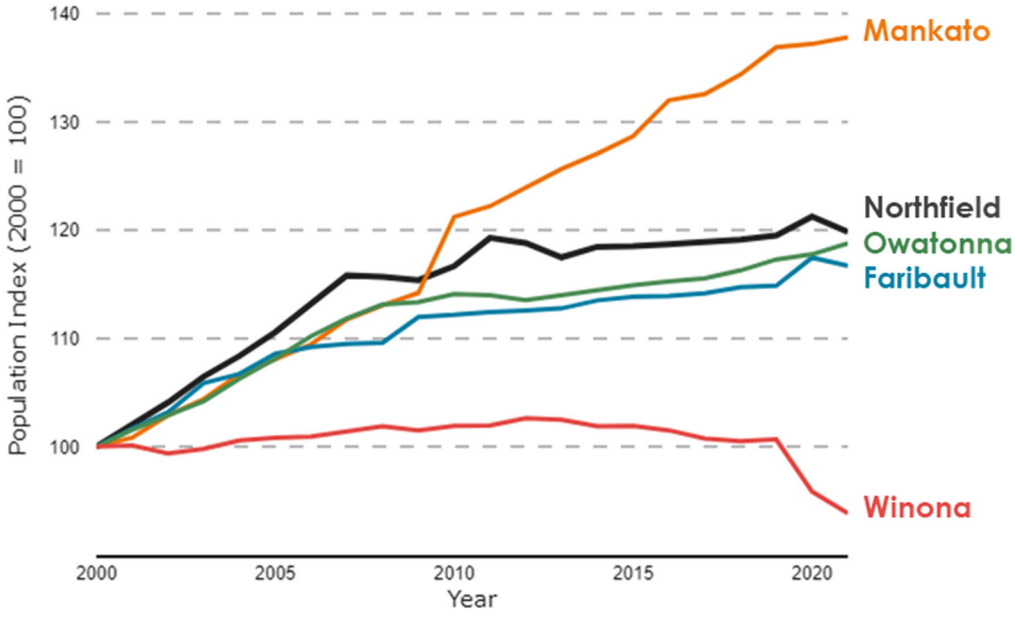
Economic Drivers

Population Growth

Exhibits 1 & 2 show that Northfield's population has grown by 20% since 2000, whether measured by number of residents or number of households. That growth is stronger than most of the comparison geographies in the charts.

Note that these charts are index charts indexed to a base of 100, with the year 2000 being the base year. Each integer above 100 represents 1% percent of growth relative to the 2000 value. For example, 135 represents 35% growth since 2000. Indexes are helpful when assessing the rate of change rather than absolute numbers.

Exhibit 1. Population Growth Since 2000 – Northfield and Comparison Geographies



Source: US Census

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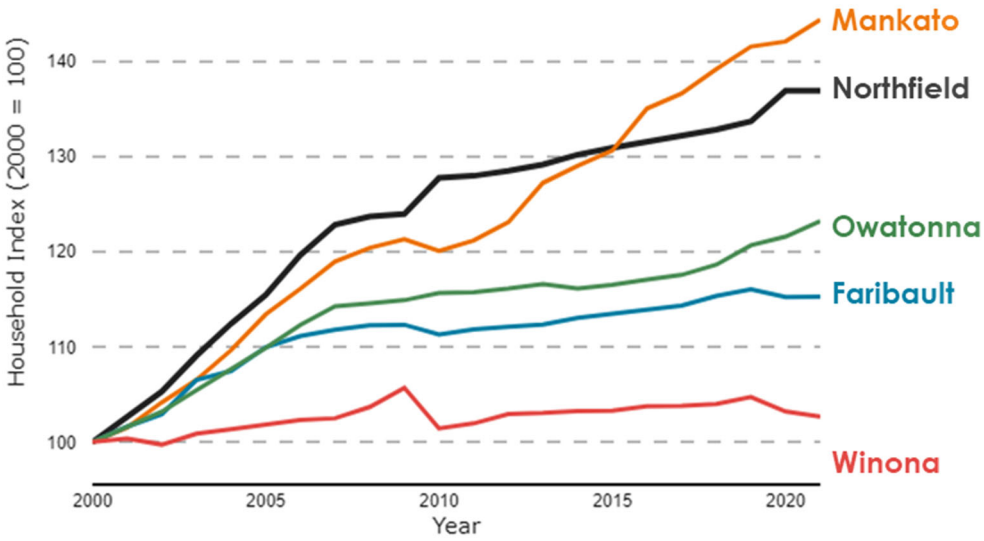
Exhibit 2. Household Growth Since 2000 – Northfield and Comparison Geographies



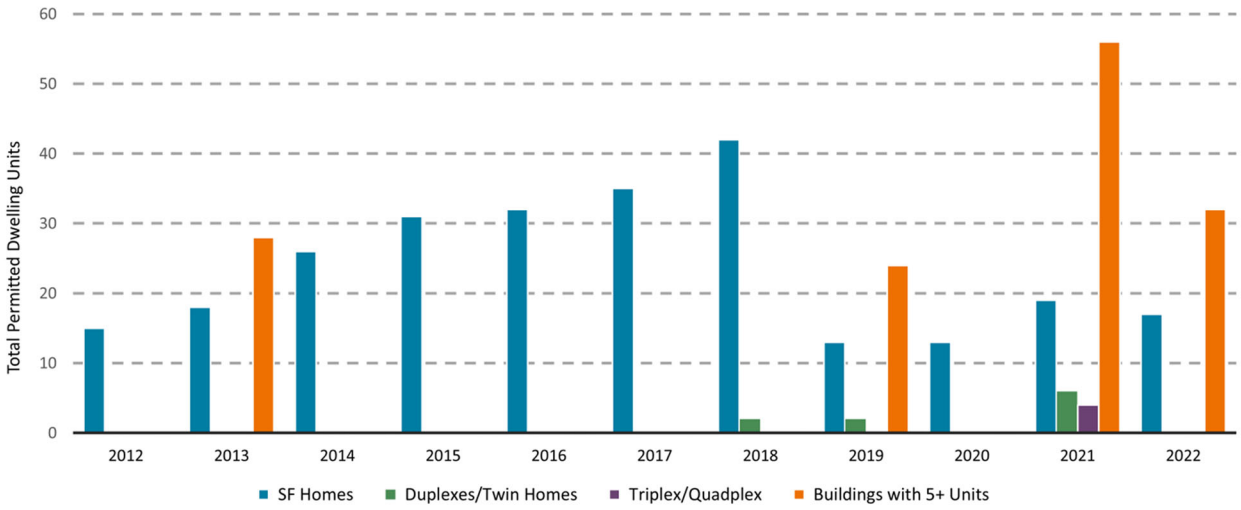
Source: US Census

Housing Growth

Housing development responds to demand for housing. As the job base grows and/or people want to live in Northfield for other reasons, people will look for housing, and housing development will follow. Northfield's housing growth is an indicator of its desirability and economic vibrancy.

Exhibit 3 shows that Northfield has experienced ongoing, steady housing growth over the last decade. Single family home development was predominant from 2012 to 2018. Beginning in 2019, housing development has been a mix of single family and multifamily building formats.

Exhibit 3. Northfield Housing Development, 2012 to 2022



Source: US Census – Building Permits Survey

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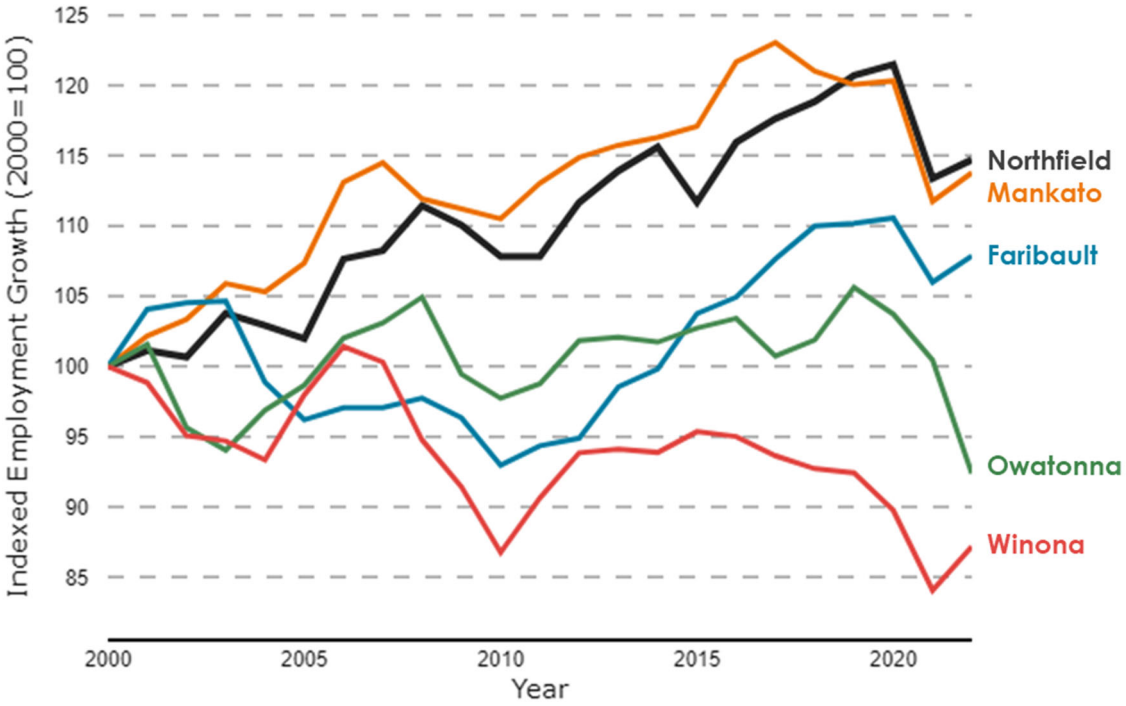
Employment Growth

Northfield's job base has grown 15% since 2000, equivalent to the growth rate in Mankato and stronger than the other comparison cities. While a COVID-caused contraction in jobs is evident in 2020-21, the employment growth has otherwise been very consistent over the course of the two-plus decades. This is a testament to the resilience of its economic base.

Exhibit 4. Employment Growth Since 2000 – Northfield and Comparison Geographies



Source: Bureau of Economic Analysis

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Economic Sectors

To understand a local economy, it is helpful to situate it in the broadest economic categories. For this analysis, the four super-sectors that have emerged in The New Economy are useful in illustrating broad trends. Those super-sectors are:

- Blue Collar sectors
  - Construction
  - Manufacturing
  - Utilities
  - Agriculture, Forestry, Fishing, and Hunting
  - Mining, Quarrying, and Oil and Gas Extraction
- Eds, Meds and Gov sectors
  - Educational Services
  - Health Care and Social Assistance
  - Public Administration
- New Economy High Wage sectors
  - Finance and Insurance
  - Real Estate and Rental and Leasing
  - Information
  - Management of Corporations
  - Professional and Business Services
- New Economy Low Wage sectors
  - Transportation and Warehouse
  - Wholesale Trade
  - Retail Trade
  - Arts, Entertainment and Recreation
  - Accommodation and Food Services
  - Other Services

Additional information about the new economy and its super-sectors is located in the sidebar.

Economic Super-Sectors

The New Economy refers to transitions in the North American industrial structure post-globalization and the central drivers of regional economic development.

Blue Collar sectors contain industries historically central to a manufacturing-based economy and contain tradeable goods that benefit from economies of scale. Manufacturing in particular has become more mobile in an era of globalization. These jobs often have lower educational requirements, but due to higher productivity, skill demands, and union density, wages remain higher than service sector work. They, likewise, are major drivers of regional economic development.

Eds, Meds and Gov contain industries have higher proportions of middle-income wage earners due to educational requirements. These jobs concentrate both in regional hubs driven by New Economy High Wage jobs and in historic regional centers. They are non-tradeable goods and place-bound, but in the case of higher education institutions or sizeable public sector installations (Army Bases or State governance), can drive regional economic development.

New Economy High Wage sectors are knowledge-based jobs that remain concentrated in urban centers and are historically less prone to geographical relocation. These industries remain the main catalyst for agglomeration – or spatial concentration – of industries. Knowledge production is a tradeable good that often drives urban development. Wages in these sectors drive effective demand for other service-based industries, medical services, and education.

New Economy Low Wage sectors grow in proportion to other regional economic drivers. They are rooted in a particular location. Due to lower labor productivity, growth in demand is met with increased labor. Wages remain low, although exceptions exist (such as Wholesale Trade). These are often a sizeable sector in a regional economy.

Employment in Northfield

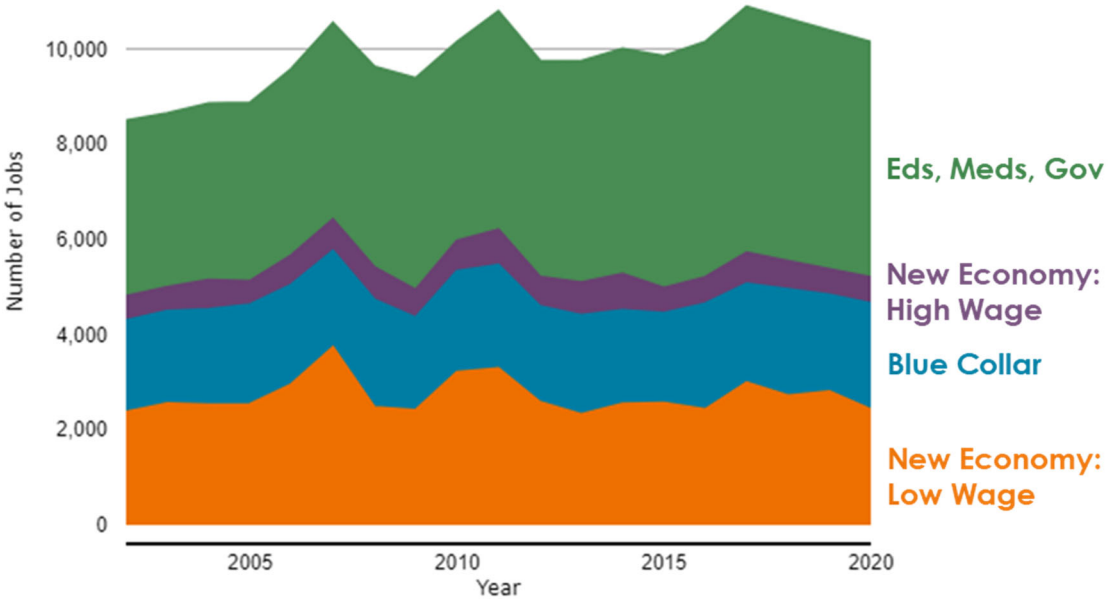
Northfield's economy reflects its unique economic anchors. Exhibit 5 shows the number of jobs in each super-sector over time. The importance of the "Eds, Meds, Gov" super-sector to

%

Northfield's economy is clear from the exhibit, accounting for almost half of the jobs in Northfield.

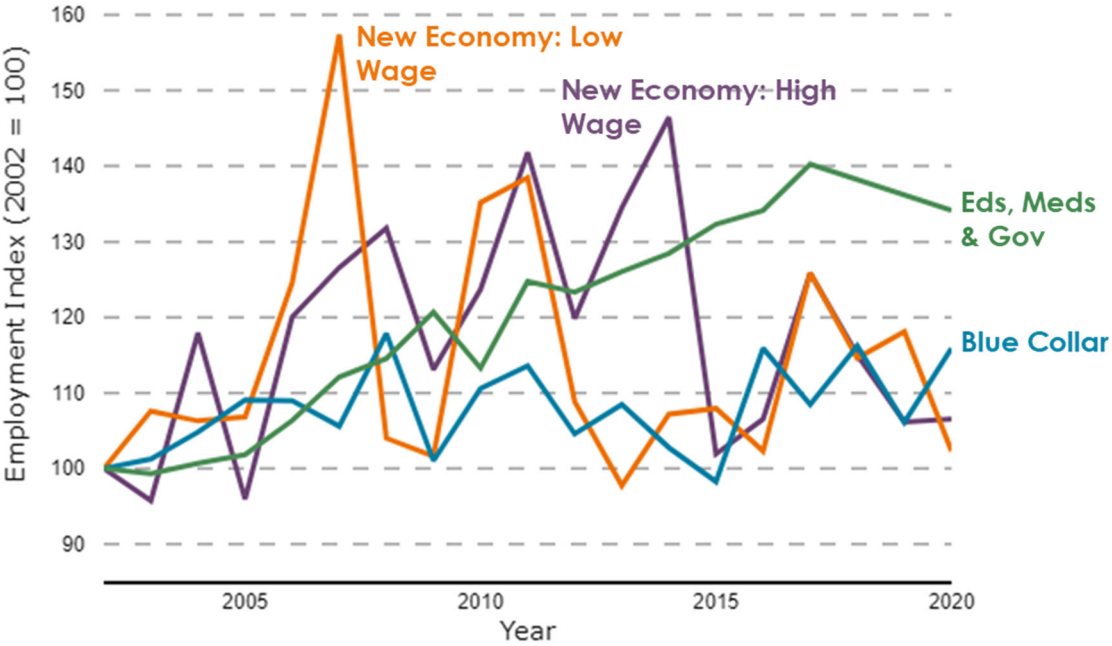
Exhibit 6 shows that, while all of the super-sectors have experienced some growth, the Eds, Meds, Gov super-sector ha had the greatest growth in employment over the time period. Jobs in that super-sector increased by around 35% over the 20 year time frame.

Exhibit 5. Northfield Employment by Super-Sector Since 2000



Source: OnTheMap

Exhibit 6. Indexed Employment Growth by Super-Sector, Since 2000



Source: OnTheMap

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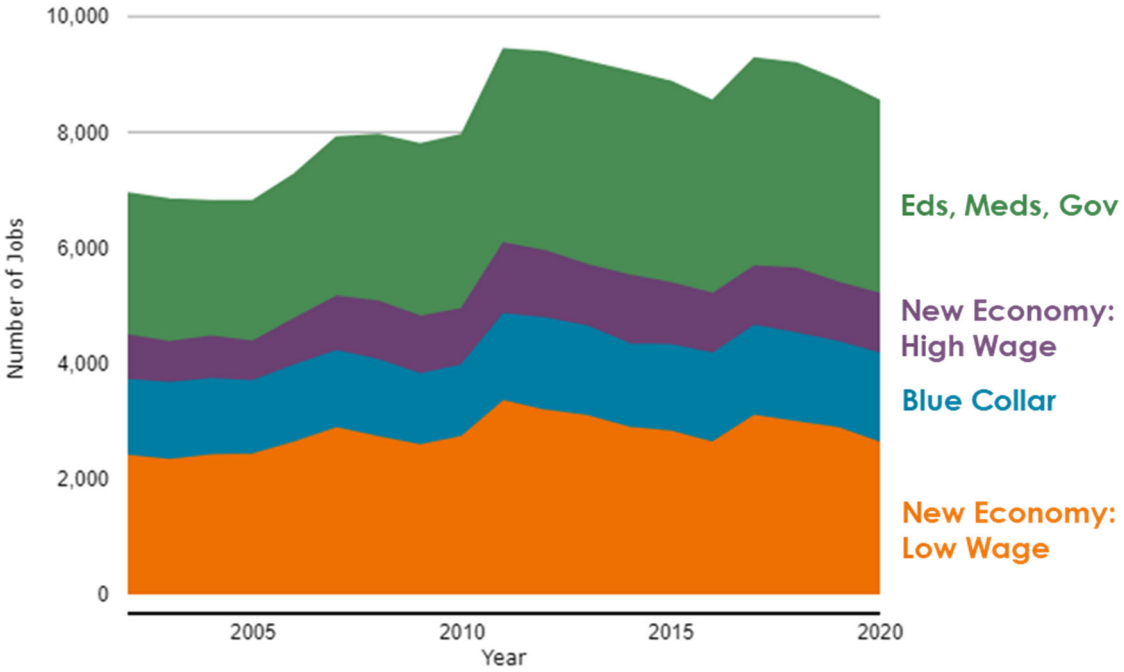
Employment of Northfield Residents

While Exhibits 5 and 6 are focused on the super-sectors of jobs that are located in Northfield, Exhibits 7 and 8 illustrate the jobs of Northfield residents, some of which are located outside of Northfield. At first glance, Exhibits 7 and 8 may resemble Exhibits 5 and 6, but there are some notable distinctions. The share and number of Northfield residents who working in the "New Economy High Wage" super-sector is greater than the share and number of Northfield jobs that are in that super-sector. That means that many Northfield residents who are working outside of Northfield are working in higher wage professional jobs.

The reverse is true in the Blue Collar super-sector. The share and number of Northfield residents working in Blue Collar jobs is lower than the share and number of Northfield jobs in that sector.

In summary, there are many northfield residents in professional jobs who are out-commuting or telecommuting to their jobs. And there are many Northfield employers in the blue collar super-sector that are drawing an in-commuting workforce from outside of Northfield.

Exhibit 7. Employment of Northfield Residents by Super-Sector Since 2000



Source: OnTheMap

Exhibit 8 shows that Northfield's population growth has resulted in its residents having greater employment in all of the super-sectors. But the increase in their employment has been particularly strong in the "New Economy High Wage" super-sector and the "Eds, Meds and Gov" super-sector.

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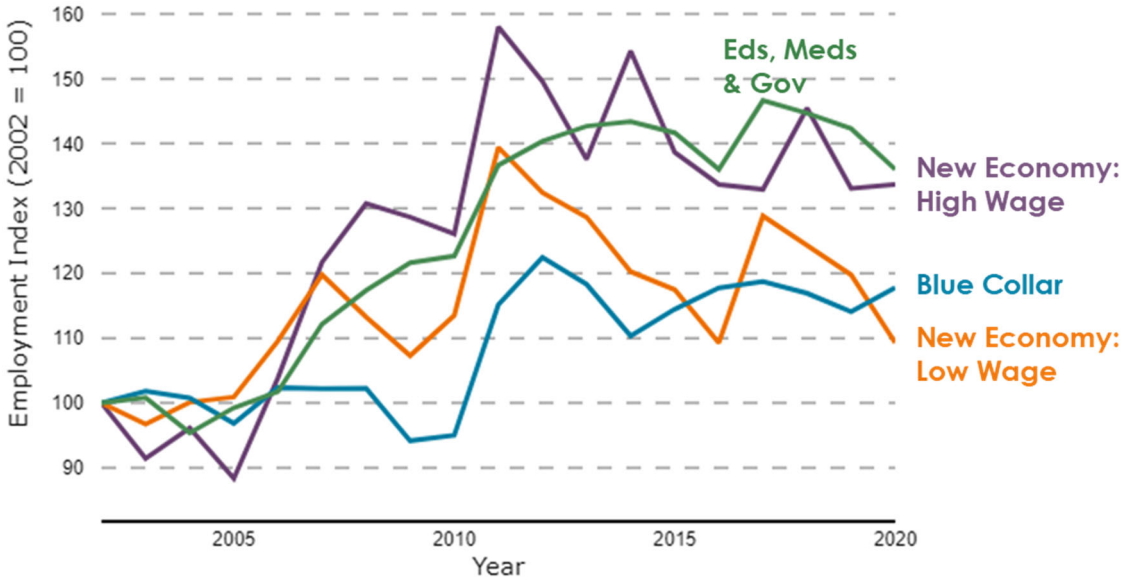
Exhibit 8. Indexed Employment Growth of Northfield residents by Super-Sector, Since 2000



Source: OnTheMap

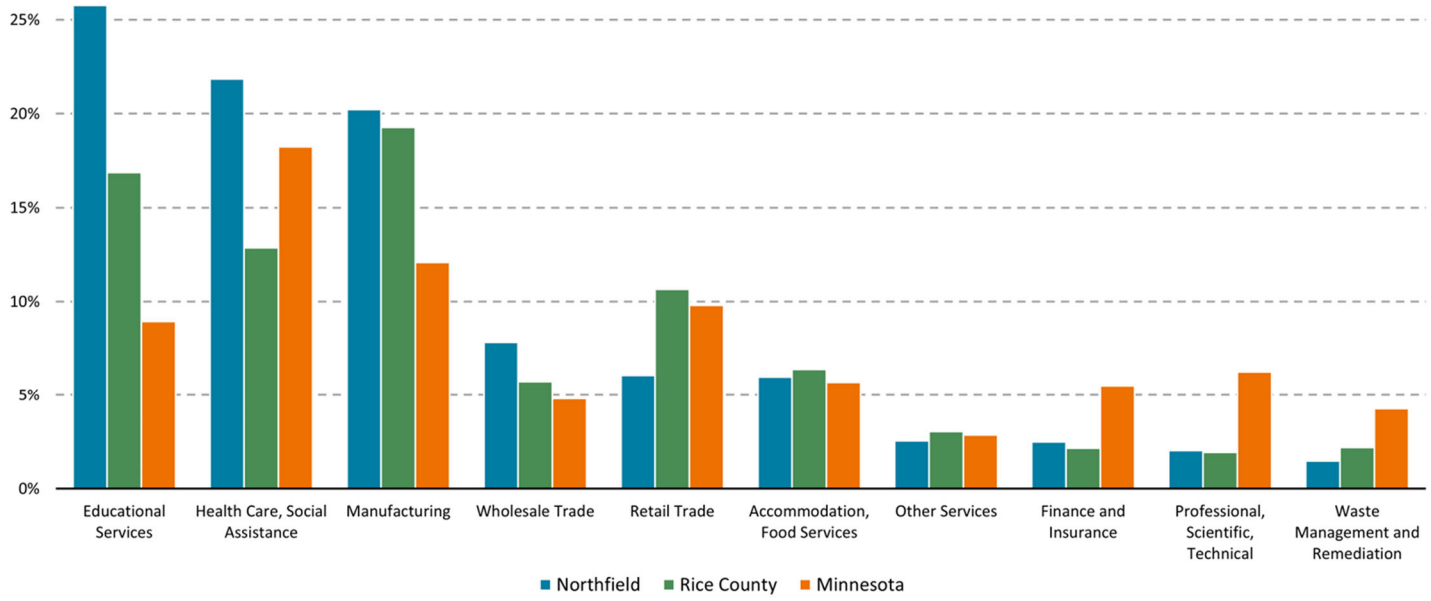
Top Employment Sectors

When we disaggregate Northfield employment further, breaking out all twenty economic sectors as defined in the North American Industry Classification System (NAICS), the foundations of Northfields economy become even more clear. Exhibit 9 shows the ten economic sectors that are strongest in terms of jobs that are situated in Northfield. It shows the share of all Northfield jobs that are situated in each employment sector, and it compares the job concentrations in Northfield with those in Rice County and the State of Minnesota. That provides a point of reference for understanding how overrepresented or underrepresented Northfield jobs are in those categories.

It is clear from Exhibit 9 that three economic sectors dominate Northfield's economy—Educational Services, Health Care, and Manufacturing. The share of Northfield's employment in these three employment sectors is significantly greater than it is in Rice county or the state of Minnesota as a whole. Jobs in these three sectors account for almost 70% of all Northfield jobs! It's worth noting that, to varying degrees, these three sectors all tend to provide living wage jobs—in contrast, for example, to jobs in the retail or food service sectors. And they are all arguably base industry sectors—meaning that they bring revenues into the Northfield area which after being paid out in wages are recirculated in the local economy.

%

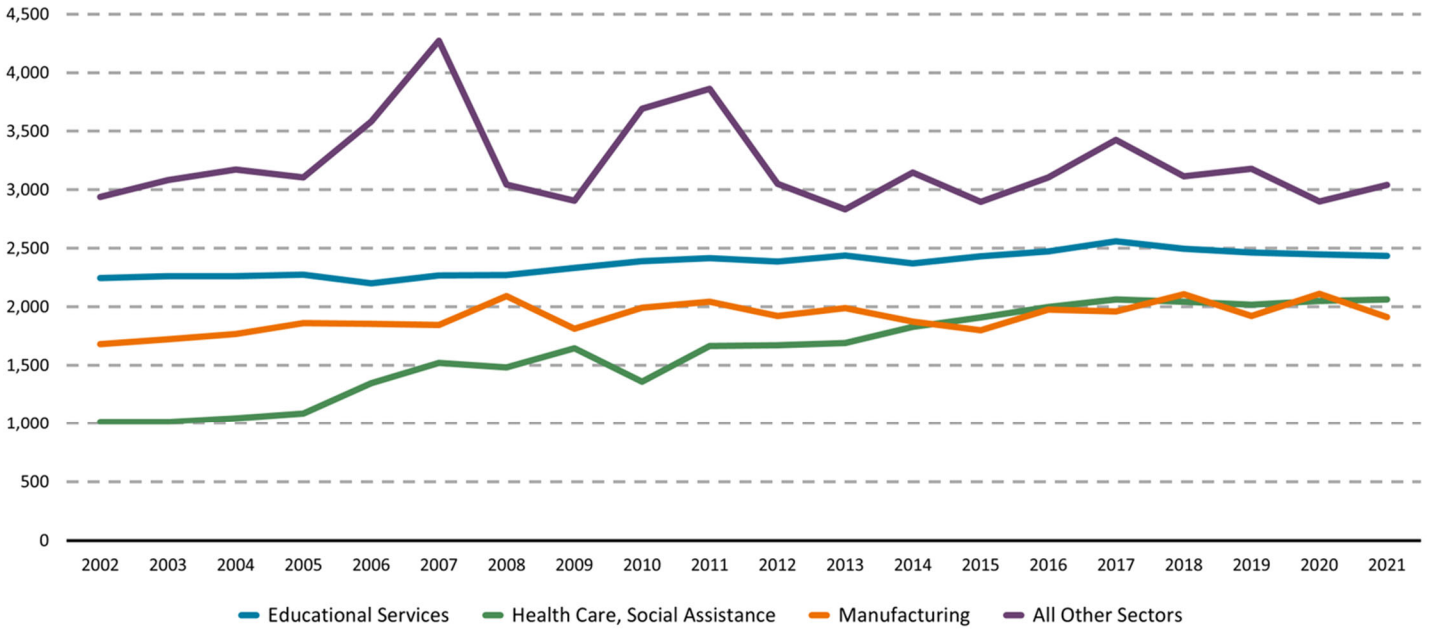
Exhibit 9. Top Ten Economic Sectors Represented in Northfield's Employment



Source: OnTheMap

Exhibit 10 isolates Northfield's top three economic sectors to illustrate how they have changed over time. All three have grown over the two decade time period. The health care sector had the greatest growth, with employment roughly doubling over the period. The chart also underscores the dominance of these sectors by showing them alongside the total employment in all of the other NAICS sectors.

Exhibit 9. Top Ten Employment Sectors in Northfield Jobs, 2002 to 2021



Source: OnTheMap

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Employment by NAICS Sector

The following exhibits fill out the picture by diagramming Northfield's employment in each NAICS sector, in terms of numbers of jobs and their location quotient relative to the State of Minnesota. (Location Quotients are described in the sidebar.)

Information for individual NAICS sectors is presented by super-sector, with key observations noted.

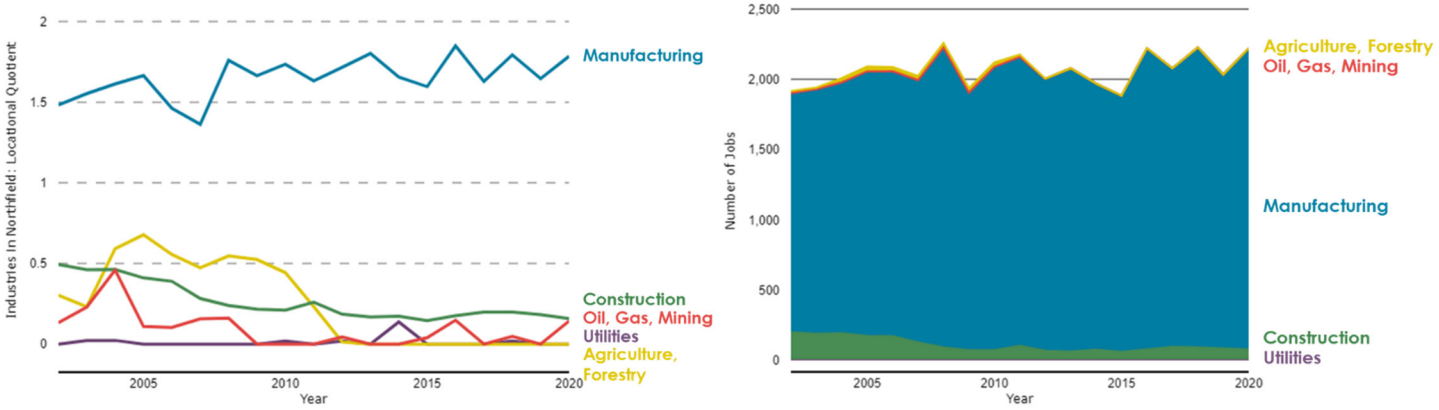
"Blue Collar" economic sectors. Narrative. Manufacturing jobs dominate Northfield's blue collar employment. They have grown in Northfield over the last two decades, despite representing a declining share of the jobs in the state as a whole. Other blue collar economic sectors are largely absent in Northfield.

Location Quotients

A location quotient is a comparison of the local share of employment in an economic sector to its share in a comparison geography.

For example, if manufacturing jobs comprise 10% of the jobs in a city, but 20% of all jobs in the state, the location quotient of manufacturing jobs in the city is 0.5. If jobs in the retail sector comprise 15% of jobs in a city, but 10% of jobs state-wide, the location quotient for retail jobs in the City is 1.5.

Exhibit 10. Employment by NAICS Sectors – "Blue Collar" Sectors, 2001 to 2020



Source: OnTheMap

"Eds, Meds, and Gov" economic sectors. Education and medical services are dominant in the Eds, Meds and Gov" category. Two of Northfield's three anchor employment sectors are in the "Eds, Meds & Gov" category. The education sector is most overrepresented in comparison to the state of Minnesota. The medical services sector has experienced the greatest growth in absolute job numbers—growing faster than medical services job growth in the state as a whole.

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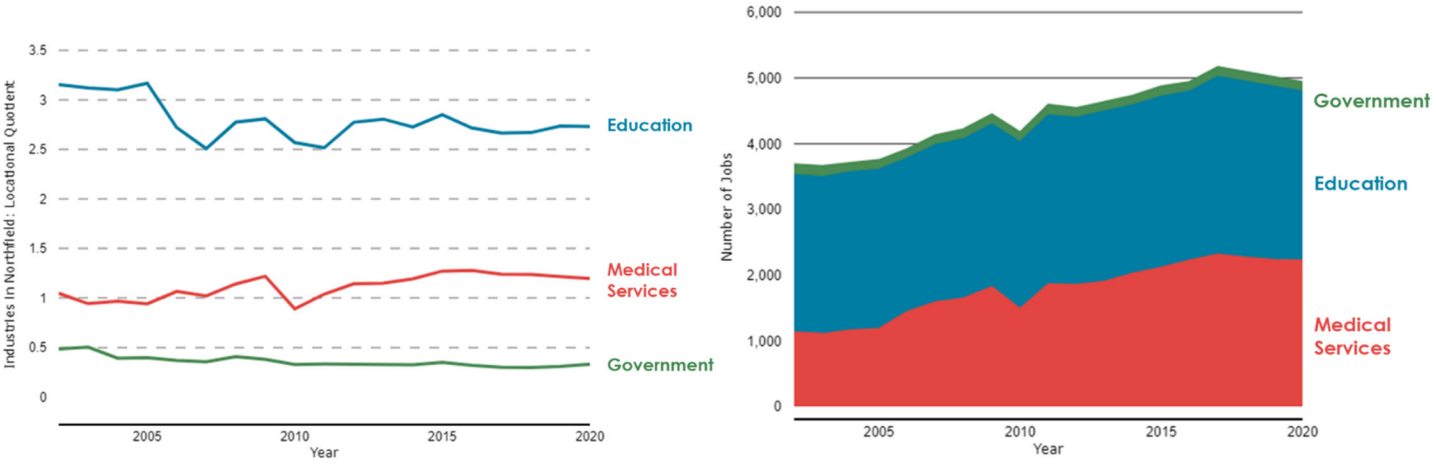
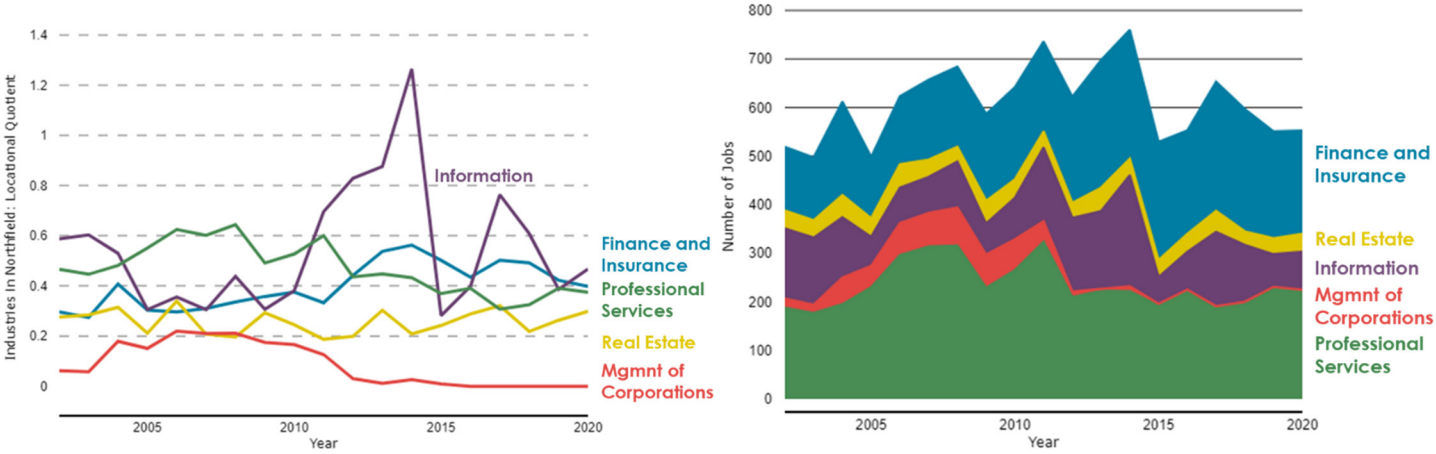
Exhibit 11. Employment by NAICS Sectors – "Eds, Meds, and Gov" Sectors, 2001 to 2020



Source: OnTheMap

"New Economy: High Wage" economic sectors. High wage new economy jobs include a mix of professional job categories. High wage new economy jobs are underrepresented in Northfield, and they shrank as a proportion of Northfield's employment from 6.1% of all jobs in 2002 to 5.5% in 2020.

Exhibit 12. Employment by NAICS Sectors – "New Economy: High Wage" Sectors, 2001 to 2020



Source: OnTheMap

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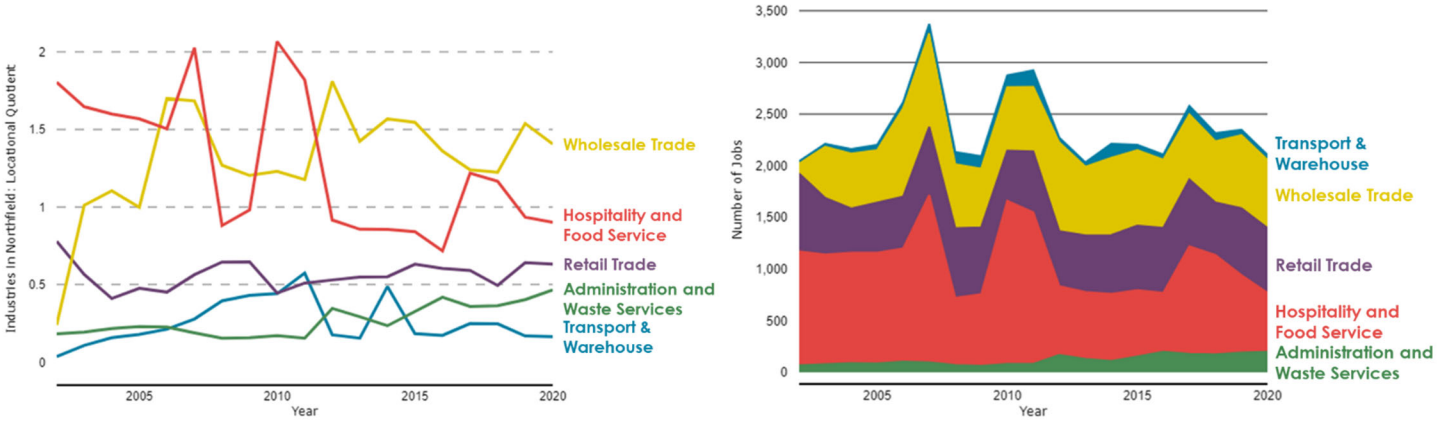
"New Economy: Low Wage" economic sectors. Wholesale trade, retail, hospitality and food service jobs are strongest in this category. Northfield is not a transportation and warehousing hub, but it is overrepresented in wholesale trade employment. Retail provides a good share of the jobs in this sector, although retail jobs are underrepresented in comparison to the state as a whole. Hospitality and food service jobs are also prevalent.

Exhibit 13. Employment by NAICS Sectors – "New Economy: Low Wage" Sectors, 2001 to 2020



Source: OnTheMap

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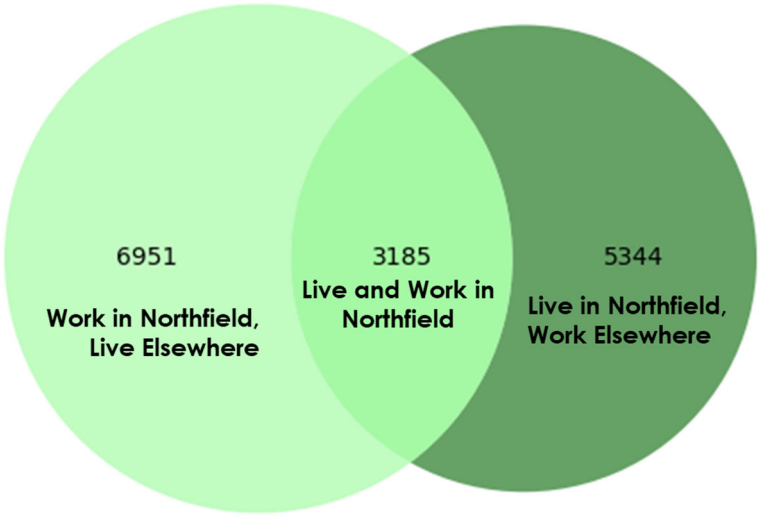
Commuting Patterns

Employment Inflow/Outflow

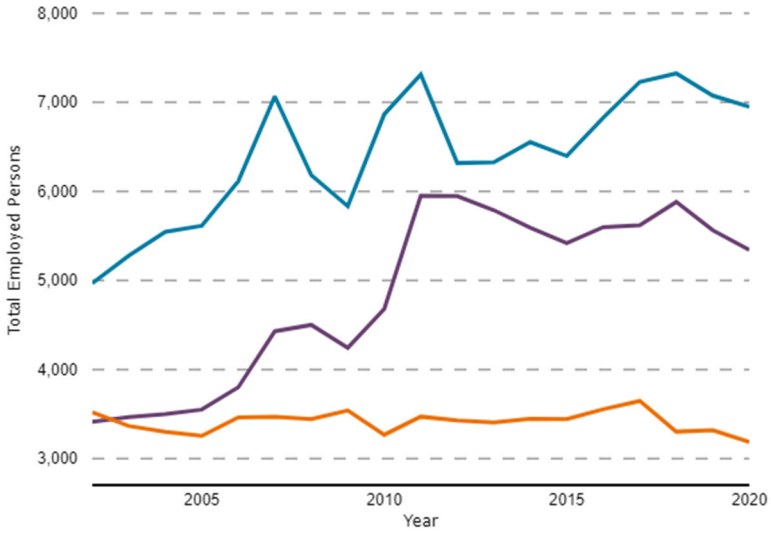
Northfield is a job destination. More people commute in to Northfield for work than live in Northfield and out-commute. However, Northfield is growing in its identity as a place to live even for those who are working elsewhere. It is attracting residents who are employed outside of Northfield at a faster rate than it is increasing its community of in-commuters. The share of residents who both live and work in Northfield has declined over the period.

Exhibit 14. Northfield Employment Inflow/Outflow, 2020



Source: OnTheMap

Exhibit 15. Northfield Employment Inflow/Outflow, 2001 to 2020



Source: OnTheMap

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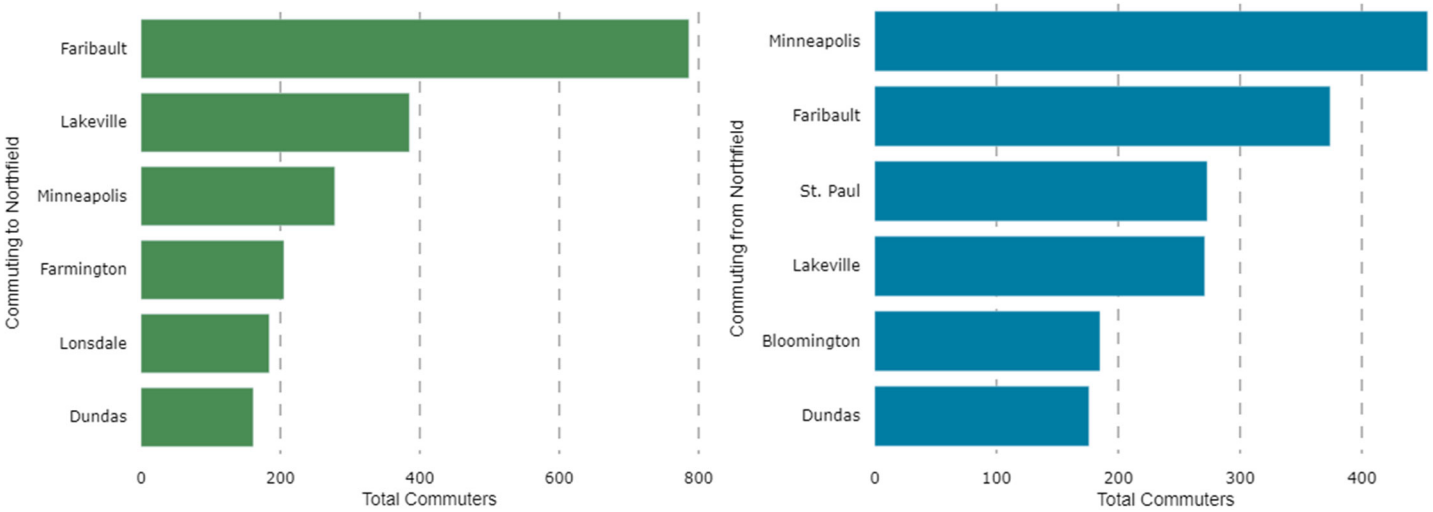
Origins and Destinations

The origins of Northfield workers are different from the destinations of Northfield residents who commute to jobs outside of Northfield. Northfield employers are primarily drawing their workforce from the surrounding communities, although there are certainly some who are driving a further distance, including some who commute from the Twin Cities. Many of those who live in Northfield and work elsewhere, on the other hand, are working in larger employment centers like the Twin Cities. Some of this group are undoubtedly telecommuting to work, either entirely or partly. Exhibit 16 shows the top origins and destinations of Northfield workers and residents.

Exhibit 17 highlights the large and growing number of Northfield residents who are commuting or telecommuting to jobs in the Twin Cities. That number rose from roughly 2,300 in 2002 to roughly 3,300 in 2021. In other words, Northfield seems to be an increasingly desirable place for Twin Cities workers to reside.

Exhibit 16. Top Origins and Destinations of Commuters Into and Out of Northfield, 2020



Source: OnTheMap

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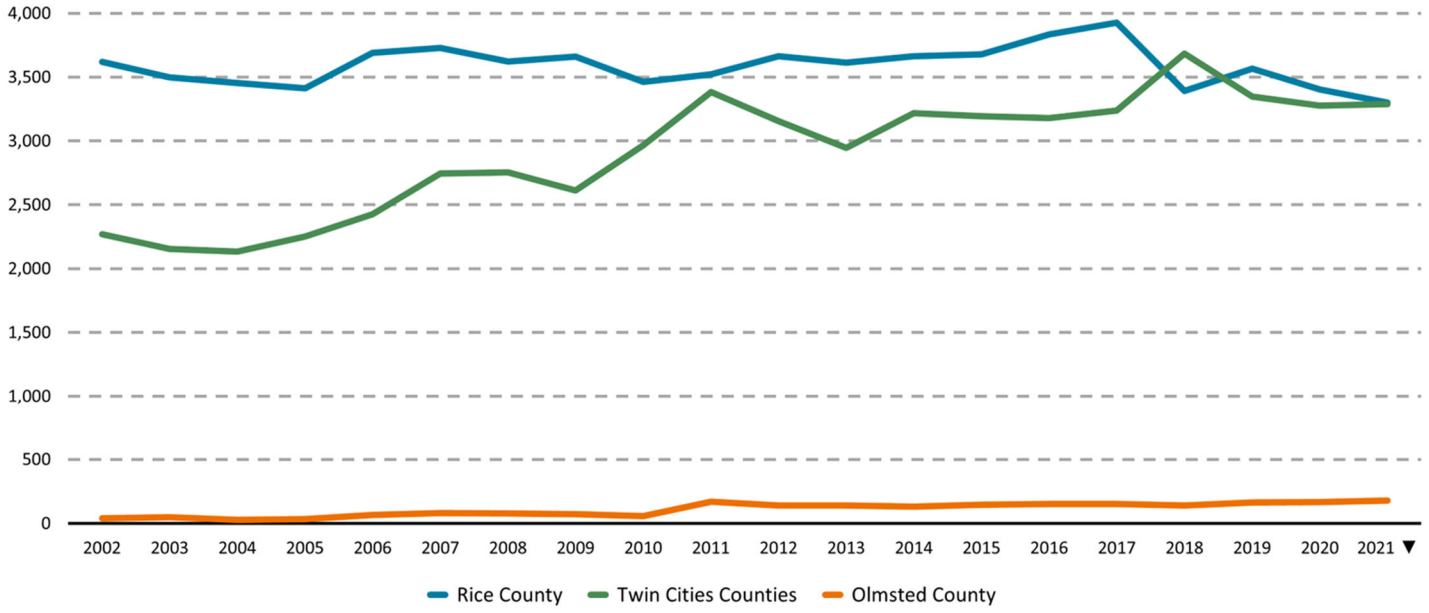
Exhibit 17. Northfield Residents Who Work Elesewhere, 2020



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Fiscal Impact of Development

Fiscal impact analysis considers the impact of development on a public sector budget. In Minnesota, new development generates revenue for cities by paying local property taxes. But new development also increases city operating costs, because its associated households or workforce are supported by city services such as road and utility infrastructure, fire and police protection, parks and recreational programming. The net fiscal impact of new development is the revenue generated minus the increased cost of providing required public services.

While the fiscal impact of specific development alternatives in Northfield will not be analyzed in detail in the comprehensive planning process, some core considerations can be borne in mind to inform land use guidance and growth scenarios.

Fiscal Revenues/Property Tax Generation

Differential property tax rates. In Minnesota the class rate for commercial and industrial property is up to twice as high as the class rate for residential property. That results in the property taxes paid to local governments (cities and counties) being proportionately higher for commercial/industrial properties than it is for residential properties, for properties of the same value.

Development intensity. Differential class rates are only one factor in property tax revenue generation. Other determinative factors are the developed floor area and overall property value generated for a given land area. Industrial development may cover 50% of a parcel, but the value it generates per square foot of floor area is generally lower than most development types. Retail development is another category of commercial property, with a high class rate. But it often covers a small fraction of the commercial parcel because of the land dedicated to parking. At the other end of the spectrum, some multistory development creates an amount of developed floor area that exceeds the property's land area.

Fiscal Costs/Service Burden

Cost by development type. New development will require city services. The service burden of commercial development is generally estimated to be lower than the service burden of residential development—whether measured by land area, floor area or value. That's because residential buildings are occupied for more hours of the day, and some city services are targeted to city residents.

Cost by land area/development intensity. The cost of providing some city services are as correlated or more correlated with the land area of development as the size of the population being served. Snow plowing is a clear example of this, where the length of the street network has a greater relationship to parcel land areas and the lenth of street networks than to the

%

number of people living or working on that property. Resurfacing or reconstructing streets and utilities is another example of this.

Land intensive development can be fiscally challenging, and that becomes more apparent when life cycle costs related to rebuilding far-flung roads and utilities is taken into consideration.

Average cost vs. marginal costs. The cost of providing city services to new development doesn't always scale up in a straight-line fashion. For some budget lines there is a physical or administrative infrastructure that has already been established that doesn't need to scale up proportionately with the new development. In those instances, costs for services can be divided into fixed components and variable components, and the marginal cost of providing services to new development is the increase in the variable cost component. That will be lower than a straight-line increase in the average cost of providing those services.

Redevelopment. Redevelopment in areas that were previously developed tend to be fiscally benefits in comparison to "greenfield development." New development is typically many times the value of the development it replaces—increasing property tax revenues. On the cost side, it utilizes preexisting street and utility infrastructure, and doesn't stretch out the service areas of safety and emergency services

Conclusions

The considerations above can be borne in mind when planning for future growth in Northfield.

All other things being equal, commercial development generates more property tax revenue than residential development. But the higher class rate of commercial development can be offset by other factors such as development intensity. Perhaps more critically, the rate of commercial development can also be difficult to impact through municipal policies because, for example, retail businesses and community serving professional offices tend to grow proportionate to population growth. A common truism in real estate is, "Retail follows rooftops." Consequently, in many instances, zoning additional land commercial isn't likely to increase the rate of commercial development beyond the rate of population growth.

Other factors related to fiscal sustainability are more subject to local government policies and practices, including the following:

- Redevelopment is likely to be fiscally beneficial when it intensifies development in areas that are serviced by preexisting road and utility infrastructure.
- Higher density development of any development type is more fiscally sustainable than lower density development
- The fiscal sustainability of new home subdivisions increases as lot sizes are reduced.

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Transportation Network Analysis

Land use and transportation planning are not mutually exclusive due to their intersectionality. Identifying and addressing transportation needs based on existing data, plans, and studies will help prioritize transportation improvements that will continue to support the city's greater vision.

The transportation analysis will focus on identifying transportation needs that increase mobility, accessibility, and safety for both motorists and non-motorists. Developing a holistic transportation network that encompasses various modes of transportation will help create an inclusive transportation system.

Existing Transportation Barriers

Barriers to transportation can take various forms that impact the movement of people, goods, and service as motorists and non-motorists. Transportation barriers vary between different modes of transportation. **Table 1** lists four major transportation barriers identified within the City of Northfield. It is important to note that what is considered a "transportation barrier" can vary vastly among different types of roadway users. For example, a natural resource like the Cannon River is considered a transportation barrier for motorists and non-motorists —limiting crossing opportunities to either side of the city— while a high-speed four-lane undivided corridor without dedicated pedestrian/bicyclist facilities would be considered a barrier for non-motorists.

In addition to the major barriers listed in **Table 1**, below are other examples of what may be considered a transportation barrier:

- Lack of connectivity in the existing/future transportation networks (i.e., roadway, sidewalk, bike facilities, trails)
- Poor maintenance of existing infrastructure (i.e., poor snow removal on sidewalk/trail/bicycle network, poor pavement/sidewalk conditions, etc.)
- Unfriendly walking/biking/rolling environments (i.e., lack of street lighting, no dedicated pedestrian/bicycle facilities, lack of boulevard/buffers from street, lack of active surrounding land use, etc.)
- Safety concerns (i.e., poor sight distances, geometric deficiencies, lack of lighting, no shoulders, crash concentrations, etc.)

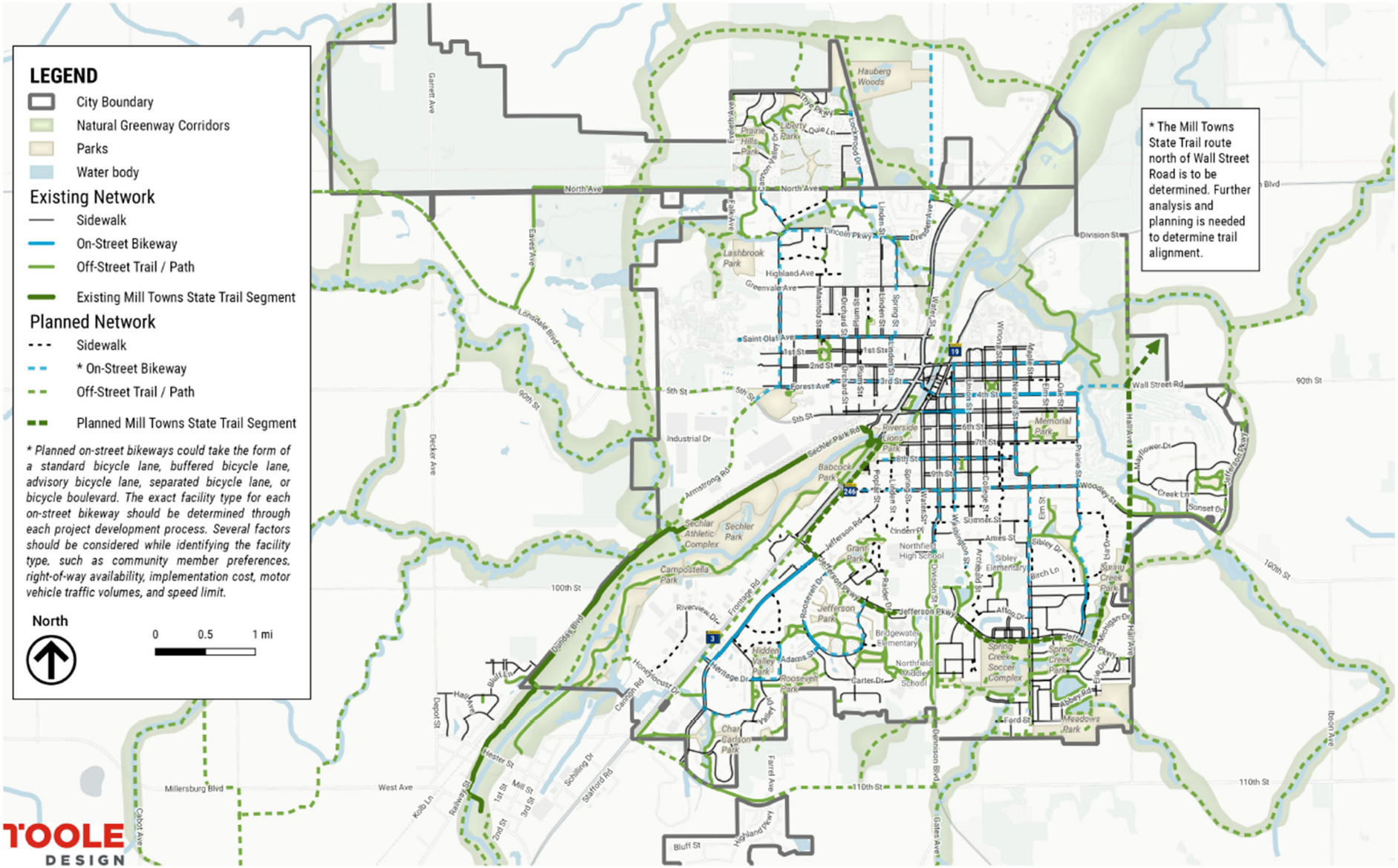
Given that transportation barriers can be very user-specific, the transportation analysis addresses the barriers listed above in more detail. Identifying transportation needs is based on existing data and completed plans/studies to date. Additional barriers that may be more user and community-specific are best identified through public engagement to ensure that the community's perspectives and needs are incorporated.

Table 1 - Major Transportation Barriers

Barrier Identified	Barrier to motorists, non-motorists, or both?	Notes
Cannon River	Both	The Cannon River physically divides the city of Northfield. Rivers can serve as transportation barriers due to their width, depth, and meandering paths, necessitating costly infrastructure like bridges for safe crossing opportunities. While there are several crossing opportunities within a half mile radius in the city center – including 2nd Street and Water Street, pedestrian crossings between 2nd and Water Streets, 5th Street, MN 3/Hiawatha Pioneer Trail, and Mill Towns Trail Bridge - river crossing opportunities are limited north and south of the central area. Potential new river crossing opportunities are shown on **Figure 1**. While these two locations are approximate desired locations, a proper river crossing study is recommended for a formal determination of additional river crossing opportunities.
MN 3 / Hiawatha Pioneer Trail	Non-motorists	This is a major north-south transportation corridor that connects multiple communities along the west side of the Cannon River. There are some marked, on-street, unprotected bicycle lanes along the corridor closer to the city center, but vehicular speeds can range between 30 mph – 50 mph; posted speed within the city center is 30 mph while it increases outside the urbanized areas of Northfield. Bicycling on-street adjacent to high-speed traffic is not ideal and may prevent people from choosing to use this mode. The high-speed traffic makes this highway corridor makes it less appealing for non-motorists to travel along or across this major transportation barrier. A consistent separated pedestrian/bicycle facility along the corridor - one that is also connected and well-integrated into the existing sidewalk/trail network- would help address this barrier for non-motorists.
MN 19 (west of Cannon River)	Non-motorists	This is a major east-west route that serves as a regional corridor. MN 19 west of the river is a transportation barrier that separates the industrial from the residential areas. With major employers and freight generators south of MN 19, west of the Cannon River, there is a lot of vehicular activity along this corridor; there are a wide range of vehicular classes using this corridor. With Post's employee parking lot located on the northside of MN 19 just across from Post's manufacturing plant, safe crossings to the plant should be a priority. Additionally, access to recreational/open spaces, parks, and trails are located south of MN 19. Therefore, safe crossings along MN 19, especially east of the river, would be beneficial for the community.

Barrier Identified	Barrier to motorists, non-motorists, or both?	Notes
		The land use surrounding MN 19 east of the Cannon River has greater density and is more inviting for non-motorists. The two-lane undivided roadway has a posted speed of 30 mph and multiple crossing opportunities for non-motorists. A consistent separated pedestrian/bicycle facility along the corridor -one that is also connected and well-integrated into the existing sidewalk/trail network- would help address this barrier for non-motorists.
Progressive Rail and Canadian Pacific (railroad tracks)	Both	There are two railroad companies that operate within the city's boundaries west of the Cannon River. Railroad operations often disrupt traffic operations with vehicles having to stop at railroad crossings in order for rail freight to pass. Additionally, Progressive Rail and Canadian Pacific operate on the west side of the Cannon River and when there is a railcar passing, this blocks access to either side of the city. Railroad tracks are often considered a transportation barrier due to their ability to disrupt traffic operations. All roadway users must stop to let rail pass, and this prevents people from accessing either side of the city. The city may consider grade-separated intersections to improve accessibility, mobility, and connectivity. However, grade-separated intersections are expensive to implement and require extensive coordination to ensure minimal disruption to railroad and roadway traffic operations.

Figure 1- Northfield Planned Walking and Bicycling Network



Network Gaps

This section of the analysis will look at the existing surface transportation networks – roadway, sidewalk, on-street bikeway, and off-street trail/path — to help identify gaps and transportation needs. Since the completion of the 2008 Comprehensive Plan, the City has dedicated efforts to improve its surface transportation network for all roadway users. Below is a short list of transportation related studies and plans that have been completed by or in partnership with the City in efforts to improve Northfield's surface transportation networks:

- Parking Study for Downtown Northfield (2022)
    - Existing Conditions Assessment and Shared Parking Analysis – a memorandum that summarizes findings from the 2022 study and provides updated parking directives based on new concerns raised by business owners downtown related to limited parking spaces
- The 2020 Riverfront Enhancement Action Plan
- City of Northfield Pedestrian, Bike, and Trail System (2019)
- City of Northfield Gateway Corridor Improvement Plan (2012)
- Safe Routes to School Plan (2009)
- Northfield Modal Integration Project Study Report (2009)
- Northfield Area Access Management and Safety Plan (2009)

The City of Northfield has an extensive roadway network for motorists that provides connectivity to all parts of the city. Unlike the roadway network, there are gaps within the sidewalk, on-street bikeway, and off-street trail/path networks. The lack of connectivity in these non-motorized transportation networks can serve as a transportation barrier, discouraging active transportation.

The network gap analysis focuses on how multimodal components could be integrated to best serve the needs of all roadway users, continuing to support the city's effort to encourage and introduce active transportation as a reliable form of transportation.

Roadway

The city's surface transportation network consists of state (MN 3, MN 19, MN 246), county (CSAH 1, CSAH 23, CSAH 28, CSAH 43, CSAH 47, CSAH 81, CR 79, CR 81), and local roadways. The existing roadway network sufficiently provides motorists access to service locations and local and regional destinations in Northfield. The city's roadway network is predominantly a grid system; the grid system exists in the older parts of the city, but newer developments have diverged from the gridded street pattern. The two areas identified by the city for priority connection are connecting 9th and Woodley Streets just east of MN 3 and extending Washington Street's connection just south of Northfield Prairie Creek Cemetery.

A grid system is versatile because it provides better distribution and access to land and resources. It also provides more flexibility for network expansions when future developments occur. For example, a gridded street system allows for better connectivity than a branched street system; branched street systems are common suburban development patterns with cul-de-sacs that do not connect to the greater transportation network. As future developments occur within, adjacent, or abutting the municipal boundary, Northfield should revisit its roadway network to ensure that new roadways or extension of existing roadways continue or re-establish the grid pattern, improving mobility and accessibility for existing and future roadway users.

Based on the existing roadway network, crossing opportunities along the Cannon River are clustered in the city center. As listed in **Table 1**, there are several crossing opportunities for motorists and non-motorists within a half mile radius of the city center -2nd Street, Water Street, non-motorist crossing between 2nd and Water Streets, 5th Street, MN 3/Hiawatha Pioneer Trail, and Mill Towns Trail Bridge.

Consideration of a new river crossing should be focused closer to the northern and southern city limits; it should also consider areas where environmental impacts could be avoided or minimized.

Sidewalks

Northfield's sidewalk network is the second most complete system after the roadway network. While pedestrians may not have any safety concerns sharing the road with vehicles on a low traffic volume local roadway, it is always good practice to consider constructing sidewalks whenever opportunities arise (i.e., reconstruction, major maintenance/construction projects, underground utility improvements, etc.). Roadway improvement projects are great opportunities to ensure that the cost of implementing the city's complete street policy does not disproportionately outweigh the need or use of the facility.

Understanding that municipalities often have limited financial resources and there is a need to prioritize projects, **Figure 2** – Non-Motorized Network Gaps

Table 2 lists major gaps within the existing sidewalk. The Pedestrian, Bike, and Trail System Report (2019) includes a map that highlights all existing city streets where sidewalks are recommended (**Figure 1**). The main purpose of **Figure 2** – Non-Motorized Network Gaps

Table 2 is to prioritize connectivity and help the city first establish a continuous network. **Figure 2** maps the gap segments identified in **Figure 2** – Non-Motorized Network Gaps

Table 2.

Figure 2 – Non-Motorized Network Gaps

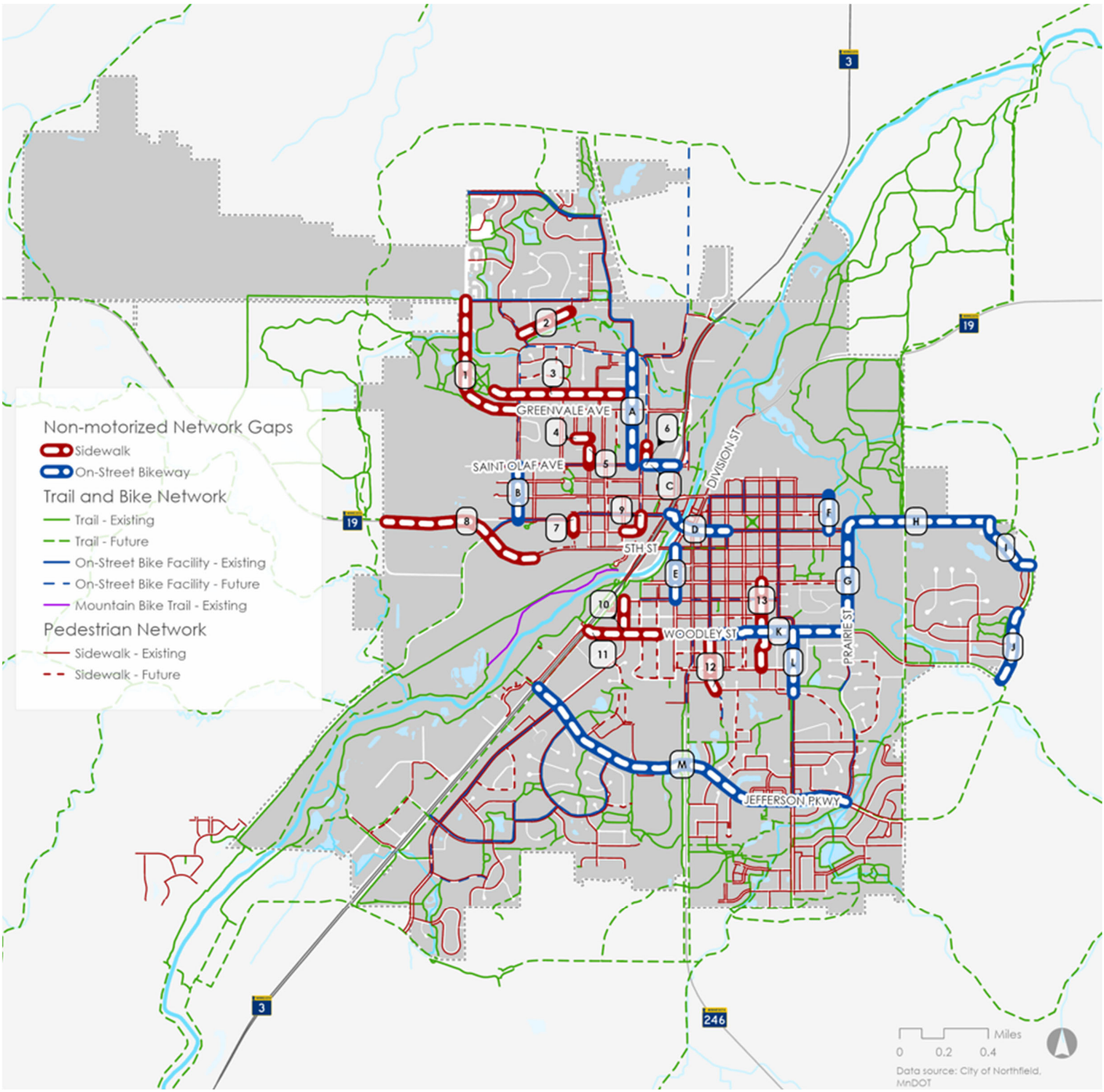


Table 2 - Sidewalk Network Gaps

Fig 2 Ref.	Gaps	From/To	Is there a CIP Project Programmed?
1	Greenvale Ave/CSAH 43	**From** Lincoln St **To** North Ave	No
2	Summerfield Dr	**From** Cannon Valley Dr **To** North Ave	No
3	Highland Ave	**From** Lashbrook Park **To** Spring St	No
4	Summit Ave	**From** Oxford St **To** Orchard St	No
5	Orchard St	**From** St. Olaf Ave **To** Orchard Pl	No
6	Spring St	**From** St. Olaf Ave **To** Bishop Dudley Dr	No
7	Odd Fellows Ln	**From** MN 19 **To** 4th St	No
8	TH 19	**From** Approx. 1,270 feet west of Odd Fellow Ln **To** City's westerly limits	2027 – Sidewalk/Trail/Bike Construction
9	4th St/Linden St	**From** S Poplar St **To** 3rd St	No
10	S Poplar St	**From** 8th St **To** Woodley St	No
11	Woodley St	**From** Spring St **To** MN 3	No
12	Washington St	**From** Approx. 220 feet north of Fremont St **To** E Ames St	2025 – Reclamation; Sidewalk/Trail/Bike Construction; Pedestrian Crossing Improvement (Ames St & Washington St)
13	Winona St	**From** 7th St **To** Sumner St	2024 – Reconstruction (7th St to Woodley St); Sidewalk/Trail/Bike Construction (7th St to Sumner St); Pedestrian Crossing Improvement (8th St and Winona St)

On-Street Bikeway and Off-Street Trail/Path

The city's on-street bikeway and off-street trail/path networks exist but they lack continuity. One of the essential components that encourages active transportation is network continuity. Not all bicyclists have the same level of comfort riding along with vehicular traffic or using different types of bicycle facilities. Generally, protected or separated bicycle facilities serve all ages and abilities and are preferred infrastructure to support bicycling as a sustainable, safe, and reliable mode of transportation. Additionally, riders' level of comfort may increase over time with built experience which could change their preference/desire for certain types of facilities.

The Pedestrian, Bike, and Trail System Report (2019), Pedestrian, Sidewalks, Mixed Use Trail & On-Street Bike Lanes map, and Google aerial images were reviewed to identify on-street bikeway and off-street trail/path networks gaps. For the purpose of this analysis, on-street bikeway is inclusive of various forms of bicycle facilities; it could be a standard bicycle lane, buffered lane, advisory lane, separated lane,

or a dedicated bicycle boulevard. **Table 3** lists major on-street bikeway gaps. Gaps listed in **Table 3** constitute a priority list that would allow the city to first establish a continuous and connected network before considering further network expansions. **Figure 2** maps the gaps identified in **Table 3**.

Table 3 – On-Street Bikeway Network Gaps

Fig 2 Ref.	Gaps	From/To	Is there a CIP Project Programmed?
A	Linden St	**From** Lincoln Pkwy **To** St. Olaf Ave	No
B	Lincoln St	**From** St. Olaf Ave **To** Forest Ave	No
C	St. Olaf Ave	**From** Spring St **To** MN 3	No
D	3rd/Water/4t St	**From** MN 3 **To** Union St	No
E	Water St	**From** 5th St **To** 8th St	2026 – Mill and Overlay (5th to Woodley St); Pedestrian Crossing Improvements (5th St, 6th St, and 8th St)
F	Oak St	**From** 4th St **To** 2nd St	No
G	Prairie St	**From** Woodley St/CSAH 28 **To** 4th St	No
H	Wall St Rd/CR 79	**From** 4th St **To** Rosewood Rd	2024 -- Reconstruction (4th St to city's easterly limit); Sidewalk/Trail/Bike Construction (4th St to Rosewood Rd)
I	Rosewood Rd	**From** E Jefferson Pkwy **To** Wall St Rd/CR 79	No
J	E Jefferson Pkwy	**From** Heywood Rd **To** Woodley St/CSAH 28	No
K	Woodley St/CSAH 28	**From** Prairie St **To** Washington St	2024 –Pedestrian Crossing Improvement (College St) 2025 – Pedestrian Crossing Improvement (Washington St)
L	Maple St	**From** Woodley St/CSAH 28 **To** Sibley Dr	2025 – Reclamation; Sidewalk/Trail/Bike Construction; Pedestrian Crossing Improvement (Ames St & Washington St)
M	Jefferson Pkwy	**From** Prairie St **To** MN 3	2024 – Mill and Overlay (Division St to MN 3); Sidewalk/Trail/Bike Construction (Division St to MN 3); Pedestrian Crossing Improvements (west leg of Division St roundabout, Raider Dr, Judicial Rd, Roosevelt Dr W, Jefferson Rd); Mini-roundabout (Jefferson Rd)

Fig 2 Ref.	Gaps	From/To	Is there a CIP Project Programmed?
			2026 – Mill and Overlay (Spring Creed Rd to Division St); Sidewalk/Trail/Bike Construction (Prairie St to east leg of Division St roundabout); Pedestrian Crossing Improvements (Prairie St, Maple St, Estate Ln/Washington St)

Existing off-street trail/path network has the potential for expansion and enhanced connectivity. Off-street trail/path network connectivity can be enhanced when it is linked to sidewalks or an off-street bikeway. Given that off-street trail/path facilities are designed to accommodate pedestrians, bicyclists, and other non-motorists, they are a versatile component of surface transportation that could be used for recreational or transportation purposes. The Pedestrian, Bike, and Trail System Report (2019) includes a detailed map that identifies all potential planned on-street bikeway and off-street trail/path (**Figure 1**). Especially with the presence of riverfront and nature areas, off-street trail/path networks can be a great way to encourage healthy lifestyles and promote active transportation. Areas of interest for future trail expansion include areas along the Cannon River and the outskirts of Northfield's city limits.

Additionally, on-street bikeways on local roadways typically are not buffered and have shared lane markings. Shared lane markings are beneficial for all roadway users as they alert motorists of potential bicyclists on the road, serve as a form of wayfinding along bicycle routes, minimize bicycling on sidewalks, enhance safety through increased awareness of sharing lanes with non-motorists, etc. However, shared lane markings or 'sharrows' are also the least desirable type of facility as they do not have dedicated space or a buffer that protects bicyclists from vehicles.

The current on-street bikeway network lacks connectivity and continuity beyond a given area. Additionally, the City should consider better defining its bicycle routes, facilities, network by facility types to provide better information to bicyclists who may be planning their cycling routes based on facility types. Using signage for better wayfinding is also recommended to help guide bicyclists remain on designated bicycle routes; shared lane markings on pavement can easily deteriorate overtime.

Access to Destinations

Within Northfield, there are numerous service locations as well as regional and local destinations. While network gap elimination and network expansions are typically good solutions to enhance access to destinations, the lack of service locations and destinations in certain areas of the city contributes to poor accessibility for Northfield residents and community members; thus, this is both a transportation and land use issue. For example, there are no full-service grocery stores west of the Cannon River. While non-motorists on the west side of the Cannon River can access grocery stores on the east side using a combination of the existing sidewalk and off-street trail/path, this is not an ideal travel path for non-motorists. When looking at accessibility for non-motorists, it is important to consider travel distance, time, trip purpose, etc. The City should consider how existing and future land use and zoning can improve access for all members of its community given that poor access to destinations in Northfield is not solely contributed by lacking complete sidewalk, on-street bikeway, and off-street trail/path networks.

The City should identify areas where land use and zoning changes can be introduced to encourage future development patterns that are inclusive of improving access to community resources – grocery stores, hospitality, health care providers, open space/parks/recreation centers, etc.— and amenities. As the City works with existing and future developers, it is crucial that the City establish clear standards to ensure that the developments are well-integrated within the existing and planned sidewalks, on-street bikeways,

and off-street trails/paths networks to enhance accessibility. The “Complete Streets Policy Implementation” section below will further detail how the existing surface transportation networks can be more inclusive of active transportation needs throughout the city.

Safety

Governments have a responsibility to enforce regulations and standards to ensure roadway safety. By prioritizing roadway safety initiatives, governments can take proactive measures to minimize crash severity and enhance safety for all roadway users.

The City of Northfield has continuously prioritized roadway safety and one of its efforts includes the completion of the Safe Routes to School (SRTS) Plan in 2009. High priority improvements recommended in the 2009 SRTS Plan primarily focused on achieving network connectivity —sidewalks, on-street bikeway, and off-street trail/paths— and identifying intersections with safety concerns for non-motorists. Since the completion of the plan, the city has made efforts to help eliminate gaps within the existing sidewalk, on-street bikeway, and off-street trail/paths networks when possible; the 2024-2028 Capital Improvement Plan (CIP) continues to reflect on Northfield’s ongoing efforts to prioritize safety concerns identified in the 2009 SRTS Plan. However, there are a few high priority improvements from the 2009 SRTS Plan that still need to be addressed:

- Greenvale Park Elementary School
    - Intersection improvement at Cannon Valley Dr and Lincoln Pkwy
        - Install signage for student/pedestrian crossing.
        - Consider installing center medians on Lincoln Pkwy

- Spring Creek Elementary School
    - Intersection improvements at Sibley Dr/Maple St
        - Curb bump-outs

- Bridgewater Elementary School
    - Realigning existing marked crosswalk through the high school’s driveway to reduce skewed pedestrian pathway and to minimize the crossing distance.

- Northfield Middle School
    - Better designated pedestrian route along Division St south of Jefferson Pkwy

A detailed map of all improvements identified for each school area can be found in the 2009 SRTS Plan.

Additionally, 10-year crash data (2013-2023) made available through Minnesota Crash Mapping Analysis Tool (MnCMAT2) was reviewed to help areas within the existing surface transportation network with potential safety concerns. Identification of these areas are solely based on crash severity.

Table 4 lists the six fatal crashes in the last ten years. It cannot be assumed that intersections and segments with fatal crashes have calculated critical crash rates that are of significance. Therefore, a segment/intersection crash analysis is recommended to determine if there is a true safety issue/concern at the select locations. **Figure 3** maps the location of the six fatal crashes listed in

Table 4.

Figure 3 – Fatal Crashes (2013-2023)

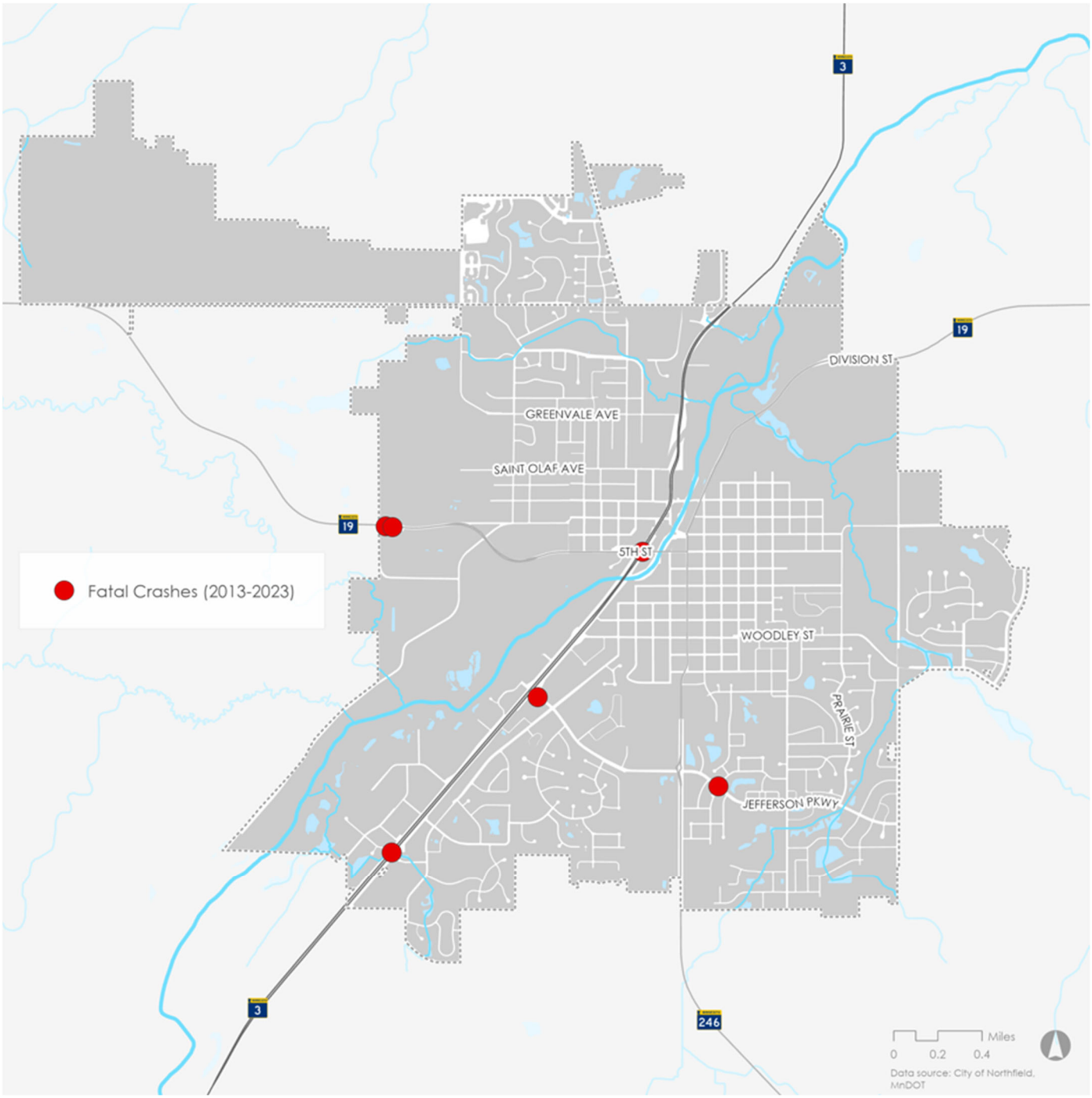


Table 4 – Crashes Between 2013-2023 Resulting in Fatalities

Incident ID	Year	Crash Type	Location	Is there a CIP Project Programmed at this Intersection?
1022339	2022	Bicycle/Vehicle	MN 3/5th St Intersection	No
1037759	2022	Bicycle/Vehicle	Jefferson Pkwy/Afton St Intersection	No
1047976	2022	Angle	MN 3/Honeylocust Dr Intersection	No
1099937	2023	Signal Vehicle	MN 19/St. Olaf Dr Intersection	No
1117719	2023	Head-on	MN 19/St. Olaf Dr Intersection	No
1095652	2023	Angle	Jefferson Pkwy/MN 3 Service Rd Intersection	No

Complete Streets Policy Implementation

The existing *Complete Street Policy* includes four goals and eight policy directives. The purpose of the city's *Complete Street Policy* is to "…design surface transportation corridors that balance the needs of all users while implementing the principles of the Comprehensive Plan of enhancing Northfields' sense of place and creating a highly connected multimodal transportation network" (*City of Northfield Complete Street Policy 2012*).

Implementing complete street policies is crucial for creating safer, more accessible, and sustainable transportation networks. These policies prioritize the needs of all road users –pedestrians, bicyclists, and motorists— by integrating design elements that accommodate diverse modes of transportation. Complete streets enhance safety by reducing the risk of accidents and injuries, promoting active transportation and public health, fostering economic vitality through increased access to businesses and services, and supporting environmental sustainability by encouraging alternatives to car-centric travel. Additionally, they contribute to social equity by ensuring equitable access to transportation options for all members of the community, regardless of age, ability, or socioeconomic status. Implementing complete street policies is essential for creating vibrant, livable communities that prioritize the well-being and mobility of all residents.

It is best to implement complete street policies during the early stages of urban planning and transportation infrastructure development, ideally before significant investments are made in road construction or maintenance projects. By incorporating complete street principles from the outset, communities can avoid costly retrofits and ensure that new infrastructure is designed to accommodate all road users safely and efficiently. However, complete street policies can also be implemented at any stage of development, including during the renovation or retrofitting of existing streets and transportation networks. Regardless of the timing, the key is to prioritize the integration of complete streets principles into transportation planning, design, and policy initiatives to create safer, more accessible, and sustainable communities for all residents.

As noted above, Northfield should always consider how to incorporate its *Complete Streets Policy* when there are capital improvement projects. Capital improvement projects do not always have to be major reconstruction or rehabilitation projects in order for the city to implement its *Complete Streets Policy;* for example, if there is sufficient right-of-way or if there is the ability to acquire additional right-of-way, the city can consider including on-street bike lanes as part of mill and overlay projects. Each project in the 2024-2028 CIP should have been programmed to consider implementing the city's *Complete Streets Policy* where possible.

The city's *Complete Streets Policy* and the Pedestrian, Bike, and Trail System Plan are great resources that the city should utilize to help create an environment that is more walkable and bikeable. The

Pedestrian, Bike, and Trail System Plan provides good guidance on design standards and facility types for specific roadways within the Northfield transportation network. Additionally, implementing complete street policies help address parking concerns by:

- **Balancing Priorities**: Complete street policies prioritize the needs of all surface transportation users, including non-motorists and motorists. By considering the needs of all users, Northfield can design streets that efficiently allocate space for on-street parking while ensuring safe and accessible environments for other modes of transportation. The city already recognizes that there is a parking concern in its downtown area and there is a plan for a new parking facility that would provide 280 parking spaces.

- **Flexible Design/Curbside Management**: Complete streets encourage flexible design approaches that accommodate on-street parking alongside other transportation features such as bike lanes and pedestrian amenities. This can involve designing streets with wider bicycle lanes or designated parking lanes to accommodate parked vehicles without obstructing or compromising traffic operations.

- **Mixed-Use Development**: Complete streets policies often promote mixed-use development and higher-density land use patterns, which can reduce the demand for on-street parking by allowing people to live, work, and shop within walking distance of their destinations. This reduces the need for residents and visitors to rely solely on on-street parking for access to amenities. Additionally, mixed-use development provides opportunities to implement shared parking agreements to make better use of public spaces and right-of-way.

- **Parking Management**: Complete streets policies can involve implementing parking management strategies such as pricing, time restrictions, shared parking agreements, and permit programs to better manage the demand for parking spaces. By pricing parking according to demand and adjusting policies based on utilization patterns, Northfield can ensure that on-street parking spaces are used more efficiently and encourage turnover in high-demand areas.

- **Alternative Transportation**: Complete streets policies prioritize alternative modes of transportation such as walking and cycling which can reduce the overall demand for parking. By providing safe and convenient infrastructure for these modes as well as various options for storage including bicycle lockers, racks and other features, Northfield can encourage residents and visitors to choose alternatives to driving and parking on-street.

By taking a comprehensive approach to street design and transportation planning, Northfield can create more efficient, equitable, and sustainable on-street parking systems that meet the needs of its residents and visitors.

Key Findings and Recommendations

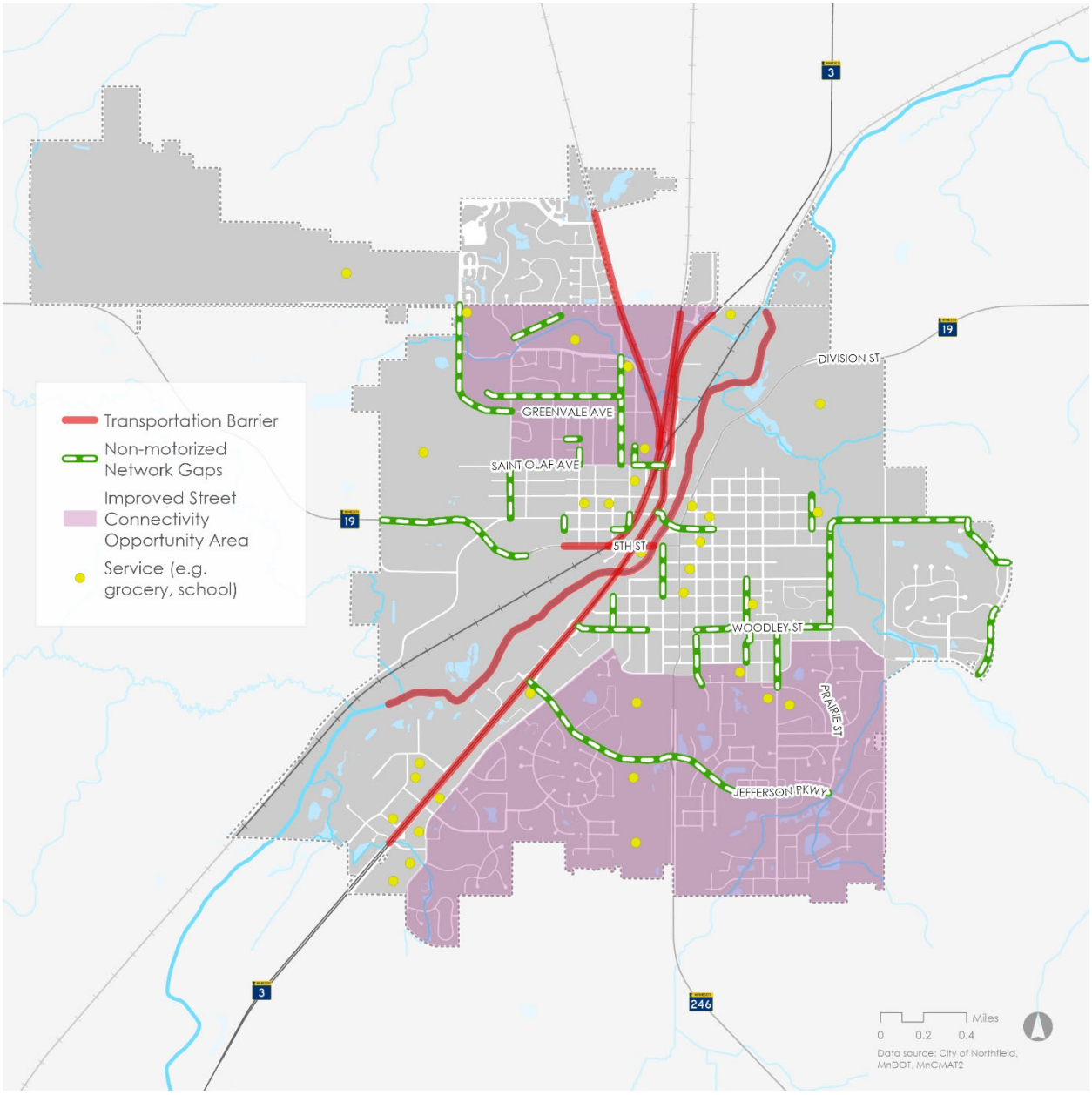
Below is summary of key findings and recommendations based on the existing and planned surface transportation network within Northfield:

- There are four major transportation barriers within Northfield: Cannon River, MN 3, MN 19 and the railroad tracks. These four barriers impose various types of challenges to motorists and non-motorists such as but not limited to: accessibility, mobility, safety, and connectivity. These barriers are highlighted in **Figure 4.**
- Cannon River, MN 3, and the railroad tracks divide the city into east and west which makes access to certain areas of town challenging. Crossing opportunities over the Cannon River are concentrated in the center of the city, but there currently lacks river crossing opportunities on the north and south sides of the city. **Figure 4** identifies two potential future river crossing

opportunities. However, a feasibility study is recommended to identify transportation needs and resource impacts to formally determine and justify additional crossing opportunities over Cannon River.

- Generally, the city has a gridded transportation system. A gridded street system is versatile because it allows for better connectivity than a branched street system; branched street systems are common suburban development patterns with cul-de-sacs that do not connect to the greater transportation network. **Figure 4** highlights two areas within the city where street connectivity could be enhanced. These areas are typically outside the city's urban core.
- Northfield's sidewalk network is the second most complete system after the roadway network. However, there are gaps within the existing sidewalk network. **Figure 4** identifies gaps within the nonmotorized (i.e., sidewalk, on-street bikeway, and off-street trail/path) transportation networks that have been prioritized to enhance connectivity.
- The city's on-street bikeway and off-street trail/path networks exist but they lack continuity. As noted in the city's Pedestrian, Bike, and Trail System Report (2019) already, the City should consider better defining its bicycle routes/network by facility types to provide better information to bicyclists who may be planning their cycling routes based on facility types. Using signage for better wayfinding is also recommended to help guide bicyclists remain on designated bicycle routes; shared lane markings on pavement can easily deteriorate overtime. **Figure 4** identifies gaps within the nonmotorized (i.e., sidewalk, on-street bikeway, and off-street trail/path) transportation networks that have been prioritized to enhance network connectivity.
- Given the intersectionality between land use and transportation planning, there are numerous service locations as well as regional and local destinations that lack appropriate access. While network gap elimination and network expansions are typically good solutions to enhance access to destinations, the lack of service locations and destinations in certain areas of the city contributes to poor accessibility for Northfield residents and community members. The city should consider how existing and future land use and zoning can improve access for all members of its community given that poor access to destinations in Northfield is not solely contributed by lacking complete sidewalk, on-street bikeway, and off-street trail/path networks. **Figure 4** maps the service/destination locations.
- Crash data (2013-2023) made available through Minnesota Crash Mapping Analysis Tool (MnCMAT2) recorded six fatal crashes in the last ten years. While it cannot be assumed that intersections and segments with fatal crashes have calculated critical crash rates that are of significance, these are areas of concern that the City could further investigate by completing a crash analysis to determine if there is a true safety issue/concern at the select locations. **Figure 3** previously highlights the fatal crash locations.
- The City should continue to implement its Complete Streets Policy whenever possible. When programming capital improvement projects for upcoming fiscal years, the City should consider how Complete Streets Policy can be applicable to improve experience for non-motorists.

Figure 4 – Key Findings Summary Map



Stantec

Memo

To:	Comp Plan Steering Committee City of Northfield	From:	Erin Perdu Minneapolis
Project/File:	Northfield Comprehensive Plan	Date:	July 20, 2024

Reference: STEP Update and Draft Strategies

Based on our conversation at the last meeting, and feedback from the Planning Commission, we have made several updates to the STEP map and analysis. The new map is shown on the following page. The changes include:

- The northwest area has been changed to Transform
- Strengthen areas (S4) have been added along the river, corresponding to the areas identified in the Riverfront Action Plan.

Since the last meeting, we have been developing strategies and actions for the "Access" chapter of the plan, which combines land use and transportation considerations. Time permitting, we would like to discuss the direction of those strategies with you at the meeting. To give you a preview, the strategies and actions generally encompass the following:

- Grow inward first, providing more destinations close to where people live.
  Create places more conducive to walking, biking, and transit, thereby reducing the greenhouse gas emissions associated with transportation.
  - Action: Allow higher density residential development in areas where city infrastructure exists, either by increasing allowable density in N1 or rezoning more property to N2.
  - Action: Allow neighborhood-scale commercial uses in residential zones R1-R4, including design standards to ensure compatibility.
  - Action: Target public investment in transform areas, including parcel assembly, site clean-up, flexible development standards (lot size, parking, setbacks), reduced or deferred infrastructure fees, tax abatement or TIF.
  - Action: Create places more conducive to walking, biking, and transit, thereby reducing the greenhouse gas emissions associated with transportation.
- When greenfield areas are needed, focus on priority growth areas.
  - Action: Southwest corner of Falk Ave/Eveleth Ave and North Ave
  - Action: Dresden Ave and Hwy 3 north.
  - Action: Highway 246 south
- Provide parks, open spaces, culturally appropriate community spaces, and infrastructure to underserved neighborhoods.
  - Action: Engage with community members in northwest neighborhoods to determine specifically what types of community gathering and recreation spaces are needed.

Reference: Monthly Comprehensive Plan Update

  - Action: Include specific park improvements and investment in new land in currently underserved neighborhoods in the Park and Recreation Capital Investment Plan.

- Ensure that surface transportation network improvements are designed harmoniously with multiple modes of transportation with the existing and future surrounding land uses.
  - Action: Create a connected grid system that enhances access and connectivity. Within, adjacent to, or abutting the municipal boundary, Northfield should revisit its roadway network to ensure that new roadways or extension of existing roadways continue or re-establish the grid pattern, improving mobility and accessibility for existing and future roadway users.
  - Action: Create design standards for connecting new development or redevelopment to pedestrian and bicycle infrastructure.
  - Action: Allow for mixed uses in more areas, creating destinations for residents that are walkable or bikeable.

- Implement multimodal roadway designs that are form-fitting yet adaptive to change, providing equitable access to existing and future destinations while ensuring safety, connectivity, and mobility for all surface transportation users:
  - Action: Eliminate gaps within the active transportation network by expanding the existing sidewalk, trail, and bikeway network.
  - Action: Continue to prioritize roadway safety for drivers, pedestrians, bicyclists, and all others using the surface transportation network.
  - Action: Separate sidewalk/trail improvement categories in the Capital Improvement Plan (CIP) to three different programs: Sidewalk Construction, AAA Bikeways, and Pedestrian Crossing Improvements to better address specific gaps within the active transportation network.
  - Action: Prioritize pedestrian crossing improvements at 46 intersections identified in Northfield Pedestrian and Bicycle Analyzation Report when implementing projects in the CIP.
  - Action: Address transportation barriers to better encourage active transportation within Northfield.
  - Action: Retrofit disconnected areas of Northfield by acquiring future right-of-way for roadway/trail extensions that would connect to the existing network.
  - Action: Improve existing transit services.

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Memo